

Berliner

# Astronomisches Jahrbuch

für

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Herausgegeben von dem

**Astronomischen Rechen-Institut**

Biblioteka Jagiellońska



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## Astronomisches Rechen-Institut

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 154 (1929)

## Vorwort

Vom Jahrgang 1916 an ist der fundamentale Meridian, auf den alle Angaben des Jahrbuchs bezogen sind, der Meridian von Greenwich.

Die Zeit ist vom Jahrgang 1925 an in Welt-Zeit, d. i. Bürgerliche Zeit Greenwich, ausgedrückt (siehe Erläuterungen).

Die Grundlagen des Berliner Astronomischen Jahrbuchs bilden:

Für die Sonne und die großen Planeten:

Die Tafeln von Newcomb und (für Jupiter und Saturn) von Hill, enthalten in:

*Astronomical Papers of the American Ephemeris,*

Vol. VI, Part I—IV: *Tables of the four inner planets,*

Vol. VII, Part I—IV: *Tables of Jupiter, Saturn,*

*Uranus, Neptune.*

Als Sonnenhalbmesser in der mittleren Entfernung ist  $16' 1''.50$  angenommen; dagegen liegt der Berechnung der Finsternisse der von Auwers in A. N., Bd. 128 gegebene Wert  $15' 59''.63$  zugrunde.

Für den Mond:

Tables of the Motion of the Moon by Ernest W. Brown.

Der geozentrische Mondhalbmesser  $r_{\zeta}$  ist aus der Äquatorial-Horizontalparallaxe  $p_{\zeta}$  gerechnet nach der Formel

$$r_{\zeta} = 0.272469 p_{\zeta} + 1''.50,$$

für die Finsternisse nach  $\sin r_{\zeta} = 0.272274 \sin p_{\zeta}$ .

Als Neigung des Mondäquators gegen die Ekliptik ist nach F. Hayn (A. N. 199, 263) angenommen:  $J = 1^{\circ} 32' 20''$ .

Für die Fixsterne:

Neuer Fundamentalkatalog des Berliner Astronomischen Jahrbuchs nach den Grundlagen von A. Auwers, für die Epochen 1875 und 1900 bearbeitet von Dr. J. Peters (Veröffentlichung Nr. 33 des Königlichen Astronomischen Rechen-Instituts).

Die Sterngrößen sind der »Revised Harvard Photometry (Harvard Annals, vol. 50)«, die Sternspektren dem »Henry Draper Catalogue (Harvard Annals, vol. 91—99)« entnommen.

Als Werte der fundamentalen Reduktionsgrößen sind angenommen:

Die Präzessions-Größen nach S. Newcomb (vgl. H. Andoyer, Bull. Astr. 28, 67)	
Die Nutations-Konstante . . . . .	9".21
Die Nutations-Größen nach S. Newcomb (Bull. Astr. 15, 241)	
Die Aberrations-Konstante . . . . .	20".47
Die Sonnen-Parallaxe . . . . .	8".80
Die Abplattung der Erde . . . . .	1:297.0

Für die Satelliten:

Die Angaben über die 4 älteren Jupitertrabanten beruhen auf den neuen Tafeln von R. A. Sampson (*Tables of the four great Satellites of Jupiter*. London 1910), die Angaben über die 8 älteren Saturnsatelliten auf den von H. Struve ermittelten Werten (Näheres s. Erläuterungen).

In allen Ephemeriden der Sonne, der Planeten und der Fixsterne sind die kurzperiodischen, von der Mondlänge abhängigen Nutationsglieder weggelassen; doch bietet das Jahrbuch die Möglichkeit, auch diese weggelassenen Glieder zu berücksichtigen (s. Erläuterungen).

Vom vorliegenden Jahrgang an wird eine Tafel zur Übertragung von Rektaszensions- und Deklinationsdifferenzen vom mittleren Äquinoktium des Jahresanfanges auf das Normaläquinoktium 1925.0 gegeben. Ferner sind die in Mitteleuropa sichtbaren Sternbedeckungen aufgeführt; sonst hat der Inhalt des Jahrbuchs gegen das Vorjahr keine Änderungen erfahren.

Bezüglich der Zahlengrundlagen sei auf die im Berliner Jahrbuch für 1916 gegebene Darstellung der »Grundbegriffe der Sphärischen Astronomie« hingewiesen.

Ein Teil der Angaben wurde seitens des Nautical Almanac Office, Washington, und des Nautical Almanac Office, London, zur Verfügung gestellt. Die Ephemeride des Kraters Mösting A. ist von dem Institut Astronomique in Leningrad berechnet worden, welches auch die Berechnung der beiden Saturnstrabanten Hyperion und Japetus ausgeführt hat.

Die Schriftleitung des Astronomischen Jahrbuchs für 1929 lag in den Händen von Herrn Peters, an den verschiedenen Arbeiten beteiligten sich außerdem die Herren Clemens, Stichtenoth †, Kohl und Hiller.

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# Zeit- und Festrechnung 1929

Das Jahr 1929 entspricht dem  
 Jahr 6642 der Julianischen Periode und dem  
 Jahr 7437 — 7438 der Byzantinischen Ära

## Gregorianischer Kalender

Goldene Zahl . . . . .	11
Epakte . . . . .	XIX
Sonnenzirkel . . . . .	6
Römerzinszahl . . . . .	12
Sonntagsbuchstabe . . . . .	F
Septuagesima . . . . .	27. Jan.
Aschermittwoch . . . . .	13. Febr.
I. Quatember . . . . .	20. Febr.
Ostersonntag . . . . .	31. März
Himmelfahrt . . . . .	9. Mai
Pfingstsonntag . . . . .	19. Mai
II. Quatember . . . . .	22. Mai
III. Quatember . . . . .	18. Sept.
I. Advent . . . . .	1. Dez.
IV. Quatember . . . . .	18. Dez.

## Kalender der Mohammedaner

### 1347 (Schaltjahr)

Schabân . . . . . I . . . . .	1929 Jan. 13
Ramadân . . . . . I . . . . .	» Febr. 11
Schewwâl . . . . . I . . . . .	» März 13
Dsû 'l-kade . . . . . I . . . . .	» April 11
Dsû 'l-hedsche . . . . . I . . . . .	» Mai 11

### 1348 (Gemeinjahr)

Moharrem . . . . . I . . . . .	1929 Juni 9
Safar . . . . . I . . . . .	» Juli 9
Rebî-el-awwel . . . . . I . . . . .	» Aug. 7
Rebî-el-accher . . . . . I . . . . .	» Sept. 6
Dschemâdi-el-awwel . . . . . I . . . . .	» Okt. 5
Dschemâdi-el-accher . . . . . I . . . . .	» Nov. 4
Redscheb . . . . . I . . . . .	» Dez. 3

## Kalender der Juden

5689 (Überzähliges Schaltjahr, 385 Tage)

Schebat	I	. . . . .	1929	Jan.	12
Adar	I	. . . . .	»	Febr.	11
»	14	Klein Purim . . . . .	»	»	24
Veadar	I	. . . . .	»	März	13
»	13	Fasten - Esther . . . . .	»	»	25
»	14	Purim . . . . .	»	»	26
»	15	Schuschan - Purim . . . . .	»	»	27
Nisan	I	. . . . .	»	April	11
»	15	* Passah - Anfang . . . . .	»	»	25
»	16	* Zweites Fest . . . . .	»	»	26
»	21	* Siebentes Fest . . . . .	»	Mai	1
»	22	* Achtes Fest . . . . .	»	»	2
Ijar	I	. . . . .	»	»	11
»	18	Lag - B'omer . . . . .	»	»	28
Sivan	I	. . . . .	»	Juni	9
»	6	* Wochenfest . . . . .	»	»	14
»	7	* Zweites Fest . . . . .	»	»	15
Thamuz	I	. . . . .	»	Juli	9
»	17	Fasten. Tempeleroberung . . . . .	»	»	25
Ab	I	. . . . .	»	Aug.	7
»	9	Fasten. Tempelverbrennung . . . . .	»	»	15
Elul	I	. . . . .	»	Sept.	6

5690 (Abgekürztes Gemeinjahr, 353 Tage)

Tischri	I	* Neujahrsfest . . . . .	1929	Okt.	5
»	2	* Zweites Fest . . . . .	»	»	6
»	3	Fasten - Gedaljah . . . . .	»	»	7
»	10	* Versöhnungsfest . . . . .	»	»	14
»	15	* Laubhüttenfest . . . . .	»	»	19
»	16	* Zweites Fest . . . . .	»	»	20
»	21	Palmenfest . . . . .	»	»	25
»	22	* Versammlung oder Laubhüttenende . . . . .	»	»	26
»	23	* Gesetzesfreude . . . . .	»	»	27
Marcheschwan	I	. . . . .	»	Nov.	4
Kislev	I	. . . . .	»	Dez.	3
»	25	Tempelweihe . . . . .	»		27

Die mit \* bezeichneten Festtage werden streng gefeiert

## Astronomische Zeichen und Abkürzungen

Bezeichnung der Wochentage	Adspekten
☉ Sonntag	♄ Konjunktion
☾ Montag	☐ Quadratur
♂ Dienstag	♁ Opposition
♀ Mittwoch	Mondphasen
♃ Donnerstag	● Neumond
♀ Freitag	● Erstes Viertel
♁ Sonnabend	○ Vollmond
	● Letztes Viertel
♊ Aufsteigender	} Knoten
♋ Niedersteigender	

## Zeichen

## des Tierkreises und der Himmelskörper

♈ Widder . . .	○ Grad	
♉ Stier . . . . .	30 »	☉ Sonne
♊ Zwillinge . .	60 »	☾ Mond
♋ Krebs . . . . .	90 »	♀ Merkur
♌ Löwe . . . . .	120 »	♀ Venus
♍ Jungfrau . .	150 »	♁ Erde
♎ Wage . . . . .	180 »	♂ Mars
♏ Skorpion . .	210 »	♃ Jupiter
♐ Schütze . . .	240 »	♁ Saturn
♑ Steinbock . .	270 »	♅ Uranus
♒ Wassermann	300 »	♆ Neptun
♓ Fische . . . .	330 »	



**Sonne, Mond, Große Planeten**

**1929**

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O<sup>h</sup> Welt-Zeit

Tag	Wochentag	O <sup>h</sup> Welt-Zeit				
		Zeitgleichung Mittlere Zeit <i>minus</i> Wahre Zeit	Scheinbare Rektaszension	Scheinbare Deklination	Halbe Durchgangs- Dauer St.-Zt.	Halb- messer
1929						
Jan.	0 Mo	+ 2 <sup>m</sup> 50.73 <sup>s</sup> <sub>28.66</sub>	18 <sup>h</sup> 39 <sup>m</sup> 31.82 <sup>s</sup> <sub>4 25.22</sub>	-23 8 18.3 <sub>4 24.4</sub>	71.11	16 17.86
	1 Di	3 19.39 <sub>28.38</sub>	18 43 57.04 <sub>4 24.94</sub>	23 3 53.9 <sub>4 52.1</sub>	71.08	16 17.86
	2 Mi	3 47.77 <sub>28.08</sub>	18 48 21.98 <sub>4 24.63</sub>	22 59 1.8 <sub>5 19.5</sub>	71.03	16 17.86
	3 Do	4 15.85 <sub>27.73</sub>	18 52 46.61 <sub>4 24.29</sub>	22 53 42.3 <sub>5 46.8</sub>	70.98	16 17.86
	4 Fr	4 43.58 <sub>27.35</sub>	18 57 10.90 <sub>4 23.91</sub>	22 47 55.5 <sub>6 14.0</sub>	70.93	16 17.85
	5 Sa	5 10.93 <sub>26.95</sub>	19 1 34.81 <sub>4 23.51</sub>	22 41 41.5 <sub>6 41.1</sub>	70.87	16 17.83
	6 St	+ 5 37.88 <sub>26.52</sub>	19 5 58.32 <sub>4 23.08</sub>	-22 35 0.4 <sub>7 7.9</sub>	70.81	16 17.81
	7 Mo	6 4.40 <sub>26.06</sub>	19 10 21.40 <sub>4 22.62</sub>	22 27 52.5 <sub>7 34.4</sub>	70.75	16 17.78
	8 Di	6 30.46 <sub>25.56</sub>	19 14 44.02 <sub>4 22.12</sub>	22 20 18.1 <sub>8 0.9</sub>	70.69	16 17.75
	9 Mi	6 56.02 <sub>25.04</sub>	19 19 6.14 <sub>4 21.59</sub>	22 12 17.2 <sub>8 27.1</sub>	70.62	16 17.72
	10 Do	7 21.06 <sub>24.49</sub>	19 23 27.73 <sub>4 21.04</sub>	22 3 50.1 <sub>8 52.9</sub>	70.54	16 17.69
	11 Fr	7 45.55 <sub>23.91</sub>	19 27 48.77 <sub>4 20.47</sub>	21 54 57.2 <sub>9 18.6</sub>	70.47	16 17.65
	12 Sa	+ 8 9.46 <sub>23.30</sub>	19 32 9.24 <sub>4 19.86</sub>	-21 45 38.6 <sub>9 44.0</sub>	70.39	16 17.60
	13 St	8 32.76 <sub>22.67</sub>	19 36 29.10 <sub>4 19.24</sub>	21 35 54.6 <sub>10 9.1</sub>	70.30	16 17.55
	14 Mo	8 55.43 <sub>22.03</sub>	19 40 48.34 <sub>4 18.58</sub>	21 25 45.5 <sub>10 33.9</sub>	70.22	16 17.50
	15 Di	9 17.46 <sub>21.35</sub>	19 45 6.92 <sub>4 17.90</sub>	21 15 11.6 <sub>10 58.4</sub>	70.13	16 17.44
	16 Mi	9 38.81 <sub>20.64</sub>	19 49 24.82 <sub>4 17.20</sub>	21 4 13.2 <sub>11 22.6</sub>	70.03	16 17.38
	17 Do	9 59.45 <sub>19.92</sub>	19 53 42.02 <sub>4 16.49</sub>	20 52 50.6 <sub>11 46.3</sub>	69.93	16 17.32
	18 Fr	+10 19.37 <sub>19.19</sub>	19 57 58.51 <sub>4 15.75</sub>	-20 41 4.3 <sub>12 9.8</sub>	69.84	16 17.25
	19 Sa	10 38.56 <sub>18.44</sub>	20 2 14.26 <sub>4 15.00</sub>	20 28 54.5 <sub>12 33.0</sub>	69.74	16 17.18
	20 St	10 57.00 <sub>17.68</sub>	20 6 29.26 <sub>4 14.23</sub>	20 16 21.5 <sub>12 55.8</sub>	69.64	16 17.10
	21 Mo	11 14.68 <sub>16.91</sub>	20 10 43.49 <sub>4 13.46</sub>	20 3 25.7 <sub>13 18.3</sub>	69.54	16 17.01
	22 Di	11 31.59 <sub>16.12</sub>	20 14 56.95 <sub>4 12.67</sub>	19 50 7.4 <sub>13 40.3</sub>	69.43	16 16.93
	23 Mi	11 47.71 <sub>15.33</sub>	20 19 9.62 <sub>4 11.89</sub>	19 36 27.1 <sub>14 2.0</sub>	69.33	16 16.83
	24 Do	+12 3.04 <sub>14.54</sub>	20 23 21.51 <sub>4 11.10</sub>	-19 22 25.1 <sub>14 23.3</sub>	69.22	16 16.73
	25 Fr	12 17.58 <sub>13.74</sub>	20 27 32.61 <sub>4 10.30</sub>	19 8 1.8 <sub>14 44.4</sub>	69.11	16 16.62
	26 Sa	12 31.32 <sub>12.95</sub>	20 31 42.91 <sub>4 9.50</sub>	18 53 17.4 <sub>15 5.1</sub>	69.00	16 16.51
	27 St	12 44.27 <sub>12.15</sub>	20 35 52.41 <sub>4 8.71</sub>	18 38 12.3 <sub>15 25.2</sub>	68.88	16 16.39
	28 Mo	12 56.42 <sub>11.35</sub>	20 40 1.12 <sub>4 7.91</sub>	18 22 47.1 <sub>15 45.1</sub>	68.77	16 16.26
	29 Di	13 7.77 <sub>10.55</sub>	20 44 9.03 <sub>4 7.11</sub>	18 7 2.0 <sub>16 4.8</sub>	68.66	16 16.13
	30 Mi	+13 18.32 <sub>9.75</sub>	20 48 16.14 <sub>4 6.31</sub>	-17 50 57.2 <sub>16 23.9</sub>	68.55	16 16.00
	31 Do	13 28.07 <sub>8.95</sub>	20 52 22.45 <sub>4 5.50</sub>	17 34 33.3 <sub>16 42.6</sub>	68.43	16 15.86
Febr.	1 Fr	13 37.02 <sub>8.15</sub>	20 56 27.95 <sub>4 4.70</sub>	17 17 50.7 <sub>17 1.0</sub>	68.32	16 15.71
	2 Sa	13 45.17 <sub>7.34</sub>	21 0 32.65 <sub>4 3.91</sub>	17 0 49.7 <sub>17 19.0</sub>	68.20	16 15.56
	3 St	13 52.51 <sub>6.55</sub>	21 4 36.56 <sub>4 3.10</sub>	16 43 30.7 <sub>17 36.6</sub>	68.08	16 15.40
	4 Mo	13 59.06 <sub>5.75</sub>	21 8 39.66 <sub>4 2.30</sub>	16 25 54.1 <sub>17 53.7</sub>	67.97	16 15.24
	5 Di	+14 4.81 <sub>4.94</sub>	21 12 41.96 <sub>4 1.50</sub>	-16 8 0.4 <sub>18 10.4</sub>	67.85	16 15.08
	6 Mi	14 9.75 <sub>4.14</sub>	21 16 43.46 <sub>4 0.70</sub>	15 49 50.0 <sub>18 26.8</sub>	67.74	16 14.92
	7 Do	14 13.89 <sub>3.35</sub>	21 20 44.16 <sub>3 59.9c</sub>	15 31 23.2 <sub>18 42.8</sub>	67.63	16 14.75
	8 Fr	14 17.24 <sub>2.56</sub>	21 24 44.06 <sub>3 59.12</sub>	15 12 40.4 <sub>18 58.3</sub>	67.51	16 14.58
	9 Sa	14 19.80 <sub>1.77</sub>	21 28 43.18 <sub>3 58.33</sub>	14 53 42.1 <sub>19 13.3</sub>	67.40	16 14.40
	10 St	+14 21.57	21 32 41.51	-14 34 28.8	67.29	16 14.22

Tag	O <sup>b</sup> Welt-Zeit					Auf- gang in { +5° 0° <sup>b</sup> Breite Länge	Unter- gang		
	Julian. Zeit	Sternzeit	Mittleres Äquinoktium 1929.0		log R				
			Länge	Breite					
1929	2425								
Jan.	0	6 11.5	6 <sup>h</sup> 36 <sup>m</sup> 41.08	279° 5' 25.1	61' 8.6	+0.75	9.992 6729	20	7 <sup>h</sup> 59 <sup>m</sup> 16 <sup>s</sup> 8 <sup>m</sup>
	1	6 12.5	6 40 37.64	280 6 33.7	61 8.9	+0.72	9.992 6709	4	7 59 16 8.9
	2	6 13.5	6 44 34.20	281 7 42.6	61 9.3	+0.67	9.992 6713	27	7 59 16 10
	3	6 14.5	6 48 30.76	282 8 51.9	61 9.5	+0.59	9.992 6740	49	7 59 16 11
	4	6 15.5	6 52 27.32	283 10 1.4	61 9.8	+0.49	9.992 6789	71	7 58 16 12
	5	6 16.5	6 56 23.88	284 11 11.2	61 9.9	+0.37	9.992 6860	91	7 58 16 13
	6	6 17.5	7 0 20.44	285 12 21.1	61 10.0	+0.25	9.992 6951	111	7 58 16 14
	7	6 18.5	7 4 16.99	286 13 31.1	61 10.0	+0.13	9.992 7062	129	7 58 16 15
	8	6 19.5	7 8 13.55	287 14 41.1	61 9.9	+0.01	9.992 7191	147	7 57 16 16
	9	6 20.5	7 12 10.11	288 15 51.0	61 9.7	-0.12	9.992 7338	164	7 57 16 18
	10	6 21.5	7 16 6.67	289 17 0.7	61 9.5	-0.23	9.992 7502	182	7 56 16 19
	11	6 22.5	7 20 3.23	290 18 10.2	61 9.3	-0.32	9.992 7684	198	7 56 16 20
	12	6 23.5	7 23 59.79	291 19 19.5	61 8.9	-0.40	9.992 7882	216	7 55 16 22
	13	6 24.5	7 27 56.34	292 20 28.4	61 8.3	-0.45	9.992 8098	232	7 55 16 23
	14	6 25.5	7 31 52.90	293 21 36.7	61 7.7	-0.46	9.992 8330	249	7 54 16 25
	15	6 26.5	7 35 49.46	294 22 44.4	61 7.0	-0.45	9.992 8579	267	7 53 16 26
	16	6 27.5	7 39 46.02	295 23 51.4	61 6.3	-0.40	9.992 8846	286	7 53 16 28
	17	6 28.5	7 43 42.57	296 24 57.7	61 5.5	-0.33	9.992 9132	305	7 52 16 29
	18	6 29.5	7 47 39.13	297 26 3.2	61 4.5	-0.24	9.992 9437	326	7 51 16 31
	19	6 30.5	7 51 35.69	298 27 7.7	61 3.6	-0.13	9.992 9763	348	7 50 16 32
	20	6 31.5	7 55 32.25	299 28 11.3	61 2.8	-0.01	9.993 0111	372	7 49 16 34
	21	6 32.5	7 59 28.80	300 29 14.1	61 1.7	+0.12	9.993 0483	397	7 48 16 35
	22	6 33.5	8 3 25.36	301 30 15.8	61 0.7	+0.25	9.993 0880	422	7 47 16 37
	23	6 34.5	8 7 21.92	302 31 16.5	60 59.8	+0.38	9.993 1302	449	7 46 16 38
	24	6 35.5	8 11 18.48	303 32 16.3	60 58.9	+0.48	9.993 1751	477	7 45 16 40
	25	6 36.5	8 15 15.03	304 33 15.2	60 58.0	+0.55	9.993 2228	504	7 44 16 42
	26	6 37.5	8 19 11.59	305 34 13.2	60 57.4	+0.59	9.993 2732	531	7 43 16 43
	27	6 38.5	8 23 8.15	306 35 10.6	60 56.4	+0.60	9.993 3263	558	7 41 16 45
	28	6 39.5	8 27 4.70	307 36 7.0	60 55.7	+0.60	9.993 3821	583	7 40 16 47
	29	6 40.5	8 31 1.26	308 37 2.7	60 55.0	+0.55	9.993 4404	607	7 39 16 48
30	6 41.5	8 34 57.82	309 37 57.7	60 54.2	+0.48	9.993 5011	629	7 37 16 50	
31	6 42.5	8 38 54.37	310 38 51.9	60 53.5	+0.39	9.993 5640	651	7 36 16 52	
Febr.	1	6 43.5	8 42 50.93	311 39 45.4	60 52.7	+0.27	9.993 6291	671	7 35 16 53
	2	6 44.5	8 46 47.49	312 40 38.1	60 51.9	+0.15	9.993 6962	690	7 33 16 55
	3	6 45.5	8 50 44.04	313 41 30.0	60 50.9	+0.03	9.993 7652	707	7 32 16 57
	4	6 46.5	8 54 40.60	314 42 20.9	60 50.1	-0.10	9.993 8359	723	7 30 16 59
	5	6 47.5	8 58 37.16	315 43 11.0	60 49.0	-0.23	9.993 9082	738	7 29 17 0
	6	6 48.5	9 2 33.71	316 44 0.0	60 48.0	-0.33	9.993 9820	752	7 27 17 2
	7	6 49.5	9 6 30.27	317 44 48.0	60 46.9	-0.42	9.994 0572	765	7 26 17 4
	8	6 50.5	9 10 26.82	318 45 34.9	60 45.8	-0.50	9.994 1337	779	7 24 17 5
	9	6 51.5	9 14 23.38	319 46 20.7	60 44.5	-0.55	9.994 2116	791	7 22 17 7
	10	6 52.5	9 18 19.94	320 47 5.2		-0.57	9.994 2907		7 21 17 9

0<sup>h</sup> Welt-Zeit

Tag	Wochentag	0 <sup>h</sup> Welt-Zeit						
		Zeitgleichung Mittlere Zeit minus Wahre Zeit		Scheinbare Rektaszension		Scheinbare Deklination	Halbe Durchgangs- Dauer St. - Zt.	Halb- messer
1929								
Febr. 10	St	+14 <sup>m</sup> 21.57 <sup>s</sup>	21 32 41.51	3 57.54	-14 34 28.8	19 28.0	67.29	16 14.22
11	Mo	14 22.56	21 36 39.05	3 56.76	14 15 0.8	19 42.1	67.18	16 14.04
12	Di	14 22.77	21 40 35.81	3 55.99	13 55 18.7	19 55.9	67.07	16 13.86
13	Mi	14 22.20	21 44 31.80	3 55.21	13 35 22.8	20 9.2	66.96	16 13.68
14	Do	14 20.86	21 48 27.01	3 54.45	13 15 13.6	20 22.1	66.85	16 13.49
15	Fr	14 18.76	21 52 21.46	3 53.70	12 54 51.5	20 34.6	66.75	16 13.30
16	Sa	+14 15.90	21 56 15.16	3 52.96	-12 34 16.9	20 46.6	66.64	16 13.11
17	St	14 12.30	22 0 8.12	3 52.24	12 13 30.3	20 58.1	66.54	16 12.91
18	Mo	14 7.98	22 4 0.36	3 51.51	11 52 32.2	21 9.3	66.44	16 12.71
19	Di	14 2.94	22 7 51.87	3 50.81	11 31 22.9	21 20.0	66.34	16 12.51
20	Mi	13 57.19	22 11 42.68	3 50.12	11 10 2.9	21 30.4	66.24	16 12.30
21	Do	13 50.76	22 15 32.80	3 49.47	10 48 32.5	21 40.3	66.15	16 12.09
22	Fr	+13 43.67	22 19 22.27	3 48.82	-10 26 52.2	21 49.9	66.06	16 11.88
23	Sa	13 35.94	22 23 11.09	3 48.19	10 5 2.3	21 59.0	65.97	16 11.66
24	St	13 27.58	22 26 59.28	3 47.58	9 43 3.3	22 7.8	65.88	16 11.43
25	Mo	13 18.61	22 30 46.86	3 47.00	9 20 55.5	22 16.2	65.79	16 11.20
26	Di	13 9.06	22 34 33.86	3 46.44	8 58 39.3	22 24.3	65.71	16 10.97
27	Mi	12 58.94	22 38 20.30	3 45.90	8 36 15.0	22 31.9	65.62	16 10.74
28	Do	+12 48.28	22 42 6.20	3 45.37	-8 13 43.1	22 39.1	65.54	16 10.50
März 1	Fr	12 37.09	22 45 51.57	3 44.86	7 51 4.0	22 46.1	65.46	16 10.25
2	Sa	12 25.40	22 49 36.43	3 44.37	7 28 17.9	22 52.6	65.39	16 10.01
3	St	12 13.22	22 53 20.80	3 43.90	7 5 25.3	22 58.7	65.32	16 9.76
4	Mo	12 0.58	22 57 4.70	3 43.46	6 42 26.6	23 4.4	65.25	16 9.51
5	Di	11 47.48	23 0 48.16	3 43.03	6 19 22.2	23 9.8	65.18	16 9.25
6	Mi	+11 33.95	23 4 31.19	3 42.61	-5 56 12.4	23 14.8	65.11	16 9.00
7	Do	11 20.00	23 8 13.80	3 42.21	5 32 57.6	23 19.3	65.05	16 8.74
8	Fr	11 5.66	23 11 56.01	3 41.83	5 9 38.3	23 23.6	64.99	16 8.48
9	Sa	10 50.94	23 15 37.84	3 41.47	4 46 14.7	23 27.3	64.94	16 8.22
10	St	10 35.86	23 19 19.31	3 41.13	4 22 47.4	23 30.6	64.88	16 7.96
11	Mo	10 20.43	23 23 0.44	3 40.80	3 59 16.8	23 33.7	64.83	16 7.70
12	Di	+10 4.68	23 26 41.24	3 40.49	-3 35 43.1	23 36.2	64.78	16 7.44
13	Mi	9 48.62	23 30 21.73	3 40.19	3 12 6.9	23 38.3	64.74	16 7.18
14	Do	9 32.25	23 34 1.92	3 39.90	2 48 28.6	23 40.1	64.70	16 6.92
15	Fr	9 15.60	23 37 41.82	3 39.65	2 24 48.5	23 41.5	64.66	16 6.66
16	Sa	8 58.69	23 41 21.47	3 39.40	2 1 7.0	23 42.4	64.63	16 6.40
17	St	8 41.54	23 45 0.87	3 39.17	1 37 24.6	23 42.9	64.60	16 6.14
18	Mo	+8 24.16	23 48 40.04	3 38.97	-1 13 41.7	23 43.2	64.57	16 5.87
19	Di	8 6.58	23 52 19.01	3 38.78	0 49 58.5	23 43.0	64.54	16 5.61
20	Mi	7 48.81	23 55 57.79	3 38.62	0 26 15.5	23 42.5	64.52	16 5.34
21	Do	7 30.88	23 59 36.41	3 38.48	-0 2 33.0	23 41.5	64.50	16 5.08
22	Fr	7 12.80	0 3 14.89	3 38.37	+0 21 8.5	23 40.3	64.48	16 4.81
23	Sa	+6 54.61	0 6 53.26		+0 44 48.8		64.47	16 4.54

Tag	O <sup>h</sup> Welt-Zeit					log R	Aufgang in (+5° Breite ( <sup>h</sup> Jänge	Untergang in (° Breite ° Jänge	
	Julian. Zeit	Sternzeit	Mittleres Äquinoktium 1929.0		Länge				Breite
			°	'					
1929	2425								
Febr. 10	652.5	9 <sup>h</sup> 18 <sup>m</sup> 19.94	320° 47' 5.2"	60° 43.0'	-0.57	9.994 2907	801	7 21 <sup>h</sup> 17 <sup>m</sup> 9 <sup>s</sup>	
11	653.5	9 22 16.49	321 47 48.2	60 41.7	-0.56	9.994 3708	812	7 19 17 11	
12	654.5	9 26 13.05	322 48 29.9	60 40.1	-0.53	9.994 4520	824	7 17 17 12	
13	655.5	9 30 9.60	323 49 10.0	60 38.6	-0.46	9.994 5344	835	7 16 17 14	
14	656.5	9 34 6.16	324 49 48.6	60 36.9	-0.37	9.994 6179	847	7 14 17 16	
15	657.5	9 38 2.71	325 50 25.5	60 35.0	-0.27	9.994 7026	861	7 12 17 18	
16	658.5	9 41 59.27	326 51 0.5	60 33.3	-0.15	9.994 7887	875	7 10 17 19	
17	659.5	9 45 55.82	327 51 33.8	60 31.4	-0.02	9.994 8762	890	7 8 17 21	
18	660.5	9 49 52.38	328 52 5.2	60 29.6	+0.12	9.994 9652	906	7 6 17 23	
19	661.5	9 53 48.93	329 52 34.8	60 27.7	+0.24	9.995 0558	924	7 4 17 24	
20	662.5	9 57 45.49	330 53 2.5	60 25.9	+0.34	9.995 1482	942	7 3 17 26	
21	663.5	10 1 42.04	331 53 28.4	60 24.1	+0.41	9.995 2424	962	7 1 17 28	
22	664.5	10 5 38.59	332 53 52.5	60 22.3	+0.45	9.995 3386	982	6 59 17 30	
23	665.5	10 9 35.15	333 54 14.8	60 20.6	+0.48	9.995 4368	1001	6 57 17 31	
24	666.5	10 13 31.70	334 54 35.4	60 18.8	+0.47	9.995 5369	1021	6 55 17 33	
25	667.5	10 17 28.26	335 54 54.2	60 17.3	+0.42	9.995 6390	1039	6 53 17 35	
26	668.5	10 21 24.81	336 55 11.5	60 15.7	+0.35	9.995 7429	1057	6 51 17 36	
27	669.5	10 25 21.37	337 55 27.2	60 14.1	+0.26	9.995 8486	1074	6 49 17 38	
28	670.5	10 29 17.92	338 55 41.3	60 12.6	+0.15	9.995 9560	1088	6 47 17 40	
März 1	671.5	10 33 14.47	339 55 53.9	60 11.1	+0.03	9.996 0648	1103	6 45 17 41	
2	672.5	10 37 11.03	340 56 5.0	60 9.5	-0.10	9.996 1751	1115	6 43 17 43	
3	673.5	10 41 7.58	341 56 14.5	60 7.9	-0.23	9.996 2866	1126	6 41 17 44	
4	674.5	10 45 4.13	342 56 22.4	60 6.5	-0.34	9.996 3992	1136	6 39 17 46	
5	675.5	10 49 0.69	343 56 28.9	60 4.8	-0.45	9.996 5128	1145	6 37 17 48	
6	676.5	10 52 57.24	344 56 33.7	60 3.1	-0.54	9.996 6273	1151	6 34 17 49	
7	677.5	10 56 53.80	345 56 36.8	60 1.5	-0.62	9.996 7424	1157	6 32 17 51	
8	678.5	11 0 50.35	346 56 38.3	59 59.7	-0.67	9.996 8581	1162	6 30 17 53	
9	679.5	11 4 46.90	347 56 38.0	59 58.0	-0.68	9.996 9743	1166	6 28 17 54	
10	680.5	11 8 43.46	348 56 36.0	59 56.2	-0.67	9.997 0909	1168	6 26 17 56	
11	681.5	11 12 40.01	349 56 32.2	59 54.3	-0.64	9.997 2077	1169	6 24 17 58	
12	682.5	11 16 36.56	350 56 26.5	59 52.3	-0.57	9.997 3246	1171	6 22 17 59	
13	683.5	11 20 33.12	351 56 18.8	59 50.2	-0.49	9.997 4417	1172	6 20 18 1	
14	684.5	11 24 29.67	352 56 9.0	59 48.1	-0.38	9.997 5589	1173	6 17 18 2	
15	685.5	11 28 26.22	353 55 57.1	59 45.9	-0.26	9.997 6762	1175	6 15 18 4	
16	686.5	11 32 22.78	354 55 43.0	59 43.6	-0.13	9.997 7937	1177	6 13 18 6	
17	687.5	11 36 19.33	355 55 26.6	59 41.2	0.00	9.997 9114	1182	6 11 18 7	
18	688.5	11 40 15.88	356 55 7.8	59 38.9	+0.11	9.998 0296	1187	6 9 18 9	
19	689.5	11 44 12.44	357 54 46.7	59 36.7	+0.22	9.998 1483	1192	6 6 18 10	
20	690.5	11 48 8.99	358 54 23.4	59 34.4	+0.31	9.998 2675	1198	6 4 18 12	
21	691.5	11 52 5.54	359 53 57.8	59 32.1	+0.37	9.998 3873	1207	6 2 18 14	
22	692.5	11 56 2.10	0 53 29.9	59 29.9	+0.39	9.998 5080	1216	6 0 18 15	
23	693.5	11 59 58.65	1 52 59.8		+0.38	9.998 6296		5 58 18 17	

Tag	Wochentag	0 <sup>h</sup> Welt-Zeit							
		Zeitgleichung	Scheinbare	Scheinbare	Halbe Durch-	Halb-			
		Mittlere Zeit <i>minus</i> Wahre Zeit	Rektaszension	Deklination	gangs- Dauer St. - Zt.	messer			
1929									
März 23	Sa	+6 <sup>m</sup> 54.61 18.28	0 <sup>h</sup> 6 <sup>m</sup> 53.26 3 38.27	+ 0 <sup>o</sup> 44 48.8 23 38.7	64.47	16	4.54		
24	St	6 36.33 18.35	0 10 31.53 3 38.20	1 8 27.5 23 36.9	64.46	16	4.27		
25	Mo	6 17.98 18.40	0 14 9.73 3 38.15	1 32 4.4 23 34.6	64.45	16	3.99		
26	Di	5 59.58 18.42	0 17 47.88 3 38.14	1 55 39.0 23 32.1	64.44	16	3.72		
27	Mi	5 41.16 18.42	0 21 20.02 3 38.14	2 19 11.1 23 29.1	64.44	16	3.44		
28	Do	5 22.74 18.39	0 25 4.16 3 38.16	2 42 40.2 23 25.9	64.44	16	3.16		
29	Fr	+5 4.35 18.34	0 28 42.32 3 38.21	+ 3 6 6.1 23 22.5	64.44	16	2.88		
30	Sa	4 46.01 18.28	0 32 20.53 3 38.27	3 29 28.6 23 18.6	64.45	16	2.60		
31	St	4 27.73 18.19	0 35 58.80 3 38.36	3 52 47.2 23 14.3	64.46	16	2.32		
April 1	Mo	4 9.54 18.08	0 39 37.16 3 38.48	4 16 1.5 23 9.8	64.47	16	2.04		
2	Di	3 51.46 17.94	0 43 15.64 3 38.61	4 39 11.3 23 4.9	64.49	16	1.75		
3	Mi	3 33.52 17.80	0 46 54.25 3 38.75	5 2 16.2 22 59.6	64.51	16	1.47		
4	Do	+3 15.72 17.64	0 50 33.00 3 38.92	+ 5 25 15.8 22 54.1	64.53	16	1.19		
5	Fr	2 58.08 17.45	0 54 11.92 3 39.10	5 48 9.9 22 48.2	64.55	16	0.91		
6	Sa	2 40.63 17.25	0 57 51.02 3 39.31	6 10 58.1 22 41.9	64.58	16	0.63		
7	St	2 23.38 17.03	1 1 30.33 3 39.52	6 33 40.0 22 35.2	64.61	16	0.35		
8	Mo	2 6.35 16.80	1 5 9.85 3 39.76	6 56 15.2 22 28.2	64.64	16	0.07		
9	Di	1 49.55 16.55	1 8 49.61 3 40.00	7 18 43.4 22 20.9	64.68	15	59.79		
10	Mi	+1 33.00 16.29	1 12 29.61 3 40.26	+ 7 41 4.3 22 13.1	64.72	15	59.52		
11	Do	1 16.71 16.03	1 16 9.87 3 40.53	8 3 17.4 22 4.9	64.76	15	59.25		
12	Fr	1 0.68 15.74	1 19 50.40 3 40.81	8 25 22.3 21 56.4	64.80	15	58.98		
13	Sa	0 44.94 15.44	1 23 31.21 3 41.11	8 47 18.7 21 47.6	64.84	15	58.72		
14	St	0 29.50 15.13	1 27 12.32 3 41.43	9 9 6.3 21 38.4	64.89	15	58.45		
15	Mo	+0 14.37 14.81	1 30 53.75 3 41.74	9 30 44.7 21 28.8	64.94	15	58.19		
16	Di	-0 0.44 14.47	1 34 35.49 3 42.08	+ 9 52 13.5 21 18.8	64.99	15	57.93		
17	Mi	0 14.91 14.12	1 38 17.57 3 42.44	10 13 32.3 21 8.6	65.04	15	57.67		
18	Do	0 29.03 13.75	1 42 0.01 3 42.81	10 34 40.9 20 58.1	65.09	15	57.41		
19	Fr	0 42.78 13.36	1 45 42.82 3 43.19	10 55 39.0 20 47.1	65.15	15	57.15		
20	Sa	0 56.14 12.96	1 49 26.01 3 43.60	11 16 26.1 20 35.8	65.21	15	56.90		
21	St	1 9.10 12.54	1 53 9.61 3 44.01	11 37 1.9 20 24.4	65.27	15	56.64		
22	Mo	-1 21.64 12.11	1 56 53.62 3 44.45	+11 57 26.3 20 12.6	65.34	15	56.39		
23	Di	1 33.75 11.66	2 0 38.07 3 44.89	12 17 38.9 20 0.4	65.40	15	56.13		
24	Mi	1 45.41 11.20	2 4 22.96 3 45.36	12 37 39.3 19 47.9	65.47	15	55.88		
25	Do	1 56.61 10.71	2 8 8.32 3 45.84	12 57 27.2 19 35.2	65.54	15	55.62		
26	Fr	2 7.32 10.22	2 11 54.16 3 46.33	13 17 2.4 19 22.2	65.61	15	55.37		
27	Sa	2 17.54 9.71	2 15 40.49 3 46.84	13 36 24.6 19 8.9	65.68	15	55.12		
28	St	-2 27.25 9.20	2 19 27.33 3 47.36	+13 55 33.5 18 55.2	65.75	15	54.87		
29	Mo	2 36.45 8.67	2 23 14.69 3 47.89	14 14 28.7 18 41.2	65.83	15	54.62		
30	Di	2 45.12 8.13	2 27 2.58 3 48.43	14 33 9.9 18 27.0	65.90	15	54.37		
Mai 1	Mi	2 53.25 7.59	2 30 51.01 3 48.97	14 51 36.9 18 12.3	65.98	15	54.12		
2	Do	3 0.84 7.02	2 34 39.98 3 49.53	15 9 49.2 17 57.4	66.05	15	53.88		
3	Fr	-3 7.86	2 38 29.51	+15 27 46.6	66.13	15	53.64		

Tag	0 <sup>h</sup> Welt-Zeit					Auf- gang in { +5° Breite 0 <sup>h</sup> Länge	Unter- gang
	Julian. Zeit	Sternzeit	Mittleres Äquinoktium 1929.0		log R		
			Länge	Breite			
1929	2425						
März 23	693.5	11 <sup>h</sup> 59 <sup>m</sup> 58.65	1° 52' 59.8	59 27.7	+0.38	9.998 6296	5 <sup>h</sup> 58 <sup>m</sup> 18 <sup>h</sup> 17 <sup>m</sup>
24	694.5	12 3 55.20	2 52 27.5	59 25.6	+0.32	9.998 7520	5 56 18 18
25	695.5	12 7 51.76	3 51 53.1	59 23.5	+0.25	9.998 8753	5 53 18 20
26	696.5	12 11 48.31	4 51 16.6	59 21.5	+0.16	9.998 9994	5 51 18 22
27	697.5	12 15 44.86	5 50 38.1	59 19.6	+0.05	9.999 1244	5 49 18 23
28	698.5	12 19 41.42	6 49 57.7	59 17.7	-0.07	9.999 2501	5 47 18 25
29	699.5	12 23 37.97	7 49 15.4	59 15.8	-0.20	9.999 3764	5 45 18 26
30	700.5	12 27 34.52	8 48 31.2	59 14.0	-0.33	9.999 5033	5 42 18 28
31	701.5	12 31 31.08	9 47 45.2	59 12.2	-0.45	9.999 6305	5 40 18 29
April 1	702.5	12 35 27.63	10 46 57.4	59 10.4	-0.56	9.999 7579	5 38 18 31
2	703.5	12 39 24.18	11 46 7.8	59 8.7	-0.67	9.999 8856	5 36 18 32
3	704.5	12 43 20.74	12 45 16.5	59 6.8	-0.75	0.000 0132	5 34 18 34
4	705.5	12 47 17.29	13 44 23.3	59 5.1	-0.80	0.000 1406	5 32 18 36
5	706.5	12 51 13.84	14 43 28.4	59 3.2	-0.83	0.000 2678	5 30 18 37
6	707.5	12 55 10.40	15 42 31.6	59 1.4	-0.84	0.000 3946	5 27 18 39
7	708.5	12 59 6.95	16 41 33.0	58 59.6	-0.81	0.000 5208	5 25 18 40
8	709.5	13 3 3.51	17 40 32.6	58 57.8	-0.76	0.000 6463	5 23 18 42
9	710.5	13 7 0.06	18 39 30.4	58 55.8	-0.68	0.000 7709	5 21 18 43
10	711.5	13 10 56.61	19 38 26.2	58 53.8	-0.58	0.000 8946	5 19 18 45
11	712.5	13 14 53.17	20 37 20.0	58 51.6	-0.46	0.001 0173	5 17 18 46
12	713.5	13 18 49.72	21 36 11.6	58 49.4	-0.32	0.001 1390	5 15 18 48
13	714.5	13 22 46.28	22 35 1.0	58 47.3	-0.18	0.001 2597	5 13 18 50
14	715.5	13 26 42.83	23 33 48.3	58 45.1	-0.07	0.001 3795	5 11 18 51
15	716.5	13 30 39.38	24 32 33.4	58 42.8	+0.04	0.001 4985	5 8 18 53
16	717.5	13 34 35.94	25 31 16.2	58 40.5	+0.13	0.001 6167	5 6 18 54
17	718.5	13 38 32.49	26 29 56.7	58 38.2	+0.19	0.001 7343	5 4 18 56
18	719.5	13 42 29.05	27 28 34.9	58 36.0	+0.21	0.001 8514	5 2 18 57
19	720.5	13 46 25.60	28 27 10.9	58 33.9	+0.21	0.001 9681	5 0 18 59
20	721.5	13 50 22.15	29 25 44.8	58 31.8	+0.18	0.002 0844	4 58 19 0
21	722.5	13 54 18.71	30 24 16.6	58 29.6	+0.11	0.002 2005	4 56 19 2
22	723.5	13 58 15.26	31 22 46.2	58 27.6	+0.01	0.002 3164	4 54 19 4
23	724.5	14 2 11.82	32 21 13.8	58 25.8	-0.10	0.002 4320	4 52 19 5
24	725.5	14 6 8.37	33 19 39.6	58 23.9	-0.22	0.002 5475	4 50 19 7
25	726.5	14 10 4.93	34 18 3.5	58 22.1	-0.35	0.002 6627	4 49 19 8
26	727.5	14 14 1.48	35 16 25.6	58 20.4	-0.50	0.002 7776	4 47 19 10
27	728.5	14 17 58.04	36 14 46.0	58 18.7	-0.64	0.002 8921	4 45 19 11
28	729.5	14 21 54.59	37 13 4.7	58 17.0	-0.76	0.003 0061	4 43 19 13
29	730.5	14 25 51.15	38 11 21.7	58 15.5	-0.87	0.003 1196	4 41 19 14
30	731.5	14 29 47.70	39 9 37.2	58 13.9	-0.95	0.003 2324	4 39 19 16
Mai 1	732.5	14 33 44.26	40 7 51.1	58 12.5	-1.02	0.003 3444	4 38 19 18
2	733.5	14 37 40.82	41 6 3.6	58 11.1	-1.06	0.003 4555	4 36 19 19
3	734.5	14 41 37.37	42 4 14.7		-1.08	0.003 5656	4 34 19 21

Tag		Wochentag	O <sup>b</sup> Welt-Zeit					
			Zeitgleichung Mittlere Zeit minus Wahre Zeit	Scheinbare Rektaszension	Scheinbare Deklination	Halbe Durch- gangs- Dauer St.-Zt.	Halb- messer	
1929								
Mai	3	Fr	-3 <sup>m</sup> 7.86 <sup>s</sup> 6.45	2 <sup>h</sup> 38 <sup>m</sup> 29.51 <sup>s</sup> 50.10	+15 <sup>°</sup> 27' 46.6"	17 42.3	66.13	15 53.64
	4	Sa	3 14.31 5.89	2 42 19.61 50.66	15 45 28.9	17 26.7	66.21	15 53.40
	5	St	3 20.20 5.32	2 46 10.27 51.24	16 2 55.6	17 10.8	66.29	15 53.16
	6	Mo	3 25.52 4.74	2 50 1.51 51.82	16 20 6.4	16 54.7	66.37	15 52.93
	7	Di	3 30.26 4.16	2 53 53.33 52.40	16 37 1.1	16 38.2	66.46	15 52.70
	8	Mi	3 34.42 3.59	2 57 45.73 52.96	16 53 39.3	16 21.3	66.54	15 52.48
	9	Do	-3 38.01 3.02	3 1 38.69 53.54	+17 10 0.6	16 4.1	66.62	15 52.26
	10	Fr	3 41.03 2.44	3 5 32.23 54.12	17 26 4.7	15 46.6	66.70	15 52.04
	11	Sa	3 43.47 1.88	3 9 26.35 54.68	17 41 51.3	15 28.8	66.78	15 51.83
	12	St	3 45.35 1.31	3 13 21.03 55.24	17 57 20.1	15 10.7	66.86	15 51.62
	13	Mo	3 46.66 0.76	3 17 16.27 55.79	18 12 30.8	14 52.2	66.95	15 51.41
	14	Di	3 47.42 0.21	3 21 12.06 56.35	18 27 23.0	14 33.5	67.03	15 51.21
	15	Mi	-3 47.63 0.35	3 25 8.41 56.91	+18 41 56.5	14 14.4	67.11	15 51.02
	16	Do	3 47.28 0.90	3 29 5.32 57.45	18 56 10.9	13 55.1	67.19	15 50.82
	17	Fr	3 46.38 1.44	3 33 2.77 58.00	19 10 6.0	13 35.7	67.27	15 50.63
	18	Sa	3 44.94 1.98	3 37 0.77 58.54	19 23 41.7	13 15.8	67.35	15 50.45
	19	St	3 42.96 2.52	3 40 59.31 59.08	19 36 57.5	12 55.7	67.43	15 50.26
	20	Mo	3 40.44 3.05	3 44 58.39 59.61	19 49 53.2	12 35.4	67.51	15 50.08
	21	Di	-3 37.39 3.59	3 48 58.00 0.15	+20 2 28.6	12 15.0	67.59	15 49.90
	22	Mi	3 33.80 4.12	3 52 58.15 0.67	20 14 43.6	11 54.2	67.66	15 49.72
23	Do	3 29.68 4.64	3 56 58.82 1.20	20 26 37.8	11 33.2	67.74	15 49.55	
24	Fr	3 25.04 5.15	4 1 0.02 1.71	20 38 11.0	11 11.9	67.81	15 49.38	
25	Sa	3 19.89 5.66	4 5 1.73 2.22	20 49 22.9	10 50.5	67.88	15 49.21	
26	St	3 14.23 6.17	4 9 3.95 2.72	21 0 13.4	10 28.9	67.95	15 49.04	
27	Mo	-3 8.06 6.66	4 13 6.67 3.22	+21 10 42.3	10 7.1	68.02	15 48.87	
28	Di	3 1.40 7.15	4 17 9.89 3.70	21 20 49.4	9 45.0	68.09	15 48.71	
29	Mi	2 54.25 7.61	4 21 13.59 4.17	21 30 34.4	9 22.7	68.16	15 48.55	
30	Do	2 46.64 8.07	4 25 17.76 4.63	21 39 57.1	9 0.3	68.22	15 48.39	
31	Fr	2 38.57 8.52	4 29 22.39 5.08	21 48 57.4	8 37.7	68.28	15 48.24	
Juni	1	Sa	2 30.05 8.96	4 33 27.47 5.51	21 57 35.1	8 14.7	68.34	15 48.09
	2	St	-2 21.09 9.37	4 37 32.98 5.93	+22 5 49.8	7 51.7	68.40	15 47.95
	3	Mo	2 11.72 9.76	4 41 38.91 6.33	22 13 41.5	7 28.5	68.45	15 47.81
	4	Di	2 1.96 10.15	4 45 45.24 6.70	22 21 10.0	7 5.2	68.50	15 47.67
	5	Mi	1 51.81 10.50	4 49 51.94 7.06	22 28 15.2	6 41.6	68.55	15 47.54
	6	Do	1 41.31 10.84	4 53 59.00 7.40	22 34 56.8	6 17.8	68.60	15 47.41
	7	Fr	1 30.47 11.15	4 58 6.40 7.70	22 41 14.6	5 54.0	68.65	15 47.29
	8	Sa	-1 19.32 11.43	5 2 14.10 7.99	+22 47 8.6	5 29.9	68.69	15 47.18
	9	St	1 7.89 11.69	5 6 22.09 8.24	22 52 38.5	5 5.8	68.72	15 47.07
	10	Mo	0 56.20 11.92	5 10 30.33 8.47	22 57 44.3	4 41.5	68.75	15 46.96
	11	Di	0 44.28 12.12	5 14 38.80 8.69	23 2 25.8	4 17.1	68.78	15 46.86
	12	Mi	0 32.16 12.30	5 18 47.49 8.87	23 6 42.9	3 52.6	68.81	15 46.77
	13	Do	-0 19.86	5 22 56.36	+23 10 35.5		68.84	15 46.68



Tag	0 <sup>h</sup> Welt-Zeit						Aufgang in (+50° Breite 0 <sup>b</sup> Länge	Unter- gang	
	Julian. Zeit	Sternzeit	Mittleres Äquinoktium 1929.0		log R				
			Länge	Breite					
1929	2425								
Mai	3	734.5	14 <sup>h</sup> 41 <sup>m</sup> 37.37	42 <sup>°</sup> 4' 14.7	58 <sup>°</sup> 9.5	-1.08	0.003 5656	1090	4 <sup>h</sup> 34 <sup>m</sup> 19 <sup>°</sup> 21 <sup>m</sup>
	4	735.5	14 45 33.93	43 2 24.2	58 8.1	-1.05	0.003 6746	1075	4 32 19 22
	5	736.5	14 49 30.48	44 0 32.3	58 6.7	-1.00	0.003 7821	1061	4 30 19 24
	6	737.5	14 53 27.04	44 58 39.0	58 5.3	-0.94	0.003 8882	1045	4 29 19 25
	7	738.5	14 57 23.59	45 56 44.3	58 3.8	-0.83	0.003 9927	1027	4 27 19 27
	8	739.5	15 1 20.15	46 54 48.1	58 2.3	-0.71	0.004 0954	1008	4 25 19 28
	9	740.5	15 5 16.71	47 52 50.4	58 0.6	-0.57	0.004 1962	989	4 24 19 30
	10	741.5	15 9 13.26	48 50 51.0	57 59.0	-0.44	0.004 2951	970	4 22 19 31
	11	742.5	15 13 9.82	49 48 50.0	57 57.3	-0.31	0.004 3921	951	4 21 19 33
	12	743.5	15 17 6.37	50 46 47.3	57 55.6	-0.19	0.004 4872	931	4 19 19 34
	13	744.5	15 21 2.93	51 44 42.9	57 53.9	-0.10	0.004 5803	914	4 18 19 36
	14	745.5	15 24 59.49	52 42 36.8	57 52.1	-0.04	0.004 6717	897	4 16 19 37
	15	746.5	15 28 56.04	53 40 28.9	57 50.2	+0.01	0.004 7614	882	4 15 19 38
	16	747.5	15 32 52.60	54 38 19.1	57 48.5	+0.02	0.004 8496	869	4 13 19 40
	17	748.5	15 36 49.16	55 36 7.6	57 46.8	-0.01	0.004 9365	855	4 12 19 41
	18	749.5	15 40 45.71	56 33 54.4	57 45.2	-0.07	0.005 0220	843	4 11 19 42
	19	750.5	15 44 42.27	57 31 39.6	57 43.6	-0.15	0.005 1063	831	4 10 19 44
	20	751.5	15 48 38.83	58 29 23.2	57 42.1	-0.26	0.005 1894	821	4 8 19 45
	21	752.5	15 52 35.39	59 27 5.3	57 40.6	-0.38	0.005 2715	810	4 7 19 46
	22	753.5	15 56 31.94	60 24 45.9	57 39.2	-0.53	0.005 3525	800	4 6 19 48
23	754.5	16 0 28.50	61 22 25.1	57 38.0	-0.67	0.005 4325	789	4 5 19 49	
24	755.5	16 4 25.06	62 20 3.1	57 36.7	-0.79	0.005 5114	778	4 4 19 50	
25	756.5	16 8 21.61	63 17 39.8	57 35.5	-0.91	0.005 5892	767	4 2 19 52	
26	757.5	16 12 18.17	64 15 15.3	57 34.5	-1.03	0.005 6659	756	4 1 19 53	
27	758.5	16 16 14.73	65 12 49.8	57 33.6	-1.12	0.005 7415	743	4 0 19 54	
28	759.5	16 20 11.29	66 10 23.4	57 32.5	-1.19	0.005 8158	729	4 0 19 55	
29	760.5	16 24 7.84	67 7 55.9	57 31.6	-1.24	0.005 8887	715	3 59 19 56	
30	761.5	16 28 4.40	68 5 27.5	57 30.8	-1.26	0.005 9602	700	3 58 19 57	
31	762.5	16 32 0.96	69 2 58.3	57 30.1	-1.25	0.006 0302	683	3 57 19 58	
Juni	1	763.5	16 35 57.52	70 0 28.4	57 29.3	-1.20	0.006 0985	665	3 56 20 0
	2	764.5	16 39 54.08	70 57 57.7	57 28.6	-1.13	0.006 1650	646	3 55 20 1
	3	765.5	16 43 50.63	71 55 26.3	57 27.9	-1.04	0.006 2296	626	3 55 20 2
	4	766.5	16 47 47.19	72 52 54.2	57 27.2	-0.93	0.006 2922	603	3 54 20 2
	5	767.5	16 51 43.75	73 50 21.4	57 26.5	-0.80	0.006 3525	579	3 53 20 3
	6	768.5	16 55 40.31	74 47 47.9	57 25.7	-0.66	0.006 4104	555	3 53 20 4
	7	769.5	16 59 36.87	75 45 13.6	57 24.8	-0.52	0.006 4659	530	3 52 20 5
	8	770.5	17 3 33.42	76 42 38.4	57 23.9	-0.40	0.006 5189	504	3 52 20 6
	9	771.5	17 7 29.98	77 40 2.3	57 23.1	-0.29	0.006 5693	478	3 52 20 7
	10	772.5	17 11 26.54	78 37 25.4	57 22.3	-0.21	0.006 6171	454	3 51 20 7
	11	773.5	17 15 23.10	79 34 47.7	57 21.2	-0.16	0.006 6625	431	3 51 20 8
	12	774.5	17 19 19.66	80 32 8.9	57 20.2	-0.14	0.006 7056	409	3 50 20 9
	13	775.5	17 23 16.22	81 29 29.1		-0.15	0.006 7465		3 50 20 9

Tag	Wochentag	0 <sup>h</sup> Welt-Zeit							
		Zeitgleichung Mittlere Zeit <i>minus</i> Wahre Zeit	Scheinbare Rektaszension	Scheinbare Deklination	Halbe Durchgangs- Dauer St.-Zt.	Halb- messer			
1929									
Juni	13 Do	— <sup>m</sup> 19.86 <sup>s</sup> 12.46	5 <sup>h</sup> 22 <sup>m</sup> 56.36 <sup>s</sup> 4 9.02	+23 10 35.5 3 28.1	68.84	15 46.68			
	14 Fr	— 7.40 12.60	5 27 5.38 4 9 15	23 14 3.6 3 3-5	68.87	15 46.59			
	15 Sa	+ 5.20 12.71	5 31 14.53 4 9.27	23 17 7.1 2 38.8	68.89	15 46.51			
	16 St	0 17.91 12.80	5 35 23.80 4 9.36	23 19 45.9 2 14.1	68.90	15 46.44			
	17 Mo	0 30.71 12.88	5 39 33.16 4 9.43	23 22 0.0 1 49.4	68.92	15 46.37			
	18 Di	0 43.59 12.93	5 43 42.59 4 9.49	23 23 49.4 1 24.5	68.93	15 46.30			
	19 Mi	+ 56.52 12.95	5 47 52.08 4 9.51	+23 25 13.9 0 59.8	68.94	15 46.23			
	20 Do	I 9.47 12.96	5 52 1.59 4 9.52	23 26 13.7 0 35.1	68.94	15 46.17			
	21 Fr	I 22.43 12.95	5 56 11.11 4 9.51	23 26 48.8 0 10.3	68.94	15 46.11			
	22 Sa	I 35.38 12.92	6 0 20.62 4 9.48	23 26 59.1 0 14.6	68.94	15 46.06			
	23 St	I 48.30 12.87	6 4 30.10 4 9.42	23 26 44.5 0 39.3	68.93	15 46.00			
	24 Mo	2 1.17 12.80	6 8 39.52 4 9.36	23 26 5.2 1 4.0	68.92	15 45.95			
	25 Di	+2 13.97 12.70	6 12 48.88 4 9.27	+23 25 1.2 1 28.7	68.91	15 45.91			
	26 Mi	2 26.67 12.59	6 16 58.15 4 9.15	23 23 32.5 1 53.4	68.90	15 45.87			
	27 Do	2 39.26 12.46	6 21 7.30 4 9.02	23 21 39.1 2 17.9	68.88	15 45.83			
	28 Fr	2 51.72 12.31	6 25 16.32 4 8.86	23 19 21.2 2 42.5	68.86	15 45.79			
	29 Sa	3 4.03 12.13	6 29 25.18 4 8.69	23 16 38.7 3 7.0	68.83	15 45.76			
	30 St	3 16.16 11.94	6 33 33.87 4 8.50	23 13 31.7 3 31.4	68.81	15 45.73			
Juli	1 Mo	+3 28.10 11.72	6 37 42.37 4 8.28	+23 10 0.3 3 55.8	68.77	15 45.71			
	2 Di	3 39.82 11.49	6 41 50.65 4 8.04	23 6 4.5 4 20.0	68.73	15 45.69			
	3 Mi	3 51.31 11.22	6 45 58.69 4 7.78	23 1 44.5 4 44.2	68.69	15 45.68			
	4 Do	4 2.53 10.93	6 50 6.47 4 7.49	22 57 0.3 5 8.2	68.65	15 45.67			
	5 Fr	4 13.46 10.62	6 54 13.96 4 7.18	22 51 52.1 5 32.1	68.61	15 45.67			
	6 Sa	4 24.08 10.29	6 58 21.14 4 6.84	22 46 20.0 5 55.9	68.57	15 45.68			
	7 St	+4 34.37 9.92	7 2 27.98 4 6.48	+22 40 24.1 6 19.6	68.52	15 45.69			
	8 Mo	4 44.29 9.54	7 6 34.46 4 6.10	22 34 4.5 6 43.0	68.46	15 45.70			
	9 Di	4 53.83 9.13	7 10 40.56 4 5.69	22 27 21.5 7 6.4	68.41	15 45.72			
	10 Mi	5 2.96 8.69	7 14 46.25 4 5.25	22 20 15.1 7 29.5	68.35	15 45.75			
	11 Do	5 11.65 8.25	7 18 51.50 4 4.80	22 12 45.6 7 52.4	68.29	15 45.78			
	12 Fr	5 19.90 7.78	7 22 56.30 4 4.33	22 4 53.2 8 15.2	68.23	15 45.82			
	13 Sa	+5 27.68 7.29	7 27 0.63 4 3.85	+21 56 38.0 8 37.7	68.17	15 45.86			
	14 St	5 34.97 6.79	7 31 4.48 4 3.36	21 48 0.3 9 0.1	68.11	15 45.91			
	15 Mo	5 41.76 6.29	7 35 7.84 4 2.84	21 39 0.2 9 22.2	68.04	15 45.96			
	16 Di	5 48.05 5.77	7 39 10.68 4 2.32	21 29 38.0 9 44.1	67.97	15 46.02			
	17 Mi	5 53.82 5.23	7 43 13.00 4 1.80	21 19 53.9 10 5.8	67.89	15 46.07			
	18 Do	5 59.05 4.70	7 47 14.80 4 1.26	21 9 48.1 10 27.2	67.82	15 46.13			
	19 Fr	+6 3.75 4.15	7 51 16.06 4 0.70	+20 59 20.9 10 48.5	67.75	15 46.20			
	20 Sa	6 7.90 3.59	7 55 16.76 4 0.15	20 48 32.4 11 9.5	67.67	15 46.27			
	21 St	6 11.49 3.03	7 59 16.91 3 59.59	20 37 22.9 11 30.2	67.59	15 46.35			
	22 Mo	6 14.52 2.47	8 3 16.50 3 59.03	20 25 52.7 11 50.7	67.51	15 46.42			
	23 Di	6 16.99 1.90	8 7 15.53 3 58.46	20 14 2.0 12 11.1	67.43	15 46.50			
	24 Mi	+6 18.89	8 11 13.99	+20 1 50.9	67.35	15 46.58			

Tag	O <sup>b</sup> Welt-Zeit					Aufgang in { +5° Breite O <sup>b</sup> Länge	Untergang			
	Julian. Zeit	Sternzeit	Mittleres Äquinoktium 1929.0		log R					
			Länge	Breite		h	m	h	m	
1929	2425									
Juni	13	775.5	17 <sup>h</sup> 23 <sup>m</sup> 16.22	81° 29' 29.1	57° 19.2	-0.15	0.006 7465	387	3 50	20 9
	14	776.5	17 27 12.77	82 26 48.3	57 18.2	-0.19	0.006 7852	368	3 50	20 10
	15	777.5	17 31 9.33	83 24 6.5	57 17.4	-0.26	0.006 8220	349	3 50	20 10
	16	778.5	17 35 5.89	84 21 23.9	57 16.6	-0.35	0.006 8569	332	3 50	20 11
	17	779.5	17 39 2.45	85 18 40.5	57 15.8	-0.47	0.006 8901	316	3 50	20 11
	18	780.5	17 42 59.01	86 15 56.3	57 15.0	-0.59	0.006 9217	300	3 50	20 12
	19	781.5	17 46 55.57	87 13 11.3	57 14.5	-0.72	0.006 9517	284	3 50	20 12
	20	782.5	17 50 52.12	88 10 25.8	57 13.9	-0.85	0.006 9801	270	3 50	20 12
	21	783.5	17 54 48.68	89 7 39.7	57 13.4	-0.97	0.007 0071	254	3 50	20 13
	22	784.5	17 58 45.24	90 4 53.1	57 12.9	-1.07	0.007 0325	240	3 50	20 13
	23	785.5	18 2 41.80	91 2 6.0	57 12.7	-1.16	0.007 0565	224	3 51	20 13
	24	786.5	18 6 38.36	91 59 18.7	57 12.4	-1.23	0.007 0789	210	3 51	20 13
	25	787.5	18 10 34.92	92 56 31.1	57 12.3	-1.28	0.007 0999	194	3 51	20 13
26	788.5	18 14 31.47	93 53 43.4	57 12.2	-1.30	0.007 1193	178	3 52	20 13	
27	789.5	18 18 28.03	94 50 55.6	57 12.1	-1.29	0.007 1371	160	3 52	20 13	
28	790.5	18 22 24.59	95 48 7.7	57 12.2	-1.26	0.007 1531	143	3 53	20 13	
29	791.5	18 26 21.15	96 45 19.9	57 12.3	-1.19	0.007 1674	125	3 53	20 13	
30	792.5	18 30 17.71	97 42 32.2	57 12.5	-1.10	0.007 1799	104	3 54	20 13	
Juli	1	793.5	18 34 14.27	98 39 44.7	57 12.7	-0.99	0.007 1903	83	3 54	20 13
	2	794.5	18 38 10.82	99 36 57.4	57 12.9	-0.86	0.007 1986	60	3 55	20 12
	3	795.5	18 42 7.38	100 34 10.3	57 13.0	-0.72	0.007 2046	35	3 56	20 12
	4	796.5	18 46 3.94	101 31 23.3	57 13.2	-0.58	0.007 2081	10	3 56	20 12
	5	797.5	18 50 0.50	102 28 36.5	57 13.4	-0.46	0.007 2091	17	3 57	20 11
	6	798.5	18 53 57.06	103 25 49.9	57 13.6	-0.35	0.007 2074	43	3 58	20 11
	7	799.5	18 57 53.61	104 23 3.5	57 13.6	-0.25	0.007 2031	71	3 59	20 10
	8	800.5	19 1 50.17	105 20 17.1	57 13.8	-0.18	0.007 1960	98	4 0	20 10
	9	801.5	19 5 46.73	106 17 30.9	57 13.7	-0.15	0.007 1862	124	4 0	20 9
	10	802.5	19 9 43.29	107 14 44.6	57 13.6	-0.15	0.007 1738	150	4 1	20 8
	11	803.5	19 13 39.85	108 11 58.2	57 13.6	-0.18	0.007 1588	174	4 2	20 8
	12	804.5	19 17 36.40	109 9 11.8	57 13.6	-0.23	0.007 1414	195	4 3	20 7
	13	805.5	19 21 32.96	110 6 25.4	57 13.5	-0.32	0.007 1219	217	4 4	20 6
	14	806.5	19 25 29.52	111 3 38.9	57 13.6	-0.42	0.007 1002	236	4 6	20 5
15	807.5	19 29 26.08	112 0 52.5	57 13.6	-0.54	0.007 0766	254	4 7	20 4	
16	808.5	19 33 22.64	112 58 6.1	57 13.6	-0.66	0.007 0512	272	4 8	20 3	
17	809.5	19 37 19.19	113 55 19.9	57 14.1	-0.78	0.007 0240	290	4 9	20 2	
18	810.5	19 41 15.75	114 52 34.0	57 14.3	-0.90	0.006 9950	305	4 10	20 1	
19	811.5	19 45 12.31	115 49 48.3	57 14.6	-1.00	0.006 9645	320	4 11	20 0	
20	812.5	19 49 8.87	116 47 2.9	57 15.1	-1.08	0.006 9325	335	4 12	19 59	
21	813.5	19 53 5.42	117 44 18.0	57 15.5	-1.15	0.006 8990	350	4 14	19 58	
22	814.5	19 57 1.98	118 41 33.5	57 16.0	-1.19	0.006 8640	364	4 15	19 57	
23	815.5	20 0 58.54	119 38 49.5	57 16.8	-1.21	0.006 8276	378	4 16	19 56	
24	816.5	20 4 55.10	120 36 6.3		-1.20	0.006 7898		4 17	19 55	

Tag	Wochentag	0 <sup>h</sup> Welt-Zeit				
		Zeitgleichung Mittlere Zeit minus Wahre Zeit	Scheinbare Rektaszension	Scheinbare Deklination	Halbe Durch- gangs- Dauer St. - Zt.	Halb- messer
1929						
Juli	24	Mi	+6 <sup>m</sup> 18.89 1.33	8 <sup>h</sup> 11 <sup>m</sup> 13.99 3 57.88	+20° 1' 50.9 12 31.1	67.35 15 46.58
	25	Do	6 20.22 0.75	8 15 11.87 3 57.31	19 49 19.8 12 50.9	67.27 15 46.67
	26	Fr	6 20.97 0.18	8 19 9.18 3 56.73	19 36 28.9 13 10.5	67.19 15 46.76
	27	Sa	6 21.15 0.41	8 23 5.91 3 56.15	19 23 18.4 13 29.7	67.10 15 46.85
	28	St	6 20.74 0.99	8 27 2.06 3 55.57	19 9 48.7 13 48.7	67.02 15 46.95
	29	Mo	6 19.75 1.57	8 30 57.63 3 54.99	18 56 0.0 14 7.6	66.93 15 47.05
	30	Di	+6 18.18 2.15	8 34 52.62 3 54.41	+18 41 52.4 14 26.1	66.84 15 47.15
	31	Mi	6 16.03 2.73	8 38 47.03 3 53.82	18 27 26.3 14 44.3	66.76 15 47.26
Aug.	1	Do	6 13.30 3.32	8 42 40.85 3 53.23	18 12 42.0 15 2.4	66.67 15 47.37
	2	Fr	6 9.98 3.92	8 46 34.08 3 52.63	17 57 39.6 15 20.0	66.58 15 47.49
	3	Sa	6 6.06 4.51	8 50 26.71 3 52.05	17 42 19.6 15 37.4	66.50 15 47.61
	4	St	6 1.55 5.11	8 54 18.76 3 51.45	17 26 42.2 15 54.4	66.41 15 47.74
	5	Mo	+5 56.44 5.72	8 58 10.21 3 50.84	+17 10 47.8 16 11.2	66.32 15 47.87
	6	Di	5 50.72 6.31	9 2 1.05 3 50.24	16 54 36.6 16 27.6	66.24 15 48.01
	7	Mi	5 44.41 6.91	9 5 51.29 3 49.64	16 38 9.0 16 43.8	66.15 15 48.15
	8	Do	5 37.50 7.52	9 9 40.93 3 49.04	16 21 25.2 16 59.5	66.06 15 48.30
	9	Fr	5 29.98 8.12	9 13 29.97 3 48.44	16 4 25.7 17 15.0	65.98 15 48.45
	10	Sa	5 21.86 8.72	9 17 18.41 3 47.84	15 47 10.7 17 30.2	65.89 15 48.61
	11	St	+5 13.14 9.30	9 21 6.25 3 47.25	+15 29 40.5 17 44.9	65.81 15 48.77
	12	Mo	5 3.84 9.88	9 24 53.50 3 46.68	15 11 55.6 17 59.4	65.73 15 48.94
	13	Di	4 53.96 10.46	9 28 40.18 3 46.10	14 53 56.2 18 13.7	65.65 15 49.11
	14	Mi	4 43.50 11.02	9 32 26.28 3 45.53	14 35 42.5 18 27.5	65.57 15 49.28
	15	Do	4 32.48 11.57	9 36 11.81 3 44.98	14 17 15.0 18 41.0	65.49 15 49.46
	16	Fr	4 20.91 12.11	9 39 56.79 3 44.44	13 58 34.0 18 54.3	65.41 15 49.64
	17	Sa	+4 8.80 12.65	9 43 41.23 3 43.92	+13 39 39.7 19 7.3	65.33 15 49.82
	18	St	3 56.15 13.15	9 47 25.15 3 43.40	13 20 32.4 19 19.9	65.26 15 50.00
	19	Mo	3 43.00 13.65	9 51 8.55 3 42.90	13 1 12.5 19 32.2	65.18 15 50.19
	20	Di	3 29.35 14.14	9 54 51.45 3 42.42	12 41 40.3 19 44.2	65.11 15 50.38
	21	Mi	3 15.21 14.61	9 58 33.87 3 41.95	12 21 56.1 19 56.0	65.04 15 50.57
	22	Do	3 0.60 15.06	10 2 15.82 3 41.49	12 2 0.1 20 7.4	64.97 15 50.77
	23	Fr	+2 45.54 15.49	10 5 57.31 3 41.06	+11 41 52.7 20 18.5	64.91 15 50.96
	24	Sa	2 30.05 15.92	10 9 38.37 3 40.64	11 21 34.2 20 29.4	64.84 15 51.16
	25	St	2 14.13 16.32	10 13 19.01 3 40.24	11 1 4.8 20 40.0	64.78 15 51.36
	26	Mo	1 57.81 16.71	10 16 59.25 3 39.85	10 40 24.8 20 50.2	64.72 15 51.56
	27	Di	1 41.10 17.07	10 20 39.10 3 39.48	10 19 34.6 21 0.2	64.66 15 51.77
	28	Mi	1 24.03 17.43	10 24 18.58 3 39.12	9 58 34.4 21 9.8	64.60 15 51.97
	29	Do	+1 6.60 17.77	10 27 57.70 3 38.78	+ 9 37 24.6 21 19.1	64.55 15 52.18
	30	Fr	0 48.83 18.10	10 31 36.48 3 38.46	9 16 5.5 21 28.1	64.49 15 52.40
	31	Sa	0 30.73 18.41	10 35 14.94 3 38.14	8 54 37.4 21 36.9	64.44 15 52.61
Sept.	1	St	+0 12.32 18.71	10 38 53.08 3 37.84	8 33 0.5 21 45.2	64.39 15 52.83
	2	Mo	-0 6.39 18.99	10 42 30.92 3 37.56	8 11 15.3 21 53.1	64.35 15 53.06
	3	Di	-0 25.38	10 46 8.48	+ 7 49 22.2	64.31 15 53.29

Tag	O <sup>h</sup> Welt-Zeit					log R	Auf- gang in (+5° o <sup>h</sup> Länge	Unter- gang Breite Länge
	Julian. Zeit	Sternzeit	Mittleres Äquinoktium 1929.0		log R			
			Länge	Breite				
1929	2425							
Juli 24	816.5	20 <sup>h</sup> 4 <sup>m</sup> 55.10	120° 36' 6.3	57 17.6	-1.20	0.006 7898	4 17	19 55
25	817.5	20 8 51.65	121 33 23.9	57 18.3	-1.17	0.006 7506	4 19	19 53
26	818.5	20 12 48.21	122 30 42.2	57 19.3	-1.10	0.006 7099	4 20	19 52
27	819.5	20 16 44.77	123 28 1.5	57 20.2	-1.01	0.006 6676	4 21	19 51
28	820.5	20 20 41.32	124 25 21.7	57 21.2	-0.90	0.006 6237	4 22	19 49
29	821.5	20 24 37.88	125 22 42.9	57 22.3	-0.77	0.006 5781	4 24	19 48
30	822.5	20 28 34.44	126 20 5.2	57 23.4	-0.63	0.006 5307	4 25	19 46
31	823.5	20 32 30.99	127 17 28.6	57 24.6	-0.49	0.006 4814	4 27	19 45
Aug. 1	824.5	20 36 27.55	128 14 53.2	57 25.6	-0.36	0.006 4300	4 28	19 44
2	825.5	20 40 24.11	129 12 18.8	57 26.8	-0.24	0.006 3764	4 30	19 42
3	826.5	20 44 20.66	130 9 45.6	57 27.9	-0.14	0.006 3205	4 31	19 40
4	827.5	20 48 17.22	131 7 13.5	57 28.9	-0.07	0.006 2622	4 32	19 39
5	828.5	20 52 13.78	132 4 42.4	57 30.0	-0.03	0.006 2014	4 34	19 37
6	829.5	20 56 10.33	133 2 12.4	57 30.9	-0.01	0.006 1382	4 35	19 36
7	830.5	21 0 6.89	133 59 43.3	57 31.8	-0.04	0.006 0725	4 37	19 34
8	831.5	21 4 3.44	134 57 15.1	57 32.7	-0.09	0.006 0045	4 38	19 32
9	832.5	21 8 0.00	135 54 47.8	57 33.5	-0.17	0.005 9343	4 40	19 30
10	833.5	21 11 56.56	136 52 21.3	57 34.5	-0.27	0.005 8619	4 41	19 28
11	834.5	21 15 53.11	137 49 55.8	57 35.3	-0.38	0.005 7876	4 42	19 27
12	835.5	21 19 49.67	138 47 31.1	57 36.2	-0.49	0.005 7115	4 44	19 25
13	836.5	21 23 46.22	139 45 7.3	57 37.1	-0.60	0.005 6337	4 45	19 23
14	837.5	21 27 42.78	140 42 44.4	57 38.1	-0.70	0.005 5543	4 47	19 21
15	838.5	21 31 39.33	141 40 22.5	57 39.2	-0.80	0.005 4735	4 48	19 20
16	839.5	21 35 35.89	142 38 1.7	57 40.2	-0.89	0.005 3914	4 50	19 18
17	840.5	21 39 32.44	143 35 41.9	57 41.4	-0.96	0.005 3080	4 51	19 16
18	841.5	21 43 29.00	144 33 23.3	57 42.7	-1.01	0.005 2235	4 53	19 14
19	842.5	21 47 25.55	145 31 6.0	57 43.9	-1.01	0.005 1380	4 54	19 12
20	843.5	21 51 22.11	146 28 49.9	57 45.3	-1.00	0.005 0514	4 56	19 10
21	844.5	21 55 18.66	147 26 35.2	57 46.7	-0.96	0.004 9639	4 57	19 8
22	845.5	21 59 15.22	148 24 21.9	57 48.2	-0.90	0.004 8755	4 59	19 6
23	846.5	22 3 11.77	149 22 10.1	57 49.9	-0.81	0.004 7862	5 0	19 4
24	847.5	22 7 8.33	150 20 0.0	57 51.5	-0.69	0.004 6960	5 2	19 2
25	848.5	22 11 4.88	151 17 51.5	57 53.3	-0.56	0.004 6048	5 3	19 0
26	849.5	22 15 1.44	152 15 44.8	57 55.1	-0.42	0.004 5126	5 5	18 58
27	850.5	22 18 57.99	153 13 39.9	57 56.9	-0.28	0.004 4193	5 6	18 56
28	851.5	22 22 54.55	154 11 36.8	57 58.8	-0.15	0.004 3248	5 8	18 54
29	852.5	22 26 51.10	155 9 35.6	58 0.7	-0.02	0.004 2289	5 9	18 52
30	853.5	22 30 47.66	156 7 36.3	58 2.6	+0.08	0.004 1317	5 11	18 50
31	854.5	22 34 44.21	157 5 38.9	58 4.4	+0.17	0.004 0329	5 12	18 48
Sept. 1	855.5	22 38 40.76	158 3 43.3	58 6.2	+0.22	0.003 9324	5 14	18 45
2	856.5	22 42 37.32	159 1 49.5	58 8.1	+0.24	0.003 8302	5 15	18 43
3	857.5	22 46 33.87	159 59 57.6		+0.21	0.003 7262	5 17	18 41

Tag	Wochentag	0 <sup>h</sup> Welt-Zeit							
		Zeitgleichung Mittlere Zeit minus Wahre Zeit	Scheinbare Rektaszension	Scheinbare Deklination	Halbe Durchgangs- Dauer St.-Zt.	Halb- messer			
1929									
Sept.	3 Di	— 0 <sup>m</sup> 25.38 <sup>s</sup> 19.27	10 46 <sup>m</sup> 8.48 <sup>s</sup> 3 37.29	+7 49 22.2 22 0.8	64.31	15 53.29			
	4 Mi	0 44.65 19.53	10 49 45.77 3 37.02	7 27 21.4 22 8.1	64.27	15 53.52			
	5 Do	I 4.18 19.78	10 53 22.79 3 36.78	7 5 13.3 22 14.9	64.23	15 53.75			
	6 Fr	I 23.96 20.01	10 56 59.57 3 36.54	6 42 58.4 22 21.6	64.20	15 53.99			
	7 Sa	I 43.97 20.23	II 0 36.11 3 36.32	6 20 36.8 22 27.8	64.17	15 54.24			
	8 St	2 4.20 20.43	II 4 12.43 3 36.13	5 58 9.0 22 33.7	64.14	15 54.48			
	9 Mo	— 2 24.63 20.62	II 7 48.56 3 35.94	+5 35 35.3 22 39.2	64.12	15 54.73			
	10 Di	2 45.25 20.78	II 11 24.50 3 35.77	5 12 56.1 22 44.3	64.09	15 54.99			
	11 Mi	3 6.03 20.92	II 15 0.27 3 35.63	4 50 11.8 22 49.2	64.07	15 55.24			
	12 Do	3 26.95 21.05	II 18 35.90 3 35.51	4 27 22.6 22 53.8	64.05	15 55.50			
	13 Fr	3 48.00 21.15	II 22 11.41 3 35.40	4 4 28.8 22 58.0	64.04	15 55.75			
	14 Sa	4 9.15 21.24	II 25 46.81 3 35.31	3 41 30.8 23 1.8	64.03	15 56.01			
	15 St	— 4 30.39 21.30	II 29 22.12 3 35.25	+3 18 29.0 23 5.4	64.02	15 56.27			
	16 Mo	4 51.69 21.34	II 32 57.37 3 35.22	2 55 23.6 23 8.7	64.01	15 56.54			
	17 Di	5 13.03 21.35	II 36 32.59 3 35.20	2 32 14.9 23 11.5	64.01	15 56.80			
	18 Mi	5 34.38 21.35	II 40 7.79 3 35.20	2 9 3.4 23 14.2	64.01	15 57.06			
	19 Do	5 55.73 21.32	II 43 42.99 3 35.23	1 45 49.2 23 16.5	64.01	15 57.32			
	20 Fr	6 17.05 21.27	II 47 18.22 3 35.29	1 22 32.7 23 18.4	64.01	15 57.59			
	21 Sa	— 6 38.32 21.19	II 50 53.51 3 35.36	+0 59 14.3 23 20.2	64.02	15 57.85			
	22 St	6 59.51 21.09	II 54 28.87 3 35.46	0 35 54.1 23 21.5	64.03	15 58.11			
	23 Mo	7 20.60 20.97	II 58 4.33 3 35.59	+0 12 32.6 23 22.6	64.05	15 58.38			
	24 Di	7 41.57 20.82	II 1 39.92 3 35.74	— 0 10 50.0 23 23.4	64.07	15 58.64			
	25 Mi	8 2.39 20.65	II 5 15.66 3 35.90	0 34 13.4 23 23.8	64.09	15 58.90			
	26 Do	8 23.04 20.46	II 8 51.56 3 36.09	0 57 37.2 23 23.9	64.11	15 59.17			
	27 Fr	— 8 43.50 20.25	II 12 27.65 3 36.31	— 1 21 1.1 23 23.6	64.14	15 59.44			
	28 Sa	9 3.75 20.02	II 16 3.96 3 36.53	1 44 24.7 23 23.0	64.17	15 59.70			
	29 St	9 23.77 19.77	II 19 40.49 3 36.78	2 7 47.7 23 22.0	64.20	15 59.97			
	30 Mo	9 43.54 19.51	II 23 17.27 3 37.05	2 31 9.7 23 20.7	64.24	16 0.24			
Okt.	1 Di	10 3.05 19.22	II 26 54.32 3 37.33	2 54 30.4 23 19.0	64.28	16 0.51			
	2 Mi	10 22.27 18.93	II 30 31.65 3 37.63	3 17 49.4 23 16.8	64.33	16 0.78			
	3 Do	— 10 41.20 18.62	II 34 9.28 3 37.94	— 3 41 6.2 23 14.4	64.37	16 1.06			
	4 Fr	10 59.82 18.28	II 37 47.22 3 38.27	4 4 20.6 23 11.5	64.42	16 1.34			
	5 Sa	II 18.10 17.93	II 41 25.49 3 38.62	4 27 32.1 23 8.1	64.47	16 1.61			
	6 St	II 36.03 17.57	II 45 4.11 3 38.98	4 50 40.2 23 4.5	64.52	16 1.89			
	7 Mo	II 53.60 17.18	II 48 43.09 3 39.36	5 13 44.7 23 0.5	64.58	16 2.18			
	8 Di	12 10.78 16.79	II 52 22.45 3 39.77	5 36 45.2 22 56.0	64.64	16 2.46			
	9 Mi	— 12 27.57 16.37	II 56 2.22 3 40.19	— 5 59 41.2 22 51.2	64.70	16 2.74			
	10 Do	12 43.94 15.93	II 59 42.41 3 40.62	6 22 32.4 22 46.1	64.76	16 3.02			
	11 Fr	12 59.87 15.48	13 3 23.03 3 41.08	6 45 18.5 22 40.5	64.83	16 3.30			
	12 Sa	13 15.35 14.99	13 7 4.11 3 41.56	7 7 59.0 22 34.5	64.90	16 3.59			
	13 St	13 30.34 14.50	13 10 45.67 3 42.05	7 30 33.5 22 28.2	64.98	16 3.87			
	14 Mo	— 13 44.84	13 14 27.72	— 7 53 1.7	65.05	16 4.15			

Tag	0 <sup>h</sup> Welt-Zeit					Aufgang in { +5° Breite 0 <sup>h</sup> Länge	Unter- gang			
	Julian. Zeit	Sternzeit	Mittleres Äquinoktium 1929.0		log R					
			Länge	Breite						
1929	2425									
Sept.	3	857.5	22 <sup>h</sup> 46 <sup>m</sup> 33.87	159 59 57.6	58 <sup>s</sup> 9.8	+0.21	0.003 7262	1058	5 17	18 41 <sup>m</sup>
	4	858.5	22 50 30.43	160 58 7.4	58 11.5	+0.17	0.003 6204	1076	5 18	18 39
	5	859.5	22 54 26.98	161 56 18.9	58 13.1	+0.10	0.003 5128	1092	5 20	18 37
	6	860.5	22 58 23.53	162 54 32.0	58 14.7	+0.02	0.003 4036	1107	5 21	18 35
	7	861.5	23 2 20.09	163 52 46.7	58 16.2	-0.09	0.003 2929	1122	5 23	18 32
	8	862.5	23 6 16.64	164 51 2.9	58 17.8	-0.20	0.003 1807	1135	5 24	18 30
	9	863.5	23 10 13.19	165 49 20.7	58 19.3	-0.32	0.003 0672	1147	5 26	18 28
	10	864.5	23 14 9.75	166 47 40.0	58 20.9	-0.43	0.002 9525	1157	5 27	18 26
	11	865.5	23 18 6.30	167 46 0.9	58 22.5	-0.54	0.002 8368	1165	5 29	18 24
	12	866.5	23 22 2.86	168 44 23.4	58 24.0	-0.62	0.002 7203	1172	5 30	18 22
	13	867.5	23 25 59.41	169 42 47.4	58 25.6	-0.69	0.002 6031	1179	5 32	18 20
	14	868.5	23 29 55.96	170 41 13.0	58 27.3	-0.73	0.002 4852	1184	5 33	18 17
	15	869.5	23 33 52.52	171 39 40.3	58 29.0	-0.74	0.002 3668	1188	5 35	18 15
	16	870.5	23 37 49.07	172 38 9.3	58 30.8	-0.73	0.002 2480	1191	5 36	18 13
	17	871.5	23 41 45.63	173 36 40.1	58 32.6	-0.69	0.002 1289	1192	5 38	18 11
	18	872.5	23 45 42.18	174 35 12.7	58 34.4	-0.63	0.002 0097	1193	5 39	18 8
	19	873.5	23 49 38.73	175 33 47.1	58 36.3	-0.53	0.001 8904	1194	5 41	18 6
	20	874.5	23 53 35.28	176 32 23.4	58 38.4	-0.42	0.001 7710	1194	5 42	18 3
	21	875.5	23 57 31.84	177 31 1.8	58 40.4	-0.29	0.001 6516	1193	5 44	18 2
	22	876.5	0 1 28.39	178 29 42.2	58 42.5	-0.14	0.001 5323	1194	5 45	18 0
23	877.5	0 5 24.94	179 28 24.7	58 44.8	0.00	0.001 4129	1194	5 47	17 57	
24	878.5	0 9 21.50	180 27 9.5	58 47.1	+0.15	0.001 2935	1197	5 48	17 55	
25	879.5	0 13 18.05	181 25 56.6	58 49.3	+0.28	0.001 1738	1199	5 50	17 53	
26	880.5	0 17 14.60	182 24 45.9	58 51.7	+0.40	0.001 0539	1202	5 51	17 51	
27	881.5	0 21 11.16	183 23 37.6	58 53.9	+0.49	0.000 9337	1208	5 53	17 48	
28	882.5	0 25 7.71	184 22 31.5	58 56.3	+0.54	0.000 8129	1213	5 54	17 46	
29	883.5	0 29 4.26	185 21 27.8	58 58.5	+0.57	0.000 6916	1220	5 56	17 44	
30	884.5	0 33 0.82	186 20 26.3	59 0.8	+0.56	0.000 5696	1228	5 57	17 42	
Okt.	1	885.5	0 36 57.37	187 19 27.1	59 2.9	+0.52	0.000 4468	1235	5 59	17 40
	2	886.5	0 40 53.92	188 18 30.0	59 5.0	+0.46	0.000 3233	1243	6 0	17 38
	3	887.5	0 44 50.48	189 17 35.0	59 7.1	+0.37	0.000 1990	1251	6 2	17 35
	4	888.5	0 48 47.03	190 16 42.1	59 9.0	+0.26	0.000 0739	1257	6 4	17 33
	5	889.5	0 52 43.59	191 15 51.1	59 11.0	+0.14	9.999 9482	1264	6 5	17 31
	6	890.5	0 56 40.14	192 15 2.1	59 12.8	+0.01	9.999 8218	1269	6 7	17 29
	7	891.5	1 0 36.69	193 14 14.9	59 14.6	-0.10	9.999 6949	1271	6 8	17 27
	8	892.5	1 4 33.25	194 13 29.5	59 16.5	-0.21	9.999 5678	1274	6 10	17 25
	9	893.5	1 8 29.80	195 12 46.0	59 18.2	-0.30	9.999 4404	1275	6 11	17 23
	10	894.5	1 12 26.35	196 12 4.2	59 20.1	-0.37	9.999 3129	1274	6 13	17 20
	11	895.5	1 16 22.91	197 11 24.3	59 21.9	-0.43	9.999 1855	1271	6 14	17 18
	12	896.5	1 20 19.46	198 10 46.2	59 23.6	-0.45	9.999 0584	1269	6 16	17 16
	13	897.5	1 24 16.02	199 10 9.8	59 25.4	-0.44	9.998 9315	1264	6 18	17 14
	14	898.5	1 28 12.57	200 9 35.2		-0.41	9.998 8051		6 19	17 12

Tag	Wochentag	O <sup>h</sup> Welt-Zeit							
		Zeitgleichung Mittlere Zeit minus Wahre Zeit	Scheinbare Rektaszension	Scheinbare Deklination	Halbe Durchgangs- Dauer St.-Zt.	Halb- messer			
1929									
Okt. 14	Mo	-13 <sup>m</sup> 44.84 13.99	13 <sup>h</sup> 14 <sup>m</sup> 27.72 3 42.57	- 7 53 1.7 22 21.6	65.05	16 4.15			
15	Di	13 58.83 13.45	13 18 10.29 3 43.11	8 15 23.3 22 14.6	65.13	16 4.43			
16	Mi	14 12.28 12.89	13 21 53.40 3 43.66	8 37 37.9 22 7.2	65.21	16 4.71			
17	Do	14 25.17 12.32	13 25 37.06 3 44.23	8 59 45.1 21 59.4	65.30	16 4.98			
18	Fr	14 37.49 11.72	13 29 21.29 3 44.83	9 21 44.5 21 51.3	65.38	16 5.26			
19	Sa	14 49.21 11.10	13 33 6.12 3 45.45	9 43 35.8 21 42.8	65.47	16 5.53			
20	St	-15 0.31 10.47	13 36 51.57 3 46.09	-10 5 18.6 21 34.0	65.57	16 5.80			
21	Mo	15 10.78 9.81	13 40 37.66 3 46.75	10 26 52.6 21 24.8	65.67	16 6.06			
22	Di	15 20.59 9.13	13 44 24.41 3 47.43	10 48 17.4 21 15.3	65.76	16 6.33			
23	Mi	15 29.72 8.43	13 48 11.84 3 48.12	11 9 32.7 21 5.4	65.86	16 6.59			
24	Do	15 38.15 7.72	13 51 59.96 3 48.84	11 30 38.1 20 55.0	65.96	16 6.85			
25	Fr	15 45.87 6.99	13 55 48.80 3 49.56	11 51 33.1 20 44.3	66.06	16 7.11			
26	Sa	-15 52.86 6.25	13 59 38.36 3 50.30	-12 12 17.4 20 33.3	66.16	16 7.37			
27	St	15 59.11 5.50	14 3 28.66 3 51.06	12 32 50.7 20 21.7	66.27	16 7.62			
28	Mo	16 4.61 4.73	14 7 19.72 3 51.82	12 53 12.4 20 9.8	66.37	16 7.88			
29	Di	16 9.34 3.96	14 11 11.54 3 52.59	13 13 22.2 19 57.4	66.48	16 8.13			
30	Mi	16 13.30 3.18	14 15 4.13 3 53.38	13 33 19.6 19 44.6	66.59	16 8.38			
31	Do	16 16.48 2.40	14 18 57.51 3 54.17	13 53 4.2 19 31.4	66.70	16 8.63			
Nov. 1	Fr	-16 18.88 1.60	14 22 51.68 3 54.96	-14 12 35.6 19 17.8	66.82	16 8.88			
2	Sa	16 20.48 0.79	14 26 46.64 3 55.75	14 31 53.4 19 3.6	66.93	16 9.13			
3	St	16 21.27 0.01	14 30 42.39 3 56.56	14 50 57.0 18 49.1	67.04	16 9.38			
4	Mo	16 21.26 0.82	14 34 38.95 3 57.38	15 9 46.1 18 34.2	67.16	16 9.63			
5	Di	16 20.44 1.63	14 38 36.33 3 58.19	15 28 20.3 18 18.8	67.28	16 9.88			
6	Mi	16 18.81 2.45	14 42 34.52 3 59.01	15 46 39.1 18 3.0	67.39	16 10.13			
7	Do	-16 16.36 3.27	14 46 33.53 3 59.83	-16 4 42.1 17 46.8	67.51	16 10.37			
8	Fr	16 13.09 4.10	14 50 33.36 4 0.65	16 22 28.9 17 30.1	67.63	16 10.61			
9	Sa	16 8.99 4.93	14 54 34.01 4 1.48	16 39 59.0 17 13.1	67.75	16 10.85			
10	St	16 4.06 5.75	14 58 35.49 4 2.31	16 57 12.1 16 55.7	67.87	16 11.09			
11	Mo	15 58.31 6.59	15 2 37.80 4 3.14	17 14 7.8 16 38.0	67.99	16 11.32			
12	Di	15 51.72 7.41	15 6 40.94 4 3.97	17 30 45.8 16 19.8	68.11	16 11.56			
13	Mi	-15 44.31 8.25	15 10 44.91 4 4.81	-17 47 5.6 16 1.1	68.23	16 11.79			
14	Do	15 36.06 9.09	15 14 49.72 4 5.65	18 3 6.7 15 42.2	68.35	16 12.01			
15	Fr	15 26.97 9.93	15 18 55.37 4 6.48	18 18 48.9 15 22.8	68.47	16 12.23			
16	Sa	15 17.04 10.76	15 23 1.85 4 7.32	18 34 11.7 15 3.1	68.59	16 12.44			
17	St	15 6.28 11.60	15 27 9.17 4 8.15	18 49 14.8 14 43.1	68.70	16 12.65			
18	Mo	14 54.68 12.43	15 31 17.32 4 8.99	19 3 57.9 14 22.6	68.82	16 12.86			
19	Di	-14 42.25 13.27	15 35 26.31 4 9.83	-19 18 20.5 14 1.9	68.93	16 13.06			
20	Mi	14 28.98 14.10	15 39 36.14 4 10.66	19 32 22.4 13 40.8	69.05	16 13.26			
21	Do	14 14.88 14.93	15 43 46.80 4 11.49	19 46 3.2 13 19.4	69.16	16 13.45			
22	Fr	13 59.95 15.75	15 47 58.29 4 12.31	19 59 22.6 12 57.5	69.27	16 13.64			
23	Sa	13 44.20 16.56	15 52 10.60 4 13.12	20 12 20.1 12 35.4	69.38	16 13.82			
24	St	-13 27.64	15 56 23.72	-20 24 55.5	69.49	16 14.00			



Tag	O <sup>b</sup> Welt-Zeit					log R	Auf- gang in { +5° Breite O <sup>b</sup> Länge	Unter- gang
	Julian. Zeit	Sternzeit	Mittleres Äquinoktium 1929.0		log R			
			Länge	Breite				
1929	2425							
Okt. 14	898.5	1 <sup>h</sup> 28 <sup>m</sup> 12.57	200° 9' 35.2"	59° 27.2'	-0.41	9.998 8051	1258	6 <sup>h</sup> 19 <sup>m</sup> 17 <sup>s</sup> 12 <sup>m</sup>
15	899.5	1 32 9.12	201 9 2.4	59 29.1	-0.35	9.998 6793	1252	6 21 17 10
16	900.5	1 36 5.68	202 8 31.5	59 31.0	-0.27	9.998 5541	1242	6 22 17 8
17	901.5	1 40 2.23	203 8 2.5	59 32.9	-0.15	9.998 4299	1232	6 24 17 6
18	902.5	1 43 58.79	204 7 35.4	59 34.8	-0.01	9.998 3067	1222	6 26 17 4
19	903.5	1 47 55.34	205 7 10.2	59 36.8	+0.13	9.998 1845	1211	6 27 17 2
20	904.5	1 51 51.89	206 6 47.0	59 39.0	+0.28	9.998 0634	1199	6 29 17 0
21	905.5	1 55 48.45	207 6 26.0	59 41.2	+0.43	9.997 9435	1189	6 30 16 58
22	906.5	1 59 45.00	208 6 7.2	59 43.5	+0.57	9.997 8246	1178	6 32 16 56
23	907.5	2 3 41.56	209 5 50.7	59 45.6	+0.69	9.997 7068	1169	6 34 16 54
24	908.5	2 7 38.11	210 5 36.3	59 47.9	+0.78	9.997 5899	1160	6 35 16 52
25	909.5	2 11 34.67	211 5 24.2	59 50.2	+0.86	9.997 4739	1152	6 37 16 50
26	910.5	2 15 31.22	212 5 14.4	59 52.4	+0.90	9.997 3587	1147	6 39 16 49
27	911.5	2 19 27.78	213 5 6.8	59 54.7	+0.90	9.997 2440	1141	6 40 16 47
28	912.5	2 23 24.33	214 5 1.5	59 56.9	+0.88	9.997 1299	1136	6 42 16 45
29	913.5	2 27 20.89	215 4 58.4	59 58.9	+0.81	9.997 0163	1132	6 44 16 43
30	914.5	2 31 17.44	216 4 57.3	60 1.1	+0.73	9.996 9031	1129	6 45 16 41
31	915.5	2 35 14.00	217 4 58.4	60 3.0	+0.61	9.996 7902	1125	6 47 16 40
Nov. 1	916.5	2 39 10.56	218 5 1.4	60 4.9	+0.49	9.996 6777	1122	6 49 16 38
2	917.5	2 43 7.11	219 5 6.3	60 6.8	+0.37	9.996 5655	1119	6 50 16 36
3	918.5	2 47 3.67	220 5 13.1	60 8.4	+0.25	9.996 4536	1114	6 52 16 34
4	919.5	2 51 0.22	221 5 21.5	60 10.3	+0.14	9.996 3422	1107	6 54 16 33
5	920.5	2 54 56.78	222 5 31.8	60 11.8	+0.04	9.996 2315	1100	6 55 16 31
6	921.5	2 58 53.33	223 5 43.6	60 13.4	-0.03	9.996 1215	1094	6 57 16 30
7	922.5	3 2 49.89	224 5 57.0	60 14.9	-0.08	9.996 0121	1084	6 59 16 28
8	923.5	3 6 46.44	225 6 11.9	60 16.5	-0.11	9.995 9037	1073	7 0 16 27
9	924.5	3 10 43.00	226 6 28.4	60 17.9	-0.11	9.995 7964	1063	7 2 16 25
10	925.5	3 14 39.56	227 6 46.3	60 19.4	-0.10	9.995 6901	1049	7 4 16 24
11	926.5	3 18 36.11	228 7 5.7	60 20.8	-0.04	9.995 5852	1034	7 5 16 22
12	927.5	3 22 32.67	229 7 26.5	60 22.3	+0.03	9.995 4818	1019	7 7 16 21
13	928.5	3 26 29.23	230 7 48.8	60 23.6	+0.13	9.995 3799	1002	7 9 16 19
14	929.5	3 30 25.78	231 8 12.4	60 25.0	+0.25	9.995 2797	983	7 10 16 18
15	930.5	3 34 22.34	232 8 37.4	60 26.6	+0.39	9.995 1814	963	7 12 16 17
16	931.5	3 38 18.90	233 9 4.0	60 28.0	+0.54	9.995 0851	941	7 14 16 16
17	932.5	3 42 15.45	234 9 32.0	60 29.6	+0.70	9.994 9910	921	7 15 16 14
18	933.5	3 46 12.01	235 10 1.6	60 31.3	+0.84	9.994 8989	899	7 17 16 13
19	934.5	3 50 8.57	236 10 32.9	60 32.8	+0.96	9.994 8090	877	7 18 16 12
20	935.5	3 54 5.13	237 11 5.7	60 34.6	+1.05	9.994 7213	857	7 20 16 11
21	936.5	3 58 1.68	238 11 40.3	60 36.3	+1.13	9.994 6356	836	7 22 16 10
22	937.5	4 1 58.24	239 12 16.6	60 38.0	+1.18	9.994 5520	817	7 23 16 9
23	938.5	4 5 54.80	240 12 54.6	60 39.8	+1.19	9.994 4703	800	7 24 16 8
24	939.5	4 9 51.36	241 13 34.4		+1.17	9.994 3903		7 26 16 7

Tag	Wochentag	0 <sup>h</sup> Welt-Zeit							
		Zeitgleichung Mittlere Zeit minus Wahre Zeit	Scheinbare Rektaszension	Scheinbare Deklination	Halbe Durch- gangs- Dauer St. - Zt.	Halb- messer			
1929									
Nov. 24	St	-13 27.64 17.36	15 56 23.72 4 13.91	-20 24 55.5 12 12.7	69.49	16 14.00			
25	Mo	13 10.28 18.14	16 0 37.63 4 14.70	20 37 8.2 11 49.8	69.60	16 14.18			
26	Di	12 52.14 18.91	16 4 52.33 4 15.47	20 48 58.0 11 26.7	69.70	16 14.35			
27	Mi	12 33.23 19.65	16 9 7.80 4 16.21	21 0 24.7 11 3.0	69.80	16 14.52			
28	Do	12 13.58 20.39	16 13 24.01 4 16.94	21 11 27.7 10 39.1	69.90	16 14.68			
29	Fr	11 53.19 21.09	16 17 40.95 4 17.65	21 22 6.8 10 14.8	70.00	16 14.85			
30	Sa	-11 32.10 21.78	16 21 58.60 4 18.34	-21 32 21.6 9 50.2	70.09	16 15.01			
Dez. 1	St	11 10.32 22.44	16 26 16.94 4 19.00	21 42 11.8 9 25.3	70.18	16 15.16			
2	Mo	10 47.88 23.07	16 30 35.94 4 19.63	21 51 37.1 9 0.2	70.27	16 15.32			
3	Di	10 24.81 23.69	16 34 55.57 4 20.24	22 0 37.3 8 34.6	70.35	16 15.47			
4	Mi	10 1.12 24.26	16 39 15.81 4 20.83	22 9 11.9 8 8.9	70.43	16 15.62			
5	Do	9 36.86 24.82	16 43 36.64 4 21.38	22 17 20.8 7 42.9	70.51	16 15.76			
6	Fr	-9 12.04 25.36	16 47 58.02 4 21.91	-22 25 3.7 7 16.6	70.59	16 15.91			
7	Sa	8 46.68 25.85	16 52 19.93 4 22.40	22 32 20.3 6 50.1	70.66	16 16.04			
8	St	8 20.83 26.32	16 56 42.33 4 22.88	22 39 10.4 6 23.4	70.73	16 16.18			
9	Mo	7 54.51 26.76	17 1 5.21 4 23.33	22 45 33.8 5 56.6	70.80	16 16.31			
10	Di	7 27.75 27.18	17 5 28.54 4 23.74	22 51 30.4 5 29.5	70.86	16 16.43			
11	Mi	7 0.57 27.56	17 9 52.28 4 24.11	22 56 59.9 5 2.2	70.92	16 16.55			
12	Do	-6 33.01 27.91	17 14 16.39 4 24.47	-23 2 2.1 4 34.8	70.97	16 16.67			
13	Fr	6 5.10 28.24	17 18 40.86 4 24.80	23 6 36.9 4 7.2	71.02	16 16.78			
14	Sa	5 36.86 28.53	17 23 5.66 4 25.09	23 10 44.1 3 39.6	71.06	16 16.88			
15	St	5 8.33 28.80	17 27 30.75 4 25.36	23 14 23.7 3 11.8	71.10	16 16.98			
16	Mo	4 39.53 29.05	17 31 56.11 4 25.61	23 17 35.5 2 44.0	71.13	16 17.08			
17	Di	4 10.48 29.27	17 36 21.72 4 25.83	23 20 19.5 2 16.0	71.16	16 17.16			
18	Mi	-3 41.21 29.45	17 40 47.55 4 26.01	-23 22 35.5 1 47.9	71.19	16 17.24			
19	Do	3 11.76 29.60	17 45 13.56 4 26.16	23 24 23.4 1 19.8	71.21	16 17.31			
20	Fr	2 42.16 29.74	17 49 39.72 4 26.30	23 25 43.2 0 51.7	71.23	16 17.38			
21	Sa	2 12.42 29.84	17 54 6.02 4 26.40	23 26 34.9 0 23.5	71.24	16 17.44			
22	St	1 42.58 29.91	17 58 32.42 4 26.45	23 26 58.4 0 4.7	71.25	16 17.50			
23	Mo	1 12.67 29.93	18 2 58.87 4 26.49	23 26 53.7 0 33.1	71.26	16 17.55			
24	Di	-0 42.74 29.92	18 7 25.36 4 26.49	-23 26 20.6 1 1.3	71.26	16 17.59			
25	Mi	-0 12.82 29.89	18 11 51.85 4 26.45	23 25 19.3 1 29.5	71.25	16 17.63			
26	Do	+0 17.07 29.81	18 16 18.30 4 26.37	23 23 49.8 1 57.7	71.24	16 17.67			
27	Fr	0 46.88 29.70	18 20 44.67 4 26.26	23 21 52.1 2 26.0	71.23	16 17.70			
28	Sa	1 16.58 29.54	18 25 10.93 4 26.10	23 19 26.1 2 54.1	71.21	16 17.73			
29	St	1 46.12 29.35	18 29 37.03 4 25.91	23 16 32.0 3 22.1	71.18	16 17.75			
30	Mo	+2 15.47 29.13	18 34 2.94 4 25.69	-23 13 9.9 3 50.1	71.15	16 17.77			
31	Di	2 44.60 28.87	18 38 28.63 4 25.43	23 9 19.8 4 17.9	71.12	16 17.79			
32	Mi	+3 13.47	18 42 54.06	-23 5 1.9	71.08	16 17.80			

Tag	O <sup>b</sup> Welt-Zeit					Auf- gang in { <sup>+50°</sup> Breite <sup>h</sup> Länge	Unter- gang <sup>h</sup> Länge
	Julian. Zeit	Sternzeit	Mittleres Äquinoktium 1929.0		log R		
			Länge	Breite			
1929	2425						
Nov. 24	939.5	4 <sup>h</sup> 9 <sup>m</sup> 51.36	241 13 34.4	60 41.4	+1.17	9.994 3903 <sup>783</sup>	7 <sup>h</sup> 26 <sup>m</sup> 16 <sup>s</sup> 7
25	940.5	4 13 47.91	242 14 15.8	60 43.1	+1.11	9.994 3120 <sup>768</sup>	7 28 16 6
26	941.5	4 17 44.47	243 14 58.9	60 44.7	+1.03	9.994 2352 <sup>754</sup>	7 29 16 5
27	942.5	4 21 41.03	244 15 43.6	60 46.2	+0.92	9.994 1598 <sup>740</sup>	7 30 16 4
28	943.5	4 25 37.59	245 16 29.8	60 47.6	+0.81	9.994 0858 <sup>727</sup>	7 32 16 4
29	944.5	4 29 34.14	246 17 17.4	60 49.0	+0.69	9.994 0131 <sup>714</sup>	7 33 16 3
30	945.5	4 33 30.70	247 18 6.4	60 50.2	+0.56	9.993 9417 <sup>701</sup>	7 35 16 2
Dez. 1	946.5	4 37 27.26	248 18 56.6	60 51.4	+0.44	9.993 8716 <sup>688</sup>	7 36 16 2
2	947.5	4 41 23.82	249 19 48.0	60 52.5	+0.34	9.993 8028 <sup>675</sup>	7 37 16 1
3	948.5	4 45 20.38	250 20 40.5	60 53.5	+0.25	9.993 7353 <sup>661</sup>	7 39 16 0
4	949.5	4 49 16.94	251 21 34.0	60 54.4	+0.18	9.993 6692 <sup>646</sup>	7 40 16 0
5	950.5	4 53 13.49	252 22 28.4	60 55.3	+0.14	9.993 6046 <sup>630</sup>	7 41 16 0
6	951.5	4 57 10.05	253 23 23.7	60 56.1	+0.12	9.993 5416 <sup>614</sup>	7 42 15 59
7	952.5	5 1 6.61	254 24 19.8	60 56.9	+0.13	9.993 4802 <sup>597</sup>	7 44 15 59
8	953.5	5 5 3.17	255 25 16.7	60 57.6	+0.16	9.993 4205 <sup>578</sup>	7 45 15 58
9	954.5	5 8 59.73	256 26 14.3	60 58.2	+0.24	9.993 3627 <sup>558</sup>	7 46 15 58
10	955.5	5 12 56.29	257 27 12.5	60 58.8	+0.33	9.993 3069 <sup>537</sup>	7 47 15 58
11	956.5	5 16 52.85	258 28 11.3	60 59.3	+0.43	9.993 2532 <sup>515</sup>	7 48 15 58
12	957.5	5 20 49.40	259 29 10.6	60 59.9	+0.55	9.993 2017 <sup>490</sup>	7 49 15 58
13	958.5	5 24 45.96	260 30 10.5	61 0.5	+0.69	9.993 1527 <sup>465</sup>	7 50 15 58
14	959.5	5 28 42.52	261 31 11.0	61 1.0	+0.84	9.993 1062 <sup>439</sup>	7 51 15 58
15	960.5	5 32 39.08	262 32 12.0	61 1.5	+0.98	9.993 0623 <sup>411</sup>	7 52 15 58
16	961.5	5 36 35.64	263 33 13.5	61 2.2	+1.10	9.993 0212 <sup>383</sup>	7 52 15 58
17	962.5	5 40 32.20	264 34 15.7	61 2.9	+1.20	9.992 9829 <sup>355</sup>	7 53 15 59
18	963.5	5 44 28.76	265 35 18.6	61 3.6	+1.27	9.992 9474 <sup>326</sup>	7 54 15 59
19	964.5	5 48 25.32	266 36 22.2	61 4.3	+1.32	9.992 9148 <sup>298</sup>	7 55 15 59
20	965.5	5 52 21.88	267 37 26.5	61 5.1	+1.33	9.992 8850 <sup>272</sup>	7 55 16 0
21	966.5	5 56 18.44	268 38 31.6	61 5.9	+1.32	9.992 8578 <sup>247</sup>	7 56 16 0
22	967.5	6 0 14.99	269 39 37.5	61 6.6	+1.27	9.992 8331 <sup>224</sup>	7 56 16 1
23	968.5	6 4 11.55	270 40 44.1	61 7.4	+1.20	9.992 8107 <sup>201</sup>	7 57 16 1
24	969.5	6 8 8.11	271 41 51.5	61 8.0	+1.10	9.992 7906 <sup>180</sup>	7 57 16 2
25	970.5	6 12 4.67	272 42 59.5	61 8.6	+0.98	9.992 7726 <sup>160</sup>	7 58 16 3
26	971.5	6 16 1.23	273 44 8.1	61 9.1	+0.85	9.992 7566 <sup>141</sup>	7 58 16 3
27	972.5	6 19 57.79	274 45 17.2	61 9.6	+0.72	9.992 7425 <sup>123</sup>	7 58 16 4
28	973.5	6 23 54.35	275 46 26.8	61 9.9	+0.60	9.992 7302 <sup>105</sup>	7 58 16 5
29	974.5	6 27 50.91	276 47 36.7	61 10.2	+0.49	9.992 7197 <sup>88</sup>	7 59 16 6
30	975.5	6 31 47.47	277 48 46.9	61 10.4	+0.40	9.992 7109 <sup>70</sup>	7 59 16 6
31	976.5	6 35 44.03	278 49 57.3	61 10.5	+0.33	9.992 7039 <sup>53</sup>	7 59 16 7
32	977.5	6 39 40.58	279 51 7.8		+0.27	9.992 6986	7 59 16 8

## Mittleres Äquinoktium 1929.0

Welt-Zeit		X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0			
1929										
Jan.	0	+0.155 3477	8 6273	-9465	-0.890 7419	1 3055	-1384	-0.386 3504	5661	-602
	0 12	0.163 9750	8 6151		0.889 4364	1 3746		0.385 7843	5961	
	1 0	0.172 5901	8 6021	9436	0.888 0618	1 4435	1539	0.385 1882	6260	669
	1 12	0.181 1922	8 5885		0.886 6183	1 5124		0.384 5622	6559	
	2 0	0.189 7807	8 5739	9405	0.885 1059	1 5815	1692	0.383 9063	6858	736
	2 12	0.198 3546	8 5590		0.883 5244	1 6503		0.383 2205	7156	
	3 0	+0.206 9136	8 5432	-9371	-0.881 8741	1 7190	-1845	-0.382 5049	7454	-802
	3 12	0.215 4568	8 5269		0.880 1551	1 7876		0.381 7595	7750	
	4 0	0.223 9837	8 5097	9333	0.878 3675	1 8561	1998	0.380 9845	8048	869
	4 12	0.232 4934	8 4919		0.876 5114	1 9245		0.380 1797	8345	
	5 0	0.240 9853	8 4735	9293	0.874 5869	1 9930	2150	0.379 3452	8641	935
	5 12	0.249 4588	8 4544		0.872 5939	2 0609		0.378 4811	8935	
	6 0	+0.257 9132	8 4345	-9250	-0.870 5330	2 1289	-2301	-0.377 5876	9231	-1001
	6 12	0.266 3477	8 4140		0.868 4041	2 1968		0.376 6645	9525	
	7 0	0.274 7617	8 3927	9204	0.866 2073	2 2645	2452	0.375 7120	9820	1067
	7 12	0.283 1544	8 3709		0.863 9428	2 3319		0.374 7300	1 0112	
	8 0	0.291 5253	8 3483	9155	0.861 6109	2 3994	2602	0.373 7188	1 0403	1132
	8 12	0.299 8736	8 3251		0.859 2115	2 4665		0.372 6785	1 0695	
	9 0	+0.308 1987	8 3010	-9103	-0.856 7450	2 5336	-2751	-0.371 6090	1 0986	-1197
	9 12	0.316 4997	8 2765		0.854 2114	2 6003		0.370 5104	1 1276	
	10 0	0.324 7762	8 2512	9049	0.851 6111	2 6668	2899	0.369 3288	1 1565	1261
	10 12	0.333 0274	8 2252		0.848 9443	2 7332		0.368 2263	1 1853	
	11 0	0.341 2526	8 1985	8992	0.846 2111	2 7992	3046	0.367 0410	1 2140	1325
	11 12	0.349 4511	8 1712		0.843 4119	2 8652		0.365 8270	1 2425	
	12 0	+0.357 6223	8 1431	-8932	-0.840 5467	2 9309	-3193	-0.364 5845	1 2711	-1389
	12 12	0.365 7654	8 1145		0.837 6158	2 9962		0.363 3134	1 2995	
	13 0	0.373 8799	8 0851	8869	0.834 6196	3 0614	3338	0.362 0139	1 3278	1452
	13 12	0.381 9650	8 0551		0.831 5582	3 1262		0.360 6861	1 3560	
	14 0	0.390 0201	8 0245	8803	0.828 4320	3 1908	3483	0.359 3301	1 3840	1515
	14 12	0.398 0446	7 9932		0.825 2412	3 2552		0.357 9461	1 4119	
	15 0	+0.406 0378	7 9612	-8735	-0.821 9860	3 3191	-3626	-0.356 5342	1 4398	-1577
	15 12	0.413 9990	7 9288		0.818 6669	3 3828		0.355 0944	1 4673	
	16 0	0.421 9278	7 8954	8664	0.815 2841	3 4462	3768	0.353 6271	1 4949	1639
	16 12	0.429 8232	7 8617		0.811 8379	3 5092		0.352 1322	1 5224	
	17 0	0.437 6849	7 8272	8590	0.808 3287	3 5720	3909	0.350 6098	1 5496	1700
	17 12	0.445 5121	7 7922		0.804 7567	3 6343		0.349 0602	1 5766	
	18 0	+0.453 3043	7 7567	-8514	-0.801 1224	3 6965	-4049	-0.347 4836	1 6036	-1761
	18 12	0.461 0610	7 7204		0.797 4259	3 7582		0.345 8800	1 6304	
	19 0	0.468 7814	7 6837	8435	0.793 6677	3 8197	4187	0.344 2496	1 6570	1821
	19 12	0.476 4651	7 6463		0.789 8480	3 8806		0.342 5926	1 6835	
	20 0	0.484 1114	7 6084	-8353	-0.785 9674	3 9414	-4324	-0.340 9091	1 7100	-1880
	20 12	+0.491 7198			-0.782 0260			-0.339 1991		

## Mittleres Äquinoktium 1929.0

Welt-Zeit	X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0
<b>1929</b>						
Jan. 20 12 <sup>h</sup>	+0.491 7198 7 5701		-0.782 0260 4 0018		-0.339 1991 1 7361	
21 0	0.499 2899 7 5310	-8268	0.778 0242 4 0619	-4460	0.337 4630 1 7621	-1939
21 12	0.506 8209 7 4917		0.773 9623 4 1214		0.335 7009 1 7880	
22 0	0.514 3126 7 4515	8181	0.769 8409 4 1808	4594	0.333 9129 1 8138	1997
22 12	0.521 7641 7 4110		0.765 6601 4 2398		0.332 0991 1 8393	
23 0	0.529 1751 7 3699	8092	0.761 4203 4 2985	4727	0.330 2598 1 8647	2055
23 12	+0.536 5450 7 3284		-0.757 1218 4 3567		-0.328 3951 1 8900	
24 0	0.543 8734 7 2864	-8000	0.752 7651 4 4148	-4858	0.326 5051 1 9151	-2112
24 12	0.551 1598 7 2438		0.748 3503 4 4724		0.324 5900 1 9401	
25 0	0.558 4036 7 2007	7906	0.743 8779 4 5298	4988	0.322 6499 1 9648	2169
25 12	0.565 6043 7 1572		0.739 3481 4 5867		0.320 6851 1 9895	
26 0	0.572 7615 7 1131	7809	0.734 7614 4 6434	5116	0.318 6956 2 0142	2225
26 12	+0.579 8746 7 0686		-0.730 1180 4 6998		-0.316 6814 2 0385	
27 0	0.586 9432 7 0235	-7710	0.725 4182 4 7558	-5243	0.314 6429 2 0627	-2280
27 12	0.593 9667 6 9797		0.720 6624 4 8114		0.312 5802 2 0869	
28 0	0.600 9446 6 9317	7608	0.715 8510 4 8668	5368	0.310 4933 2 1108	2334
28 12	0.607 8763 6 8851		0.710 9842 4 9217		0.308 3825 2 1347	
29 0	0.614 7614 6 8378	7504	0.706 0625 4 9763	5492	0.306 2478 2 1583	2388
29 12	+0.621 5992 6 7933		-0.701 0862 5 0306		-0.304 0895 2 1818	
30 0	0.628 3895 6 7420	-7398	0.696 0556 5 0846	-5614	0.301 9077 2 2052	-2441
30 12	0.635 1315 6 6932		0.690 9710 5 1383		0.299 7025 2 2284	
31 0	0.641 8247 6 6439	7289	0.685 8327 5 1914	5734	0.297 4741 2 2514	2493
31 12	0.648 4686 6 5942		0.680 6413 5 2441		0.295 2227 2 2744	
Febr. 1 0	0.655 0628 6 5438	7179	0.675 3972 5 2967	5852	0.292 9483 2 2971	2545
1 12	+0.661 6066 6 4930		-0.670 1005 5 3486		-0.290 6512 2 3196	
2 0	0.668 0966 6 4417	-7066	0.664 7519 5 4003	-5969	0.288 3316 2 3420	-2595
2 12	0.674 5413 6 3897		0.659 3516 5 4514		0.285 9896 2 3642	
3 0	0.680 9310 6 3373	6950	0.653 9002 5 5023	6083	0.283 6254 2 3862	2646
3 12	0.687 2683 6 2843		0.648 3979 5 5526		0.281 2392 2 4081	
4 0	0.693 5526 6 2310	6833	0.642 8453 5 6027	6196	0.278 8311 2 4297	2695
4 12	+0.699 7836 6 1770		-0.637 2426 5 6521		-0.276 4014 2 4513	
5 0	0.705 9606 6 1226	-6713	0.631 5905 5 7011	-6307	0.273 9501 2 4726	-2743
5 12	0.712 0832 6 0677		0.625 8894 5 7497		0.271 4775 2 4937	
6 0	0.718 1509 6 0124	6592	0.620 1397 5 7980	6416	0.268 9838 2 5145	2790
6 12	0.724 1633 5 9564		0.614 3417 5 8456		0.266 4693 2 5353	
7 0	0.730 1197 5 9000	6468	0.608 4961 5 8928	6523	0.263 9340 2 5557	2837
7 12	+0.736 0197 5 8431		-0.602 6033 5 9396		-0.261 3783 2 5761	
8 0	0.741 8628 5 7859	-6343	0.596 6637 5 9858	-6628	0.258 8022 2 5962	-2882
8 12	0.747 6487 5 7280		0.590 6779 6 0316		0.256 2060 2 6161	
9 0	0.753 3767 5 6699	6215	0.584 6463 6 0769	6731	0.253 5899 2 6357	2927
9 12	0.759 0466 5 6110		0.578 5694 6 1217		0.250 9542 2 6553	
10 0	+0.764 6576	-6085	-0.572 4477	-6832	-0.248 2989	-2971

## Mittleres Äquinoktium 1929.0

Welt-Zeit		X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0
1929							
Febr.	10	+0.764 6576 5 5519	-6085	-0.572 4477 6 1660	-6832	-0.248 2989 2 6744	-2971
	10	0.770 2095 5 4922		0.566 2817 6 2096		0.245 6245 2 6935	
	11	0.775 7017 5 4323	5954	0.560 0721 6 2529	6931	0.242 9310 2 7122	3013
	11	0.781 1340 5 3718		0.553 8192 6 2955		0.240 2188 2 7308	
	12	0.786 5058 5 3110	5821	0.547 5237 6 3377	7027	0.237 4880 2 7490	3055
	12	0.791 8168 5 2496		0.541 1860 6 3793		0.234 7390 2 7671	
	13	+0.797 0664 5 1880	-5686	-0.534 8067 6 4203	-7122	-0.231 9719 2 7850	-3097
	13	0.802 2544 5 1260		0.528 3864 6 4609		0.229 1869 2 8026	
	14	0.807 3804 5 0636	5549	0.521 9255 6 5008	7214	0.226 3843 2 8200	3137
	14	0.812 4440 5 0008		0.515 4247 6 5402		0.223 5643 2 8370	
	15	0.817 4448 4 9377	5410	0.508 8845 6 5790	7304	0.220 7273 2 8539	3176
	15	0.822 3825 4 8743		0.502 3055 6 6173		0.217 8734 2 8706	
	16	+0.827 2568 4 8106	-5270	-0.495 6882 6 6551	-7392	-0.215 0028 2 8870	-3214
	16	0.832 0674 4 7464		0.489 0331 6 6923		0.212 1158 2 9031	
	17	0.836 8138 4 6821	5128	0.482 3408 6 7288	7478	0.209 2127 2 9189	3252
	17	0.841 4959 4 6175		0.475 6120 6 7649		0.206 2938 2 9346	
	18	0.846 1134 4 5525	4985	0.468 8471 6 8004	7561	0.203 3592 2 9499	3288
	18	0.850 6659 4 4873		0.462 0467 6 8355		0.200 4093 2 9651	
	19	+0.855 1532 4 4217	-4840	-0.455 2112 6 8699	-7642	-0.197 4442 2 9801	-3323
	19	0.859 5749 4 3560		0.448 3413 6 9039		0.194 4641 2 9948	
	20	0.863 9309 4 2901	4694	0.441 4374 6 9372	7721	0.191 4693 3 0092	3357
	20	0.868 2210 4 2237		0.434 5002 6 9700		0.188 4601 3 0234	
	21	0.872 4447 4 1573	4546	0.427 5302 7 0023	7797	0.185 4367 3 0374	3390
	21	0.876 6020 4 0905		0.420 5279 7 0342		0.182 3993 3 0512	
	22	+0.880 6925 4 0235	-4397	-0.413 4937 7 0654	-7871	-0.179 3481 3 0646	-3423
	22	0.884 7160 3 9562		0.406 4283 7 0963		0.176 2835 3 0780	
	23	0.888 6722 3 8888	4247	0.399 3320 7 1264	7942	0.173 2055 3 0910	3454
	23	0.892 5610 3 8210		0.392 2056 7 1563		0.170 1145 3 1040	
	24	0.896 3820 3 7531	4095	0.385 0493 7 1855	8011	0.167 0105 3 1166	3484
	24	0.900 1351 3 6847		0.377 8638 7 2142		0.163 8939 3 1290	
	25	+0.903 8198 3 6163	-3942	-0.370 6496 7 2424	-8077	-0.160 7649 3 1411	-3513
	25	0.907 4361 3 5476		0.363 4072 7 2701		0.157 6238 3 1532	
	26	0.910 9837 3 4786	3788	0.356 1371 7 2973	8141	0.154 4706 3 1650	3541
	26	0.914 4623 3 4093		0.348 8398 7 3240		0.151 3056 3 1765	
	27	0.917 8716 3 3398	3633	0.341 5158 7 3501	8203	0.148 1291 3 1877	3567
	27	0.921 2114 3 2701		0.334 1657 7 3756		0.144 9414 3 1988	
	28	+0.924 4815 3 2001	-3477	-0.326 7901 7 4007	-8262	-0.141 7426 3 2097	-3593
	28	0.927 6816 3 1299		0.319 3894 7 4253		0.138 5329 3 2203	
März	1	0.930 8115 3 0594	3319	0.311 9641 7 4492	8319	0.135 3126 3 2307	3618
	1	0.933 8709 2 9886		0.304 5149 7 4726		0.132 0819 3 2409	
	2	0.936 8595 2 9177	-3160	-0.297 0423 7 4955	-8373	-0.128 8410 3 2508	-3642
	2	+0.939 7772		-0.289 5468		-0.125 5902	

## Mittleres Äquinoktium 1929.0

Welt-Zeit	X	Red: auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0
1929						
März 2 12 <sup>h</sup>	+0.939 7772 <small>2 8466</small>		-0.289 5468 <small>7 5177</small>		-0.125 5902 <small>3 2604</small>	
3 0	0.942 6238 <small>2 7751</small>	-3000	0.282 0291 <small>7 5393</small>	-8425	0.122 3298 <small>3 2698</small>	-3664
3 12	0.945 3989 <small>2 7034</small>		0.274 4898 <small>7 5636</small>		0.119 0600 <small>3 2791</small>	
4 0	0.948 1023 <small>2 6317</small>	2840	0.266 9292 <small>7 5812</small>	8474	0.115 7809 <small>3 2880</small>	3686
4 12	0.950 7340 <small>2 5597</small>		0.259 3480 <small>7 6011</small>		0.112 4929 <small>3 2968</small>	
5 0	0.953 2937 <small>2 4874</small>	2679	0.251 7469 <small>7 6206</small>	8520	0.109 1961 <small>3 3051</small>	3706
5 12	+0.955 7811 <small>2 4150</small>		-0.244 1263 <small>7 6394</small>		-0.105 8910 <small>3 3133</small>	
6 0	0.958 1961 <small>2 3423</small>	-2517	0.236 4869 <small>7 6575</small>	-8564	0.102 5777 <small>3 3212</small>	-3725
6 12	0.960 5384 <small>2 2695</small>		0.228 8294 <small>7 6752</small>		0.099 2565 <small>3 3289</small>	
7 0	0.962 8079 <small>2 1965</small>	2354	0.221 1542 <small>7 6923</small>	8605	0.095 9276 <small>3 3363</small>	3743
7 12	0.965 0044 <small>2 1233</small>		0.213 4619 <small>7 7087</small>		0.092 5913 <small>3 3435</small>	
8 0	0.967 1277 <small>2 0499</small>	2190	0.205 7532 <small>7 7245</small>	8644	0.089 2478 <small>3 3504</small>	3759
8 12	+0.969 1776 <small>1 9765</small>		-0.198 0287 <small>7 7398</small>		-0.085 8974 <small>3 3571</small>	
9 0	0.971 1541 <small>1 9028</small>	-2026	0.190 2889 <small>7 7544</small>	-8680	0.082 5403 <small>3 3634</small>	-3775
9 12	0.973 0569 <small>1 8290</small>		0.182 5345 <small>7 7684</small>		0.079 1769 <small>3 3696</small>	
10 0	0.974 8859 <small>1 7550</small>	1861	0.174 7661 <small>7 7817</small>	8713	0.075 8073 <small>3 3753</small>	3789
10 12	0.976 6409 <small>1 6810</small>		0.166 9844 <small>7 7945</small>		0.072 4320 <small>3 3808</small>	
11 0	0.978 3219 <small>1 6068</small>	1696	0.159 1899 <small>7 8065</small>	8744	0.069 0512 <small>3 3862</small>	3803
11 12	+0.979 9287 <small>1 5321</small>		-0.151 3834 <small>7 8180</small>		-0.065 6650 <small>3 3912</small>	
12 0	0.981 4611 <small>1 4581</small>	-1530	0.143 5654 <small>7 8288</small>	-8772	0.062 2738 <small>3 3959</small>	-3815
12 12	0.982 9192 <small>1 3836</small>		0.135 7366 <small>7 8389</small>		0.058 8779 <small>3 4004</small>	
13 0	0.984 3028 <small>1 3091</small>	1364	0.127 8977 <small>7 8485</small>	8797	0.055 4775 <small>3 4045</small>	3826
13 12	0.985 6119 <small>1 2345</small>		0.120 0492 <small>7 8574</small>		0.052 0730 <small>3 4085</small>	
14 0	0.986 8464 <small>1 1599</small>	1197	0.112 1918 <small>7 8656</small>	8820	0.048 6645 <small>3 4120</small>	3836
14 12	+0.988 0063 <small>1 0852</small>		-0.104 3262 <small>7 8733</small>		-0.045 2525 <small>3 4153</small>	
15 0	0.989 0915 <small>1 0104</small>	-1030	0.096 4529 <small>7 8802</small>	-8840	0.041 8372 <small>3 4183</small>	-3845
15 12	0.990 1019 <small>0 9358</small>		0.088 5727 <small>7 8866</small>		0.038 4189 <small>3 4211</small>	
16 0	0.991 0377 <small>8612</small>	862	0.080 6861 <small>7 8922</small>	8858	0.034 9978 <small>3 4236</small>	3852
16 12	0.991 8989 <small>7864</small>		0.072 7939 <small>7 8974</small>		0.031 5742 <small>3 4258</small>	
17 0	0.992 6853 <small>7118</small>	694	0.064 8965 <small>7 9020</small>	8873	0.028 1484 <small>3 4277</small>	3859
17 12	+0.993 3971 <small>6371</small>		-0.056 9945 <small>7 9058</small>		-0.024 7207 <small>3 4294</small>	
18 0	0.994 0342 <small>5626</small>	-527	0.049 0887 <small>7 9091</small>	-8885	0.021 2913 <small>3 4308</small>	-3864
18 12	0.994 5968 <small>4880</small>		0.041 1796 <small>7 9119</small>		0.017 8605 <small>3 4319</small>	
19 0	0.995 0848 <small>4134</small>	359	0.033 2677 <small>7 9138</small>	8894	0.014 4286 <small>3 4329</small>	3868
19 12	0.995 4982 <small>3391</small>		0.025 3539 <small>7 9154</small>		0.010 9957 <small>3 4335</small>	
20 0	0.995 8373 <small>2645</small>	190	0.017 4385 <small>7 9164</small>	8901	0.007 5622 <small>3 4339</small>	3871
20 12	+0.996 1018 <small>1903</small>		-0.009 5221 <small>7 9168</small>		-0.004 1283 <small>3 4339</small>	
21 0	0.996 2921 <small>1160</small>	-22	-0.001 6053 <small>7 9165</small>	-8905	-0.000 6944 <small>3 4339</small>	-3873
21 12	0.996 4081 <small>418</small>		+0.006 3112 <small>7 9158</small>		+0.002 7395 <small>3 4335</small>	
22 0	0.996 4499 <small>324</small>	+146	0.014 2270 <small>7 9145</small>	8907	0.006 1730 <small>3 4328</small>	3874
22 12	0.996 4175 <small>1065</small>		0.022 1415 <small>7 9126</small>		0.009 6058 <small>3 4319</small>	
23 0	+0.996 3110	+315	+0.030 0541	-8906	+0.013 0377	-3873

## Mittleres Äquinoktium 1929.0

Welt-Zeit		X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0
1929							
März	23 0	+0.996 3110 1805	+ 315	+0.030 0541 7 9102	-8906	+0.013 0377 3 43-9	-3873
	23 12	0.996 1305 2545		0.037 9643 7 9073		0.016 4686 3 4297	
	24 0	0.995 8760 3284	483	0.045 8716 7 9037	8902	0.019 8983 3 4281	3871
	24 12	0.995 5476 4022		0.053 7753 7 8998		0.023 3204 3 4262	
	25 0	0.995 1454 4760	650	0.061 6751 7 8950	8895	0.026 7526 3 4242	3868
	25 12	0.994 6694 5498		0.069 5701 7 8900		0.030 1768 3 4220	
	26 0	+0.994 1196 6234	+ 818	+0.077 4601 7 8844	-8886	+0.033 5988 3 4195	-3864
	26 12	0.993 4962 6969		0.085 3445 7 8781		0.037 0183 3 4168	
	27 0	0.992 7993 7705	986	0.093 2226 7 8712	8874	0.040 4351 3 4138	3859
	27 12	0.992 0288 8440		0.101 0938 7 8640		0.043 8489 3 4106	
	28 0	0.991 1848 9174	1153	0.108 9578 7 8561	8860	0.047 2595 3 4072	3853
	28 12	0.990 2674 9907		0.116 8139 7 8477		0.050 6667 3 4035	
	29 0	+0.989 2767 1 0640	+1320	+0.124 6616 7 8387	-8843	+0.054 0702 3 3996	-3845
	29 12	0.988 2127 1 1372		0.132 5003 7 8291		0.057 4698 3 3955	
	30 0	0.987 0755 1 2103	1486	0.140 3294 7 8191	8823	0.060 8653 3 3912	3837
	30 12	0.985 8652 1 2833		0.148 1485 7 8084		0.064 2565 3 3866	
	31 0	0.984 5819 1 3562	1652	0.155 9569 7 7970	8801	0.067 6431 3 3816	3827
	31 12	0.983 2257 1 4291		0.163 7539 7 7853		0.071 0247 3 3765	
April	1 0	+0.981 7966 1 5018	+1818	+0.171 5392 7 7729	-8776	+0.074 4012 3 3711	-3816
	1 12	0.980 2948 1 5744		0.179 3121 7 7600		0.077 7723 3 3656	
	2 0	0.978 7204 1 6469	1983	0.187 0721 7 7464	8749	0.081 1379 3 3598	3805
	2 12	0.977 0735 1 7193		0.194 8185 7 7323		0.084 4977 3 3537	
	3 0	0.975 3542 1 7915	2147	0.202 5508 7 7176	8719	0.087 8514 3 3472	3792
	3 12	0.973 5627 1 8637		0.210 2684 7 7025		0.091 1986 3 3407	
	4 0	+0.971 6990 1 9357	+2311	+0.217 9709 7 6865	-8686	+0.094 5393 3 3339	-3777
	4 12	0.969 7633 2 0077		0.225 6574 7 6703		0.097 8732 3 3269	
	5 0	0.967 7556 2 0794	2474	0.233 3277 7 6531	8651	0.101 2001 3 3196	3762
	5 12	0.965 6762 2 1509		0.240 9808 7 6356		0.104 5197 3 3120	
	6 0	0.963 5253 2 2224	2636	0.248 6164 7 6176	8613	0.107 8317 3 3040	3746
	6 12	0.961 3029 2 2937		0.256 2340 7 5988		0.111 1357 3 2960	
	7 0	+0.959 0092 2 3647	+2798	+0.263 8328 7 5794	-8573	+0.114 4317 3 2877	-3728
	7 12	0.956 6445 2 4356		0.271 4122 7 5595		0.117 7194 3 2790	
	8 0	0.954 2089 2 5064	2959	0.278 9717 7 5390	8530	0.120 9984 3 2701	3710
	8 12	0.951 7025 2 5768		0.286 5107 7 5179		0.124 2685 3 2611	
	9 0	0.949 1257 2 6470	3119	0.294 0286 7 4961	8485	0.127 5296 3 2517	3690
	9 12	0.946 4787 2 7172		0.301 5247 7 4740		0.130 7813 3 2420	
	10 0	+0.943 7615 2 7870	+3278	+0.308 9987 7 4509	-8437	+0.134 0233 3 2321	-3669
	10 12	0.940 9745 2 8564		0.316 4496 7 4276		0.137 2554 3 2221	
	11 0	0.938 1181 2 9257	3436	0.323 8772 7 4034	8387	0.140 4775 3 2116	3647
	11 12	0.935 1924 2 9948		0.331 2806 7 3789		0.143 6891 3 2009	
	12 0	0.932 1976 3 0636	+3593	0.338 6595 7 3537	-8334	0.146 8900 3 1900	-3624
	12 12	+0.929 1340		+0.346 0132		+0.150 0800	



## Mittleres Äquinoktium 1929.0

Welt-Zeit	X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0
1929						
April 12 12 <sup>h</sup>	+0.929 1340 3 1319		+0.346 0132 7 3280		+0.150 0800 3 1788	
13 0	0.926 0021 3 2000	+3749	0.353 3412 7 3016	-8279	0.153 2588 3 1674	-3600
13 12	0.922 8021 3 2678		0.360 6428 7 2748		0.156 4262 3 1557	
14 0	0.919 5343 3 3352	3904	0.367 9176 7 2475	8221	0.159 5819 3 1438	3575
14 12	0.916 1991 3 4024		0.375 1651 7 2196		0.162 7257 3 1318	
15 0	0.912 7967 3 4691	4058	0.382 3847 7 1912	8161	0.165 8575 3 1194	3549
15 12	+0.909 3276 3 5357		+0.389 5759 7 1624		+0.168 9769 3 1068	
16 0	0.905 7919 3 6017	+4211	0.396 7383 7 1329	-8099	0.172 0837 3 0940	-3522
16 12	0.902 1902 3 6676		0.403 8712 7 1031		0.175 1777 3 0811	
17 0	0.898 5226 3 7331	4362	0.410 9743 7 0726	8034	0.178 2588 3 0678	3494
17 12	0.894 7895 3 7981		0.418 0469 7 0419		0.181 3266 3 0544	
18 0	0.890 9914 3 8630	4512	0.425 0888 7 0105	7967	0.184 3810 3 0408	3464
18 12	+0.887 1284 3 9273		+0.432 0993 6 9788		+0.187 4218 3 0269	
19 0	0.883 2011 3 9914	+4661	0.439 0781 6 9465	-7897	0.190 4487 3 0130	-3434
19 12	0.879 2097 4 0552		0.446 0246 6 9139		0.193 4617 2 9988	
20 0	0.875 1545 4 1186	4808	0.452 9385 6 8807	7825	0.196 4605 2 9843	3403
20 12	0.871 0359 4 1817		0.459 8192 6 8471		0.199 4448 2 9697	
21 0	0.866 8542 4 2444	4954	0.466 6663 6 8131	7751	0.202 4145 2 9549	3371
21 12	+0.862 6098 4 3070		+0.473 4794 6 7787		+0.205 3694 2 9399	
22 0	0.858 3028 4 3690	+5099	0.480 2581 6 7437	-7674	0.208 3093 2 9248	-3338
22 12	0.853 9338 4 4307		0.487 0018 6 7085		0.211 2341 2 9095	
23 0	0.849 5031 4 4921	5242	0.493 7103 6 6726	7596	0.214 1436 2 8939	3303
23 12	0.845 0110 4 5533		0.500 3829 6 6365		0.217 0375 2 8781	
24 0	0.840 4577 4 6141	5383	0.507 0194 6 5998	7515	0.219 9156 2 8622	3268
24 12	+0.835 8436 4 6745		+0.513 6192 6 5627		+0.222 7778 2 8462	
25 0	0.831 1691 4 7346	+5523	0.520 1819 6 5251	-7432	0.225 6240 2 8299	-3232
25 12	0.826 4345 4 7944		0.526 7070 6 4872		0.228 4539 2 8135	
26 0	0.821 6401 4 8537	5662	0.533 1942 6 4488	7347	0.231 2674 2 7968	3195
26 12	0.816 7864 4 9130		0.539 6430 6 4100		0.234 0612 2 7799	
27 0	0.811 8734 4 9716	5798	0.546 0530 6 3708	7259	0.236 8441 2 7629	3157
27 12	+0.806 9018 5 0301		+0.552 4238 6 3309		+0.239 6070 2 7457	
28 0	0.801 8717 5 0881	+5933	0.558 7547 6 2909	-7170	0.242 3527 2 7283	-3119
28 12	0.796 7836 5 1459		0.565 0456 6 2503		0.245 0810 2 7108	
29 0	0.791 6377 5 2031	6067	0.571 2959 6 2091	7078	0.247 7918 2 6929	3079
29 12	0.786 4346 5 2600		0.577 5050 6 1677		0.250 4847 2 6750	
30 0	0.781 1746 5 3169	6198	0.583 6727 6 1258	6985	0.253 1597 2 6568	3038
30 12	+0.775 8577 5 3731		+0.589 7985 6 0835		+0.255 8165 2 6385	
Mai 1 0	0.770 4846 5 4288	+6328	0.595 8820 6 0406	-6890	0.258 4550 2 6199	-2996
1 12	0.765 0558 5 4844		0.601 9226 5 9975		0.261 0749 2 6013	
2 0	0.759 5714 5 5395	6456	0.607 9201 5 9538	6792	0.263 6762 2 5825	2954
2 12	0.754 0319 5 5942		0.613 8739 5 9097		0.266 2587 2 5633	
3 0	+0.748 4377	+6582	+0.619 7836	-6693	+0.268 8220	-2911

Welt-Zeit		Mittleres Äquinoktium 1929.0						
		X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0	
1929								
Mai	3	o <sup>h</sup>	+0.748 4377 5 6485	+6582	+0.619 7836 5 8652	-6693	+0.268 8220 2 5439	-2911
	3	12	0.742 7892 5 7025		0.625 6488 5 8202		0.271 3659 2 5246	
	4	o	0.737 0867 5 7559	6706	0.631 4690 5 7747	6591	0.273 8905 2 5049	2867
	4	12	0.731 3308 5 8091		0.637 2437 5 7290		0.276 3954 2 4851	
	5	o	0.725 5217 5 8618	6828	0.642 9727 5 6828	6488	0.278 8805 2 4651	2822
	5	12	0.719 6599 5 9141		0.648 6555 5 6360		0.281 3456 2 4448	
	6	o	+0.713 7458 5 9659	+6948	+0.654 2915 5 5889	-6383	+0.283 7904 2 4243	-2776
	6	12	0.707 7799 6 0174		0.659 8804 5 5412		0.286 2147 2 4038	
	7	o	0.701 7625 6 0682	7066	0.665 4216 5 4933	6276	0.288 6185 2 3829	2730
	7	12	0.695 6943 6 1187		0.670 9149 5 4449		0.291 0014 2 3620	
	8	o	0.689 5756 6 1687	7183	0.676 3598 5 3959	6167	0.293 3634 2 3409	2682
	8	12	0.683 4069 6 2183		0.681 7557 5 3467		0.295 7043 2 3195	
	9	o	+0.677 1886 6 2671	+7297	+0.687 1024 5 2970	-6056	+0.298 0238 2 2979	-2634
	9	12	0.670 9215 6 3157		0.692 3994 5 2470		0.300 3217 2 2761	
	10	o	0.664 6058 6 3636	7409	0.697 6464 5 1965	5944	0.302 5978 2 2543	2585
	10	12	0.658 2422 6 4110		0.702 8429 5 1455		0.304 8521 2 2322	
	11	o	0.651 8312 6 4579	7519	0.707 9884 5 0944	5830	0.307 0843 2 2101	2535
	11	12	0.645 3733 6 5044		0.713 0828 5 0429		0.309 2944 2 1876	
	12	o	+0.638 8689 6 5502	+7627	+0.718 1257 4 9909	-5714	+0.311 4820 2 1650	-2485
	12	12	0.632 3187 6 5954		0.723 1166 4 9387		0.313 6470 2 1424	
	13	o	0.625 7233 6 6402	7732	0.728 0553 4 8861	5597	0.315 7894 2 1195	2434
	13	12	0.619 0831 6 6844		0.732 9414 4 8333		0.317 9089 2 0966	
	14	o	0.612 3987 6 7280	7836	0.737 7747 4 7800	5478	0.320 0055 2 0734	2382
	14	12	0.605 6707 6 7711		0.742 5547 4 7265		0.322 0789 2 0502	
	15	o	+0.598 8996 6 8138	+7937	+0.747 2812 4 6727	-5357	+0.324 1291 2 0268	-2330
	15	12	0.592 0858 6 8558		0.751 9539 4 6187		0.326 1559 2 0033	
	16	o	0.585 2300 6 8973	8036	0.756 5726 4 5644	5235	0.328 1592 1 9797	2277
	16	12	0.578 3327 6 9383		0.761 1370 4 5098		0.330 1389 1 9560	
	17	o	0.571 3944 6 9787	8132	0.765 6468 4 4549	5111	0.332 0949 1 9322	2223
	17	12	0.564 4157 7 0187		0.770 1017 4 3998		0.334 0271 1 9082	
	18	o	+0.557 3970 7 0581	+8226	+0.774 5015 4 3445	-4986	+0.335 9353 1 8842	-2169
	18	12	0.550 3389 7 0971		0.778 8460 4 2888		0.337 8195 1 8600	
	19	o	0.543 2418 7 1354	8318	0.783 1348 4 2328	4860	0.339 6795 1 8357	2114
	19	12	0.536 1064 7 1733		0.787 3076 4 1768		0.341 5152 1 8114	
	20	o	0.528 9331 7 2107	8407	0.791 5444 4 1204	4732	0.343 3266 1 7869	2058
	20	12	0.521 7224 7 2475		0.795 6648 4 0638		0.345 1135 1 7623	
	21	o	+0.514 4749 7 2839	+8494	+0.799 7286 4 0070	-4603	+0.346 8758 1 7376	-2002
	21	12	0.507 1910 7 3198		0.803 7356 3 9498		0.348 6134 1 7128	
	22	o	0.499 8712 7 3551	8579	0.807 6854 3 8925	4472	0.350 3262 1 6880	1945
	22	12	0.492 5161 7 3901		0.811 5779 3 8349		0.352 0142 1 6631	
	23	o	0.485 1260 7 4243	+8661	0.815 4128 3 7772	-4340	0.353 6773 1 6379	-1888
	23	12	+0.477 7017		+0.819 1900		+0.355 3152	

## Mittleres Äquinoktium 1929.0

Welt-Zeit	X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0
1929						
Mai 23 12 <sup>h</sup>	+0.477 7017	7 4582	+0.819 1900	3 7199	+0.355 3152	1 6128
24 0	0.470 2435	7 4916	+8741 0.822 9090	3 6607	0.356 0280	1 5875
24 12	0.462 7519	7 5245	0.826 5697	3 6022	0.358 5155	1 5621
25 0	0.455 2274	7 5567	8818 0.830 1719	3 5435	0.360 0776	1 5366
25 12	0.447 6707	7 5885	0.833 7154	3 4844	0.361 6142	1 5111
26 0	0.440 0822	7 6199	8893 0.837 1998	3 4253	0.363 1253	1 4854
26 12	+0.432 4623	7 6507	+0.840 6251	3 3658	+0.364 6107	1 4597
27 0	0.424 8116	7 6809	+8965 0.843 9909	3 3061	0.366 0704	1 4338
27 12	0.417 1307	7 7108	0.847 2970	3 2462	0.367 5042	1 4078
28 0	0.409 4199	7 7399	9035 0.850 5432	3 1860	0.368 9120	1 3817
28 12	0.401 6800	7 7688	0.853 7292	3 1256	0.370 2937	1 3556
29 0	0.393 9112	7 7969	9102 0.856 8548	3 0651	0.371 6493	1 3294
29 12	+0.386 1143	7 8245	+0.859 9199	3 0042	+0.372 9787	1 3031
30 0	0.378 2898	7 8518	+9167 0.862 9241	2 9432	0.374 2818	1 2766
30 12	0.370 4380	7 8783	0.865 8673	2 8819	0.375 5584	1 2501
31 0	0.362 5597	7 9044	9229 0.868 7492	2 8204	0.376 8085	1 2234
31 12	0.354 6553	7 9300	0.871 5696	2 7587	0.378 0319	1 1967
Juni 1 0	0.346 7253	7 9548	9288 0.874 3283	2 6968	0.379 2286	1 1699
1 12	+0.338 7705	7 9793	+0.877 0251	2 6347	+0.380 3985	1 1430
2 0	0.330 7912	8 0032	+9345 0.879 6598	2 5724	0.381 5415	1 1159
2 12	0.322 7880	8 0266	0.882 2322	2 5096	0.382 6574	1 0889
3 0	0.314 7614	8 0492	9399 0.884 7418	2 4470	0.383 7463	1 0617
3 12	0.306 7122	8 0714	0.887 1888	2 3841	0.384 8080	1 0344
4 0	0.298 6408	8 0928	9450 0.889 5729	2 3209	0.385 8424	1 0069
4 12	+0.290 5480	8 1140	+0.891 8938	2 2575	+0.386 8493	9795
5 0	0.282 4340	8 1342	+9499 0.894 1513	2 1938	0.387 8288	9519
5 12	0.274 2998	8 1541	0.896 3451	2 1300	0.388 7807	9243
6 0	0.266 1457	8 1730	9545 0.898 4751	2 0662	0.389 7050	8966
6 12	0.257 9727	8 1916	0.900 5413	2 0021	0.390 6016	8688
7 0	0.249 7811	8 2094	9588 0.902 5434	1 9379	0.391 4704	8409
7 12	+0.241 5717	8 2267	+0.904 4813	1 8735	+0.392 3113	8129
8 0	0.233 3450	8 2432	+9628 0.906 3548	1 8090	0.393 1242	7850
8 12	0.225 1018	8 2591	0.908 1638	1 7443	0.393 9092	7568
9 0	0.216 8427	8 2743	9666 0.909 9081	1 6795	0.394 6660	7287
9 12	0.208 5684	8 2889	0.911 5876	1 6147	0.395 3947	7006
10 0	0.200 2795	8 3030	9701 0.913 2023	1 5498	0.396 0953	6724
10 12	+0.191 9765	8 3163	+0.914 7521	1 4849	+0.396 7677	6441
11 0	0.183 6602	8 3291	+9734 0.916 2370	1 4198	0.397 4118	6159
11 12	0.175 3311	8 3410	0.917 6568	1 3547	0.398 0277	5877
12 0	0.166 9901	8 3524	9763 0.919 0115	1 2896	0.398 6154	5593
12 12	0.158 6377	8 3634	0.920 3011	1 2244	0.399 1747	5310
13 0	+0.150 2743	+9790	+0.921 5255	-1348	+0.399 7057	- 587

## Mittleres Äquinoktium 1929.0

Welt-Zeit	Mittleres Äquinoktium 1929.0								
	X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0			
1929									
Juni 13	o <sup>h</sup> +0.150 2743	8 3736	+9790	+0.921 5255	1 1591	-1348	+0.399 7057	5027	-587
13	12 0.141 9007	8 3831		0.922 6846	1 0939		0.400 2084	4744	
14	o 0.133 5176	8 3922	9814	0.923 7785	1 0286	1198	0.400 6828	4460	521
14	12 0.125 1254	8 4005		0.924 8071	9633		0.401 1288	4176	
15	o 0.116 7249	8 4084	9835	0.925 7704	8981	1048	0.401 5464	3893	456
15	12 0.108 3165	8 4156		0.926 6685	8327		0.401 9357	3609	
16	o +0.099 9009	8 4224	+9854	+0.927 5012	7674	- 897	+0.402 2966	3325	-390
16	12 0.091 4785	8 4284		0.928 2686	7020		0.402 6291	3042	
17	o 0.083 0501	8 4339	9870	0.928 9706	6367	747	0.402 9333	2758	325
17	12 0.074 6162	8 4389		0.929 6073	5713		0.403 2091	2475	
18	o 0.066 1773	8 4432	9883	0.930 1786	5060	596	0.403 4566	2191	259
18	12 0.057 7341	8 4471		0.930 6846	4406		0.403 6757	1908	
19	o +0.049 2870	8 4503	+9893	+0.931 1252	3753	- 445	+0.403 8665	1624	-194
19	12 0.040 8367	8 4530		0.931 5005	3098		0.404 0289	1340	
20	o 0.032 3837	8 4551	9900	0.931 8103	2444	294	0.404 1629	1058	128
20	12 0.023 9286	8 4567		0.932 0547	1790		0.404 2687	773	
21	o 0.015 4719	8 4577	9905	0.932 2337	1137	- 143	0.404 3460	491	- 62
21	12 +0.007 0142	8 4582		0.932 3474	482		0.404 3951	206	
22	o -0.001 4440	8 4580	+9907	+0.932 3956	170	+ 9	+0.404 4157	77	+ 3
22	12 0.009 9020	8 4574		0.932 3786	825		0.404 4080	360	
23	o 0.018 3594	8 4560	9906	0.932 2961	1479	160	0.404 3720	643	69
23	12 0.026 8154	8 4543		0.932 1482	2132		0.404 3077	927	
24	o 0.035 2697	8 4520	9902	0.931 9350	2785	311	0.404 2150	1209	135
24	12 0.043 7217	8 4491		0.931 6565	3439		0.404 0941	1493	
25	o -0.052 1708	8 4456	+9895	+0.931 3126	4092	+ 462	+0.403 9448	1775	+201
25	12 0.060 6164	8 4416		0.930 9034	4745		0.403 7673	2059	
26	o 0.069 0580	8 4368	9886	0.930 4289	5398	613	0.403 5614	2342	266
26	12 0.077 4948	8 4319		0.929 8891	6051		0.403 3272	2624	
27	o 0.085 9267	8 4261	9874	0.929 2840	6704	763	0.403 0648	2927	332
27	12 0.094 3528	8 4197		0.928 6136	7356		0.402 7741	3189	
28	o -0.102 7725	8 4129	+9859	+0.927 8780	8008	+ 914	+0.402 4552	3472	+397
28	12 0.111 1854	8 4055		0.927 0772	8661		0.402 1080	3755	
29	o 0.119 5909	8 3975	9841	0.926 2111	9312	1065	0.401 7325	4036	463
29	12 0.127 9884	8 3888		0.925 2799	9963		0.401 3289	4319	
30	o 0.136 3772	8 3796	9821	0.924 2836	10614	1215	0.400 8970	4602	528
30	12 0.144 7568	8 3699		0.923 2222	11266		0.400 4368	4883	
Juli 1	o -0.153 1267	8 3595	+9797	+0.922 0956	1 1916	+1365	+0.399 9485	5165	+594
1	12 0.161 4862	8 3484		0.920 9040	1 2566		0.399 4320	5447	
2	o 0.169 8346	8 3370	9771	0.919 6474	1 3215	1514	0.398 8873	5728	659
2	12 0.178 1716	8 3248		0.918 3259	1 3865		0.398 3145	6010	
3	o 0.186 4064	8 3119	+9743	0.916 9394	1 4513	+1663	0.397 7135	6291	+723
3	12 -0.194 8083			+0.915 4881			+0.397 0844		

## Mittleres Äquinoktium 1929.0

Welt-Zeit		X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0
1929							
Juli	3 12	-0.194 8083		+0.915 4881		+0.397 0844	
	4 0	0.203 1067	+9711	0.913 9719	+1811	0.396 4271	+ 788
	4 12	0.211 3911		0.912 3912		0.395 7418	
	5 0	0.219 6607	9677	0.910 7459	1959	0.395 0284	852
	5 12	0.227 9151		0.909 0360		0.394 2871	
	6 0	0.236 1534	9640	0.907 2617	2106	0.393 5179	916
	6 12	-0.244 3751		+0.905 4231		+0.392 7207	
	7 0	0.252 5795	+9600	0.903 5204	+2253	0.391 8956	+ 980
	7 12	0.260 7659		0.901 5537		0.391 0428	
	8 0	0.268 9339	9558	0.899 5231	2399	0.390 1621	1044
	8 12	0.277 0828		0.897 4288		0.389 2539	
	9 0	0.285 2118	9513	0.895 2710	2545	0.388 3181	1107
	9 12	-0.293 3204		+0.893 0500		+0.387 3547	
	10 0	0.301 4079	+9465	0.890 7659	+2690	0.386 3640	+1170
	10 12	0.309 4739		0.888 4189		0.385 3459	
	11 0	0.317 5177	9415	0.886 0092	2834	0.384 3006	1233
	11 12	0.325 5387		0.883 5370		0.383 2282	
	12 0	0.333 5362	9362	0.881 0025	2977	0.382 1287	1295
	12 12	-0.341 5099		+0.878 4060		+0.381 0023	
	13 0	0.349 4591	+9306	0.875 7477	+3119	0.379 8490	+1357
	13 12	0.357 3834		0.873 0279		0.378 6690	
	14 0	0.365 2820	9248	0.870 2467	3261	0.377 4623	1418
	14 12	0.373 1546		0.867 4043		0.376 2292	
	15 0	0.381 0005	9187	0.864 5011	3402	0.374 9696	1479
15 12	-0.388 8193		+0.861 5372		+0.373 6838		
16 0	0.396 6103	+9123	0.858 5128	+3541	0.372 3716	+1540	
16 12	0.404 3733		0.855 4282		0.371 0334		
17 0	0.412 1076	9057	0.852 2835	3680	0.369 6690	1600	
17 12	0.419 8126		0.849 0791		0.368 2789		
18 0	0.427 4878	8988	0.845 8152	3817	0.366 8629	1660	
18 12	-0.435 1329		+0.842 4920		+0.365 4212		
19 0	0.442 7472	+8917	0.839 1098	+3954	0.363 9538	+1719	
19 12	0.450 3302		0.835 6687		0.362 4610		
20 0	0.457 8815	8843	0.832 1690	4089	0.360 9428	1778	
20 12	0.465 4006		0.828 6109		0.359 3993		
21 0	0.472 8869	8767	0.824 9947	4223	0.357 8307	1836	
21 12	-0.480 3401		+0.821 3206		+0.356 2369		
22 0	0.487 7594	+8688	0.817 5889	+4356	0.354 6181	+1894	
22 12	0.495 1445		0.813 7998		0.352 9746		
23 0	0.502 4948	8607	0.809 9535	4488	0.351 3063	1951	
23 12	0.509 8101		0.806 0503		0.349 6133		
24 0	-0.517 0897	+8524	+0.802 0904	+4618	+0.347 8958	+2008	

Welt-Zeit		Mittleres Äquinoktium 1929.0					
		X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0
1929							
Juli	24 0 <sup>h</sup>	-0.517 0897 7 2433	+8524	+0.802 0904 4 0163	+4618	+0.347 8958 1 7420	+2008
	24 12	0.524 3330 7 2066		0.798 0741 4 0725		0.346 1538 1 7664	
	25 0	0.531 5396 7 1695	8438	0.794 0016 4 1284	4747	0.344 3874 1 7924	2064
	25 12	0.538 7091 7 1318		0.789 8732 4 1841		0.342 5970 1 8146	
	26 0	0.545 8409 7 0937	8350	0.785 6891 4 2396	4875	0.340 7824 1 8387	2120
	26 12	0.552 9346 7 0549		0.781 4495 4 2947		0.338 9437 1 8626	
	27 0	-0.559 9895 7 0158	+8259	+0.777 1548 4 3497	+5002	+0.337 0811 1 8864	+2175
	27 12	0.567 0053 6 9761		0.772 8051 4 4044		0.335 1947 1 9100	
	28 0	0.573 9814 6 9360	8166	0.768 4007 4 4588	5127	0.333 2847 1 9336	2229
	28 12	0.580 9174 6 8953		0.763 9419 4 5128		0.331 3511 1 9571	
	29 0	0.587 8127 6 8541	8071	0.759 4291 4 5668	5251	0.329 3940 1 9805	2283
	29 12	0.594 6668 6 8124		0.754 8623 4 6204		0.327 4135 2 0037	
	30 0	-0.601 4792 6 7703	+7973	+0.750 2419 4 6737	+5373	+0.325 4098 2 0267	+2336
	30 12	0.608 2495 6 7274		0.745 5682 4 7267		0.323 3831 2 0499	
	31 0	0.614 9769 6 6843	7874	0.740 8415 4 7795	5494	0.321 3332 2 0727	2388
	31 12	0.621 6612 6 6405		0.736 0620 4 8319		0.319 2605 2 0955	
Aug.	1 0	0.628 3017 6 5962	7772	0.731 2301 4 8841	5613	0.317 1650 2 1181	2440
	1 12	0.634 8979 6 5512		0.726 3460 4 9359		0.315 0469 2 1406	
	2 0	-0.641 4491 6 5059	+7667	+0.721 4101 4 9873	+5730	+0.312 9063 2 1629	+2491
	2 12	0.647 9550 6 4600		0.716 4228 5 0385		0.310 7434 2 1852	
	3 0	0.654 4150 6 4136	7561	0.711 3843 5 0893	5846	0.308 5582 2 2072	2512
	3 12	0.660 8286 6 3666		0.706 2950 5 1396		0.306 3510 2 2291	
	4 0	0.667 1952 6 3192	7452	0.701 1554 5 1898	5960	0.304 1219 2 2509	2592
	4 12	0.673 5144 6 2712		0.695 9556 5 2395		0.301 8710 2 2725	
	5 0	-0.679 7856 6 2226	+7341	+0.690 7261 5 2886	+6073	+0.299 5985 2 2939	+2641
	5 12	0.686 0082 6 1738		0.685 4375 5 3375		0.297 3046 2 3151	
	6 0	0.692 1820 6 1244	7229	0.680 1000 5 3860	6184	0.294 9895 2 3362	2689
	6 12	0.698 3064 6 0743		0.674 7140 5 4340		0.292 6533 2 3571	
	7 0	0.704 3807 6 0239	7114	0.669 2800 5 4816	6293	0.290 2962 2 3777	2736
	7 12	0.710 4046 5 9731		0.663 7984 5 5289		0.287 9185 2 3983	
	8 0	-0.716 3777 5 9219	+6997	+0.658 2695 5 5755	+6400	+0.285 5202 2 4185	+2783
	8 12	0.722 2996 5 8701		0.652 6940 5 6219		0.283 1017 2 4387	
	9 0	0.728 1697 5 8181	6878	0.647 0721 5 6677	6505	0.280 6630 2 4586	2829
	9 12	0.733 9878 5 7655		0.641 4044 5 7133		0.278 2041 2 4784	
	10 0	0.739 7533 5 7125	6758	0.635 6911 5 7582	6609	0.275 7260 2 4979	2874
	10 12	0.745 4658 5 6591		0.629 9329 5 8029		0.273 2281 2 5173	
	11 0	-0.751 1249 5 6055	+6635	+0.624 1300 5 8470	+6711	+0.270 7108 2 5363	+2918
	11 12	0.756 7304 5 5514		0.618 2830 5 8907		0.268 1745 2 5553	
	12 0	0.762 2818 5 4969	6511	0.612 3923 5 9339	6811	0.265 6192 2 5741	2961
	12 12	0.767 7787 5 4420		0.606 4584 5 9769		0.263 0451 2 5928	
	13 0	0.773 2207 5 3868	+6384	0.600 4815 6 0192	+6909	0.260 4523 2 6111	+3004
	13 12	-0.778 6075		+0.594 4623		+0.257 8412	

## Mittleres Äquinoktium 1929.0

Welt-Zeit		X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0
1929							
Aug. 13	12	-0.778 6075		+0.594 4623		+0.257 8412	
	14	0.783 9387	+6255	0.588 4009	+7005	0.255 2118	+3046
	14	0.789 2140		0.582 2980		0.252 5645	
	15	0.794 4330	6125	0.576 1540	7099	0.249 8993	3086
	15	0.799 5954		0.569 9694		0.247 2165	
	16	0.804 7007	5993	0.563 7443	7190	0.244 5162	3126
	16	-0.809 7488		+0.557 4796		+0.241 7987	
	17	0.814 7392	+5860	0.551 1753	+7280	0.239 0640	+3166
	17	0.819 6716		0.544 8320		0.236 3125	
	18	0.824 5456	5725	0.538 4502	7368	0.233 5444	3204
	18	0.829 3610		0.532 0302		0.230 7597	
	19	0.834 1174	5588	0.525 5725	7454	0.227 9587	3241
	19	-0.838 8144		+0.519 0776		+0.225 1416	
	20	0.843 4518	+5450	0.512 5458	+7537	0.222 3086	+3278
	20	0.848 0293		0.505 9777		0.219 4598	
	21	0.852 5465	5310	0.499 3735	7619	0.216 5953	3313
	21	0.857 0031		0.492 7337		0.213 7155	
	22	0.861 3988	5168	0.486 0589	7698	0.210 8205	3348
	22	-0.865 7333		+0.479 3494		+0.207 9106	
	23	0.870 0062	+5025	0.472 6056	+7775	0.204 9857	+3381
	23	0.874 2173		0.465 8279		0.202 0462	
	24	0.878 3662	4881	0.459 0169	7850	0.199 0923	3414
	24	0.882 4526		0.452 1729		0.196 1241	
	25	0.886 4761	4735	0.445 2964	7922	0.193 1418	3445
	25	-0.890 4364		+0.438 3878		+0.190 1456	
	26	0.894 3333	+4588	0.431 4475	+7992	0.187 1357	+3476
	26	0.898 1664		0.424 4760		0.184 1122	
	27	0.901 9354	4440	0.417 4738	8060	0.181 0754	3505
	27	0.905 6399		0.410 4413		0.178 0255	
	28	0.909 2796	4290	0.403 3790	8126	0.174 9627	3534
	28	-0.912 8542		+0.396 2875		+0.171 8871	
29	0.916 3634	+4139	0.389 1671	+8189	0.168 7990	+3561	
29	0.919 8067		0.382 0184		0.165 6986		
30	0.923 1840	3987	0.374 8418	8250	0.162 5861	3588	
30	0.926 4949		0.367 6378		0.159 4616		
31	0.929 7390	3834	0.360 4070	8309	0.156 3255	3613	
31	-0.932 9162		+0.353 1499		+0.153 1779		
Sept. 1	1	0.936 0260	+3680	0.345 8671	+8365	0.150 0191	+3638
	1	0.939 0681		0.338 5590		0.146 8493	
	2	0.942 0422	3524	0.331 2262	8419	0.143 6688	3661
	2	0.944 9482		0.323 8692		0.140 4777	
	3	-0.947 7857	+3368	+0.316 4888	+8470	+0.137 2764	+3683

## Mittleres Äquinoktium 1929.0

Welt-Zeit	Mittleres Äquinoktium 1929.0					
	X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0
1929						
Sept. 3	o <sup>h</sup> -0.947 7857 2 7688	+3368	+0.316 4888 7 4035	+8470	+0.137 2764 3 2114	+3683
3	12 0.950 5545 2 6998		0.309 0853 7 4258		0.134 0650 3 2210	
4	o 0.953 2543 2 6305	3210	0.301 6595 7 4478	8519	0.130 8440 3 2306	3704
4	12 0.955 8848 2 5612		0.294 2117 7 4690		0.127 6134 3 2398	
5	o 0.958 4460 2 4915	3052	0.286 7427 7 4896	8565	0.124 3736 3 2480	3725
5	12 0.960 9375 2 4216		0.279 2531 7 5098		0.121 1247 3 2575	
6	o -0.963 3591 2 3517	+2892	+0.271 7433 7 5294	+8609	+0.117 8672 3 2662	+3744
6	12 0.965 7108 2 2814		0.264 2139 7 5483		0.114 6010 3 2742	
7	o 0.967 9922 2 2111	2732	0.256 6656 7 5667	8651	0.111 3268 3 2823	3762
7	12 0.970 2033 2 1405		0.249 0989 7 5844		0.108 0445 3 2900	
8	o 0.972 3438 2 0699	2571	0.241 5145 7 6017	8690	0.104 7545 3 2975	3779
8	12 0.974 4137 1 9991		0.233 9128 7 6183		0.101 4570 3 3047	
9	o -0.976 4128 1 9281	+2409	+0.226 2945 7 6344	+8727	+0.098 1523 3 3117	+3795
9	12 0.978 3409 1 8571		0.218 6601 7 6500		0.094 8406 3 3184	
10	o 0.980 1980 1 7859	2247	0.211 0101 7 6649	8761	0.091 5222 3 3249	3810
10	12 0.981 9839 1 7145		0.203 3452 7 6794		0.088 1973 3 3311	
11	o 0.983 6984 1 6431	2084	0.195 6658 7 6932	8792	0.084 8662 3 3372	3824
11	12 0.985 3415 1 5716		0.187 9726 7 7066		0.081 5290 3 3429	
12	o -0.986 9131 1 4999	+1920	+0.180 2660 7 7193	+8821	+0.078 1861 3 3484	+3836
12	12 0.988 4130 1 4281		0.172 5467 7 7314		0.074 8377 3 3536	
13	o 0.989 8411 1 3564	1756	0.164 8153 7 7432	8847	0.071 4841 3 3587	3848
13	12 0.991 1975 1 2844		0.157 0721 7 7543		0.068 1254 3 3635	
14	o 0.992 4819 1 2124	1591	0.149 3178 7 7648	8871	0.064 7619 3 3680	3858
14	12 0.993 6943 1 1403		0.141 5530 7 7749		0.061 3939 3 3723	
15	o -0.994 8346 1 0681	+1426	+0.133 7781 7 7843	+8892	+0.058 0216 3 3764	+3867
15	12 0.995 9027 9958		0.125 9938 7 7932		0.054 6452 3 3802	
16	o 0.996 8985 9235	1261	0.118 2006 7 8016	8910	0.051 2650 3 3838	3875
16	12 0.997 8220 8510		0.110 3990 7 8095		0.047 8812 3 3873	
17	o 0.998 6730 7787	1095	0.102 5895 7 8168	8926	0.044 4939 3 3903	3882
17	12 0.999 4517 7062		0.094 7727 7 8236		0.041 1036 3 3932	
18	o -1.000 1579 6335	+ 929	+0.086 9491 7 8298	+8939	+0.037 7104 3 3959	+3888
18	12 1.000 7914 5608		0.079 1193 7 8355		0.034 3145 3 3984	
19	o 1.001 3522 4882	762	0.071 2838 7 8409	8950	0.030 9161 3 4006	3893
19	12 1.001 8404 4154		0.063 4429 7 8453		0.027 5155 3 4025	
20	o 1.002 2558 3425	596	0.055 5976 7 8495	8958	0.024 1130 3 4041	3896
20	12 1.002 5983 2697		0.047 7481 7 8532		0.020 7086 3 4059	
21	o -1.002 8680 1967	+ 429	+0.039 8949 7 8562	+8964	+0.017 3027 3 4073	+3899
21	12 1.003 0647 1236		0.032 0387 7 8587		0.013 8954 3 4083	
22	o 1.003 1883 506	262	0.024 1800 7 8607	8967	0.010 4871 3 4091	3900
22	12 1.003 2389 226		0.016 3193 7 8623		0.007 0780 3 4098	
23	o 1.003 2163 959	+ 95	0.008 4570 7 8631	+8967	0.003 6682 3 4102	+3900
23	12 -1.003 1204		+0.000 5939		+0.000 2580	



# Sonnenkoordinaten 1929

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## Mittleres Äquinoktium 1929.0

Welt-Zeit	X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0
1929						
Sept. 23 12 <sup>h</sup>	-1.003 1204 1691		+0.000 5939 7 8635		+0.000 2580 3 4103	
24 0	1.002 9513 2424	- 72	-0.007 2696 7 8632	+8965	-0.003 1523 3 4103	+3899
24 12	1.002 7089 3158		0.015 1328 7 8626		0.006 5626 3 4100	
25 0	1.002 3931 3893	239	0.022 9954 7 8613	8960	0.009 9726 3 4095	3897
25 12	1.002 0038 4628		0.030 8567 7 8593		0.013 3821 3 4086	
26 0	1.001 5410 5364	406	0.038 7160 7 8570	8952	0.016 7907 3 4077	3894
26 12	-1.001 0046 6100		-0.046 5730 7 8539		-0.020 1984 3 4063	
27 0	1.000 3946 6836	- 573	0.054 4269 7 8503	+8942	0.023 6047 3 4049	+3889
27 12	0.999 7110 7573		0.062 2772 7 8461		0.027 0096 3 4030	
28 0	0.998 9537 8310	740	0.070 1233 7 8412	8929	0.030 4126 3 4011	3884
28 12	0.998 1227 9048		0.077 9645 7 8357		0.033 8137 3 3987	
29 0	0.997 2179 9785	906	0.085 8002 7 8298	8914	0.037 2124 3 3961	3877
29 12	-0.996 2394 1 0522		-0.093 6300 7 8231		-0.040 6085 3 3932	
30 0	0.995 1872 1 1259	-1073	0.101 4531 7 8158	+8896	0.044 0017 3 3902	+3869
30 12	0.994 0613 1 1995		0.109 2689 7 8080		0.047 3919 3 3868	
Okt. 1 0	0.992 8618 1 2732	1239	0.117 0769 7 7995	8875	0.050 7787 3 3831	3860
1 12	0.991 5886 1 3469		0.124 8764 7 7902		0.054 1618 3 3792	
2 0	0.990 2417 1 4203	1405	0.132 6666 7 7806	8852	0.057 5410 3 3750	3850
2 12	-0.988 8214 1 4938		-0.140 4472 7 7700		-0.060 9160 3 3705	
3 0	0.987 3276 1 5671	-1570	0.148 2172 7 7591	+8826	0.064 2865 3 3657	+3839
3 12	0.985 7605 1 6404		0.155 9763 7 7474		0.067 6522 3 3607	
4 0	0.984 1201 1 7136	1735	0.163 7237 7 7352	8797	0.071 0129 3 3554	3826
4 12	0.982 4065 1 7866		0.171 4589 7 7223		0.074 3683 3 3498	
5 0	0.980 6199 1 8595	1899	0.179 1812 7 7088	8766	0.077 7181 3 3441	3813
5 12	-0.978 7604 1 9323		-0.186 8900 7 6947		-0.081 0622 3 3378	
6 0	0.976 8281 2 0049	-2063	0.194 5847 7 6801	+8732	0.084 4000 3 3315	+3798
6 12	0.974 8232 2 0773		0.202 2648 7 6647		0.087 7315 3 3248	
7 0	0.972 7459 2 1497	2226	0.209 9295 7 6489	8696	0.091 0563 3 3179	3782
7 12	0.970 5962 2 2217		0.217 5784 7 6323		0.094 3742 3 3108	
8 0	0.968 3745 2 2936	2388	0.225 2107 7 6154	8657	0.097 6850 3 3035	3765
8 12	-0.966 0809 2 3655		-0.232 8261 7 5977		-0.100 9885 3 2956	
9 0	0.963 7154 2 4370	-2550	0.240 4238 7 5796	+8615	0.104 2841 3 2878	+3747
9 12	0.961 2784 2 5085		0.248 0034 7 5609		0.107 5719 3 2797	
10 0	0.958 7699 2 5796	2711	0.255 5643 7 5415	8571	0.110 8516 3 2712	3728
10 12	0.956 1903 2 6507		0.263 1058 7 5216		0.114 1228 3 2625	
11 0	0.953 5396 2 7215	2871	0.270 6274 7 5012	8524	0.117 3853 3 2537	3708
11 12	-0.950 8181 2 7921		-0.278 1286 7 4802		-0.120 6390 3 2446	
12 0	0.948 0260 2 8624	-3030	0.285 6088 7 4586	+8475	0.123 8836 3 2352	+3686
12 12	0.945 1636 2 9327		0.293 0674 7 4366		0.127 1188 3 2255	
13 0	0.942 2309 3 0026	3188	0.300 5040 7 4139	8423	0.130 3443 3 2157	3663
13 12	0.939 2283 3 0724		0.307 9179 7 3907		0.133 5600 3 2056	
14 0	-0.936 1559	-3345	-0.315 3086	+8369	-0.136 7656	+3640

## Mittleres Äquinoktium 1929.0

Welt-Zeit		X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0
1929							
Okt. 14	o <sup>h</sup>	-0.936 1559	-3345	-0.315 3086	+8369	-0.136 7656	+3640
14	12	0.933 0141		0.322 6757		0.139 9609	
15	o	0.929 8029	3502	0.330 0185	8312	0.143 1456	3615
15	12	0.926 5227		0.337 3366		0.146 3195	
16	o	0.923 1735	3657	0.344 6293	8253	0.149 4824	3589
16	12	0.919 7559		0.351 8963		0.152 6342	
17	o	-0.916 2699	-3811	-0.359 1370	+8192	-0.155 7745	+3562
17	12	0.912 7158		0.366 3509		0.158 9031	
18	o	0.909 0939	3964	0.373 5374	8128	0.162 0198	3534
18	12	0.905 4044		0.380 6961		0.165 1245	
19	o	0.901 6473	4116	0.387 8264	8062	0.168 2169	3505
19	12	0.897 8232		0.394 9278		0.171 2968	
20	o	-0.893 9320	-4266	-0.402 0000	+7993	-0.174 3639	+3475
20	12	0.889 9742		0.409 0424		0.177 4180	
21	o	0.885 9499	4416	0.416 0545	7922	0.180 4590	3444
21	12	0.881 8594		0.423 0354		0.183 4867	
22	o	0.877 7028	4564	0.429 9851	7848	0.186 5007	3412
22	12	0.873 4804		0.436 9029		0.189 5009	
23	o	-0.869 1925	-4711	-0.443 7882	+7772	-0.192 4870	+3379
23	12	0.864 8393		0.450 6406		0.195 4589	
24	o	0.860 4209	4856	0.457 4595	7693	0.198 4163	3345
24	12	0.855 9378		0.464 2444		0.201 3591	
25	o	0.851 3901	5000	0.470 9947	7612	0.204 2868	3310
25	12	0.846 7782		0.477 7099		0.207 1994	
26	o	-0.842 1022	-5142	-0.484 3894	+7529	-0.210 0965	+3274
26	12	0.837 3625		0.491 0328		0.212 9780	
27	o	0.832 5593	5283	0.497 6394	7444	0.215 8435	3237
27	12	0.827 6931		0.504 2087		0.218 6930	
28	o	0.822 7539	5423	0.510 7401	7357	0.221 5261	3199
28	12	0.817 7724		0.517 2332		0.224 3425	
29	o	-0.812 7188	-5560	-0.523 6872	+7267	-0.227 1421	+3160
29	12	0.807 6033		0.530 1018		0.229 9247	
30	o	0.802 4263	5696	0.536 4764	7175	0.232 6899	3120
30	12	0.797 1884		0.542 8103		0.235 4375	
31	o	0.791 8896	5831	0.549 1031	7081	0.238 1672	3079
31	12	0.786 5307		0.555 3542		0.240 8789	
Nov. 1	o	-0.781 1118	-5963	-0.561 5631	+6985	-0.243 5723	+3037
1	12	0.775 6335		0.567 7295		0.246 2472	
2	o	0.770 0962	6094	0.573 8525	6886	0.248 9034	2994
2	12	0.764 5002		0.579 9318		0.251 5405	
3	o	0.758 8461	-6223	0.585 9669	+6786	0.254 1586	+2950
3	12	-0.753 1341		-0.591 9572		-0.256 7571	

Welt-Zeit		Mittleres Äquinoktium 1929.0					
		X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0
1929							
Nov.	3 12	-0.753 1341 5 7692		-0.591 9572 5 9452		-0.256 7571 2 5789	
	4 0	0.747 3649 5 8261	-6349	0.597 9024 5 8994	+6683	0.259 3360 2 5592	+2906
	4 12	0.741 5388 5 8824		0.603 8018 5 8533		0.261 8952 2 5390	
	5 0	0.735 6564 5 9384	6474	0.609 6551 5 8067	6579	0.264 4342 2 5189	2860
	5 12	0.729 7180 5 9937		0.615 4618 5 7596		0.266 9531 2 4984	
	6 0	0.723 7243 6 0487	6597	0.621 2214 5 7121	6472	0.269 4515 2 4778	2814
	6 12	-0.717 6756 6 1032		-0.626 9335 5 6641		-0.271 9293 2 4568	
	7 0	0.711 5724 6 1572	-6718	0.632 5976 5 6157	+6363	0.274 3861 2 4358	+2767
	7 12	0.705 4152 6 2108		0.638 2133 5 5668		0.276 8219 2 4147	
	8 0	0.699 2044 6 2638	6837	0.643 7801 5 5175	6253	0.279 2366 2 3933	2719
	8 12	0.692 9406 6 3162		0.649 2976 5 4679		0.281 6299 2 3716	
	9 0	0.686 6244 6 3684	6953	0.654 7655 5 4177	6140	0.284 0015 2 3499	2670
	9 12	-0.680 2560 6 4199		-0.660 1832 5 3672		-0.286 3514 2 3279	
10	0	0.673 8361 6 4710	-7068	0.665 5504 5 3163	+6026	0.288 6793 2 3058	+2620
10	12	0.667 3651 6 5216		0.670 8667 5 2649		0.290 9851 2 2835	
11	0	0.660 8435 6 5717	7180	0.676 1316 5 2133	5910	0.293 2686 2 2610	2570
11	12	0.654 2718 6 6211		0.681 3449 5 1611		0.295 5296 2 2384	
12	0	0.647 6507 6 6702	7290	0.686 5060 5 1087	5792	0.297 7680 2 2156	2519
12	12	-0.640 9805 6 7188		-0.691 6147 5 0558		-0.299 9836 2 1926	
13	0	0.634 2617 6 7668	-7398	0.696 6705 5 0025	+5672	0.302 1762 2 1696	+2467
13	12	0.627 4949 6 8143		0.701 6730 4 9492		0.304 3458 2 1463	
14	0	0.620 6806 6 8614	7504	0.706 6222 4 8952	5551	0.306 4921 2 1229	2414
14	12	0.613 8192 6 9078		0.711 5174 4 8409		0.308 6150 2 0994	
15	0	0.606 9114 6 9539	7608	0.716 3583 4 7862	5428	0.310 7144 2 0756	2360
15	12	-0.599 9575 6 9994		-0.721 1445 4 7313		-0.312 7900 2 0518	
16	0	0.592 9581 7 0445	-7709	0.725 8758 4 6761	+5304	0.314 8418 2 0278	+2306
16	12	0.585 9136 7 0890		0.730 5519 4 6204		0.316 8696 2 0037	
17	0	0.578 8246 7 1330	7808	0.735 1723 4 5645	5178	0.318 8733 1 9794	2251
17	12	0.571 6916 7 1766		0.739 7368 4 5080		0.320 8527 1 9550	
18	0	0.564 5150 7 2198	7904	0.744 2448 4 4515	5050	0.322 8077 1 9304	2195
18	12	-0.557 2952 7 2623		-0.748 6963 4 3946		-0.324 7381 1 9058	
19	0	0.550 0329 7 3046	-7998	0.753 0909 4 3371	+4921	0.326 6439 1 8810	+2139
19	12	0.542 7283 7 3461		0.757 4280 4 2795		0.328 5249 1 8559	
20	0	0.535 3822 7 3873	8090	0.761 7075 4 2214	4790	0.330 3808 1 8308	2082
20	12	0.527 9949 7 4279		0.765 9289 4 1630		0.332 2116 1 8055	
21	0	0.520 5670 7 4681	8179	0.770 0919 4 1043	4657	0.334 0171 1 7801	2025
21	12	-0.513 0989 7 5076		-0.774 1962 4 0451		-0.335 7972 1 7545	
22	0	0.505 5913 7 5468	-8266	0.778 2413 3 9858	+4523	0.337 5517 1 7287	+1967
22	12	0.498 0445 7 5853		0.782 2271 3 9258		0.339 2804 1 7028	
23	0	0.490 4592 7 6233	8350	0.786 1529 3 8657	4388	0.340 9832 1 6768	1908
23	12	0.482 8359 7 6609		0.790 0186 3 8051		0.342 6600 1 6505	
24	0	-0.475 1750	-8432	-0.793 8237	+4251	-0.344 3105	+1849

## Mittleres Äquinoktium 1929.0

Welt-Zeit		X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0			
1929										
Nov. 24	0 <sup>h</sup>	-0.475 1750	7 6978	-8432	-0.793 8237	3 7443	+4251	-0.344 3105	1 6242	+1849
24	12	0.467 4772	7 7341		0.797 5680	3 6830		0.345 9347	1 5977	
25	0	0.459 7431	7 7700	8511	0.801 2510	3 6215	4113	0.347 5324	1 5710	1789
25	12	0.451 9731	7 8052		0.804 8725	3 5595		0.349 1034	1 5441	
26	0	0.444 1679	7 8397	8587	0.808 4320	3 4973	3974	0.350 6475	1 5172	1728
26	12	0.436 3282	7 8738		0.811 9293	3 4347		0.352 1647	1 4900	
27	0	-0.428 4544	7 9073	-8661	-0.815 3640	3 3717	+3833	-0.353 6547	1 4629	+1667
27	12	0.420 5471	7 9399		0.818 7357	3 3086		0.355 1176	1 4354	
28	0	0.412 6072	7 9721	8732	0.822 0443	3 2451	3691	0.356 5530	1 4078	1605
28	12	0.404 6351	8 0035		0.825 2894	3 1812		0.357 9608	1 3802	
29	0	0.396 6316	8 0346	8801	0.828 4706	3 1171	3549	0.359 3410	1 3524	1543
29	12	0.388 5970	8 0647		0.831 5877	3 0527		0.360 6934	1 3243	
30	0	-0.380 5323	8 0944	-8866	-0.834 6404	2 9881	+3405	-0.362 0177	1 2963	+1481
30	12	0.372 4379	8 1233		0.837 6285	2 9230		0.363 3140	1 2682	
Dez. 1	0	0.364 3146	8 1515	8929	0.840 5515	2 8579	3260	0.364 5822	1 2399	1418
1	12	0.356 1631	8 1790		0.843 4094	2 7926		0.365 8221	1 2115	
2	0	0.347 9841	8 2061	8989	0.846 2020	2 7268	3114	0.367 0336	1 1830	1355
2	12	0.339 7780	8 2324		0.848 9288	2 6609		0.368 2166	1 1544	
3	0	-0.331 5456	8 2579	-9046	-0.851 5897	2 5948	+2968	-0.369 3710	1 1257	+1291
3	12	0.323 2877	8 2829		0.854 1845	2 5285		0.370 4967	1 0969	
4	0	0.315 0048	8 3072	9101	0.856 7130	2 4619	2820	0.371 5936	1 0680	1227
4	12	0.306 6976	8 3308		0.859 1749	2 3951		0.372 6616	1 0389	
5	0	0.298 3668	8 3536	9152	0.861 5700	2 3283	2672	0.373 7005	1 0099	1162
5	12	0.290 0132	8 3760		0.863 8983	2 2612		0.374 7104	9809	
6	0	-0.281 6372	8 3975	-9201	-0.866 1595	2 1941	+2522	-0.375 6913	9516	+1097
6	12	0.273 2397	8 4183		0.868 3536	2 1265		0.376 6429	9223	
7	0	0.264 8214	8 4386	9247	0.870 4801	2 0589	2371	0.377 5652	8930	1031
7	12	0.256 3828	8 4581		0.872 5390	1 9912		0.378 4582	8637	
8	0	0.247 9247	8 4770	9290	0.874 5302	1 9235	2220	0.379 3219	8341	966
8	12	0.239 4477	8 4952		0.876 4537	1 8554		0.380 1560	8045	
9	0	-0.230 9525	8 5127	-9330	-0.878 3091	1 7872	+2068	-0.380 9605	7749	+ 900
9	12	0.222 4398	8 5295		0.880 0963	1 7190		0.381 7354	7454	
10	0	0.213 9103	8 5458	9367	0.881 8153	1 6507	1916	0.382 4808	7157	833
10	12	0.205 3645	8 5612		0.883 4660	1 5822		0.383 1965	6860	
11	0	0.196 8033	8 5762	9402	0.885 0482	1 5137	1763	0.383 8825	6563	767
11	12	0.188 2271	8 5902		0.886 5619	1 4451		0.384 5388	6264	
12	0	-0.179 6369	8 6039	-9434	-0.888 0070	1 3763	+1610	-0.385 1652	5966	+ 700
12	12	0.171 0330	8 6167		0.889 3833	1 3075		0.385 7618	5668	
13	0	0.162 4163	8 6289	9463	0.890 6908	1 2387	1456	0.386 3286	5369	633
13	12	0.153 7874	8 6405		0.891 9295	1 1698		0.386 8655	5070	
14	0	0.145 1469	8 6516	-9488	0.893 0993	1 1008	+1302	0.387 3725	4771	+ 566
14	12	-0.136 4953			-0.894 2001			-0.387 8496		

## Mittleres Äquinoktium 1929.0

Welt-Zeit		X	Red. auf 1925.0	Y	Red. auf 1925.0	Z	Red. auf 1925.0
<b>1929</b>							
<b>Dez. 14</b>	<b>12<sup>h</sup></b>	-0.136 4953		-0.894 2001		-0.387 8496	
	15	0.127 8335	8 6618	0.895 2318	1 0317	0.388 2967	4471
	15	0.119 1620	8 6715	0.896 1944	9626	0.388 7139	4172
	16	0.110 4813	8 6807	0.897 0878	8934	0.389 1011	3872
	16	0.101 7922	8 6891	0.897 9120	8242	0.389 4584	3573
	17	0.093 0952	8 6970	0.898 6669	7549	0.389 7855	3271
	17	0.084 3910	8 7042	0.899 3524	6855	0.390 0826	2971
	18	0.075 6802	8 7108	0.899 9685	6161	0.390 3497	2671
	18	0.066 9634	8 7168	0.900 5151	5466	0.390 5866	2369
	19	0.058 2412	8 7222	0.900 9921	4770	0.390 7935	2069
	19	0.049 5141	8 7271	0.901 3995	4074	0.390 9701	1766
	20	0.040 7830	8 7311	0.901 7372	3377	0.391 1165	1464
	20	0.032 0483	8 7347	0.902 0050	2678	0.391 2327	1162
	21	0.023 3108	8 7375	0.902 2030	1980	0.391 3187	860
	21	0.014 5711	8 7397	0.902 3310	1280	0.391 3744	557
	22	-0.005 8299	8 7412	0.902 3890	580	0.391 3997	253
	22	+0.002 9122	8 7421	0.902 3770	120	0.391 3946	51
	23	0.011 6545	8 7423	0.902 2949	821	0.391 3592	354
	23	+0.020 3964	8 7419	0.902 1427	1522	0.391 2934	658
	24	0.029 1370	8 7406	0.901 9203	2224	0.391 1972	962
	24	0.037 8758	8 7388	0.901 6277	2926	0.391 0706	1266
	25	0.046 6120	8 7362	0.901 2648	3629	0.390 9135	1571
	25	0.055 3451	8 7331	0.900 8317	4331	0.390 7260	1875
	26	0.064 0741	8 7290	0.900 3283	5034	0.390 5080	2180
	26	+0.072 7985	8 7244	0.899 7547	5736	0.390 2595	2485
	27	0.081 5175	8 7190	0.899 1109	6438	0.389 9806	2789
	27	0.090 2304	8 7129	0.898 3968	7141	0.389 6712	3094
	28	0.098 9365	8 7061	0.897 6125	7843	0.389 3314	3398
	28	0.107 6350	8 6985	0.896 7582	8543	0.388 9611	3703
	29	0.116 3253	8 6903	0.895 8338	9244	0.388 5604	4007
	29	+0.125 0067	8 6814	0.894 8393	9945	0.388 1293	4311
	30	0.133 6783	8 6716	0.893 7749	1 0644	0.387 6679	4614
	30	0.142 3397	8 6614	0.892 6406	1 1343	0.387 1761	4918
	31	0.150 9899	8 6502	0.891 4366	1 2040	0.386 6540	5221
	31	0.159 6283	8 6384	0.890 1629	1 2737	0.386 1017	5523
	32	+0.168 2542	8 6259	0.888 8196	1 3433	0.385 5191	5826
	32						

Frühlingsäquinoktium	21. März	2 <sup>h</sup>	35 <sup>m</sup>	Herbstäquinoktium	23. Sept.	12 <sup>h</sup>	53 <sup>m</sup>
Sommerssolstitium	21. Juni	22	1	Wintersolstitium	22. Dez.	7	53

Perigäum	1. Jan.	8 <sup>h</sup>
Apogäum	4. Juli	22

Tag	O <sup>h</sup> Welt-Zeit			
	Aberration	Parallaxe	Mittlere Länge $L_{\odot}$	Mittlere Anomalie $M_{\odot}$
1929				
Jan. - 7	20.81	8.95	272.2809	350.56
+ 3	20.82	8.95	282.1374	0.42
13	20.81	8.95	291.9939	10.28
23	20.80	8.94	301.8503	20.13
Febr. 2	20.77	8.93	311.7068	29.99
12	20.73	8.91	321.5633	39.84
22	20.69	8.89	331.4198	49.70
März 4	20.64	8.87	341.2762	59.56
14	20.59	8.85	351.1327	69.41
24	20.53	8.83	0.9892	79.27
April 3	20.47	8.80	10.8457	89.12
13	20.41	8.77	20.7021	98.98
23	20.36	8.75	30.5586	108.84
Mai 3	20.30	8.73	40.4151	118.69
13	20.26	8.71	50.2715	128.55
23	20.22	8.69	60.1280	138.40
Juni 2	20.18	8.68	69.9845	148.26
12	20.16	8.67	79.8410	158.12
22	20.14	8.66	89.6974	167.97
Juli 2	20.13	8.66	99.5539	177.83
12	20.14	8.66	109.4104	187.68
22	20.15	8.66	119.2669	197.54
Aug. 1	20.17	8.67	129.1233	207.40
11	20.20	8.68	138.9798	217.25
21	20.24	8.70	148.8363	227.11
31	20.28	8.72	158.6928	236.96
Sept. 10	20.33	8.74	168.5492	246.82
20	20.39	8.76	178.4057	256.68
30	20.44	8.79	188.2622	266.53
Okt. 10	20.50	8.81	198.1186	276.39
20	20.56	8.84	207.9751	286.24
30	20.62	8.86	217.8316	296.10
Nov. 9	20.67	8.89	227.6881	305.96
19	20.72	8.91	237.5445	315.81
29	20.76	8.93	247.4010	325.67
Dez. 9	20.79	8.94	257.2575	335.52
19	20.81	8.94	267.1140	345.38
29	20.82	8.95	276.9704	355.24
39	20.81	8.95	286.8269	5.09

## Phasen des Mondes

1929	Welt-Zeit	
Jan. 2	18 <sup>h</sup> 44.4 <sup>m</sup>	Letztes Viertel
11	0 28.2	Neumond
18	15 15.1	Erstes Viertel
25	7 9.1	Vollmond
Febr. 1	14 10.4	Letztes Viertel
9	17 55.1	Neumond
17	0 22.5	Erstes Viertel
23	18 58.6	Vollmond
März 3	11 9.1	Letztes Viertel
11	8 36.6	Neumond
18	7 41.5	Erstes Viertel
25	7 46.3	Vollmond
April 2	7 29.0	Letztes Viertel
9	20 32.6	Neumond
16	14 9.2	Erstes Viertel
23	21 47.4	Vollmond
Mai 2	1 25.5	Letztes Viertel
9	6 7.3	Neumond
15	20 56.0	Erstes Viertel
23	12 49.9	Vollmond
31	16 13.0	Letztes Viertel
Juni 7	13 56.4	Neumond
14	5 14.5	Erstes Viertel
22	4 15.0	Vollmond
30	3 53.7	Letztes Viertel

1929	Welt-Zeit	
Juli 6	20 <sup>h</sup> 47.0 <sup>m</sup>	Neumond
13	16 5.0	Erstes Viertel
21	19 20.7	Vollmond
29	12 55.8	Letztes Viertel
Aug. 5	3 40.1	Neumond
12	6 1.4	Erstes Viertel
20	9 42.3	Vollmond
27	20 1.7	Letztes Viertel
Sept. 3	11 47.5	Neumond
10	22 57.1	Erstes Viertel
18	23 15.8	Vollmond
26	2 6.8	Letztes Viertel
Okt. 2	22 19.3	Neumond
10	18 5.2	Erstes Viertel
18	12 5.9	Vollmond
25	8 21.2	Letztes Viertel
Nov. 1	12 0.9	Neumond
9	14 9.8	Erstes Viertel
17	0 14.2	Vollmond
23	16 4.3	Letztes Viertel
Dec. 1	4 48.4	Neumond
9	9 41.7	Erstes Viertel
16	11 38.2	Vollmond
23	2 27.3	Letztes Viertel
30	23 41.7	Neumond

## Mond im Perigäum

1929	Welt-Zeit
Jan. 23	11.8 <sup>h</sup>
Febr. 20	6.5
März 17	14.4
April 12	21.5
Mai 10	20.1
Juni 8	3.5
Juli 6	13.0
Aug. 3	21.2
Aug. 31	22.9
Sept. 28	0.7
Okt. 22	22.0
Nov. 19	5.8
Dec. 17	12.1

## Mond im Apogäum

1929	Welt-Zeit
Jan. 7	15.7 <sup>h</sup>
Febr. 4	8.5
März 4	4.9
April 1	1.2
April 28	19.0
Mai 26	7.9
Juni 22	12.9
Juli 19	16.4
Aug. 16	3.0
Sept. 12	19.3
Okt. 10	14.7
Nov. 7	11.0
Dec. 5	5.4

Tag	0 <sup>h</sup> Welt-Zeit						
	Scheinbare Rektaszension	Scheinbare Deklination	Parallaxe	Halbmesser	Länge	Breite	
1929							
Jan.	0	10 37 32 <sup>50 3</sup>	+14 14.5 <sup>5 25.1</sup>	58 9.6 <sup>57.8</sup>	15 52.3 <sup>15.7</sup>	155.627	+5.156
	1	11 27 35 <sup>46 57</sup>	+ 8 49.4 <sup>5 37.4</sup>	57 11.8 <sup>53.2</sup>	15 36.6 <sup>14.5</sup>	169.075	+4.892
	2	12 14 32 <sup>45 4</sup>	+ 3 12.0 <sup>5 35.1</sup>	56 18.6 <sup>45.8</sup>	15 22.1 <sup>12.5</sup>	182.061	+4.382
	3	12 59 36 <sup>44 18</sup>	- 2 23.1 <sup>5 21.7</sup>	55 32.8 <sup>36.8</sup>	15 9.6 <sup>10.1</sup>	194.641	+3.673
	4	13 43 54 <sup>44 35</sup>	- 7 44.8 <sup>4 58.8</sup>	54 56.0 <sup>27.3</sup>	14 59.5 <sup>7.4</sup>	206.894	+2.812
	5	14 28 29 <sup>45 41</sup>	-12 43.6 <sup>4 26.7</sup>	54 28.7 <sup>17.7</sup>	14 52.1 <sup>4.8</sup>	218.904	+1.843
	6	15 14 10 <sup>47 28</sup>	-17 10.3 <sup>3 45.2</sup>	54 11.0 <sup>9.0</sup>	14 47.3 <sup>2.5</sup>	230.757	+0.807
	7	16 1 38 <sup>49 34</sup>	-20 55.5 <sup>2 53.6</sup>	54 2.0 <sup>1.1</sup>	14 44.8 <sup>0.3</sup>	242.532	-0.254
	8	16 51 12 <sup>51 35</sup>	-23 49.1 <sup>1 52.0</sup>	54 0.9 <sup>5.6</sup>	14 44.5 <sup>1.6</sup>	254.300	-1.301
	9	17 42 47 <sup>53 3</sup>	-25 41.1 <sup>0 42.4</sup>	54 6.5 <sup>11.2</sup>	14 46.1 <sup>3.0</sup>	266.118	-2.294
	10	18 35 50 <sup>53 38</sup>	-26 23.5 <sup>0 32.0</sup>	54 17.7 <sup>15.8</sup>	14 49.1 <sup>4.3</sup>	278.032	-3.192
	11	19 29 28 <sup>53 11</sup>	-25 51.5 <sup>1 46.3</sup>	54 33.5 <sup>19.7</sup>	14 53.4 <sup>5.4</sup>	290.076	-3.955
	12	20 22 39 <sup>51 55</sup>	-24 5.2 <sup>2 55.5</sup>	54 53.2 <sup>23.2</sup>	14 58.8 <sup>6.3</sup>	302.272	-4.546
	13	21 14 34 <sup>50 15</sup>	-21 9.7 <sup>3 55.9</sup>	55 16.4 <sup>26.5</sup>	15 5.1 <sup>7.2</sup>	314.634	-4.932
	14	22 4 49 <sup>48 41</sup>	-17 13.8 <sup>4 45.1</sup>	55 42.9 <sup>29.8</sup>	15 12.3 <sup>8.1</sup>	327.175	-5.087
	15	22 53 30 <sup>47 36</sup>	-12 28.7 <sup>5 22.1</sup>	56 12.7 <sup>33.1</sup>	15 20.4 <sup>9.1</sup>	339.905	-4.994
	16	23 41 6 <sup>47 20</sup>	- 7 6.6 <sup>5 46.4</sup>	56 45.8 <sup>36.3</sup>	15 29.5 <sup>9.9</sup>	352.839	-4.647
	17	0 28 26 <sup>48 6</sup>	- 1 20.2 <sup>5 57.1</sup>	57 22.1 <sup>39.0</sup>	15 39.4 <sup>10.6</sup>	5.998	-4.050
	18	1 16 32 <sup>50 1</sup>	+ 4 36.9 <sup>5 52.4</sup>	58 1.1 <sup>40.1</sup>	15 50.0 <sup>10.9</sup>	19.408	-3.222
	19	2 6 33 <sup>53 6</sup>	+10 29.3 <sup>5 29.0</sup>	58 41.2 <sup>39.1</sup>	16 0.9 <sup>10.7</sup>	33.095	-2.193
	20	2 59 39 <sup>57 5</sup>	+15 58.3 <sup>4 43.2</sup>	59 20.3 <sup>34.8</sup>	16 11.6 <sup>9.4</sup>	47.080	-1.013
	21	3 56 44 <sup>61 26</sup>	+20 41.5 <sup>3 31.9</sup>	59 55.1 <sup>26.7</sup>	16 21.0 <sup>7.3</sup>	61.365	+0.253
	22	4 58 10 <sup>64 57</sup>	+24 13.4 <sup>1 56.1</sup>	60 21.8 <sup>14.8</sup>	16 28.3 <sup>4.1</sup>	75.926	+1.525
	23	6 3 7 <sup>66 26</sup>	+26 9.5 <sup>0 4.5</sup>	60 36.6 <sup>0.1</sup>	16 32.4 <sup>0.1</sup>	90.699	+2.711
	24	7 9 33 <sup>65 15</sup>	+26 14.0 <sup>1 48.3</sup>	60 36.5 <sup>16.3</sup>	16 32.3 <sup>4.4</sup>	105.584	+3.719
	25	8 14 48 <sup>61 49</sup>	+24 25.7 <sup>3 25.4</sup>	60 20.2 <sup>31.3</sup>	16 27.9 <sup>8.5</sup>	120.446	+4.472
	26	9 16 37 <sup>57 19</sup>	+20 59.8 <sup>4 38.5</sup>	59 48.9 <sup>43.3</sup>	16 19.4 <sup>11.9</sup>	135.140	+4.918
	27	10 13 56 <sup>52 56</sup>	+16 21.3 <sup>5 23.9</sup>	59 5.6 <sup>51.0</sup>	16 7.5 <sup>13.8</sup>	149.533	+5.040
	28	11 6 52 <sup>49 22</sup>	+10 57.4 <sup>5 45.4</sup>	58 14.6 <sup>53.6</sup>	15 53.7 <sup>14.6</sup>	163.524	+4.853
	29	11 56 14 <sup>46 54</sup>	+ 5 12.0 <sup>5 48.0</sup>	57 21.0 <sup>51.9</sup>	15 39.1 <sup>14.2</sup>	177.063	+4.395
	30	12 43 8 <sup>45 33</sup>	- 0 36.0 <sup>5 36.2</sup>	56 29.1 <sup>46.4</sup>	15 24.9 <sup>12.6</sup>	190.145	+3.717
	31	13 28 41 <sup>45 15</sup>	- 6 12.2 <sup>5 13.3</sup>	55 42.7 <sup>38.4</sup>	15 12.3 <sup>10.5</sup>	202.807	+2.874
Febr.	1	14 13 56 <sup>45 53</sup>	-11 25.5 <sup>4 40.9</sup>	55 4.3 <sup>28.8</sup>	15 1.8 <sup>7.8</sup>	215.117	+1.918
	2	14 59 49 <sup>47 12</sup>	-16 6.4 <sup>3 59.4</sup>	54 35.5 <sup>18.6</sup>	14 54.0 <sup>5.1</sup>	227.158	+0.895
	3	15 47 1 <sup>49 8</sup>	-20 5.8 <sup>3 9.0</sup>	54 16.9 <sup>8.3</sup>	14 48.9 <sup>2.2</sup>	239.023	-0.151
	4	16 36 9 <sup>51 3</sup>	-23 14.8 <sup>2 9.3</sup>	54 8.6 <sup>1.4</sup>	14 46.7 <sup>0.3</sup>	250.806	-1.183
	5	17 27 12 <sup>52 42</sup>	-25 24.1 <sup>1 1.5</sup>	54 10.0 <sup>9.9</sup>	14 47.0 <sup>2.7</sup>	262.593	-2.163
	6	18 19 54 <sup>53 39</sup>	-26 25.6 <sup>0 12.3</sup>	54 19.9 <sup>17.1</sup>	14 49.7 <sup>4.7</sup>	274.402	-3.053
	7	19 13 33 <sup>53 38</sup>	-26 13.3 <sup>1 27.9</sup>	54 37.0 <sup>22.6</sup>	14 54.4 <sup>6.1</sup>	286.475	-3.817
	8	20 7 11 <sup>52 44</sup>	-24 45.4 <sup>2 40.6</sup>	54 59.6 <sup>26.5</sup>	15 0.5 <sup>7.2</sup>	298.678	-4.417
	9	20 59 55 <sup>51 18</sup>	-22 4.8 <sup>3 45.8</sup>	55 26.1 <sup>28.7</sup>	15 7.7 <sup>7.9</sup>	311.099	-4.819
	10	21 51 13	-18 19.0	55 54.8	15 15.6	323.747	-4.992



Tag	Obere Kulmination in Greenwich							0 <sup>h</sup> Länge, + 50° Breite				
	AR.	Ände- rung für 1 <sup>h</sup> westl. Länge	Dekl.	Ände- rung für 1 <sup>h</sup> westl. Länge	Parallaxe	Zeit des Durch- gangs	Ände- rung für 1 <sup>h</sup> westl. Länge	Auf- gang	Ände- rung für 1 <sup>h</sup> westl. Länge	Unter- gang	Ände- rung für 1 <sup>h</sup> westl. Länge	
1929												
Jan. 0	10 <sup>h</sup> 46 <sup>m</sup> 28 <sup>s</sup>	132 <sup>n</sup>	+13 <sup>c</sup> 19.9	-13.7	58.0	4 <sup>h</sup> 9 <sup>m</sup> 2.04 <sup>m</sup>	21 <sup>h</sup> 59 <sup>m</sup> 3.1 <sup>n</sup>	11 <sup>h</sup> 20 <sup>m</sup> 0.8 <sup>m</sup>				
1	11 37 27	123	+ 7 40.5	-14.4	57.0	4 56.0 1.88	23 14 3.0	11 37 0.7				
2	12 25 18	117	+ 1 52.3	-14.5	56.1	5 39.8 1.78	— —	11 52 0.6				
3	13 11 23	114	- 3 50.1	-14.0	55.4	6 21.8 1.74	0 25 2.9	12 6 0.6				
4	13 56 56	114	- 9 15.4	-13.1	54.8	7 3.3 1.73	1 34 2.9	12 21 0.7				
5	14 43 5	117	-14 13.7	-11.7	54.4	7 45.4 1.78	2 42 2.9	12 38 0.8				
6	15 30 43	122	-18 35.2	-10.0	54.1	8 29.0 1.85	3 51 2.9	12 58 0.9				
7	16 20 28	127	-22 9.0	- 7.8	54.0	9 14.7 1.95	5 0 2.8	13 23 1.2				
8	17 12 34	133	-24 44.0	- 5.1	54.0	10 2.7 2.05	6 6 2.7	13 54 1.5				
9	18 6 42	137	-26 9.4	- 2.0	54.2	10 52.7 2.12	7 8 2.4	14 36 2.0				
10	19 2 3	139	-26 17.3	+ 1.3	54.4	11 44.0 2.15	8 2 2.0	15 28 2.4				
11	19 57 29	138	-25 4.8	+ 4.7	54.7	12 35.4 2.12	8 46 1.6	16 29 2.7				
12	20 51 54	134	-22 35.1	+ 7.7	55.1	13 25.7 2.06	9 20 1.3	17 38 3.0				
13	21 44 35	129	-18 56.4	+10.4	55.5	14 14.3 1.99	9 47 1.0	18 50 3.1				
14	22 35 26	125	-14 20.4	+12.5	56.0	15 1.1 1.92	10 9 0.8	20 4 3.1				
15	23 24 52	122	- 9 0.4	+14.1	56.6	15 46.4 1.87	10 27 0.7	21 18 3.1				
16	0 13 39	122	- 3 10.0	+15.0	57.2	16 31.2 1.87	10 43 0.7	22 33 3.2				
17	1 2 55	125	+ 2 56.6	+15.4	57.8	17 16.4 1.91	10 59 0.7	23 50 3.2				
18	1 53 55	131	+ 9 3.4	+15.0	58.5	18 3.3 2.01	11 15 0.7	— —				
19	2 48 2	140	+14 51.2	+13.8	59.2	18 53.3 2.16	11 34 0.9	1 8 3.4				
20	3 46 25	152	+19 56.2	+11.4	59.8	19 47.6 2.36	11 58 1.1	2 31 3.5				
21	4 49 41	164	+23 50.0	+ 7.8	60.3	20 46.8 2.56	12 28 1.5	3 56 3.5				
22	5 57 9	172	+26 3.5	+ 3.1	60.6	21 50.1 2.70	13 11 2.1	5 20 3.3				
23	7 6 35	173	+26 16.2	- 2.1	60.6	22 55.5 2.72	14 9 2.7	6 36 2.9				
24	8 14 47	167	+24 25.7	- 7.0	60.3	23 59.5 2.60	15 22 3.2	7 38 2.2				
25	—	—	—	—	—	—	16 45 3.5	8 23 1.6				
26	9 19 5	154	+20 49.5	-10.8	59.8	0 59.7 2.40	18 11 3.5	8 56 1.2				
27	10 18 18	142	+15 56.8	-13.3	59.0	1 54.9 2.20	19 33 3.4	9 20 0.9				
28	11 12 41	131	+10 18.5	-14.7	58.1	2 45.2 2.00	20 52 3.2	9 39 0.8				
29	12 3 15	123	+ 4 20.6	-15.0	57.2	3 31.7 1.88	22 6 3.0	9 56 0.7				
30	12 51 17	118	- 1 36.9	-14.7	56.3	4 15.6 1.79	23 18 3.0	10 11 0.6				
31	13 38 3	116	- 7 19.3	-13.8	55.6	4 58.3 1.77	— —	10 26 0.6				
Febr. 1	14 24 42	117	-12 35.2	-12.5	54.9	5 40.9 1.79	0 29 2.9	10 42 0.7				
2	15 12 16	121	-17 14.7	-10.8	54.5	6 24.4 1.84	1 39 2.9	11 1 0.9				
3	16 1 30	126	-21 7.9	- 8.6	54.2	7 9.6 1.92	2 48 2.9	11 24 1.1				
4	16 52 51	131	-24 4.7	- 6.0	54.1	7 56.9 2.01	3 56 2.7	11 53 1.4				
5	17 46 18	136	-25 54.8	- 3.1	54.2	8 46.2 2.10	4 59 2.5	12 30 1.8				
6	18 41 21	139	-26 29.7	+ 0.2	54.4	9 37.2 2.14	5 56 2.2	13 19 2.2				
7	19 37 1	139	-25 44.1	+ 3.6	54.8	10 28.8 2.15	6 44 1.8	14 17 2.6				
8	20 32 14	137	-23 38.2	+ 6.9	55.2	11 19.9 2.10	7 21 1.4	15 25 2.9				
9	21 26 7	133	-20 17.9	+ 9.8	55.7	12 9.7 2.04	7 50 1.1	16 38 3.1				
10	22 18 15	128	-15 53.7	+12.2	56.2	12 57.8 1.97	8 14 0.9	17 52 3.1				

Tag	0 <sup>h</sup> Welt-Zeit					
	Scheinbare Rektaszension	Scheinbare Deklination	Parallaxe	Halbmesser	Länge	Breite
1929						
Febr. 10	21 51 13 <sup>h m s</sup> 49 43	-18° 19.0 <sup>°</sup> 4 40.1	55 54.8 <sup>29.6</sup>	15 15.6 <sup>8.0</sup>	323.747	-4.992
11	22 40 56 <sup>h m s</sup> 48 26	-13 38.9 <sup>5 21.2</sup>	56 24.4 <sup>29.4</sup>	15 23.6 <sup>8.1</sup>	336.616	-4.916
12	23 29 22 <sup>h m s</sup> 47 50	- 8 17.7 <sup>5 48.1</sup>	56 53.8 <sup>28.7</sup>	15 31.7 <sup>7.8</sup>	349.692	-4.582
13	0 17 12 <sup>h m s</sup> 48 6	- 2 29.6 <sup>5 59.9</sup>	57 22.5 <sup>27.6</sup>	15 39.5 <sup>7.5</sup>	2.955	-3.998
14	1 5 18 <sup>h m s</sup> 49 22	+ 3 30.3 <sup>5 55.4</sup>	57 50.1 <sup>26.2</sup>	15 47.0 <sup>7.1</sup>	16.387	-3.185
15	1 54 40 <sup>h m s</sup> 51 43	+ 9 25.7 <sup>5 33.0</sup>	58 16.3 <sup>24.6</sup>	15 54.1 <sup>6.7</sup>	29.980	-2.181
16	2 46 23 <sup>h m s</sup> 54 57	+14 58.7 <sup>4 50.6</sup>	58 40.9 <sup>22.3</sup>	16 0.8 <sup>6.1</sup>	43.733	-1.037
17	3 41 20 <sup>h m s</sup> 58 41	+19 49.3 <sup>3 46.4</sup>	59 3.2 <sup>19.0</sup>	16 6.9 <sup>5.2</sup>	57.649	+0.182
18	4 40 1 <sup>h m s</sup> 62 4	+23 35.7 <sup>2 20.7</sup>	59 22.2 <sup>13.8</sup>	16 12.1 <sup>3.8</sup>	71.731	+1.404
19	5 42 5 <sup>h m s</sup> 64 8	+25 56.4 <sup>0 38.6</sup>	59 36.0 <sup>6.8</sup>	16 15.9 <sup>1.8</sup>	85.970	+2.552
20	6 46 13 <sup>h m s</sup> 64 2	+26 35.0 <sup>1 9.2</sup>	59 42.8 <sup>2.3</sup>	16 17.7 <sup>0.6</sup>	100.337	+3.547
21	7 50 15 <sup>h m s</sup> 61 49	+25 25.8 <sup>2 49.7</sup>	59 40.5 <sup>12.6</sup>	16 17.1 <sup>3.5</sup>	114.775	+4.320
22	8 52 4 <sup>h m s</sup> 58 16	+22 36.1 <sup>4 11.8</sup>	59 27.9 <sup>23.2</sup>	16 13.6 <sup>6.3</sup>	129.203	+4.816
23	9 50 20 <sup>h m s</sup> 54 21	+18 24.3 <sup>5 9.7</sup>	59 4.7 <sup>32.7</sup>	16 7.3 <sup>8.9</sup>	143.519	+5.005
24	10 44 41 <sup>h m s</sup> 50 54	+13 14.6 <sup>5 43.6</sup>	58 32.0 <sup>39.9</sup>	15 58.4 <sup>10.9</sup>	157.621	+4.884
25	11 35 35 <sup>h m s</sup> 48 18	+ 7 31.0 <sup>5 55.8</sup>	57 52.1 <sup>43.9</sup>	15 47.5 <sup>11.9</sup>	171.418	+4.478
26	12 23 53 <sup>h m s</sup> 46 43	+ 1 35.2 <sup>5 50.6</sup>	57 8.2 <sup>44.3</sup>	15 35.6 <sup>12.1</sup>	184.853	+3.829
27	13 10 36 <sup>h m s</sup> 46 6	- 4 15.4 <sup>5 31.1</sup>	56 23.9 <sup>41.4</sup>	15 23.5 <sup>11.3</sup>	197.900	+2.994
28	13 56 42 <sup>h m s</sup> 46 24	- 9 46.5 <sup>5 0.1</sup>	55 42.5 <sup>35.5</sup>	15 12.2 <sup>9.6</sup>	210.573	+2.030
März 1	14 43 6 <sup>h m s</sup> 47 25	-14 46.6 <sup>4 19.1</sup>	55 7.0 <sup>27.4</sup>	15 2.6 <sup>7.5</sup>	222.916	+0.992
2	15 30 31 <sup>h m s</sup> 48 56	-19 5.7 <sup>3 28.8</sup>	54 39.6 <sup>17.8</sup>	14 55.1 <sup>4.8</sup>	234.998	-0.072
3	16 19 27 <sup>h m s</sup> 50 41	-22 34.5 <sup>2 29.8</sup>	54 21.8 <sup>7.4</sup>	14 50.3 <sup>2.1</sup>	246.901	-1.118
4	17 10 8 <sup>h m s</sup> 52 15	-25 4.3 <sup>1 23.2</sup>	54 14.4 <sup>3.1</sup>	14 48.2 <sup>0.9</sup>	258.715	-2.109
5	18 2 23 <sup>h m s</sup> 53 17	-26 27.5 <sup>0 10.7</sup>	54 17.5 <sup>13.1</sup>	14 49.1 <sup>3.5</sup>	270.534	-3.009
6	18 55 40 <sup>h m s</sup> 53 33	-26 38.2 <sup>1 4.8</sup>	54 30.6 <sup>22.0</sup>	14 52.6 <sup>6.0</sup>	282.443	-3.785
7	19 49 13 <sup>h m s</sup> 53 0	-25 33.4 <sup>2 18.9</sup>	54 52.6 <sup>29.3</sup>	14 58.6 <sup>8.0</sup>	294.523	-4.403
8	20 42 13 <sup>h m s</sup> 51 51	-23 14.5 <sup>3 28.0</sup>	55 21.9 <sup>34.5</sup>	15 6.6 <sup>9.4</sup>	306.836	-4.829
9	21 34 4 <sup>h m s</sup> 50 31	-19 46.5 <sup>4 28.2</sup>	55 56.4 <sup>37.1</sup>	15 16.0 <sup>10.1</sup>	319.426	-5.032
10	22 24 35 <sup>h m s</sup> 49 22	-15 18.3 <sup>5 16.5</sup>	56 33.5 <sup>37.2</sup>	15 26.1 <sup>10.2</sup>	332.314	-4.988
11	23 13 57 <sup>h m s</sup> 48 44	-10 1.8 <sup>5 50.7</sup>	57 10.7 <sup>34.7</sup>	15 36.3 <sup>9.4</sup>	345.497	-4.679
12	0 2 41 <sup>h m s</sup> 48 53	- 4 11.1 <sup>6 8.6</sup>	57 45.4 <sup>30.2</sup>	15 45.7 <sup>8.2</sup>	358.948	-4.107
13	0 51 34 <sup>h m s</sup> 49 57	+ 1 57.5 <sup>6 8.7</sup>	58 15.6 <sup>24.3</sup>	15 53.9 <sup>6.7</sup>	12.623	-3.289
14	1 41 31 <sup>h m s</sup> 52 0	+ 8 6.2 <sup>5 48.8</sup>	58 39.9 <sup>17.7</sup>	16 0.6 <sup>4.8</sup>	26.471	-2.267
15	2 33 31 <sup>h m s</sup> 54 50	+13 55.0 <sup>5 7.7</sup>	58 57.6 <sup>11.4</sup>	16 5.4 <sup>3.1</sup>	40.442	-1.098
16	3 28 21 <sup>h m s</sup> 58 7	+19 2.7 <sup>4 4.3</sup>	59 9.0 <sup>5.6</sup>	16 8.5 <sup>1.5</sup>	54.490	+0.147
17	4 26 28 <sup>h m s</sup> 61 8	+23 7.0 <sup>2 40.7</sup>	59 14.6 <sup>0.5</sup>	16 10.0 <sup>0.1</sup>	68.586	+1.389
18	5 27 36 <sup>h m s</sup> 62 58	+25 47.7 <sup>1 1.7</sup>	59 15.1 <sup>4.1</sup>	16 10.1 <sup>1.1</sup>	82.704	+2.549
19	6 30 34 <sup>h m s</sup> 62 57	+26 49.4 <sup>0 42.9</sup>	59 11.0 <sup>8.6</sup>	16 9.0 <sup>2.3</sup>	96.828	+3.555
20	7 33 31 <sup>h m s</sup> 61 1	+26 6.5 <sup>2 22.0</sup>	59 2.4 <sup>13.2</sup>	16 6.7 <sup>3.6</sup>	110.936	+4.342
21	8 34 32 <sup>h m s</sup> 57 50	+23 44.5 <sup>3 45.9</sup>	58 49.2 <sup>18.1</sup>	16 3.1 <sup>4.9</sup>	125.000	+4.865
22	9 32 22 <sup>h m s</sup> 54 14	+19 58.6 <sup>4 49.4</sup>	58 31.1 <sup>23.1</sup>	15 58.2 <sup>6.3</sup>	138.978	+5.095
23	10 26 36 <sup>h m s</sup>	+15 9.2	58 8.0	15 51.9	152.822	+5.024

Tag	Obere Kulmination in Greenwich							o <sup>h</sup> Länge, + 50° Breite				
	AR.	Ände- rung für 1 <sup>b</sup> westl. Länge	Dekl.	Ände- rung für 1 <sup>h</sup> westl. Länge	Parallaxe	Zeit des Durch- gangs	Ände- rung für 1 <sup>b</sup> westl. Länge	Auf- gang	Ände- rung für 1 <sup>b</sup> westl. Länge	Unter- gang	Ände- rung für 1 <sup>b</sup> westl. Länge	
1929												
Febr. 10	22 <sup>h</sup> 18 <sup>m</sup> 15 <sup>s</sup>	128 <sup>''</sup>	-15 <sup>°</sup> 53 <sup>'</sup>	+12.2	56.2	12 <sup>h</sup> 57.8 <sup>m</sup>	1.97 <sup>m</sup>	8 <sup>h</sup> 14 <sup>m</sup>	0.9 <sup>m</sup>	17 <sup>h</sup> 52 <sup>m</sup>	3.1 <sup>m</sup>	
11	23 8 47	125	-10 39.2	+13.9	56.7	13 44.2	1.91	8 33	0.8	19 8	3.2	
12	23 58 17	123	- 4 49.7	+15.1	57.2	14 29.7	1.89	8 50	0.7	20 24	3.2	
13	0 47 40	124	+ 1 18.7	+15.5	57.7	15 15.0	1.90	9 6	0.7	21 40	3.2	
14	1 38 3	128	+ 7 29.1	+15.2	58.1	16 1.3	1.97	9 22	0.7	22 58	3.3	
15	2 30 38	135	+13 22.7	+14.1	58.6	16 49.8	2.09	9 39	0.8	—	—	
16	3 26 32	145	+18 38.2	+12.0	59.0	17 41.6	2.24	10 0	1.0	0 19	3.4	
17	4 26 33	155	+22 51.7	+ 8.9	59.3	18 37.6	2.42	10 27	1.3	1 42	3.4	
18	5 30 34	164	+25 37.9	+ 4.8	59.6	19 37.5	2.57	11 4	1.8	3 4	3.3	
19	6 37 15	168	+26 36.1	0.0	59.7	20 40.0	2.63	11 54	2.4	4 22	3.0	
20	7 44 13	166	+25 36.9	- 4.9	59.7	21 42.9	2.59	12 59	3.0	5 26	2.4	
21	8 48 52	157	+22 47.3	- 9.1	59.5	22 43.4	2.45	14 17	3.4	6 17	1.8	
22	9 49 33	146	+18 28.3	-12.3	59.1	23 40.0	2.27	15 41	3.5	6 53	1.3	
23	—	—	—	—	—	—	—	17 5	3.4	7 20	1.0	
24	10 45 52	136	+13 7.1	-14.3	58.5	0 32.2	2.09	18 25	3.3	7 42	0.8	
25	11 38 21	127	+ 7 11.2	-15.2	57.8	1 20.7	1.95	19 43	3.2	7 59	0.7	
26	12 28 2	122	+ 1 4.0	-15.3	57.1	2 6.3	1.86	20 57	3.1	8 14	0.6	
27	13 16 4	119	- 4 55.8	-14.6	56.3	2 50.2	1.82	22 10	3.0	8 30	0.6	
28	14 3 33	119	-10 33.3	-13.4	55.6	3 33.7	1.81	23 22	3.0	8 45	0.7	
März 1	14 51 29	121	-15 36.2	-11.8	55.0	4 17.5	1.85	—	—	9 3	0.8	
2	15 40 39	125	-19 54.0	- 9.7	54.6	5 2.6	1.91	0 33	2.9	9 24	1.0	
3	16 31 35	130	-23 16.6	- 7.2	54.3	5 49.5	2.00	1 42	2.8	9 50	1.3	
4	17 24 26	134	-25 34.3	- 4.3	54.2	6 38.3	2.07	2 48	2.6	10 24	1.6	
5	18 18 54	138	-26 38.8	- 1.1	54.3	7 28.7	2.13	3 48	2.3	11 8	2.1	
6	19 14 17	139	-26 24.3	+ 2.3	54.6	8 20.0	2.14	4 39	1.9	12 3	2.5	
7	20 9 36	137	-24 48.8	+ 5.6	55.1	9 11.2	2.12	5 20	1.5	13 8	2.8	
8	21 4 2	134	-21 55.5	+ 8.8	55.6	10 1.6	2.07	5 52	1.2	14 19	3.0	
9	21 57 4	131	-17 52.1	+11.5	56.2	10 50.5	2.01	6 17	1.0	15 34	3.1	
10	22 48 38	127	-12 50.1	+13.6	56.9	11 38.0	1.95	6 38	0.8	16 50	3.2	
11	23 39 11	126	- 7 3.8	+15.1	57.5	12 24.5	1.93	6 55	0.7	18 7	3.2	
12	0 29 27	126	- 0 49.8	+15.9	58.0	13 10.7	1.93	7 12	0.7	19 25	3.3	
13	1 20 26	129	+ 5 33.2	+15.9	58.5	13 57.6	1.99	7 28	0.7	20 45	3.4	
14	2 13 13	135	+11 44.6	+14.9	58.9	14 46.3	2.08	7 45	0.8	22 6	3.4	
15	3 8 52	143	+17 21.4	+13.0	59.1	15 37.9	2.22	8 4	0.9	23 30	3.5	
16	4 8 4	153	+21 59.2	+10.0	59.2	16 33.0	2.38	8 29	1.2	—	—	
17	5 10 52	161	+25 13.6	+ 6.1	59.3	17 31.7	2.51	9 2	1.6	0 54	3.4	
18	6 16 11	165	+26 44.6	+ 1.5	59.2	18 32.9	2.57	9 47	2.2	2 14	3.1	
19	7 22 0	163	+26 22.2	- 3.3	59.1	19 34.6	2.55	10 47	2.8	3 22	2.5	
20	8 26 0	156	+24 10.4	- 7.6	58.9	20 34.5	2.43	12 0	3.2	4 15	1.9	
21	9 26 33	146	+20 25.3	-11.0	58.6	21 30.9	2.27	13 20	3.4	4 55	1.4	
22	10 23 4	137	+15 30.2	-13.4	58.2	22 23.4	2.11	14 42	3.4	5 24	1.1	
23	11 15 56	128	+ 9 49.6	-14.8	57.7	23 12.1	1.96	16 3	3.3	5 46	0.8	

Tag	0 <sup>h</sup> Welt-Zeit					
	Scheinbare Rektaszension	Scheinbare Deklination	Parallaxe	Halbmesser	Länge	Breite
1929						
März 23	10 <sup>h</sup> 26 <sup>m</sup> 36 <sup>s</sup> 50 <sup>m</sup> 59 <sup>s</sup>	+15° 9.2 5 31.1	58 8.0 27.9	15 51.9 7.6	152.822	+5.024
24	11 17 35 48 29	+ 9 38.1 5 52.4	57 40.1 31.8	15 44.3 8.7	166.477	+4.666
25	12 6 4 46 56	+ 3 45.7 5 55.6	57 8.3 34.2	15 35.6 9.3	179.893	+4.055
26	12 53 0 46 17	- 2 9.9 5 43.3	56 34.1 34.8	15 26.3 9.5	193.032	+3.238
27	13 39 17 46 31	- 7 53.2 5 17.2	55 59.3 33.1	15 16.8 9.0	205.875	+2.270
28	14 25 48 47 26	-13 10.4 4 39.5	55 26.2 28.9	15 7.8 7.9	218.427	+1.210
29	15 13 14 48 51	-17 49.9 3 50.9	54 57.3 22.8	14 59.9 6.2	230.714	+0.112
30	16 2 5 50 29	-21 40.8 2 53.0	54 34.5 14.8	14 53.7 4.0	242.782	-0.974
31	16 52 34 51 58	-24 33.8 1 47.0	54 19.7 5.5	14 49.7 1.5	254.696	-2.005
April 1	17 44 32 52 58	-26 20.8 0 35.3	54 14.2 4.7	14 48.2 1.2	266.529	-2.944
2	18 37 30 53 14	-26 56.1 0 39.3	54 18.9 15.0	14 49.4 4.1	278.366	-3.757
3	19 30 44 52 46	-26 16.8 1 53.3	54 33.9 25.1	14 53.5 6.9	290.291	-4.415
4	20 23 30 51 45	-24 23.5 3 3.4	54 59.0 34.0	15 0.4 9.2	302.389	-4.887
5	21 15 15 50 31	-21 20.1 4 6.7	55 33.0 41.1	15 9.6 11.2	314.734	-5.144
6	22 5 46 49 28	-17 13.4 5 0.3	56 14.1 45.5	15 20.8 12.4	327.390	-5.160
7	22 55 14 48 54	-12 13.1 5 42.3	56 59.6 46.7	15 33.2 12.7	340.398	-4.916
8	23 44 8 49 8	- 6 30.8 6 9.8	57 46.3 43.9	15 45.9 12.0	353.772	-4.400
9	0 33 16 50 15	- 0 21.0 6 19.8	58 30.2 37.4	15 57.9 10.2	7.499	-3.620
10	1 23 31 52 22	+ 5 58.8 6 8.9	59 7.6 27.9	16 8.1 7.6	21.531	-2.606
11	2 15 53 55 21	+12 7.7 5 34.2	59 35.5 16.4	16 15.7 4.5	35.800	-1.412
12	3 11 14 58 47	+17 41.9 4 34.1	59 51.9 4.6	16 20.2 1.2	50.220	-0.113
13	4 10 1 61 58	+22 16.0 3 10.2	59 56.5 6.4	16 21.4 1.7	64.701	+1.200
14	5 11 59 63 51	+25 26.2 1 28.6	59 50.1 15.3	16 19.7 4.2	79.163	+2.436
15	6 15 50 63 46	+26 54.8 0 19.4	59 34.8 21.7	16 15.5 5.9	93.538	+3.512
16	7 19 36 61 37	+26 35.4 2 1.5	59 13.1 25.8	16 9.6 7.0	107.775	+4.360
17	8 21 13 58 7	+24 33.9 3 27.7	58 47.3 28.4	16 2.6 7.7	121.842	+4.934
18	9 19 20 54 14	+21 6.2 4 33.3	58 19.1 29.3	15 54.9 8.0	135.716	+5.212
19	10 13 34 50 45	+16 32.9 5 18.0	57 49.8 29.7	15 46.9 8.1	149.383	+5.189
20	11 4 19 48 7	+11 14.9 5 43.4	57 20.1 29.8	15 38.8 8.1	162.834	+4.880
21	11 52 26 46 26	+ 5 31.5 5 52.1	56 50.3 29.5	15 30.7 8.0	176.062	+4.315
22	12 38 52 45 44	- 0 20.6 5 45.9	56 20.8 28.8	15 22.7 7.9	189.061	+3.534
23	13 24 36 45 58	- 6 6.5 5 26.1	55 52.0 27.4	15 14.8 7.5	201.832	+2.588
24	14 10 34 46 55	-11 32.6 4 53.8	55 24.6 25.1	15 7.3 6.8	214.378	+1.530
25	14 57 29 48 24	-16 26.4 4 9.5	54 59.5 21.6	15 0.5 5.9	226.714	+0.417
26	15 45 53 50 7	-20 35.9 3 14.4	54 37.9 16.6	14 54.6 4.5	238.862	-0.700
27	16 36 0 51 43	-23 50.3 2 10.1	54 21.3 10.3	14 50.1 2.8	250.856	-1.774
28	17 27 43 52 46	-26 0.4 0 59.2	54 11.0 2.5	14 47.3 0.7	262.741	-2.761
29	18 20 29 53 6	-26 59.6 0 15.0	54 8.5 6.5	14 46.6 1.8	274.573	-3.625
30	19 13 35 52 34	-26 44.6 1 28.7	54 15.0 16.0	14 48.4 4.4	286.416	-4.336
Mai 1	20 6 9 51 27	-25 15.9 2 38.6	54 31.0 26.1	14 52.8 7.1	298.342	-4.866
2	20 57 36 50 5	-22 37.3 3 41.9	54 57.1 35.7	14 59.9 9.7	310.429	-5.188
3	21 47 41	-18 55.4	55 32.8	15 9.6	322.752	-5.282

Tag	Obere Kulmination in Greenwich						o <sup>b</sup> Länge, + 50° Breite				
	AR.	Ände- rung für 1 <sup>h</sup> westl. Länge	Dekl.	Ände- rung für 1 <sup>h</sup> westl. Länge	Parallaxe	Zeit des Durch- gangs	Ände- rung für 1 <sup>h</sup> westl. Länge	Auf- gang	Ände- rung für 1 <sup>h</sup> westl. Länge	Unter- gang	Ände- rung für 1 <sup>h</sup> westl. Länge
1929											
März 23	11 <sup>h</sup> 15 <sup>m</sup> 56 <sup>s</sup>	128 <sup>s</sup>	+ 9° 49.6	-14.8	57.7	23 <sup>h</sup> 12.1 <sup>m</sup> 1.96 <sup>m</sup>	16 <sup>h</sup> 3 <sup>m</sup> 3.3 <sup>m</sup>	5 <sup>h</sup> 46 <sup>m</sup> 0.8 <sup>m</sup>			
24	12 6 1	123	+ 3 46.2	-15.3	57.1	23 58.2 1.87	17 21 3.2	6 4 0.7			
25	—	—	—	—	—	—	18 36 3.1	6 19 0.6			
26	12 54 22	120	- 2 20.3	-15.1	56.6	0 42.4 1.83	19 50 3.1	6 34 0.6			
27	13 42 3	119	- 8 13.0	-14.2	56.0	1 26.1 1.81	21 3 3.0	6 49 0.7			
28	14 30 2	121	-13 37.4	-12.7	55.4	2 10.0 1.85	22 15 3.0	7 6 0.8			
29	15 19 5	125	-18 20.7	-10.8	54.9	2 55.0 1.90	23 27 2.9	7 25 0.9			
30	16 9 44	129	-22 11.4	- 8.4	54.5	3 41.6 1.98	— —	7 49 1.1			
31	17 2 12	133	-24 59.1	- 5.5	54.3	4 29.9 2.06	0 35 2.7	8 20 1.5			
April 1	17 56 14	137	-26 35.0	- 2.4	54.2	5 19.9 2.11	1 38 2.5	8 59 1.9			
2	18 51 12	138	-26 53.2	+ 0.9	54.4	6 10.8 2.13	2 33 2.1	9 49 2.3			
3	19 46 16	137	-25 51.2	+ 4.2	54.7	7 1.8 2.11	3 18 1.7	10 50 2.7			
4	20 40 36	134	-23 30.8	+ 7.4	55.2	7 52.0 2.07	3 53 1.3	11 58 2.9			
5	21 33 40	131	-19 57.7	+10.3	55.8	8 41.0 2.01	4 20 1.0	13 11 3.1			
6	22 25 24	128	-15 20.6	+12.7	56.5	9 28.7 1.96	4 42 0.8	14 27 3.2			
7	23 16 10	126	- 9 51.1	+14.6	57.3	10 15.4 1.93	5 0 0.7	15 44 3.2			
8	0 6 38	127	- 3 43.3	+15.9	58.1	11 1.8 1.94	5 17 0.7	17 2 3.3			
9	0 57 48	130	+ 2 46.0	+16.4	58.8	11 48.9 1.99	5 32 0.7	18 22 3.4			
10	1 50 45	135	+ 9 15.7	+15.9	59.4	12 37.7 2.09	5 49 0.8	19 45 3.5			
11	2 46 35	144	+15 21.5	+14.4	59.8	13 29.5 2.23	6 8 0.9	21 11 3.6			
12	3 46 8	154	+20 35.4	+11.6	59.9	14 24.9 2.39	6 31 1.1	22 38 3.6			
13	4 49 29	162	+24 29.0	+ 7.7	59.9	15 24.2 2.54	7 1 1.5	— —			
14	5 55 37	167	+26 38.5	+ 3.0	59.7	16 26.2 2.61	7 43 2.0	0 2 3.3			
15	7 2 25	166	+26 51.2	- 1.9	59.3	17 28.9 2.59	8 39 2.6	1 16 2.8			
16	8 7 22	158	+25 10.0	- 6.4	58.9	18 29.7 2.46	9 48 3.1	2 15 2.1			
17	9 8 37	148	+21 51.3	-10.0	58.4	19 26.9 2.29	11 7 3.3	2 58 1.5			
18	10 5 31	137	+17 18.1	-12.6	57.9	20 19.7 2.12	12 28 3.4	3 29 1.1			
19	10 58 26	128	+11 54.5	-14.2	57.4	21 8.5 1.96	13 48 3.3	3 52 0.9			
20	11 48 19	122	+ 6 2.0	-15.0	56.9	21 54.3 1.86	15 6 3.2	4 11 0.7			
21	12 36 15	118	- 0 0.7	-15.1	56.4	22 38.2 1.81	16 20 3.1	4 26 0.6			
22	13 23 23	118	- 5 57.4	-14.5	55.9	23 21.3 1.79	17 34 3.0	4 41 0.6			
23	—	—	—	—	—	—	18 46 3.0	4 55 0.6			
24	14 10 43	119	-11 33.6	-13.4	55.4	0 4.6 1.82	19 59 3.0	5 11 0.7			
25	14 59 6	123	-16 35.6	-11.7	55.0	0 48.9 1.88	21 11 3.0	5 29 0.8			
26	15 49 8	128	-20 50.5	- 9.5	54.6	1 34.8 1.95	22 21 2.8	5 50 1.0			
27	16 41 4	132	-24 6.2	- 6.8	54.3	2 22.7 2.03	23 27 2.6	6 18 1.3			
28	17 34 43	136	-26 12.6	- 3.7	54.2	3 12.3 2.09	— —	6 54 1.7			
29	18 29 27	137	-27 2.4	- 0.4	54.1	4 2.9 2.12	0 26 2.2	7 40 2.1			
30	19 24 22	137	-26 32.4	+ 2.9	54.3	4 53.8 2.11	1 14 1.8	8 36 2.5			
Mai 1	20 18 33	134	-24 44.1	+ 6.1	54.6	5 43.9 2.06	1 53 1.4	9 41 2.8			
2	21 11 24	130	-21 42.7	+ 9.0	55.1	6 32.6 2.01	2 22 1.1	10 51 3.0			
3	22 2 44	127	-17 36.1	+11.5	55.8	7 19.9 1.94	2 46 0.9	12 4 3.1			

		0 <sup>h</sup> Welt-Zeit					
Tag	Scheinbare Rektaszension	Scheinbare Deklination	Parallaxe	Halbmesser	Länge	Breite	
1929							
Mai							
3	21 <sup>h</sup> 47 <sup>m</sup> 41 <sup>s</sup> 48 <sup>m</sup> 52 <sup>s</sup>	-18° 55.4	4 37.1	55 32.8	15 9.6	322.752	-5.282
4	22 36 33 48 10	-14 18.3	5 22.7	56 17.0	15 21.6	335.382	-5.126
5	23 24 43 48 14	- 8 55.6	5 56.7	57 7.6	15 35.4	348.380	-4.708
6	0 12 57 49 19	- 2 58.9	6 16.6	58 1.4	15 50.1	1.784	-4.024
7	1 2 16 51 28	+ 3 17.7	6 18.3	58 54.3	16 4.5	15.606	-3.089
8	1 53 44 54 41	+ 9 36.0	5 56.9	59 41.3	16 17.3	29.822	-1.939
9	2 48 25 58 39	+15 32.9	5 8.3	60 17.8	16 27.2	44.370	-0.638
10	3 47 4 62 38	+20 41.2	3 50.8	60 39.8	16 33.2	59.152	+0.727
11	4 49 42 65 30	+24 32.0	2 8.9	60 45.4	16 34.8	74.047	+2.052
12	5 55 12 66 6	+26 40.9	0 14.3	60 34.8	16 31.9	88.926	+3.237
13	7 1 18 64 8	+26 55.2	1 37.1	60 10.5	16 25.3	103.668	+4.195
14	8 5 26 60 18	+25 18.1	3 11.9	59 36.2	16 15.9	118.177	+4.868
15	9 5 44 55 48	+22 6.2	4 23.1	58 55.9	16 4.9	132.387	+5.226
16	10 1 32 51 38	+17 43.1	5 10.9	58 13.4	15 53.4	146.265	+5.270
17	10 53 10 48 24	+12 32.2	5 38.2	57 31.5	15 41.9	159.808	+5.017
18	11 41 34 46 17	+ 6 54.0	5 48.6	56 52.1	15 31.2	173.030	+4.501
19	12 27 51 45 16	+ 1 5.4	5 44.9	56 16.2	15 21.4	185.960	+3.766
20	13 13 7 45 15	- 4 39.5	5 28.8	55 44.3	15 12.7	198.633	+2.860
21	13 58 22 46 7	-10 8.3	5 0.8	55 16.5	15 5.2	211.084	+1.832
22	14 44 29 47 37	-15 9.1	4 21.3	54 52.7	14 58.7	223.349	+0.735
23	15 32 6 49 26	-19 30.4	3 30.4	54 33.0	14 53.3	235.490	-0.382
24	16 21 32 51 15	-23 0.8	2 29.1	54 17.6	14 49.1	247.450	-1.470
25	17 12 47 52 34	-25 29.9	1 20.0	54 6.9	14 46.2	259.350	-2.485
26	18 5 21 53 5	-26 49.9	0 6.1	54 1.8	14 44.8	271.197	-3.387
27	18 58 26 52 39	-26 56.0	1 7.9	54 2.9	14 45.1	283.028	-4.141
28	19 51 5 51 27	-25 48.1	2 18.1	54 11.4	14 47.4	294.891	-4.720
29	20 42 32 49 51	-23 30.0	3 21.3	54 28.1	14 52.0	306.839	-5.099
30	21 32 23 48 19	-20 8.7	4 16.0	54 53.6	14 58.9	318.930	-5.257
31	22 20 42 47 13	-15 52.7	5 1.7	55 28.2	15 8.3	331.229	-5.180
Juni							
1	23 7 55 46 54	-10 51.0	5 37.2	56 11.5	15 20.1	343.806	-4.856
2	23 54 49 47 32	- 5 13.8	6 1.4	57 2.1	15 33.9	356.726	-4.282
3	0 42 21 49 21	+ 0 47.6	6 11.7	57 57.8	15 49.1	10.044	-3.463
4	1 31 42 52 24	+ 6 59.3	6 3.2	58 54.9	16 4.7	23.797	-2.422
5	2 24 6 56 31	+13 2.5	5 30.7	59 48.6	16 19.3	37.993	-1.202
6	3 20 37 61 16	+18 33.2	4 28.8	60 33.4	16 31.5	52.597	+0.128
7	4 21 53 65 30	+23 2.0	2 57.0	61 4.0	16 39.8	67.530	+1.478
8	5 27 23 67 49	+25 59.0	1 2.3	61 16.6	16 43.3	82.665	+2.740
9	6 35 12 67 11	+27 1.3	0 58.6	61 9.8	16 41.4	97.849	+3.811
10	7 42 23 63 50	+26 2.7	2 47.5	60 44.9	16 34.6	112.917	+4.609
11	8 46 13 59 2	+23 15.2	4 11.6	60 5.8	16 24.0	127.724	+5.082
12	9 45 15 54 11	+19 3.6	5 8.0	59 17.5	16 10.8	142.162	+5.219
13	10 39 26	+13 55.6		58 25.1	15 56.5	156.173	+5.037

Tag	Obere Kulmination in Greenwich							0 <sup>h</sup> Länge, + 50° Breite			
	AR.	Ände- rung für 1 <sup>h</sup> westl. Länge	Dekl.	Ände- rung für 1 <sup>h</sup> westl. Länge	Parallaxe	Zeit des Durch- gangs	Ände- rung für 1 <sup>h</sup> westl. Länge	Auf- gang	Ände- rung für 1 <sup>h</sup> westl. Länge	Unter- gang	Ände- rung für 1 <sup>h</sup> westl. Länge
1929											
Mai											
3	22 <sup>h</sup> 2 <sup>m</sup> 44 <sup>a</sup>	127 <sup>s</sup>	-17° 36.1	+11.5	55.8	7 <sup>h</sup> 19 <sup>m</sup>	1.94	2 <sup>h</sup> 46 <sup>m</sup>	0.9	12 <sup>h</sup> 4 <sup>m</sup>	3.1
4	22 52 51	124	-12 33.9	+13.6	56.6	8 6.0	1.90	3 5	0.7	13 19	3.2
5	23 42 28	124	- 6 47.3	+15.2	57.5	8 51.5	1.90	3 21	0.7	14 36	3.2
6	0 32 32	127	- 0 29.3	+16.2	58.4	9 37.5	1.94	3 37	0.7	15 54	3.3
7	1 24 16	133	+ 6 2.9	+16.4	59.3	10 25.2	2.04	3 53	0.7	17 16	3.5
8	2 18 56	141	+12 27.7	+15.5	60.0	11 15.7	2.19	4 10	0.8	18 41	3.6
9	3 17 38	152	+18 17.2	+13.4	60.5	12 10.4	2.37	4 31	1.0	20 10	3.7
10	4 20 58	164	+22 59.1	+ 9.9	60.7	13 9.6	2.56	4 58	1.4	21 39	3.6
11	5 28 16	172	+26 1.8	+ 5.2	60.7	14 12.8	2.69	5 36	1.9	23 1	3.1
12	6 37 26	173	+27 3.4	- 0.1	60.3	15 17.8	2.71	6 27	2.5	—	—
13	7 45 22	166	+26 0.3	- 5.1	59.8	16 21.6	2.59	7 34	3.0	0 8	2.4
14	8 49 30	154	+23 7.4	- 9.1	59.1	17 21.7	2.40	8 53	3.4	0 58	1.8
15	9 48 38	142	+18 51.0	-12.0	58.4	18 16.7	2.19	10 16	3.4	1 33	1.3
16	10 42 57	131	+13 38.3	-13.9	57.7	19 6.9	2.01	11 37	3.3	1 59	1.0
17	11 33 28	123	+ 7 53.1	-14.8	57.0	19 53.4	1.88	12 55	3.2	2 19	0.8
18	12 21 25	118	+ 1 54.6	-15.0	56.4	20 37.3	1.79	14 10	3.1	2 35	0.6
19	13 8 6	116	- 4 1.7	-14.6	55.8	21 19.9	1.76	15 23	3.0	2 49	0.6
20	13 54 39	117	- 9 42.3	-13.7	55.3	22 2.4	1.78	16 34	3.0	3 3	0.6
21	14 42 5	120	-14 54.5	-12.2	54.9	22 45.7	1.84	17 46	3.0	3 18	0.7
22	15 31 6	125	-19 25.6	-10.3	54.6	23 30.7	1.91	18 58	3.0	3 35	0.8
23	—	—	—	—	—	—	—	20 9	2.9	3 55	0.9
24	16 22 10	130	-23 3.0	- 7.8	54.3	0 17.7	2.00	21 16	2.7	4 20	1.2
25	17 15 12	135	-25 35.2	- 4.8	54.1	1 6.7	2.07	22 18	2.4	4 52	1.5
26	18 9 40	137	-26 53.1	- 1.6	54.0	1 57.0	2.12	23 10	2.0	5 34	2.0
27	19 4 37	137	-26 51.8	+ 1.7	54.1	2 47.9	2.11	23 52	1.5	6 27	2.4
28	19 58 58	134	-25 31.5	+ 4.9	54.2	3 38.2	2.07	—	—	7 29	2.7
29	20 51 54	130	-22 57.3	+ 7.9	54.5	4 27.0	2.00	0 24	1.2	8 37	2.9
30	21 43 3	126	-19 17.2	+10.4	55.0	5 14.1	1.92	0 49	0.9	9 48	3.0
31	22 32 34	122	-14 41.2	+12.5	55.6	5 59.6	1.87	1 9	0.8	11 1	3.0
Juni											
1	23 21 4	121	- 9 19.6	+14.2	56.4	6 44.0	1.84	1 26	0.7	12 14	3.1
2	0 9 30	122	- 3 23.3	+15.4	57.3	7 28.4	1.87	1 42	0.6	13 30	3.2
3	0 59 1	126	+ 2 54.8	+16.0	58.3	8 13.8	1.93	1 57	0.6	14 47	3.3
4	1 51 0	134	+ 9 18.1	+15.8	59.3	9 1.7	2.06	2 13	0.7	16 9	3.5
5	2 46 50	146	+15 24.3	+14.5	60.1	9 53.5	2.26	2 31	0.9	17 36	3.7
6	3 47 42	159	+20 44.1	+11.9	60.8	10 50.2	2.48	2 55	1.2	19 5	3.7
7	4 53 50	171	+24 42.7	+ 7.8	61.2	11 52.3	2.68	3 27	1.6	20 33	3.4
8	6 3 55	178	+26 47.7	+ 2.5	61.3	12 58.2	2.79	4 12	2.2	21 50	2.9
9	7 14 54	176	+26 41.2	- 3.0	61.0	14 5.1	2.75	5 14	2.9	22 50	2.1
10	8 23 12	165	+24 28.2	- 7.9	60.4	15 9.3	2.58	6 31	3.4	23 32	1.5
11	9 26 29	151	+20 33.5	-11.5	59.6	16 8.4	2.34	7 56	3.5	—	—
12	10 24 10	138	+15 29.3	-13.7	58.7	17 2.0	2.13	9 21	3.5	0 2	1.1
13	11 17 2	127	+ 9 45.0	-14.8	57.8	17 50.8	1.95	10 42	3.3	0 24	0.8

Tag	Ob Welt-Zeit					
	Scheinbare Rektaszension	Scheinbare Deklination	Parallaxe	Halbmesser	Länge	Breite
1929						
Juni 13	10 <sup>h</sup> 39 <sup>m</sup> 26 <sup>s</sup> 50 <sup>m</sup> 8 <sup>s</sup>	+13° 55.6' 5 39.5	58 25.1 52.1	15 56.5 14.2	156.173	+5.037
14	11 29 34 47 16	+ 8 16.1 5 51.6	57 33.0 48.6	15 42.3 13.2	169.745	+4.575
15	12 16 50 45 38	+ 2 24.5 5 48.3	56 44.4 43.1	15 29.1 11.7	182.902	+3.884
16	13 2 28 45 9	- 3 23.8 5 32.8	56 1.3 36.4	15 17.4 10.0	195.694	+3.015
17	13 47 37 45 39	- 8 56.6 5 6.3	55 24.9 29.7	15 7.4 8.0	208.180	+2.021
18	14 33 16 46 56	-14 2.9 4 29.4	54 55.2 23.0	14 59.4 6.3	220.427	+0.954
19	15 20 12 48 43	-18 32.3 3 41.6	54 32.2 16.8	14 53.1 4.6	232.496	-0.139
20	16 8 55 50 37	-22 13.9 2 43.7	54 15.4 11.0	14 48.5 3.0	244.443	-1.214
21	16 59 32 52 13	-24 57.6 1 36.8	54 4.4 5.6	14 45.5 1.5	256.315	-2.226
22	17 51 45 53 2	-26 34.4 0 24.0	53 58.8 0.2	14 44.0 0.1	268.152	-3.137
23	18 44 47 52 53	-26 58.4 0 50.5	53 58.6 5.3	14 43.9 1.5	279.989	-3.911
24	19 37 40 51 48	-26 7.9 2 1.9	54 3.9 11.1	14 45.4 3.0	291.856	-4.516
25	20 29 28 50 8	-24 6.0 3 6.5	54 15.0 17.6	14 48.4 4.8	303.784	-4.927
26	21 19 36 48 19	-20 59.5 4 1.9	54 32.6 24.5	14 53.2 6.7	315.808	-5.124
27	22 7 55 46 50	-16 57.6 4 47.2	54 57.1 31.9	14 59.9 8.6	327.966	-5.094
28	22 54 45 45 59	-12 10.4 5 22.2	55 29.0 39.3	15 8.5 10.8	340.305	-4.830
29	23 40 44 46 3	- 6 48.2 5 46.6	56 8.3 46.2	15 19.3 12.5	352.878	-4.330
30	0 26 47 47 14	- 1 1.6 5 59.2	56 54.5 51.7	15 31.8 14.1	5.742	-3.603
Juli 1	1 14 1 49 39	+ 4 57.6 5 57.0	57 46.2 54.4	15 45.9 14.9	18.957	-2.667
2	2 3 40 53 17	+10 54.6 5 35.8	58 40.6 53.5	16 0.8 14.5	32.570	-1.554
3	2 56 57 57 58	+16 30.4 4 50.0	59 34.1 47.6	16 15.3 13.0	46.612	-0.317
4	3 54 55 62 55	+21 20.4 3 35.3	60 21.7 36.3	16 28.3 9.9	61.080	+0.976
5	4 57 50 66 51	+24 55.7 1 52.5	60 58.0 20.1	16 38.2 5.5	75.926	+2.234
6	6 4 41 68 20	+26 48.2 0 7.9	61 18.1 0.9	16 43.7 0.2	91.049	+3.357
7	7 13 1 66 40	+26 40.3 2 7.5	61 19.0 18.7	16 43.9 5.1	106.300	+4.248
8	8 19 41 62 36	+24 32.8 3 48.2	61 0.3 35.9	16 38.8 9.8	121.504	+4.836
9	9 22 17 57 39	+20 44.6 5 0.1	60 24.4 48.3	16 29.0 13.1	136.486	+5.081
10	10 19 56 53 1	+15 44.5 5 42.5	59 36.1 55.3	16 15.9 15.1	151.104	+4.986
11	11 12 57 49 25	+10 2.0 6 0.3	58 40.8 56.9	16 0.8 15.5	165.266	+4.585
12	12 2 22 47 6	+ 4 1.7 5 59.2	57 43.9 54.3	15 45.3 14.8	178.939	+3.931
13	12 49 28 45 59	- 1 57.5 5 43.7	56 49.6 48.4	15 30.5 13.2	192.139	+3.086
14	13 35 27 45 57	- 7 41.2 5 16.9	56 1.2 40.8	15 17.3 11.1	204.917	+2.110
15	14 21 24 46 49	-12 58.1 4 39.9	55 20.4 32.2	15 6.2 8.8	217.348	+1.060
16	15 8 13 48 20	-17 38.0 3 53.2	54 48.2 23.6	14 57.4 6.4	229.511	-0.017
17	15 56 33 50 8	-21 31.2 2 57.0	54 24.6 15.4	14 51.0 4.2	241.489	-1.074
18	16 46 41 51 49	-24 28.2 1 52.0	54 9.2 7.9	14 46.8 2.1	253.356	-2.073
19	17 38 30 52 54	-26 20.2 0 40.3	54 1.3 1.1	14 44.7 0.4	265.177	-2.976
20	18 31 24 53 5	-27 0.5 0 34.3	54 0.2 4.8	14 44.3 1.4	277.004	-3.749
21	19 24 29 52 16	-26 26.2 1 47.4	54 5.0 10.0	14 45.7 2.7	288.879	-4.361
22	20 16 45 50 45	-24 38.8 2 54.5	54 15.0 15.0	14 48.4 4.1	300.832	-4.784
23	21 7 30 48 54	-21 44.3 3 52.4	54 30.0 19.7	14 52.5 5.3	312.887	-4.997
24	21 56 24	-17 51.9	54 49.7	14 57.8	325.063	-4.986



Tag	Obere Kulmination in Greenwich						0 <sup>h</sup> Länge, + 50° Breite				
	AR.	Ände- rung für 1 <sup>h</sup> westl. Länge	Dekl.	Ände- rung für 1 <sup>h</sup> westl. Länge	Parallaxe	Zeit des Durch- gangs	Ände- rung für 1 <sup>h</sup> westl. Länge	Auf- gang	Ände- rung für 1 <sup>h</sup> westl. Länge	Unter- gang	Ände- rung für 1 <sup>h</sup> westl. Länge
1929											
Juni 13	11 <sup>h</sup> 17 <sup>m</sup> 2 <sup>s</sup>	127 <sup>s</sup>	+ 9° 45.0'	-14.8	57.8	17 <sup>h</sup> 50 <sup>m</sup> 8 <sup>s</sup>	1.95	10 <sup>h</sup> 42 <sup>m</sup>	3.3	0 <sup>h</sup> 24 <sup>m</sup>	0.8
14	12 6 23	120	+ 3 43.8	-15.1	56.9	18 36.1	1.84	11 59	3.1	0 42	0.7
15	12 53 39	117	- 2 16.8	-14.8	56.2	19 19.3	1.78	13 13	3.0	0 57	0.6
16	13 40 8	116	- 8 3.1	-14.0	55.5	20 1.7	1.77	14 25	3.0	1 11	0.6
17	14 27 1	118	-13 23.3	-12.6	55.0	20 44.6	1.81	15 36	3.0	1 26	0.6
18	15 15 11	123	-18 6.0	-10.8	54.6	21 28.7	1.88	16 48	3.0	1 41	0.7
19	16 5 17	128	-21 59.6	- 8.5	54.3	22 14.7	1.96	17 58	2.9	2 0	0.9
20	16 57 30	133	-24 52.4	- 5.8	54.1	23 2.8	2.05	19 7	2.8	2 24	1.1
21	17 51 29	137	-26 34.1	- 2.6	54.0	23 52.7	2.11	20 11	2.5	2 53	1.4
22	—	—	—	—	—	—	—	21 6	2.1	3 32	1.9
23	18 46 24	138	-26 57.9	+ 0.7	54.0	0 43.6	2.12	21 51	1.7	4 22	2.3
24	19 41 6	136	-26 2.0	+ 4.0	54.1	1 34.2	2.09	22 26	1.3	5 21	2.6
25	20 34 33	131	-23 50.1	+ 7.0	54.3	2 23.6	2.02	22 54	1.0	6 27	2.8
26	21 26 6	126	-20 30.4	+ 9.6	54.6	3 11.1	1.94	23 15	0.8	7 37	3.0
27	22 15 42	122	-16 13.3	+11.8	55.0	3 56.6	1.86	23 32	0.7	8 49	3.0
28	23 3 45	119	-11 10.1	+13.4	55.6	4 40.6	1.81	23 48	0.6	10 1	3.0
29	23 51 3	118	- 5 32.0	+14.7	56.3	5 23.8	1.80	—	—	11 14	3.1
30	0 38 41	121	+ 0 29.4	+15.4	57.1	6 7.4	1.84	0 2	0.6	12 28	3.1
Juli 1	1 27 57	126	+ 6 40.8	+15.5	58.0	6 52.6	1.93	0 17	0.7	13 45	3.3
2	2 20 16	136	+12 45.4	+14.8	59.0	7 40.8	2.09	0 34	0.8	15 7	3.5
3	3 17 3	149	+18 20.5	+13.0	59.9	8 33.5	2.31	0 54	1.0	16 33	3.6
4	4 19 19	163	+22 56.5	+ 9.8	60.6	9 31.7	2.54	1 21	1.3	18 1	3.6
5	5 26 57	175	+25 59.3	+ 5.2	61.2	10 35.2	2.73	1 58	1.9	19 24	3.2
6	6 38 1	179	+26 59.8	- 0.3	61.4	11 42.1	2.82	2 51	2.6	20 33	2.5
7	7 49 0	174	+25 46.2	- 5.8	61.2	12 49.0	2.73	4 2	3.2	21 24	1.8
8	8 56 27	162	+22 31.4	-10.3	60.7	13 52.3	2.53	5 26	3.6	22 0	1.3
9	9 58 31	148	+17 45.6	-13.3	59.9	14 50.3	2.30	6 54	3.6	22 26	1.0
10	10 55 6	136	+12 3.4	-15.0	59.0	15 42.8	2.08	8 20	3.5	22 46	0.8
11	11 47 16	126	+ 5 54.7	-15.6	58.0	16 30.9	1.93	9 42	3.3	23 2	0.6
12	12 36 25	120	- 0 17.7	-15.4	57.1	17 16.0	1.84	11 0	3.2	23 18	0.6
13	13 23 59	118	- 6 17.3	-14.5	56.2	17 59.5	1.80	12 14	3.0	23 32	0.6
14	14 11 14	119	-11 51.1	-13.2	55.5	18 42.7	1.81	13 26	3.0	23 48	0.7
15	14 59 14	122	-16 48.1	-11.5	54.9	19 26.6	1.86	14 38	3.0	—	—
16	15 48 47	126	-20 57.8	- 9.3	54.5	20 12.1	1.94	15 49	2.9	0 5	0.8
17	16 40 18	131	-24 9.4	- 6.6	54.2	20 59.5	2.02	16 58	2.8	0 27	1.0
18	17 33 43	135	-26 12.9	- 3.6	54.0	21 48.9	2.09	18 4	2.6	0 55	1.3
19	18 28 26	138	-27 0.2	- 0.3	54.0	22 39.5	2.12	19 2	2.2	1 30	1.7
20	19 23 23	137	-26 27.6	+ 3.0	54.1	23 30.4	2.11	19 50	1.8	2 17	2.1
21	—	—	—	—	—	—	—	20 28	1.4	3 13	2.5
22	20 17 29	133	-24 36.8	+ 6.2	54.3	0 20.4	2.05	20 58	1.1	4 18	2.8
23	21 9 53	128	-21 34.5	+ 8.9	54.5	1 8.7	1.97	21 20	0.9	5 28	3.0
24	22 0 13	123	-17 31.1	+11.2	54.9	1 55.0	1.89	21 39	0.7	6 40	3.0

Tag	O <sup>b</sup> Welt-Zeit					
	Scheinbare Rektaszension	Scheinbare Deklination	Parallaxe	Halbmesser	Länge	Breite
1929						
Juli 24	21 <sup>h</sup> 56 <sup>m</sup> 24 <sup>s</sup> 47 <sup>m</sup> 10 <sup>s</sup>	-17° 51.9 4 39.7	54 49.7 24.4	14 57.8 6.7	325.063	-4.986
25	22 43 34 45 57	-13 12.2 5 15.6	55 14.1 29.3	15 4.5 8.0	337.381	-4.744
26	23 29 31 45 31	-7 56.6 5 39.9	55 43.4 34.2	15 12.5 9.3	349.864	-4.273
27	0 15 2 46 5	-2 16.7 5 52.4	56 17.6 39.1	15 21.8 10.7	2.544	-3.585
28	1 1 7 47 46	+3 35.7 5 51.4	56 56.7 43.2	15 32.5 11.7	15.459	-2.702
29	1 48 53 50 39	+9 27.1 5 34.4	57 39.9 45.7	15 44.2 12.5	28.653	-1.657
30	2 39 32 54 38	+15 1.5 4 57.5	58 25.6 45.7	15 56.7 12.4	42.171	-0.494
31	3 34 10 59 20	+19 59.0 3 56.1	59 11.3 42.3	16 9.1 11.6	56.049	+0.728
Aug. 1	4 33 30 63 46	+23 55.1 2 28.6	59 53.6 34.6	16 20.7 9.4	70.300	+1.936
2	5 37 16 66 40	+26 23.7 0 39.1	60 28.2 22.4	16 30.1 6.0	84.904	+3.046
3	6 43 56 66 54	+27 2.8 1 19.7	60 50.6 6.6	16 36.1 1.9	99.794	+3.970
4	7 50 50 64 26	+25 43.1 3 10.3	60 57.2 10.9	16 38.0 3.0	114.853	+4.629
5	8 55 16 60 16	+22 32.8 4 38.1	60 46.3 27.8	16 35.0 7.6	129.930	+4.966
6	9 55 32 55 47	+17 54.7 5 36.5	60 18.5 41.6	16 27.4 11.3	144.855	+4.961
7	10 51 19 51 53	+12 18.2 6 6.5	59 36.9 51.0	16 16.1 13.9	159.477	+4.629
8	11 43 12 49 5	+6 11.7 6 12.9	58 45.9 55.1	16 2.2 15.0	173.685	+4.015
9	12 32 17 47 27	-0 1.2 6 0.9	57 50.8 54.4	15 47.2 14.9	187.421	+3.184
10	13 19 44 46 56	-6 2.1 5 34.8	56 56.4 50.0	15 32.3 13.6	200.681	+2.205
11	14 6 40 47 21	-11 36.9 4 57.3	56 6.4 42.7	15 18.7 11.6	213.503	+1.142
12	14 54 1 48 29	-16 34.2 4 10.1	55 23.7 33.7	15 7.1 9.2	225.956	+0.053
13	15 42 30 50 2	-20 44.3 3 13.8	54 50.0 24.1	14 57.9 6.5	238.122	-1.013
14	16 32 32 51 37	-23 58.1 2 9.3	54 25.9 14.5	14 51.4 4.0	250.091	-2.017
15	17 24 9 52 46	-26 7.4 0 58.3	54 11.4 5.3	14 47.4 1.4	261.948	-2.923
16	18 16 55 53 10	-27 5.7 0 16.5	54 6.1 3.0	14 46.0 0.8	273.772	-3.699
17	19 10 5 52 40	-26 49.2 1 30.8	54 9.1 10.0	14 46.8 2.7	285.631	-4.316
18	20 2 45 51 22	-25 18.4 2 40.6	54 19.1 15.9	14 49.5 4.3	297.578	-4.748
19	20 54 7 49 40	-22 37.8 3 42.5	54 35.0 20.5	14 53.8 5.6	309.652	-4.973
20	21 43 47 47 56	-18 55.3 4 33.9	54 55.5 24.0	14 59.4 6.6	321.879	-4.973
21	22 31 43 46 35	-14 21.4 5 13.4	55 19.5 26.7	15 6.0 7.2	334.272	-4.740
22	23 18 18 45 53	-9 8.0 5 40.4	55 46.2 28.8	15 13.2 7.9	346.838	-4.274
23	0 4 11 46 3	-3 27.6 5 54.5	56 15.0 30.4	15 21.1 8.3	359.581	-3.589
24	0 50 14 47 14	+2 26.9 5 54.2	56 45.4 31.8	15 29.4 8.6	12.506	-2.710
25	1 37 28 49 29	+8 21.1 5 38.4	57 17.2 32.9	15 38.0 9.0	25.625	-1.673
26	2 26 57 52 46	+13 59.5 5 4.0	57 50.1 33.2	15 47.0 9.0	38.955	-0.526
27	3 19 43 56 47	+19 3.5 4 8.6	58 23.3 32.4	15 56.0 8.9	52.520	+0.672
28	4 16 30 60 53	+23 12.1 2 50.4	58 55.7 29.8	16 4.9 8.1	66.340	+1.853
29	5 17 23 64 2	+26 2.5 1 11.5	59 25.5 24.6	16 13.0 6.7	80.426	+2.945
30	6 21 25 65 10	+27 14.0 0 39.7	59 50.1 16.5	16 19.7 4.5	94.769	+3.872
31	7 26 35 63 56	+26 34.3 2 29.8	60 6.6 5.7	16 24.2 1.5	109.326	+4.563
Sept. 1	8 30 31 60 50	+24 4.5 4 5.0	60 12.3 7.2	16 25.7 1.9	124.022	+4.961
2	9 31 21 56 58	+19 59.5 5 16.2	60 5.1 20.5	16 23.8 5.6	138.746	+5.032
3	10 28 19	+14 43.3	59 44.6	16 18.2	153.368	+4.774

Tag	Obere Kulmination in Greenwich						o <sup>h</sup> Länge, + 50° Breite				
	AR.	Ände- rung für r <sup>h</sup> westl. Länge	Dekl.	Ände- rung für r <sup>h</sup> westl. Länge	Parallaxe	Zeit des Durch- gangs	Ände- rung für r <sup>h</sup> westl. Länge	Auf- gang	Ände- rung für r <sup>h</sup> westl. Länge	Unter- gang	Ände- rung für r <sup>h</sup> westl. Länge
1929											
Juli 24	22 <sup>h</sup> 0 <sup>m</sup> 13 <sup>s</sup>	123 <sup>a</sup>	-17° 31.1	+11.2	54.9	1 <sup>h</sup> 55 <sup>m</sup> 1.89 <sup>m</sup>	21 <sup>h</sup> 39 <sup>m</sup> 0.7 <sup>m</sup>	6 <sup>h</sup> 40 <sup>m</sup> 3.0 <sup>m</sup>			
25	22 48 42	119	-12 38.8	+13.0	55.3	2 39.4 1.82	21 54 0.6	7 52 3.0			
26	23 35 55	117	- 7 10.0	+14.3	55.8	3 22.6 1.78	22 9 0.6	9 4 3.0			
27	0 22 49	118	- 1 17.1	+15.0	56.4	4 5.4 1.80	22 23 0.6	10 17 3.1			
28	1 10 32	121	+ 4 46.8	+15.2	57.1	4 49.1 1.85	22 38 0.7	11 31 3.2			
29	2 0 22	128	+10 47.0	+14.7	57.8	5 34.8 1.97	22 56 0.9	12 49 3.3			
30	2 53 41	139	+16 25.4	+13.3	58.6	6 24.1 2.14	23 19 1.1	14 11 3.5			
31	3 51 43	152	+21 18.5	+10.9	59.4	7 18.0 2.36	23 50 1.6	15 35 3.5			
Aug. 1	4 55 4	165	+24 57.6	+ 7.2	60.1	8 17.2 2.57	—	16 59 3.3			
2	6 3 2	174	+26 52.9	+ 2.3	60.6	9 21.1 2.73	0 34 2.2	18 13 2.8			
3	7 13 13	175	+26 42.6	- 3.2	60.9	10 27.2 2.75	1 36 2.9	19 12 2.1			
4	8 22 15	168	+24 24.3	- 8.2	60.9	11 32.1 2.63	2 54 3.4	19 55 1.5			
5	9 27 21	157	+20 16.5	-12.2	60.6	12 33.1 2.44	4 21 3.7	20 25 1.1			
6	10 27 24	144	+14 51.0	-14.7	59.9	13 29.0 2.23	5 50 3.6	20 48 0.9			
7	11 22 43	133	+ 8 41.2	-15.9	59.1	14 20.2 2.05	7 16 3.5	21 6 0.7			
8	12 14 24	126	+ 2 16.0	-16.0	58.2	15 7.9 1.93	8 38 3.3	21 22 0.6			
9	13 3 49	122	- 4 2.4	-15.4	57.2	15 53.2 1.86	9 55 3.2	21 36 0.6			
10	13 52 15	121	- 9 57.5	-14.1	56.4	16 37.6 1.85	11 10 3.1	21 52 0.7			
11	14 40 51	122	-15 16.4	-12.4	55.6	17 22.1 1.87	12 24 3.1	22 9 0.8			
12	15 30 30	126	-19 48.0	-10.2	55.0	18 7.7 1.93	13 37 3.0	22 29 1.0			
13	16 21 48	130	-23 22.2	- 7.6	54.5	18 54.9 2.00	14 48 2.9	22 55 1.2			
14	17 14 52	135	-25 49.4	- 4.6	54.2	19 43.9 2.08	15 56 2.7	23 28 1.6			
15	18 9 20	137	-27 1.9	- 1.4	54.1	20 34.3 2.12	16 57 2.3	—			
16	19 4 23	138	-26 54.6	+ 2.0	54.1	21 25.3 2.12	17 48 1.9	0 11 2.0			
17	19 58 58	135	-25 27.4	+ 5.2	54.3	22 15.8 2.09	18 29 1.5	1 4 2.4			
18	20 52 11	131	-22 45.1	+ 8.2	54.6	23 4.9 2.01	19 1 1.2	2 7 2.7			
19	21 43 31	126	-18 56.6	+10.7	54.9	23 52.2 1.93	19 25 0.9	3 16 2.9			
20	—	—	—	—	—	—	19 45 0.8	4 28 3.0			
21	22 32 57	121	-14 13.7	+12.7	55.3	0 37.5 1.85	20 1 0.6	5 41 3.0			
22	23 20 54	119	- 8 49.4	+14.2	55.8	1 21.4 1.81	20 16 0.6	6 54 3.1			
23	0 8 9	118	- 2 57.3	+15.1	56.3	2 4.6 1.79	20 30 0.6	8 8 3.1			
24	0 55 40	120	+ 3 8.5	+15.3	56.8	2 48.1 1.84	20 45 0.7	9 22 3.1			
25	1 44 37	125	+ 9 12.6	+14.9	57.4	3 33.0 1.92	21 2 0.8	10 38 3.3			
26	2 36 14	133	+14 57.6	+13.7	57.9	4 20.5 2.05	21 22 1.0	11 58 3.4			
27	3 31 39	144	+20 2.8	+11.6	58.5	5 11.8 2.23	21 49 1.3	13 20 3.4			
28	4 31 41	156	+24 4.0	+ 8.3	59.1	6 7.8 2.43	22 26 1.9	14 43 3.3			
29	5 36 10	166	+26 34.9	+ 4.1	59.6	7 8.1 2.59	23 19 2.5	15 59 2.9			
30	6 43 39	170	+27 13.2	- 0.9	59.9	8 11.5 2.67	—	17 2 2.3			
31	7 51 30	168	+25 49.0	- 6.0	60.2	9 15.2 2.63	0 28 3.2	17 50 1.7			
Sept. 1	8 57 1	159	+22 30.0	-10.4	60.2	10 16.6 2.48	1 51 3.6	18 24 1.2			
2	9 58 30	148	+17 38.7	-13.6	60.0	11 14.0 2.30	3 19 3.6	18 48 0.9			
3	10 55 39	138	+11 45.2	-15.6	59.5	12 7.1 2.13	4 46 3.6	19 9 0.8			

		0 <sup>h</sup> Welt-Zeit					
Tag	Scheinbare Rektaszension	Scheinbare Deklination	Parallaxe	Halbmesser	Länge	Breite	
1929							
Sept.							
3	10 <sup>h</sup> 28 <sup>m</sup> 19 <sup>s</sup>	+14 43.3	6 <sup>o</sup> 0.3	59 44.6	16 18.2	153.368	+4.774
4	11 21 38	+ 8 43.0	6 19.0	59 12.0	16 9.3	167.763	+4.214
5	12 12 7	+ 2 24.0	6 15.9	58 29.9	15 57.8	181.825	+3.408
6	13 0 48	- 3 51.9	5 55.1	57 42.3	15 44.9	195.489	+2.423
7	13 48 43	- 9 47.0	5 20.0	56 53.2	15 31.5	208.731	+1.333
8	14 36 48	-15 7.0	4 33.3	56 6.6	15 18.8	221.570	+0.204
9	15 25 45	-19 40.3	3 36.7	55 25.6	15 7.6	234.053	-0.906
10	16 16 3	-23 17.0	2 31.6	54 52.6	14 58.6	246.251	-1.951
11	17 7 45	-25 48.6	1 20.3	54 29.2	14 52.3	258.246	-2.892
12	18 0 34	-27 8.9	0 5.3	54 15.9	14 48.6	270.125	-3.698
13	18 53 49	-27 14.2	1 10.0	54 12.8	14 47.8	281.975	-4.344
14	19 46 42	-26 4.2	2 21.9	54 19.5	14 49.6	293.872	-4.804
15	20 38 29	-23 42.3	3 26.9	54 34.7	14 53.8	305.885	-5.058
16	21 28 42	-20 15.4	4 22.9	54 57.1	14 59.8	318.069	-5.087
17	22 17 17	-15 52.5	5 7.9	55 24.8	15 7.4	330.460	-4.881
18	23 4 32	-10 44.6	5 40.7	55 56.0	15 15.9	343.079	-4.435
19	23 51 3	+ 5 3.9	6 0.0	56 28.6	15 24.8	355.932	-3.757
20	0 37 38	+ 0 56.1	6 4.0	57 0.7	15 33.5	9.011	-2.870
21	1 25 11	+ 7 0.1	5 51.0	57 31.0	15 41.8	22.298	-1.812
22	2 14 44	+12 51.1	5 18.7	57 58.5	15 49.3	35.775	-0.637
23	3 7 12	+18 9.8	4 25.0	58 22.5	15 55.8	49.422	+0.592
24	4 3 16	+22 34.8	3 9.5	58 43.0	16 1.4	63.226	+1.803
25	5 3 1	+25 44.3	1 34.7	58 59.8	16 6.0	77.175	+2.920
26	6 5 38	+27 19.0	0 11.9	59 12.7	16 9.5	91.255	+3.872
27	7 9 25	+27 7.1	1 58.6	59 21.3	16 11.8	105.447	+4.595
28	8 12 15	+25 8.5	3 34.2	59 24.5	16 12.7	119.721	+5.039
29	9 12 24	+21 34.3	4 49.9	59 21.4	16 11.9	134.027	+5.172
30	10 9 4	+16 44.4	5 42.4	59 10.8	16 9.0	148.302	+4.985
Okt.	1 11 2 21	+11 2.0	6 11.5	58 52.0	16 3.9	162.469	+4.493
2	11 52 56	+ 4 50.5	6 19.1	58 25.4	15 56.6	176.450	+3.738
3	12 41 46	- 1 28.6	6 7.6	57 51.9	15 47.5	190.176	+2.777
4	13 29 51	- 7 36.2	5 39.6	57 13.7	15 37.1	203.596	+1.680
5	14 18 6	-13 15.8	4 57.3	56 33.4	15 26.1	216.684	+0.518
6	15 7 13	-18 13.1	4 2.8	55 54.0	15 15.4	229.443	-0.644
7	15 57 41	-22 15.9	2 58.3	55 18.4	15 5.7	241.899	-1.750
8	16 49 34	-25 14.2	1 46.5	54 49.0	14 57.7	254.101	-2.754
9	17 42 35	-27 0.7	0 30.7	54 27.9	14 51.9	266.113	-3.621
10	18 36 3	-27 31.4	0 45.6	54 16.4	14 48.8	278.010	-4.323
11	19 29 10	-26 45.8	1 58.6	54 15.2	14 48.4	289.872	-4.838
12	20 21 11	-24 47.2	3 5.4	54 24.5	14 51.0	301.781	-5.148
13	21 11 37	-21 41.8	4 4.2	54 43.8	14 56.2	313.814	-5.236
14	22 0 24	-17 37.6		55 12.0	15 3.9	326.042	-5.091

Tag	Obere Kulmination in Greenwich							0 <sup>h</sup> Länge, + 50° Breite				
	AR.	Ände- rung für 1 <sup>h</sup> westl. Länge	Dekl.	Ände- rung für 1 <sup>h</sup> westl. Länge	Parallaxe	Zeit des Durch- gangs	Ände- rung für 1 <sup>h</sup> westl. Länge	Auf- gang	Ände- rung für 1 <sup>h</sup> westl. Länge	Unter- gang	Ände- rung für 1 <sup>h</sup> westl. Länge	
1929												
Sept. 3	10 <sup>h</sup> 55 <sup>m</sup> 39 <sup>s</sup>	138 <sup>o</sup>	+11 <sup>o</sup> 45.2	-15.6	59.5	12 <sup>h</sup> 7.1 <sup>m</sup>	2.13 <sup>m</sup>	4 <sup>h</sup> 46 <sup>m</sup> 3.6 <sup>s</sup>	19 <sup>h</sup> 9 <sup>m</sup> 0.8 <sup>s</sup>			
4	11 49 9	130	+ 5 19.4	-16.4	58.8	12 56.5	2.00	6 10 3.4	19 25 0.7			
5	12 40 7	125	- 1 12.5	-16.2	58.1	13 43.4	1.92	7 31 3.3	19 41 0.6			
6	13 29 45	123	- 7 29.6	-15.2	57.2	14 29.0	1.88	8 49 3.2	19 56 0.6			
7	14 19 10	124	-13 15.0	-13.5	56.4	15 14.3	1.90	10 5 3.1	20 12 0.7			
8	15 9 19	127	-18 15.1	-11.4	55.6	16 0.4	1.95	11 20 3.1	20 31 0.9			
9	16 0 48	131	-22 18.4	- 8.8	55.0	16 47.8	2.01	12 34 3.0	20 54 1.1			
10	16 53 52	135	-25 15.0	- 5.9	54.6	17 36.8	2.07	13 44 2.8	21 25 1.5			
11	17 48 17	137	-26 57.0	- 2.6	54.3	18 27.2	2.12	14 48 2.5	22 4 1.8			
12	18 43 24	138	-27 19.1	+ 0.8	54.2	19 18.2	2.13	15 44 2.1	22 53 2.3			
13	19 38 17	136	-26 20.4	+ 4.1	54.3	20 9.0	2.10	16 28 1.6	23 53 2.7			
14	20 32 2	132	-24 4.0	+ 7.2	54.5	20 58.7	2.04	17 3 1.3	—			
15	21 24 7	128	-20 37.1	+10.0	54.9	21 46.7	1.96	17 30 1.0	1 1 2.9			
16	22 14 23	124	-16 9.8	+12.2	55.4	22 32.9	1.89	17 51 0.8	2 12 3.0			
17	23 3 10	121	-10 54.2	+14.0	55.9	23 17.6	1.84	18 8 0.7	3 26 3.1			
18	—	—	—	—	—	—	—	18 23 0.6	4 40 3.1			
19	23 51 6	120	- 5 3.5	+15.1	56.5	0 1.5	1.82	18 37 0.6	5 54 3.1			
20	0 39 6	121	+ 1 7.6	+15.7	57.0	0 45.4	1.84	18 52 0.6	7 9 3.2			
21	1 28 14	125	+ 7 22.7	+15.5	57.5	1 30.5	1.92	19 8 0.7	8 27 3.3			
22	2 19 37	132	+13 23.3	+14.4	58.0	2 17.8	2.03	19 26 0.9	9 47 3.4			
23	3 14 19	142	+18 48.0	+12.5	58.4	3 8.4	2.19	19 51 1.2	11 10 3.4			
24	4 13 6	152	+23 12.7	+ 9.4	58.8	4 3.1	2.37	20 25 1.7	12 32 3.3			
25	5 15 57	162	+26 12.5	+ 5.4	59.0	5 1.8	2.52	21 12 2.3	13 50 3.0			
26	6 21 43	166	+27 26.3	+ 0.7	59.3	6 3.5	2.60	22 14 2.9	14 57 2.5			
27	7 28 11	165	+26 42.9	- 4.3	59.4	7 5.8	2.58	23 31 3.4	15 48 1.8			
28	8 32 56	158	+24 5.9	- 8.7	59.4	8 6.5	2.46	—	16 25 1.3			
29	9 34 13	148	+19 52.5	-12.2	59.3	9 3.7	2.30	0 55 3.5	16 52 1.0			
30	10 31 32	138	+14 27.5	-14.7	59.1	9 56.9	2.14	2 21 3.5	17 13 0.8			
Okt. 1	11 25 20	131	+ 8 17.4	-16.0	58.7	10 46.6	2.02	3 45 3.4	17 30 0.7			
2	12 16 37	126	+ 1 47.5	-16.3	58.2	11 33.8	1.93	5 6 3.3	17 45 0.6			
3	13 6 30	124	- 4 40.0	-15.8	57.5	12 19.6	1.90	6 24 3.3	18 0 0.6			
4	13 56 5	124	-10 45.8	-14.6	56.9	13 5.2	1.90	7 42 3.2	18 16 0.7			
5	14 46 19	127	-16 13.5	-12.6	56.2	13 51.3	1.95	8 58 3.2	18 33 0.8			
6	15 37 50	131	-20 48.5	-10.2	55.5	14 38.8	2.01	10 14 3.1	18 54 1.0			
7	16 30 58	135	-24 18.7	- 7.3	55.0	15 27.8	2.08	11 27 3.0	19 22 1.3			
8	17 25 30	138	-26 34.7	- 4.0	54.6	16 18.3	2.12	12 36 2.7	19 57 1.7			
9	18 20 49	139	-27 30.5	- 0.6	54.3	17 9.5	2.14	13 36 2.3	20 43 2.1			
10	19 16 0	137	-27 4.2	+ 2.8	54.2	18 0.6	2.11	14 25 1.8	21 39 2.5			
11	20 10 8	133	-25 18.5	+ 6.0	54.4	18 50.7	2.05	15 4 1.4	22 43 2.8			
12	21 2 36	129	-22 20.0	+ 8.8	54.7	19 39.0	1.97	15 33 1.1	23 53 3.0			
13	21 53 14	124	-18 17.3	+11.3	55.1	20 25.6	1.91	15 55 0.9	—			
14	22 42 18	121	-13 20.9	+13.3	55.7	21 10.6	1.85	16 14 0.7	1 6 3.0			

Tag	0 <sup>h</sup> Welt-Zeit					
	Scheinbare Rektaszension	Scheinbare Deklination	Parallaxe	Halbmesser	Länge	Breite
1929						
Okt. 14	22 <sup>h</sup> 0 <sup>m</sup> 24 <sup>s</sup> 47 25	-17 37.6 4 53.4	55 12.0 35.2	15 3.9 9.6	326.042	-5.091
15	22 47 49 46 40	-12 44.2 5 32.2	55 47.2 39.9	15 13.5 10.9	338.522	-4.704
16	23 34 29 46 42	- 7 12.0 5 58.8	56 27.1 41.6	15 24.4 11.3	351.293	-4.078
17	0 21 11 47 41	- 1 13.2 6 11.0	57 8.7 40.3	15 35.7 11.0	4.376	-3.226
18	1 8 52 49 41	+ 4 57.8 6 5.9	57 49.0 35.9	15 46.7 9.8	17.768	-2.177
19	1 58 33 52 40	+11 3.7 5 40.2	58 24.9 29.0	15 56.5 7.9	31.445	-0.981
20	2 51 13 56 22	+16 43.9 4 50.8	58 53.9 20.5	16 4.4 5.6	45.362	+0.294
21	3 47 35 60 11	+21 34.7 3 36.9	59 14.4 11.6	16 10.0 3.1	59.465	+1.570
22	4 47 46 63 8	+25 11.6 2 1.5	59 26.0 3.2	16 13.1 0.9	73.689	+2.760
23	5 50 54 64 17	+27 13.1 0 13.2	59 29.2 4.0	16 14.0 1.1	87.973	+3.784
24	6 55 11 63 12	+27 26.3 1 35.5	59 25.2 9.9	16 12.9 2.7	102.260	+4.573
25	7 58 23 60 16	+25 50.8 3 12.4	59 15.3 14.3	16 10.2 3.9	116.501	+5.079
26	8 58 39 56 31	+22 38.4 4 29.6	59 1.0 17.9	16 6.3 4.9	130.656	+5.273
27	9 55 10 52 54	+18 8.8 5 24.5	58 43.1 21.1	16 1.4 5.7	144.691	+5.152
28	10 48 4 50 2	+12 44.3 5 57.9	58 22.0 23.9	15 55.7 6.5	158.577	+4.729
29	11 38 6 48 10	+ 6 46.4 6 11.9	57 58.1 26.8	15 49.2 7.3	172.288	+4.041
30	12 26 16 47 21	+ 0 34.5 6 8.0	57 31.3 29.2	15 41.9 8.0	185.799	+3.136
31	13 13 37 47 32	- 5 33.5 5 48.0	57 2.1 31.1	15 33.9 8.5	199.089	+2.075
Nov. 1	14 1 9 48 29	-11 21.5 5 13.1	56 31.0 31.8	15 25.4 8.6	212.144	+0.921
2	14 49 38 50 0	-16 34.6 4 24.4	55 59.2 30.9	15 16.8 8.4	224.954	-0.258
3	15 39 38 51 39	-20 59.0 3 23.5	55 28.3 28.2	15 8.4 7.7	237.524	-1.403
4	16 31 17 53 2	-24 22.5 2 13.2	55 0.1 23.6	15 0.7 6.4	249.868	-2.462
5	17 24 19 53 43	-26 35.7 0 57.1	54 36.5 17.1	14 54.3 4.7	262.015	-3.392
6	18 18 2 53 28	-27 32.8 0 20.2	54 19.4 8.9	14 49.6 2.4	274.007	-4.159
7	19 11 30 52 20	-27 12.6 1 34.6	54 10.5 0.4	14 47.2 0.1	285.898	-4.741
8	20 3 50 50 36	-25 38.0 2 42.4	54 10.9 10.6	14 47.3 2.9	297.751	-5.119
9	20 54 26 48 44	-22 55.6 3 42.1	54 21.5 21.1	14 50.2 5.5	309.640	-5.279
10	21 43 10 47 8	-19 13.5 4 32.7	54 42.6 31.2	14 55.9 8.7	321.641	-5.212
11	22 30 18 46 7	-14 40.8 5 14.2	55 13.8 40.1	15 4.4 10.9	333.832	-4.912
12	23 16 25 45 56	- 9 26.6 5 45.5	55 53.9 46.9	15 15.3 12.8	346.288	-4.378
13	0 2 21 46 46	- 3 41.1 6 5.2	56 40.8 50.8	15 28.1 13.9	359.072	-3.615
14	0 49 7 48 43	+ 2 24.1 6 10.5	57 31.6 50.8	15 42.0 13.8	12.231	-2.643
15	1 37 50 51 47	+ 8 34.6 5 56.7	58 22.4 46.3	15 55.8 12.6	25.789	-1.496
16	2 29 37 55 51	+14 31.3 5 18.9	59 8.7 37.4	16 8.4 10.2	39.737	-0.229
17	3 25 28 60 21	+19 50.2 4 13.6	59 46.1 25.1	16 18.6 6.8	54.029	+1.083
18	4 25 49 64 14	+24 3.8 2 40.9	60 11.2 10.8	16 25.4 3.0	68.588	+2.347
19	5 30 3 66 16	+26 44.7 0 48.8	60 22.0 3.5	16 28.4 1.0	83.306	+3.468
20	6 36 19 65 34	+27 33.5 1 8.1	60 18.5 16.0	16 27.4 4.3	98.063	+4.362
21	7 41 53 62 31	+26 25.4 2 53.5	60 2.5 25.5	16 23.1 7.0	112.743	+4.964
22	8 44 24 58 12	+23 31.9 4 17.1	59 37.0 31.7	16 16.1 8.6	127.247	+5.240
23	9 42 36 53 52	+19 14.8 5 15.3	59 5.3 34.8	16 7.5 9.5	141.505	+5.188
24	10 36 28	+13 59.5	58 30.5	15 58.0	155.480	+4.828

Tag	Obere Kulmination in Greenwich							0 <sup>h</sup> Länge, + 50° Breite				
	AR.	Ände- rung für 1 <sup>h</sup> westl. Länge	Dekl.	Ände- rung für 1 <sup>h</sup> westl. Länge	Parallaxe	Zeit des Durch- gangs	Ände- rung für 1 <sup>h</sup> westl. Länge	Auf- gang	Ände- rung für 1 <sup>h</sup> westl. Länge	Unter- gang	Ände- rung für 1 <sup>h</sup> westl. Länge	
1929												
Okt. 14	22 <sup>h</sup> 42 <sup>m</sup> 18 <sup>s</sup>	121 <sup>s</sup>	-13 <sup>m</sup> 20.9	+13.3	55.7	21 <sup>h</sup> 10.6 <sup>m</sup>	1.85	16 <sup>h</sup> 14 <sup>m</sup>	0.7	1 <sup>h</sup> 6 <sup>m</sup>	3.0	
15	23 30 26	120	- 7 42.2	+14.8	56.4	21 54.7	1.83	16 29	0.6	2 19	3.1	
16	0 18 32	121	- 1 34.0	+15.8	57.1	22 38.7	1.85	16 44	0.6	3 34	3.1	
17	1 7 39	125	+ 4 48.4	+16.0	57.8	23 23.8	1.91	16 58	0.6	4 49	3.2	
18	—	—	—	—	—	—	—	17 13	0.7	6 7	3.3	
19	1 58 56	132	+11 6.4	+15.4	58.4	0 11.0	2.03	17 31	0.9	7 28	3.4	
20	2 53 33	142	+16 57.5	+13.7	58.9	1 1.5	2.19	17 54	1.1	8 52	3.5	
21	3 52 18	152	+21 55.3	+10.9	59.3	1 56.2	2.37	18 24	1.5	10 18	3.5	
22	4 55 18	162	+25 31.8	+ 7.0	59.4	2 55.1	2.53	19 7	2.1	11 40	3.2	
23	6 1 28	168	+27 22.9	+ 2.2	59.5	3 57.1	2.63	20 6	2.7	12 52	2.7	
24	7 8 31	166	+27 15.1	- 2.8	59.4	5 0.1	2.60	21 19	3.2	13 48	2.0	
25	8 13 49	159	+25 10.9	- 7.4	59.2	6 1.3	2.49	22 41	3.5	14 29	1.5	
26	9 15 29	149	+21 27.0	-11.1	58.9	6 58.8	2.31	—	—	14 58	1.1	
27	10 12 53	138	+16 27.4	-13.7	58.6	7 52.1	2.14	0 5	3.5	15 20	0.8	
28	11 6 28	130	+10 37.4	-15.3	58.2	8 41.6	2.00	1 28	3.4	15 37	0.7	
29	11 57 16	124	+ 4 20.2	-16.0	57.8	9 28.4	1.91	2 48	3.3	15 52	0.6	
30	12 46 28	122	- 2 3.7	-15.9	57.3	10 13.5	1.87	4 6	3.2	16 6	0.6	
31	13 35 16	122	- 8 16.0	-15.0	56.8	10 58.2	1.87	5 22	3.2	16 21	0.6	
Nov. 1	14 24 40	125	-13 59.7	-13.5	56.3	11 43.6	1.91	6 38	3.2	16 37	0.8	
2	15 15 29	129	-18 59.2	-11.4	55.7	12 30.3	1.98	7 54	3.1	16 57	0.9	
3	16 8 5	134	-23 0.1	- 8.6	55.2	13 18.8	2.06	9 9	3.0	17 21	1.1	
4	17 2 25	138	-25 50.0	- 5.5	54.8	14 9.1	2.12	10 20	2.8	17 53	1.5	
5	17 57 53	139	-27 20.5	- 2.0	54.4	15 0.5	2.15	11 25	2.5	18 34	1.9	
6	18 53 28	138	-27 28.0	+ 1.4	54.2	15 52.0	2.13	12 19	2.0	19 26	2.4	
7	19 48 6	135	-26 14.3	+ 4.7	54.2	16 42.5	2.08	13 2	1.6	20 28	2.7	
8	20 40 58	130	-23 45.7	+ 7.6	54.3	17 31.3	1.99	13 34	1.2	21 35	2.9	
9	21 31 46	125	-20 11.2	+10.2	54.6	18 18.0	1.91	13 59	0.9	22 46	3.0	
10	22 20 41	120	-15 40.7	+12.3	55.1	19 2.9	1.84	14 18	0.7	23 58	3.0	
11	23 8 20	118	-10 24.5	+14.0	55.8	19 46.5	1.80	14 34	0.6	—	—	
12	23 55 37	119	- 4 33.1	+15.2	56.6	20 29.7	1.81	14 49	0.6	1 11	3.1	
13	0 43 38	122	+ 1 41.4	+15.9	57.4	21 13.7	1.86	15 3	0.6	2 25	3.1	
14	1 33 39	129	+ 8 3.8	+15.8	58.3	21 59.6	1.97	15 17	0.6	3 40	3.2	
15	2 26 58	138	+14 14.3	+14.8	59.1	22 48.9	2.14	15 34	0.8	5 0	3.4	
16	3 24 46	151	+19 46.7	+12.6	59.8	23 42.6	2.34	15 54	1.0	6 24	3.6	
17	—	—	—	—	—	—	—	16 22	1.4	7 51	3.6	
18	4 27 37	163	+24 9.8	+ 9.1	60.2	0 41.3	2.55	17 0	1.9	9 18	3.5	
19	5 34 49	172	+26 52.1	+ 4.3	60.4	1 44.4	2.69	17 54	2.6	10 38	3.0	
20	6 44 7	173	+27 31.5	- 1.1	60.3	2 49.6	2.71	19 5	3.2	11 43	2.3	
21	7 52 17	166	+26 4.0	- 6.1	60.0	3 53.6	2.60	20 27	3.5	12 29	1.6	
22	8 56 39	155	+22 45.4	-10.2	59.5	4 53.9	2.41	21 52	3.5	13 2	1.2	
23	9 56 2	142	+18 2.8	-13.1	58.9	5 49.2	2.20	23 16	3.4	13 26	0.9	
24	10 50 45	132	+12 24.8	-14.9	58.3	6 39.8	2.03	—	—	13 45	0.7	

Tag	0 <sup>h</sup> Welt-Zeit					
	Scheinbare Rektaszension	Scheinbare Deklination	Parallaxe	Halbmesser	Länge	Breite
1929						
Nov. 24	10 <sup>h</sup> 36 <sup>m</sup> 28 <sup>s</sup> 50 20	+13 59.5 5 50.3	58 30.5 35.6	15 58.0 9.7	155.480	+4.828
25	11 26 48 47 55	+ 8 9.2 6 5.7	57 54.9 34.6	15 48.3 9.4	169.160	+4.199
26	12 14 43 46 42	+ 2 3.5 6 4.3	57 20.3 33.0	15 38.9 9.0	182.555	+3.352
27	13 1 25 46 35	- 4 0.8 5 48.5	56 47.3 31.0	15 29.9 8.5	195.687	+2.344
28	13 48 0 47 25	- 9 49.3 5 18.9	56 16.3 28.9	15 21.4 7.8	208.580	+1.234
29	14 35 25 48 56	-15 8.2 4 36.3	55 47.4 26.7	15 13.6 7.3	221.260	+0.082
30	15 24 21 50 48	-19 44.5 3 40.9	55 20.7 24.1	15 6.3 6.6	233.751	-1.055
Dez. 1	16 15 9 52 31	-23 25.4 2 34.7	54 56.6 21.0	14 59.7 5.7	246.073	-2.126
2	17 7 40 53 38	-26 0.1 1 20.4	54 35.6 16.9	14 54.0 4.6	258.245	-3.084
3	18 1 18 53 44	-27 20.5 0 2.8	54 18.7 11.8	14 49.4 3.2	270.288	-3.892
4	18 55 2 52 47	-27 23.3 1 12.9	54 6.9 5.4	14 46.2 1.5	282.228	-4.521
5	19 47 49 51 1	-26 10.4 2 22.5	54 1.5 2.2	14 44.7 0.6	294.098	-4.951
6	20 38 50 48 55	-23 47.9 3 23.3	54 3.7 11.0	14 45.3 3.0	305.941	-5.168
7	21 27 45 46 57	-20 24.6 4 14.1	54 14.7 20.6	14 48.3 5.6	317.811	-5.164
8	22 14 42 45 28	-16 10.5 4 55.5	54 35.3 30.6	14 53.9 8.4	329.770	-4.937
9	23 0 10 44 49	-11 15.0 5 27.4	55 5.9 40.3	15 2.3 10.9	341.892	-4.488
10	23 44 59 45 10	- 5 47.6 5 49.8	55 46.2 48.9	15 13.2 13.3	354.254	-3.823
11	0 30 9 46 38	+ 0 2.2 6 0.8	56 35.1 55.1	15 26.5 15.1	6.934	-2.958
12	1 16 47 49 23	+ 6 3.0 5 57.3	57 30.2 58.0	15 41.6 15.8	20.004	-1.915
13	2 6 10 53 21	+12 0.3 5 34.0	58 28.2 56.2	15 57.4 15.3	33.519	-0.733
14	2 59 31 58 18	+17 34.3 4 44.9	59 24.4 48.8	16 12.7 13.3	47.504	+0.531
15	3 57 49 63 21	+22 19.2 3 25.9	60 13.2 36.1	16 26.0 9.8	61.941	+1.798
16	5 1 10 67 8	+25 45.1 1 39.1	60 49.3 19.0	16 35.8 5.2	76.761	+2.976
17	6 8 18 68 13	+27 24.2 0 23.7	61 8.3 0.0	16 41.0 0.0	91.845	+3.966
18	7 16 31 66 9	+27 0.5 2 23.0	61 8.3 18.2	16 41.0 4.9	107.032	+4.683
19	8 22 40 61 53	+24 37.5 4 1.7	60 50.1 33.1	16 36.1 9.1	122.149	+5.069
20	9 24 33 56 56	+20 35.8 5 11.5	60 17.0 43.4	16 27.0 11.8	137.037	+5.105
21	10 21 29 52 32	+15 24.3 5 52.5	59 33.6 48.6	16 15.2 13.2	151.578	+4.809
22	11 14 1 49 15	+ 9 31.8 6 9.9	58 45.0 49.6	16 2.0 13.5	165.707	+4.225
23	12 3 16 47 17	+ 3 21.9 6 8.5	57 55.4 47.2	15 48.5 12.9	179.410	+3.413
24	12 50 33 46 34	- 2 46.6 5 52.5	57 8.2 42.7	15 35.6 11.7	192.708	+2.437
25	13 37 7 46 54	- 8 39.1 5 23.9	56 25.5 37.3	15 23.9 10.1	205.651	+1.361
26	14 24 1 48 6	-14 3.0 4 43.4	55 48.2 31.5	15 13.8 8.6	218.299	+0.242
27	15 12 7 49 51	-18 46.4 3 51.7	55 16.7 26.0	15 5.2 7.1	230.712	-0.865
28	16 1 58 51 41	-22 38.1 2 49.2	54 50.7 20.7	14 58.1 5.6	242.944	-1.914
29	16 53 39 53 6	-25 27.3 1 38.0	54 30.0 15.8	14 52.5 4.3	255.043	-2.862
30	17 46 45 53 38	-27 5.3 0 21.6	54 14.2 11.0	14 48.2 3.0	267.044	-3.672
31	18 40 23 53 6	-27 26.9 0 54.8	54 3.2 6.2	14 45.2 1.7	278.976	-4.313
32	19 33 29	-26 32.1	53 57.0	14 43.5	290.861	-4.763



Tag	Obere Kulmination in Greenwich						o <sup>h</sup> Länge, + 50° Breite				
	AR.	Ände- rung für 1 <sup>h</sup> westl. Länge	Dekl.	Ände- rung für 1 <sup>h</sup> westl. Länge	Parallaxe	Zeit des Durch- gangs	Ände- rung für 1 <sup>h</sup> westl. Länge	Auf- gang	Ände- rung für 1 <sup>h</sup> westl. Länge	Unter- gang	Ände- rung für 1 <sup>h</sup> westl. Länge
1929											
Nov. 24	10 <sup>h</sup> 50 <sup>m</sup> 45 <sup>s</sup>	132 <sup>a</sup>	+12° 24.8	-14.9	58.3	6 <sup>h</sup> 39 <sup>m</sup> 2.0 <sup>s</sup>	2.03	—	—	13 <sup>h</sup> 45 <sup>m</sup>	0.7
25	11 41 52	124	+ 6 16.5	-15.7	57.7	7 26.8	1.90	0 36	3.4	14 0	0.6
26	12 30 44	120	— 0 1.8	-15.7	57.1	8 11.6	1.84	1 54	3.2	14 14	0.6
27	13 18 42	120	- 6 13.0	-15.1	56.6	8 55.5	1.83	3 9	3.1	14 28	0.6
28	14 6 57	122	-12 2.0	-13.9	56.1	9 39.7	1.86	4 24	3.1	14 44	0.7
29	14 56 27	126	-17 14.2	-12.0	55.6	10 25.2	1.93	5 38	3.1	15 1	0.8
30	15 47 51	131	-21 35.3	- 9.6	55.2	11 12.5	2.01	6 53	3.1	15 23	1.1
Dez. 1	16 41 18	136	-24 51.8	- 6.7	54.8	12 1.9	2.10	8 6	2.9	15 52	1.4
2	17 36 22	139	-26 52.8	- 3.4	54.4	12 52.9	2.15	9 13	2.6	16 30	1.8
3	18 32 7	139	-27 31.6	+ 0.1	54.2	13 44.5	2.15	10 11	2.2	17 18	2.2
4	19 27 18	136	-26 47.7	+ 3.5	54.0	14 35.6	2.10	10 58	1.7	18 16	2.6
5	20 20 50	131	-24 46.3	+ 6.6	54.0	15 25.1	2.02	11 34	1.3	19 22	2.8
6	21 12 6	125	-21 36.7	+ 9.2	54.2	16 12.3	1.92	12 2	1.0	20 31	2.9
7	22 1 6	120	-17 29.8	+11.3	54.5	16 57.2	1.83	12 22	0.8	21 42	2.9
8	22 48 17	116	-12 36.4	+13.1	54.9	17 40.3	1.77	12 40	0.7	22 52	3.0
9	23 34 30	115	- 7 6.7	+14.4	55.6	18 22.5	1.75	12 54	0.6	—	—
10	0 20 48	117	- 1 10.8	+15.2	56.4	19 4.7	1.78	13 8	0.6	0 4	3.0
11	1 8 28	122	+ 4 59.8	+15.6	57.3	19 48.3	1.86	13 21	0.6	1 16	3.1
12	1 58 54	131	+11 10.3	+15.2	58.3	20 34.7	2.01	13 36	0.7	2 32	3.2
13	2 53 34	143	+17 0.3	+13.8	59.3	21 25.3	2.21	13 54	0.9	3 52	3.4
14	3 53 39	157	+22 1.9	+11.1	60.2	22 21.3	2.46	14 18	1.2	5 16	3.6
15	4 59 29	171	+25 41.1	+ 6.9	60.8	23 23.0	2.67	14 50	1.6	6 45	3.6
16	—	—	—	—	—	—	—	15 37	2.3	8 10	3.3
17	6 9 40	179	+27 24.9	+ 1.6	61.1	0 29.1	2.81	16 42	3.0	9 25	2.7
18	7 21 2	177	+26 54.5	- 4.1	61.1	1 36.3	2.77	18 3	3.5	10 21	2.0
19	8 29 49	166	+24 14.9	- 9.0	60.8	2 41.0	2.60	19 31	3.7	11 1	1.4
20	9 33 36	152	+19 51.8	-12.6	60.2	3 40.6	2.37	21 0	3.6	11 29	1.0
21	10 31 49	139	+14 19.4	-14.8	59.4	4 34.8	2.15	22 23	3.4	11 50	0.8
22	11 25 21	129	+ 8 9.3	-15.8	58.6	5 24.2	1.98	23 43	3.3	12 7	0.7
23	12 15 34	123	+ 1 46.4	-15.9	57.7	6 10.4	1.88	—	—	12 22	0.6
24	13 3 59	120	- 4 30.4	-15.4	56.9	6 54.7	1.83	0 59	3.1	12 36	0.6
25	13 51 58	120	-10 26.0	-14.2	56.2	7 38.6	1.83	2 14	3.1	12 50	0.6
26	14 40 39	123	-15 47.2	-12.5	55.6	8 23.3	1.89	3 28	3.1	13 7	0.8
27	15 30 55	128	-20 21.5	-10.3	55.1	9 9.5	1.97	4 42	3.1	13 28	1.0
28	16 23 13	133	-23 56.4	- 7.6	54.7	9 57.7	2.05	5 55	3.0	13 54	1.3
29	17 17 24	137	-26 20.6	- 4.4	54.4	10 47.8	2.12	7 4	2.7	14 28	1.6
30	18 12 47	139	-27 25.5	- 1.0	54.1	11 39.1	2.15	8 5	2.3	15 13	2.1
31	19 8 11	138	-27 7.7	+ 2.4	54.0	12 30.4	2.12	8 55	1.9	16 8	2.5

Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kul- mination in Green- wich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Jan. 0	19 12 <sup>h</sup> 5.69 <sup>m</sup> 7 6.19 <sup>s</sup>	−24 32 23.0 11 26.8	0.141 7009	2 9328	12 37.1
1	19 19 11.88 7 5.51	24 20 56.2 13 0.7	0.138 7681	3 1828	12 40.2
2	19 26 17.39 7 4.53	24 7 55.5 14 35.0	0.135 5853	3 4449	12 43.4
3	19 33 21.92 7 3.20	23 53 20.5 16 9.2	0.132 1404	3 7199	12 46.5
4	19 40 25.12 7 1.49	23 37 11.3 17 43.2	0.128 4205	4 0092	12 49.6
5	19 47 26.61 6 59.35	23 19 28.1 19 16.9	0.124 4113	4 3141	12 52.7
6	19 54 25.96 6 56.72	−23 0 11.2 20 49.8	0.120 0972	4 6354	12 55.7
7	20 1 22.68 6 53.58	22 39 21.4 22 21.6	0.115 4618	4 9745	12 58.7
8	20 8 16.26 6 49.83	22 16 59.8 23 51.7	0.110 4873	5 3324	13 1.6
9	20 15 6.09 6 45.38	21 53 8.1 25 19.7	0.105 1549	5 7105	13 4.5
10	20 21 51.47 6 40.17	21 27 48.4 26 44.8	0.099 4444	6 1097	13 7.3
11	20 28 31.64 6 34.08	21 1 3.6 28 6.3	0.093 3347	6 5307	13 9.9
12	20 35 5.72 6 27.00	−20 32 57.3 29 23.4	0.086 8040	6 9738	13 12.5
13	20 41 32.72 6 18.79	20 3 33.9 30 35.1	0.079 8302	7 4396	13 14.9
14	20 47 51.51 6 9.29	19 32 58.8 31 40.0	0.072 3906	7 9275	13 17.2
15	20 54 0.80 5 58.34	19 1 18.8 32 36.9	0.064 4631	8 4360	13 19.3
16	20 59 59.14 5 45.78	18 28 41.9 33 24.3	0.056 0271	8 9632	13 21.2
17	21 5 44.92 5 31.40	17 55 17.6 34 0.4	0.047 0639	9 5061	13 22.9
18	21 11 16.32 5 14.97	−17 21 17.2 34 23.5	0.037 5578	10 0595	13 24.4
19	21 16 31.29 4 56.30	16 46 53.7 34 31.4	0.027 4983	10 6171	13 25.5
20	21 21 27.59 4 35.20	16 12 22.3 34 22.1	0.016 8812	11 1703	13 26.3
21	21 26 2.79 4 11.46	15 38 0.2 33 53.4	0.005 7109	11 7080	13 26.7
22	21 30 14.25 3 44.91	15 4 6.8 33 3.4	9.994 0029	12 2168	13 26.7
23	21 33 59.16 3 15.47	14 31 3.4 31 50.0	9.981 7861	12 6804	13 26.3
24	21 37 14.63 2 43.13	−13 59 13.4 30 11.7	9.969 1057	13 0801	13 25.3
25	21 39 57.76 2 7.93	13 29 1.7 28 7.4	9.956 0256	13 3944	13 23.8
26	21 42 5.69 1 30.06	13 0 54.3 25 36.6	9.942 6312	13 6001	13 21.6
27	21 43 35.75 0 49.91	12 35 17.7 22 39.9	9.929 0311	13 6730	13 18.8
28	21 44 25.66 0 8.02	12 12 37.8 19 19.0	9.915 3581	13 5892	13 15.3
29	21 44 33.68 0 34.91	11 53 18.8 15 36.3	9.901 7689	13 3264	13 11.1
30	21 43 58.77 1 17.94	−11 37 42.5 11 35.9	9.888 4425	12 8664	13 6.2
31	21 42 40.83 1 59.94	11 26 6.6 7 23.4	9.875 5761	12 1966	13 0.6
Febr. 1	21 40 40.89 2 39.68	11 18 43.2 3 5.2	9.863 3795	11 3132	12 54.3
2	21 38 1.21 3 15.86	11 15 38.0 1 11.1	9.852 0663	10 2225	12 47.4
3	21 34 45.35 3 47.18	11 16 49.1 5 17.7	9.841 8438	8 9424	12 40.0
4	21 30 58.17 4 12.46	11 22 6.8 9 6.8	9.832 9014	7 5019	12 32.1
5	21 26 45.71 4 30.79	−11 31 13.6 12 31.4	9.825 3995	5 9407	12 23.8
6	21 22 14.92 4 41.57	11 43 45.0 15 25.8	9.819 4588	4 3664	12 15.3
7	21 17 33.35 4 44.60	11 59 10.8 17 46.5	9.815 1524	2 6500	12 6.7
8	21 12 48.75 4 40.09	12 16 57.3 19 31.8	9.812 5024	1 0217	11 58.1
9	21 8 8.66 4 28.63	12 36 29.1 20 41.8	9.811 4807	5331	11 49.6
10	21 3 40.03	−12 57 10.9	9.812 0138		11 41.3

Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Febr. 10	21 <sup>h</sup> 3 <sup>m</sup> 40.03 <sup>s</sup> <small>4 11.10</small>	—12° 57' 10.9" <small>21 18.9</small>	9.812 0138	<small>1 9764</small> <sup>h m</sup> II 41.3
11	20 59 28.93 <small>3 48.53</small>	13 18 29.8 <small>21 26.4</small>	9.813 9902	<small>3 2810</small> II 33.4
12	20 55 40.40 <small>3 22.08</small>	13 39 56.2 <small>21 8.1</small>	9.817 2712	<small>4 4301</small> II 25.9
13	20 52 18.32 <small>2 52.91</small>	14 1 4.3 <small>20 28.6</small>	9.821 7013	<small>5 4165</small> II 18.9
14	20 49 25.41 <small>2 22.04</small>	14 21 32.9 <small>19 32.0</small>	9.827 1178	<small>6 2415</small> II 12.3
15	20 47 3.37 <small>1 50.38</small>	14 41 4.9 <small>18 22.2</small>	9.833 3593	<small>6 9130</small> II 6.3
16	20 45 12.99 <small>1 18.70</small>	—14 59 27.1 <small>17 2.3</small>	9.840 2723	<small>7 4426</small> II 0.8
17	20 43 54.29 <small>0 47.59</small>	15 16 29.4 <small>15 35.3</small>	9.847 7149	<small>7 8452</small> IO 55.8
18	20 43 6.70 <small>0 17.52</small>	15 32 4.7 <small>14 3.4</small>	9.855 5601	<small>8 1363</small> IO 51.3
19	20 42 49.18 <small>0 11.25</small>	15 46 8.1 <small>12 28.2</small>	9.863 6964	<small>8 3314</small> IO 47.3
20	20 43 0.43 <small>0 38.49</small>	15 58 36.3 <small>10 51.1</small>	9.872 0278	<small>8 4453</small> IO 43.7
21	20 43 38.92 <small>1 4.08</small>	16 9 27.4 <small>9 12.8</small>	9.880 4731	<small>8 4917</small> IO 40.6
22	20 44 43.00 <small>1 28.00</small>	—16 18 40.2 <small>7 34.5</small>	9.888 9648	<small>8 4824</small> IO 37.9
23	20 46 11.00 <small>1 50.22</small>	16 26 14.7 <small>5 56.3</small>	9.897 4472	<small>8 4281</small> IO 35.6
24	20 48 1.22 <small>2 10.82</small>	16 32 11.0 <small>4 18.5</small>	9.905 8753	<small>8 3378</small> IO 33.7
25	20 50 12.04 <small>2 29.85</small>	16 36 29.5 <small>2 41.7</small>	9.914 2131	<small>8 2192</small> IO 32.1
26	20 52 41.89 <small>2 47.38</small>	16 39 11.2 <small>1 5.8</small>	9.922 4323	<small>8 0788</small> IO 30.8
27	20 55 29.27 <small>3 3.52</small>	16 40 17.0 <small>0 29.0</small>	9.930 5111	<small>7 9221</small> IO 29.7
28	20 58 32.79 <small>3 18.36</small>	—16 39 48.0 <small>2 2.9</small>	9.938 4332	<small>7 7537</small> IO 28.9
März 1	21 1 51.15 <small>3 31.99</small>	16 37 45.1 <small>3 35.5</small>	9.946 1869	<small>7 5769</small> IO 28.4
2	21 5 23.14 <small>3 44.50</small>	16 34 9.6 <small>5 6.9</small>	9.953 7638	<small>7 3947</small> IO 28.1
3	21 9 7.64 <small>3 55.99</small>	16 29 2.7 <small>6 37.4</small>	9.961 1585	<small>7 2096</small> IO 28.0
4	21 13 3.63 <small>4 6.57</small>	16 22 25.3 <small>8 6.7</small>	9.968 3681	<small>7 0234</small> IO 28.1
5	21 17 10.20 <small>4 16.28</small>	16 14 18.6 <small>9 34.9</small>	9.975 3915	<small>6 8376</small> IO 28.3
6	21 21 26.48 <small>4 25.21</small>	—16 4 43.7 <small>11 2.2</small>	9.982 2291	<small>6 6535</small> IO 28.7
7	21 25 51.69 <small>4 33.44</small>	15 53 41.5 <small>12 28.4</small>	9.988 8826	<small>6 4717</small> IO 29.2
8	21 30 25.13 <small>4 41.03</small>	15 41 13.1 <small>13 53.6</small>	9.995 3543	<small>6 2929</small> IO 29.9
9	21 35 6.16 <small>4 48.04</small>	15 27 19.5 <small>15 17.8</small>	0.001 6472	<small>6 1177</small> IO 30.7
10	21 39 54.20 <small>4 54.54</small>	15 12 1.7 <small>16 41.1</small>	0.007 7649	<small>5 9464</small> IO 31.6
11	21 44 48.74 <small>5 0.56</small>	14 55 20.6 <small>18 3.5</small>	0.013 7113	<small>5 7791</small> IO 32.6
12	21 49 49.30 <small>5 6.16</small>	—14 37 17.1 <small>19 25.1</small>	0.019 4904	<small>5 6159</small> IO 33.7
13	21 54 55.46 <small>5 11.39</small>	14 17 52.0 <small>20 45.7</small>	0.025 1063	<small>5 4571</small> IO 34.9
14	22 0 6.85 <small>5 16.28</small>	13 57 6.3 <small>22 5.5</small>	0.030 5634	<small>5 3022</small> IO 36.2
15	22 5 23.13 <small>5 20.89</small>	13 35 0.8 <small>23 24.5</small>	0.035 8656	<small>5 1511</small> IO 37.6
16	22 10 44.02 <small>5 25.24</small>	13 11 36.3 <small>24 42.8</small>	0.041 0167	<small>5 0037</small> IO 39.0
17	22 16 9.26 <small>5 29.36</small>	12 46 53.5 <small>26 0.1</small>	0.046 0204	<small>4 8599</small> IO 40.5
18	22 21 38.62 <small>5 33.31</small>	—12 20 53.4 <small>27 16.8</small>	0.050 8803	<small>4 7192</small> IO 42.1
19	22 27 11.93 <small>5 37.09</small>	11 53 36.6 <small>28 32.8</small>	0.055 5995	<small>4 5813</small> IO 43.7
20	22 32 49.02 <small>5 40.74</small>	11 25 3.8 <small>29 48.1</small>	0.060 1808	<small>4 4458</small> IO 45.4
21	22 38 29.76 <small>5 44.31</small>	10 55 15.7 <small>31 2.5</small>	0.064 6266	<small>4 3125</small> IO 47.2
22	22 44 14.07 <small>5 47.79</small>	10 24 13.2 <small>32 16.3</small>	0.068 9391	<small>4 1805</small> IO 49.0
23	22 50 1.86	— 9 51 56.9	0.073 1196	IO 50.9

Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
März 23	22 <sup>h</sup> 50 <sup>m</sup> 1.86 <sup>m</sup> 5 51.22	— 9° 51' 56.9" 33 29.3	0.073 1196	10 <sup>h</sup> 50.9
24	22 55 53.08 5 54.62	9 18 27.6 34 41.6	0.077 1691 4 0495	10 52.8
25	23 1 47.70 5 58.02	8 43 46.0 35 53.2	0.081 0884 3 9193	10 54.8
26	23 7 45.72 6 1.43	8 7 52.8 37 4 0	0.084 8775 3 7891	10 56.9
27	23 13 47.15 6 4.89	7 30 48.8 38 14.0	0.088 5355 3 5257	10 59.0
28	23 19 52.04 6 8.39	6 52 34.8 39 23.1	0.092 0612 3 3917	11 1.2
29	23 26 0.43 6 11.95	— 6 13 11.7 40 31.3	0.095 4529 3 2549	11 3.4
30	23 32 12.38 6 15.61	5 32 40.4 41 38.5	0.098 7078 3 1146	11 5.7
31	23 38 27.99 6 19.40	4 51 1.9 42 44.8	0.101 8224 2 9703	11 8.1
April 1	23 44 47.39 6 23.29	4 8 17.1 43 49.8	0.104 7927 2 8206	11 10.5
2	23 51 10.68 6 27.31	3 24 27.3 44 53.4	0.107 6133 2 6646	11 13.0
3	23 57 37.99 6 31.48	2 39 33.9 45 55.6	0.110 2779 2 5019	11 15.5
4	0 4 9.47 6 35.82	— 1 53 38.3 46 56.2	0.112 7798 2 3308	11 18.1
5	0 10 45.29 6 40.33	1 6 42.1 47 54.8	0.115 1106 2 1499	11 20.8
6	0 17 25.62 6 45.00	— 0 18 47.3 48 51.4	0.117 2605 1 9583	11 23.6
7	0 24 10.62 6 49.85	+ 0 30 4.1 49 45.6	0.119 2188 1 7549	11 26.4
8	0 31 0.47 6 54.88	1 19 49.7 50 36.9	0.120 9737 1 5378	11 29.4
9	0 37 55.35 7 0.06	2 10 26.6 51 24.8	0.122 5115 1 3058	11 32.4
10	0 44 55.41 7 5.39	+ 3 1 51.4 52 9.0	0.123 8173 1 0575	11 35.5
11	0 52 0.80 7 10.86	3 54 0.4 52 49.1	0.124 8748 7913	11 38.7
12	0 59 11.66 7 16.43	4 46 49.5 53 24.2	0.125 6661 5057	11 42.0
13	1 6 28.09 7 22.04	5 40 13.7 53 53.5	0.126 1718 1999	11 45.4
14	1 13 50.13 7 27.67	6 34 7.2 54 16.5	0.126 3717 1276	11 48.8
15	1 21 17.80 7 33.25	7 28 23.7 54 32.3	0.126 2441 4778	11 52.4
16	1 28 51.05 7 38.70	+ 8 22 56.0 54 39.9	0.125 7663 8509	11 56.1
17	1 36 29.75 7 43.94	9 17 35.9 54 38.5	0.124 9154 1 2472	11 59.8
18	1 44 13.69 7 48.86	10 12 14.4 54 27.3	0.123 6682 1 6662	12 3.7
19	1 52 2.55 7 53.35	11 6 41.7 54 5.4	0.122 0020 2 1069	12 7.6
20	1 59 55.90 7 57.31	12 0 47.1 53 31.9	0.119 8951 2 5674	12 11.6
21	2 7 53.21 8 0.60	12 54 19.0 52 46.3	0.117 3277 3 0453	12 15.7
22	2 15 53.81 8 3.09	+13 47 5.3 51 48.2	0.114 2824 3 5372	12 19.8
23	2 23 56.90 8 4.68	14 38 53.5 50 37.6	0.110 7452 4 0393	12 23.9
24	2 32 1.58 8 5.25	15 29 31.1 49 14.4	0.106 7059 4 5470	12 28.1
25	2 40 6.83 8 4.74	16 18 45.5 47 39.1	0.102 1589 5 0554	12 32.2
26	2 48 11.57 8 3.06	17 6 24.6 45 52.3	0.097 1035 5 5597	12 36.3
27	2 56 14.63 8 0.18	17 52 16.9 43 55.3	0.091 5438 6 0546	12 40.4
28	3 4 14.81 7 56.05	+18 36 12.2 41 49.0	0.085 4892 6 5357	12 44.5
29	3 12 10.86 7 50.71	19 18 1.2 39 34.9	0.078 9535 6 9988	12 48.4
30	3 20 1.57 7 44.18	19 57 36.1 37 14.6	0.071 9547 7 4399	12 52.3
Mai 1	3 27 45.75 7 36.50	20 34 50.7 34 49.4	0.064 5148 7 8565	12 56.0
2	3 35 22.25 7 27.71	21 9 40.1 32 21.0	0.056 6583 8 2463	12 59.6
3	3 42 49.96	+21 42 1.1	0.048 4120	13 3.0

Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kul- mination in Green- wich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Mai 3	3 <sup>h</sup> 42 <sup>m</sup> 49.96 <sup>s</sup> 7 <sup>m</sup> 17.90 <sup>a</sup>	+21° 42' 1.1"	29 50.8	0.048 4120	8 6081
4	3 50 7.86 7 7.15	22 11 51.9	27 20.1	0.039 8039	8 9411
5	3 57 15.01 6 55.51	22 39 12.0	24 49.9	0.030 8628	9 2452
6	4 4 10.52 6 43.03	23 4 1.9	22 21.2	0.021 6176	9 5205
7	4 10 53.55 6 29.80	23 26 23.1	19 55.0	0.012 0971	9 7673
8	4 17 23.35 6 15.87	23 46 18.1	17 31.9	0.002 3298	9 9864
9	4 23 39.22 6 1.28	+24 3 50.0	15 12.4	9.992 3434	10 1785
10	4 29 40.50 5 46.07	24 19 2.4	12 56.7	9.982 1649	10 3443
11	4 35 26.57 5 30.28	24 31 59.1	10 45.3	9.971 8206	10 4841
12	4 40 56.85 5 13.92	24 42 44.4	8 38.4	9.961 3365	10 5986
13	4 46 10.77 4 57.03	24 51 22.8	6 36.0	9.950 7379	10 6877
14	4 51 7.80 4 39.64	24 57 58.8	4 38.1	9.940 0502	10 7515
15	4 55 47.44 4 21.76	+25 2 36.9	2 44.8	9.929 2987	10 7894
16	5 0 9.20 4 3.41	25 5 21.7	0 56.1	9.918 5093	10 8010
17	5 4 12.61 3 44.60	25 6 17.8	0 48.3	9.907 7083	10 7853
18	5 7 57.21 3 25.37	25 5 29.5	2 28.3	9.896 9230	10 7411
19	5 11 22.58 3 5.76	25 3 1.2	4 4.1	9.886 1819	10 6669
20	5 14 28.34 2 45.78	24 58 57.1	5 35.6	9.875 5150	10 5610
21	5 17 14.12 2 25.50	+24 53 21.5	7 3.1	9.864 9540	10 4214
22	5 19 39.62 2 4.98	24 46 18.4	8 26.5	9.854 5326	10 2458
23	5 21 44.60 1 44.27	24 37 51.9	9 45.8	9.844 2868	10 0319
24	5 23 28.87 1 23.46	24 28 6.1	11 1.1	9.834 2549	9 7772
25	5 24 52.33 1 2.66	24 17 5.0	12 12.3	9.824 4777	9 4794
26	5 25 54.99 0 41.99	24 4 52.7	13 19.3	9.814 9983	9 1360
27	5 26 36.98 0 21.58	+23 51 33.4	14 21.7	9.805 8623	8 7445
28	5 26 58.56 0 1.59	23 37 11.7	15 19.2	9.797 1178	8 3035
29	5 27 0.15 0 17.81	23 21 52.5	16 11.5	9.788 8143	7 8113
30	5 26 42.34 0 36.42	23 5 41.0	16 58.3	9.781 0030	7 2671
31	5 26 5.92 0 54.07	22 48 42.7	17 38.9	9.773 7359	6 6713
Juni 1	5 25 11.85 1 10.53	22 31 3.8	18 12.5	9.767 0646	6 0248
2	5 24 1.32 1 25.56	+22 12 51.3	18 38.5	9.761 0398	5 3295
3	5 22 35.76 1 38.99	21 54 12.8	18 56.3	9.755 7103	4 5884
4	5 20 56.77 1 50.63	21 35 16.5	19 5.1	9.751 1219	3 8062
5	5 19 6.14 2 0.30	21 16 11.4	19 4.3	9.747 3157	2 9884
6	5 17 5.84 2 7.84	20 57 7.1	18 53.3	9.744 3273	2 1414
7	5 14 58.00 2 13.14	20 38 13.8	18 31.8	9.742 1859	1 2731
8	5 12 44.86 2 16.12	+20 19 42.0	17 59.3	9.740 9128	3914
9	5 10 28.74 2 16.77	20 1 42.7	17 15.9	9.740 5214	4951
10	5 8 11.97 2 15.07	19 44 26.8	16 21.9	9.741 0165	1 3774
11	5 5 56.90 2 11.09	19 28 4.9	15 17.7	9.742 3939	2 2467
12	5 3 45.81 2 4.91	19 12 47.2	14 3.8	9.744 6406	3 0948
13	5 1 40.90	+18 58 43.4		9.747 7354	

Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Juni 13	5 <sup>h</sup> 1 <sup>m</sup> 40.90 <sup>s</sup> 1 56.67	+18° 58' 43.4" 12 41.3	9.747 7354 3 9141	II 35.6
14	4 59 44.23 1 46.52	18 46 2.1 11 11.3	9.751 6495 4 6977	II 29.8
15	4 57 57.71 1 34.64	18 34 50.8 9 34.8	9.756 3472 5 4401	II 24.2
16	4 56 23.07 1 21.19	18 25 16.0 7 53.3	9.761 7873 6 1371	II 18.8
17	4 55 1.88 1 6.41	18 17 22.7 6 8.3	9.767 9244 6 7853	II 13.6
18	4 53 55.47 0 50.49	18 11 14.4 4 21.0	9.774 7097 7 3823	II 8.7
19	4 53 4.98 0 33.60	+18 6 53.4 2 32.7	9.782 0920 7 9275	II 4.1
20	4 52 31.38 0 15.93	18 4 20.7 0 44.8	9.790 0195 8 4208	IO 59.7
21	4 52 15.45 0 2.36	18 3 35.9 1 1.5	9.798 4403 8 8628	IO 55.6
22	4 52 17.81 0 21.12	18 4 37.4 2 45.2	9.807 3031 9 2547	IO 51.9
23	4 52 38.93 0 40.24	18 7 22.6 4 25.3	9.816 5578 9 5986	IO 48.4
24	4 53 19.17 0 59.60	18 11 47.9 6 0.9	9.826 1564 9 8968	IO 45.3
25	4 54 18.77 1 19.13	+18 17 48.8 7 31.4	9.836 0532 10 1514	IO 42.5
26	4 55 37.90 1 38.74	18 25 20.2 8 55.9	9.846 2046 10 3651	IO 40.0
27	4 57 16.64 1 58.39	18 34 16.1 10 14.1	9.856 5697 10 5403	IO 37.9
28	4 59 15.03 2 18.05	18 44 30.2 11 25.4	9.867 1100 10 6793	IO 36.1
29	5 1 33.08 2 37.66	18 55 55.6 12 29.4	9.877 7893 10 7843	IO 34.6
30	5 4 10.74 2 57.23	19 8 25.0 13 25.6	9.888 5736 10 8572	IO 33.4
Juli 1	5 7 7.97 3 16.74	+19 21 50.6 14 13.8	9.899 4308 10 8998	IO 32.6
2	5 10 24.71 3 36.19	19 36 4.4 14 53.5	9.910 3306 10 9135	IO 32.1
3	5 14 0.90 3 55.56	19 50 57.9 15 24.4	9.921 2441 10 8995	IO 31.9
4	5 17 56.46 4 14.86	20 6 22.3 15 46.2	9.932 1436 10 8386	IO 32.0
5	5 22 11.32 4 34.09	20 22 8.5 15 58.7	9.943 0022 10 7915	IO 32.4
6	5 26 45.41 4 53.23	20 38 7.2 16 1.3	9.953 7937 10 6985	IO 33.2
7	5 31 38.64 5 12.27	+20 54 8.5 15 53.6	9.964 4922 10 5796	IO 34.3
8	5 36 50.91 5 31.19	21 10 2.1 15 35.5	9.975 0718 10 4347	IO 35.7
9	5 42 22.10 5 49.94	21 25 37.6 15 6.5	9.985 5065 10 2631	IO 37.4
10	5 48 12.04 6 8.47	21 40 44.1 14 26.2	9.995 7696 10 0643	IO 39.4
11	5 54 20.51 6 26.72	21 55 10.3 13 34.2	0.005 8339 10 8379	IO 41.8
12	6 0 47.23 6 44.61	22 8 44.5 12 30.4	0.015 6718 9 5831	IO 44.4
13	6 7 31.84 7 2.01	+22 21 14.9 11 14.7	0.025 2549 9 2991	IO 47.3
14	6 14 33.85 7 18.82	22 32 29.6 9 46.7	0.034 5540 8 9856	IO 50.6
15	6 21 52.67 7 34.87	22 42 16.3 8 6.9	0.043 5396 8 6429	IO 54.1
16	6 29 27.54 7 50.01	22 50 23.2 6 15.6	0.052 1825 8 2713	IO 57.8
17	6 37 17.55 8 4.07	22 56 38.8 4 13.1	0.060 4538 7 8717	II 1.8
18	6 45 21.62 8 16.89	23 0 51.9 2 0.5	0.068 3255 7 4461	II 6.1
19	6 53 38.51 8 28.29	+23 2 52.4 0 21.2	0.075 7716 6 9965	II 10.5
20	7 2 6.80 8 38.14	23 2 31.2 2 50.4	0.082 7681 6 5264	II 15.1
21	7 10 44.94 8 46.28	22 59 40.8 5 25.7	0.089 2945 6 0399	II 19.9
22	7 19 31.22 8 52.64	22 54 15.1 8 5.2	0.095 3344 5 5413	II 24.8
23	7 28 23.86 8 57.18	22 46 9.9 10 46.9	0.100 8757 5 0353	II 29.8
24	7 37 21.04	+22 35 23.0	0.105 9110	II 34.9

Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kulmination in Green- wich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Juli 24	7 <sup>h</sup> 37 <sup>m</sup> 21.04 <sup>s</sup> 8 59.90	+22° 35' 23.0" 13 28.8	0.105 9110	4 5269	II 34.9
25	7 46 20.94 9 0.81	22 21 54.2 16 8.9	0.110 4379	4 0213	II 40.0
26	7 55 21.75 9 0.02	22 5 45.3 18 45.7	0.114 4592	3 5232	II 45.1
27	8 4 21.77 8 57.65	21 46 59.6 21 17.4	0.117 9824	3 0370	II 50.1
28	8 13 19.42 8 53.84	21 25 42.2 23 42.4	0.121 0194	2 5660	II 55.1
29	8 22 13.26 8 48.76	21 1 59.8 26 0.0	0.123 5854	2 1132	II 0.0
30	8 31 2.02 8 42.58	+20 35 59.8 28 9.2	0.125 6986	1 6807	II 4.9
31	8 39 44.60 8 35.50	20 7 50.6 30 9.5	0.127 3793	1 2705	II 9.6
Aug. 1	8 48 20.10 8 27.69	19 37 41.1 32 0.4	0.128 6498	8831	II 14.2
2	8 56 47.79 8 19.29	19 5 40.7 33 42.2	0.129 5329	5183	II 18.7
3	9 5 7.08 8 10.48	18 31 58.5 35 14.7	0.130 0512	1761	II 23.0
4	9 13 17.56 8 1.38	17 56 43.8 36 38.3	0.130 2273	1440	II 27.1
5	9 21 18.94 7 52.11	+17 20 5.5 37 53.1	0.130 0833	4433	II 31.1
6	9 29 11.05 7 42.77	16 42 12.4 38 59.7	0.129 6400	7226	II 35.0
7	9 36 53.82 7 33.43	16 3 12.7 39 58.6	0.128 9174	9834	II 38.7
8	9 44 27.25 7 24.18	15 23 14.1 40 50.0	0.127 9340	1 2274	II 42.2
9	9 51 51.43 7 15.04	14 42 24.1 41 34.6	0.126 7066	1 4558	II 45.6
10	9 59 6.47 7 6.08	14 0 49.5 42 12.8	0.125 2508	1 6700	II 48.9
11	10 6 12.55 6 57.33	+13 18 36.7 42 45.2	0.123 5808	1 8715	II 52.0
12	10 13 9.88 6 48.80	12 35 51.5 43 12.0	0.121 7093	2 0616	II 54.9
13	10 19 58.68 6 40.51	11 52 39.5 43 33.7	0.119 6477	2 2417	II 57.7
14	10 26 39.19 6 32.46	11 9 5.8 43 50.7	0.117 4060	2 4130	I3 0.4
15	10 33 11.65 6 24.67	10 25 15.1 44 3.3	0.114 9930	2 5766	I3 2.9
16	10 39 36.32 6 17.13	9 41 11.8 44 11.8	0.112 4164	2 7337	I3 5.3
17	10 45 53.45 6 9.81	+ 8 57 0.0 44 16.6	0.109 6827	2 8853	I3 7.6
18	10 52 3.26 6 2.74	8 12 43.4 44 17.8	0.106 7974	3 0320	I3 9.7
19	10 58 6.00 5 55.91	7 28 25.6 44 15.7	0.103 7654	3 1752	I3 11.8
20	11 4 1.91 5 49.28	6 44 9.9 44 10.7	0.100 5902	3 3155	I3 13.7
21	11 9 51.19 5 42.83	5 59 59.2 44 2.5	0.097 2747	3 4534	I3 15.5
22	11 15 34.02 5 36.58	5 15 56.7 43 51.5	0.093 8213	3 5900	I3 17.2
23	11 21 10.60 5 30.50	+ 4 32 5.2 43 38.0	0.090 2313	3 7256	I3 18.9
24	11 26 41.10 5 24.55	3 48 27.2 43 22.0	0.086 5057	3 8610	I3 20.4
25	11 32 5.65 5 18.74	3 5 5.2 43 3.4	0.082 6447	3 9970	I3 21.8
26	11 37 24.39 5 13.04	2 22 1.8 42 42.5	0.078 6477	4 1338	I3 23.1
27	11 42 37.43 5 7.41	1 39 19.3 42 19.1	0.074 5139	4 2719	I3 24.3
28	11 47 44.84 5 1.85	0 57 0.2 41 53.5	0.070 2420	4 4119	I3 25.5
29	11 52 46.69 4 56.34	+ 0 15 6.7 41 25.5	0.065 8301	4 5543	I3 26.5
30	11 57 43.03 4 50.82	- 0 26 18.8 40 55.2	0.061 2758	4 6996	I3 27.4
31	12 2 33.85 4 45.28	1 7 14.0 40 22.4	0.056 5762	4 8477	I3 28.3
Sept. 1	12 7 19.13 4 39.71	1 47 36.4 39 47.3	0.051 7285	4 9993	I3 29.0
2	12 11 58.84 4 34.06	2 27 23.7 39 9.5	0.046 7292	5 1546	I3 29.7
3	12 16 32.90	- 3 6 33.2	0.041 5746		I3 30.3

Tag	0 <sup>h</sup> Welt-Zeit			log Δ	Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Sept. 3	12 <sup>h</sup> 16 <sup>m</sup> 32.90 <sup>s</sup> 4 28.29	— 3° 6' 33.2	38 29.1	0.041 5746	13 <sup>h</sup> 30 <sup>m</sup> 3
4	12 21 1.19 4 22.38	3 45 2.3	37 46.0	0.036 2610	13 30.8
5	12 25 23.57 4 16.27	4 22 48.3	37 0.0	0.030 7842	13 31.1
6	12 29 39.84 4 9.94	4 59 48.3	36 10.7	0.025 1401	13 31.4
7	12 33 49.78 4 3.34	5 35 59.0	35 18.2	0.019 3246	13 31.6
8	12 37 53.12 3 56.41	6 11 17.2	34 22.3	0.013 3334	13 31.6
9	12 41 49.53 3 49.11	— 6 45 39.5	33 22.5	0.007 1627	13 31.6
10	12 45 38.64 3 41.39	7 19 2.0	32 18.6	0.000 8087	13 31.4
11	12 49 20.03 3 33.17	7 51 20.6	31 10.2	9.994 2678	13 31.0
12	12 52 53.20 3 24.41	8 22 30.8	29 56.8	9.987 5372	13 30.5
13	12 56 17.61 3 15.02	8 52 27.6	28 38.2	9.980 6150	13 29.9
14	12 59 32.63 3 4.93	9 21 5.8	27 13.8	9.973 4999	13 29.1
15	13 2 37.56 2 54.06	— 9 48 19.6	25 42.8	9.966 1919	13 28.2
16	13 5 31.62 2 42.33	10 14 2.4	24 4.7	9.958 6929	13 27.0
17	13 8 13.95 2 29.65	10 38 7.1	22 18.9	9.951 0070	13 25.7
18	13 10 43.60 2 15.93	11 0 26.0	20 24.5	9.943 1404	13 24.1
19	13 12 59.53 2 1.08	11 20 50.5	18 20.5	9.935 1028	13 22.3
20	13 15 0.61 1 45.04	11 39 11.0	16 6.3	9.926 9082	13 20.2
21	13 16 45.65 1 27.72	— 11 55 17.3	13 40.7	9.918 5751	13 17.9
22	13 18 13.37 1 9.05	12 8 58.0	11 2.7	9.910 1281	13 15.3
23	13 19 22.42 0 49.00	12 20 0.7	8 11.5	9.901 5987	13 12.3
24	13 20 11.42 0 27.59	12 28 12.2	5 6.2	9.893 0269	13 9.0
25	13 20 39.01 0 4.82	12 33 18.4	1 46.2	9.884 4627	13 5.3
26	13 20 43.83 0 19.18	12 35 4.6	1 48.9	9.875 9673	13 1.2
27	13 20 24.65 0 44.24	— 12 33 15.7	5 38.9	9.867 6150	12 56.7
28	13 19 40.41 1 10.08	12 27 36.8	9 43.0	9.859 4943	12 51.8
29	13 18 30.33 1 36.30	12 17 53.8	13 59.4	9.851 7093	12 46.5
30	13 16 54.03 2 2.42	12 3 54.4	18 24.8	9.844 3803	12 40.8
Okt. 1	13 14 51.61 2 27.77	11 45 29.6	22 55.0	9.837 6429	12 34.6
2	13 12 23.84 2 51.55	11 22 34.6	27 23.5	9.831 6468	12 28.0
3	13 9 32.29 3 12.89	— 10 55 11.1	31 42.7	9.826 5519	12 21.1
4	13 6 19.40 3 30.82	10 23 28.4	35 43.0	9.822 5236	12 13.8
5	13 2 48.58 3 44.37	9 47 45.4	39 13.5	9.819 7252	12 6.2
6	12 59 4.21 3 52.66	9 8 31.9	42 3.4	9.818 3078	11 58.5
7	12 55 11.55 3 54.91	8 26 28.5	44 2.3	9.818 4006	11 50.7
8	12 51 16.64 3 50.64	7 42 26.2	45 1.6	9.820 1000	11 42.9
9	12 47 26.00 3 39.69	— 6 57 24.6	44 55.4	9.823 4597	11 35.2
10	12 43 46.31 3 22.18	6 12 29.2	43 41.3	9.828 4842	11 27.8
11	12 40 24.13 2 58.63	5 28 47.9	41 21.4	9.835 1261	11 20.7
12	12 37 25.50 2 29.84	4 47 26.5	38 1.2	9.843 2870	11 14.0
13	12 34 55.66 1 56.84	4 9 25.3	33 49.1	9.852 8241	11 7.9
14	12 32 58.82	— 3 35 36.2		9.863 5595	11 2.3



Tag	O <sup>b</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Okt. 14	12 <sup>h</sup> 32 <sup>m</sup> 58.82 <sup>s</sup> <small>1 20.77</small>	— 3° 35' 36.2" <small>28 56.1</small>	9.863 5595 <small>11 7314</small>	II <sup>h</sup> 2 <sup>m</sup>
15	12 31 38.05 <small>0 42.80</small>	3 6 40.1 <small>23 33.7</small>	9.875 2909 <small>12 5130</small>	IO 57.3
16	12 30 55.25 <small>0 4.12</small>	2 43 6.4 <small>17 53.7</small>	9.887 8039 <small>13 0796</small>	IO 52.9
17	12 30 51.13 <small>0 34.27</small>	2 25 12.7 <small>12 7.1</small>	9.900 8835 <small>13 4399</small>	IO 49.2
18	12 31 25.40 <small>1 11.53</small>	2 13 5.6 <small>6 23.4</small>	9.914 3234 <small>13 6096</small>	IO 46.2
19	12 32 36.93 <small>1 46.93</small>	2 6 42.2 <small>0 50.4</small>	9.927 9330 <small>13 6095</small>	IO 43.7
20	12 34 23.86 <small>2 19.99</small>	— 2 5 51.8	9.941 5425 <small>13 4633</small>	IO 41.8
21	12 36 43.85 <small>2 50.38</small>	2 10 17.5 <small>4 25.7</small>	9.955 0058 <small>13 1958</small>	IO 40.4
22	12 39 34.23 <small>3 17.92</small>	2 19 37.9 <small>13 50.9</small>	9.968 2016 <small>12 8312</small>	IO 39.5
23	12 42 52.15 <small>3 42.58</small>	2 33 28.8 <small>17 55.7</small>	9.981 0328 <small>12 3918</small>	IO 39.0
24	12 46 34.73 <small>4 4.40</small>	2 51 24.5 <small>21 33.9</small>	9.993 4246 <small>11 8978</small>	IO 39.0
25	12 50 39.13 <small>4 23.54</small>	3 12 58.4 <small>24 46.2</small>	0.005 3224 <small>11 3673</small>	IO 39.2
26	12 55 2.67 <small>4 40.18</small>	— 3 37 44.6 <small>27 33.4</small>	0.016 6897 <small>10 8151</small>	IO 39.8
27	12 59 42.85 <small>4 54.54</small>	4 5 18.0 <small>29 56.9</small>	0.027 5048 <small>10 2533</small>	IO 40.7
28	13 4 37.39 <small>5 6.84</small>	4 35 14.9 <small>31 58.2</small>	0.037 7581 <small>9 6920</small>	IO 41.7
29	13 9 44.23 <small>5 17.34</small>	5 7 13.1 <small>33 39.4</small>	0.047 4501 <small>9 1385</small>	IO 43.0
30	13 15 1.57 <small>5 26.27</small>	5 40 52.5 <small>35 2.3</small>	0.056 5886 <small>8 5985</small>	IO 44.4
31	13 20 27.84 <small>5 33.82</small>	6 15 54.8 <small>36 8.6</small>	0.065 1871 <small>8 0760</small>	IO 45.9
Nov. 1	13 26 1.66 <small>5 40.22</small>	— 6 52 3.4 <small>37 0.0</small>	0.073 2631 <small>7 5735</small>	IO 47.6
2	13 31 41.88 <small>5 45.62</small>	7 29 3.4 <small>37 38.2</small>	0.080 8366 <small>7 0930</small>	IO 49.4
3	13 37 27.50 <small>5 50.20</small>	8 6 41.6 <small>38 5.0</small>	0.087 9296 <small>6 6350</small>	IO 51.3
4	13 43 17.70 <small>5 54.09</small>	8 44 46.6 <small>38 21.3</small>	0.094 5646 <small>6 1995</small>	IO 53.2
5	13 49 11.79 <small>5 57.41</small>	9 23 7.9 <small>38 28.5</small>	0.100 7641 <small>5 7864</small>	IO 55.2
6	13 55 9.20 <small>6 0.27</small>	10 1 36.4 <small>38 27.7</small>	0.106 5505 <small>5 3950</small>	IO 57.2
7	14 1 9.47 <small>6 2.75</small>	— 10 40 4.1 <small>38 20.0</small>	0.111 9455 <small>5 0243</small>	IO 59.3
8	14 7 12.22 <small>6 4.94</small>	11 18 24.1 <small>38 6.0</small>	0.116 9698 <small>4 6732</small>	II 1.4
9	14 13 17.16 <small>6 6.89</small>	11 56 30.1 <small>37 46.5</small>	0.121 6430 <small>4 3407</small>	II 3.6
10	14 19 24.05 <small>6 8.66</small>	12 34 16.6 <small>37 22.3</small>	0.125 9837 <small>4 0254</small>	II 5.8
11	14 25 32.71 <small>6 10.30</small>	13 11 38.9 <small>36 53.7</small>	0.130 0091 <small>3 7261</small>	II 8.0
12	14 31 43.01 <small>6 11.84</small>	13 48 32.6 <small>36 21.3</small>	0.133 7352 <small>3 4419</small>	II 10.2
13	14 37 54.85 <small>6 13.31</small>	— 14 24 53.9 <small>35 45.4</small>	0.137 1771 <small>3 1714</small>	II 12.5
14	14 44 8.16 <small>6 14.74</small>	15 0 39.3 <small>35 6.5</small>	0.140 3485 <small>2 9136</small>	II 14.8
15	14 50 22.90 <small>6 16.16</small>	15 35 45.8 <small>34 24.9</small>	0.143 2621 <small>2 6673</small>	II 17.1
16	14 56 39.06 <small>6 17.58</small>	16 10 10.7 <small>33 40.7</small>	0.145 9294 <small>2 4315</small>	II 19.4
17	15 2 56.64 <small>6 19.00</small>	16 43 51.4 <small>32 54.1</small>	0.148 3609 <small>2 2052</small>	II 21.8
18	15 9 15.64 <small>6 20.43</small>	17 16 45.5 <small>32 5.4</small>	0.150 5661 <small>1 9875</small>	II 24.2
19	15 15 36.07 <small>6 21.91</small>	— 17 48 50.9 <small>31 14.8</small>	0.152 5536 <small>1 7776</small>	II 26.6
20	15 21 57.98 <small>6 23.42</small>	18 20 5.7 <small>30 22.2</small>	0.154 3312 <small>1 5745</small>	II 29.0
21	15 28 21.40 <small>6 24.95</small>	18 50 27.9 <small>29 27.9</small>	0.155 9057 <small>1 3776</small>	II 31.5
22	15 34 46.35 <small>6 26.52</small>	19 19 55.8 <small>28 31.9</small>	0.157 2833 <small>1 1861</small>	II 34.0
23	15 41 12.87 <small>6 28.13</small>	19 48 27.7 <small>27 34.2</small>	0.158 4694 <small>9991</small>	II 36.5
24	15 47 41.00	— 20 16 1.9	0.159 4685	II 39.1

Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kulmination in Green- wich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Nov. 24	15 <sup>h</sup> 47 <sup>m</sup> 41.00 <sup>s</sup> 6 29.77	—20° 16' 1.9" 26 35.0	0.159 4685	8163	II 39.1
25	15 54 10.77 6 31.43	20 42 36.9 25 34.2	0.160 2848	6370	II 41.6
26	16 0 42.20 6 33.13	21 8 11.1 24 32.0	0.160 9218	4603	II 44.2
27	16 7 15.33 6 34.84	21 32 43.1 23 28.1	0.161 3821	2859	II 46.9
28	16 13 50.17 6 36.56	21 56 11.2 22 22.9	0.161 6680	1134	II 49.5
29	16 20 26.73 6 38.28	22 18 34.1 21 16.2	0.161 7814	580	II 52.2
30	16 27 5.01 6 40.01	—22 39 50.3 20 8.1	0.161 7234	2288	II 54.9
Dez. 1	16 33 45.02 6 41.73	22 59 58.4 18 58.5	0.161 4946	3995	II 57.7
2	16 40 26.75 6 43.42	23 18 56.9 17 47.5	0.161 0951	5705	12 0.4
3	16 47 10.17 6 45.07	23 36 44.4 16 35.2	0.160 5246	7425	12 3.2
4	16 53 55.24 6 46.70	23 53 19.6 15 21.5	0.159 7821	9159	12 6.1
5	17 0 41.94 6 48.27	24 8 41.1 14 6.3	0.158 8662	1 0913	12 8.9
6	17 7 30.21 6 49.77	—24 22 47.4 12 49.7	0.157 7749	1 2690	12 11.8
7	17 14 19.98 6 51.19	24 35 37.1 11 31.7	0.156 5059	1 4500	12 14.7
8	17 21 11.17 6 52.52	24 47 8.8 10 12.4	0.155 0559	1 6347	12 17.6
9	17 28 3.69 6 53.74	24 57 21.2 8 51.8	0.153 4212	1 8234	12 20.6
10	17 34 57.43 6 54.82	25 6 13.0 7 29.8	0.151 5978	2 0173	12 23.6
11	17 41 52.25 6 55.77	25 13 42.8 6 6.5	0.149 5805	2 2166	12 26.5
12	17 48 48.02 6 56.55	—25 19 49.3 4 42.1	0.147 3639	2 4221	12 29.5
13	17 55 44.57 6 57.14	25 24 31.4 3 16.3	0.144 9418	2 6345	12 32.6
14	18 2 41.71 6 57.51	25 27 47.7 1 49.4	0.142 3073	2 8545	12 35.6
15	18 9 39.22 6 57.66	25 29 37.1 0 21.5	0.139 4528	3 0832	12 38.6
16	18 16 36.88 6 57.53	25 29 58.6 1 7.4	0.136 3696	3 3214	12 41.6
17	18 23 34.41 6 57.11	25 28 51.2 2 37.3	0.133 0482	3 5696	12 44.6
18	18 30 31.52 6 56.36	—25 26 13.9 4 7.8	0.129 4786	3 8292	12 47.6
19	18 37 27.88 6 55.23	25 22 6.1 5 39.0	0.125 6494	4 1013	12 50.6
20	18 44 23.11 6 53.67	25 16 27.1 7 10.7	0.121 5481	4 3866	12 53.6
21	18 51 16.78 6 51.64	25 9 16.4 8 42.5	0.117 1615	4 6861	12 56.6
22	18 58 8.42 6 49.08	25 0 33.9 10 14.3	0.112 4754	5 0011	12 59.5
23	19 4 57.50 6 45.92	24 50 19.6 11 45.7	0.107 4743	5 3329	13 2.3
24	19 11 43.42 6 42.07	—24 38 33.9 13 16.4	0.102 1414	5 6821	13 5.1
25	19 18 25.49 6 37.46	24 25 17.5 14 45.8	0.096 4593	6 0496	13 7.8
26	19 25 2.95 6 31.99	24 10 31.7 16 13.6	0.090 4097	6 4366	13 10.5
27	19 31 34.94 6 25.53	23 54 18.1 17 39.1	0.083 9731	6 8438	13 13.0
28	19 38 0.47 6 17.97	23 36 39.0 19 1.6	0.077 1293	7 2712	13 15.4
29	19 44 18.44 6 9.15	23 17 37.4 20 20.1	0.069 8581	7 7191	13 17.7
30	19 50 27.59 5 58.92	—22 57 17.3 21 33.8	0.062 1390	8 1868	13 19.8
31	19 56 26.51 5 47.10	22 35 43.5 22 41.6	0.053 9522	8 6731	13 21.8
32	20 2 13.61	—22 13 1.9	0.045 2791		13 23.5

Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Jan. 0	21 41 37.47 <small>h m s</small>	-15 42 35.8 <small>h m s</small>	9.988 9973 <small>3 0868</small>	15 5.3 <small>h m</small>	
1	21 46 8.63 <small>4 31.16</small>	15 17 18.1 <small>25 17.7</small>	9.985 9105 <small>3 1172</small>	15 5.9	
2	21 50 38.11 <small>4 29.48</small>	14 51 38.7 <small>25 39.4</small>	9.982 7933 <small>3 1481</small>	15 6.4	
3	21 55 5.92 <small>4 27.81</small>	14 25 38.4 <small>26 0.3</small>	9.979 6452 <small>3 1795</small>	15 6.9	
4	21 59 32.07 <small>4 26.15</small>	13 59 18.0 <small>26 20.4</small>	9.976 4657 <small>3 2114</small>	15 7.4	
5	22 3 56.57 <small>4 24.50</small>	13 32 38.1 <small>26 39.9</small>	9.973 2543 <small>3 2440</small>	15 7.8	
6	22 8 19.44 <small>4 22.87</small>	-13 5 39.7 <small>26 58.4</small>	9.970 0103 <small>3 2770</small>	15 8.3	
7	22 12 40.68 <small>4 21.24</small>	12 38 23.6 <small>27 16.1</small>	9.966 7333 <small>3 2770</small>	15 8.6	
8	22 17 0.30 <small>4 19.62</small>	12 10 50.5 <small>27 33.1</small>	9.963 4226 <small>3 3107</small>	15 9.0	
9	22 21 18.32 <small>4 18.02</small>	11 43 1.1 <small>27 49.4</small>	9.960 0777 <small>3 3449</small>	15 9.4	
10	22 25 34.75 <small>4 16.43</small>	11 14 56.3 <small>28 4.8</small>	9.956 6981 <small>3 3796</small>	15 9.7	
11	22 29 49.60 <small>4 14.85</small>	10 46 37.0 <small>28 19.3</small>	9.953 2830 <small>3 4151</small>	15 9.9	
12	22 34 2.87 <small>4 13.27</small>	-10 18 3.8 <small>28 33.2</small>	9.949 8319 <small>3 4511</small>	15 10.2	
13	22 38 14.59 <small>4 11.72</small>	9 49 17.6 <small>28 46.2</small>	9.946 3442 <small>3 4877</small>	15 10.5	
14	22 42 24.76 <small>4 10.17</small>	9 20 19.2 <small>28 58.4</small>	9.942 8191 <small>3 5251</small>	15 10.7	
15	22 46 33.39 <small>4 8.63</small>	8 51 9.3 <small>29 9.9</small>	9.939 2561 <small>3 5630</small>	15 10.8	
16	22 50 40.49 <small>4 7.10</small>	8 21 48.9 <small>29 20.4</small>	9.935 6547 <small>3 6014</small>	15 11.0	
17	22 54 46.06 <small>4 5.57</small>	7 52 18.6 <small>29 30.3</small>	9.932 0142 <small>3 6405</small>	15 11.1	
18	22 58 50.12 <small>4 4.06</small>	-7 22 39.2 <small>29 39.4</small>	9.928 3342 <small>3 6800</small>	15 11.2	
19	23 2 52.68 <small>4 2.56</small>	6 52 51.7 <small>29 47.5</small>	9.924 6141 <small>3 7201</small>	15 11.3	
20	23 6 53.73 <small>4 1.05</small>	6 22 56.7 <small>29 55.0</small>	9.920 8534 <small>3 7607</small>	15 11.4	
21	23 10 53.28 <small>3 59.55</small>	5 52 55.1 <small>30 1.6</small>	9.917 0516 <small>3 8018</small>	15 11.4	
22	23 14 51.35 <small>3 58.07</small>	5 22 47.7 <small>30 7.4</small>	9.913 2082 <small>3 8434</small>	15 11.4	
23	23 18 47.93 <small>3 56.58</small>	4 52 35.2 <small>30 12.5</small>	9.909 3229 <small>3 8853</small>	15 11.4	
24	23 22 43.04 <small>3 55.11</small>	-4 22 18.4 <small>30 16.8</small>	9.905 3953 <small>3 9276</small>	15 11.4	
25	23 26 36.69 <small>3 53.65</small>	3 51 58.0 <small>30 20.4</small>	9.901 4248 <small>3 9705</small>	15 11.3	
26	23 30 28.88 <small>3 52.19</small>	3 21 34.8 <small>30 23.2</small>	9.897 4111 <small>4 0137</small>	15 11.2	
27	23 34 19.63 <small>3 50.75</small>	2 51 9.5 <small>30 25.3</small>	9.893 3536 <small>4 0575</small>	15 11.1	
28	23 38 8.94 <small>3 49.31</small>	2 20 42.8 <small>30 26.7</small>	9.889 2518 <small>4 1018</small>	15 11.0	
29	23 41 56.81 <small>3 47.87</small>	1 50 15.4 <small>30 27.4</small>	9.885 1051 <small>4 1467</small>	15 10.8	
30	23 45 43.25 <small>3 46.44</small>	-1 19 48.0 <small>30 27.4</small>	9.880 9127 <small>4 1924</small>	15 10.6	
31	23 49 28.26 <small>3 45.01</small>	0 49 21.3 <small>30 26.7</small>	9.876 6739 <small>4 2388</small>	15 10.4	
Febr. 1	23 53 11.84 <small>3 43.58</small>	-0 18 56.1 <small>30 25.2</small>	9.872 3881 <small>4 2858</small>	15 10.2	
2	23 56 53.98 <small>3 42.14</small>	+0 11 26.9 <small>30 23.0</small>	9.868 0546 <small>4 3335</small>	15 9.9	
3	0 0 34.69 <small>3 40.71</small>	0 41 47.2 <small>30 20.3</small>	9.863 6726 <small>4 3820</small>	15 9.7	
4	0 4 13.95 <small>3 39.26</small>	1 12 4.0 <small>30 16.8</small>	9.859 2412 <small>4 4314</small>	15 9.4	
5	0 7 51.76 <small>3 37.81</small>	+1 42 16.6 <small>30 12.6</small>	9.854 7597 <small>4 4815</small>	15 9.0	
6	0 11 28.09 <small>3 36.33</small>	2 12 24.3 <small>30 7.7</small>	9.850 2271 <small>4 5326</small>	15 8.7	
7	0 15 2.93 <small>3 34.84</small>	2 42 26.3 <small>30 2.0</small>	9.845 6426 <small>4 5845</small>	15 8.3	
8	0 18 36.27 <small>3 33.34</small>	3 12 21.9 <small>29 55.6</small>	9.841 0054 <small>4 6372</small>	15 8.0	
9	0 22 8.07 <small>3 31.80</small>	3 42 10.4 <small>29 48.5</small>	9.836 3147 <small>4 6907</small>	15 7.9	
10	0 25 38.30 <small>3 30.23</small>	+4 11 51.2 <small>29 40.8</small>	9.831 5695 <small>4 7452</small>	15 7.0	

Tag	O <sup>b</sup> Welt-Zeit			Obere Kulmination in Green- wich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Febr. 10	○ <sup>h</sup> 25 38.30 <sup>m</sup> <sub>3</sub> 28.64 <sup>°</sup>	+ 4 <sup>h</sup> 11 51.2 <sup>m</sup> <sub>29</sub> 32.2 <sup>°</sup>	9.831 5695	15 <sup>h</sup> 7.0 <sup>m</sup>
11	○ 29 6.94 <sub>3</sub> 27.01	4 41 23.4 <sub>29</sub> 22.8	9.826 7690 <sub>4</sub> 8005	15 6.5
12	○ 32 33.95 <sub>3</sub> 25.33	5 10 46.2 <sub>29</sub> 12.9	9.821 9123 <sub>4</sub> 8567	15 6.0
13	○ 35 59.28 <sub>3</sub> 23.61	5 39 59.1 <sub>29</sub> 2.2	9.816 9986 <sub>4</sub> 9137	15 5.5
14	○ 39 22.89 <sub>3</sub> 21.84	6 9 1.3 <sub>28</sub> 50.6	9.812 0272 <sub>5</sub> 0298	15 4.9
15	○ 42 44.73 <sub>3</sub> 20.01	6 37 51.9 <sub>28</sub> 38.2	9.806 9974 <sub>5</sub> 0890	15 4.3
16	○ 46 4.74 <sub>3</sub> 18.12	+ 7 6 30.1 <sub>28</sub> 25.2	9.801 9084 <sub>5</sub> 1486	15 3.7
17	○ 49 22.86 <sub>3</sub> 16.17	7 34 55.3 <sub>28</sub> 11.3	9.796 7598 <sub>5</sub> 2088	15 3.0
18	○ 52 39.03 <sub>3</sub> 14.14	8 3 6.6 <sub>27</sub> 56.5	9.791 5510 <sub>5</sub> 2695	15 2.3
19	○ 55 53.17 <sub>3</sub> 12.05	8 31 3.1 <sub>27</sub> 41.0	9.786 2815 <sub>5</sub> 3305	15 1.6
20	○ 59 5.22 <sub>3</sub> 9.88	8 58 44.1 <sub>27</sub> 24.8	9.780 9510 <sub>5</sub> 3918	15 0.8
21	I 2 15.10 <sub>3</sub> 7.62	9 26 8.9 <sub>27</sub> 7.8	9.775 5592 <sub>5</sub> 4533	15 0.0
22	I 5 22.72 <sub>3</sub> 5.30	+ 9 53 16.7 <sub>26</sub> 49.9	9.770 1059 <sub>5</sub> 5149	14 59.2
23	I 8 28.02 <sub>3</sub> 2.88	10 20 6.6 <sub>26</sub> 31.3	9.764 5910 <sub>5</sub> 5768	14 58.3
24	I 11 30.90 <sub>3</sub> 0.36	10 46 37.9 <sub>26</sub> 12.0	9.759 0142 <sub>5</sub> 6388	14 57.4
25	I 14 31.26 <sub>2</sub> 57.76	11 12 49.9 <sub>25</sub> 51.9	9.753 3754 <sub>5</sub> 7009	14 56.4
26	I 17 29.02 <sub>2</sub> 55.05	11 38 41.8 <sub>25</sub> 30.9	9.747 6745 <sub>5</sub> 7629	14 55.4
27	I 20 24.07 <sub>2</sub> 52.23	12 4 12.7 <sub>25</sub> 9.3	9.741 9116 <sub>5</sub> 8251	14 54.4
28	I 23 16.30 <sub>2</sub> 49.30	+ 12 29 22.0 <sub>24</sub> 46.8	9.736 0865 <sub>5</sub> 8873	14 53.3
März 1	I 26 5.60 <sub>2</sub> 46.24	12 54 8.8 <sub>24</sub> 23.5	9.730 1992 <sub>5</sub> 9493	14 52.1
2	I 28 51.84 <sub>2</sub> 43.05	13 18 32.3 <sub>23</sub> 59.5	9.724 2499 <sub>6</sub> 0111	14 50.9
3	I 31 34.89 <sub>2</sub> 39.71	13 42 31.8 <sub>23</sub> 34.4	9.718 2388 <sub>6</sub> 0727	14 49.7
4	I 34 14.60 <sub>2</sub> 36.24	14 6 6.2 <sub>23</sub> 8.5	9.712 1661 <sub>6</sub> 1339	14 48.4
5	I 36 50.84 <sub>2</sub> 32.61	14 29 14.7 <sub>22</sub> 41.8	9.706 0322 <sub>6</sub> 1944	14 47.0
6	I 39 23.45 <sub>2</sub> 28.80	+ 14 51 56.5 <sub>22</sub> 14.0	9.699 8378 <sub>6</sub> 2545	14 45.5
7	I 41 52.25 <sub>2</sub> 24.83	15 14 10.5 <sub>21</sub> 45.2	9.693 5833 <sub>6</sub> 3137	14 44.0
8	I 44 17.08 <sub>2</sub> 20.68	15 35 55.7 <sub>21</sub> 15.4	9.687 2696 <sub>6</sub> 3718	14 42.5
9	I 46 37.76 <sub>2</sub> 16.33	15 57 11.1 <sub>20</sub> 44.6	9.680 8978 <sub>6</sub> 4285	14 40.8
10	I 48 54.09 <sub>2</sub> 11.79	16 17 55.7 <sub>20</sub> 12.7	9.674 4693 <sub>6</sub> 4838	14 39.1
11	I 51 5.88 <sub>2</sub> 7.02	16 38 8.4 <sub>19</sub> 39.4	9.667 9855 <sub>6</sub> 5375	14 37.3
12	I 53 12.90 <sub>2</sub> 2.03	+ 16 57 47.8 <sub>19</sub> 4.9	9.661 4480 <sub>6</sub> 5889	14 35.5
13	I 55 14.93 <sub>1</sub> 56.82	17 16 52.7 <sub>18</sub> 29.2	9.654 8591 <sub>6</sub> 6376	14 33.5
14	I 57 11.75 <sub>1</sub> 51.36	17 35 21.9 <sub>17</sub> 52.0	9.648 2215 <sub>6</sub> 6834	14 31.4
15	I 59 3.11 <sub>1</sub> 45.65	17 53 13.9 <sub>17</sub> 13.3	9.641 5381 <sub>6</sub> 7257	14 29.3
16	2 0 48.76 <sub>1</sub> 39.68	18 10 27.2 <sub>16</sub> 33.0	9.634 8124 <sub>6</sub> 7638	14 27.1
17	2 2 28.44 <sub>1</sub> 33.44	18 27 0.2 <sub>15</sub> 51.0	9.628 0486 <sub>6</sub> 7969	14 24.7
18	2 4 1.88 <sub>1</sub> 26.95	+ 18 42 51.2 <sub>15</sub> 7.3	9.621 2517 <sub>6</sub> 8249	14 22.3
19	2 5 28.83 <sub>1</sub> 20.20	18 57 58.5 <sub>14</sub> 21.8	9.614 4268 <sub>6</sub> 8470	14 19.7
20	2 6 49.03 <sub>1</sub> 13.18	19 12 20.3 <sub>13</sub> 34.5	9.607 5798 <sub>6</sub> 8623	14 17.1
21	2 8 2.21 <sub>1</sub> 5.88	19 25 54.8 <sub>12</sub> 45.2	9.600 7175 <sub>6</sub> 8700	14 14.3
22	2 9 8.09 <sub>0</sub> 58.34	19 38 40.0 <sub>11</sub> 53.8	9.593 8475 <sub>6</sub> 8691	14 11.4
23	2 10 6.43	+ 19 50 33.8	9.586 9784	14 8.3

Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
März 23	2 <sup>h</sup> 10 <sup>m</sup> 6.43 0 <sup>m</sup> 50.56	+19° 50' 33.8"	11 0.1	9.586 9784	6 8593 14 <sup>h</sup> 8.3
24	2 10 56.99 0 42.53	20 1 33.9	10 4.4	9.580 1191	6 8397 14 5.1
25	2 11 39.52 0 34.28	20 11 38.3	9 6.5	9.573 2794	6 8089 14 1.8
26	2 12 13.80 0 25.82	20 20 44.8	8 6.2	9.566 4705	6 7664 13 58.4
27	2 12 39.62 0 17.16	20 28 51.0	7 3.5	9.559 7041	6 7115 13 54.8
28	2 12 56.78 0 8.34	20 35 54.5	5 58.4	9.552 9926	6 6431 13 51.1
29	2 13 5.12 0 0.61	+20 41 52.9	4 50.9	9.546 3495	6 5602 13 47.2
30	2 13 4.51 0 9.67	20 46 43.8	3 41.0	9.539 7893	6 4619 13 43.2
31	2 12 54.84 0 18.81	20 50 24.8	2 28.4	9.533 3274	6 3467 13 39.0
April 1	2 12 36.03 0 27.99	20 52 53.2	1 13.3	9.526 9807	6 2139 13 34.7
2	2 12 8.04 0 37.15	20 54 6.5	0 4.0	9.520 7668	6 0630 13 30.2
3	2 11 30.89 0 46.26	20 54 2.5	1 23.4	9.514 7038	5 8931 13 25.6
4	2 10 44.63 0 55.25	+20 52 39.1	2 44.9	9.508 8107	5 7028 13 20.8
5	2 9 49.38 1 4.05	20 49 54.2	4 8.4	9.503 1079	5 4915 13 15.8
6	2 8 45.33 1 12.63	20 45 45.8	5 33.2	9.497 6164	5 2590 13 10.8
7	2 7 32.70 1 20.91	20 40 12.6	6 59.2	9.492 3574	5 0049 13 5.6
8	2 6 11.79 1 28.81	20 33 13.4	8 26.1	9.487 3525	4 7285 13 0.2
9	2 4 42.98 1 36.28	20 24 47.3	9 53.2	9.482 6240	4 4302 12 54.8
10	2 3 6.70 1 43.26	+20 14 54.1	11 20.1	9.478 1938	4 1102 12 49.2
11	2 1 23.44 1 49.66	20 3 34.0	12 46.3	9.474 0836	3 7685 12 43.5
12	1 59 33.78 1 55.41	19 50 47.7	14 11.0	9.470 3151	3 4052 12 37.7
13	1 57 38.37 1 0.45	19 36 36.7	15 33.4	9.466 9099	3 0219 12 31.8
14	1 55 37.92 2 4.73	19 21 3.3	16 52.7	9.463 8880	2 6205 12 25.8
15	1 53 33.19 2 8.19	19 4 10.6	18 8.2	9.461 2675	2 2021 12 19.8
16	1 51 25.00 2 10.79	+18 46 2.4	19 19.2	9.459 0654	1 7685 12 13.7
17	1 49 14.21 2 12.47	18 26 43.2	20 24.9	9.457 2969	1 3220 12 7.6
18	1 47 1.74 2 13.23	18 6 18.3	21 24.4	9.455 9749	8658 12 1.5
19	1 44 48.51 2 13.04	17 44 53.9	22 16.8	9.455 1091	4026 11 55.3
20	1 42 35.47 2 11.91	17 22 37.1	23 1.9	9.454 7065	647 11 49.2
21	1 40 23.56 2 9.85	16 59 35.2	23 39.1	9.454 7712	5329 11 43.1
22	1 38 13.71 2 6.92	+16 35 56.1	24 7.9	9.455 3041	9988 11 37.0
23	1 36 6.79 2 3.12	16 11 48.2	24 28.2	9.456 3029	1 4590 11 31.0
24	1 34 3.67 1 58.49	15 47 20.0	24 39.8	9.457 7619	1 9102 11 25.1
25	1 32 5.18 1 53.12	15 22 40.2	24 42.9	9.459 6721	2 3498 11 19.2
26	1 30 12.06 1 47.09	14 57 57.3	24 37.4	9.462 0219	2 7757 11 13.5
27	1 28 24.97 1 40.43	14 33 19.9	24 23.7	9.464 7976	3 1854 11 7.8
28	1 26 44.54 1 33.23	+14 8 56.2	24 2.4	9.467 9830	3 5762 11 2.3
29	1 25 11.31 1 25.57	13 44 53.8	23 33.8	9.471 5592	3 9471 10 56.9
30	1 23 45.74 1 17.52	13 21 20.0	22 58.5	9.475 5063	4 2971 10 51.6
Mai 1	1 22 28.22 1 9.17	12 58 21.5	22 17.0	9.479 8034	4 6250 10 46.4
2	1 21 19.05 1 0.56	12 36 4.5	21 30.1	9.484 4284	4 9297 10 41.4
3	1 20 18.49	+12 14 34.4		9.489 3581	

Tag	0 <sup>h</sup> Welt-Zeit			log Δ	Obere Kulmination inGreenwich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Mai 3	I 20 <sup>h</sup> 18.49 o 51.76	+I 12 14 34.4 20 38.3	9.489 3581	I 36.5	
4	I 19 26.73 o 42.86	II 53 56.1 19 42.5	9.494 5695	5 2114 5 4702 IO 31.8	
5	I 18 43.87 o 33.89	II 34 13.6 18 43.1	9.500 0397	5 7061 IO 27.2	
6	I 18 9.98 o 24.92	II 15 30.5 17 40.9	9.505 7458	5 9197 IO 22.8	
7	I 17 45.06 o 16.00	IO 57 49.6 16 36.4	9.511 6655	6 1117 IO 18.5	
8	I 17 29.06 o 7.15	IO 41 13.2 15 30.3	9.517 7772	6 2831 IO 14.4	
9	I 17 21.91 o 1.58	+IO 25 42.9 14 23.1	9.524 0603	6 4349 IO 10.4	
10	I 17 23.49 o 10.17	IO 11 19.8 13 15.2	9.530 4952	6 5680 IO 6.6	
11	I 17 33.66 o 18.60	9 58 4.6 12 6.9	9.537 0632	6 6836 IO 2.9	
12	I 17 52.26 o 26.87	9 45 57.7 10 58.6	9.543 7468	6 7830 9 59.3	
13	I 18 19.13 o 34.94	9 34 59.1 9 50.6	9.550 5298	6 8672 9 55.9	
14	I 18 54.07 o 42.80	9 25 8.5 8 43.3	9.557 3970	6 9371 9 52.6	
15	I 19 36.87 o 50.45	+ 9 16 25.2 7 36.8	9.564 3341	6 9936 9 49.4	
16	I 20 27.32 o 57.90	9 8 48.4 6 31.2	9.571 3277	7 0378 9 46.4	
17	I 21 25.22 I 5.13	9 2 17.2 5 26.9	9.578 3655	7 0705 9 43.4	
18	I 22 30.35 I 12.15	8 56 50.3 4 23.8	9.585 4360	7 0925 9 40.6	
19	I 23 42.50 I 18.95	8 52 26.5 3 22.2	9.592 5285	7 1047 9 37.9	
20	I 25 1.45 I 25.54	8 49 4.3 2 22.4	9.599 6332	7 1081 9 35.4	
21	I 26 26.99 I 31.91	+ 8 46 41.9 1 24.2	9.606 7413	7 1031 9 32.9	
22	I 27 58.90 I 38.07	8 45 17.7 o 27.6	9.613 8444	7 0905 9 30.5	
23	I 29 36.97 I 44.01	8 44 50.1 o 27.1	9.620 9349	7 0709 9 28.3	
24	I 31 20.98 I 49.75	8 45 17.2 1 20.0	9.628 0058	7 0451 9 26.1	
25	I 33 10.73 I 55.29	8 46 37.2 2 10.9	9.635 0509	7 0137 9 24.0	
26	I 35 6.02 2 0.63	8 48 48.1 2 59.9	9.642 0646	6 9773 9 22.0	
27	I 37 6.65 2 5.78	+ 8 51 48.0 3 47.1	9.649 0419	6 9363 9 20.1	
28	I 39 12.43 2 10.76	8 55 35.1 4 32.3	9.655 9782	6 8912 9 18.3	
29	I 41 23.19 2 15.54	9 0 7.4 5 15.6	9.662 8694	6 8427 9 16.6	
30	I 43 38.73 2 20.15	9 5 23.0 5 57.0	9.669 7121	6 7910 9 14.9	
31	I 45 58.88 2 24.61	9 11 20.0 6 36.4	9.676 5031	6 7364 9 13.4	
Juni 1	I 48 23.49 2 28.90	9 17 56.4 7 14.1	9.683 2395	6 6793 9 11.9	
2	I 50 52.39 2 33.04	+ 9 25 10.5 7 49.8	9.689 9188	6 6204 9 10.4	
3	I 53 25.43 2 37.03	9 33 0.3 8 23.6	9.696 5392	6 5596 9 9.1	
4	I 56 2.46 2 40.87	9 41 23.9 8 55.8	9.703 0988	6 4974 9 7.8	
5	I 58 43.33 2 44.58	9 50 19.7 9 26.1	9.709 5962	6 4339 9 6.5	
6	2 1 27.91 2 48.16	9 59 45.8 9 54.6	9.716 0301	6 3697 9 5.4	
7	2 4 16.07 2 51.62	IO 9 40.4 10 21.5	9.722 3998	6 3051 9 4.3	
8	2 7 7.69 2 54.96	+IO 20 1.9 10 46.7	9.728 7049	6 2402 9 3.2	
9	2 10 2.65 2 58.21	IO 30 48.6 11 10.4	9.734 9451	6 1752 9 2.2	
10	2 13 0.86 3 1.35	IO 41 59.0 11 32.5	9.741 1203	6 1101 9 1.2	
11	2 16 2.21 3 4.40	IO 53 31.5 11 53.0	9.747 2304	6 0451 9 0.3	
12	2 19 6.61 3 7.37	II 5 24.5 12 12.2	9.753 2755	5 9804 8 59.5	
13	2 22 13.98	+II 17 36.7	9.759 2559	8 58.7	

Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Juni 13	2 22 13.98 <small>3 10.26</small>	+11 17 36.7 <small>12 30.0</small>	9.759 2559 <small>5 9159</small>	8 <sup>h</sup> 58.7 <sup>m</sup>
14	2 25 24.24 <small>3 13.08</small>	11 30 6.7 <small>12 46.4</small>	9.765 1718 <small>5 8516</small>	8 57.9
15	2 28 37.32 <small>3 15.85</small>	11 42 53.1 <small>13 1.4</small>	9.771 0234 <small>5 7877</small>	8 57.2
16	2 31 53.17 <small>3 18.54</small>	11 55 54.5 <small>13 15.2</small>	9.776 8111 <small>5 7240</small>	8 56.6
17	2 35 11.71 <small>3 21.18</small>	12 9 9.7 <small>13 27.7</small>	9.782 5351 <small>5 6608</small>	8 56.0
18	2 38 32.89 <small>3 23.76</small>	12 22 37.4 <small>13 38.9</small>	9.788 1959 <small>5 5979</small>	8 55.4
19	2 41 56.65 <small>3 26.29</small>	+12 36 16.3 <small>13 48.8</small>	9.793 7938 <small>5 5352</small>	8 54.8
20	2 45 22.94 <small>3 28.77</small>	12 50 5.1 <small>13 57.5</small>	9.799 3290 <small>5 4730</small>	8 54.3
21	2 48 51.71 <small>3 31.21</small>	13 4 2.6 <small>14 5.0</small>	9.804 8020 <small>5 4112</small>	8 53.9
22	2 52 22.92 <small>3 33.60</small>	13 18 7.6 <small>14 11.3</small>	9.810 2132 <small>5 3498</small>	8 53.5
23	2 55 56.52 <small>3 35.95</small>	13 32 18.9 <small>14 16.5</small>	9.815 5630 <small>5 2889</small>	8 53.1
24	2 59 32.47 <small>3 38.27</small>	13 46 35.4 <small>14 20.4</small>	9.820 8519 <small>5 2283</small>	8 52.8
25	3 3 10.74 <small>3 40.53</small>	+14 0 55.8 <small>14 23.3</small>	9.826 0802 <small>5 1683</small>	8 52.5
26	3 6 51.27 <small>3 42.76</small>	14 15 19.1 <small>14 25.1</small>	9.831 2485 <small>5 1088</small>	8 52.2
27	3 10 34.03 <small>3 44.96</small>	14 29 44.2 <small>14 25.6</small>	9.836 3573 <small>5 0497</small>	8 52.0
28	3 14 18.99 <small>3 47.13</small>	14 44 9.8 <small>14 25.1</small>	9.841 4070 <small>4 9911</small>	8 51.8
29	3 18 6.12 <small>3 49.25</small>	14 58 34.9 <small>14 23.6</small>	9.846 3981 <small>4 9331</small>	8 51.7
30	3 21 55.37 <small>3 51.34</small>	15 12 58.5 <small>14 20.8</small>	9.851 3312 <small>4 8756</small>	8 51.6
Juli				
1	3 25 46.71 <small>3 53.40</small>	+15 27 19.3 <small>14 17.1</small>	9.856 2068 <small>4 8186</small>	8 51.5
2	3 29 40.11 <small>3 55.42</small>	15 41 36.4 <small>14 12.2</small>	9.861 0254 <small>4 7622</small>	8 51.5
3	3 33 35.53 <small>3 57.40</small>	15 55 48.6 <small>14 6.3</small>	9.865 7876 <small>4 7063</small>	8 51.5
4	3 37 32.93 <small>3 59.36</small>	16 9 54.9 <small>13 59.5</small>	9.870 4939 <small>4 6512</small>	8 51.5
5	3 41 32.29 <small>4 1.28</small>	16 23 54.4 <small>13 51.6</small>	9.875 1451 <small>4 5969</small>	8 51.6
6	3 45 33.57 <small>4 3.17</small>	16 37 46.0 <small>13 42.7</small>	9.879 7420 <small>4 5433</small>	8 51.7
7	3 49 36.74 <small>4 5.0</small>	+16 51 28.7 <small>13 32.9</small>	9.884 2853 <small>4 4907</small>	8 51.8
8	3 53 41.76 <small>4 6.85</small>	17 5 1.6 <small>13 22.0</small>	9.888 7760 <small>4 4389</small>	8 51.9
9	3 57 48.61 <small>4 8.66</small>	17 18 23.6 <small>13 10.4</small>	9.893 2149 <small>4 3879</small>	8 52.1
10	4 1 57.27 <small>4 10.44</small>	17 31 34.0 <small>12 57.8</small>	9.897 6028 <small>4 3377</small>	8 52.3
11	4 6 7.71 <small>4 12.18</small>	17 44 31.8 <small>12 44.3</small>	9.901 9405 <small>4 2884</small>	8 52.6
12	4 10 19.89 <small>4 13.92</small>	17 57 16.1 <small>12 30.1</small>	9.906 2289 <small>4 2400</small>	8 52.8
13	4 14 33.81 <small>4 15.63</small>	+18 9 46.2 <small>12 14.9</small>	9.910 4689 <small>4 1922</small>	8 53.1
14	4 18 49.44 <small>4 17.31</small>	18 22 1.1 <small>11 59.0</small>	9.914 6611 <small>4 1452</small>	8 53.5
15	4 23 6.75 <small>4 18.98</small>	18 34 0.1 <small>11 42.2</small>	9.918 8063 <small>4 0989</small>	8 53.8
16	4 27 25.73 <small>4 20.62</small>	18 45 42.3 <small>11 24.6</small>	9.922 9052 <small>4 0532</small>	8 54.2
17	4 31 46.35 <small>4 22.24</small>	18 57 6.9 <small>11 6.3</small>	9.926 9584 <small>4 0080</small>	8 54.6
18	4 36 8.59 <small>4 23.84</small>	19 8 13.2 <small>10 47.1</small>	9.930 9664 <small>3 9634</small>	8 55.0
19	4 40 32.43 <small>4 25.41</small>	+19 19 0.3 <small>10 27.3</small>	9.934 9298 <small>3 9193</small>	8 55.5
20	4 44 57.84 <small>4 26.95</small>	19 29 27.6 <small>10 6.6</small>	9.938 8491 <small>3 8758</small>	8 56.0
21	4 49 24.79 <small>4 28.47</small>	19 39 34.2 <small>9 45.2</small>	9.942 7249 <small>3 8327</small>	8 56.5
22	4 53 53.26 <small>4 29.96</small>	19 49 19.4 <small>9 23.0</small>	9.946 5576 <small>3 7902</small>	8 57.1
23	4 58 23.22 <small>4 31.42</small>	19 58 42.4 <small>9 0.1</small>	9.950 3478 <small>3 7481</small>	8 57.6
24	5 2 54.64	+20 7 42.5	9.954 0959	8 58.2

Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Juli 24	5 <sup>h</sup> 2 <sup>m</sup> 54.64 4 32.85	+20° 7' 42.5 8 36.6	9.954 0959 3 7066	8 <sup>h</sup> 58.2 3 6654
25	5 7 27.49 4 34.25	20 16 19.1 8 12.4	9.957 8025 3 6245	8 58.8 3 6245
26	5 12 1.74 4 35.60	20 24 31.5 7 47.5	9.961 4679 3 5842	8 59.5 3 5842
27	5 16 37.34 4 36.93	20 32 19.0 7 21.9	9.965 0924 3 5442	9 0.1 3 5442
28	5 21 14.27 4 38.22	20 39 40.9 6 55.7	9.968 6766 3 5045	9 0.8 3 5045
29	5 25 52.49 4 39.46	20 46 36.6 6 29.0	9.972 2208 3 4653	9 1.5 3 4653
30	5 30 31.95 4 40.67	+20 53 5.6 6 1.5	9.975 7253 3 4263	9 2.2 3 4263
31	5 35 12.62 4 41.83	20 59 7.1 5 33.5	9.979 1906 3 3877	9 3.0 3 3877
Aug. 1	5 39 54.45 4 42.94	21 4 40.6 5 5.0	9.982 6169 3 3498	9 3.7 3 3498
2	5 44 37.39 4 44.00	21 9 45.6 4 35.9	9.986 0046 3 3123	9 4.5 3 3123
3	5 49 21.39 4 45.02	21 14 21.5 4 6.3	9.989 3544 3 2753	9 5.3 3 2753
4	5 54 6.41 4 45.99	21 18 27.8 3 36.2	9.992 6667 3 2390	9 6.1 3 2390
5	5 58 52.40 4 46.92	+21 22 4.0 3 5.8	9.995 9420 3 2031	9 7.0 3 2031
6	6 3 39.32 4 47.79	21 25 9.8 2 34.8	9.999 1810 3 1678	9 7.8 3 1678
7	6 8 27.11 4 48.61	21 27 44.6 2 3.5	0.002 3841 3 1332	9 8.6 3 1332
8	6 13 15.72 4 49.38	21 29 48.1 1 31.8	0.005 5519 3 0989	9 9.5 3 0989
9	6 18 5.10 4 50.12	21 31 19.9 0 59.9	0.008 6851 3 0652	9 10.4 3 0652
10	6 22 55.22 4 50.80	21 32 19.8 0 27.5	0.011 7840 3 0321	9 11.3 3 0321
11	6 27 46.02 4 51.43	+21 32 47.3 0 5.1	0.014 8492 3 9994	9 12.2 3 9994
12	6 32 37.45 4 52.02	21 32 42.2 0 38.0	0.017 8813 2 9673	9 13.1 2 9673
13	6 37 29.47 4 52.58	21 32 4.2 1 11.1	0.020 8807 2 9355	9 14.1 2 9355
14	6 42 22.05 4 53.08	21 30 53.1 1 44.5	0.023 8480 2 9041	9 15.0 2 9041
15	6 47 15.13 4 53.53	21 29 8.6 2 18.0	0.026 7835 2 8729	9 16.0 2 8729
16	6 52 8.66 4 53.95	21 26 50.6 2 51.8	0.029 6876 2 8422	9 16.9 2 8422
17	6 57 2.61 4 54.31	+21 23 58.8 3 25.7	0.032 5605 2 8118	9 17.9 2 8118
18	7 1 56.92 4 54.63	21 20 33.1 3 59.6	0.035 4027 2 7817	9 18.8 2 7817
19	7 6 51.55 4 54.90	21 16 33.5 4 33.7	0.038 2145 2 7520	9 19.8 2 7520
20	7 11 46.45 4 55.13	21 11 59.8 5 7.8	0.040 9962 2 7225	9 20.8 2 7225
21	7 16 41.58 4 55.31	21 6 52.0 5 42.1	0.043 7482 2 6931	9 21.8 2 6931
22	7 21 36.89 4 55.45	21 1 9.9 6 16.3	0.046 4707 2 6641	9 22.7 2 6641
23	7 26 32.34 4 55.54	+20 54 53.6 6 50.6	0.049 1638 2 6354	9 23.7 2 6354
24	7 31 27.88 4 55.60	20 48 3.0 7 24.8	0.051 8279 2 6067	9 24.7 2 6067
25	7 36 23.48 4 55.61	20 40 38.2 7 59.0	0.054 4633 2 5782	9 25.7 2 5782
26	7 41 19.09 4 55.57	20 32 39.2 8 33.1	0.057 0700 2 5500	9 26.7 2 5500
27	7 46 14.66 4 55.48	20 24 6.1 9 7.1	0.059 6482 2 5219	9 27.7 2 5219
28	7 51 10.14 4 55.36	20 14 59.0 9 40.9	0.062 1982 2 4941	9 28.6 2 4941
29	7 56 5.50 4 55.19	+20 5 18.1 10 14.6	0.064 7201 2 4665	9 29.6 2 4665
30	8 1 0.69 4 54.99	19 55 3.5 10 48.1	0.067 2142 2 4392	9 30.6 2 4392
31	8 5 55.68 4 54.74	19 44 15.4 11 21.3	0.069 6807 2 4121	9 31.6 2 4121
Sept. 1	8 10 50.42 4 54.45	19 32 54.1 11 54.4	0.072 1199 2 3853	9 32.5 2 3853
2	8 15 44.87 4 54.12	19 20 59.7 12 27.1	0.074 5320 2 3553	9 33.5 2 3553
3	8 20 38.99	+19 8 32.6	0.076 9173	9 34.5



Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kul- mination in Green- wich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Sept. 3	8 <sup>h</sup> 20 <sup>m</sup> 38 <sup>s</sup> .99 <small>4 53.76</small>	+19° 8' 32.6" <small>12 59.5</small>	0.076 9173 <small>2 3589</small>	9 34.5	
4	8 25 32.75 <small>4 53.37</small>	18 55 33.1 <small>13 31.7</small>	0.079 2762 <small>2 3327</small>	9 35.4	
5	8 30 26.12 <small>4 52.95</small>	18 42 1.4 <small>14 3.5</small>	0.081 6089 <small>2 3070</small>	9 36.4	
6	8 35 19.07 <small>4 52.49</small>	18 27 57.9 <small>14 34.9</small>	0.083 9159 <small>2 2816</small>	9 37.3	
7	8 40 11.56 <small>4 52.01</small>	18 13 23.0 <small>15 5.9</small>	0.086 1975 <small>2 2566</small>	9 38.2	
8	8 45 3.57 <small>4 51.51</small>	17 58 17.1 <small>15 36.6</small>	0.088 4541 <small>2 2319</small>	9 39.1	
9	8 49 55.08 <small>4 50.99</small>	+17 42 40.5 <small>16 6.9</small>	0.090 6860 <small>2 2076</small>	9 40.1	
10	8 54 46.07 <small>4 50.46</small>	17 26 33.6 <small>16 36.8</small>	0.092 8936 <small>2 1835</small>	9 41.0	
11	8 59 36.53 <small>4 49.90</small>	17 9 56.8 <small>17 6.1</small>	0.095 0771 <small>2 1597</small>	9 41.9	
12	9 4 26.43 <small>4 49.33</small>	16 52 50.7 <small>17 35.2</small>	0.097 2368 <small>2 1363</small>	9 42.7	
13	9 9 15.76 <small>4 48.75</small>	16 35 15.5 <small>18 3.6</small>	0.099 3731 <small>2 1131</small>	9 43.6	
14	9 14 4.51 <small>4 48.17</small>	16 17 11.9 <small>18 31.7</small>	0.101 4862 <small>2 0902</small>	9 44.5	
15	9 18 52.68 <small>4 47.58</small>	+15 58 40.2 <small>18 59.2</small>	0.103 5764 <small>2 0674</small>	9 45.3	
16	9 23 40.26 <small>4 46.97</small>	15 39 41.0 <small>19 26.3</small>	0.105 6438 <small>2 0449</small>	9 46.2	
17	9 28 27.23 <small>4 46.36</small>	15 20 14.7 <small>19 52.8</small>	0.107 6887 <small>2 0226</small>	9 47.0	
18	9 33 13.59 <small>4 45.75</small>	15 0 21.9 <small>20 18.9</small>	0.109 7113 <small>2 0004</small>	9 47.9	
19	9 37 59.34 <small>4 45.14</small>	14 40 3.0 <small>20 44.3</small>	0.111 7117 <small>1 9785</small>	9 48.7	
20	9 42 44.48 <small>4 44.54</small>	14 19 18.7 <small>21 9.3</small>	0.113 6902 <small>1 9567</small>	9 49.5	
21	9 47 29.02 <small>4 43.94</small>	+13 58 9.4 <small>21 33.7</small>	0.115 6469 <small>1 9351</small>	9 50.3	
22	9 52 12.96 <small>4 43.34</small>	13 36 35.7 <small>21 57.6</small>	0.117 5820 <small>1 9135</small>	9 51.1	
23	9 56 56.30 <small>4 42.75</small>	13 14 38.1 <small>22 20.8</small>	0.119 4955 <small>1 8921</small>	9 51.8	
24	10 1 39.05 <small>4 42.17</small>	12 52 17.3 <small>22 43.5</small>	0.121 3876 <small>1 8707</small>	9 52.6	
25	10 6 21.22 <small>4 41.58</small>	12 29 33.8 <small>23 5.6</small>	0.123 2583 <small>1 8494</small>	9 53.4	
26	10 11 2.80 <small>4 41.00</small>	12 6 28.2 <small>23 27.2</small>	0.125 1077 <small>1 8282</small>	9 54.1	
27	10 15 43.80 <small>4 40.44</small>	+11 43 1.0 <small>23 48.0</small>	0.126 9359 <small>1 8070</small>	9 54.8	
28	10 20 24.24 <small>4 39.88</small>	11 19 13.0 <small>24 8.2</small>	0.128 7429 <small>1 7860</small>	9 55.6	
29	10 25 4.12 <small>4 39.34</small>	10 55 4.8 <small>24 27.7</small>	0.130 5289 <small>1 7652</small>	9 56.3	
30	10 29 43.46 <small>4 38.81</small>	10 30 37.1 <small>24 46.6</small>	0.132 2941 <small>1 7444</small>	9 57.0	
Okt. 1	10 34 22.27 <small>4 38.29</small>	10 5 50.5 <small>25 4.8</small>	0.134 0385 <small>1 7240</small>	9 57.7	
2	10 39 0.56 <small>4 37.79</small>	9 40 45.7 <small>25 22.4</small>	0.135 7625 <small>1 7037</small>	9 58.4	
3	10 43 38.35 <small>4 37.31</small>	+ 9 15 23.3 <small>25 39.3</small>	0.137 4662 <small>1 6836</small>	9 59.1	
4	10 48 15.66 <small>4 36.84</small>	8 49 44.0 <small>25 55.5</small>	0.139 1498 <small>1 6638</small>	9 59.7	
5	10 52 52.50 <small>4 36.40</small>	8 23 48.5 <small>26 11.0</small>	0.140 8136 <small>1 6441</small>	10 0.4	
6	10 57 28.90 <small>4 35.97</small>	7 57 37.5 <small>26 25.8</small>	0.142 4577 <small>1 6247</small>	10 1.1	
7	11 2 4.87 <small>4 35.57</small>	7 31 11.7 <small>26 40.0</small>	0.144 0824 <small>1 6056</small>	10 1.7	
8	11 6 40.44 <small>4 35.20</small>	7 4 31.7 <small>26 53.5</small>	0.145 6880 <small>1 5867</small>	10 2.4	
9	11 11 15.64 <small>4 34.86</small>	+ 6 37 38.2 <small>27 6.3</small>	0.147 2747 <small>1 5681</small>	10 3.0	
10	11 15 50.50 <small>4 34.53</small>	6 10 31.9 <small>27 18.4</small>	0.148 8428 <small>1 5496</small>	10 3.7	
11	11 20 25.03 <small>4 34.24</small>	5 43 13.5 <small>27 29.8</small>	0.150 3924 <small>1 5313</small>	10 4.3	
12	11 24 59.27 <small>4 33.98</small>	5 15 43.7 <small>27 40.5</small>	0.151 9237 <small>1 5133</small>	10 4.9	
13	11 29 33.25 <small>4 33.75</small>	4 48 3.2 <small>27 50.6</small>	0.153 4370 <small>1 4954</small>	10 5.5	
14	11 34 7.00	+ 4 20 12.6	0.154 9324	10 6.2	

Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Okt. 14	11 <sup>h</sup> 34 <sup>m</sup> 7.00 <sup>s</sup> 4 33.57	+ 4 <sup>o</sup> 20' 12.6" 27 59.9	0.154 9324 1 4777	10 <sup>h</sup> 6.2 <sup>m</sup>
15	11 38 40.57 4 33.40	3 52 12.7 28 8.6	0.156 4101 1 4602	10 6.8
16	11 43 13.97 4 33.27	3 24 4.1 28 16.6	0.157 8703 1 4430	10 7.4
17	11 47 47.24 4 33.17	2 55 47.5 28 23.9	0.159 3133 1 4258	10 8.0
18	11 52 20.41 4 33.12	2 27 23.6 28 30.5	0.160 7391 1 4087	10 8.6
19	11 56 53.53 4 33.10	1 58 53.1 28 36.4	0.162 1478 1 3917	10 9.2
20	12 1 26.63 4 33.11	+ 1 30 16.7 28 41.6	0.163 5395 1 3748	10 9.8
21	12 5 59.74 4 33.16	1 1 35.1 28 46.1	0.164 9143 1 3580	10 10.4
22	12 10 32.90 4 33.25	0 32 49.0 28 49.9	0.166 2723 1 3411	10 11.1
23	12 15 6.15 4 33.37	+ 0 3 59.1 28 52.9	0.167 6134 1 3244	10 11.7
24	12 19 39.52 4 33.54	- 0 24 53.8 28 55.3	0.168 9378 1 3077	10 12.3
25	12 24 13.06 4 33.73	0 53 49.1 28 56.9	0.170 2455 1 2911	10 12.9
26	12 28 46.79 4 33.95	- 1 22 46.0 28 57.7	0.171 5366 1 2745	10 13.5
27	12 33 20.74 4 34.21	1 51 43.7 28 57.8	0.172 8111 1 2579	10 14.1
28	12 37 54.95 4 34.52	2 20 41.5 28 57.2	0.174 0690 1 2413	10 14.8
29	12 42 29.47 4 34.85	2 49 38.7 28 55.8	0.175 3103 1 2250	10 15.4
30	12 47 4.32 4 35.21	3 18 34.5 28 53.5	0.176 5353 1 2087	10 16.0
31	12 51 39.53 4 35.61	3 47 28.0 28 50.5	0.177 7440 1 1925	10 16.7
Nov. 1	12 56 15.14 4 36.05	- 4 16 18.5 28 46.8	0.178 9365 1 1766	10 17.3
2	13 0 51.19 4 36.52	4 45 5.3 28 42.3	0.180 1131 1 1607	10 18.0
3	13 5 27.71 4 37.02	5 13 47.6 28 37.0	0.181 2738 1 1450	10 18.7
4	13 10 4.73 4 37.56	5 42 24.6 28 30.9	0.182 4188 1 1295	10 19.4
5	13 14 42.29 4 38.14	6 10 55.5 28 24.1	0.183 5483 1 1142	10 20.0
6	13 19 20.43 4 38.74	6 39 19.6 28 16.4	0.184 6625 1 0991	10 20.7
7	13 23 59.17 4 39.39	- 7 7 36.0 28 8.0	0.185 7616 1 0841	10 21.5
8	13 28 38.56 4 40.07	7 35 44.0 27 58.9	0.186 8457 1 0692	10 22.2
9	13 33 18.63 4 40.79	8 3 42.9 27 49.0	0.187 9149 1 0545	10 22.9
10	13 37 59.42 4 41.53	8 31 31.9 27 38.3	0.188 9694 1 0401	10 23.6
11	13 42 40.95 4 42.31	8 59 10.2 27 26.7	0.190 0095 1 0259	10 24.4
12	13 47 23.26 4 43.13	9 26 36.9 27 14.4	0.191 0354 1 0117	10 25.2
13	13 52 6.39 4 43.97	- 9 53 51.3 27 1.4	0.192 0471 9977	10 26.0
14	13 56 50.36 4 44.85	10 20 52.7 26 47.6	0.193 0448 9838	10 26.8
15	14 1 35.21 4 45.76	10 47 40.3 26 33.0	0.194 0286 9701	10 27.6
16	14 6 20.97 4 46.70	11 14 13.3 26 17.5	0.194 9987 9565	10 28.4
17	14 11 7.67 4 47.68	11 40 30.8 26 1.3	0.195 9552 9430	10 29.2
18	14 15 55.35 4 48.67	12 6 32.1 25 44.4	0.196 8982 9295	10 30.1
19	14 20 44.02 4 49.70	- 12 32 16.5 25 26.7	0.197 8277 9161	10 31.0
20	14 25 33.72 4 50.76	12 57 43.2 25 8.1	0.198 7438 9028	10 31.9
21	14 30 24.48 4 51.84	13 22 51.3 24 48.8	0.199 6466 8895	10 32.8
22	14 35 16.32 4 52.94	13 47 40.1 24 28.6	0.200 5361 8761	10 33.7
23	14 40 9.26 4 54.06	14 12 8.7 24 7.7	0.201 4122 8626	10 34.7
24	14 45 3.32	- 14 36 16.4	0.202 2748	10 35.6

Tag	O <sup>b</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Nov. 24	14 <sup>h</sup> 45 <sup>m</sup> 3.32 <sup>s</sup> 4 55.19	−14° 36' 16.4" 23 45.9	0.202 2748	IO 35.6
25	14 49 58.51 4 56.34	15 0 2.3 23 23.3	0.203 1240	IO 36.6
26	14 54 54.85 4 57.51	15 23 25.6 22 59.9	0.203 9598	IO 37.6
27	14 59 52.36 4 58.68	15 46 25.5 22 35.6	0.204 7823	IO 38.6
28	15 4 51.04 4 59.86	16 9 1.1 22 10.7	0.205 5915	IO 39.7
29	15 9 50.90 5 1.05	16 31 11.8 21 44.8	0.206 3876	IO 40.7
30	15 14 51.95 5 2.24	−16 52 56.6 21 18.2	0.207 1707	IO 41.8
Dez. 1	15 19 54.19 5 3.44	17 14 14.8 20 50.8	0.207 9407	IO 42.9
2	15 24 57.63 5 4.64	17 35 5.6 20 22.5	0.208 6978	IO 44.1
3	15 30 2.27 5 5.83	17 55 28.1 19 53.6	0.209 4421	IO 45.2
4	15 35 8.10 5 7.02	18 15 21.7 19 23.8	0.210 1737	IO 46.4
5	15 40 15.12 5 8.20	18 34 45.5 18 53.3	0.210 8927	IO 47.6
6	15 45 23.32 5 9.38	−18 53 38.8 18 22.1	0.211 5993	IO 48.8
7	15 50 32.70 5 10.54	19 12 0.9 17 50.1	0.212 2936	IO 50.0
8	15 55 43.24 5 11.70	19 29 51.0 17 17.5	0.212 9757	IO 51.2
9	16 0 54.94 5 12.83	19 47 8.5 16 44.1	0.213 6459	IO 52.5
10	16 6 7.77 5 13.96	20 3 52.6 16 10.0	0.214 3042	IO 53.8
11	16 11 21.73 5 15.06	20 20 2.6 15 35.2	0.214 9507	IO 55.1
12	16 16 36.79 5 16.13	−20 35 37.8 14 59.8	0.215 5855	IO 56.4
13	16 21 52.92 5 17.18	20 50 37.6 14 23.8	0.216 2089	IO 57.7
14	16 27 10.10 5 18.21	21 5 1.4 13 47.2	0.216 8210	IO 59.1
15	16 32 28.31 5 19.21	21 18 48.6 13 9.9	0.217 4218	II 0.4
16	16 37 47.52 5 20.18	21 31 58.5 12 32.1	0.218 0115	II 1.8
17	16 43 7.70 5 21.12	21 44 30.6 11 53.7	0.218 5901	II 3.2
18	16 48 28.82 5 22.02	−21 56 24.3 11 14.8	0.219 1577	II 4.7
19	16 53 50.84 5 22.89	22 7 39.1 10 35.4	0.219 7142	II 6.1
20	16 59 13.73 5 23.71	22 18 14.5 9 55.5	0.220 2598	II 7.5
21	17 4 37.44 5 24.49	22 28 10.0 9 15.1	0.220 7944	II 9.0
22	17 10 1.93 5 25.22	22 37 25.1 8 34.2	0.221 3179	II 10.5
23	17 15 27.15 5 25.99	22 45 59.3 7 52.9	0.221 8303	II 12.0
24	17 20 53.05 5 26.52	−22 53 52.2 7 11.3	0.222 3317	II 13.4
25	17 26 19.57 5 27.10	23 1 3.5 6 29.2	0.222 8220	II 14.9
26	17 31 46.67 5 27.61	23 7 32.7 5 46.8	0.223 3012	II 16.5
27	17 37 14.28 5 28.07	23 13 19.5 5 4.2	0.223 7692	II 18.0
28	17 42 42.35 5 28.47	23 18 23.7 4 21.2	0.224 2261	II 19.5
29	17 48 10.82 5 28.81	23 22 44.9 3 38.1	0.224 6720	II 21.1
30	17 53 39.63 5 29.08	−23 26 23.0 2 54.8	0.225 1069	II 22.6
31	17 59 8.71 5 29.29	23 29 17.8 2 11.2	0.225 5308	II 24.1
32	18 4 38.00	−23 31 29.0	0.225 9438	II 25.7

Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Jan. 0	5 41 <sup>h</sup> 52.05 <sup>m</sup> 31.02 <sup>s</sup>	+26° 47' 11.0"	9.785 3606	23 <sup>h</sup> 0.0 <sup>m</sup>
1	5 40 21.03 28.58	26 47 15.4 3.2	9.787 7262	22 36.56
2	5 38 52.45 26.00	26 47 12.2 10.1	9.790 2200	22 49.38
3	5 37 26.45 23.26	26 47 2.1 16.7	9.792 8378	22 61.78
4	5 36 3.19 20.39	26 46 45.4 22.8	9.795 5759	22 73.81
5	5 34 42.80 17.39	26 46 22.6 28.5	9.798 4303	22 85.44
6	5 33 25.41 14.28	+26 45 54.1 33.6	9.801 3968	22 96.65
7	5 32 11.13 11.08	26 45 20.5 38.2	9.804 4709	22 07.41
8	5 31 0.05 7.77	26 44 42.3 42.4	9.807 6481	22 17.72
9	5 29 52.28 4.38	26 43 59.9 46.1	9.810 9238	22 27.57
10	5 28 47.90 0.91	26 43 13.8 49.3	9.814 2933	22 36.95
11	5 27 46.99 57.38	26 42 24.5 52.0	9.817 7520	22 45.87
12	5 26 49.61 53.80	+26 41 32.5 54.2	9.821 2951	22 54.31
13	5 25 55.81 50.17	26 40 38.3 56.0	9.824 9179	21 62.28
14	5 25 5.64 46.52	26 39 42.3 57.5	9.828 6156	21 69.77
15	5 24 19.12 42.83	26 38 44.8 58.6	9.832 3835	21 76.79
16	5 23 36.29 39.14	26 37 46.2 59.3	9.836 2171	21 83.36
17	5 22 57.15 35.44	26 36 46.9 59.6	9.840 1117	21 89.46
18	5 22 21.71 31.74	+26 35 47.3 59.6	9.844 0629	21 95.12
19	5 21 49.97 28.06	26 34 47.7 59.4	9.848 0662	21 00.33
20	5 21 21.91 24.40	26 33 48.3 58.9	9.852 1173	21 05.11
21	5 20 57.51 20.76	26 32 49.4 58.1	9.856 2123	21 09.50
22	5 20 36.75 17.15	26 31 51.3 57.2	9.860 3471	21 13.48
23	5 20 19.60 13.58	26 30 54.1 56.1	9.864 5180	21 17.09
24	5 20 6.02 10.05	+26 29 58.0 55.0	9.868 7216	21 20.36
25	5 19 55.97 6.57	26 29 3.0 53.6	9.872 9545	21 23.29
26	5 19 49.40 3.14	26 28 9.4 52.1	9.877 2136	21 25.91
27	5 19 46.26 0.26	26 27 17.3 50.6	9.881 4958	21 28.22
28	5 19 46.52 3.62	26 26 26.7 49.0	9.885 7984	21 30.26
29	5 19 50.14 6.92	26 25 37.7 47.3	9.890 1187	21 32.03
30	5 19 57.06 10.17	+26 24 50.4 45.6	9.894 4542	21 33.55
31	5 20 7.23 13.39	26 24 4.8 43.8	9.898 8023	21 34.81
Febr. 1	5 20 20.62 16.56	26 23 21.0 42.0	9.903 1606	21 35.83
2	5 20 37.18 19.69	26 22 39.0 40.4	9.907 5267	21 36.61
3	5 20 56.87 22.76	26 21 58.6 38.6	9.911 8985	21 37.18
4	5 21 19.63 25.77	26 21 20.0 36.8	9.916 2739	21 37.54
5	5 21 45.40 28.74	+26 20 43.2 35.2	9.920 6507	21 37.68
6	5 22 14.14 31.66	26 20 8.0 33.7	9.925 0269	21 37.62
7	5 22 45.80 34.54	26 19 34.3 32.2	9.929 4005	21 37.36
8	5 23 20.34 37.36	26 19 2.1 30.7	9.933 7698	21 36.93
9	5 23 57.70 40.13	26 18 31.4 29.3	9.938 1329	21 36.31
10	5 24 37.83	+26 18 2.1	9.942 4882	21 35.53

Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kul- mination in Green- wich
	Scheinbare Rektaszension	Scheinbare Deklination			
<b>1929</b>					
<b>Febr.</b>					
10	5 <sup>h</sup> 24 <sup>m</sup> 37.83 <sup>s</sup> ○ 42.84	+26° 18' 2.1" ○ 28.2	9.942 4882	4 3460	20 <sup>h</sup> 3.6 <sup>m</sup>
11	5 25 20.67 ○ 45.50	26 17 33.9 ○ 27.1	9.946 8342	4 3350	20 0.4
12	5 26 6.17 ○ 48.11	26 17 6.8 ○ 26.1	9.951 1692	4 3225	19 57.3
13	5 26 54.28 ○ 50.65	26 16 40.7 ○ 25.2	9.955 4917	4 3085	19 54.2
14	5 27 44.93 ○ 53.14	26 16 15.5 ○ 24.5	9.959 8002	4 2932	19 51.1
15	5 28 38.07 ○ 55.58	26 15 51.0 ○ 24.0	9.964 0934	4 2768	19 48.1
16	5 29 33.65 ○ 57.95	+26 15 27.0 ○ 23.7	9.968 3702	4 2591	19 45.1
17	5 30 31.60 I 0.27	26 15 3.3 ○ 23.4	9.972 6293	4 2404	19 42.2
18	5 31 31.87 I 2.53	26 14 39.9 ○ 23.4	9.976 8697	4 2209	19 39.3
19	5 32 34.40 I 4.74	26 14 16.5 ○ 23.5	9.981 0906	4 2006	19 36.4
20	5 33 39.14 I 6.88	26 13 53.0 ○ 23.8	9.985 2912	4 1795	19 33.6
21	5 34 46.02 I 8.97	26 13 29.2 ○ 24.4	9.989 4707	4 1577	19 30.8
22	5 35 54.99 I 11.00	+26 13 4.8 ○ 25.0	9.993 6284	4 1354	19 28.0
23	5 37 5.99 I 12.98	26 12 39.8 ○ 25.9	9.997 7638	4 1127	19 25.3
24	5 38 18.97 I 14.92	26 12 13.9 ○ 26.9	0.001 8765	4 0895	19 22.6
25	5 39 33.89 I 16.81	26 11 47.0 ○ 28.1	0.005 9660	4 0661	19 20.0
26	5 40 50.70 I 18.65	26 11 18.9 ○ 29.5	0.010 0321	4 0424	19 17.3
27	5 42 9.35 I 20.46	26 10 49.4 ○ 31.0	0.014 0745	4 0183	19 14.7
28	5 43 29.81 I 22.21	+26 10 18.4 ○ 32.8	0.018 0928	3 9938	19 12.1
<b>März</b>					
1	5 44 52.02 I 23.94	26 9 45.6 ○ 34.6	0.022 0866	3 9692	19 9.6
2	5 46 15.96 I 25.63	26 9 11.0 ○ 36.6	0.026 0558	3 9443	19 7.1
3	5 47 41.59 I 27.27	26 8 34.4 ○ 38.8	0.030 0001	3 9191	19 4.6
4	5 49 8.86 I 28.88	26 7 55.6 ○ 41.0	0.033 9192	3 8936	19 2.1
5	5 50 37.74 I 30.45	26 7 14.6 ○ 43.6	0.037 8128	3 8678	18 59.7
6	5 52 8.19 I 32.00	+26 6 31.0 ○ 46.4	0.041 6806	3 8418	18 57.3
7	5 53 40.19 I 33.49	26 5 44.6 ○ 49.1	0.045 5224	3 8156	18 54.9
8	5 55 13.68 I 34.96	26 4 55.5 ○ 52.1	0.049 3380	3 7891	18 52.5
9	5 56 48.64 I 36.40	26 4 3.4 ○ 55.3	0.053 1271	3 7625	18 50.2
10	5 58 25.04 I 37.81	26 3 8.1 ○ 58.6	0.056 8806	3 7356	18 47.9
11	6 0 2.85 I 39.17	26 2 9.5 I 2.0	0.060 6252	3 7085	18 45.6
12	6 1 42.02 I 40.51	+26 1 7.5 I 5.7	0.064 3337	3 6813	18 43.3
13	6 3 22.53 I 41.80	26 0 1.8 I 9.4	0.068 0150	3 6537	18 41.1
14	6 5 4.33 I 43.07	25 58 52.4 I 13.3	0.071 6687	3 6258	18 38.8
15	6 6 47.40 I 44.30	25 57 39.1 I 17.3	0.075 2945	3 5980	18 36.6
16	6 8 31.70 I 45.49	25 56 21.8 I 21.5	0.078 8925	3 5701	18 34.4
17	6 10 17.19 I 46.66	25 55 0.3 I 25.9	0.082 4626	3 5421	18 32.3
18	6 12 3.85 I 47.78	+25 53 34.4 I 30.4	0.086 0047	3 5140	18 30.1
19	6 13 51.63 I 48.86	25 52 4.0 I 35.1	0.089 5187	3 4859	18 28.0
20	6 15 40.49 I 49.92	25 50 28.9 I 39.8	0.093 0046	3 4580	18 25.9
21	6 17 30.41 I 50.94	25 48 49.1 I 44.7	0.096 4626	3 4301	18 23.8
22	6 19 21.35 I 51.94	25 47 4.4 I 49.7	0.099 8927	3 4023	18 21.7
23	6 21 13.29	+25 45 14.7	0.103 2950		18 19.7

Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
März 23	6 <sup>h</sup> 21 <sup>m</sup> 13.29 <sup>s</sup> 1 52.90	+25 45 14.7 1 54.8	0.103 2950	18 <sup>h</sup> 19.7 <sup>m</sup>
24	6 23 6.19 1 53.83	25 43 19.9 2 0.1	0.106 6698	3 3748 18 17.6
25	6 25 0.02 1 54.73	25 41 19.8 2 5.4	0.110 0173	3 3475 18 15.6
26	6 26 54.75 1 55.61	25 39 14.4 2 10.8	0.113 3377	3 3204 18 13.6
27	6 28 50.36 1 56.47	25 37 3.6 2 16.4	0.116 6311	3 2934 18 11.6
28	6 30 46.83 1 57.30	25 34 47.2 2 22.1	0.119 8978	3 2667 18 9.6
29	6 32 44.13 1 58.12	+25 32 25.1 2 27.8	0.123 1379	3 2401 18 7.6
30	6 34 42.25 1 58.91	25 29 57.3 2 33.6	0.126 3516	3 2137 18 5.6
31	6 36 41.16 1 59.69	25 27 23.7 2 39.6	0.129 5390	3 1874 18 3.7
April 1	6 38 40.85 2 0.44	25 24 44.1 2 45.7	0.132 7004	3 1614 18 1.8
2	6 40 41.29 2 1.17	25 21 58.4 2 51.7	0.135 8358	3 1354 17 59.8
3	6 42 42.46 2 1.88	25 19 6.7 2 57.9	0.138 9453	3 1095 17 57.9
4	6 44 44.34 2 2.57	+25 16 8.8 3 4.3	0.142 0290	3 0837 17 56.0
5	6 46 46.91 2 3.25	25 13 4.5 3 10.6	0.145 0870	3 0580 17 54.1
6	6 48 50.16 2 3.91	25 9 53.9 3 17.1	0.148 1196	3 0326 17 52.3
7	6 50 54.07 2 4.55	25 6 36.8 3 23.6	0.151 1267	3 0071 17 50.4
8	6 52 58.62 2 5.17	25 3 13.2 3 30.1	0.154 1084	2 9817 17 48.5
9	6 55 3.79 2 5.77	24 59 43.1 3 36.9	0.157 0647	2 9563 17 46.7
10	6 57 9.56 2 6.36	+24 56 6.2 3 43.6	0.159 9958	2 9311 17 44.9
11	6 59 15.92 2 6.93	24 52 22.6 3 50.4	0.162 9015	2 9057 17 43.0
12	7 1 22.85 2 7.46	24 48 32.2 3 57.3	0.165 7818	2 8803 17 41.2
13	7 3 30.31 2 7.99	24 44 34.9 4 4.2	0.168 6368	2 8550 17 39.4
14	7 5 38.30 2 8.49	24 40 30.7 4 11.3	0.171 4667	2 8299 17 37.6
15	7 7 46.79 2 8.97	24 36 19.4 4 18.2	0.174 2716	2 8049 17 35.8
16	7 9 55.76 2 9.43	+24 32 1.2 4 25.2	0.177 0517	2 7801 17 34.0
17	7 12 5.19 2 9.86	24 27 36.0 4 32.4	0.179 8069	2 7552 17 32.2
18	7 14 15.05 2 10.28	24 23 3.6 4 39.6	0.182 5374	2 7305 17 30.5
19	7 16 25.33 2 10.68	24 18 24.0 4 46.8	0.185 2436	2 7062 17 28.7
20	7 18 36.01 2 11.07	24 13 37.2 4 53.9	0.187 9256	2 6820 17 27.0
21	7 20 47.08 2 11.44	24 8 43.3 5 1.2	0.190 5836	2 6580 17 25.2
22	7 22 58.52 2 11.80	+24 3 42.1 5 8.5	0.193 2179	2 6343 17 23.5
23	7 25 10.32 2 12.13	23 58 33.6 5 15.7	0.195 8288	2 6109 17 21.7
24	7 27 22.45 2 12.45	23 53 17.9 5 23.0	0.198 4165	2 5877 17 20.0
25	7 29 34.90 2 12.76	23 47 54.9 5 30.4	0.200 9812	2 5647 17 18.3
26	7 31 47.66 2 13.06	23 42 24.5 5 37.8	0.203 5232	2 5420 17 16.5
27	7 34 0.72 2 13.36	23 36 46.7 5 45.1	0.206 0426	2 5194 17 14.8
28	7 36 14.08 2 13.63	+23 31 1.6 5 52.6	0.208 5397	2 4971 17 13.1
29	7 38 27.71 2 13.90	23 25 9.0 5 59.9	0.211 0147	2 4750 17 11.4
30	7 40 41.61 2 14.16	23 19 9.1 6 7.3	0.213 4678	2 4531 17 9.7
Mai 1	7 42 55.77 2 14.41	23 13 1.8 6 14.8	0.215 8900	2 4312 17 8.0
2	7 45 10.18 2 14.65	23 6 47.0 6 22.3	0.218 3085	2 4095 17 6.3
3	7 47 24.83	+23 0 24.7	0.220 6965	2 3880 17 4.6

Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich	
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ		
1929					
Mai	3	7 <sup>n</sup> 47 <sup>m</sup> 24. <sup>s</sup> 83    2 <sup>m</sup> 14.88	+23 <sup>o</sup> 0' 24.7"    6' 29.7"	0.220 6965    2 3666	17 <sup>h</sup> 4.0 <sup>m</sup>
	4	7 49 39.71    2 15.09	22 53 55.0    6 37.1	0.223 0631    2 3453	17 2.9
	5	7 51 54.80    2 15.30	22 47 17.9    6 44.7	0.225 4084    2 3242	17 1.2
	6	7 54 10.10    2 15.51	22 40 33.2    6 52.1	0.227 7326    2 3031	16 59.5
	7	7 56 25.61    2 15.72	22 33 41.1    6 59.6	0.230 0357    2 2821	16 57.9
	8	7 58 41.33    2 15.90	22 26 41.5    7 7.2	0.232 3178    2 2610	16 56.2
	9	8 0 57.23    2 16.08	+22 19 34.3    7 14.7	0.234 5788    2 2400	16 54.5
	10	8 3 13.31    2 16.24	22 12 19.6    7 22.1	0.236 8188    2 2190	16 52.8
	11	8 5 29.55    2 16.39	22 4 57.5    7 29.6	0.239 0378    2 1983	16 51.2
	12	8 7 45.94    2 16.53	21 57 27.9    7 37.1	0.241 2361    2 1775	16 49.5
	13	8 10 2.47    2 16.66	21 49 50.8    7 44.5	0.243 4136    2 1568	16 47.8
	14	8 12 19.13    2 16.77	21 42 6.3    7 51.8	0.245 5704    2 1362	16 46.2
	15	8 14 35.90    2 16.87	+21 34 14.5    7 59.2	0.247 7066    2 1159	16 44.5
	16	8 16 52.77    2 16.96	21 26 15.3    8 6.6	0.249 8225    2 0957	16 42.9
	17	8 19 9.73    2 17.05	21 18 8.7    8 13.9	0.251 9182    2 0758	16 41.2
	18	8 21 26.78    2 17.13	21 9 54.8    8 21.2	0.253 9940    2 0560	16 39.5
	19	8 23 43.91    2 17.20	21 1 33.6    8 28.4	0.256 0500    2 0364	16 37.9
	20	8 26 1.11    2 17.25	20 53 5.2    8 35.7	0.258 0864    2 0170	16 36.2
	21	8 28 18.36    2 17.31	+20 44 29.5    8 42.9	0.260 1034    1 9978	16 34.6
	22	8 30 35.67    2 17.35	20 35 46.6    8 50.1	0.262 1012    1 9788	16 32.9
23	8 32 53.02    2 17.39	20 26 56.5    8 57.1	0.264 0800    1 9599	16 31.3	
24	8 35 10.41    2 17.43	20 17 59.4    9 4.3	0.266 0399    1 9413	16 29.6	
25	8 37 27.84    2 17.47	20 8 55.1    9 11.4	0.267 9812    1 9230	16 28.0	
26	8 39 45.31    2 17.49	19 59 43.7    9 18.4	0.269 9042    1 9047	16 26.3	
27	8 42 2.80    2 17.52	+19 50 25.3    9 25.4	0.271 8089    1 8865	16 24.7	
28	8 44 20.32    2 17.54	19 40 59.9    9 32.4	0.273 6954    1 8685	16 23.0	
29	8 46 37.86    2 17.56	19 31 27.5    9 39.4	0.275 5639    1 8507	16 21.4	
30	8 48 55.42    2 17.58	19 21 48.1    9 46.2	0.277 4146    1 8331	16 19.7	
31	8 51 13.00    2 17.60	19 12 1.9    9 53.0	0.279 2477    1 8155	16 18.1	
Juni	1	8 53 30.60    2 17.60	19 2 8.9    9 59.9	0.281 0632    1 7979	16 16.4
	2	8 55 48.20    2 17.61	+18 52 9.0    10 6.8	0.282 8611    1 7805	16 14.8
	3	8 58 5.81    2 17.62	18 42 2.2    10 13.5	0.284 6416    1 7631	16 13.1
	4	9 0 23.43    2 17.63	18 31 48.7    10 20.3	0.286 4047    1 7458	16 11.5
	5	9 2 41.06    2 17.64	18 21 28.4    10 27.0	0.288 1505    1 7285	16 9.9
	6	9 4 58.70    2 17.63	18 11 1.4    10 33.7	0.289 8790    1 7111	16 8.2
	7	9 7 16.33    2 17.63	18 0 27.7    10 40.3	0.291 5901    1 6939	16 6.6
	8	9 9 33.96    2 17.63	+17 49 47.4    10 46.8	0.293 2840    1 6767	16 4.9
	9	9 11 51.59    2 17.61	17 39 0.6    10 53.4	0.294 9607    1 6595	16 3.3
	10	9 14 9.20    2 17.59	17 28 7.2    10 59.8	0.296 6202    1 6424	16 1.6
	11	9 16 26.79    2 17.57	17 17 7.4    11 6.1	0.298 2626    1 6254	16 0.0
	12	9 18 44.36    2 17.53	17 6 1.3    11 12.5	0.299 8880    1 6085	15 58.3
	13	9 21 1.89	+16 54 48.8	0.301 4965	15 56.7

Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Juni 13	9 <sup>h</sup> 21 <sup>m</sup> 1.89 <sup>s</sup> 2 17.50	+16 <sup>m</sup> 54 48.8 11 18.7	0.301 4965 I 5917	15 <sup>h</sup> 56.7	
14	9 23 19.39 2 17.47	16 43 30.1 11 24.9	0.303 0882 I 5751	15 55.0	
15	9 25 36.86 2 17.43	16 32 5.2 11 31.1	0.304 6633 I 5587	15 53.4	
16	9 27 54.29 2 17.39	16 20 34.1 11 37.1	0.306 2220 I 5423	15 51.7	
17	9 30 11.68 2 17.35	16 8 57.0 11 43.1	0.307 7643 I 5262	15 50.1	
18	9 32 29.03 2 17.30	15 57 13.9 11 49.0	0.309 2905 I 5102	15 48.4	
19	9 34 46.33 2 17.26	+15 45 24.9 11 54.9	0.310 8007 I 4944	15 46.8	
20	9 37 3.59 2 17.22	15 33 30.0 12 0.6	0.312 2951 I 4787	15 45.1	
21	9 39 20.81 2 17.18	15 21 29.4 12 6.4	0.313 7738 I 4632	15 43.5	
22	9 41 37.99 2 17.13	15 9 23.0 12 12.2	0.315 2370 I 4478	15 41.8	
23	9 43 55.12 2 17.09	14 57 10.8 12 17.8	0.316 6848 I 4326	15 40.2	
24	9 46 12.21 2 17.05	14 44 53.0 12 23.3	0.318 1174 I 4175	15 38.5	
25	9 48 29.26 2 17.01	+14 32 29.7 12 28.9	0.319 5349 I 4025	15 36.8	
26	9 50 46.27 2 16.97	14 20 0.8 12 34.4	0.320 9374 I 3876	15 35.2	
27	9 53 3.24 2 16.94	14 7 26.4 12 39.8	0.322 3250 I 3728	15 33.5	
28	9 55 20.18 2 16.91	13 54 46.6 12 45.2	0.323 6978 I 3581	15 31.9	
29	9 57 37.09 2 16.89	13 42 1.4 12 50.5	0.325 0559 I 3435	15 30.2	
30	9 59 53.98 2 16.87	13 29 10.9 12 55.8	0.326 3994 I 3290	15 28.5	
Juli 1	10 2 10.85 2 16.83	+13 16 15.1 13 0.9	0.327 7284 I 3144	15 26.9	
2	10 4 27.68 2 16.81	13 3 14.2 13 6.1	0.329 0428 I 2999	15 25.2	
3	10 6 44.49 2 16.80	12 50 8.1 13 11.2	0.330 3427 I 2854	15 23.6	
4	10 9 1.29 2 16.78	12 36 56.9 13 16.2	0.331 6281 I 2709	15 21.9	
5	10 11 18.07 2 16.76	12 23 40.7 13 21.2	0.332 8990 I 2565	15 20.2	
6	10 13 34.83 2 16.75	12 10 19.5 13 26.0	0.334 1555 I 2420	15 18.6	
7	10 15 51.58 2 16.74	+11 56 53.5 13 30.9	0.335 3975 I 2275	15 16.9	
8	10 18 8.32 2 16.72	11 43 22.6 13 35.7	0.336 6250 I 2131	15 15.3	
9	10 20 25.04 2 16.71	11 29 46.9 13 40.3	0.337 8381 I 1988	15 13.6	
10	10 22 41.75 2 16.70	11 16 6.6 13 44.9	0.339 0369 I 1845	15 11.9	
11	10 24 58.45 2 16.68	11 2 21.7 13 49.4	0.340 2214 I 1703	15 10.3	
12	10 27 15.13 2 16.66	10 48 32.3 13 53.8	0.341 3917 I 1561	15 8.6	
13	10 29 31.79 2 16.65	+10 34 38.5 13 58.1	0.342 5478 I 1422	15 6.9	
14	10 31 48.44 2 16.65	10 20 40.4 14 2.3	0.343 6900 I 1284	15 5.3	
15	10 34 5.09 2 16.64	10 6 38.1 14 6.5	0.344 8184 I 1146	15 3.6	
16	10 36 21.73 2 16.63	9 52 31.6 14 10.6	0.345 9330 I 1010	15 1.9	
17	10 38 38.36 2 16.63	9 38 21.0 14 14.6	0.347 0340 I 0876	15 0.3	
18	10 40 54.99 2 16.63	9 24 6.4 14 18.6	0.348 1216 I 0742	14 58.6	
19	10 43 11.62 2 16.63	+9 9 47.8 14 22.4	0.349 1958 I 0611	14 57.0	
20	10 45 28.25 2 16.64	8 55 25.4 14 26.1	0.350 2569 I 0480	14 55.3	
21	10 47 44.89 2 16.66	8 40 59.3 14 29.9	0.351 3049 I 0350	14 53.6	
22	10 50 1.55 2 16.68	8 26 29.4 14 33.6	0.352 3399 I 0220	14 52.0	
23	10 52 18.23 2 16.70	8 11 55.8 14 37.3	0.353 3619 I 0093	14 50.3	
24	10 54 34.93	+7 57 18.5	0.354 3712	14 48.6	



Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Juli 24	10 <sup>h</sup> 54 <sup>m</sup> 34.93 <sup>s</sup> <small>2 16.73</small>	+7° 57' 18.5" <small>14 40.7</small>	0.354 3712 <small>9966</small>	14 <sup>h</sup> 48 <sup>m</sup>
25	10 56 51.66 <small>2 16.77</small>	7 42 37.8 <small>14 44.1</small>	0.355 3678 <small>9839</small>	14 47.0
26	10 59 8.43 <small>2 16.80</small>	7 27 53.7 <small>14 47.5</small>	0.356 3517 <small>9714</small>	14 45.3
27	11 1 25.23 <small>2 16.85</small>	7 13 6.2 <small>14 50.8</small>	0.357 3231 <small>9590</small>	14 43.7
28	11 3 42.08 <small>2 16.91</small>	6 58 15.4 <small>14 54.1</small>	0.358 2821 <small>9466</small>	14 42.0
29	11 5 58.99 <small>2 16.96</small>	6 43 21.3 <small>14 57.4</small>	0.359 2287 <small>9342</small>	14 40.3
30	11 8 15.95 <small>2 17.02</small>	+6 28 23.9 <small>15 0.4</small>	0.360 1629 <small>9217</small>	14 38.7
31	11 10 32.97 <small>2 17.09</small>	6 13 23.5 <small>15 3.4</small>	0.361 0846 <small>9094</small>	14 37.0
Aug. 1	11 12 50.06 <small>2 17.16</small>	5 58 20.1 <small>15 6.5</small>	0.361 9940 <small>8970</small>	14 35.4
2	11 15 7.22 <small>2 17.24</small>	5 43 13.6 <small>15 9.4</small>	0.362 8910 <small>8846</small>	14 33.7
3	11 17 24.46 <small>2 17.32</small>	5 28 4.2 <small>15 12.2</small>	0.363 7756 <small>8722</small>	14 32.1
4	11 19 41.78 <small>2 17.41</small>	5 12 52.0 <small>15 14.9</small>	0.364 6478 <small>8598</small>	14 30.4
5	11 21 59.19 <small>2 17.50</small>	+4 57 37.1 <small>15 17.5</small>	0.365 5076 <small>8473</small>	14 28.8
6	11 24 16.69 <small>2 17.60</small>	4 42 19.6 <small>15 20.1</small>	0.366 3549 <small>8350</small>	14 27.1
7	11 26 34.29 <small>2 17.69</small>	4 26 59.5 <small>15 22.6</small>	0.367 1899 <small>8227</small>	14 25.5
8	11 28 51.98 <small>2 17.79</small>	4 11 36.9 <small>15 24.9</small>	0.368 0126 <small>8104</small>	14 23.8
9	11 31 9.77 <small>2 17.89</small>	3 56 12.0 <small>15 27.2</small>	0.368 8230 <small>7981</small>	14 22.2
10	11 33 27.66 <small>2 18.00</small>	3 40 44.8 <small>15 29.4</small>	0.369 6211 <small>7860</small>	14 20.5
11	11 35 45.66 <small>2 18.10</small>	+3 25 15.4 <small>15 31.4</small>	0.370 4071 <small>7740</small>	14 18.9
12	11 38 3.76 <small>2 18.21</small>	3 9 44.0 <small>15 33.4</small>	0.371 1811 <small>7621</small>	14 17.3
13	11 40 21.97 <small>2 18.34</small>	2 54 10.6 <small>15 35.2</small>	0.371 9432 <small>7503</small>	14 15.6
14	11 42 40.31 <small>2 18.46</small>	2 38 35.4 <small>15 37.0</small>	0.372 6935 <small>7386</small>	14 14.0
15	11 44 58.77 <small>2 18.59</small>	2 22 58.4 <small>15 38.8</small>	0.373 4321 <small>7270</small>	14 12.4
16	11 47 17.36 <small>2 18.73</small>	2 7 19.6 <small>15 40.4</small>	0.374 1591 <small>7155</small>	14 10.7
17	11 49 36.09 <small>2 18.87</small>	+1 51 39.2 <small>15 42.0</small>	0.374 8746 <small>7041</small>	14 9.1
18	11 51 54.96 <small>2 19.02</small>	1 35 57.2 <small>15 43.3</small>	0.375 5787 <small>6928</small>	14 7.5
19	11 54 13.98 <small>2 19.17</small>	1 20 13.9 <small>15 44.7</small>	0.376 2715 <small>6816</small>	14 5.9
20	11 56 33.15 <small>2 19.33</small>	1 4 29.2 <small>15 46.0</small>	0.376 9531 <small>6705</small>	14 4.2
21	11 58 52.48 <small>2 19.50</small>	0 48 43.2 <small>15 47.2</small>	0.377 6236 <small>6594</small>	14 2.6
22	12 1 11.98 <small>2 19.68</small>	0 32 56.0 <small>15 48.3</small>	0.378 2830 <small>6484</small>	14 1.0
23	12 3 31.66 <small>2 19.87</small>	+0 17 7.7 <small>15 49.3</small>	0.378 9314 <small>6376</small>	13 59.4
24	12 5 51.53 <small>2 20.06</small>	+0 1 18.4 <small>15 50.2</small>	0.379 5690 <small>6268</small>	13 57.8
25	12 8 11.59 <small>2 20.25</small>	-0 14 31.8 <small>15 51.2</small>	0.380 1958 <small>6160</small>	13 56.2
26	12 10 31.84 <small>2 20.46</small>	0 30 23.0 <small>15 52.0</small>	0.380 8118 <small>6052</small>	13 54.6
27	12 12 52.30 <small>2 20.67</small>	0 46 15.0 <small>15 52.6</small>	0.381 4170 <small>5944</small>	13 53.0
28	12 15 12.97 <small>2 20.90</small>	1 2 7.6 <small>15 53.3</small>	0.382 0114 <small>5836</small>	13 51.4
29	12 17 33.87 <small>2 21.13</small>	-1 18 0.9 <small>15 53.8</small>	0.382 5950 <small>5728</small>	13 49.8
30	12 19 55.00 <small>2 21.36</small>	1 33 54.7 <small>15 54.2</small>	0.383 1678 <small>5620</small>	13 48.2
31	12 22 16.36 <small>2 21.60</small>	1 49 48.9 <small>15 54.6</small>	0.383 7298 <small>5511</small>	13 46.6
Sept. 1	12 24 37.96 <small>2 21.85</small>	2 5 43.5 <small>15 54.8</small>	0.384 2809 <small>5402</small>	13 45.0
2	12 26 59.81 <small>2 22.10</small>	2 21 38.3 <small>15 55.0</small>	0.384 8211 <small>5294</small>	13 43.5
3	12 29 21.91	-2 37 33.3	0.385 3505	13 41.9

Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Sept. 3	12 <sup>h</sup> 29 <sup>m</sup> 21.91 <sup>s</sup> <small>2 22.36</small>	— 2° 37' 33.3" <small>15 55.0</small>	0.385 3505	13 <sup>h</sup> 41.9 <sup>m</sup>	
4	12 31 44.27 <small>2 22.62</small>	2 53 28.3 <small>15 54.8</small>	0.385 8692 <small>5187</small>	13 40.3	
5	12 34 6.89 <small>2 22.88</small>	3 9 23.1 <small>15 54.7</small>	0.386 3771 <small>5079</small>	13 38.8	
6	12 36 29.77 <small>2 23.16</small>	3 25 17.8 <small>15 54.3</small>	0.386 8741 <small>4970</small>	13 37.2	
7	12 38 52.93 <small>2 23.44</small>	3 41 12.1 <small>15 53.8</small>	0.387 3604 <small>4863</small>	13 35.7	
8	12 41 16.37 <small>2 23.73</small>	3 57 5.9 <small>15 53.3</small>	0.387 8360 <small>4756</small>	13 34.1	
9	12 43 40.10 <small>2 24.01</small>	— 4 12 59.2 <small>15 52.7</small>	0.388 3010 <small>4546</small>	13 32.6	
10	12 46 4.11 <small>2 24.30</small>	4 28 51.9 <small>15 51.9</small>	0.388 7556 <small>4442</small>	13 31.0	
11	12 48 28.41 <small>2 24.60</small>	4 44 43.8 <small>15 50.9</small>	0.389 1998 <small>4338</small>	13 29.5	
12	12 50 53.01 <small>2 24.90</small>	5 0 34.7 <small>15 49.9</small>	0.389 6336 <small>4236</small>	13 28.0	
13	12 53 17.91 <small>2 25.22</small>	5 16 24.6 <small>15 48.8</small>	0.390 0572 <small>4135</small>	13 26.5	
14	12 55 43.13 <small>2 25.53</small>	5 32 13.4 <small>15 47.6</small>	0.390 4707 <small>4033</small>	13 24.9	
15	12 58 8.66 <small>2 25.86</small>	— 5 48 1.0 <small>15 46.2</small>	0.390 8740 <small>3933</small>	13 23.4	
16	13 0 34.52 <small>2 26.20</small>	6 3 47.2 <small>15 44.7</small>	0.391 2673 <small>3835</small>	13 21.9	
17	13 3 0.72 <small>2 26.54</small>	6 19 31.9 <small>15 43.2</small>	0.391 6508 <small>3737</small>	13 20.4	
18	13 5 27.26 <small>2 26.89</small>	6 35 15.1 <small>15 41.6</small>	0.392 0245 <small>3641</small>	13 18.9	
19	13 7 54.15 <small>2 27.24</small>	6 50 56.7 <small>15 39.8</small>	0.392 3886 <small>3544</small>	13 17.4	
20	13 10 21.39 <small>2 27.61</small>	7 6 36.5 <small>15 37.8</small>	0.392 7430 <small>3448</small>	13 15.9	
21	13 12 49.00 <small>2 27.98</small>	— 7 22 14.3 <small>15 35.9</small>	0.393 0878 <small>3354</small>	13 14.5	
22	13 15 16.98 <small>2 28.36</small>	7 37 50.2 <small>15 33.8</small>	0.393 4232 <small>3258</small>	13 13.0	
23	13 17 45.34 <small>2 28.75</small>	7 53 24.0 <small>15 31.6</small>	0.393 7490 <small>3163</small>	13 11.5	
24	13 20 14.09 <small>2 29.15</small>	8 8 55.6 <small>15 29.3</small>	0.394 0653 <small>3069</small>	13 10.1	
25	13 22 43.24 <small>2 29.56</small>	8 24 24.9 <small>15 26.8</small>	0.394 3722 <small>2975</small>	13 8.6	
26	13 25 12.80 <small>2 29.98</small>	8 39 51.7 <small>15 24.3</small>	0.394 6697 <small>2881</small>	13 7.2	
27	13 27 42.78 <small>2 30.39</small>	— 8 55 16.0 <small>15 21.7</small>	0.394 9578 <small>2786</small>	13 5.7	
28	13 30 13.17 <small>2 30.82</small>	9 10 37.7 <small>15 18.9</small>	0.395 2364 <small>2692</small>	13 4.3	
29	13 32 43.99 <small>2 31.25</small>	9 25 56.6 <small>15 16.0</small>	0.395 5056 <small>2596</small>	13 2.9	
30	13 35 15.24 <small>2 31.70</small>	9 41 12.6 <small>15 12.9</small>	0.395 7652 <small>2500</small>	13 1.5	
Okt. 1	13 37 46.94 <small>2 32.14</small>	9 56 25.5 <small>15 9.7</small>	0.396 0152 <small>2405</small>	13 0.1	
2	13 40 19.08 <small>2 32.59</small>	10 11 35.2 <small>15 6.5</small>	0.396 2557 <small>2310</small>	12 58.7	
3	13 42 51.67 <small>2 33.04</small>	— 10 26 41.7 <small>15 3.0</small>	0.396 4867 <small>2214</small>	12 57.3	
4	13 45 24.71 <small>2 33.50</small>	10 41 44.7 <small>14 59.3</small>	0.396 7081 <small>2120</small>	12 55.9	
5	13 47 58.21 <small>2 33.96</small>	10 56 44.0 <small>14 55.5</small>	0.396 9201 <small>2027</small>	12 54.5	
6	13 50 32.17 <small>2 34.43</small>	11 11 39.5 <small>14 51.7</small>	0.397 1228 <small>1933</small>	12 53.1	
7	13 53 6.60 <small>2 34.90</small>	11 26 31.2 <small>14 47.7</small>	0.397 3161 <small>1841</small>	12 51.8	
8	13 55 41.50 <small>2 35.38</small>	11 41 18.9 <small>14 43.4</small>	0.397 5002 <small>1749</small>	12 50.4	
9	13 58 16.88 <small>2 35.87</small>	— 11 56 2.3 <small>14 39.1</small>	0.397 6751 <small>1657</small>	12 49.1	
10	14 0 52.75 <small>2 36.35</small>	12 10 41.4 <small>14 34.7</small>	0.397 8408 <small>1568</small>	12 47.7	
11	14 3 29.10 <small>2 36.84</small>	12 25 16.1 <small>14 30.0</small>	0.397 9976 <small>1478</small>	12 46.4	
12	14 6 5.94 <small>2 37.34</small>	12 39 46.1 <small>14 25.2</small>	0.398 1454 <small>1389</small>	12 45.1	
13	14 8 43.28 <small>2 37.85</small>	12 54 11.3 <small>14 20.4</small>	0.398 2843 <small>1301</small>	12 43.8	
14	14 11 21.13	— 13 8 31.7	0.398 4144	12 42.5	

Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kul- mination in Green- wich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Okt. 14	14 <sup>h</sup> 11 <sup>m</sup> 21.13 <sup>s</sup> <small>2 38.36</small>	—13 <sup>o</sup> 8' 31.7" <small>14 15.3</small>	0.398 4144 <small>1214</small>	12 42.5	
15	14 13 59.49 <small>2 38.88</small>	13 22 47.0 <small>14 10.1</small>	0.398 5358 <small>1128</small>	12 41.2	
16	14 16 38.37 <small>2 39.40</small>	13 36 57.1 <small>14 4.8</small>	0.398 6486 <small>1044</small>	12 39.9	
17	14 19 17.77 <small>2 39.92</small>	13 51 1.9 <small>13 59.3</small>	0.398 7530 <small>960</small>	12 38.6	
18	14 21 57.69 <small>2 40.46</small>	14 5 1.2 <small>13 53.7</small>	0.398 8490 <small>877</small>	12 37.3	
19	14 24 38.15 <small>2 41.00</small>	14 18 54.9 <small>13 47.9</small>	0.398 9367 <small>794</small>	12 36.1	
20	14 27 19.15 <small>2 41.55</small>	—14 32 42.8 <small>13 42.1</small>	0.399 0161 <small>711</small>	12 34.8	
21	14 30 0.70 <small>2 42.11</small>	14 46 24.9 <small>13 36.1</small>	0.399 0872 <small>629</small>	12 33.6	
22	14 32 42.81 <small>2 42.67</small>	15 0 1.0 <small>13 29.9</small>	0.399 1501 <small>549</small>	12 32.3	
23	14 35 25.48 <small>2 43.23</small>	15 13 30.9 <small>13 23.6</small>	0.399 2050 <small>467</small>	12 31.1	
24	14 38 8.71 <small>2 43.80</small>	15 26 54.5 <small>13 17.2</small>	0.399 2517 <small>385</small>	12 29.9	
25	14 40 52.51 <small>2 44.38</small>	15 40 11.7 <small>13 10.6</small>	0.399 2902 <small>302</small>	12 28.7	
26	14 43 36.89 <small>2 44.96</small>	—15 53 22.3 <small>13 3.7</small>	0.399 3204 <small>221</small>	12 27.5	
27	14 46 21.85 <small>2 45.54</small>	16 6 26.0 <small>12 56.8</small>	0.399 3425 <small>139</small>	12 26.3	
28	14 49 7.39 <small>2 46.14</small>	16 19 22.8 <small>12 49.8</small>	0.399 3564 <small>57</small>	12 25.1	
29	14 51 53.53 <small>2 46.73</small>	16 32 12.6 <small>12 42.6</small>	0.399 3621 <small>26</small>	12 24.0	
30	14 54 40.26 <small>2 47.32</small>	16 44 55.2 <small>12 35.2</small>	0.399 3595 <small>108</small>	12 22.8	
31	14 57 27.58 <small>2 47.91</small>	16 57 30.4 <small>12 27.6</small>	0.399 3487 <small>189</small>	12 21.7	
Nov. 1	15 0 15.49 <small>2 48.50</small>	—17 9 58.0 <small>12 19.9</small>	0.399 3298 <small>272</small>	12 20.5	
2	15 3 3.99 <small>2 49.10</small>	17 22 17.9 <small>12 11.9</small>	0.399 3026 <small>353</small>	12 19.4	
3	15 5 53.09 <small>2 49.69</small>	17 34 29.8 <small>12 3.8</small>	0.399 2673 <small>433</small>	12 18.3	
4	15 8 42.78 <small>2 50.29</small>	17 46 33.6 <small>11 55.6</small>	0.399 2240 <small>513</small>	12 17.2	
5	15 11 33.07 <small>2 50.88</small>	17 58 29.2 <small>11 47.1</small>	0.399 1727 <small>593</small>	12 16.1	
6	15 14 23.95 <small>2 51.48</small>	18 10 16.3 <small>11 38.6</small>	0.399 1134 <small>672</small>	12 15.0	
7	15 17 15.43 <small>2 52.08</small>	—18 21 54.9 <small>11 29.8</small>	0.399 0462 <small>750</small>	12 13.9	
8	15 20 7.51 <small>2 52.67</small>	18 33 24.7 <small>11 20.8</small>	0.398 9712 <small>827</small>	12 12.8	
9	15 23 0.18 <small>2 53.27</small>	18 44 45.5 <small>11 11.8</small>	0.398 8885 <small>902</small>	12 11.8	
10	15 25 53.45 <small>2 53.87</small>	18 55 57.3 <small>11 2.6</small>	0.398 7983 <small>978</small>	12 10.7	
11	15 28 47.32 <small>2 54.47</small>	19 6 59.9 <small>10 53.1</small>	0.398 7005 <small>1052</small>	12 9.7	
12	15 31 41.79 <small>2 55.07</small>	19 17 53.0 <small>10 43.5</small>	0.398 5953 <small>1124</small>	12 8.6	
13	15 34 36.86 <small>2 55.66</small>	—19 28 36.5 <small>10 33.8</small>	0.398 4829 <small>1196</small>	12 7.6	
14	15 37 32.52 <small>2 56.25</small>	19 39 10.3 <small>10 23.9</small>	0.398 3633 <small>1267</small>	12 6.6	
15	15 40 28.77 <small>2 56.85</small>	19 49 34.2 <small>10 13.9</small>	0.398 2366 <small>1338</small>	12 5.6	
16	15 43 25.62 <small>2 57.44</small>	19 59 48.1 <small>10 3.7</small>	0.398 1028 <small>1407</small>	12 4.6	
17	15 46 23.06 <small>2 58.05</small>	20 9 51.8 <small>9 53.3</small>	0.397 9621 <small>1475</small>	12 3.6	
18	15 49 21.11 <small>2 58.65</small>	20 19 45.1 <small>9 42.8</small>	0.397 8146 <small>1544</small>	12 2.7	
19	15 52 19.76 <small>2 59.25</small>	—20 29 27.9 <small>9 32.1</small>	0.397 6602 <small>1612</small>	12 1.7	
20	15 55 19.01 <small>2 59.84</small>	20 39 0.0 <small>9 21.4</small>	0.397 4990 <small>1680</small>	12 0.8	
21	15 58 18.85 <small>3 0.44</small>	20 48 21.4 <small>9 10.4</small>	0.397 3310 <small>1747</small>	11 59.8	
22	16 1 19.29 <small>3 1.03</small>	20 57 31.8 <small>8 59.2</small>	0.397 1563 <small>1815</small>	11 58.9	
23	16 4 20.32 <small>3 1.63</small>	—21 6 31.0 <small>8 48.0</small>	0.396 9748 <small>1883</small>	11 58.0	
24	16 7 21.95	—21 15 19.0	0.396 7865	11 57.1	

Tag	O <sup>b</sup> Welt-Zeit			Obere Kul- mination in Green- wich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Nov. 24	16 <sup>h</sup> 7 <sup>m</sup> 21.95 <sup>s</sup> 3 2.21	—21 15 19.0 8 36.6	0.396 7865 1951	II 57.1
25	16 10 24.16 3 2.79	21 23 55.6 8 24.9	0.396 5914 2018	II 56.2
26	16 13 26.95 3 3.36	21 32 20.5 8 13.1	0.396 3896 2085	II 55.3
27	16 16 30.31 3 3.94	21 40 33.6 8 1.2	0.396 1811 2153	II 54.4
28	16 19 34.25 3 4.50	21 48 34.8 7 49.2	0.395 9658 2221	II 53.5
29	16 22 38.75 3 5.06	21 56 24.0 7 37.0	0.395 7437 2288	II 52.7
30	16 25 43.81 3 5.61	—22 4 1.0 7 24.6	0.395 5149 2355	II 51.8
Dez. 1	16 28 49.42 3 6.15	22 11 25.6 7 12.0	0.395 2794 2421	II 51.0
2	16 31 55.57 3 6.69	22 18 37.6 6 59.3	0.395 0373 2486	II 50.1
3	16 35 2.26 3 7.21	22 25 36.9 6 46.5	0.394 7887 2551	II 49.3
4	16 38 9.47 3 7.72	22 32 23.4 6 33.5	0.394 5336 2616	II 48.5
5	16 41 17.19 3 8.23	22 38 56.9 6 20.3	0.394 2720 2679	II 47.7
6	16 44 25.42 3 8.72	—22 45 17.2 6 7.1	0.394 0041 2741	II 46.9
7	16 47 34.14 3 9.21	22 51 24.3 5 53.6	0.393 7300 2803	II 46.1
8	16 50 43.35 3 9.68	22 57 17.9 5 40.1	0.393 4497 2864	II 45.3
9	16 53 53.03 3 10.15	23 2 58.0 5 26.5	0.393 1633 2924	II 44.5
10	16 57 3.18 3 10.61	23 8 24.5 5 12.7	0.392 8709 2982	II 43.7
11	17 0 13.79 3 11.06	23 13 37.2 4 58.8	0.392 5727 3040	II 43.0
12	17 3 24.85 3 11.50	—23 18 36.0 4 44.7	0.392 2687 3095	II 42.2
13	17 6 36.35 3 11.93	23 23 20.7 4 30.5	0.391 9592 3150	II 41.5
14	17 9 48.28 3 12.34	23 27 51.2 4 16.4	0.391 6442 3204	II 40.8
15	17 13 0.62 3 12.75	23 32 7.6 4 2.0	0.391 3238 3256	II 40.0
16	17 16 13.37 3 13.15	23 36 9.6 3 47.5	0.390 9982 3309	II 39.3
17	17 19 26.52 3 13.54	23 39 57.1 3 32.9	0.390 6673 3362	II 38.6
18	17 22 40.06 3 13.93	—23 43 30.0 3 18.3	0.390 3311 3413	II 37.9
19	17 25 53.99 3 14.31	23 46 48.3 3 3.6	0.389 9898 3465	II 37.1
20	17 29 8.30 3 14.66	23 49 51.9 2 48.8	0.389 6433 3516	II 36.4
21	17 32 22.96 3 15.01	23 52 40.7 2 33.8	0.389 2917 3568	II 35.7
22	17 35 37.97 3 15.34	23 55 14.5 2 18.7	0.388 9349 3619	II 35.1
23	17 38 53.31 3 15.66	23 57 33.2 2 3.6	0.388 5730 3669	II 34.4
24	17 42 8.97 3 15.97	—23 59 36.8 1 48.5	0.388 2061 3720	II 33.7
25	17 45 24.94 3 16.26	24 1 25.3 1 33.2	0.387 8341 3771	II 33.0
26	17 48 41.20 3 16.54	24 2 58.5 1 17.8	0.387 4570 3821	II 32.4
27	17 51 57.74 3 16.80	24 4 16.3 1 2.4	0.387 0749 3872	II 31.7
28	17 55 14.54 3 17.05	24 5 18.7 0 46.9	0.386 6877 3923	II 31.0
29	17 58 31.59 3 17.29	24 6 5.6 0 31.3	0.386 2954 3972	II 30.4
30	18 1 48.88 3 17.50	—24 6 36.9 0 15.8	0.385 8982 4021	II 29.7
31	18 5 6.38 3 17.69	24 6 52.7 0 0.1	0.385 4961 4070	II 29.1
32	18 8 24.07	—24 6 52.8	0.385 0891	II 28.4

Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Jan. 0	I 55 11.99 4.00	+I 0 29 38.8 " 41.9	0.656 2844 I 4391	I 19 15.4	
1	I 55 15.99 4.79	I 0 30 20.7 " 46.3	0.657 7235 I 4436	I 19 11.6	
2	I 55 20.78 5.58	I 0 31 7.0 " 50.5	0.659 1671 I 4475	I 19 7.7	
3	I 55 26.36 6.36	I 0 31 57.5 " 54.8	0.660 6146 I 4510	I 19 3.9	
4	I 55 32.72 7.14	I 0 32 52.3 " 59.0	0.662 0656 I 4540	I 19 0.1	
5	I 55 39.86 7.92	I 0 33 51.3 I 3.2	0.663 5196 I 4564	I 18 56.3	
6	I 55 47.78 8.69	+I 0 34 54.5 I 7.3	0.664 9760 I 4584	I 18 52.5	
7	I 55 56.47 9.47	I 0 36 1.8 I 11.5	0.666 4344 I 4599	I 18 48.7	
8	I 56 5.94 10.24	I 0 37 13.3 I 15.6	0.667 8943 I 4610	I 18 44.9	
9	I 56 16.18 10.99	I 0 38 28.9 I 19.7	0.669 3553 I 4615	I 18 41.2	
10	I 56 27.17 11.75	I 0 39 48.6 I 23.7	0.670 8168 I 4615	I 18 37.4	
11	I 56 38.92 12.51	I 0 41 12.3 I 27.8	0.672 2783 I 4611	I 18 33.7	
12	I 56 51.43 13.26	+I 0 42 40.1 I 31.8	0.673 7394 I 4603	I 18 30.0	
13	I 57 4.69 14.01	I 0 44 11.9 I 35.6	0.675 1997 I 4590	I 18 26.3	
14	I 57 18.70 14.75	I 0 45 47.5 I 39.6	0.676 6587 I 4574	I 18 22.6	
15	I 57 33.45 15.49	I 0 47 27.1 I 43.5	0.678 1161 I 4552	I 18 18.9	
16	I 57 48.94 16.21	I 0 49 10.6 I 47.3	0.679 5713 I 4526	I 18 15.2	
17	I 58 5.15 16.93	I 0 50 57.9 I 51.0	0.681 0239 I 4496	I 18 11.6	
18	I 58 22.08 17.65	+I 0 52 48.9 I 54.7	0.682 4735 I 4463	I 18 7.9	
19	I 58 39.73 18.36	I 0 54 43.6 I 58.3	0.683 9198 I 4425	I 18 4.3	
20	I 58 58.09 19.05	I 0 56 41.9 I 1.9	0.685 3623 I 4384	I 18 0.7	
21	I 59 17.14 19.75	I 0 58 43.8 I 5.3	0.686 8007 I 4339	I 17 57.1	
22	I 59 36.89 20.43	II 0 49.1 I 8.8	0.688 2346 I 4292	I 17 53.5	
23	I 59 57.32 21.11	II 2 57.9 I 12.4	0.689 6638 I 4243	I 17 49.9	
24	2 0 18.43 21.79	+II 5 10.3 I 15.8	0.691 0881 I 4189	I 17 46.4	
25	2 0 40.22 22.45	II 7 26.1 I 19.1	0.692 5070 I 4133	I 17 42.8	
26	2 1 2.67 23.11	II 9 45.2 I 22.3	0.693 9203 I 4075	I 17 39.2	
27	2 1 25.78 23.76	II 12 7.5 I 25.6	0.695 3278 I 4014	I 17 35.7	
28	2 1 49.54 24.41	II 14 33.1 I 28.8	0.696 7292 I 3949	I 17 32.2	
29	2 2 13.95 25.05	II 17 1.9 I 31.9	0.698 1241 I 3883	I 17 28.7	
30	2 2 39.00 25.68	+II 19 33.8 I 34.9	0.699 5124 I 3814	I 17 25.2	
31	2 3 4.68 26.31	II 22 8.7 I 38.0	0.700 8938 I 3742	I 17 21.7	
Febr. 1	2 3 30.99 26.93	II 24 46.7 I 41.0	0.702 2680 I 3667	I 17 18.2	
2	2 3 57.92 27.55	II 27 27.7 I 43.8	0.703 6347 I 3588	I 17 14.7	
3	2 4 25.47 28.17	II 30 11.5 I 46.7	0.704 9935 I 3509	I 17 11.2	
4	2 4 53.64 28.77	II 32 58.2 I 49.6	0.706 3444 I 3427	I 17 7.7	
5	2 5 22.41 29.37	+II 35 47.8 I 52.4	0.707 6871 I 3341	I 17 4.3	
6	2 5 51.78 29.95	II 38 40.2 I 55.1	0.709 0212 I 3254	I 17 0.9	
7	2 6 21.73 30.54	II 41 35.3 I 57.9	0.710 3466 I 3165	I 16 57.4	
8	2 6 52.27 31.12	II 44 33.2 I 3 0.5	0.711 6631 I 3074	I 16 54.0	
9	2 7 23.39 31.69	II 47 33.7 I 3 3.1	0.712 9705 I 2980	I 16 50.6	
10	2 7 55.08	+II 50 36.8	0.714 2685	I 16 47.2	

Tag	O <sup>b</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Febr. 10	2 <sup>h</sup> 7 <sup>m</sup> 55.08 32.25	+11° 50' 36.8	0.714 2685	16 <sup>h</sup> 47.2
11	2 8 27.33 32.80	11 53 42.3	0.715 5567	16 43.8
12	2 9 0.13 33.36	11 56 50.3	0.716 8351	16 40.4
13	2 9 33.49 33.90	12 0 0.8	0.718 1033	16 37.1
14	2 10 7.39 34.42	12 3 13.6	0.719 3610	16 33.7
15	2 10 41.81 34.95	12 6 28.6	0.720 6082	16 30.3
16	2 11 16.76 35.47	+12 9 45.8	0.721 8446	16 27.0
17	2 11 52.23 35.98	12 13 5.3	0.723 0702	16 23.6
18	2 12 28.21 36.48	12 16 26.9	0.724 2848	16 20.3
19	2 13 4.69 36.98	12 19 50.5	0.725 4883	16 17.0
20	2 13 41.67 37.46	12 23 16.1	0.726 6805	16 13.7
21	2 14 19.13 37.94	12 26 43.7	0.727 8613	16 10.4
22	2 14 57.07 38.41	+12 30 13.2	0.729 0307	16 7.1
23	2 15 35.48 38.87	12 33 44.4	0.730 1885	16 3.8
24	2 16 14.35 39.34	12 37 17.4	0.731 3347	16 0.5
25	2 16 53.69 39.79	12 40 52.2	0.732 4691	15 57.2
26	2 17 33.48 40.23	12 44 28.6	0.733 5916	15 54.0
27	2 18 13.71 40.68	12 48 6.6	0.734 7021	15 50.7
28	2 18 54.39 41.12	+12 51 46.2	0.735 8003	15 47.4
März 1	2 19 35.51 41.55	12 55 27.4	0.736 8862	15 44.2
2	2 20 17.06 41.97	12 59 10.0	0.737 9598	15 41.0
3	2 20 59.03 42.39	13 2 54.1	0.739 0209	15 37.7
4	2 21 41.42 42.80	13 6 39.6	0.740 0695	15 34.5
5	2 22 24.22 43.22	13 10 26.5	0.741 1055	15 31.3
6	2 23 7.44 43.62	+13 14 14.6	0.742 1287	15 28.1
7	2 23 51.06 44.00	13 18 3.9	0.743 1390	15 24.9
8	2 24 35.06 44.40	13 21 54.5	0.744 1364	15 21.7
9	2 25 19.46 44.78	13 25 46.3	0.745 1207	15 18.5
10	2 26 4.24 45.15	13 29 39.2	0.746 0918	15 15.3
11	2 26 49.39 45.52	13 33 33.2	0.747 0496	15 12.1
12	2 27 34.91 45.89	+13 37 28.1	0.747 9940	15 9.0
13	2 28 20.80 46.24	13 41 24.0	0.748 9250	15 5.8
14	2 29 7.04 46.59	13 45 20.8	0.749 8424	15 2.6
15	2 29 53.63 46.93	13 49 18.4	0.750 7462	14 59.5
16	2 30 40.56 47.27	13 53 16.9	0.751 6363	14 56.3
17	2 31 27.83 47.59	13 57 16.1	0.752 5126	14 53.2
18	2 32 15.42 47.92	+14 1 16.0	0.753 3752	14 50.0
19	2 33 3.34 48.24	14 5 16.6	0.754 2239	14 46.9
20	2 33 51.58 48.54	14 9 17.8	0.755 0588	14 43.8
21	2 34 40.12 48.85	14 13 19.5	0.755 8799	14 40.6
22	2 35 28.97 49.14	14 17 21.7	0.756 6871	14 37.5
23	2 36 18.11	+14 21 24.4	0.757 4803	14 34.4

Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
März 23	2 36 <sup>m</sup> 18.11 <sup>s</sup> 49.44	+14 21 24.4	0.757 4803	14 34.4
24	2 37 7.55 49.72	14 25 27.5	0.758 2596 7793	14 31.3
25	2 37 57.27 50.01	14 29 31.1	0.759 0249 7653	14 28.2
26	2 38 47.28 50.29	14 33 35.0	0.759 7763 7514	14 25.1
27	2 39 37.57 50.56	14 37 39.2	0.760 5137 7374	14 22.0
28	2 40 28.13 50.82	14 41 43.7	0.761 2372 7235	14 18.9
29	2 41 18.95 51.09	+14 45 48.4	0.761 9467 6955	14 15.8
30	2 42 10.04 51.35	14 49 53.3	0.762 6422 6813	14 12.8
31	2 43 1.39 51.61	14 53 58.3	0.763 3235 6671	14 9.7
April 1	2 43 53.00 51.85	14 58 3.5	0.763 9906 6530	14 6.6
2	2 44 44.85 52.09	15 2 8.8	0.764 6436 6388	14 3.6
3	2 45 36.94 52.33	15 6 14.1	0.765 2824 6246	14 0.5
4	2 46 29.27 52.57	+15 10 19.4	0.765 9070 6104	13 57.4
5	2 47 21.84 52.80	15 14 24.8	0.766 5174 5962	13 54.4
6	2 48 14.64 53.02	15 18 30.1	0.767 1136 5818	13 51.3
7	2 49 7.66 53.24	15 22 35.3	0.767 6954 5672	13 48.2
8	2 50 0.90 53.45	15 26 40.4	0.768 2626 5527	13 45.2
9	2 50 54.35 53.66	15 30 45.3	0.768 8153 5382	13 42.2
10	2 51 48.01 53.85	+15 34 50.0	0.769 3535 5236	13 39.1
11	2 52 41.86 54.05	15 38 54.4	0.769 8771 5092	13 36.1
12	2 53 35.91 54.25	15 42 58.5	0.770 3863 4946	13 33.1
13	2 54 30.16 54.43	15 47 2.4	0.770 8809 4801	13 30.0
14	2 55 24.59 54.60	15 51 5.9	0.771 3610 4656	13 27.0
15	2 56 19.19 54.78	15 55 9.0	0.771 8266 4511	13 24.0
16	2 57 13.97 54.94	+15 59 11.6	0.772 2777 4366	13 21.0
17	2 58 8.91 55.11	16 3 13.7	0.772 7143 4221	13 17.9
18	2 59 4.02 55.26	16 7 15.3	0.773 1364 4076	13 14.9
19	2 59 59.28 55.41	16 11 16.4	0.773 5440 3931	13 11.9
20	3 0 54.69 55.56	16 15 16.9	0.773 9371 3787	13 8.9
21	3 1 50.25 55.70	16 19 16.8	0.774 3158 3644	13 5.9
22	3 2 45.95 55.84	+16 23 16.0	0.774 6802 3499	13 2.9
23	3 3 41.79 55.97	16 27 14.6	0.775 0301 3355	12 59.9
24	3 4 37.76 56.11	16 31 12.5	0.775 3656 3212	12 56.9
25	3 5 33.87 56.23	16 35 9.7	0.775 6868 3069	12 53.9
26	3 6 30.10 56.35	16 39 6.1	0.775 9937 2924	12 50.9
27	3 7 26.45 56.47	16 43 1.8	0.776 2861 2781	12 47.9
28	3 8 22.92 56.58	+16 46 56.8	0.776 5642 2638	12 44.9
29	3 9 19.50 56.69	16 50 51.0	0.776 8280 2493	12 41.9
30	3 10 16.19 56.79	16 54 44.3	0.777 0773 2348	12 38.9
Mai 1	3 11 12.98 56.90	16 58 36.7	0.777 3121 2204	12 35.9
2	3 12 9.88 56.99	17 2 28.3	0.777 5325 2061	12 32.9
3	3 13 6.87	+17 6 18.9	0.777 7386	12 29.9

Tag	O <sup>b</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Mai 3	3 13 <sup>h</sup> 6.87 <sup>m</sup> 57.09	+17° 6' 18.9" 3 49.7	0.777 7386	12 29.9 <sup>h m</sup> 1917
4	3 14 3.96 57.18	17 10 8.6 3 48.8	0.777 9303	12 26.9 1772
5	3 15 1.14 57.26	17 13 57.4 3 47.7	0.778 1075	12 24.0 1627
6	3 15 58.40 57.33	17 17 45.1 3 46.7	0.778 2702	12 21.0 1482
7	3 16 55.73 57.40	17 21 31.8 3 45.7	0.778 4184	12 18.0 1337
8	3 17 53.13 57.46	17 25 17.5 3 44.7	0.778 5521	12 15.0 1192
9	3 18 50.59 57.53	+17 29 2.2 3 43.5	0.778 6713	12 12.0 1046
10	3 19 48.12 57.58	17 32 45.7 3 42.3	0.778 7759	12 9.1 901
11	3 20 45.70 57.63	17 36 28.0 3 41.2	0.778 8660	12 6.1 756
12	3 21 43.33 57.68	17 40 9.2 3 40.0	0.778 9416	12 3.1 611
13	3 22 41.01 57.71	17 43 49.2 3 38.9	0.779 0027	12 0.1 467
14	3 23 38.72 57.74	17 47 28.1 3 37.7	0.779 0494	11 57.2 323
15	3 24 36.46 57.77	+17 51 5.8 3 36.4	0.779 0817	11 54.2 180
16	3 25 34.23 57.79	17 54 42.2 3 35.1	0.779 0997	11 51.2 36
17	3 26 32.02 57.81	17 58 17.3 3 33.9	0.779 1033	11 48.2 107
18	3 27 29.83 57.83	18 1 51.2 3 32.5	0.779 0926	11 45.3 251
19	3 28 27.66 57.83	18 5 23.7 3 31.1	0.779 0675	11 42.3 394
20	3 29 25.49 57.84	18 8 54.8 3 29.9	0.779 0281	11 39.3 535
21	3 30 23.33 57.84	+18 12 24.7 3 28.5	0.778 9746	11 36.3 677
22	3 31 21.17 57.84	18 15 53.2 3 27.0	0.778 9069	11 33.4 819
23	3 32 19.01 57.83	18 19 20.2 3 25.7	0.778 8250	11 30.4 960
24	3 33 16.84 57.82	18 22 45.9 3 24.4	0.778 7290	11 27.4 1100
25	3 34 14.66 57.81	18 26 10.3 3 22.9	0.778 6190	11 24.4 1241
26	3 35 12.47 57.78	18 29 33.2 3 21.5	0.778 4949	11 21.5 1383
27	3 36 10.25 57.76	+18 32 54.7 3 20.0	0.778 3566	11 18.5 1525
28	3 37 8.01 57.73	18 36 14.7 3 18.6	0.778 2041	11 15.5 1667
29	3 38 5.74 57.70	18 39 33.3 3 17.2	0.778 0374	11 12.5 1807
30	3 39 3.44 57.66	18 42 50.5 3 15.6	0.777 8567	11 9.6 1948
31	3 40 1.10 57.62	18 46 6.1 3 14.2	0.777 6619	11 6.6 2089
Juni 1	3 40 58.72 57.57	18 49 20.3 3 12.6	0.777 4530	11 3.6 2230
2	3 41 56.29 57.52	+18 52 32.9 3 11.1	0.777 2300	11 0.7 2371
3	3 42 53.81 57.45	18 55 44.0 3 9.6	0.776 9929	10 57.7 2512
4	3 43 51.26 57.40	18 58 53.6 3 8.0	0.776 7417	10 54.7 2655
5	3 44 48.66 57.33	19 2 1.6 3 6.5	0.776 4762	10 51.7 2797
6	3 45 45.99 57.24	19 5 8.1 3 4.9	0.776 1965	10 48.7 2939
7	3 46 43.23 57.16	19 8 13.0 3 3.3	0.775 9026	10 45.8 3080
8	3 47 40.39 57.08	+19 11 16.3 3 1.6	0.775 5946	10 42.8 3221
9	3 48 37.47 56.99	19 14 17.9 3 0.0	0.775 2725	10 39.8 3362
10	3 49 34.46 56.88	19 17 17.9 2 58.4	0.774 9363	10 36.8 3502
11	3 50 31.34 56.77	19 20 16.3 2 56.7	0.774 5861	10 33.8 3642
12	3 51 28.11 56.67	19 23 13.0 2 55.1	0.774 2219	10 30.8 3781
13	3 52 24.78	+19 26 8.1	0.773 8438	10 27.8



Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kul- mination in Green- wich	
	Scheinbare Rektaszension	Scheinbare Deklination				
1929						
Juni	13	3 <sup>h</sup> 52 <sup>m</sup> 24. <sup>s</sup> 78 <small>56.55</small>	+19° 26' 8. <sup>s</sup> <small>2 53.4</small>	0.773 8438 <small>3920</small>	10 <sup>h</sup> 27. <sup>m</sup> 8	
	14	3 53 21.33 <small>56.43</small>	19 29 1.5 <small>2 51.6</small>	0.773 4518 <small>4057</small>	10 24.8	
	15	3 54 17.76 <small>56.31</small>	19 31 53.1 <small>2 49.9</small>	0.773 0461 <small>4194</small>	10 21.8	
	16	3 55 14.07 <small>56.17</small>	19 34 43.0 <small>2 48.3</small>	0.772 6267 <small>4332</small>	10 18.8	
	17	3 56 10.24 <small>56.03</small>	19 37 31.3 <small>2 46.6</small>	0.772 1935 <small>4469</small>	10 15.8	
	18	3 57 6.27 <small>55.89</small>	19 40 17.9 <small>2 44.8</small>	0.771 7466 <small>4605</small>	10 12.8	
	19	3 58 2.16 <small>55.74</small>	+19 43 2.7 <small>2 43.1</small>	0.771 2861 <small>4742</small>	10 9.8	
	20	3 58 57.90 <small>55.60</small>	19 45 45.8 <small>2 41.5</small>	0.770 8119 <small>4878</small>	10 6.8	
	21	3 59 53.50 <small>55.44</small>	19 48 27.3 <small>2 39.7</small>	0.770 3241 <small>5013</small>	10 3.8	
	22	4 0 48.94 <small>55.27</small>	19 51 7.0 <small>2 38.0</small>	0.769 8228 <small>5150</small>	10 0.8	
	23	4 1 44.21 <small>55.11</small>	19 53 45.0 <small>2 36.2</small>	0.769 3078 <small>5286</small>	9 57.8	
	24	4 2 39.32 <small>54.96</small>	19 56 21.2 <small>2 34.4</small>	0.768 7792 <small>5420</small>	9 54.8	
	25	4 3 34.28 <small>54.78</small>	+19 58 55.6 <small>2 32.8</small>	0.768 2372 <small>5556</small>	9 51.8	
	26	4 4 29.06 <small>54.58</small>	20 1 28.4 <small>2 31.0</small>	0.767 6816 <small>5690</small>	9 48.7	
	27	4 5 23.64 <small>54.40</small>	20 3 59.4 <small>2 29.3</small>	0.767 1126 <small>5825</small>	9 45.7	
	28	4 6 18.04 <small>54.21</small>	20 6 28.7 <small>2 27.6</small>	0.766 5301 <small>5960</small>	9 42.6	
	29	4 7 12.25 <small>54.01</small>	20 8 56.3 <small>2 25.8</small>	0.765 9341 <small>6094</small>	9 39.6	
	30	4 8 6.26 <small>53.80</small>	20 11 22.1 <small>2 24.0</small>	0.765 3247 <small>6229</small>	9 36.6	
	Juli	1	4 9 0.06 <small>53.58</small>	+20 13 46.1 <small>2 22.3</small>	0.764 7018 <small>6362</small>	9 33.5
		2	4 9 53.64 <small>53.37</small>	20 16 8.4 <small>2 20.6</small>	0.764 0656 <small>6496</small>	9 30.5
		3	4 10 47.01 <small>53.15</small>	20 18 29.0 <small>2 18.7</small>	0.763 4160 <small>6631</small>	9 27.5
		4	4 11 40.16 <small>52.92</small>	20 20 47.7 <small>2 17.0</small>	0.762 7529 <small>6765</small>	9 24.4
		5	4 12 33.08 <small>52.68</small>	20 23 4.7 <small>2 15.2</small>	0.762 0764 <small>6899</small>	9 21.3
		6	4 13 25.76 <small>52.44</small>	20 25 19.9 <small>2 13.4</small>	0.761 3865 <small>7033</small>	9 18.3
		7	4 14 18.20 <small>52.18</small>	+20 27 33.3 <small>2 11.5</small>	0.760 6832 <small>7165</small>	9 15.2
		8	4 15 10.38 <small>51.92</small>	20 29 44.8 <small>2 9.8</small>	0.759 9667 <small>7295</small>	9 12.1
		9	4 16 2.30 <small>51.65</small>	20 31 54.6 <small>2 8.0</small>	0.759 2372 <small>7425</small>	9 9.1
		10	4 16 53.95 <small>51.38</small>	20 34 2.6 <small>2 6.2</small>	0.758 4947 <small>7555</small>	9 6.0
		11	4 17 45.33 <small>51.10</small>	20 36 8.8 <small>2 4.4</small>	0.757 7392 <small>7684</small>	9 2.9
		12	4 18 36.43 <small>50.81</small>	20 38 13.2 <small>2 2.7</small>	0.756 9708 <small>7812</small>	8 59.8
13		4 19 27.24 <small>50.51</small>	+20 40 15.9 <small>2 0.8</small>	0.756 1896 <small>7939</small>	8 56.7	
14		4 20 17.75 <small>50.22</small>	20 42 16.7 <small>1 59.1</small>	0.755 3957 <small>8066</small>	8 53.6	
15		4 21 7.97 <small>49.92</small>	20 44 15.8 <small>1 57.4</small>	0.754 5891 <small>8192</small>	8 50.5	
16		4 21 57.89 <small>49.60</small>	20 46 13.2 <small>1 55.5</small>	0.753 7699 <small>8318</small>	8 47.4	
17		4 22 47.49 <small>49.28</small>	20 48 8.7 <small>1 53.7</small>	0.752 9381 <small>8443</small>	8 44.3	
18		4 23 36.77 <small>48.97</small>	20 50 2.4 <small>1 51.9</small>	0.752 0938 <small>8567</small>	8 41.2	
19		4 24 25.74 <small>48.64</small>	+20 51 54.3 <small>1 50.1</small>	0.751 2371 <small>8690</small>	8 38.1	
20		4 25 14.38 <small>48.31</small>	20 53 44.4 <small>1 48.4</small>	0.750 3681 <small>8813</small>	8 34.9	
21		4 26 2.69 <small>47.96</small>	20 55 32.8 <small>1 46.8</small>	0.749 4868 <small>8935</small>	8 31.8	
22		4 26 50.65 <small>47.61</small>	20 57 19.6 <small>1 45.1</small>	0.748 5933 <small>9057</small>	8 28.7	
23		4 27 38.26 <small>47.26</small>	20 59 4.7 <small>1 43.4</small>	0.747 6876 <small>9178</small>	8 25.5	
24		4 28 25.52	+21 0 48.1	0.746 7698	8 22.4	

Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Juli 24	4 <sup>h</sup> 28 <sup>m</sup> 25.52 <sup>s</sup> 46.90	+21° 0' 48.1" I 41.6	0.746 7698 9299	8 <sup>h</sup> 22.4 <sup>m</sup>
25	4 29 12.42 46.54	21 2 29.7 I 39.8	0.745 8399 9419	8 19.2
26	4 29 58.96 46.16	21 4 9.5 I 38.1	0.744 8980 9539	8 16.1
27	4 30 45.12 45.78	21 5 47.6 I 36.4	0.743 9441 9659	8 12.9
28	4 31 30.90 45.39	21 7 24.0 I 34.7	0.742 9782 9777	8 9.7
29	4 32 16.29 44.99	21 8 58.7 I 33.0	0.742 0005 9895	8 6.6
30	4 33 1.28 44.59	+21 10 31.7 I 31.3	0.741 0110 1 0011	8 3.4
31	4 33 45.87 44.17	21 12 3.0 I 29.6	0.740 0099 1 0128	8 0.2
Aug. 1	4 34 30.04 43.75	21 13 32.6 I 27.9	0.738 9971 1 0243	7 57.0
2	4 35 13.79 43.32	21 15 0.5 I 26.2	0.737 9728 1 0357	7 53.8
3	4 35 57.11 42.87	21 16 26.7 I 24.6	0.736 9371 1 0470	7 50.5
4	4 36 39.98 42.43	21 17 51.3 I 22.8	0.735 8901 1 0583	7 47.3
5	4 37 22.41 41.98	+21 19 14.1 I 21.1	0.734 8318 1 0693	7 44.1
6	4 38 4.39 41.51	21 20 35.2 I 19.5	0.733 7625 1 0801	7 40.8
7	4 38 45.90 41.03	21 21 54.7 I 17.9	0.732 6824 1 0908	7 37.6
8	4 39 26.93 40.55	21 23 12.6 I 16.2	0.731 5916 1 1014	7 34.4
9	4 40 7.48 40.07	21 24 28.8 I 14.5	0.730 4902 1 1119	7 31.1
10	4 40 47.55 39.57	21 25 43.3 I 12.9	0.729 3783 1 1223	7 27.8
11	4 41 27.12 39.07	+21 26 56.2 I 11.3	0.728 2560 1 1324	7 24.5
12	4 42 6.19 38.56	21 28 7.5 I 9.8	0.727 1236 1 1424	7 21.2
13	4 42 44.75 38.05	21 29 17.3 I 8.2	0.725 9812 1 1522	7 18.0
14	4 43 22.80 37.52	21 30 25.5 I 6.5	0.724 8290 1 1619	7 14.7
15	4 44 0.32 36.99	21 31 32.0 I 5.0	0.723 6671 1 1713	7 11.4
16	4 44 37.31 36.44	21 32 37.0 I 3.5	0.722 4958 1 1807	7 8.0
17	4 45 13.75 35.91	+21 33 40.5 I 1.9	0.721 3151 1 1900	7 4.7
18	4 45 49.66 35.36	21 34 42.4 I 0.4	0.720 1251 1 1990	7 1.4
19	4 46 25.02 34.80	21 35 42.8 0 58.9	0.718 9261 1 2079	6 58.0
20	4 46 59.82 34.22	21 36 41.7 0 57.3	0.717 7182 1 2168	6 54.6
21	4 47 34.04 33.65	21 37 39.0 0 55.8	0.716 5014 1 2254	6 51.3
22	4 48 7.69 33.06	21 38 34.8 0 54.4	0.715 2760 1 2337	6 47.9
23	4 48 40.75 32.47	+21 39 29.2 0 53.0	0.714 0423 1 2420	6 44.5
24	4 49 13.22 31.87	21 40 22.2 0 51.4	0.712 8003 1 2502	6 41.1
25	4 49 45.09 31.27	21 41 13.6 0 50.0	0.711 5501 1 2581	6 37.7
26	4 50 16.36 30.65	21 42 3.6 0 48.6	0.710 2920 1 2659	6 34.3
27	4 50 47.01 30.02	21 42 52.2 0 47.1	0.709 0261 1 2735	6 30.9
28	4 51 17.03 29.39	21 43 39.3 0 45.7	0.707 7526 1 2809	6 27.4
29	4 51 46.42 28.74	+21 44 25.0 0 44.2	0.706 4717 1 2880	6 24.0
30	4 52 15.16 28.08	21 45 9.2 0 42.8	0.705 1837 1 2949	6 20.6
31	4 52 43.24 27.42	21 45 52.0 0 41.4	0.703 8888 1 3014	6 17.1
Sept. 1	4 53 10.66 26.76	21 46 33.4 0 40.0	0.702 5874 1 3078	6 13.6
2	4 53 37.42 26.07	21 47 13.4 0 38.6	0.701 2796 1 3138	6 10.1
3	4 54 3.49	+21 47 52.0	0.699 9658	6 6.6

Tag	O <sup>h</sup> Welt-Zeit			Obere Kullimation in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Sept. 3	4 <sup>h</sup> 54 <sup>m</sup> 3.49 <sup>s</sup> 25.37	+21° 47' 52.0"	0.699 9658	6 <sup>h</sup> 6 <sup>m</sup> 6
4	4 54 28.86 24.68	21 48 29.3 37.3	0.698 6462	3196 3250
5	4 54 53.54 23.97	21 49 5.2 35.9	0.697 3212	3302
6	4 55 17.51 23.26	21 49 39.7 34.5	0.695 9910	3351
7	4 55 40.77 22.54	21 50 12.8 31.1	0.694 6559	3395
8	4 56 3.31 21.82	21 50 44.6 31.8	0.693 3164	3437
9	4 56 25.13 21.09	+21 51 15.1 29.1	0.691 9727	3476
10	4 56 46.22 20.34	21 51 44.2 27.8	0.690 6251	3512
11	4 57 6.56 19.59	21 52 12.0 26.6	0.689 2739	3545
12	4 57 26.15 18.85	21 52 38.6 25.3	0.687 9194	3575
13	4 57 45.00 18.09	21 53 3.9 24.0	0.686 5619	3601
14	4 58 3.09 17.33	21 53 27.9 22.8	0.685 2018	3624
15	4 58 20.42 16.55	+21 53 50.7 21.6	0.683 8394	3643
16	4 58 36.97 15.78	21 54 12.3 20.3	0.682 4751	3658
17	4 58 52.75 14.99	21 54 32.6 19.1	0.681 1093	3670
18	4 59 7.74 14.20	21 54 51.7 17.8	0.679 7423	3679
19	4 59 21.94 13.41	21 55 9.5 16.6	0.678 3744	3685
20	4 59 35.35 12.61	21 55 26.1 15.4	0.677 0059	3687
21	4 59 47.96 11.81	+21 55 41.5 14.2	0.675 6372	3685
22	4 59 59.77 10.99	21 55 55.7 13.0	0.674 2687	3678
23	5 0 10.76 10.17	21 56 8.7 11.8	0.672 9009	3669
24	5 0 20.93 9.35	21 56 20.5 10.6	0.671 5340	3656
25	5 0 30.28 8.52	21 56 31.1 9.5	0.670 1684	3637
26	5 0 38.80 7.67	21 56 40.6 8.3	0.668 8047	3615
27	5 0 46.47 6.83	+21 56 48.9 7.0	0.667 4432	3587
28	5 0 53.30 5.98	21 56 55.9 5.8	0.666 0845	3556
29	5 0 59.28 5.13	21 57 1.7 4.7	0.664 7289	3519
30	5 1 4.41 4.27	21 57 6.4 3.5	0.663 3770	3477
Okt. 1	5 1 8.68 3.41	21 57 9.9 2.3	0.662 0293	3428
2	5 1 12.09 2.54	21 57 12.2 1.1	0.660 6865	3375
3	5 1 14.63 1.68	+21 57 13.3 0.0	0.659 3490	3317
4	5 1 16.31 0.82	21 57 13.3 1.2	0.658 0173	3252
5	5 1 17.13 0.05	21 57 12.1 2.4	0.656 6921	3184
6	5 1 17.08 0.93	21 57 9.7 3.5	0.655 3737	3110
7	5 1 16.15 1.79	21 57 6.2 4.7	0.654 0627	3030
8	5 1 14.36 2.66	21 57 1.5 5.8	0.652 7597	2944
9	5 1 11.70 3.54	+21 56 55.7 7.0	0.651 4653	2854
10	5 1 8.16 4.40	21 56 48.7 8.1	0.650 1799	2758
11	5 1 3.76 5.26	21 56 40.6 9.2	0.648 9041	2656
12	5 0 58.50 6.11	21 56 31.4 10.4	0.647 6385	2549
13	5 0 52.39 6.98	21 56 21.0 11.6	0.646 3836	2435
14	5 0 45.41	+21 56 9.4	0.645 1401	2319

Tag	O <sup>b</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Okt. 14	5 <sup>h</sup> 0 <sup>m</sup> 45.41 <sup>s</sup> 7.84	+21° 56' 9.4" 12.7	0.645 1401 I 2317	3 <sup>h</sup> 31.9 <sup>m</sup>
15	5 0 37.57 8.68	21 55 56.7 13.7	0.643 9084 I 2194	3 27.9
16	5 0 28.89 9.53	21 55 43.0 14.9	0.642 6890 I 2065	3 23.8
17	5 0 19.36 10.39	21 55 28.1 16.0	0.641 4825 I 1931	3 19.7
18	5 0 8.97 11.23	21 55 12.1 17.2	0.640 2894 I 1791	3 15.6
19	4 59 57.74 12.06	21 54 54.9 18.4	0.639 1103 I 1645	3 11.5
20	4 59 45.68 12.89	+21 54 36.5 19.5	0.637 9458 I 1493	3 7.4
21	4 59 32.79 13.73	21 54 17.0 20.6	0.636 7965 I 1336	3 3.2
22	4 59 19.06 14.55	21 53 56.4 21.8	0.635 6629 I 1173	2 59.1
23	4 59 4.51 15.36	21 53 34.6 22.9	0.634 5456 I 1003	2 54.9
24	4 58 49.15 16.17	21 53 11.7 24.1	0.633 4453 I 0829	2 50.7
25	4 58 32.98 16.98	21 52 47.6 25.2	0.632 3624 I 0647	2 46.5
26	4 58 16.00 17.78	+21 52 22.4 26.3	0.631 2977 I 0458	2 42.2
27	4 57 58.22 18.56	21 51 56.1 27.5	0.630 2519 I 0264	2 38.0
28	4 57 39.66 19.33	21 51 28.6 28.7	0.629 2255 I 0065	2 33.8
29	4 57 20.33 20.10	21 50 59.9 29.8	0.628 2190 9858	2 29.5
30	4 57 0.23 20.86	21 50 30.1 31.0	0.627 2332 9645	2 25.3
31	4 56 39.37 21.59	21 49 59.1 32.1	0.626 2687 9425	2 21.0
Nov. 1	4 56 17.78 22.31	+21 49 27.0 33.3	0.625 3262 9200	2 16.7
2	4 55 55.47 23.02	21 48 53.7 34.3	0.624 4062 8968	2 12.4
3	4 55 32.45 23.72	21 48 19.4 35.5	0.623 5094 8730	2 8.1
4	4 55 8.73 24.40	21 47 43.9 36.6	0.622 6364 8488	2 3.8
5	4 54 44.33 25.06	21 47 7.3 37.6	0.621 7876 8240	I 59.4
6	4 54 19.27 25.70	21 46 29.7 38.7	0.620 9636 7986	I 55.1
7	4 53 53.57 26.33	+21 45 51.0 39.8	0.620 1650 7727	I 50.7
8	4 53 27.24 26.94	21 45 11.2 40.8	0.619 3923 7462	I 46.4
9	4 53 0.30 27.52	21 44 30.4 41.9	0.618 6461 7194	I 42.0
10	4 52 32.78 28.09	21 43 48.5 42.9	0.617 9267 6921	I 37.6
11	4 52 4.69 28.65	21 43 5.6 43.8	0.617 2346 6642	I 33.2
12	4 51 36.04 29.18	21 42 21.8 44.8	0.616 5704 6360	I 28.8
13	4 51 6.86 29.68	+21 41 37.0 45.8	0.615 9344 6075	I 24.4
14	4 50 37.18 30.17	21 40 51.2 46.7	0.615 3269 5785	I 19.9
15	4 50 7.01 30.64	21 40 4.5 47.6	0.614 7484 5490	I 15.5
16	4 49 36.37 31.08	21 39 16.9 48.6	0.614 1994 5191	I 11.1
17	4 49 5.29 31.50	21 38 28.3 49.5	0.613 6803 4890	I 6.6
18	4 48 33.79 31.90	21 37 38.8 50.4	0.613 1913 4585	I 2.2
19	4 48 1.89 32.28	+21 36 48.4 51.2	0.612 7328 4276	0 57.7
20	4 47 29.61 32.64	21 35 57.2 52.0	0.612 3052 3963	0 53.2
21	4 46 56.97 32.97	21 35 5.2 52.8	0.611 9089 3647	0 48.8
22	4 46 24.00 33.28	21 34 12.4 53.5	0.611 5442 3329	0 44.3
23	4 45 50.72 33.57	21 33 18.9 54.3	0.611 2113 3007	0 39.8
24	4 45 17.15	+21 32 24.6	0.610 9106	0 35.3

Tag	O <sup>b</sup> Welt-Zeit			log Δ	Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Nov. 24	4 <sup>h</sup> 45 <sup>m</sup> 17.15 <sup>s</sup> <small>33.83</small>	+21° 32' 24.6" <small>55.0</small>	0.610 9106 <small>2681</small>	h <sup>h</sup> m <sup>m</sup> 0 35.3	
25	4 44 43.32 <small>34.06</small>	21 31 29.6 <small>55.6</small>	0.610 6425 <small>2353</small>	0 30.8	
26	4 44 9.26 <small>34.27</small>	21 30 34.0 <small>56.3</small>	0.610 4072 <small>2023</small>	0 26.3	
27	4 43 34.99 <small>34.46</small>	21 29 37.7 <small>56.9</small>	0.610 2049 <small>1691</small>	0 21.8	
28	4 43 0.53 <small>34.60</small>	21 28 40.8 <small>57.3</small>	0.610 0358 <small>1356</small>	0 17.3	
29	4 42 25.93 <small>34.72</small>	21 27 43.5 <small>57.8</small>	0.609 9002 <small>1021</small>	0 12.8	
30	4 41 51.21 <small>34.82</small>	+21 26 45.7 <small>58.2</small>	0.609 7981 <small>685</small>	0 8.3	
Dez. 1	4 41 16.39 <small>34.90</small>	21 25 47.5 <small>58.6</small>	0.609 7296 <small>346</small>	{ <sup>0</sup> 3.8 <sub>23 59.3</sub> }	
2	4 40 41.49 <small>34.93</small>	21 24 48.9 <small>59.0</small>	0.609 6950 <small>8</small>	23 54.8	
3	4 40 6.56 <small>34.94</small>	21 23 49.9 <small>59.2</small>	0.609 6942 <small>330</small>	23 50.3	
4	4 39 31.62 <small>34.93</small>	21 22 50.7 <small>59.5</small>	0.609 7272 <small>670</small>	23 45.8	
5	4 38 56.69 <small>34.88</small>	21 21 51.2 <small>59.6</small>	0.609 7942 <small>1008</small>	23 41.2	
6	4 38 21.81 <small>34.80</small>	+21 20 51.6 <small>59.8</small>	0.609 8950 <small>1345</small>	23 36.7	
7	4 37 47.01 <small>34.71</small>	21 19 51.8 <small>59.8</small>	0.610 0295 <small>1681</small>	23 32.2	
8	4 37 12.30 <small>34.58</small>	21 18 52.0 <small>59.8</small>	0.610 1976 <small>2018</small>	23 27.7	
9	4 36 37.72 <small>34.42</small>	21 17 52.2 <small>59.8</small>	0.610 3994 <small>2351</small>	23 23.2	
10	4 36 3.30 <small>34.24</small>	21 16 52.4 <small>59.6</small>	0.610 6345 <small>2683</small>	23 18.7	
11	4 35 29.06 <small>34.04</small>	21 15 52.8 <small>59.4</small>	0.610 9028 <small>3013</small>	23 14.2	
12	4 34 55.02 <small>33.80</small>	+21 14 53.4 <small>59.2</small>	0.611 2041 <small>3341</small>	23 9.7	
13	4 34 21.22 <small>33.53</small>	21 13 54.2 <small>58.9</small>	0.611 5382 <small>3667</small>	23 5.3	
14	4 33 47.69 <small>33.26</small>	21 12 55.3 <small>58.6</small>	0.611 9049 <small>3989</small>	23 0.8	
15	4 33 14.43 <small>32.96</small>	21 11 56.7 <small>58.2</small>	0.612 3038 <small>4309</small>	22 56.3	
16	4 32 41.47 <small>32.63</small>	21 10 58.5 <small>57.7</small>	0.612 7347 <small>4626</small>	22 51.8	
17	4 32 8.84 <small>32.27</small>	21 10 0.8 <small>57.3</small>	0.613 1973 <small>4941</small>	22 47.4	
18	4 31 36.57 <small>31.89</small>	+21 9 3.5 <small>56.7</small>	0.613 6914 <small>5252</small>	22 42.9	
19	4 31 4.68 <small>31.50</small>	21 8 6.8 <small>56.0</small>	0.614 2166 <small>5561</small>	22 38.4	
20	4 30 33.18 <small>31.08</small>	21 7 10.8 <small>55.4</small>	0.614 7727 <small>5867</small>	22 34.0	
21	4 30 2.10 <small>30.63</small>	21 6 15.4 <small>54.7</small>	0.615 3594 <small>6169</small>	22 29.5	
22	4 29 31.47 <small>30.17</small>	21 5 20.7 <small>53.9</small>	0.615 9763 <small>6467</small>	22 25.1	
23	4 29 1.30 <small>29.68</small>	21 4 26.8 <small>53.0</small>	0.616 6230 <small>6762</small>	22 20.7	
24	4 28 31.62 <small>29.17</small>	+21 3 33.8 <small>52.1</small>	0.617 2992 <small>7052</small>	22 16.3	
25	4 28 2.45 <small>28.64</small>	21 2 41.7 <small>51.1</small>	0.618 0044 <small>7338</small>	22 11.9	
26	4 27 33.81 <small>28.10</small>	21 1 50.6 <small>50.1</small>	0.618 7382 <small>7620</small>	22 7.5	
27	4 27 5.71 <small>27.52</small>	21 1 0.5 <small>48.9</small>	0.619 5002 <small>7897</small>	22 3.1	
28	4 26 38.19 <small>26.93</small>	21 0 11.6 <small>47.8</small>	0.620 2899 <small>8171</small>	21 58.7	
29	4 26 11.26 <small>26.32</small>	20 59 23.8 <small>46.5</small>	0.621 1070 <small>8438</small>	21 54.3	
30	4 25 44.94 <small>25.70</small>	+20 58 37.3 <small>45.3</small>	0.621 9508 <small>8699</small>	21 50.0	
31	4 25 19.24 <small>25.04</small>	20 57 52.0 <small>43.9</small>	0.622 8207 <small>8956</small>	21 45.6	
32	4 24 54.20	+20 57 8.1	0.623 7163	21 41.3	

Tag	O <sup>b</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Jan. 0	17 <sup>h</sup> 32 <sup>m</sup> 18. <sup>s</sup> 06 29.84	—22° 7' 28.0" 21.7	I.040 7205 1827	IO 54.0
1	17 32 47.90 29.75	22 7 49.7 21.1	I.040 5378 1927	IO 50.6
2	17 33 17.65 29.66	22 8 10.8 20.7	I.040 3451 2027	IO 47.2
3	17 33 47.31 29.56	22 8 31.5 20.1	I.040 1424 2127	IO 43.7
4	17 34 16.87 29.47	22 8 51.6 19.7	I.039 9297 2228	IO 40.3
5	17 34 46.34 29.36	22 9 11.3 19.1	I.039 7009 2327	IO 36.8
6	17 35 15.70 29.25	—22 9 30.4 18.7	I.039 4742 2426	IO 33.4
7	17 35 44.95 29.14	22 9 49.1 18.1	I.039 2316 2525	IO 30.0
8	17 36 14.09 29.01	22 10 7.2 17.7	I.038 9791 2624	IO 26.5
9	17 36 43.10 28.87	22 10 24.9 17.1	I.038 7167 2722	IO 23.1
10	17 37 11.97 28.75	22 10 42.0 16.7	I.038 4445 2820	IO 19.6
11	17 37 40.72 28.61	22 10 58.7 16.1	I.038 1625 2918	IO 16.1
12	17 38 9.33 28.46	—22 11 14.8 15.7	I.037 8707 3014	IO 12.7
13	17 38 37.79 28.31	22 11 30.5 15.1	I.037 5693 3110	IO 9.2
14	17 39 6.10 28.16	22 11 45.6 14.7	I.037 2583 3205	IO 5.8
15	17 39 34.26 28.00	22 12 0.3 14.2	I.036 9378 3300	IO 2.3
16	17 40 2.26 27.83	22 12 14.5 13.7	I.036 6078 3394	9 58.8
17	17 40 30.09 27.66	22 12 28.2 13.3	I.036 2684 3486	9 55.4
18	17 40 57.75 27.48	—22 12 41.5 12.7	I.035 9198 3580	9 51.9
19	17 41 25.23 27.31	22 12 54.2 12.2	I.035 5618 3672	9 48.4
20	17 41 52.54 27.12	22 13 6.4 11.8	I.035 1946 3764	9 44.9
21	17 42 19.66 26.93	22 13 18.2 11.4	I.034 8182 3854	9 41.4
22	17 42 46.59 26.73	22 13 29.6 10.9	I.034 4328 3944	9 37.9
23	17 43 13.32 26.54	22 13 40.5 10.5	I.034 0384 4032	9 34.4
24	17 43 39.86 26.34	—22 13 51.0 10.1	I.033 6352 4120	9 31.0
25	17 44 6.20 26.13	22 14 1.1 9.6	I.033 2232 4208	9 27.5
26	17 44 32.33 25.91	22 14 10.7 9.2	I.032 8024 4295	9 24.0
27	17 44 58.24 25.71	22 14 19.9 8.9	I.032 3729 4381	9 20.5
28	17 45 23.95 25.49	22 14 28.8 8.3	I.031 9348 4466	9 17.0
29	17 45 49.44 25.25	22 14 37.1 7.9	I.031 4882 4551	9 13.4
30	17 46 14.69 25.02	—22 14 45.0 7.5	I.031 0331 4635	9 9.9
31	17 46 39.71 24.79	22 14 52.5 7.1	I.030 5696 4719	9 6.4
Febr. 1	17 47 4.50 24.56	22 14 59.6 6.7	I.030 0977 4801	9 2.9
2	17 47 29.06 24.31	22 15 6.3 6.3	I.029 6176 4883	8 59.4
3	17 47 53.37 24.06	22 15 12.6 6.0	I.029 1293 4964	8 55.8
4	17 48 17.43 23.80	22 15 18.6 5.6	I.028 6329 5044	8 52.3
5	17 48 41.23 23.54	—22 15 24.2 5.3	I.028 1285 5123	8 48.8
6	17 49 4.77 23.28	22 15 29.5 4.9	I.027 6162 5201	8 45.2
7	17 49 28.05 23.01	22 15 34.4 4.5	I.027 0961 5279	8 41.7
8	17 49 51.06 22.73	22 15 38.9 4.1	I.026 5682 5355	8 38.1
9	17 50 13.79 22.46	22 15 43.0 3.8	I.026 0327 5429	8 34.6
10	17 50 36.25	—22 15 46.8	I.025 4898	8 31.0

Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Febr. 10	17 50 <sup>h</sup> 36.25 <sup>m</sup> 22.17	−22 15 46.8 3.5	I.025 4898 5502	8 31.0
11	17 50 58.42 21.89	22 15 50.3 3.1	I.024 9396 5575	8 27.4
12	17 51 20.31 21.59	22 15 53.4 2.8	I.024 3821 5647	8 23.9
13	17 51 41.00 21.29	22 15 56.2 2.5	I.023 8174 5717	8 20.3
14	17 52 3.19 20.98	22 15 58.7 2.3	I.023 2457 5784	8 16.7
15	17 52 24.17 20.68	22 16 1.0 1.9	I.022 6673 5851	8 13.1
16	17 52 44.85 20.37	−22 16 2.9 1.7	I.022 0822 5916	8 9.5
17	17 53 5.22 20.05	22 16 4.6 1.3	I.021 4906 5981	8 5.9
18	17 53 25.27 19.74	22 16 5.9 1.1	I.020 8925 6045	8 2.3
19	17 53 45.01 19.42	22 16 7.0 0.9	I.020 2880 6106	7 58.7
20	17 54 4.43 19.09	22 16 7.9 0.6	I.019 6774 6166	7 55.1
21	17 54 23.52 18.76	22 16 8.5 0.3	I.019 0608 6225	7 51.5
22	17 54 42.28 18.42	−22 16 8.8 0.1	I.018 4383 6284	7 47.9
23	17 55 0.70 18.09	22 16 8.9 0.1	I.017 8099 6340	7 44.3
24	17 55 18.79 17.76	22 16 8.8 0.3	I.017 1759 6396	7 40.6
25	17 55 36.55 17.42	22 16 8.5 0.6	I.016 5363 6450	7 37.0
26	17 55 53.97 17.06	22 16 7.9 0.7	I.015 8913 6502	7 33.3
27	17 56 11.03 16.71	22 16 7.2 0.9	I.015 2411 6553	7 29.7
28	17 56 27.74 16.37	−22 16 6.3 1.1	I.014 5858 6603	7 26.0
März 1	17 56 44.11 16.01	22 16 5.2 1.3	I.013 9255 6652	7 22.3
2	17 57 0.12 15.65	22 16 3.9 1.4	I.013 2603 6699	7 18.7
3	17 57 15.77 15.27	22 16 2.5 1.6	I.012 5904 6744	7 15.0
4	17 57 31.04 14.91	22 16 0.9 1.8	I.011 9160 6789	7 11.3
5	17 57 45.95 14.54	22 15 59.1 2.0	I.011 2371 6831	7 7.7
6	17 58 0.49 14.15	−22 15 57.1 2.0	I.010 5540 6872	7 4.0
7	17 58 14.64 13.78	22 15 55.1 2.2	I.009 8668 6912	7 0.3
8	17 58 28.42 13.40	22 15 52.9 2.3	I.009 1756 6949	6 56.6
9	17 58 41.82 13.00	22 15 50.6 2.4	I.008 4807 6984	6 52.8
10	17 58 54.82 12.62	22 15 48.2 2.5	I.007 7823 7017	6 49.1
11	17 59 7.44 12.22	22 15 45.7 2.6	I.007 0806 7048	6 45.4
12	17 59 19.66 11.83	−22 15 43.1 2.8	I.006 3758 7077	6 41.7
13	17 59 31.49 11.42	22 15 40.3 2.8	I.005 6681 7105	6 37.9
14	17 59 42.91 11.02	22 15 37.5 2.9	I.004 9576 7131	6 34.2
15	17 59 53.93 10.63	22 15 34.6 3.0	I.004 2445 7156	6 30.4
16	18 0 4.56 10.22	22 15 31.6 3.0	I.003 5289 7179	6 26.7
17	18 0 14.78 9.81	22 15 28.6 3.1	I.002 8110 7199	6 22.9
18	18 0 24.59 9.40	−22 15 25.5 3.2	I.002 0911 7217	6 19.2
19	18 0 33.99 8.99	22 15 22.3 3.2	I.001 3694 7233	6 15.4
20	18 0 42.98 8.58	22 15 19.1 3.2	I.000 6461 7246	6 11.6
21	18 0 51.56 8.16	22 15 15.9 3.2	0.999 9215 7257	6 7.8
22	18 0 59.72 7.75	22 15 12.7 3.2	0.999 1958 7268	6 4.0
23	18 1 7.47	−22 15 9.5	0.998 4690	6 0.2

Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
März 23	18 <sup>h</sup> 1 <sup>m</sup> 7.47 <sup>s</sup> 7.33	—22° 15' 9.5" 3.3	0.998 4690 7276	6 <sup>h</sup> 0.2 <sup>m</sup>
24	18 1 14.80 6.92	22 15 6.2 3.2	0.997 7414 7283	5 56.4
25	18 1 21.72 6.50	22 15 3.0 3.3	0.997 0131 7287	5 52.6
26	18 1 28.22 6.08	22 14 59.7 3.3	0.996 2844 7290	5 48.7
27	18 1 34.30 5.66	22 14 56.4 3.3	0.995 5554 7290	5 44.9
28	18 1 39.96 5.23	22 14 53.1 3.2	0.994 8264 7289	5 41.1
29	18 1 45.19 4.81	—22 14 49.9 3.3	0.994 0975 7285	5 37.2
30	18 1 50.00 4.38	22 14 46.6 3.2	0.993 3690 7280	5 33.3
April 31	18 1 54.38 3.95	22 14 43.4 3.2	0.992 6410 7273	5 29.5
1	18 1 58.33 3.53	22 14 40.2 3.2	0.991 9137 7263	5 25.6
2	18 2 1.86 3.10	22 14 37.0 3.1	0.991 1874 7252	5 21.8
3	18 2 4.96 2.66	22 14 33.9 3.1	0.990 4622 7238	5 17.9
4	18 2 7.62 2.23	—22 14 30.8 3.1	0.989 7384 7221	5 14.0
5	18 2 9.85 1.81	22 14 27.7 3.1	0.989 0163 7203	5 10.1
6	18 2 11.66 1.37	22 14 24.6 3.0	0.988 2960 7181	5 6.2
7	18 2 13.03 0.94	22 14 21.6 3.0	0.987 5779 7158	5 2.3
8	18 2 13.97 0.51	22 14 18.6 2.9	0.986 8621 7133	4 58.4
9	18 2 14.48 0.08	22 14 15.7 2.9	0.986 1488 7104	4 54.4
10	18 2 14.56 0.35	—22 14 12.8 2.8	0.985 4384 7072	4 50.5
11	18 2 14.21 0.78	22 14 10.0 2.8	0.984 7312 7040	4 46.6
12	18 2 13.43 1.21	22 14 7.2 2.7	0.984 0272 7004	4 42.6
13	18 2 12.22 1.63	22 14 4.5 2.6	0.983 3268 6966	4 38.7
14	18 2 10.59 2.06	22 14 1.9 2.6	0.982 6302 6926	4 34.7
15	18 2 8.53 2.49	22 13 59.3 2.4	0.981 9376 6883	4 30.7
16	18 2 6.04 2.90	—22 13 56.9 2.4	0.981 2493 6838	4 26.7
17	18 2 3.14 3.32	22 13 54.5 2.4	0.980 5655 6790	4 22.8
18	18 1 59.82 3.73	22 13 52.1 2.2	0.979 8865 6741	4 18.8
19	18 1 56.09 4.15	22 13 49.9 2.2	0.979 2124 6689	4 14.8
20	18 1 51.94 4.56	22 13 47.7 2.2	0.978 5435 6635	4 10.8
21	18 1 47.38 4.97	22 13 45.5 2.1	0.977 8800 6579	4 6.8
22	18 1 42.41 5.37	—22 13 43.4 2.0	0.977 2221 6521	4 2.8
23	18 1 37.04 5.78	22 13 41.4 1.9	0.976 5700 6460	3 58.7
24	18 1 31.26 6.18	22 13 39.5 1.9	0.975 9240 6398	3 54.7
25	18 1 25.08 6.57	22 13 37.6 1.7	0.975 2842 6333	3 50.7
26	18 1 18.51 6.97	22 13 35.9 1.7	0.974 6509 6266	3 46.7
27	18 1 11.54 7.37	22 13 34.2 1.6	0.974 0243 6197	3 42.6
28	18 1 4.17 7.75	—22 13 32.6 1.6	0.973 4046 6126	3 38.5
29	18 0 56.42 8.14	22 13 31.0 1.5	0.972 7920 6052	3 34.5
30	18 0 48.28 8.52	22 13 29.5 1.4	0.972 1868 5977	3 30.4
Mai 1	18 0 39.76 8.89	22 13 28.1 1.4	0.971 5891 5898	3 26.3
2	18 0 30.87 9.27	22 13 26.7 1.4	0.970 9993 5817	3 22.3
3	18 0 21.60	—22 13 25.3	0.970 4176	3 18.2



Tag	0 <sup>h</sup> Welt-Zeit			Obere Kul- mination in Green- wich
	Scheinbare Rektaszension	Scheinbare Deklination	log $\Delta$	
1929				
Mai 3	18 <sup>h</sup> 0 <sup>m</sup> 21.60 <sup>s</sup> 9.65	—22° 13' 25.3" 1.3	0.970 4176	3 <sup>h</sup> 18.2 <sup>m</sup>
4	18 0 11.95 10.01	22 13 24.0 1.2	0.969 8441 5735	3 14.1
5	18 0 1.94 10.38	22 13 22.8 1.2	0.969 2791 5562	3 10.0
6	17 59 51.56 10.74	22 13 21.6 1.2	0.968 7229 5472	3 5.9
7	17 59 40.82 11.09	22 13 20.4 1.1	0.968 1757 5379	3 1.8
8	17 59 29.73 11.43	22 13 19.3 1.0	0.967 6378 5285	2 57.6
9	17 59 18.30 11.77	—22 13 18.3 1.0	0.967 1093 5189	2 53.5
10	17 59 6.53 12.10	22 13 17.3 0.9	0.966 5904 5090	2 49.4
11	17 58 54.43 12.43	22 13 16.4 0.9	0.966 0814 4990	2 45.3
12	17 58 42.00 12.76	22 13 15.5 0.9	0.965 5824 4887	2 41.1
13	17 58 29.24 13.07	22 13 14.6 0.9	0.965 0937 4782	2 37.0
14	17 58 16.17 13.37	22 13 13.7 0.8	0.964 6155 4675	2 32.8
15	17 58 2.80 13.68	—22 13 12.9 0.7	0.964 1480 4566	2 28.7
16	17 57 49.12 13.98	22 13 12.2 0.8	0.963 6914 4456	2 24.5
17	17 57 35.14 14.26	22 13 11.4 0.7	0.963 2458 4344	2 20.4
18	17 57 20.88 14.54	22 13 10.7 0.8	0.962 8114 4230	2 16.2
19	17 57 6.34 14.82	22 13 9.9 0.7	0.962 3884 4115	2 12.0
20	17 56 51.52 15.08	22 13 9.2 0.6	0.961 9769 3998	2 7.8
21	17 56 36.44 15.33	—22 13 8.6 0.6	0.961 5771 3880	2 3.7
22	17 56 21.11 15.58	22 13 8.0 0.7	0.961 1891 3762	1 59.5
23	17 56 5.53 15.83	22 13 7.3 0.6	0.960 8129 3640	1 55.3
24	17 55 49.70 16.07	22 13 6.7 0.7	0.960 4489 3517	1 51.1
25	17 55 33.63 16.29	22 13 6.0 0.6	0.960 0972 3393	1 46.9
26	17 55 17.34 16.51	22 13 5.4 0.7	0.959 7579 3268	1 42.7
27	17 55 0.83 16.73	—22 13 4.7 0.6	0.959 4311 3141	1 38.5
28	17 54 44.10 16.94	22 13 4.1 0.7	0.959 1170 3012	1 34.3
29	17 54 27.16 17.14	22 13 3.4 0.6	0.958 8158 2883	1 30.1
30	17 54 10.02 17.33	22 13 2.8 0.7	0.958 5275 2752	1 25.8
31	17 53 52.69 17.51	22 13 2.1 0.7	0.958 2523 2619	1 21.6
Juni 1	17 53 35.18 17.67	22 13 1.4 0.7	0.957 9904 2485	1 17.4
2	17 53 17.51 17.84	—22 13 0.7 0.7	0.957 7419 2351	1 13.2
3	17 52 59.67 18.00	22 13 0.0 0.7	0.957 5068 2216	1 8.9
4	17 52 41.67 18.14	22 12 59.3 0.7	0.957 2852 2078	1 4.7
5	17 52 23.53 18.28	22 12 58.6 0.7	0.957 0774 1940	1 0.5
6	17 52 5.25 18.40	22 12 57.9 0.7	0.956 8834 1801	0 56.2
7	17 51 46.85 18.52	22 12 57.2 0.8	0.956 7033 1662	0 52.0
8	17 51 28.33 18.63	—22 12 56.4 0.8	0.956 5371 1521	0 47.8
9	17 51 9.70 18.73	22 12 55.6 0.8	0.956 3850 1379	0 43.5
10	17 50 50.97 18.81	22 12 54.8 0.8	0.956 2471 1237	0 39.3
11	17 50 32.16 18.89	22 12 54.0 0.8	0.956 1234 1094	0 35.1
12	17 50 13.27 18.96	22 12 53.2 0.8	0.956 0140 952	0 30.8
13	17 49 54.31	—22 12 52.4	0.955 9188	0 26.6

Tag	0 <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich		
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ			
1929						
Juni	13	17 49 54.31 19.02	-22 12 52.4 0.8	0.955 9188 859	h m ○ 26.6	
	14	17 49 35.29 19.06	22 12 51.6 0.8	0.955 8379 665	○ 22.3	
	15	17 49 16.23 19.09	22 12 50.8 0.8	0.955 7714 522	○ 18.1	
	16	17 48 57.14 19.12	22 12 50.0 0.8	0.955 7192 380	○ 13.8	
	17	17 48 38.02 19.14	22 12 49.2 0.9	0.955 6812 236	○ 9.6	
	18	17 48 18.88 19.14	22 12 48.3 0.8	0.955 6576 93	○ 5.3	
	19	17 47 59.74 19.15	-22 12 47.5 0.9	0.955 6483 50	( <sup>0</sup> <sup>1.1</sup> <sub>23</sub> 56.8)	
	20	17 47 40.59 19.14	22 12 46.6 0.9	0.955 6533 193	23 52.6	
	21	17 47 21.45 19.12	22 12 45.7 0.8	0.955 6726 336	23 48.3	
	22	17 47 2.33 19.09	22 12 44.9 0.9	0.955 7062 478	23 44.1	
	23	17 46 43.24 19.06	22 12 44.0 0.9	0.955 7540 620	23 39.8	
	24	17 46 24.18 19.01	22 12 43.1 0.8	0.955 8160 763	23 35.6	
	25	17 46 5.17 18.95	-22 12 42.3 0.8	0.955 8923 904	23 31.3	
	26	17 45 46.22 18.89	22 12 41.5 0.8	0.955 9827 1046	23 27.1	
	27	17 45 27.33 18.81	22 12 40.7 0.7	0.956 0873 1187	23 22.8	
	28	17 45 8.52 18.73	22 12 40.0 0.8	0.956 2060 1327	23 18.6	
	29	17 44 49.79 18.64	22 12 39.2 0.8	0.956 3387 1467	23 14.4	
	30	17 44 31.15 18.53	22 12 38.4 0.7	0.956 4854 1607	23 10.1	
	Juli	1	17 44 12.62 18.42	-22 12 37.7 0.6	0.956 6461 1747	23 5.9
		2	17 43 54.20 18.30	22 12 37.1 0.6	0.956 8208 1886	23 1.6
		3	17 43 35.90 18.18	22 12 36.5 0.5	0.957 0094 2024	22 57.4
		4	17 43 17.72 18.04	22 12 36.0 0.5	0.957 2118 2161	22 53.2
		5	17 42 59.68 17.88	22 12 35.5 0.5	0.957 4279 2297	22 49.0
		6	17 42 41.80 17.72	22 12 35.0 0.4	0.957 6576 2433	22 44.7
		7	17 42 24.08 17.56	-22 12 34.6 0.3	0.957 9009 2566	22 40.5
		8	17 42 6.52 17.38	22 12 34.3 0.2	0.958 1575 2698	22 36.3
		9	17 41 49.14 17.19	22 12 34.1 0.1	0.958 4273 2830	22 32.1
		10	17 41 31.95 16.99	22 12 34.0 0.1	0.958 7103 2960	22 27.9
		11	17 41 14.96 16.79	22 12 33.9 0.1	0.959 0063 3088	22 23.6
		12	17 40 58.17 16.58	22 12 34.0 0.2	0.959 3151 3215	22 19.4
13		17 40 41.59 16.36	-22 12 34.2 0.2	0.959 6366 3341	22 15.2	
14		17 40 25.23 16.13	22 12 34.4 0.4	0.959 9707 3464	22 11.0	
15		17 40 9.10 15.90	22 12 34.8 0.5	0.960 3171 3586	22 6.8	
16		17 39 53.20 15.65	22 12 35.3 0.6	0.960 6757 3707	22 2.6	
17		17 39 37.55 15.40	22 12 35.9 0.8	0.961 0464 3826	21 58.4	
18		17 39 22.15 15.14	22 12 36.7 0.9	0.961 4290 3944	21 54.3	
19		17 39 7.01 14.88	-22 12 37.6 1.0	0.961 8234 4059	21 50.1	
20		17 38 52.13 14.61	22 12 38.6 1.2	0.962 2293 4172	21 45.9	
21		17 38 37.52 14.33	22 12 39.8 1.4	0.962 6465 4285	21 41.8	
22		17 38 23.19 14.05	22 12 41.2 1.5	0.963 0750 4395	21 37.6	
23		17 38 9.14 13.76	22 12 42.7 1.7	0.963 5145 4504	21 33.4	
24		17 37 55.38	-22 12 44.4	0.963 9649	21 29.3	

Tag	O <sup>b</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Juli 24	17 <sup>h</sup> 37 <sup>m</sup> 55.38 <sup>s</sup> <small>13.47</small>	—22° 12' 44.4" <small>1.8</small>	0.963 9649 <small>4610</small>	21 <sup>h</sup> 29.3 <sup>m</sup>
25	17 37 41.91 <small>13.17</small>	22 12 46.2 <small>2.0</small>	0.964 4259 <small>4716</small>	21 25.1
26	17 37 28.74 <small>12.85</small>	22 12 48.2 <small>2.2</small>	0.964 8975 <small>4819</small>	21 21.0
27	17 37 15.89 <small>12.54</small>	22 12 50.4 <small>2.4</small>	0.965 3794 <small>4921</small>	21 16.8
28	17 37 3.35 <small>12.23</small>	22 12 52.8 <small>2.5</small>	0.965 8715 <small>5022</small>	21 12.7
29	17 36 51.12 <small>11.90</small>	22 12 55.3 <small>2.7</small>	0.966 3737 <small>5119</small>	21 8.6
30	17 36 39.22 <small>11.57</small>	—22 12 58.0 <small>3.0</small>	0.966 8856 <small>5214</small>	21 4.4
31	17 36 27.65 <small>11.23</small>	22 13 1.0 <small>3.1</small>	0.967 4070 <small>5309</small>	21 0.3
Aug. 1	17 36 16.42 <small>10.89</small>	22 13 4.1 <small>3.4</small>	0.967 9379 <small>5401</small>	20 56.2
2	17 36 5.53 <small>10.53</small>	22 13 7.5 <small>3.7</small>	0.968 4780 <small>5492</small>	20 52.1
3	17 35 55.00 <small>10.19</small>	22 13 11.2 <small>3.8</small>	0.969 0272 <small>5580</small>	20 48.0
4	17 35 44.81 <small>9.83</small>	22 13 15.0 <small>4.1</small>	0.969 5852 <small>5666</small>	20 43.9
5	17 35 34.98 <small>9.47</small>	—22 13 19.1 <small>4.4</small>	0.970 1518 <small>5750</small>	20 39.8
6	17 35 25.51 <small>9.09</small>	22 13 23.5 <small>4.5</small>	0.970 7268 <small>5831</small>	20 35.7
7	17 35 16.42 <small>8.71</small>	22 13 28.0 <small>4.9</small>	0.971 3099 <small>5909</small>	20 31.6
8	17 35 7.71 <small>8.34</small>	22 13 32.9 <small>5.1</small>	0.971 9008 <small>5986</small>	20 27.6
9	17 34 59.37 <small>7.96</small>	22 13 38.0 <small>5.3</small>	0.972 4994 <small>6059</small>	20 23.5
10	17 34 51.41 <small>7.58</small>	22 13 43.3 <small>5.5</small>	0.973 1053 <small>6131</small>	20 19.5
11	17 34 43.83 <small>7.19</small>	—22 13 48.8 <small>5.9</small>	0.973 7184 <small>6200</small>	20 15.4
12	17 34 36.64 <small>6.79</small>	22 13 54.7 <small>6.1</small>	0.974 3384 <small>6268</small>	20 11.4
13	17 34 29.85 <small>6.40</small>	22 14 0.8 <small>6.3</small>	0.974 9652 <small>6333</small>	20 7.3
14	17 34 23.45 <small>6.01</small>	22 14 7.1 <small>6.5</small>	0.975 5985 <small>6394</small>	20 3.3
15	17 34 17.44 <small>5.61</small>	22 14 13.6 <small>6.9</small>	0.976 2379 <small>6454</small>	19 59.3
16	17 34 11.83 <small>5.21</small>	22 14 20.5 <small>7.2</small>	0.976 8833 <small>6512</small>	19 55.3
17	17 34 6.62 <small>4.80</small>	—22 14 27.7 <small>7.4</small>	0.977 5345 <small>6567</small>	19 51.3
18	17 34 1.82 <small>4.41</small>	22 14 35.1 <small>7.7</small>	0.978 1912 <small>6621</small>	19 47.3
19	17 33 57.41 <small>4.00</small>	22 14 42.8 <small>7.9</small>	0.978 8533 <small>6672</small>	19 43.2
20	17 33 53.41 <small>3.58</small>	22 14 50.7 <small>8.3</small>	0.979 5205 <small>6722</small>	19 39.2
21	17 33 49.83 <small>3.18</small>	22 14 59.0 <small>8.5</small>	0.980 1927 <small>6768</small>	19 35.2
22	17 33 46.65 <small>2.77</small>	22 15 7.5 <small>8.7</small>	0.980 8695 <small>6812</small>	19 31.3
23	17 33 43.88 <small>2.36</small>	—22 15 16.2 <small>9.1</small>	0.981 5507 <small>6855</small>	19 27.3
24	17 33 41.52 <small>1.94</small>	22 15 25.3 <small>9.3</small>	0.982 2362 <small>6895</small>	19 23.3
25	17 33 39.58 <small>1.52</small>	22 15 34.6 <small>9.5</small>	0.982 9257 <small>6933</small>	19 19.4
26	17 33 38.06 <small>1.11</small>	22 15 44.1 <small>9.9</small>	0.983 6190 <small>6969</small>	19 15.4
27	17 33 36.95 <small>0.69</small>	22 15 54.0 <small>10.1</small>	0.984 3159 <small>7003</small>	19 11.5
28	17 33 36.26 <small>0.27</small>	22 16 4.1 <small>10.4</small>	0.985 0162 <small>7035</small>	19 7.5
29	17 33 35.99 <small>0.15</small>	—22 16 14.5 <small>10.7</small>	0.985 7197 <small>7065</small>	19 3.6
30	17 33 36.14 <small>0.57</small>	22 16 25.2 <small>10.9</small>	0.986 4262 <small>7093</small>	18 59.7
31	17 33 36.71 <small>1.00</small>	22 16 36.1 <small>11.2</small>	0.987 1355 <small>7119</small>	18 55.8
Sept. 1	17 33 37.71 <small>1.41</small>	22 16 47.3 <small>11.5</small>	0.987 8474 <small>7142</small>	18 51.9
2	17 33 39.12 <small>1.84</small>	22 16 58.8 <small>11.7</small>	0.988 5616 <small>7164</small>	18 48.0
3	17 33 40.96	—22 17 10.5	0.989 2780	18 44.1

Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kul- mination in Green- wich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Sept. 3	17 <sup>h</sup> 33 <sup>m</sup> 40.96 <sup>s</sup> 2.27	—22° 17' 10.5" 12.0	0.989 2780 7182	18 <sup>h</sup> 44.1 <sup>m</sup>	
4	17 33 43.23 2.69	22 17 22.5 12.3	0.989 9962 7198	18 40.2	
5	17 33 45.92 3.11	22 17 34.8 12.5	0.990 7160 7212	18 36.3	
6	17 33 49.03 3.54	22 17 47.3 12.7	0.991 4372 7223	18 32.4	
7	17 33 52.57 3.97	22 18 0.0 13.0	0.992 1595 7232	18 28.5	
8	17 33 56.54 4.39	22 18 13.0 13.3	0.992 8827 7239	18 24.7	
9	17 34 0.93 4.80	—22 18 26.3 13.5	0.993 6066 7244	18 20.8	
10	17 34 5.73 5.23	22 18 39.8 13.7	0.994 3310 7246	18 17.0	
11	17 34 10.96 5.64	22 18 53.5 13.9	0.995 0556 7246	18 13.2	
12	17 34 16.60 6.06	22 19 7.4 14.1	0.995 7802 7245	18 9.3	
13	17 34 22.66 6.48	22 19 21.5 14.4	0.996 5047 7241	18 5.5	
14	17 34 29.14 6.89	22 19 35.9 14.5	0.997 2288 7236	18 1.7	
15	17 34 36.03 7.29	—22 19 50.4 14.8	0.997 9524 7228	17 57.9	
16	17 34 43.32 7.70	22 20 5.2 14.9	0.998 6752 7220	17 54.1	
17	17 34 51.02 8.12	22 20 20.1 15.2	0.999 3972 7209	17 50.3	
18	17 34 59.14 8.52	22 20 35.3 15.3	1.000 1181 7196	17 46.5	
19	17 35 7.66 8.92	22 20 50.6 15.4	1.000 8377 7181	17 42.7	
20	17 35 16.58 9.32	22 21 6.0 15.7	1.001 5558 7165	17 38.9	
21	17 35 25.90 9.73	—22 21 21.7 15.8	1.002 2723 7147	17 35.1	
22	17 35 35.63 10.13	22 21 37.5 15.9	1.002 9870 7128	17 31.4	
23	17 35 45.76 10.52	22 21 53.4 16.1	1.003 6998 7107	17 27.6	
24	17 35 56.28 10.92	22 22 9.5 16.3	1.004 4105 7083	17 23.8	
25	17 36 7.20 11.30	22 22 25.8 16.4	1.005 1188 7058	17 20.1	
26	17 36 18.50 11.69	22 22 42.2 16.6	1.005 8246 7031	17 16.4	
27	17 36 30.19 12.09	—22 22 58.8 16.6	1.006 5277 7004	17 12.6	
28	17 36 42.28 12.48	22 23 15.4 16.8	1.007 2281 6973	17 8.9	
29	17 36 54.76 12.86	22 23 32.2 16.9	1.007 9254 6941	17 5.2	
30	17 37 7.62 13.24	22 23 49.1 17.0	1.008 6195 6907	17 1.5	
Okt. 1	17 37 20.86 13.62	22 24 6.1 17.0	1.009 3102 6871	16 57.8	
2	17 37 34.48 14.00	22 24 23.1 17.2	1.009 9973 6833	16 54.1	
3	17 37 48.48 14.37	—22 24 40.3 17.2	1.010 6806 6793	16 50.4	
4	17 38 2.85 14.74	22 24 57.5 17.2	1.011 3599 6753	16 46.7	
5	17 38 17.59 15.11	22 25 14.7 17.2	1.012 0352 6711	16 43.0	
6	17 38 32.70 15.48	22 25 31.9 17.4	1.012 7063 6666	16 39.3	
7	17 38 48.18 15.83	22 25 49.3 17.3	1.013 3729 6620	16 35.6	
8	17 39 4.01 16.19	22 26 6.6 17.4	1.014 0349 6573	16 32.0	
9	17 39 20.20 16.54	—22 26 24.0 17.4	1.014 6922 6525	16 28.3	
10	17 39 36.74 16.89	22 26 41.4 17.4	1.015 3447 6474	16 24.7	
11	17 39 53.63 17.24	22 26 58.8 17.4	1.015 9921 6421	16 21.0	
12	17 40 10.87 17.57	22 27 16.2 17.3	1.016 6342 6367	16 17.4	
13	17 40 28.44 17.91	22 27 33.5 17.3	1.017 2709 6314	16 13.7	
14	17 40 46.35	—22 27 50.8	1.017 9023	16 10.1	

Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Okt. 14	17 <sup>h</sup> 40 <sup>m</sup> 46.35 <sup>s</sup> 18.24	−22° 27' 50.8" 17.3	I.017 9023	6258	16 <sup>h</sup> 10.1
15	17 41 4.59 18.58	22 28 8.1 17.3	I.018 5281	6201	16 6.5
16	17 41 23.17 18.90	22 28 25.4 17.2	I.019 1482	6142	16 2.9
17	17 41 42.07 19.22	22 28 42.6 17.1	I.019 7624	6083	15 59.3
18	17 42 1.29 19.54	22 28 59.7 17.0	I.020 3707	6023	15 55.6
19	17 42 20.83 19.85	22 29 16.7 17.0	I.020 9730	5961	15 52.0
20	17 42 40.68 20.17	−22 29 33.7 16.8	I.021 5691	5898	15 48.4
21	17 43 0.85 20.47	22 29 50.5 16.8	I.022 1589	5835	15 44.8
22	17 43 21.32 20.77	22 30 7.3 16.6	I.022 7424	5770	15 41.3
23	17 43 42.09 21.08	22 30 23.9 16.5	I.023 3194	5703	15 37.7
24	17 44 3.17 21.37	22 30 40.4 16.4	I.023 8897	5636	15 34.1
25	17 44 24.54 21.67	22 30 56.8 16.2	I.024 4533	5567	15 30.5
26	17 44 46.21 21.96	−22 31 13.0 16.0	I.025 0100	5496	15 26.9
27	17 45 8.17 22.24	22 31 29.0 16.0	I.025 5596	5425	15 23.4
28	17 45 30.41 22.52	22 31 45.0 15.8	I.026 1021	5353	15 19.8
29	17 45 52.93 22.80	22 32 0.8 15.6	I.026 6374	5281	15 16.3
30	17 46 15.73 23.08	22 32 16.4 15.4	I.027 1655	5207	15 12.7
31	17 46 38.81 23.35	22 32 31.8 15.3	I.027 6862	5130	15 9.2
Nov. 1	17 47 2.16 23.61	−22 32 47.1 15.0	I.028 1992	5053	15 5.6
2	17 47 25.77 23.86	22 33 2.1 14.8	I.028 7045	4975	15 2.1
3	17 47 49.63 24.12	22 33 16.9 14.6	I.029 2020	4895	14 58.6
4	17 48 13.75 24.37	22 33 31.5 14.3	I.029 6915	4815	14 55.0
5	17 48 38.12 24.62	22 33 45.8 14.1	I.030 1730	4734	14 51.5
6	17 49 2.74 24.86	22 33 59.9 13.9	I.030 6464	4652	14 48.0
7	17 49 27.60 25.09	−22 34 13.8 13.5	I.031 1116	4569	14 44.5
8	17 49 52.69 25.32	22 34 27.3 13.3	I.031 5685	4486	14 40.9
9	17 50 18.01 25.55	22 34 40.6 12.9	I.032 0171	4401	14 37.4
10	17 50 43.56 25.77	22 34 53.5 12.7	I.032 4572	4315	14 33.9
11	17 51 9.33 25.99	22 35 6.2 12.5	I.032 8887	4230	14 30.4
12	17 51 35.32 26.19	22 35 18.7 12.1	I.033 3117	4144	14 26.9
13	17 52 1.51 26.40	−22 35 30.8 11.8	I.033 7261	4057	14 23.4
14	17 52 27.91 26.60	22 35 42.6 11.5	I.034 1318	3969	14 20.0
15	17 52 54.51 26.80	22 35 54.1 11.1	I.034 5287	3881	14 16.5
16	17 53 21.31 27.00	22 36 5.2 10.9	I.034 9168	3792	14 13.0
17	17 53 48.31 27.18	22 36 16.1 10.5	I.035 2960	3702	14 9.5
18	17 54 15.49 27.37	22 36 26.6 10.1	I.035 6662	3612	14 6.0
19	17 54 42.86 27.54	−22 36 36.7 9.8	I.036 0274	3521	14 2.5
20	17 55 10.40 27.72	22 36 46.5 9.5	I.036 3795	3430	13 59.1
21	17 55 38.12 27.89	22 36 56.0 9.1	I.036 7225	3338	13 55.6
22	17 56 6.01 28.06	22 37 5.1 8.7	I.037 0563	3246	13 52.1
23	17 56 34.07 28.23	22 37 13.8 8.3	I.037 3809	3152	13 48.6
24	17 57 2.30	−22 37 22.1	I.037 6961		13 45.2

Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Nov. 24	17 <sup>h</sup> 57 <sup>m</sup> 2.30 <sup>s</sup> 28.38	-22° 37' 22.1" 8.0	I.037 6961	13 <sup>h</sup> 45.2 <sup>m</sup>
25	17 57 30.68 28.53	22 37 30.1 7.7	I.038 0019 2963	13 41.7
26	17 57 59.21 28.68	22 37 37.8 7.3	I.038 2982 2868	13 38.3
27	17 58 27.89 28.82	22 37 45.1 6.8	I.038 5850 2772	13 34.8
28	17 58 56.71 28.96	22 37 51.9 6.3	I.038 8622 2675	13 31.4
29	17 59 25.67 29.10	22 37 58.2 6.0	I.039 1297 2578	13 27.9
30	17 59 54.77 29.23	-22 38 4.2 5.6	I.039 3875 2479	13 24.5
Dez. 1	18 0 24.00 29.35	22 38 9.8 5.2	I.039 6354 2381	13 21.0
2	18 0 53.35 29.47	22 38 15.0 4.8	I.039 8735 2283	13 17.6
3	18 1 22.82 29.57	22 38 19.8 4.4	I.040 1018 2183	13 14.1
4	18 1 52.39 29.68	22 38 24.2 3.9	I.040 3201 2084	13 10.7
5	18 2 22.07 29.78	22 38 28.1 3.5	I.040 5285 1985	13 7.3
6	18 2 51.85 29.88	-22 38 31.6 3.0	I.040 7270 1885	13 3.8
7	18 3 21.73 29.97	22 38 34.6 2.6	I.040 9155 1783	13 0.4
8	18 3 51.70 30.06	22 38 37.2 2.2	I.041 0938 1683	12 56.9
9	18 4 21.76 30.14	22 38 39.4 1.7	I.041 2621 1583	12 53.5
10	18 4 51.90 30.21	22 38 41.1 1.3	I.041 4204 1481	12 50.1
11	18 5 22.11 30.28	22 38 42.4 0.8	I.041 5685 1379	12 46.7
12	18 5 52.39 30.34	-22 38 43.2 0.4	I.041 7064 1278	12 43.2
13	18 6 22.73 30.40	22 38 43.6 0.0	I.041 8342 1178	12 39.8
14	18 6 53.13 30.46	22 38 43.6 0.5	I.041 9520 1076	12 36.4
15	18 7 23.59 30.51	22 38 43.1 0.9	I.042 0596 975	12 33.0
16	18 7 54.10 30.55	22 38 42.2 1.4	I.042 1571 873	12 29.5
17	18 8 24.65 30.60	22 38 40.8 1.9	I.042 2444 771	12 26.1
18	18 8 55.25 30.64	-22 38 38.9 2.3	I.042 3215 670	12 22.7
19	18 9 25.89 30.67	22 38 36.6 2.7	I.042 3885 567	12 19.3
20	18 9 56.56 30.69	22 38 33.9 3.2	I.042 4452 465	12 15.8
21	18 10 27.25 30.72	22 38 30.7 3.7	I.042 4917 362	12 12.4
22	18 10 57.97 30.74	22 38 27.0 4.1	I.042 5279 260	12 9.0
23	18 11 28.71 30.75	22 38 22.9 4.5	I.042 5539 156	12 5.6
24	18 11 59.46 30.76	-22 38 18.4 4.9	I.042 5695 53	12 2.1
25	18 12 30.22 30.75	22 38 13.5 5.4	I.042 5748 50	11 58.7
26	18 13 0.97 30.75	22 38 8.1 5.9	I.042 5698 154	11 55.3
27	18 13 31.72 30.75	22 38 2.2 6.3	I.042 5544 257	11 51.9
28	18 14 2.47 30.73	22 37 55.9 6.7	I.042 5287 361	11 48.4
29	18 14 33.20 30.71	22 37 49.2 7.1	I.042 4926 464	11 45.0
30	18 15 3.91 30.69	-22 37 42.1 7.6	I.042 4462 567	11 41.6
31	18 15 34.60 30.66	22 37 34.5 8.1	I.042 3895 671	11 38.2
32	18 16 5.26	-22 37 26.4	I.042 3224	11 34.7

Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Jan. 0	0 <sup>h</sup> 14 <sup>m</sup> 22.62 <sup>s</sup> 14.80	+0° 47' 0.9" 1 46.4	I.303 8376	17 <sup>h</sup> 34.9 <sup>m</sup>
4	0 14 37.42 17.71	0 48 47.3 2 5.1	I.305 3108 I 4732	17 19.4
8	0 14 55.13 20.57	0 50 52.4 2 23.5	I.306 7624 I 4516	17 4.0
12	0 15 15.70 23.34	0 53 15.9 2 41.2	I.308 1858 I 4234	16 48.6
16	0 15 39.04 26.02	0 55 57.1 2 58.2	I.309 5744 I 3886	16 33.2
20	0 16 5.06 28.57	0 58 55.3 3 14.4	I.310 9215 I 3471	16 17.9
24	0 16 33.63 31.01	+I 2 9.7 3 29.8	I.312 2216 I 2479	16 2.7
28	0 17 4.64 33.34	I 5 39.5 3 44.5	I.313 4695 I 1913	15 47.5
Febr. 1	0 17 37.98 35.55	I 9 24.0 3 58.4	I.314 6608 I 1297	15 32.3
5	0 18 13.53 37.62	I 13 22.4 4 11.4	I.315 7905 I 0633	15 17.2
9	0 18 51.15 39.57	I 17 33.8 4 23.4	I.316 8538 9925	15 2.1
13	0 19 30.72 41.35	I 21 57.2 4 34.4	I.317 8463 9180	14 47.0
17	0 20 12.07 42.97	+I 26 31.6 4 44.3	I.318 7643 8403	14 32.0
21	0 20 55.04 44.43	I 31 15.9 4 53.1	I.319 6046 7599	14 17.0
25	0 21 39.47 45.74	I 36 9.0 5 0.9	I.320 3645 6776	14 2.0
März 1	0 22 25.21 46.90	I 41 9.9 5 7.8	I.321 0421 5926	13 47.1
5	0 23 12.11 47.91	I 46 17.7 5 13.6	I.321 6347 5058	13 32.1
9	0 24 0.02 48.75	I 51 31.3 5 18.4	I.322 1405 4168	13 17.1
13	0 24 48.77 49.40	+I 56 49.7 5 22.0	I.322 5573 3265	13 2.2
17	0 25 38.17 49.89	2 2 11.7 5 24.3	I.322 8838 2355	12 47.3
21	0 26 28.06 50.21	2 7 36.0 5 25.6	I.323 1193 1445	12 32.4
25	0 27 18.27 50.38	2 13 1.6 5 25.9	I.323 2638 538	12 17.5
29	0 28 8.65 50.39	2 18 27.5 5 25.2	I.323 3176 371	12 2.6
April 2	0 28 59.04 50.24	2 23 52.7 5 23.6	I.323 2805 1280	11 47.7
6	0 29 49.28 49.92	+2 29 16.3 5 20.9	I.323 1525 2185	11 32.8
10	0 30 39.20 49.44	2 34 37.2 5 16.9	I.322 9340 3081	11 17.9
14	0 31 28.64 48.79	2 39 54.1 5 12.0	I.322 6259 3960	11 3.0
18	0 32 17.43 47.98	2 45 6.1 5 6.1	I.322 2299 4818	10 48.1
22	0 33 5.41 47.03	2 50 12.2 4 59.2	I.321 7481 5655	10 33.2
26	0 33 52.44 45.95	2 55 11.4 4 51.6	I.321 1826 6474	10 18.2
30	0 34 38.39 44.71	+3 0 3.0 4 43.0	I.320 5352 7270	10 3.3
Mai 4	0 35 23.10 43.34	3 4 46.0 4 33.6	I.319 8082 8044	9 48.3
8	0 36 6.44 41.81	3 9 19.6 4 23.2	I.319 0038 8787	9 33.3
12	0 36 48.25 40.13	3 13 42.8 4 11.8	I.318 1251 9495	9 18.2
16	0 37 28.38 38.33	3 17 54.6 3 59.6	I.317 1756 I 0164	9 3.2
20	0 38 6.71 36.42	3 21 54.2 3 46.9	I.316 1592 I 0792	8 48.1
24	0 38 43.13 34.39	+3 25 41.1 3 33.5	I.315 0800 I 1381	8 32.9
28	0 39 17.52 32.25	3 29 14.6 3 19.4	I.313 9419 I 1935	8 17.8
Juni 1	0 39 49.77 30.01	3 32 34.0 3 4.6	I.312 7484 I 2444	8 2.6
5	0 40 19.78 27.64	3 35 38.6 2 49.2	I.311 5040 I 2906	7 47.3
9	0 40 47.42 25.18	3 38 27.8 2 33.1	I.310 2134 I 3314	7 32.0
13	0 41 12.60	+3 41 0.9	I.308 8820	7 16.7

Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Juni 13	h 41 12.60 m 22.63	+3 41 0.9 2 16.5		1.308 8820 I 3664	h 7 16.7
17	0 41 35.23 20.02	3 43 17.4 I 59.6		1.307 5156 I 3960	7 1.4
21	0 41 55.25 17.34	3 45 17.0 I 42.5		1.306 1196 I 4199	6 46.0
25	0 42 12.59 14.62	3 46 59.5 I 25.0		1.304 6997 I 4387	6 30.5
29	0 42 27.21 11.84	3 48 24.5 I 7.1		1.303 2610 I 4516	6 15.0
Juli 3	0 42 39.05 9.00	3 49 31.6 0 49.0		1.301 8094 I 4580	5 59.5
7	0 42 48.05 6.12	+3 50 20.6 0 30.6		1.300 3514 I 4577	5 43.9
11	0 42 54.17 3.24	3 50 51.2 0 12.4		1.298 8937 I 4504	5 28.3
15	0 42 57.41 0.38	3 51 3.6 0 5.8		1.297 4433 I 4365	5 12.6
19	0 42 57.79 2.47	3 50 57.8 0 23.8		1.296 0068 I 4161	4 56.9
23	0 42 55.32 5.29	3 50 34.0 0 41.5		1.294 5907 I 3895	4 41.1
27	0 42 50.03 8.09	3 49 52.5 0 59.1		1.293 2012 I 3562	4 25.3
31	0 42 41.94 10.85	+3 48 53.4 I 16.5		1.291 8450 I 3159	4 9.5
Aug. 4	0 42 31.09 13.53	3 47 36.9 I 33.3		1.290 5291 I 2686	3 53.6
8	0 42 17.56 16.13	3 46 3.6 I 49.5		1.289 2605 I 2143	3 37.6
12	0 42 1.43 18.61	3 44 14.1 2 4.9		1.288 0462 I 1535	3 21.6
16	0 41 42.82 20.98	3 42 9.2 2 19.7		1.286 8927 I 0865	3 5.6
20	0 41 21.84 23.22	3 39 49.5 2 33.5		1.285 8062 I 0142	2 49.5
24	0 40 58.62 25.32	+3 37 16.0 2 46.4		1.284 7920 9363	2 33.4
28	0 40 33.30 27.27	3 34 29.6 2 58.4		1.283 8557 8525	2 17.3
Sept. 1	0 40 6.03 29.06	3 31 31.2 3 9.4		1.283 0032 7630	2 1.1
5	0 39 36.97 30.66	3 28 21.8 3 19.0		1.282 2402 6688	1 44.9
9	0 39 6.31 32.03	3 25 2.8 3 27.3		1.281 5714 5705	1 28.6
13	0 38 34.28 33.20	3 21 35.5 3 34.2		1.281 0009 4689	1 12.4
17	0 38 1.08 34.15	+3 18 1.3 3 39.6		1.280 5320 3645	0 56.1
21	0 37 26.93 34.89	3 14 21.7 3 43.8		1.280 1675 2577	0 39.8
25	0 36 52.04 35.41	3 10 37.9 3 46.6		1.279 9008 1489	0 23.5
29	0 36 16.63 35.68	3 6 51.3 3 47.7		1.279 7609 382	0 7.2
Okt. 3	0 35 40.95 35.71	3 3 3.6 3 47.2		1.279 7227 734	23 46.8
7	0 35 5.24 35.47	2 59 16.4 3 45.1		1.279 7961 1847	23 30.5
11	0 34 29.77 34.99	+2 55 31.3 3 41.4		1.279 9808 2949	23 14.2
15	0 33 54.78 34.28	2 51 49.9 3 36.2		1.280 2757 4030	22 57.9
19	0 33 20.50 33.34	2 48 13.7 3 29.6		1.280 6787 5087	22 41.6
23	0 32 47.16 32.18	2 44 44.1 3 21.6		1.281 1874 6125	22 25.3
27	0 32 14.98 30.79	2 41 22.5 3 12.1		1.281 7999 7133	22 9.0
31	0 31 44.19 29.18	2 38 10.4 3 1.2		1.282 5132 8100	21 52.8
Nov. 4	0 31 15.01 27.34	+2 35 9.2 2 48.9		1.283 3232 9018	21 36.6
8	0 30 47.67 25.32	2 32 20.3 2 35.4		1.284 2250 9881	21 20.4
12	0 30 22.35 23.13	2 29 44.9 2 20.8		1.285 2131 I 0684	21 4.3
16	0 29 59.22 20.80	2 27 24.1 2 5.4		1.286 2815 I 1425	20 48.2
20	0 29 38.42 18.31	2 25 18.7 I 49.0		1.287 4240 I 2105	20 32.1
24	0 29 20.11	+2 23 29.7		1.288 6345	20 16.1



Tag	O <sup>h</sup> Welt-Zeit			log Δ	Obere Kul- mination in Green- wich
	Scheinbare Rektaszension	Scheinbare Deklination			
1929					
Nov. 24	h <sup>h</sup> m <sup>m</sup> s <sup>s</sup> 0 29 20.11 15.69	+2 23 29.7 1 31.8		1.288 6345 1 2726	20 16.1
28	0 29 4.42 12.95	2 21 57.9 1 13.8		1.289 9071 1 3273	20 0.1
Dez. 2	0 28 51.47 10.10	2 20 44.1 0 55.2		1.291 2344 1 3745	19 44.2
6	0 28 41.37 7.17	2 19 48.9 0 36.2		1.292 6089 1 4139	19 28.3
10	0 28 34.20 4.19	2 19 12.7 0 16.8		1.294 0228 1 4454	19 12.5
14	0 28 30.01 1.19	2 18 55.9 0 2.8		1.295 4682 1 4692	18 56.7
18	0 28 28.82 1.85	+2 18 58.7 0 22.3		1.296 9374 1 4859	18 40.9
22	0 28 30.67 4.89	2 19 21.0 0 41.9		1.298 4233 1 4956	18 25.2
26	0 28 35.56 7.94	2 20 2.9 1 1.6		1.299 9189 1 4978	18 9.6
30	0 28 43.50 10.99	2 21 4.5 1 21.2		1.301 4167 1 4923	17 54.0
34	0 28 54.49	+2 22 25.7		1.302 9090	17 38.5

Tag	O <sup>h</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Jan. 0	10 <sup>h</sup> 13 <sup>m</sup> 43.48 <sup>s</sup> 14.15	+11° 36' 8.9" 1 26.0	1.470 1174 7830	3 36.5
4	10 13 29.33 15.85	11 37 34.9 1 35.2	1.469 3344 7357	3 20.5
8	10 13 13.48 17.43	11 39 10.1 1 43.7	1.468 5987 6840	3 4.5
12	10 12 56.05 18.90	11 40 53.8 1 51.6	1.467 9147 6281	2 48.5
16	10 12 37.15 20.24	11 42 45.4 1 58.7	1.467 2866 5688	2 32.4
20	10 12 16.91 21.44	11 44 44.1 2 5.0	1.466 7178 5063	2 16.4
24	10 11 55.47 22.51	+11 46 49.1 2 10.4	1.466 2115 4415	2 0.3
28	10 11 32.96 23.43	11 48 59.5 2 15.0	1.465 7700 3744	1 44.2
Febr. 1	10 11 9.53 24.20	11 51 14.5 2 18.8	1.465 3956 3049	1 28.0
5	10 10 45.33 24.82	11 53 33.3 2 21.7	1.465 0907 2333	1 11.9
9	10 10 20.51 25.28	11 55 55.0 2 23.7	1.464 8574 1602	0 55.8
13	10 9 55.23 25.55	11 58 18.7 2 24.7	1.464 6972 866	0 39.6
17	10 9 29.68 25.65	+12 0 43.4 2 24.7	1.464 6106 131	0 23.5
21	10 9 4.03 25.59	12 3 8.1 2 23.7	1.464 5975 602	0 7.3
25	10 8 38.44 25.38	12 5 31.8 2 22.0	1.464 6577 1329	23 47.2
März 1	10 8 13.06 25.01	12 7 53.8 2 19.4	1.464 7906 2051	23 31.0
5	10 7 48.05 24.48	12 10 13.2 2 15.9	1.464 9957 2759	23 14.9
9	10 7 23.57 23.78	12 12 29.1 2 11.5	1.465 2716 3450	22 58.7
13	10 6 59.79 22.92	+12 14 40.6 2 6.3	1.465 6166 4121	22 42.6
17	10 6 36.87 21.92	12 16 46.9 2 0.4	1.466 0287 4761	22 26.5
21	10 6 14.95 20.80	12 18 47.3 1 53.7	1.466 5048 5372	22 10.4
25	10 5 54.15 19.54	12 20 41.0 1 46.4	1.467 0420 5950	21 54.4
29	10 5 34.61 18.17	12 22 27.4 1 38.6	1.467 6370 6496	21 38.3
April 2	10 5 16.44 16.70	12 24 6.0 1 30.2	1.468 2866 7007	21 22.3
6	10 4 59.74 15.12	+12 25 36.2 1 21.1	1.468 9873 7480	21 6.3
10	10 4 44.62 13.44	12 26 57.3 1 11.7	1.469 7353 7913	20 50.3
14	10 4 31.18 11.66	12 28 9.0 1 1.9	1.470 5266 8298	20 34.4
18	10 4 19.52 9.83	12 29 10.9 0 51.7	1.471 3564 8636	20 18.5
22	10 4 9.69 7.97	12 30 2.6 0 41.3	1.472 2200 8931	20 2.6
26	10 4 1.72 6.05	12 30 43.9 0 30.7	1.473 1131 9185	19 46.7
30	10 3 55.67 4.08	+12 31 14.6 0 19.9	1.474 0316 9392	19 30.9
Mai 4	10 3 51.59 2.08	12 31 34.5 0 9.0	1.474 9708 9557	19 15.1
8	10 3 49.51 0.07	12 31 43.5 0 2.1	1.475 9265 9675	18 59.4
12	10 3 49.44 1.96	12 31 41.4 0 13.1	1.476 8940 9741	18 43.7
16	10 3 51.40 3.98	12 31 28.3 0 24.1	1.477 8681 9760	18 28.0
20	10 3 55.38 5.98	12 31 4.2 0 35.0	1.478 8441 9738	18 12.3
24	10 4 1.36 7.95	+12 30 29.2 0 45.7	1.479 8179 9674	17 56.7
28	10 4 9.31 9.90	12 29 43.5 0 56.3	1.480 7853 9570	17 41.1
Juni 1	10 4 19.21 11.82	12 28 47.2 1 6.6	1.481 7423 9426	17 25.5
5	10 4 31.03 13.71	12 27 40.6 1 16.8	1.482 6849 9240	17 10.0
9	10 4 44.74 15.55	12 26 23.8 1 26.8	1.483 6089 9012	16 54.5
13	10 5 0.29	+12 24 57.0	1.484 5101	16 39.0

Tag	O <sup>b</sup> Welt-Zeit			Obere Kulmination in Greenwich	
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ		
1929					
Juni	13	10 <sup>h</sup> 5 <sup>m</sup> 0.29 <sup>s</sup> 17.31	+12 24 57.0 1 36.4	1.484 5101 8746	16 <sup>h</sup> 39.0 <sup>m</sup>
	17	10 5 17.60 19.00	12 23 20.6 1 45.6	1.485 3847 8445	16 23.6
	21	10 5 36.60 20.63	12 21 35.0 1 54.4	1.486 2292 8114	16 8.2
	25	10 5 57.23 22.19	12 19 40.6 2 2.8	1.487 0406 7754	15 52.8
	29	10 6 19.42 23.67	12 17 37.8 2 10.9	1.487 8160 7362	15 37.5
Juli	3	10 6 43.09 25.07	12 15 26.9 2 18.6	1.488 5522 6940	15 22.1
	7	10 7 8.16 26.39	+12 13 8.3 2 25.7	1.489 2462 6486	15 6.8
	11	10 7 34.55 27.60	12 10 42.6 2 32.3	1.489 8948 6009	14 51.5
	15	10 8 2.15 28.71	12 8 10.3 2 38.4	1.490 4957 5510	14 36.3
	19	10 8 30.86 29.72	12 5 31.9 2 43.9	1.491 0467 4993	14 21.0
23	10 9 0.58 30.63	12 2 48.0 2 48.9	1.491 5460 4460	14 5.8	
27	10 9 31.21 31.45	11 59 59.1 2 53.4	1.491 9920 3906	13 50.6	
31	10 10 2.66 32.17	+11 57 5.7 2 57.3	1.492 3826 3337	13 35.4	
Aug.	4	10 10 34.83 32.76	11 54 8.4 3 0.7	1.492 7163 2751	13 20.2
	8	10 11 7.59 33.24	11 51 7.7 3 3.3	1.492 9914 2156	13 5.0
	12	10 11 40.83 33.60	11 48 4.4 3 5.3	1.493 2070 1550	12 49.8
	16	10 12 14.43 33.85	11 44 59.1 3 6.7	1.493 3620 942	12 34.7
	20	10 12 48.28 33.99	11 41 52.4 3 7.4	1.493 4562 331	12 19.5
24	10 13 22.27 34.02	+11 38 45.0 3 7.6	1.493 4893 283	12 4.3	
28	10 13 56.29 33.94	11 35 37.4 3 7.1	1.493 4610 903	11 49.2	
Sept.	1	10 14 30.23 33.73	11 32 30.3 3 5.9	1.493 3707 1523	11 34.0
	5	10 15 3.96 33.40	11 29 24.4 3 4.0	1.493 2184 2138	11 18.8
	9	10 15 37.36 32.96	11 26 20.4 3 1.5	1.493 0046 2743	11 3.6
	13	10 16 10.32 32.39	11 23 18.9 2 58.3	1.492 7303 3338	10 48.5
	17	10 16 42.71 31.71	+11 20 20.6 2 54.4	1.492 3965 3922	10 33.3
21	10 17 14.42 30.93	11 17 26.2 2 49.9	1.492 0043 4493	10 18.1	
25	10 17 45.35 30.04	11 14 36.3 2 44.8	1.491 5550 5053	10 2.9	
29	10 18 15.39 29.04	11 11 51.5 2 39.1	1.491 0497 5597	9 47.6	
Okt.	3	10 18 44.43 27.91	11 9 12.4 2 32.6	1.490 4900 6119	9 32.4
	7	10 19 12.34 26.68	11 6 39.8 2 25.5	1.489 8781 6616	9 17.1
	11	10 19 39.02 25.35	+11 4 14.3 2 17.8	1.489 2165 7087	9 1.8
	15	10 20 4.37 23.93	11 1 56.5 2 9.7	1.488 5078 7527	8 46.5
	19	10 20 28.30 22.42	10 59 46.8 2 1.0	1.487 7551 7940	8 31.2
23	10 20 50.72 20.83	10 57 45.8 1 51.8	1.486 9611 8323	8 15.8	
27	10 21 11.55 19.15	10 55 54.0 1 42.1	1.486 1288 8675	8 0.4	
31	10 21 30.70 17.38	10 54 11.9 1 31.8	1.485 2613 8987	7 45.0	
Nov.	4	10 21 48.08 15.53	+10 52 40.1 1 21.2	1.484 3626 9261	7 29.6
	8	10 22 3.61 13.63	10 51 18.9 1 10.2	1.483 4365 9489	7 14.1
	12	10 22 17.24 11.68	10 50 8.7 0 58.9	1.482 4876 9673	6 58.6
	16	10 22 28.92 9.69	10 49 9.8 0 47.5	1.481 5203 9817	6 43.1
	20	10 22 38.61 7.66	10 48 22.3 0 35.8	1.480 5386 9916	6 27.5
	24	10 22 46.27	+10 47 46.5	1.479 5470	6 11.9

Tag	O <sup>b</sup> Welt-Zeit			Obere Kulmination in Greenwich
	Scheinbare Rektaszension	Scheinbare Deklination	log Δ	
1929				
Nov. 24	10 <sup>h</sup> 22 <sup>m</sup> 46.27 <sup>s</sup> 5.60	+10° 47' 46.5" 0 23.9	I.479 5470 9970	6 <sup>h</sup> 11.9 <sup>m</sup>
28	10 22 51.87 3.50	10 47 22.6 0 11.8	I.478 5500 9973	5 56.3
Dez. 2	10 22 55.37 1.40	10 47 10.8 0 0.2	I.477 5527 9928	5 40.6
6	10 22 56.77 0.69	10 47 11.0 0 12.2	I.476 5599 9827	5 24.9
10	10 22 56.08 2.77	10 47 23.2 0 24.1	I.475 5772 9676	5 9.1
14	10 22 53.31 4.82	10 47 47.3 0 35.7	I.474 6096 9476	4 53.3
18	10 22 48.49 6.82	+10 48 23.0 0 47.2	I.473 6620 9231	4 37.5
22	10 22 41.67 8.79	10 49 10.2 0 58.3	I.472 7389 8938	4 21.7
26	10 22 32.88 10.72	10 50 8.5 1 9.0	I.471 8451 8596	4 5.8
30	10 22 22.16 12.56	10 51 17.5 1 19.4	I.470 9855 8200	3 49.9
34	10 22 9.60	+10 52 36.9	I.470 1655	3 34.0

## Mittleres Äquinoktium 1925.0

0 <sup>h</sup> Welt-Zeit	log <i>r</i>	Helioz. Länge	Red. a. d. Bahn	Helioz. Breite	0 <sup>h</sup> Welt-Zeit	log <i>r</i>	Helioz. Länge	Red. a. d. Bahn	Helioz. Breite
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### MERKUR 1929

1929					1929				
Jan. -3	9.6462	293° 47'	+ 9	-6° 25'	Juli 1	9.6039	324° 22'	- 3	-6° 57'
+2	9.6255	309 54	+ 3	-6 56	6	9.5722	344 28	-10	-6 15
7	9.5983	327 55	- 5	-6 53	11	9.5378	7 49	-13	-4 29
12	9.5658	348 35	-11	-6 0	16	9.5069	34 53	- 5	-1 32
17	9.5314	12 37	-12	-4 1	21	9.4892	65 10	+ 7	+2 9
22	9.5022	40 22	- 3	-0 52	26	9.4926	96 39	+13	+5 19
27	9.4881	71 4	+ 9	+2 49	31	9.5154	126 25	+ 5	+6 53
Febr. 1	9.4956	102 26	+12	+5 45	Aug. 5	9.5483	152 36	- 6	+6 46
6	9.5211	131 38	+ 3	+6 58	10	9.5823	174 55	-12	+5 34
11	9.5548	157 4	- 8	+6 36	15	9.6125	194 3	-12	+3 52
16	9.5884	178 44	-13	+5 16	20	9.6366	210 51	- 7	+2 1
21	9.6175	197 21	-11	+3 31	25	9.6540	226 4	- 1	+0 10
26	9.6403	213 48	- 6	+1 40	30	9.6648	240 20	+ 6	-1 34
März 3	9.6565	228 48	+ 1	-0 10	Sept. 4	9.6690	254 8	+10	-3 10
8	9.6661	242 57	+ 7	-1 53	9	9.6667	267 55	+13	-4 34
13	9.6690	256 43	+11	-3 26	14	9.6578	282 6	+12	-5 43
18	9.6655	270 32	+13	-4 48	19	9.6423	297 10	+ 8	-6 34
23	9.6554	284 51	+12	-5 55	24	9.6201	313 39	+ 2	-6 59
28	9.6386	300 8	+ 7	-6 41	29	9.5916	332 11	- 6	-6 46
April 2	9.6152	316 57	0	-7 0	Okt. 4	9.5583	353 31	-12	-5 40
7	9.5856	335 57	- 7	-6 39	9	9.5243	18 22	-11	-3 25
12	9.5518	357 54	-13	-5 20	14	9.4975	46 53	0	-0 4
17	9.5184	23 27	-10	-2 52	19	9.4879	77 58	+11	+3 34
22	9.4941	52 35	+ 2	+0 38	24	9.4999	109 5	+11	+6 10
27	9.4885	83 54	+12	+4 11	29	9.5281	137 32	0	+7 0
Mai 2	9.5043	114 42	+ 9	+6 28	Nov. 3	9.5623	162 6	-10	+6 22
7	9.5343	142 27	- 2	+6 59	8	9.5952	183 1	-13	+4 55
12	9.5688	166 17	-11	+6 8	13	9.6230	201 6	-10	+3 7
17	9.6009	186 36	-13	+4 35	18	9.6445	217 11	- 5	+1 15
22	9.6276	204 15	- 9	+2 46	23	9.6592	231 57	+ 2	-0 33
27	9.6477	220 2	- 3	+0 54	28	9.6673	245 58	+ 8	-2 14
Juni 1	9.6612	234 37	+ 3	-0 53	Dez. 3	9.6688	259 43	+12	-3 45
6	9.6680	248 33	+ 9	-2 32	8	9.6638	273 36	+13	-5 4
11	9.6684	262 18	+12	-4 1	13	9.6523	288 5	+11	-6 7
16	9.6622	276 16	+13	-5 17	18	9.6341	303 39	+ 6	-6 48
21	9.6494	290 55	+10	-6 16	23	9.6092	320 53	- 2	-6 59
26	9.6299	306 45	+ 5	-6 53	28	9.5785	340 28	- 9	-6 27
Juli 1	9.6039	324 22	- 3	-6 57	33	9.5442	3 10	-13	-4 54

$$\Omega = 47^\circ 26' .5; \quad i = 7^\circ 0' .20; \quad m = \frac{1}{6000000}$$

Mittleres Äquinoktium 1925.0

Oh Welt-Zeit	log r	Helioz. Länge	Red. a. d. Bahn	Helioz. Breite	log r	Helioz. Länge	Red. a. d. Bahn	Helioz. Breite
VENUS 1929								
1929					MARS 1929			
Jan. -8	9.86043	18° 35.3	-2.7	-2° 51.6	0.19686	90° 7.5	+0.9	+1° 13.1
+2	9.85963	34 33.7	-3.0	-2 14.8	0.20004	94 58.8	+0.9	+1 19.9
12	9.85881	50 34.8	-2.3	-1 27.5	0.20304	99 46.1	+0.9	+1 26.0
22	9.85803	66 38.8	-1.0	-0 33.1	0.20586	104 29.6	+0.8	+1 31.5
Febr. 1	9.85734	82 45.8	+0.7	+0 24.0	0.20847	109 9.6	+0.8	+1 36.3
11	9.85682	98 55.7	+2.2	+1 19.4	0.21086	113 46.4	+0.7	+1 40.4
21	9.85649	115 8.2	+3.0	+2 8.6	0.21304	118 20.3	+0.6	+1 43.9
März 3	9.85638	131 22.6	+2.8	+2 47.6	0.21498	122 51.6	+0.5	+1 46.6
13	9.85651	147 37.9	+1.8	+3 13.3	0.21668	127 20.7	+0.4	+1 48.7
23	9.85686	163 52.6	+0.2	+3 23.5	0.21814	131 47.9	+0.2	+1 50.1
April 2	9.85740	180 5.4	-1.4	+3 17.5	0.21935	136 13.4	+0.1	+1 50.9
12	9.85810	196 15.0	-2.6	+2 55.9	0.22031	140 37.6	-0.1	+1 50.9
22	9.85889	212 20.4	-3.0	+2 20.6	0.22101	145 0.8	-0.2	+1 50.4
Mai 2	9.85972	228 21.3	-2.5	+1 34.5	0.22145	149 23.3	-0.3	+1 49.2
12	9.86051	244 17.8	-1.2	+0 41.3	0.22163	153 45.4	-0.4	+1 47.3
22	9.86121	260 10.7	+0.4	-0 14.9	0.22156	158 7.4	-0.6	+1 44.8
Juni 1	9.86177	276 0.9	+1.9	-1 9.8	0.22122	162 29.6	-0.7	+1 41.8
11	9.86214	291 49.7	+2.9	-1 59.3	0.22063	166 52.4	-0.7	+1 38.1
21	9.86229	307 38.1	+2.9	-2 39.8	0.21978	171 16.1	-0.8	+1 33.8
Juli 1	9.86222	323 27.3	+2.1	-3 8.1	0.21867	175 41.0	-0.9	+1 29.0
11	9.86193	339 17.9	+0.7	-3 22.2	0.21732	180 7.3	-0.9	+1 23.6
21	9.86144	355 10.4	-0.9	-3 21.0	0.21572	184 35.4	-0.9	+1 17.6
31	9.86078	11 5.1	-2.3	-3 4.4	0.21388	189 5.6	-0.9	+1 11.2
Aug. 10	9.86001	27 2.3	-3.0	-2 33.6	0.21180	193 38.3	-0.8	+1 4.2
20	9.85919	43 2.2	-2.8	-1 50.8	0.20949	198 13.7	-0.8	+0 56.7
30	9.85837	59 4.9	-1.7	-0 59.3	0.20697	202 52.2	-0.7	+0 48.8
Sept. 9	9.85763	75 10.5	-0.1	-0 2.9	0.20425	207 34.0	-0.6	+0 40.5
19	9.85702	91 19.1	+1.5	+0 53.9	0.20132	212 19.5	-0.5	+0 31.8
29	9.85659	107 30.6	+2.7	+1 46.5	0.19822	217 9.0	-0.4	+0 22.7
Okt. 9	9.85638	123 44.3	+3.0	+2 30.8	0.19495	222 2.8	-0.2	+0 13.4
19	9.85640	139 59.4	+2.4	+3 3.1	0.19154	227 1.1	-0.1	+0 3.8
29	9.85665	156 14.7	+1.0	+3 20.7	0.18800	232 4.2	+0.1	-0 6.0
Nov. 8	9.85711	172 28.6	-0.7	+3 22.3	0.18437	237 12.4	+0.3	-0 15.9
18	9.85775	188 39.9	-2.1	+3 7.9	0.18066	242 25.9	+0.4	-0 25.8
28	9.85851	204 47.3	-2.9	+2 38.8	0.17690	247 44.8	+0.5	-0 35.7
Dez. 8	9.85933	220 50.4	-2.8	+1 57.3	0.17313	253 9.3	+0.7	-0 45.5
18	9.86014	236 48.9	-1.9	+1 6.9	0.16938	258 39.5	+0.8	-0 55.0
28	9.86090	252 43.3	-0.3	+0 11.6	0.16570	264 15.4	+0.8	-1 4.1
38	9.86153	268 34.6	+1.3	-0 44.4	0.16211	269 57.1	+0.9	-1 12.8
	$\Omega = 76^\circ 0'.3$	$i = 3^\circ 23'.63$			$\Omega = 48^\circ 58'.7$	$i = 1^\circ 51'.01$		
	$m = \frac{1}{408000}$				$m = \frac{1}{3093500}$			

# Heliozentrische Planetenkoordinaten

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Mittleres Äquinoktium 1925,0

O <sup>h</sup> Welt-Zeit	log R	Länge	log r	Heliozentr. Länge	Red. auf d. Bahn	Heliozentr. Breite
	ERDE 1929			JUPITER 1929		
1929						
Jan. — 8	9.99280	90° 53.0	0.696718	40° 18' 11.8	—23.5	—1° 7' 35.0
+ 2	9.99268	101 4.5	0.696859	41 12 40.0	—23.9	—1 6 56.5
12	9.99278	111 15.9	0.697005	42 7 6.0	—24.3	—1 6 17.0
22	9.99310	121 26.8	0.697155	43 1 29.7	—24.6	—1 5 36.6
Febr. 1	9.99363	131 36.5	0.697309	43 55 51.2	—25.0	—1 4 55.2
11	9.99436	141 44.4	0.697468	44 50 10.3	—25.3	—1 4 12.9
21	9.99525	151 50.0	0.697631	45 44 26.9	—25.6	—1 3 29.6
März 3	9.99629	161 53.0	0.697798	46 38 41.1	—25.8	—1 2 45.3
13	9.99743	171 52.9	0.697969	47 32 52.7	—26.0	—1 2 0.2
23	9.99864	181 49.6	0.698144	48 27 1.6	—26.2	—1 1 14.2
April 2	9.99989	191 42.8	0.698324	49 21 7.8	—26.4	—1 0 27.4
12	0.00113	201 32.8	0.698508	50 15 11.3	—26.5	—0 59 39.7
22	0.00233	211 19.4	0.698695	51 9 12.0	—26.6	—0 58 51.1
Maï 2	0.00345	221 2.8	0.698887	52 3 9.9	—26.7	—0 58 1.7
12	0.00448	230 43.4	0.699082	52 57 4.8	—26.7	—0 57 11.5
22	0.00536	240 21.4	0.699282	53 50 56.8	—26.8	—0 56 20.6
Juni 1	0.00610	249 57.2	0.699485	54 44 45.8	—26.8	—0 55 28.8
11	0.00665	259 31.4	0.699691	55 38 31.7	—26.8	—0 54 36.3
21	0.00702	269 4.3	0.699902	56 32 14.4	—26.7	—0 53 43.1
Juli 1	0.00719	278 36.5	0.700116	57 25 54.0	—26.7	—0 52 49.1
11	0.00715	288 8.5	0.700333	58 19 30.4	—26.6	—0 51 54.3
21	0.00691	297 40.9	0.700554	59 13 3.6	—26.5	—0 50 58.8
31	0.00648	307 14.2	0.700778	60 6 33.5	—26.4	—0 50 2.6
Aug. 10	0.00585	316 48.9	0.701006	60 59 59.9	—26.2	—0 49 5.8
20	0.00506	326 25.5	0.701237	61 53 23.0	—26.0	—0 48 8.4
30	0.00413	336 4.3	0.701471	62 46 42.6	—25.8	—0 47 10.4
Sept. 9	0.00306	345 45.9	0.701708	63 39 58.7	—25.6	—0 46 11.7
19	0.00190	355 30.4	0.701948	64 33 11.3	—25.3	—0 45 12.4
29	0.00068	5 18.2	0.702191	65 26 20.3	—25.0	—0 44 12.5
Okt. 9	9.99943	15 9.3	0.702438	66 19 25.7	—24.7	—0 43 12.0
19	9.99820	25 3.8	0.702687	67 12 27.5	—24.4	—0 42 11.0
29	9.99701	35 1.7	0.702939	68 5 25.5	—24.0	—0 41 9.4
Nov. 8	9.99590	45 2.7	0.703193	68 58 19.9	—23.6	—0 40 7.3
18	9.99491	55 6.7	0.703450	69 51 10.5	—23.2	—0 39 4.8
28	9.99408	65 13.2	0.703709	70 43 57.3	—22.8	—0 38 1.9
Dez. 8	9.99342	75 21.8	0.703972	71 36 40.3	—22.3	—0 36 58.4
18	9.99296	85 32.0	0.704237	72 29 19.3	—21.8	—0 35 54.5
28	9.99272	95 43.2	0.704505	73 21 54.5	—21.3	—0 34 50.1
38	9.99270	105 54.7	0.704774	74 14 25.8	—20.8	—0 33 45.4

$$m = \frac{1}{329\ 390}$$

$$\Omega = 99^\circ 41' 52''.2; \quad i = 1^\circ 18' 26''.4; \quad m = \frac{1}{1047.35}$$

## Mittleres Äquinoktium 1925.0

Oh Welt-Zeit	log $r$	Heliozentr. Länge	Red. auf die Bahn	Heliozentr. Breite
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## SATURN 1929

1928 Dez. 3	1.001634	261° 11' 53.1	- I 27.2	+ I 18' 47.0
1929 Jan. 12	1.001719	262 24 12.0	- I 25.4	+ I 16 5.8
Febr. 21	1.001795	263 36 28.8	- I 23.4	+ I 13 22.6
April 2	1.001859	264 48 43.8	- I 21.2	+ I 10 37.5
Mai 12	1.001913	266 0 57.2	- I 18.9	+ I 7 50.5
Juni 21	1.001957	267 13 9.5	- I 16.4	+ I 5 1.7
Juli 31	1.001990	268 25 20.7	- I 13.8	+ I 2 11.3
Sept. 9	1.002011	269 37 31.0	- I 11.1	+ 0 59 19.3
Okt. 19	1.002023	270 49 40.6	- I 8.2	+ 0 56 25.7
1929 Nov. 28	1.002024	272 1 49.8	- I 5.2	+ 0 53 30.6
1930 Jan. 7	1.002014	273 13 58.9	- I 2.1	+ 0 50 34.1

$$\Omega = 113^{\circ} 0' 20''.6; \quad i = 2^{\circ} 29' 28''.7; \quad m = \frac{1}{3501.6}$$

## URANUS 1929

1928 Dez. 3	1.302360	6° 3' 19.4	- 6.6	- 0° 42' 52.1
1929 Jan. 12	1.302312	6 29 6.8	- 6.7	- 0 42 44.1
Febr. 21	1.302262	6 54 54.4	- 6.8	- 0 42 36.0
April 2	1.302211	7 20 42.2	- 6.9	- 0 42 27.7
Mai 12	1.302159	7 46 30.2	- 7.0	- 0 42 19.2
Juni 21	1.302105	8 12 18.5	- 7.1	- 0 42 10.6
Juli 31	1.302050	8 38 7.1	- 7.2	- 0 42 1.9
Sept. 9	1.301994	9 3 56.0	- 7.3	- 0 41 53.0
Okt. 19	1.301936	9 29 45.1	- 7.4	- 0 41 43.9
1929 Nov. 28	1.301877	9 55 34.5	- 7.5	- 0 41 34.7
1930 Jan. 7	1.301817	10 21 24.1	- 7.5	- 0 41 25.3

$$\Omega = 73^{\circ} 37'; \quad i = 0^{\circ} 46' 22''; \quad m = \frac{1}{22869}$$

## NEPTUN 1929

1928 Dez. 3	1.479046	149° 29' 13.7	+ 29.9	+ 0° 33' 54.2
1929 Jan. 12	1.479064	149 43 30.0	+ 30.2	+ 0 34 19.4
Febr. 21	1.479082	149 57 46.4	+ 30.6	+ 0 34 44.5
April 2	1.479100	150 12 2.8	+ 30.9	+ 0 35 9.6
Mai 12	1.479118	150 26 19.3	+ 31.2	+ 0 35 34.7
Juni 21	1.479136	150 40 35.8	+ 31.5	+ 0 35 59.8
Juli 31	1.479154	150 54 52.4	+ 31.8	+ 0 36 24.9
Sept. 9	1.479172	151 9 9.0	+ 32.2	+ 0 36 49.9
Okt. 19	1.479190	151 23 25.6	+ 32.5	+ 0 37 14.9
1929 Nov. 28	1.479208	151 37 42.4	+ 32.8	+ 0 37 39.8
1930 Jan. 7	1.479227	151 51 59.1	+ 33.1	+ 0 38 4.6

$$\Omega = 130^{\circ} 57'; \quad i = 1^{\circ} 46' 37''; \quad m = \frac{1}{19314}$$



# Mittlere und Scheinbare Sternörter 1929

## Reduktionsgrößen

Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Verände- rung	Jährl. Eigen- bew. in 0".0001	Dekl. 1929.0	Jährl. Verände- rung	Jährl. Eigen- bew. in 0".001
905	[2 Ceti]	4.62	A 0	0 <sup>h</sup> 0 <sup>m</sup> 6.221	+3.0738	+ 12	-17 43 52.39	+20.041	- 4
1	α Androm.	2.15	A 0 p	0 4 42.798	+3.0986	+ 107	+28 41 54.53	+19.879	- 161
2	β Cassiopeiae	2.42	F 5	0 5 22.636	+3.1922	+ 677	+58 45 29.44	+19.859	- 180
3	ε Phoenicis	3.94	K 0	0 5 48.668	+3.0475	+ 99	-46 8 21.64	+19.846	- 192
4	[22 Androm.]	5.08	F 0	0 6 37.372	+3.1132	+ 8	+45 40 37.68	+20.033	- 3
5	[α <sup>2</sup> Sculptoris]	5.56	K 0	0 7 58.250	+3.0483	+ 4	-28 11 43.47	+20.038	+ 6
6	[β <sup>3</sup> Sculptoris]	5.19	F 5	0 8 7.505	+3.0494	+ 104	-35 31 50.15	+20.156	+ 124
7	γ Pegasi	2.87	B 2	0 9 34.620	+3.0877	+ 1	+14 47 19.73	+20.013	- 14
8	[Br. 6]	6.23	B 9	0 12 10.493	+3.3764	+ 68	+76 33 22.83	+20.018	+ 1
9	ι Ceti	3.75	K 0	0 15 48.624	+3.0565	- 15	- 9 13 2.89	+19.965	- 32
10	ζ Tucanae	4.34	F 8	0 16 22.902	+3.1351	+2696	-65 17 31.73	+21.147	+1154
11	β Hydri	2.90	G 0	0 22 2.915	+3.1808	+6944	-77 39 14.71	+20.270	+ 318
12	α Phoenicis	2.44	K 0	0 22 46.633	+2.9673	+ 168	-42 41 30.12	+19.537	- 409
13	12 Ceti	6.04	K 5	0 26 24.924	+3.0619	+ 8	- 4 20 58.17	+19.903	- 8
14	[Ceti 49 G.]	5.23	A 3	0 26 49.753	+3.0002	- 25	-24 10 49.59	+19.916	+ 9
15	[λ <sup>1</sup> Phoenicis]	4.88	A 2	0 27 59.668	+2.8965	+ 123	-49 11 46.26	+19.907	+ 12
16	[α Cassiop.]	4.24	B 0	0 28 56.955	+3.3980	+ 11	+62 32 24.62	+19.888	+ 3
17	ζ Cassiopeiae	3.72	B 3	0 33 0.283	+3.3344	+ 23	+53 30 22.97	+19.830	- 7
18	π Androm.	4.44	B 3	0 33 4.998	+3.2010	+ 17	+33 19 43.39	+19.836	0
19	[ε Androm.]	4.52	G 5	0 34 47.926	+3.1673	- 173	+28 55 35.28	+19.563	- 251
20	δ Androm.	3.49	K 2	0 35 31.559	+3.2048	+ 106	+30 28 21.92	+19.720	- 84
21	α Cassiopeiae	2.47	K 0	0 36 27.932	+3.3945	+ 60	+56 8 53.57	+19.762	- 29
22	β Ceti	2.24	K 0	0 40 1.575	+3.0118	+ 160	-18 22 33.93	+19.778	+ 39
23	[η Phoenicis]	4.53	A 0	0 40 10.208	+2.7026	+ 5	-57 51 9.21	+19.729	- 8
25	0 Cassiopeiae	4.70	B 2	0 40 45.574	+3.3366	+ 22	+47 53 45.67	+19.720	- 8
26	[λ <sup>2</sup> Sculptoris]	5.97	K 0	0 40 46.172	+2.9004	+ 178	-38 48 45.97	+19.843	+ 114
24	21 Cassiopeiae	5.59	A 2	0 40 55.492	+3.9289	- 57	+74 36 0.92	+19.703	- 23
27	ζ Androm.	4.30	K 0	0 43 34.243	+3.1772	- 75	+23 52 52.32	+19.605	- 79
28	[δ Piscium]	4.55	K 5	0 44 59.781	+3.1110	+ 52	+ 7 11 56.16	+19.614	- 46
31	[λ Hydri]	4.96	K 5	0 46 8.230	+2.0934	+ 398	-75 18 35.15	+19.613	- 27
29	[Br. 82]	5.45	F <sup>2</sup> <sub>+A<sub>2</sub></sub>	0 46 24.104	+3.6264	+ 59	+63 51 40.95	+19.630	- 5
30	[19 Ceti]	5.24	F 5	0 46 34.218	+3.0044	- 159	-11 1 35.11	+19.409	- 223
34	[λ <sup>2</sup> Tucanae]	5.34	K 0	0 52 21.258	+2.2422	- 33	-69 54 39.16	+19.479	- 45
32	γ Cassiopeiae	2.25	B 0 p	0 52 24.462	+3.6083	+ 37	+60 19 57.43	+19.519	- 4
33	μ Androm.	3.94	A 2	0 52 48.317	+3.3252	+ 129	+38 6 52.59	+19.551	+ 36
35	α Sculptoris	4.39	B 5	0 55 11.106	+2.8903	- 5	-29 44 27.78	+19.461	- 5
36	ε Piscium	4.45	K 0	0 59 15.360	+3.1124	- 55	+ 7 30 29.82	+19.409	+ 30
37	[26 Ceti]	6.07	F 0	1 0 9.702	+3.0869	+ 81	+ 0 59 11.68	+19.319	- 39
38	β Phoenicis	3.35	K 0	1 2 54.980	+2.6774	- 56	-47 5 55.96	+19.278	- 15
39	[ι Tucanae]	5.32	K 0	1 4 30.164	+2.3803	+ 100	-62 9 15.09	+19.252	- 4

# Mittlere Sternörter 1929.0

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Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0°.0001	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0°.001
40	[ $\eta$ Ceti]	3.60	K 0	$1^{\text{h}} 5^{\text{m}} 1.028$	+3.0169	+ 137	-10 33 29.71	+19.112	-132
42	$\beta$ Androm.	2.37	M a	1 5 45.013	+3.3552	+ 151	+35 14 40.49	+19.113	-113
41	[44 II. Cephei]	5.68	A 0	1 6 4.143	+5.1162	+ 334	+79 17 48.40	+19.226	+ 9
43	[ $\tau$ Piscium]	4.70	K 0	1 7 44.667	+3.3006	+ 56	+29 42 46.85	+19.134	- 41
44	[Sculpt. 102 G.]	5.91	A 5	1 9 29.126	+2.7624	+ 39	-38 13 56.68	+19.103	- 27
45	$\nu$ Piscium	4.67	A 2	1 15 33.510	+3.2937	+ 15	+26 53 28.79	+18.954	- 11
47	$\delta$ Ceti	3.83	K 0	1 20 28.429	+2.9982	- 55	- 8 32 57.39	+18.607	-214
46	[ $\psi$ Cassiop.]	4.96	K 0	1 20 53.491	+4.2160	+ 135	+67 45 36.52	+18.841	+ 32
48	$\delta$ Cassiopeiae	2.80	A 5	1 21 9.262	+3.9110	+ 398	+59 52 0.95	+18.758	- 43
49	[ $\gamma$ Phoenicis]	3.40	K 5	1 25 16.942	+2.6051	- 38	-43 40 54.20	+18.455	-218
50	$\eta$ Piscium	3.72	G 5	1 27 40.818	+3.2079	+ 15	+14 58 48.95	+18.588	- 7
51	40 Cassiopeiae	5.50	K 0	1 32 48.198	+4.7589	- 20	+72 40 44.59	+18.417	- 6
53	[Hydri 14 G.]	6.06	G 5	1 33 9.743	+0.3814	- 70	-78 51 54.53	+18.283	-128
52	$\nu$ Persei	3.77	K 0	1 33 37.399	+3.6744	+ 64	+48 16 8.83	+18.282	-113
54	$\alpha$ Eridani	0.60	B 5	1 35 4.371	+2.2365	+ 122	-57 35 49.65	+18.306	- 38
55	43 Cassiopeiae	5.54	A 0 p	1 37 3.308	+4.4196	+ 88	+67 41 5.24	+18.272	- 2
56	[ $\nu$ Piscium]	4.68	K 0	1 37 44.048	+3.1208	- 16	+ 5 7 43.80	+18.251	+ 2
58	[Sculpt. 129 G.]	5.64	A 0	1 38 55.147	+2.6430	- 57	-37 11 24.24	+18.183	- 23
57	$\varphi$ Persei	4.19	B 0 p	1 39 11.910	+3.7514	+ 26	+50 19 54.27	+18.181	- 15
59	$\tau$ Ceti	3.65	K 0	1 40 46.165	+2.7870	-1195	-16 18 39.41	+18.990	+852
60	$\nu$ Piscium	4.50	K 0	1 41 38.489	+3.1663	+ 47	+ 8 48 3.55	+18.155	+ 50
61	Lac. e Sculpt.	5.39	F 0	1 42 19.185	+2.8087	+ 99	-25 24 26.07	+18.005	- 75
62	$\zeta$ Ceti	3.92	K 0	1 47 57.290	+2.9607	+ 22	-10 41 6.84	+17.828	- 34
64	$\alpha$ Trianguli	3.58	F 5	1 49 1.705	+3.4165	+ 11	+29 14 1.10	+17.586	-233
63	e Cassiopeiae	3.44	B 3	1 49 15.956	+4.2983	+ 50	+63 19 16.83	+17.794	- 15
65	$\xi$ Piscium	4.84	K 0	1 49 52.662	+3.1048	+ 13	+ 2 50 15.23	+17.804	+ 19
66	$\beta$ Arietis	2.72	A 5	1 50 42.781	+3.3110	+ 65	+20 27 41.94	+17.642	-109
67	$\psi$ Phoenicis	4.41	M b	1 50 48.026	+2.4054	- 94	-46 39 0.52	+17.646	-101
69	[ $\eta^2$ Hydri]	4.72	K 0	1 53 7.982	+1.5179	+ 119	-67 59 46.39	+17.731	+ 79
68	$\chi$ Eridani	3.73	G 5	1 53 11.674	+2.3343	+ 712	-51 57 43.77	+17.919	+270
72	$\alpha$ Hydri	3.02	F 0	1 56 31.918	+1.8898	+ 361	-61 54 54.11	+17.530	+ 21
71	$\nu$ Ceti	4.18	M a	1 56 39.572	+2.8265	+ 91	-21 25 16.37	+17.489	- 14
70	50 Cassiopeiae	4.06	A 2	1 57 19.940	+5.0880	- 91	+72 4 43.84	+17.499	+ 25
73	$\gamma$ Androm.	2.28 5.08	K 0 A 0	1 59 31.932	+3.6764	+ 43	+41 59 23.19	+17.326	- 54
74	$\alpha$ Arietis	2.23	K 2	2 3 9.943	+3.3788	+ 137	+23 7 39.08	+17.076	-143
75	$\beta$ Trianguli	3.08	A 5	2 5 18.697	+3.5653	+ 122	+34 39 8.20	+17.082	- 40
77	[6 Persei]	5.40	K 0	2 8 52.270	+3.9812	+ 368	+50 44 12.84	+16.789	-169
76	55 Cassiopeiae	6.15	F 5 + A 2	2 8 53.115	+4.6867	- 10	+66 11 34.11	+16.960	+ 3
78	Lac. $\mu$ Forn.	5.24	A 0	2 9 46.917	+2.6425	+ 13	-31 3 22.86	+16.917	+ 2
79	[ $\gamma$ Trianguli]	4.07	A 0	2 13 5.192	+3.5622	+ 37	+33 31 11.19	+16.715	- 44

Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".0001	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
80	67 Ceti	5.70	G 5	2 <sup>h</sup> 13 <sup>m</sup> 26.430	+2.9914	+ 55	- 6 44 55.17	+16.632	-110
82	[φ Eridani]	3.78	B 8	2 13 58.328	+2.1425	+ 81	-51 50 25.72	+16.680	- 36
81	[θ Arietis]	5.69	A 0	2 14 10.311	+3.3345	- 10	+19 34 24.59	+16.705	- 2
83	[z Fornacis]	5.37	F 5	2 19 17.617	+2.7451	+ 142	-24 8 18.08	+16.392	- 63
84	[λ Horologii]	5.47	F 2	2 22 54.742	+1.6769	- 95	-60 37 45.83	+16.135	-137
85	ξ <sup>2</sup> Ceti	4.34	A 0	2 24 22.868	+3.1881	+ 26	+ 8 8 33.57	+16.192	- 4
86	[z Eridani]	4.44	B 5	2 24 22.876	+2.1977	- 2	-48 1 19.75	+16.174	- 23
88	[λ <sup>1</sup> Fornacis]	5.88	K 0	2 30 9.277	+2.4993	- 43	-34 57 42.49	+15.862	- 32
87	36 H. Cassiop.	5.34	K 0	2 31 14.429	+5.6665	- 60	+72 30 33.49	+15.857	+ 21
90	μ Hydri	5.29	K 0	2 33 8.006	-1.3122	+ 470	-79 25 9.57	+15.701	- 33
89	ν Arietis	5.36	A 2	2 34 46.791	+3.4037	- 9	+21 39 19.19	+15.629	- 16
91	δ Ceti	4.04	B 2	2 35 50.464	+3.0739	+ 7	+ 0 1 23.03	+15.584	- 2
95	[ε Hydri]	4.26	B 9	2 38 29.459	+0.9184	+ 168	-68 34 15.35	+15.444	+ 5
92	[Br. 366]	5.84	A 2	2 38 41.362	+5.1374	+ 25	+67 31 27.96	+15.400	- 29
94	[35 Arietis]	4.58	B 3	2 39 16.780	+3.5170	+ 4	+27 24 21.80	+15.388	- 7
93	θ Persei	4.22	F 8	2 39 20.359	+4.0897	+ 346	+48 55 45.39	+15.303	- 89
96	[γ Ceti]	3.58	A 2	2 39 37.147	+3.1071	- 98	+ 2 56 14.83	+15.228	-148
97	π Ceti	4.39	B 5	2 40 44.552	+2.8545	- 8	-14 9 30.77	+15.304	- 9
98	μ Ceti	4.36	F 0	2 41 6.043	+3.2412	+ 189	+ 9 48 55.02	+15.262	- 31
99	[η Persei]	3.93	K 0	2 45 30.201	+4.3657	+ 28	+55 36 7.62	+15.030	- 11
100	41 Arietis	3.68	B 8	2 45 47.950	+3.5281	+ 51	+26 58 8.09	+14.911	-113
101	β Fornacis	4.50	K 0	2 46 7.106	+2.5103	+ 63	-32 42 12.16	+15.164	+159
102	τ <sup>2</sup> Eridani	4.81	K 0	2 47 49.045	+2.7207	- 39	-21 17 45.84	+14.877	- 29
103	τ Persei	4.06	G <sup>0</sup> +A <sup>5</sup>	2 49 12.667	+4.2441	+ 3	+52 28 23.47	+14.823	- 2
104	η Eridani	4.05	K 0	2 52 57.452	+2.9301	+ 52	- 9 10 47.55	+14.384	-218
106	θ Eridani	3.42 4.42	A 2	2 55 34.020	+2.2724	- 67	-40 35 18.26	+14.473	+ 28
105	47 H. Cephei	5.66	M a	2 56 34.149	+7.9129	- 113	+79 8 26.41	+14.406	+ 22
107	α Ceti	2.82	M a	2 58 33.918	+3.1345	- 9	+ 3 48 43.70	+14.186	- 76
108	γ Persei	3.08	F <sup>5</sup> +A <sup>3</sup>	2 59 38.474	+4.3355	+ 2	+53 13 47.02	+14.192	- 4
109	*ρ Persei	var.	M h	3 0 37.155	+3.8397	+ 114	+38 33 58.98	+14.032	-103
110	μ Horologii	5.16	F 0	3 1 56.172	+1.4099	- 117	-60 0 45.96	+13.986	- 68
113	[θ Hydri]	5.52	B 8	3 2 5.711	+0.1118	+ 51	-72 10 46.65	+14.065	+ 22
111	*β Persei	var.	B 8	3 3 32.477	+3.8983	+ 7	+40 41 0.09	+13.952	- 1
112	[ι Persei]	4.17	G 0	3 3 55.916	+4.3215	+1296	+49 20 36.23	+13.845	- 83
114	δ Arietis	4.53	K 0	3 7 33.891	+3.4281	+ 106	+19 27 33.56	+13.694	- 4
117	12 Eridani	3.95	F 8	3 9 3.210	+2.5470	+ 241	-29 15 58.20	+14.246	+644
116	[94 Ceti]	5.14	F 8	3 9 8.951	+3.0615	+ 136	- 1 27 38.43	+13.535	- 62
118	[Horol. 38 G.]	5.72	N a	3 10 44.978	+1.5160	- 5	-57 35 13.64	+13.487	- 6
115	48 H. Cephei	5.50	F 0	3 11 14.536	+7.5485	+ 183	+77 28 35.49	+13.417	- 44
119	[e Eridani]	4.30	G 5	3 17 5.563	+2.3958	+2786	-43 20 26.72	+13.809	+731

# Mittlere Sternörter 1929.0

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Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in o°.0001	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in o°.001
120	$\alpha$ Persei	1.90	F 5	3 19 14.599	+4.2757	+ 29	+49 36 35.60	+12.909	- 26
121	$\circ$ Tauri	3.80	G 5	3 20 59.382	+3.2272	- 44	+ 8 46 48.24	+12.742	- 76
122	2 H. Camelop.	4.42	B 9 p	3 23 18.202	+4.8452	- 1	+59 41 40.74	+12.668	+ 6
123	[ $\xi$ Tauri]	3.75	B 8	3 23 19.097	+3.2499	+ 39	+ 9 29 10.02	+12.616	- 45
124	[ $\sigma$ Persei]	4.55	K 0	3 25 33.571	+4.2234	+ 9	+47 45 5.74	+12.531	+ 23
125	$\nu$ Tauri	4.28	K 0	3 26 56.995	+3.3105	+ 13	+12 41 39.89	+12.408	- 5
126	[ $\alpha$ Reticuli]	4.80	F 5	3 28 7.785	+1.0399	+514	-63 11 15.33	+12.692	+361
127	$\epsilon$ Eridani	3.81	K 0	3 29 35.063	+2.8262	-658	- 9 41 51.75	+12.244	+ 13
128	[Horol. 45 G.]	5.60	K 0	3 30 27.440	+1.7842	+ 48	-50 37 8.19	+12.251	+ 80
130	[ $\eta$ Eridani]	4.58	K 0	3 34 32.737	+2.1520	- 16	-40 30 24.36	+11.860	- 24
129	[Grb 716]	5.32	M a	3 35 58.544	+5.1913	- 21	+62 59 18.48	+11.806	+ 22
131	$\delta$ Persei	3.10	B 5	3 37 51.651	+4.2655	+ 33	+47 33 43.29	+11.614	- 35
133	[ $\delta$ Fornacis]	4.93	B 5	3 39 25.407	+2.3853	- 5	-32 9 52.01	+11.546	+ 7
135	[ $\delta$ Eridani]	3.72	K 0	3 39 50.739	+2.8735	- 64	-10 0 9.70	+12.255	+747
132	[ $\circ$ Persei]	3.94	B 1	3 39 51.665	+3.7591	+ 8	+32 3 52.50	+11.490	- 17
134	$\nu$ Persei	3.93	F 5	3 40 21.792	+4.0713	- 6	+42 21 20.46	+11.466	- 5
136	[17 Tauri]	3.81	B 5 p	3 40 39.314	+3.5604	+ 17	+23 53 29.04	+11.406	- 44
137	[24 Eridani]	5.09	B 8	3 40 54.020	+3.0464	+ 1	- 1 23 9.68	+11.424	- 8
138	5 H. Camelop.	4.67	A 0	3 42 49.901	+6.3045	+ 42	+71 6 56.78	+11.253	- 40
139	$\eta$ Tauri	2.96	B 5 p	3 43 15.600	+3.5642	+ 17	+23 53 12.62	+11.215	- 48
141	$\beta$ Reticuli	3.80	K 0	3 43 18.173	+0.7464	+477	-65 1 48.98	+11.320	+ 61
140	$\tau^6$ Eridani	4.33	F 8	3 43 47.521	+2.5801	-123	-23 27 30.34	+10.705	-519
142	[27 Tauri]	3.80	B 8	3 44 56.176	+3.5651	+ 14	+23 50 15.37	+11.096	- 45
143	$\eta$ Eridani	4.24	K 0	3 46 47.811	+2.2451	- 40	-36 24 52.13	+10.953	- 52
146	$\gamma$ Hydri	3.17	M a	3 48 19.145	-0.9478	+124	-74 27 25.42	+11.003	+109
144	$\zeta$ Persei	2.91	B 1	3 49 39.852	+3.7687	+ 11	+31 40 26.96	+10.784	- 11
145	*9 H. Camelop.	5.22	$\begin{matrix} K 0 \\ + A 0 \end{matrix}$	3 51 4.078	+5.1037	- 3	+60 54 9.68	+10.675	- 16
147	$\epsilon$ Persei	2.96	B 1	3 53 4.987	+4.0223	+ 23	+39 48 22.52	+10.512	- 29
148	$\xi$ Persei	4.05	Oe 5	3 54 21.181	+3.8900	+ 10	+35 35 17.62	+10.438	- 8
149	$\gamma$ Eridani	3.19	K 5	3 54 42.940	+2.7986	+ 42	-13 42 34.26	+10.308	-112
150	* $\lambda$ Tauri	var.	B 3	3 56 44.625	+3.3225	- 5	+12 17 27.37	+10.254	- 13
151	$\nu$ Tauri	3.94	A 0	3 59 22.638	+3.1906	+ 4	+ 5 47 36.28	+10.059	- 10
153	[Erid. 174 G.]	5.57	A 5	4 2 41.797	+2.4723	+148	-27 50 42.35	+ 9.925	+108
152	$\epsilon$ Persei	4.03	B 3 p	4 3 29.987	+4.3512	+ 33	+47 31 28.39	+ 9.724	- 32
154	$\sigma^1$ Eridani	4.14	F 2	4 8 23.911	+2.9282	+ 8	- 7 1 17.86	+ 9.461	+ 82
155	$\alpha$ Horologii	3.83	K 0	4 11 38.792	+1.9859	+ 20	-42 28 7.74	+ 8.908	-219
156	$\alpha$ Reticuli	3.36	G 5	4 13 30.299	+0.7682	+ 50	-62 39 4.39	+ 9.029	+ 47
157	[ $\gamma$ Doradus]	4.36	F 5	4 14 9.771	+1.5688	+ 89	-51 39 54.94	+ 9.103	+172
160	$\sigma^4$ Eridani	3.59	B 9	4 15 12.338	+2.2687	+ 37	-33 58 15.24	+ 8.837	- 12
159	[ $\gamma$ Tauri]	3.86	K 0	4 15 45.009	+3.4130	+ 82	+15 27 26.73	+ 8.778	- 29

Nr. 145. Doppelstern, Größe der Komponenten: 5.0 und 8.2

Nr. 150. Größe: Max. 3.3, Min. 4.2

Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Verände- rung	Jährl. Eigen- bew. in 0".0001	Dekl. 1929.0	Jährl. Verände- rung	Jährl. Eigen- bew. in 0".001
158	[54 Persei]	5.10	G 5	4 <sup>h</sup> 15 <sup>m</sup> 47.734	+3.8928	- 20	+34 <sup>s</sup> 23 48.56	+8.797	- 6
161	[Erid. 212 G.]	5.31	A 0	4 17 33.212	+2.6185	+ 36	-20 48 27.76	+8.680	+ 15
162	δ Tauri	3.93	K 0	4 18 50.252	+3.4588	+ 78	+17 22 38.30	+8.532	- 31
163	[η Reticuli]	5.18	K 0	4 21 7.005	+0.6451	+127	-63 33 17.24	+8.542	+160
166	[δ Mensae]	5.62	K 0 p	4 22 43.784	-4.1030	+ 99	-80 22 54.22	+8.326	+ 71
164	ε Tauri	3.63	K 0	4 24 28.095	+3.5022	+ 80	+19 1 27.67	+8.080	- 35
165	*[I Camel. seq.]	5.42	B 1	4 26 23.914	+4.7466	+ 7	+53 45 30.18	+7.961	0
167	[δ Caeli]	5.16	B 3	4 28 39.523	+1.8362	- 6	-45 6 20.11	+7.762	- 17
168	α Tauri	1.06	K 5	4 31 50.651	+3.4415	+ 48	+16 22 4.52	+7.333	-189
171	α Doradus	3.47	A 0 p	4 32 27.720	+1.2965	+ 71	-55 11 27.86	+7.475	+ 3
169	ν Eridani	4.12	B 2	4 32 46.209	+2.9973	+ 2	- 3 29 47.24	+7.442	- 4
170	[ν <sup>3</sup> Eridani]	3.88	K 0	4 32 47.333	+2.3314	- 46	-30 42 24.02	+7.439	- 6
172	53 Eridani	3.98	K 0	4 34 55.649	+2.7467	- 54	-14 26 30.51	+7.106	-164
174	τ Tauri	4.33	B 5	4 37 58.876	+3.6001	+ 5	+22 49 19.69	+7.002	- 19
173	Grb 848	6.04	F 0	4 39 14.777	+8.0355	+105	+75 48 54.73	+6.784	-134
176	[μ Eridani]	4.18	B 5	4 41 57.080	+2.9997	+ 13	- 3 23 0.95	+6.683	- 12
175	4 Camelop.	5.35	A 2	4 42 4.845	+4.9919	+ 60	+56 37 59.14	+6.538	-146
177	[μ Mensae]	5.69	B 9	4 43 45.937	-0.6064	+ 17	-71 3 41.26	+6.574	+ 28
178	9 Camelop.	4.38	B 0	4 46 58.690	+5.9540	+ 5	+66 13 28.42	+6.289	+ 10
179	[π <sup>4</sup> Orionis]	3.78	B 3	4 47 25.381	+3.1948	0	+ 5 29 5.57	+6.235	- 7
180	π <sup>5</sup> Orionis	3.87	B 3	4 50 33.091	+3.1245	- 2	+ 2 19 32.24	+5.978	- 3
181	ι Aurigae	2.90	K 2	4 52 22.026	+3.9059	+ 10	+33 3 18.96	+5.810	- 20
183	*ε Aurigae	var.	F 5 p	4 56 52.204	+4.3032	+ 6	+43 43 11.70	+5.438	- 14
182	10 Camelop.	4.22	G 0 p	4 57 5.653	+5.3316	- 1	+60 20 26.52	+5.421	- 12
184	ι Tauri	4.70	A 5	4 58 51.007	+3.5857	+ 53	+21 29 24.09	+5.242	- 43
185	η Aurigae	3.28	B 3	5 1 31.952	+4.2057	+ 33	+41 8 24.57	+4.987	- 71
186	ε Leporis	3.29	K 5	5 2 27.300	+2.5396	+ 20	-22 27 55.16	+4.912	- 68
187	[η <sup>2</sup> Pictoris]	4.92	K 5	5 3 7.416	+1.5504	+ 35	-49 40 23.54	+4.929	+ 6
189	[ζ Doradus]	4.76	F 8	5 4 17.355	+1.0245	- 70	-57 34 9.71	+4.928	+103
188	β Eridani	2.92	A 3	5 4 21.511	+2.9494	- 59	- 5 10 37.22	+4.740	- 79
190	[λ Eridani]	4.34	B 2	5 5 44.876	+2.8710	+ 3	- 8 50 38.22	+4.697	- 4
192	μ Aurigae	4.78	A 3	5 8 34.016	+4.1042	- 13	+38 24 7.42	+4.382	- 79
191	19 H. Camelop.	5.16	F 8	5 10 49.142	+9.8563	-311	+79 9 13.54	+4.429	+161
194	β Orionis	0.34	B 8 p	5 11 7.482	+2.8829	+ 2	- 8 16 56.86	+4.242	0
193	α Aurigae	0.21	G 0	5 11 26.453	+4.4307	+ 85	+45 55 39.45	+3.787	-428
196	θ Doradus	4.78	K 0	5 13 48.432	-0.0502	+ 14	-67 15 54.66	+4.051	+ 39
195	[τ Orionis]	3.68	B 5	5 14 9.478	+2.9128	- 12	- 6 55 11.68	+3.976	- 7
197	[ο Columbae]	4.91	K 0	5 14 55.354	+2.1627	+ 63	-34 57 48.96	+3.589	-329
198	[Columb. 12 G.]	5.75	A 0	5 16 33.892	+2.3922	+ 8	-27 26 27.22	+3.765	- 11
199	[ζ Pictoris]	5.52	F 8	5 17 37.499	+1.4700	+ 9	-50 40 53.93	+3.912	+227

Nr.	Name	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
200	[ $\gamma$ Orion. med.]	3.44	B I	5 20 <sup>m</sup> 54.407	+3.0167	+ 5	- 2 27 40.22	+3.404	+ 1
201	$\gamma$ Orionis	1.70	B 2	5 21 19.324	+3.2177	- 3	+ 6 17 11.78	+3.346	- 20
202	$\beta$ Tauri	1.78	B 8	5 21 48.136	+3.7923	+ 25	+28 32 56.66	+3.149	-177
203	17 Camelop.	5.75	K 5	5 23 27.506	+5.6630	- 3	+63 0 37.10	+3.181	- 1
204	[ $\beta$ Leporis]	2.96	G o	5 25 12.193	+2.5711	+ 4	-20 48 54.20	+2.939	- 93
206	$\delta$ Orionis	2.48 6.87	B o	5 28 22.698	+3.0648	0	- 0 21 1.49	+2.755	- 2
207	$\alpha$ Leporis	2.69	F o	5 29 35.886	+2.6460	+ 2	-17 52 19.28	+2.653	+ 2
205	Grb 966	6.36	K 5	5 30 13.192	+8.0172	- 8	+75 0 0.61	+2.617	+ 20
208	[ $\varphi$ Orionis]	4.53	B o	5 30 55.306	+3.2932	- 1	+ 9 26 34.01	+2.526	- 10
209	$\iota$ Orionis	2.87	Oe 5	5 31 57.573	+2.9350	+ 4	- 5 57 19.25	+2.442	- 4
210	$\epsilon$ Orionis	1.75	B o	5 32 36.596	+3.0441	+ 1	- 1 14 45.66	+2.387	- 3
212	$\beta$ Doradus	3.81	F 5 p	5 33 0.390	+0.5184	- 13	-62 32 9.90	+2.353	- 2
211	$\zeta$ Tauri	3.00	B 3 p	5 33 24.034	+3.5856	+ 6	+21 6 2.54	+2.296	- 26
214	[ $\gamma$ Mensae]	5.06	K o	5 34 41.083	-2.3856	+283	-76 23 32.89	+2.508	+298
213	[ $\sigma$ Orionis]	3.78	B o	5 35 10.860	+3.0116	0	- 2 38 23.28	+2.166	- 1
215	$\alpha$ Columbae	2.75	B 5 p	5 37 4.612	+2.1721	- 2	-34 6 40.26	+1.964	- 37
216	$\circ$ Aurigae	5.52	A o	5 40 23.917	+4.6476	- 6	+49 47 49.63	+1.704	- 9
217	[ $\gamma$ Leporis]	3.80	F 8	5 41 30.223	+2.5019	-201	-22 28 14.02	+1.240	-376
218	[130 Tauri]	5.51	F o	5 43 17.792	+3.4987	+ 4	+17 42 14.45	+1.454	- 6
219	$\zeta$ Leporis	3.67	A 2	5 43 44.266	+2.7183	- 12	-14 50 50.15	+1.419	- 2
220	$\alpha$ Orionis	2.20	B o	5 44 23.324	+2.8455	+ 4	- 9 41 37.15	+1.361	- 3
221	[ $\nu$ Aurigae]	4.18	K o	5 46 34.072	+4.1577	- 4	+39 7 46.21	+1.185	+ 11
222	[ $\delta$ Leporis]	3.90	K o	5 48 16.059	+2.5802	+165	-20 53 2.75	+0.373	-653
223	[ $\beta$ Columbae]	3.22	K o	5 48 27.324	+2.1139	+ 34	-35 47 38.65	+1.413	+404
224	$\alpha$ Orionis	0.92	M a	5 51 19.649	+3.2482	+ 20	+ 7 23 42.98	+0.772	+ 13
226	[ $\gamma$ Leporis]	3.77	F o	5 53 10.250	+2.7327	- 27	-14 10 46.20	+0.737	+140
225	$\delta$ Aurigae	3.88	K o	5 53 40.848	+4.9405	+100	+54 16 53.01	+0.430	-122
227	$\beta$ Aurigae	2.07	A o p	5 54 19.252	+4.4018	- 42	+44 56 31.31	+0.489	- 8
228	$\theta$ Aurigae	2.71	A o p	5 54 52.789	+4.0921	+ 49	+37 12 33.40	+0.361	- 87
229	$\eta$ Columbae	4.03	K o	5 56 58.404	+1.8370	+ 22	-42 49 6.75	+0.231	- 34
230	[66 Orionis]	5.70	K o	6 1 13.241	+3.1696	- 6	+ 4 9 49.99	-0.122	- 15
231	[Puppis I G.]	6.22	F 8	6 2 25.787	+1.7267	- 83	-45 2 8.35	+0.019	+232
232	$\nu$ Orionis	4.40	B 2	6 3 31.105	+3.4264	+ 11	+14 46 41.74	-0.339	- 31
233	[36 Camelop.]	5.39	K o	6 5 42.476	+6.0359	- 5	+65 44 6.34	-0.528	- 29
235	[ $\delta$ Pictoris]	4.84	B I	6 8 54.856	+1.1670	- 22	-54 57 8.68	-0.787	- 7
236	* $\gamma$ Geminor.	var.	M a	6 10 35.535	+3.6224	- 42	+22 31 44.20	-0.939	- 13
234	22 II. Camelop.	4.73	A o	6 11 1.581	+6.6157	+ 16	+69 20 51.75	-1.066	-102
239	[ $\alpha$ Mensae]	5.14	K o	6 12 21.114	-1.7911	+235	-74 43 46.40	-1.306	-226
237	[2 Lynceis]	4.42	A o	6 13 21.634	+5.2958	- 7	+59 2 20.18	-1.139	+ 29
238	[ $\alpha$ Columbae]	4.51	K o	6 14 1.542	+2.1343	- 6	-35 6 57.91	-1.152	+ 74

Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Verände- rung	Jährl. Eigen- bew. in o".0001	Dekl. 1929.0	Jährl. Verände- rung	Jährl. Eigen- bew. in o".001
240	ζ Canis maj.	3.10	B 3	6 <sup>h</sup> 17 <sup>m</sup> 35.208	+ 2.3029	+ 2	-30° 1' 50.88	-1.533	+ 4
241	μ Geminor.	3.19	M a	6 18 39.955	+ 3.6307	+ 48	+22 33 5.78	-1.742	- III
242	ψ <sup>1</sup> Aurigae	5.10	K 2	6 19 25.930	+ 4.6232	+ 9	+49 19 34.02	-1.701	- 3
243	β Canis maj.	1.99	B I	6 19 34.356	+ 2.6419	- 4	-17 55 10.26	-1.708	+ 2
244	8 Monocer.	4.48 6.54	A 5	6 20 0.370	+ 3.1800	- 7	+ 4 37 48.72	-1.744	+ 4
245	α Argus	-0.86	F 0	6 22 22.471	+ 1.3315	+ 16	-52 39 22.88	-1.942	+ 11
246	10 Monocer.	4.98	B 3	6 24 27.216	+ 2.9630	- 2	- 4 43 1.17	-2.129	+ 5
247	8 Lynceis	6.05	G 0	6 31 12.373	+ 5.4875	-285	+61 32 45.10	-2.998	- 277
249	ξ <sup>2</sup> Canis maj.	4.54	A 0	6 32 4.813	+ 2.5143	+ 5	-22 54 27.01	-2.783	+ 13
251	γ Geminor.	1.93	A 0	6 33 36.665	+ 3.4669	+ 34	+16 27 40.74	-2.975	- 46
250	51 Aurigae	5.71	K 0	6 33 44.446	+ 4.1589	- 18	+39 27 18.46	-3.055	- 114
248	23 II. Camelop.	5.60	F 8	6 34 8.946	+10.2761	-293	+79 38 43.90	-3.598	- 622
252	v Argus	3.18	B 8	6 35 35.299	+ 1.8356	- 4	-43 7 59.05	-3.120	- 20
253	*S Monocer.	4.68	Oe 5	6 37 4.126	+ 3.3051	+ 6	+ 9 57 46.06	-3.233	- 5
254	ε Geminor.	3.18	G 5	6 39 33.926	+ 3.6928	+ 3	+25 12 10.72	-3.458	- 15
256	ξ Geminor.	3.40	F 5	6 41 18.320	+ 3.3683	- 75	+12 58 24.57	-3.792	- 199
255	[ψ <sup>5</sup> Aurigae]	5.34	G 0	6 41 37.481	+ 4.3273	+ 7	+43 38 59.21	-3.467	+ 154
257	*α Canis maj.	-1.58	A 0	6 42 1.261	+ 2.6437	-370	-16 37 3.51	-4.866	-1212
258	18 Monocer.	4.70	K 0	6 44 9.586	+ 3.1297	- 2	+ 2 29 27.84	-3.858	- 20
264	[ξ Mensae]	5.64	A 2	6 45 59.122	- 4.9626	- 34	-80 44 25.38	-3.910	+ 85
259	[43 Camelop.]	5.13	B 5	6 46 3.590	+ 6.4809	+ 16	+68 58 24.45	-3.998	+ 3
262	α Pictoris	3.30	A 5	6 47 27.851	+ 0.6173	-100	-61 51 53.54	-3.866	+ 256
261	θ Geminor.	3.64	A 2	6 48 6.708	+ 3.9568	+ 7	+34 2 54.37	-4.232	- 55
263	[τ Argus]	2.83	K 0	6 48 10.444	+ 1.4887	+ 29	-50 31 46.79	-4.278	- 96
260	[24 II. Camel.]	4.75	K 5	6 49 44.302	+ 8.7792	+216	+77 4 17.15	-4.330	- 14
266	θ Canis maj.	4.25	K 2	6 50 53.477	+ 2.7877	- 94	-11 56 54.73	-4.428	- 13
265	15 Lynceis	4.54	G 0	6 51 8.078	+ 5.2009	- 1	+58 31 4.78	-4.565	- 130
267	[ι Volantis]	5.52	B 8	6 52 16.063	- 0.6814	- 4	-70 52 30.98	-4.520	+ 12
268	ε Canis maj.	1.63	B I	6 55 50.082	+ 2.3577	0	-28 52 28.10	-4.834	+ 1
269	ζ Geminor.	var.	G o p	6 59 53.972	+ 3.5600	0	+20 40 33.36	-5.182	- 3
270	[ο <sup>2</sup> Canis maj.]	3.12	B 5 p	7 0 3.577	+ 2.5054	- 2	-23 43 42.76	-5.193	0
271	γ Canis maj.	4.07	B 5	7 0 32.812	+ 2.7153	+ 8	-15 31 38.27	-5.246	- 12
272	[Carinae 27 G.]	5.30	A 0	7 2 58.836	+ 1.1168	- 24	-56 38 29.30	-5.447	- 7
273	δ Canis maj.	1.98	F 8 p	7 5 30.223	+ 2.4391	- 8	-26 16 46.12	-5.648	+ 3
274	63 Aurigae	5.07	K 2	7 6 46.523	+ 4.1302	+ 45	+39 26 17.02	-5.757	0
275	[J Puppis]	4.47	F 0	7 10 32.099	+ 1.7096	-147	-46 38 24.38	-5.982	+ 91
276	[64 Aurigae]	5.75	A 3	7 13 6.266	+ 4.1760	- 3	+41 0 39.65	-6.282	+ 3
277	λ Geminor.	3.65	A 2	7 14 0.850	+ 3.4492	- 31	+16 40 11.27	-6.405	- 44
278	π Argus	2.74	K 5	7 14 38.061	+ 2.1185	- 14	-36 58 8.94	-6.410	+ 3
279	δ Geminor.	3.51	F 0	7 15 53.100	+ 3.5853	- 11	+22 6 52.50	-6.527	- 10

Nr. 253. Doppelstern, Größe der Komponenten: 6.0 und 8.8 Nr. 257. Ort des Schwerpunktes. Die Reduktion auf den Hauptstern ist nach den Elementen von Auwers A. N. 3085

$$1929.0 \quad \Delta \alpha = -0''.176 \quad \Delta \delta = -2''.20$$

$$1930.0 \quad = -0.165 \quad = -2.24$$

Nr. 269. Größe: Max. 3.7, Min. 4.3



Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".0001	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
281	δ Volantis	4.02	F 5	7 <sup>h</sup> 16 <sup>m</sup> 52.375	-0.0229	+ 4	-67° 49' 38.63	- 6.610	- 12
280	19 Lynceis seq.	5.61	B 8	7 17 4.902	+4.9025	- 1	+55 25 1.61	- 6.649	- 34
283	[η Can. maj.]	2.43	B 5 p	7 21 17.186	+2.3731	- 5	-29 9 48.59	- 6.948	+ 13
282	τ Geminor.	3.89	K 0	7 21 19.200	+3.7291	- 83	+27 56 26.60	- 7.049	- 85
285	β Canis min.	3.09	B 8	7 23 18.104	+3.2549	- 31	+ 8 26 1.31	- 7.167	- 40
284	Grb 1308	5.80	K 0	7 23 30.553	+6.2603	- 7	+68 36 47.25	- 7.187	- 44
286	ρ Geminor.	4.18	F 0	7 24 32.868	+3.8617	+122	+31 55 38.41	- 7.045	+ 183
287	*α Geminor.	2.85 1.99	A 0	7 30 4.285	+3.8327	-129	+32 2 46.33	- 7.758	- 81
288	[Pupp. 108 G.]	4.52	F 8	7 31 0.792	+2.5675	- 39	-22 8 31.28	- 7.735	+ 18
289	25 Monocer.	5.17	F 5	7 33 44.924	+2.9834	- 47	- 3 57 4.53	- 7.953	+ 20
290	[f Puppis]	4.62	B 8	7 34 44.430	+2.2194	- 27	-34 48 28.45	- 8.036	+ 16
291	*α Canis min.	0.48	F 5	7 35 35.184	+3.1416	-470	+ 5 24 29.64	- 9.147	-1028
292	24 Lynceis	4.96	A 2	7 37 0.614	+5.0861	- 47	+58 52 42.40	- 8.287	- 53
293	[26 Monocer.]	4.07	K 0	7 37 51.289	+2.8662	- 57	- 9 23 3.82	- 8.322	- 21
294	z Geminor.	3.68	G 5	7 40 9.864	+3.6249	- 15	+24 34 10.84	- 8.538	- 54
295	β Geminor.	1.21	K 0	7 40 58.470	+3.6741	-468	+28 11 56.79	- 8.601	- 53
297	ζ Volantis	3.89	K 0	7 42 42.096	-0.7312	+ 8	-72 26 9.14	- 8.677	+ 8
296	π Geminor.	5.29	K 2	7 42 55.982	+3.8723	- 1	+33 35 29.17	- 8.734	- 31
298	[Pupp. 205 G.]	5.34	G 0	7 48 29.066	+2.7786	- 41	-13 42 30.92	- 9.480	- 343
299	[26 Lynceis]	5.69	K 0	7 49 32.962	+4.3751	- 40	+47 45 0.94	- 9.227	- 6
301	[α Puppis]	3.76	G 5	7 49 46.540	+2.0620	- 18	-40 23 30.70	- 9.237	+ 1
300	Grb 1374	5.56	K 0	7 51 43.939	+7.2172	- 30	+74 6 37.19	- 9.422	- 32
303	γ Argus	3.60	B 3	7 54 58.477	+1.5266	- 32	-52 47 28.20	- 9.616	+ 24
302	[53 Camelop.]	6.00	A 2 p	7 55 39.486	+5.1390	- 30	+60 31 13.50	- 9.713	- 21
304	[27 Monocer.]	5.06	K 0	7 56 11.434	+2.9990	- 27	- 3 29 5.09	- 9.723	+ 9
305	γ Geminor.	5.04	K 0	7 59 9.680	+3.6879	- 15	+27 59 41.12	-10.004	- 46
306	ζ Argus	2.27	O d	8 1 5.258	+2.1079	- 34	-39 48 8.47	-10.094	+ 10
307	27 Lynceis	4.87	A 2	8 3 7.553	+4.5213	- 59	+51 42 46.79	-10.262	- 4
308	τ Navis	2.88	F 5	8 4 31.189	+2.5548	- 64	-24 5 55.30	-10.316	+ 47
309	γ Argus	2.22	O a p	8 7 20.631	+1.8488	- 12	-47 7 36.16	-10.578	- 4
311	20 Navis	5.05	G 5	8 10 4.187	+2.7580	- 8	-15 34 23.98	-10.781	- 6
310	Br. 1147	5.73	G 5	8 10 40.149	+7.5825	+ 58	+75 58 34.93	-10.802	+ 17
312	β Cancri	3.76	K 2	8 12 40.003	+3.2552	- 30	+ 9 24 19.86	-11.018	- 52
313	[γ Puppis]	4.43	A 5	8 15 53.752	+2.2443	-104	-36 26 18.60	-11.112	+ 89
314	31 Lynceis	4.43	K 5	8 17 58.934	+4.1142	- 8	+43 25 2.06	-11.460	- 108
315	ε Argus	1.74	K <sub>0</sub> + B	8 21 3.559	+1.2336	- 32	-59 16 49.70	-11.558	+ 15
316	Br. 1197	3.95	A 0	8 22 6.837	+2.9990	- 41	- 3 40 25.35	-11.669	- 21
318	θ Chamael.	4.26	K 0	8 22 47.952	-1.7711	-458	-77 15 21.84	-11.666	+ 30
317	ο Ursae maj.	3.47	G 0	8 24 22.900	+5.0000	-174	+60 57 26.07	-11.919	- 111
319	[β Volantis]	3.65	K 0	8 24 58.203	+0.6581	- 54	-65 53 59.40	-12.027	- 177

Nr. 287. Rektaszension der Mitte. Deklination des folgenden, helleren Sterns. Nr. 291. Ort des Schwerpunktes. Die Reduktion auf den Ort des hellen Sterns beträgt nach den Elementen von Auwers A. N. 3929  
 1929.0 Δα = +0".050 Δδ = +0".36  
 1930.0 = +0.056 = +0.27

Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0°.0001	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0°.001
320	Grb 1450	6.05	K 0	8 28 <sup>m</sup> 18.416	+3.9054	- 83	+38 15 40.49	-12.254	-170
321	γ Cancri	5.52	K 0	8 28 36.385	+3.4724	- 26	+20 41 0.67	-12.155	- 50
322	[Grb 1446]	6.29	K 0	8 31 51.385	+6.7145	- 37	+73 52 48.36	-12.435	-104
323	[Grb 1460]	6.03	K 0	8 34 2.601	+4.4548	- 38	+52 57 42.61	-12.516	- 35
324	[ε Velorum]	4.13	A 5	8 35 8.757	+2.1082	- 22	-42 44 24.34	-12.563	- 7
325	[6 Hydrae]	5.15	K 2	8 36 39.622	+2.8420	- 64	-12 13 24.33	-12.662	- 3
326	δ Cancri	4.17	K 0	8 40 39.203	+3.4120	- 9	+18 24 58.78	-13.164	-236
327	α Pyxididis	3.70	B 2	8 40 44.307	+2.4102	- 15	-32 55 46.53	-12.922	+ 12
328	ι Cancri	<sup>6.61</sup> 4.20	A <sub>5</sub> G 5	8 42 24.331	+3.6346	- 12	+29 1 14.80	-13.092	- 47
330	δ Argus	2.01	A 0	8 42 44.603	+1.6571	+ 22	-54 26 52.53	-13.160	- 93
329	[ε Hydrae]	3.48	F 8	8 43 1.085	+3.1789	- 126	+ 6 40 49.33	-13.136	- 50
331	[η Chamael.]	5.62	B 9	8 43 46.611	-1.9964	- 151	-78 42 22.07	-13.102	+ 34
332	[γ Pyxididis]	4.19	K 2	8 47 31.097	+2.5462	- 99	-27 26 44.13	-13.287	+ 94
333	[σ <sup>2</sup> Cancri med.]	5.60	K 0	8 49 55.061	+3.6646	+ 31	+30 50 57.79	-13.562	- 26
334	ζ Hydrae	3.30	K 0	8 51 38.553	+3.1730	- 64	+ 6 13 0.36	-13.635	+ 12
336	ε Carinae	3.98	B 8	8 53 26.422	+1.3619	- 26	-60 22 21.62	-13.710	+ 52
335	ι Ursae maj.	3.12	A 5	8 54 21.378	+4.1163	- 437	+48 19 17.64	-14.067	-247
337	α Cancri	4.27	A 3	8 54 36.400	+3.2834	+ 26	+12 8 0.89	-13.871	- 35
339	10 Ursae maj.	4.09	F 5	8 56 2.352	+3.9019	- 383	+42 3 53.85	-14.190	-264
338	[ρ Ursae maj.]	4.99	M a	8 56 10.188	+5.4360	- 34	+67 54 28.58	-13.920	+ 15
341	κ Ursae maj.	3.68	A 0	8 58 47.261	+4.1045	- 27	+47 26 18.59	-14.163	- 65
340	[Grb 1501]	5.68	A 2	8 58 49.018	+4.4068	- 8	+54 33 54.21	-14.098	+ 3
343	α Volantis	4.18	A 5	9 1 19.808	+0.9510	- 8	-66 6 45.05	-14.369	-114
342	[ε Velorum]	3.69	K 0	9 1 42.188	+2.0667	- 70	-46 48 52.43	-14.306	- 28
344	σ <sup>2</sup> Ursae maj.	4.87	F 8	9 4 10.282	+5.3022	- 16	+67 25 28.01	-14.497	- 67
345	λ Argus	2.22	K 5	9 5 22.936	+2.2050	- 33	-43 8 42.84	-14.493	+ 9
346	[36 Lynceis]	5.30	B 8	9 9 10.113	+3.9315	- 18	+43 30 41.46	-14.771	- 42
347	θ Hydrae	3.84	A 0	9 10 40.322	+3.1228	+ 89	+ 2 36 52.93	-15.131	-313
348	β Argus	1.80	A 0	9 12 25.696	+0.6655	- 303	-69 25 28.45	-14.824	+ 97
349	[38 Lynceis]	3.82	A 2	9 14 25.982	+3.7394	- 18	+37 6 14.72	-15.167	-129
350	*83 Cancri	6.60	F 5	9 15 1.324	+3.3512	- 80	+18 0 26.16	-15.207	-135
351	[ι Argus]	2.25	F 0	9 15 11.339	+1.6057	- 35	-58 58 36.70	-15.080	+ 2
352	40 Lynceis	3.30	K 5	9 16 44.136	+3.6597	- 178	+34 41 37.61	-15.158	+ 12
353	κ Argus	2.63	B 3	9 19 54.804	+1.8567	- 22	-54 42 24.91	-15.348	+ 2
354	α Hydrae	2.16	K 2	9 24 5.945	+2.9488	- 7	- 8 21 0.09	-15.551	+ 32
355	h Ursae maj.	3.75	F 0	9 25 57.161	+4.7493	+ 168	+63 22 24.88	-15.656	+ 28
356	[ε Antliae]	4.64	K 2	9 26 18.791	+2.4750	- 25	-35 38 24.87	-15.718	- 14
359	ψ Argus	3.64	F 5	9 27 54.092	+2.3612	- 172	-40 9 18.55	-15.716	+ 74
358	θ Ursae maj.	3.26	F 8 p	9 28 7.215	+4.0226	- 1027	+52 0 6.92	-16.347	-545
357	d Ursae maj.	4.57	G 0	9 28 14.254	+5.3360	- 120	+70 8 37.77	-15.733	+ 75

Nr.	Name	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0°.0001	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0°.001
361	[N Velorum]	3.04	K 5	9 29 <sup>m</sup> 3.873	+1.8233	- 36	-56° 43' 14.01	-15.851	+ 1
360	10 Leon. min.	4.62	G 5	9 29 52.842	+3.6812	+ 13	+36 42 49.55	-15.922	- 26
362	[H. Carinae]	5.52	K 2	9 31 5.055	+0.4606	- 61	-72 45 57.41	-15.977	- 17
363	[Grb 1564]	5.74	K 0	9 36 12.043	+5.1649	-131	+69 33 42.92	-16.300	- 74
364	[x Hydrae]	4.96	B 3	9 36 54.147	+2.8762	- 18	-14 0 33.49	-16.273	- 11
365	[o Leonis]	3.76	F <sub>5</sub> + A <sub>3</sub>	9 37 21.823	+3.2039	- 94	+10 12 58.19	-16.323	- 37
366	δ Antliae	4.98	F 5 p	9 41 2.130	+2.6734	- 40	-27 26 37.40	-16.436	+ 35
367	ε Leonis	3.12	G 0 p	9 41 49.520	+3.4088	- 31	+24 6 7.08	-16.528	- 17
369	ν Argus	3.15 6.03	F 0	9 45 19.682	+1.5006	- 21	-64 44 32.16	-16.684	- 1
368	ν Ursae maj.	3.89	F 0	9 45 57.468	+4.2811	-379	+59 22 25.41	-16.866	-154
370	6 Sextantis	6.00	A 2	9 47 39.410	+3.0238	+ 8	- 3 54 35.68	-16.824	- 30
371	[μ Leonis]	4.10	K 0	9 48 43.797	+3.4153	-162	+26 20 31.84	-16.902	- 56
373	[Hydrae 183 G.]	5.16	M a	9 51 31.287	+2.8303	- 25	-18 40 21.54	-17.043	- 66
372	Grb 1586	5.96	K 0	9 52 4.593	+5.4018	-179	+73 13 5.72	-17.047	- 45
374	[19 Leon. min.]	5.19	F 5	9 53 20.636	+3.6812	-100	+41 23 40.42	-17.087	- 27
375	[φ Argus]	3.70	B 5	9 54 22.049	+2.1042	- 21	-54 13 45.63	-17.110	- 2
377	[η Antliae]	5.25	F 0	9 55 49.349	+2.5721	- 83	-35 33 2.04	-17.198	- 24
376	[12 Sextantis]	6.63	A 5	9 56 2.189	+3.1129	- 47	+ 3 43 29.90	-17.156	+ 27
378	π Leonis	4.89	M a	9 56 27.809	+3.1719	- 21	+ 8 23 8.06	-17.227	- 25
379	η Leonis	3.58	A 0 p	10 3 27.880	+3.2729	- 2	+17 6 34.36	-17.515	- 6
380	α Leonis	1.34	B 8	10 4 35.595	+3.1970	-167	+12 18 53.35	-17.557	- 1
381	λ Hydrae	3.83	K 0	10 7 7.612	+2.9252	-134	-12 0 8.96	-17.749	- 87
382	γ Velorum	4.09	A 2	10 11 45.074	+2.5145	-154	-41 46 10.61	-17.805	+ 45
385	[ω Argus]	3.56	B 8	10 12 3.290	+1.4321	- 29	-69 41 6.13	-17.862	0
384	ζ Leonis	3.65	F 0	10 12 44.728	+3.3399	+ 15	+23 46 18.54	-17.897	- 7
383	λ Ursae maj.	3.52	A 2	10 12 49.385	+3.6252	-148	+43 16 10.34	-17.941	- 49
386	μ Ursae maj.	3.21	K 5	10 18 6.432	+3.5808	- 70	+41 51 25.77	-18.072	+ 24
387	30 H. Urs. maj.	4.92	A 0	10 19 2.024	+4.3458	- 25	+65 55 34.61	-18.149	- 18
388	[25 Sextantis]	6.10	B 9	10 19 51.170	+3.0322	- 40	- 3 42 53.05	-18.163	- 2
389	μ Hydrae	4.06	K 5	10 22 39.366	+2.9015	- 85	-16 28 24.04	-18.345	- 82
391	J Carinae	4.08	F 5	10 22 59.323	+1.1927	- 67	-73 40 11.39	-18.292	- 17
390	31 Leon. min.	4.41	K 0	10 23 47.072	+3.4748	- 96	+37 4 17.93	-18.410	-106
392	Lac. α Antliae	4.42	K 5	10 23 54.035	+2.7435	- 62	-30 42 20.84	-18.298	+ 10
393	8 Carinae	4.08	F 0	10 25 16.082	+2.1980	- 32	-58 22 35.55	-18.370	- 14
394	36 Ursae maj.	4.84	F 5	10 26 5.781	+3.8508	-216	+56 20 43.07	-18.418	- 33
396	[ρ Leonis]	3.85	B 0 p	10 29 4.471	+3.1603	- 6	+ 9 40 20.94	-18.493	- 5
395	9 H. Dracon.	5.04	G 5	10 29 6.589	+5.1458	- 96	+76 4 46.47	-18.493	- 4
397	[ρ Carinae]	3.58	B 5 p	10 29 29.817	+2.1313	- 18	-61 19 10.88	-18.497	+ 5
398	[37 Ursae maj.]	5.16	F 0	10 30 36.154	+3.8772	+ 83	+57 26 56.17	-18.503	+ 36
399	[44 Hydrae]	5.32	K 2	10 30 38.192	+2.8531	- 2	-23 22 43.76	-18.519	+ 21

Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Verände- rung	Jährl. Eigen- bew. in o".0001	Dekl. 1929.0	Jährl. Verände- rung	Jährl. Eigen- bew. in o".001
		M							
400	*[p Velorum]	4.06	F <sub>2</sub> +A <sub>3</sub>	10 34 18.682	+2.5152	-183	-47° 51 23.72	-18.693	- 34
401	[γ Chamael.]	4.10	M a.	10 34 38.701	+0.7257	-116	-78 14 21.09	-18.640	+ 30
402	[x Velorum]	4.37	G o	10 36 28.338	+2.3792	- 75	-55 13 59.98	-18.749	- 21
404	33 Sextantis	6.40	K o	10 37 47.504	+3.0523	- 94	- 1 22 4.46	-18.894	-125
403	[3 <sup>2</sup> H. Urs. maj.]	5.23	K o	10 38 0.590	+4.3191	- 19	+69 26 53.32	-18.793	- 18
405	[41 Leon. min.]	5.05	A 2	10 39 33.577	+3.2652	- 80	+23 33 38.43	-18.810	+ 13
406	θ Argus	3.03	B o	10 40 25.191	+2.1370	- 26	-64 1 19.58	-18.844	+ 4
407	42 Leon. min.	5.37	B 9	10 41 55.340	+3.3403	- 15	+31 3 24.38	-18.930	- 37
408	μ Argus	2.84	G 5	10 43 42.580	+2.5747	+ 49	-49 2 41.22	-19.009	- 65
411	[3 <sup>2</sup> Chamael.]	4.62	B 3	10 45 8.432	+0.5875	-120	-80 9 55.88	-18.975	+ 9
409	ι Leonis	5.27	A o	10 45 31.630	+3.1549	- 3	+10 55 16.62	-19.026	- 30
410	[ν Hydrae]	3.32	K o	10 46 7.233	+2.9595	+ 66	-15 49 18.33	-18.817	+194
412	[46 Leon. min.]	3.92	K o	10 49 20.823	+3.3601	+ 76	+34 35 53.08	-19.381	-282
414	[ι Antliae]	4.70	K o	10 53 24.327	+2.7931	+ 62	-36 45 20.90	-19.341	-137
413	[Br. 1508]	6.26	G 5	10 54 19.618	+4.8473	-258	+78 9 3.93	-19.253	- 26
415	ι Velorum	4.56	A 2	10 56 53.563	+2.7495	+ 20	-41 50 41.25	-19.293	- 4
416	β Ursae maj.	2.44	A o	10 57 34.189	+3.6316	+101	+56 45 48.01	-19.279	+ 26
417	α Ursae maj.	1.95	K o	10 59 21.719	+3.7164	-174	+62 8 4.66	-19.418	- 72
418	χ Leonis	4.66	F o	11 1 21.361	+3.0957	-231	+ 7 43 12.78	-19.437	- 46
419	[χ Hydrae]	5.06	F 5	11 1 54.451	+2.8874	-154	-26 54 36.33	-19.411	- 7
420	ψ Ursae maj.	3.15	K o	11 5 40.783	+3.3797	- 57	+44 53 2.40	-19.520	- 36
421	β Crateris	4.52	A 2	11 8 9.817	+2.9491	0	-22 26 16.29	-19.631	- 98
422	δ Leonis	2.58	A 3	11 10 20.131	+3.1933	+106	+20 54 46.65	-19.712	-136
423	θ Leonis	3.41	A o	11 10 30.988	+3.1497	- 43	+15 49 4.52	-19.661	- 81
424	[Grb 1757]	5.97	K o	11 12 42.281	+3.3879	- 97	+49 51 50.12	-19.642	- 22
425	ν Ursae maj.	3.71	K o	11 14 38.949	+3.2450	- 16	+33 28 54.93	-19.631	+ 22
426	δ Crateris	3.82	K o	11 15 47.352	+2.9983	- 88	-14 23 38.80	-19.472	+200
427	σ Leonis	4.13	A o	11 17 28.583	+3.0944	- 62	+ 6 25 7.34	-19.712	- 12
428	π Centauri	4.26	B 5	11 17 45.742	+2.7304	- 41	-54 6 6.23	-19.718	- 13
429	Grb 1771	5.98	A o	11 18 39.158	+3.5795	- 10	+64 43 9.62	-19.685	+ 34
430	[ι Leonis]	4.03	F 5	11 20 13.452	+3.1280	+106	+10 55 13.61	-19.827	- 84
431	[γ Crateris]	4.14	A 5	11 21 19.965	+2.9959	- 72	-17 17 37.51	-19.753	+ 7
432	[58 Ursae maj.]	5.88	F 8	11 26 41.030	+3.2526	- 43	+43 33 47.09	-19.761	+ 72
433	λ Draconis	4.06	M a	11 27 12.618	+3.5806	- 80	+69 43 23.16	-19.861	- 21
434	ξ Hydrae	3.72	G 5	11 29 30.334	+2.9477	-167	-31 27 52.62	-19.910	- 43
435	[C <sup>2</sup> Centauri]	5.42	F o	11 32 28.640	+2.9010	+ 13	-47 14 51.76	-19.947	- 47
436	λ Centauri	3.34	B 9	11 32 29.802	+2.7581	- 58	-62 37 36.73	-19.917	- 17
437	ν Leonis	4.47	K o	11 33 18.801	+3.0718	+ 1	- 0 25 54.04	-19.873	+ 36
438	[π Chamael.]	5.74	F o	11 34 19.404	+2.4671	-280	-75 30 12.06	-19.924	- 5
439	[o Hydrae]	4.88	B 8	11 36 40.960	+2.9771	- 30	-34 21 3.67	-19.940	+ 1

Nr. 400. Doppelstern, Größe der Komponenten: 4.5 und 5.0

Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0°.0001	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0°.0001
440	3 Draconis	5.48	K 0	11 <sup>h</sup> 38 <sup>m</sup> 31.747	+3.3616	- 78	+67° 8' 16.91	-19.917	+ 40
442	[λ Muscae]	3.80	A 5	11 42 14.700	+2.8216	-153	-66 20 6.47	-19.964	+ 20
441	γ Ursae maj.	3.85	K 0	11 42 18.531	+3.1747	-133	+48 10 23.14	-19.965	+ 20
443	[Centauri 65 G.]	4.22	G 0	11 43 4.209	+2.8940	- 25	-60 47 1.32	-20.025	- 35
444	β Leonis	2.23	A 2	11 45 26.386	+3.0615	-341	+14 58 8.45	-20.122	-118
445	β Virginis	3.80	F 8	11 46 59.813	+3.1252	+494	+ 2 9 53.44	-20.288	-276
446	[B Centauri]	4.71	K 0	11 47 35.175	+2.9900	-111	-44 46 43.21	-20.061	- 46
447	γ Ursae maj.	2.54	A 0	11 50 6.291	+3.1633	+107	+54 5 22.07	-20.023	+ 2
448	[ε Chamael.]	5.05	B 9	11 50 4.383	+2.9505	-162	-77 49 35.25	-20.050	- 9
449	[Centauri 88 G.]	5.28	F 0	11 59 58.435	+3.0994	+267	-42 2 11.56	-20.167	-122
450	α Virginis	4.24	G 5	12 1 35.588	+3.0566	-147	+ 9 7 37.91	-20.006	+ 38
451	[Grb 1852]	5.96	K 0	12 1 40.009	+3.0733	+436	+77 18 9.81	-20.140	- 96
452	δ Centauri	2.88	B 3 p	12 4 40.204	+3.1013	- 44	-50 19 37.28	-20.058	- 18
453	ε Corvi	3.21	K 0	12 6 28.182	+3.0832	- 51	-22 13 29.73	-20.026	+ 11
454	4 II. Draconis	5.12	A 5	12 8 53.664	+2.8310	+ 23	+78 0 38.62	-20.006	+ 23
455	[δ Crucis]	3.08	B 3	12 11 21.832	+3.1753	- 51	-58 21 15.06	-20.046	- 27
456	δ Ursae maj.	3.44	A 2	12 11 55.273	+2.9777	+136	+57 25 37.03	-20.015	+ 3
457	[γ Corvi]	2.78	B 8	12 12 9.111	+3.0835	-112	-17 8 52.19	-20.000	+ 17
458	[2 Can. ven.]	5.80	K 5	12 12 34.423	+3.0116	+ 26	+41 3 18.66	-20.059	- 45
459	β Chamael.	4.38	B 5	12 14 8.623	+3.4793	-143	-78 55 5.06	-19.994	+ 12
460	η Virginis	4.00	A 0	12 16 16.364	+3.0691	- 42	- 0 16 20.53	-20.017	- 23
461	[6 Can. ven.]	5.22	K 0	12 22 21.327	+2.9592	- 67	+39 24 44.52	-19.985	- 36
462	α Crucis med.	1.58 2.00	B 1	12 22 38.397	+3.3239	- 44	-62 42 22.30	-19.978	- 31
463	[Hydr. 323 G.]	5.68	A 0	12 23 6.836	+3.1570	- 14	-32 26 12.61	-19.991	- 49
464	[σ Centauri]	4.16	B 3	12 24 11.471	+3.2611	- 36	-49 50 15.60	-19.965	- 33
466	20 Comae	5.72	A 2	12 26 9.373	+3.0161	+ 26	+21 17 20.53	-19.953	- 39
465	δ Corvi	3.11	A 0	12 26 11.266	+3.1024	-145	-16 7 13.22	-20.056	-142
467	[74 Ursae maj.]	5.44	A 5	12 26 38.763	+2.8073	- 96	+58 47 46.29	-19.821	+ 88
468	[γ Crucis]	1.61	M b	12 27 12.925	+3.3166	+ 26	-56 42 57.29	-20.181	-278
469	[γ Muscae]	4.04	B 5	12 28 12.286	+3.5619	- 82	-71 44 27.99	-19.914	- 22
470	8 Can. ven.	4.32	G 0	12 30 22.532	+2.8529	-624	+41 44 34.67	-19.589	+280
472	α Draconis	3.88	B 5 p	12 30 27.750	+2.5698	-117	+70 10 45.77	-19.860	+ 7
471	β Corvi	2.84	G 5	12 30 39.181	+3.1481	- 4	-23 0 15.61	-19.924	- 59
473	24 Comae seq.	5.18	K 0	12 31 34.200	+3.0107	+ 2	+18 46 3.68	-19.836	+ 18
474	α Muscae	2.94	B 3	12 32 55.863	+3.5592	- 56	-68 44 40.96	-19.870	- 32
475	[γ Virginis]	4.78	K 0	12 35 34.802	+3.0955	- 49	- 7 36 18.64	-19.840	- 37
476	γ Centauri	2.38	A 0	12 37 35.452	+3.2996	-205	-48 34 12.50	-19.795	- 20
477	[γ Virgin. med.]	3.65 3.68	F 0 F 0	12 38 3.687	+3.0394	-375	- 1 3 37.11	-19.763	+ 5
478	76 Ursae maj.	5.92	A 0	12 38 28.263	+2.6283	- 45	+63 6 9.52	-19.779	- 17
479	[Hydr. 330 G.]	5.73	K 2	12 40 13.171	+3.1940	- 26	-27 56 4.85	-19.786	- 50

Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Verände- rung	Jährl. Eigen- bew. in 0".001	Dekl. 1929.0	Jährl. Verände- rung	Jährl. Eigen- bew. in 0".001
480	[β Muscae]	3.26	B 3	12 41 <sup>m</sup> 54.425	+3.6606	- 53	-67 43 11.29	-19.741	- 31
481	β Crucis	1.50	B 1	12 43 33.512	+3.4921	- 59	-59 18 3.42	-19.710	- 27
482	η Centauri	4.34	A 5	12 49 29.764	+3.3159	+ 45	-39 47 35.60	-19.616	- 37
483	ε Ursae maj.	1.68	A o p	12 50 54.682	+2.6443	+137	+56 20 41.60	-19.563	- 11
484	δ Virginis	3.66	M a	12 52 1.570	+3.0215	-315	+ 3 46 58.29	-19.593	- 63
486	8 Draconis	5.27	F o	12 52 39.298	+2.3935	- 15	+65 49 24.06	-19.551	- 34
485	12 Can. ven. sq.	2.90	A o p	12 52 42.587	+2.8089	-199	+38 42 5.26	-19.466	+ 50
487	[δ Muscae]	3.63	K 2	12 57 21.421	+4.0962	+530	-71 9 59.03	-19.456	- 36
488	ε Virginis	2.95	K o	12 58 38.554	+2.9866	-185	+11 20 25.39	-19.374	+ 18
489	[ε Centauri]	4.40	B 3	13 2 45.291	+3.4929	- 35	-49 31 35.51	-19.327	- 30
490	θ Virginis	4.44	A o	13 6 16.301	+3.1049	- 24	- 5 9 37.52	-19.252	- 39
491	[17 Can. ven.]	6.04	F o	13 6 47.781	+2.7574	- 59	+38 52 32.70	-19.167	+ 32
492	43 Comae	4.32	G o	13 8 33.714	+2.8012	-602	+28 14 15.47	-18.276	+878
493	[η Muscae]	4.95	B 8	13 10 24.996	+4.0462	- 33	-67 31 8.30	-19.135	- 30
494	[20 Can. ven.]	4.66	F o	13 14 21.715	+2.6925	-107	+40 56 45.02	-18.990	+ 8
495	γ Hydrae	3.33	G 5	13 15 3.451	+3.2587	+ 51	-22 47 51.11	-19.033	- 53
496	ι Centauri	2.91	A 2	13 16 35.872	+3.3660	-294	-36 20 17.99	-19.027	- 92
497	ζ Urs. maj. pr.	2.40	A 2 p	13 21 4.231	+2.4188	+143	+55 17 44.61	-18.829	- 25
498	α Virginis	1.21	B 2	13 21 26.979	+3.1587	- 28	-10 47 28.53	-18.825	- 33
499	Grb 2001	6.07	K 5	13 24 19.294	+1.5275	+ 35	+72 45 35.44	-18.718	- 15
500	69 H. Urs. maj.	5.41	A o	13 25 50.921	+2.2043	-109	+60 18 43.61	-18.617	+ 37
501	ζ Virginis	3.44	A 2	13 31 4.419	+3.0559	-190	- 0 14 0.70	-18.448	+ 35
502	17 H. Can. ven.	4.96	F o	13 31 37.691	+2.6795	+ 64	+37 32 44.24	-18.477	- 13
503	[Chamael. 49 G.]	6.44	A o	13 33 4.647	+5.0834	- 49	-75 19 20.90	-18.428	- 14
504	ε Centauri	2.56	B 1	13 35 22.547	+3.7888	- 37	-53 6 22.31	-18.367	- 34
505	[Grb 2029]	5.67	K o	13 35 28.495	+1.4385	- 86	+71 36 11.91	-18.330	0
506	[ι Centauri]	4.36	F 5	13 41 38.771	+3.4037	-371	-32 41 7.38	-18.261	-156
507	τ Bootis	4.51	F 5	13 43 53.285	+2.8509	-340	+17 48 35.75	-17.992	+ 28
509	η Ursae maj.	1.91	B 3	13 44 44.736	+2.3664	-119	+49 40 1.40	-18.007	- 20
508	[μ Centauri]	3.32	B 2 p	13 45 19.810	+3.6060	- 28	-42 7 14.09	-17.984	- 19
510	89 Virginis	5.11	K o	13 46 0.597	+3.2572	- 69	-17 46 52.02	-17.976	- 38
511	[ι Draconis]	4.77	M a	13 49 21.516	+1.7524	0	+65 4 25.15	-17.808	- 2
512	ζ Centauri	3.06	B 2 p	13 51 5.946	+3.7322	- 70	-46 56 23.01	-17.796	- 61
513	η Bootis	2.80	G o	13 51 18.249	+2.8570	- 41	+18 45 10.64	-18.090	-364
514	[Cent. 294 G.]	4.68	K o	13 52 29.482	+4.3228	- 46	-63 20 21.93	-17.713	- 35
515	[47 Hydrae]	5.17	B 8	13 54 31.820	+3.3630	- 34	-24 37 35.32	-17.633	- 40
517	ι Bootis	6.12	A 3	13 57 57.377	+2.7214	- 57	+27 43 43.70	-17.440	+ 8
516	τ Virginis	4.34	A 2	13 58 1.897	+3.0524	+ 13	+ 1 53 14.40	-17.474	- 30
518	β Centauri	0.86	B 1	13 58 47.778	+4.2182	- 28	-60 1 53.51	-17.451	- 40
519	[π Hydrae]	3.48	K o	14 2 19.353	+3.4124	+ 30	-26 20 28.37	-17.409	-153

Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".0001	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
520	θ Centauri	2.26	K 0	14 2 29.761	+3.5239	- 439	-36 1 17.61	-17.779	- 530
521	α Draconis	3.64	A 0 p	14 2 27.957	+1.6239	- 83	+64 42 53.28	-17.234	+ 16
522	d Bootis	4.82	F 5	14 7 9.700	+2.7370	- 12	+25 25 38.14	-17.107	- 69
524	4 Ursae min.	5.00	K 0	14 9 5.749	-0.2614	- 113	+77 52 52.20	-16.916	+ 32
523	z Virginis	4.31	K 0	14 9 6.315	+3.1984	+ 4	- 9 56 38.55	-16.813	+ 134
525	ι Virginis	4.16	F 5	14 12 17.298	+3.1438	- 13	- 5 39 45.11	-17.228	- 431
526	α Bootis	0.24	K 0	14 12 25.338	+2.7361	- 776	+19 33 4.79	-18.791	-2001
528	[ι Bootis]	4.78	A 5	14 13 39.148	+2.1254	- 159	+51 41 38.86	-16.646	+ 86
527	λ Bootis	4.26	A 0	14 13 41.158	+2.2819	- 177	+46 24 49.13	-16.578	+ 152
529	[ν Centauri]	4.41	B 5	14 15 20.954	+4.1739	- 47	-56 3 38.43	-16.689	- 39
530	[Circini 10 G.]	5.71	A 2 p	14 19 11.299	+4.9443	- 41	-67 52 25.97	-16.496	- 36
531	θ Bootis	4.06	F 8	14 22 46.820	+2.0429	- 256	+52 10 41.85	-16.683	- 404
532	[52 Hydrae]	5.00	B 8	14 24 0.513	+3.5085	- 28	-29 10 24.65	-16.246	- 30
533	[φ Virginis]	4.97	K 0	14 24 32.528	+3.0902	- 90	- 1 54 38.01	-16.196	- 7
534	ρ Bootis	3.78	K 0	14 28 46.229	+2.5860	- 76	+30 40 56.24	-15.855	+ 113
535	γ Bootis	3.00	F 0	14 29 13.188	+2.4166	- 93	+38 37 5.01	-15.799	+ 144
536	[Grb 2125]	6.18	F 0	14 29 47.127	+1.6287	- 58	+60 32 16.81	-15.895	+ 18
537	η Centauri	2.65	B <sup>3</sup> p +A <sup>2</sup> p	14 30 59.385	+3.8019	- 36	-41 50 49.12	-15.886	- 36
538	*α Centauri	0.33 1.70	G <sup>0</sup> K <sub>5</sub>	14 34 45.754	+4.0638	-4881	-60 32 36.35	-14.935	+ 710
540	[33 Bootis]	5.39	A 0	14 36 11.704	+2.2328	- 67	+44 42 36.94	-15.592	- 26
539	[α Circini]	3.41	F 0	14 36 44.675	+4.8245	- 320	-64 40 1.97	-15.775	- 239
541	[α Lupi]	2.89	B 2	14 37 11.841	+3.9812	- 20	-47 5 4.82	-15.547	- 36
543	ζ Bootis med.	4.83 4.43	A 2	14 37 45.448	+2.8644	+ 37	+14 1 54.91	-15.507	- 27
542	α Apodis	3.81	K 5	14 38 57.087	+7.3601	- 56	-78 44 43.90	-15.448	- 35
544	[ε Centauri]	4.13	K 0	14 39 18.433	+3.6631	- 61	-34 52 8.84	-15.592	- 198
545	μ Virginis	3.95	F 5	14 39 18.943	+3.1599	+ 69	- 5 21 1.94	-15.720	- 326
546	[b Lupi]	5.20	K 0	14 42 2.577	+4.1848	- 24	-52 5 3.30	-15.332	- 92
547	109 Virginis	3.76	A 0	14 42 39.456	+3.0321	- 75	+ 2 11 27.66	-15.244	- 39
548	α Librae	2.90	A 3	14 46 56.791	+3.3160	- 77	-15 44 52.02	-15.031	- 74
549	Grb 2164	5.67	K 2	14 49 38.120	+1.5209	- 170	+59 34 54.85	-14.670	+ 129
550	β Ursae min.	2.24	K 5	14 50 53.588	-0.1921	- 78	+74 26 44.38	-14.719	+ 7
551	Pi XIV, 221	5.77	A 0	14 52 52.102	+2.8312	- 10	+14 43 55.74	-14.626	- 18
552	β Lupi	2.81	B 2 p	14 53 52.282	+3.9205	- 51	-42 50 57.43	-14.608	- 60
553	[z Centauri]	3.35	B 3	14 54 32.029	+3.8958	- 21	-41 49 13.85	-14.541	- 33
554	[2 H. Urs. min.]	4.86	M b	14 56 26.839	+0.9477	- 147	+66 12 53.94	-14.358	+ 34
555	β Bootis	3.63	G 5	14 59 16.293	+2.2600	- 36	+40 40 10.92	-14.261	- 43
556	γ Scorpil	3.41	M b	14 59 54.557	+3.5077	- 57	-25 0 14.95	-14.235	- 55
557	ψ Bootis	4.67	K 0	15 1 24.183	+2.5707	- 131	+27 13 24.71	-14.102	- 15
558	ζ Lupi	3.50	K 0	15 7 10.293	+4.2987	- 133	-51 49 49.12	-13.796	- 73
559	[ι Librae]	4.66	A 0 p	15 8 10.180	+3.4165	- 32	-19 31 27.20	-13.707	- 47

Nr. 538. Schwerpunkt des Systems. Abstand vom Schwerpunkt nach den Elementen von Lohse in den Publ. d. Astrophys. Obs. Potsdam No. 58

$$\begin{aligned} \text{heller Stern: } 1929.0 \quad \Delta\alpha &= +0^{\circ}.388 & \Delta\delta &= +1''.26 \\ 1930.0 &= +0^{\circ}.361 & &= +0''.88 \end{aligned}$$

Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0 <sup>s</sup> .0001	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0 <sup>s</sup> .001
562	[3 Serpentinis]	5.44	K 0	15 11 39.503	+2.9813	- 12	+ 5° 12 6.54	-13.441	- 7
561	[β Circini]	4.16	A 3	15 11 56.390	+4.6824	-130	-58 32 15.21	-13.565	- 149
560	γ Triang. austr.	3.06	A 0	15 12 15.299	+5.5759	-101	-68 25 8.50	-13.432	- 37
563	δ Bootis	3.54	K 0	15 12 38.423	+2.4192	+ 73	+33 34 43.58	-13.492	- 121
564	β Librae	2.74	B 8	15 13 11.007	+3.2266	- 64	- 9 7 19.55	-13.362	- 27
565	ι H. Urs. min.	5.23	G 0	15 13 48.992	+0.6831	+387	+67 36 57.78	-13.689	- 395
566	φ <sup>1</sup> Lupi	3.59	K 5	15 17 17.621	+3.8011	- 82	-36 0 18.46	-13.159	- 95
569	γ Ursae min.	3.14	A 2	15 20 49.632	-0.1067	- 32	+72 5 11.85	-12.813	+ 16
568	μ Bootis	<sup>4.47</sup> 6.66	<sup>F</sup> K 0	15 21 48.467	+2.2663	-123	+37 37 31.05	-12.682	+ 80
570	[τ <sup>1</sup> Serpentinis]	5.46	M a	15 22 29.751	+2.7819	- 11	+15 40 35.54	-12.740	- 24
571	ε Draconis	3.47	K 0	15 23 20.868	+1.3333	- 5	+59 12 51.37	-12.644	+ 14
567	[χ <sup>1</sup> Apodis]	5.65	B 5 p	15 23 44.168	+6.4981	+ 5	-73 8 43.74	-12.670	- 37
572	β Coron. bor.	3.72	F 0 p	15 24 54.095	+2.4739	-131	+29 20 58.07	-12.477	+ 76
573	ν <sup>1</sup> Bootis	5.15	K 5	15 28 22.717	+2.1550	+ 10	+41 4 27.25	-12.327	- 13
576	[θ Coron. bor.]	4.17	B 5	15 30 3.959	+2.4188	- 17	+31 35 51.69	-12.224	- 26
574	[ε Triang. austr.]	4.11	K 0	15 30 11.941	+5.4675	+ 29	-66 4 48.89	-12.270	- 82
575	γ Lupi	2.95	B 3	15 30 24.050	+3.9908	- 26	-40 55 46.34	-12.214	- 39
577	γ Librae	4.02	K 0	15 31 33.069	+3.3539	+ 43	-14 33 14.12	-12.091	+ 3
578	α Coron. bor.	2.31	A 0	15 31 40.875	+2.5400	+ 93	+26 57 9.40	-12.183	- 98
579	[3 H. Scorpii]	3.78	K 2	15 32 42.512	+3.6381	- 11	-27 54 4.62	-12.024	- 11
580	[φ Bootis]	5.41	G 5	15 35 16.598	+2.1548	+ 58	+40 35 1.32	-11.781	+ 52
581	[γ Coron. bor.]	3.93	A 0	15 39 45.654	+2.5197	- 74	+26 31 10.04	-11.480	+ 34
582	α Serpentinis	2.75	K 0	15 40 46.152	+2.9541	+ 91	+ 6 38 52.32	-11.399	+ 42
583	β Serpentinis	3.74	A 2	15 42 54.600	+2.7687	+ 51	+15 38 34.33	-11.342	- 54
584	z Serpentinis	4.28	K 5	15 45 32.588	+2.7004	- 31	+18 21 34.86	-11.195	- 98
587	[ι H. Dracon.]	5.13	A 2	15 45 34.767	+0.9111	+ 55	+62 48 6.82	-11.155	- 61
585	μ Serpentinis	3.63	A 0	15 45 54.751	+3.1295	- 59	- 3 12 51.07	-11.101	- 32
586	[χ <sup>1</sup> Lupi]	4.11	B 9	15 46 26.446	+3.8074	- 15	-33 24 43.83	-11.061	- 30
590	ζ Ursae min.	4.34	A 2	15 46 33.288	-2.1782	+ 60	+78 0 49.41	-11.023	- 1
588	ε Serpentinis	3.75	A 2	15 47 16.503	+2.9895	+ 84	+ 4 41 24.95	-10.911	+ 59
589	β Triang. austr.	3.04	F 0	15 48 52.194	+5.2704	-278	-63 12 48.30	-11.260	- 407
591	[γ Serpentinis]	3.86	F 5	15 53 10.340	+2.7705	+213	+15 53 31.68	-11.829	-1294
592	[π Scorpii]	3.00	B 2	15 54 33.099	+3.6257	- 15	-25 54 40.39	-10.469	- 37
593	ε Coron. bor.	4.22	K 0	15 54 38.821	+2.4831	- 61	+27 4 56.67	-10.493	- 68
595	[Grb 2296]	4.96	A 5	15 56 6.175	+1.4209	-187	+54 56 59.23	-10.205	+ 111
594	δ Scorpii	2.54	B 0	15 56 7.875	+3.5448	- 8	-22 25 16.05	-10.350	- 36
598	θ Draconis	4.11	F 8	16 0 33.377	+1.1225	-402	+58 45 15.98	- 9.641	+ 339
597	β Scorpii	<sup>2.90</sup> 5.06	B 1	16 1 18.284	+3.4858	- 7	-19 36 45.11	- 9.950	- 27
596	[δ Normae]	4.84	A 3 p	16 1 27.904	+4.2331	- 5	-44 58 56.57	- 9.905	+ 6
599	[θ Lupi]	4.33	B 3	16 1 55.388	+3.9339	- 29	-36 36 37.89	- 9.917	- 41



Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".0001	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
601	[φ Herculis]	4.26	B 9 p	16 <sup>h</sup> 6 <sup>m</sup> 31.906	+1.8898	- 23	+45° 7' 12.71"	-9.492	+ 31
600	[x Normae]	5.09	K 0	16 7 51.948	+4.7192	- 42	-54 26 56.31	-9.486	- 65
602	[δ Triang. austr.]	4.03	G 0	16 8 57.607	+5.4460	+ 8	-63 30 22.70	-9.362	- 26
603	δ Ophiuchi	3.03	M a	16 10 37.365	+3.1427	- 30	- 3 30 46.23	-9.357	-150
606	19 Ursae min.	5.51	B 8	16 12 49.444	-1.7320	- 4	+76 3 25.21	-9.023	+ 12
604	γ <sup>2</sup> Normae	4.14	K 0	16 14 31.046	+4.4798	-190	-49 58 59.00	-8.964	- 61
605	ε Ophiuchi	3.34	K 0	16 14 33.735	+3.1728	+ 53	- 4 31 14.93	-8.868	+ 31
607	[σ Scorpii]	3.08	B 1	16 16 52.125	+3.6437	- 11	-25 25 26.38	-8.752	- 33
608	τ Herculis	3.91	B 5	16 17 36.335	+1.8029	- 9	+46 28 53.84	-8.628	+ 32
609	γ Herculis	3.79	F 0	16 18 47.207	+2.6457	- 36	+19 19 7.44	-8.527	+ 40
612	[η Ursae min.]	5.04	F 0	16 19 33.412	-1.7732	-219	+75 55 10.83	-8.250	+256
610	[ζ Triang. austr.]	4.93	G 0	16 20 48.363	+6.4292	+366	-69 55 36.86	-8.323	+ 84
613	[ω Herculis]	4.53	A 0 p	16 22 8.280	+2.7680	+ 28	+14 11 43.59	-8.370	- 68
611	γ Apodis	3.90	K 0	16 22 30.234	+9.1487	-384	-78 44 27.90	-8.344	- 71
614	[Grb 2343]	5.66	A 2	16 22 52.067	+1.3114	+ 19	+55 21 57.44	-8.225	+ 18
615	η Draconis	2.89	G 5	16 23 1.519	+0.8096	- 28	+61 40 28.50	-8.170	+ 61
616	α Scorpii	1.22	M a + A <sub>3</sub>	16 25 3.017	+3.6761	- 7	-26 16 33.51	-8.097	- 28
618	β Herculis	2.81	K 0	16 27 10.010	+2.5786	- 69	+21 38 35.38	-7.920	- 21
617	[λ Ophiuchi]	3.85	A 0	16 27 19.841	+3.0247	- 23	+ 2 8 16.34	-7.976	- 90
619	Δ Draconis	4.98	B 8 p	16 28 6.786	-0.1243	- 51	+68 55 18.45	-7.788	+ 35
620	[τ Scorpii]	2.91	B 0	16 31 27.506	+3.7319	- 11	-28 4 13.12	-7.586	- 33
621	σ Herculis	4.25	A 0	16 31 48.812	+1.9340	- 6	+42 34 57.25	-7.485	+ 38
622	ζ Ophiuchi	2.70	B 0	16 33 14.822	+3.3022	+ 9	-10 25 28.86	-7.385	+ 22
623	[Grb 2373]	6.39	G 5	16 33 40.184	-2.6056	-321	+77 35 19.86	-7.099	+275
624	[24 Scorpii]	5.04	K 0	16 37 27.826	+3.4679	- 18	-17 36 22.20	-7.066	- 3
626	η Herculis	3.61	K 0	16 40 27.680	+2.0567	+ 35	+39 3 23.11	-6.902	- 84
625	α Triang. austr.	1.88	K 2	16 41 7.724	+6.3361	+ 32	-68 53 59.85	-6.812	- 49
627	Grb 2377	4.88	F 0	16 43 56.898	+1.1371	+ 28	+56 54 29.30	-6.472	+ 58
628	ε Scorpii	2.36	K 0	16 45 33.595	+3.8824	-501	-34 9 57.19	-6.652	-255
629	49 Herculis	6.41	A 0 p	16 48 50.849	+2.7310	+ 12	+15 5 31.43	-6.130	- 6
630	ζ <sup>2</sup> Scorpii	3.75	K 5	16 49 34.844	+4.2161	-134	-42 14 29.16	-6.300	-238
631	ζ Arae	3.06	K 5	16 52 44.213	+4.9578	- 30	-55 52 48.15	-5.846	- 48
632	[ε <sup>1</sup> Arae]	4.15	K 2	16 53 54.998	+4.7744	- 19	-53 3 12.39	-5.708	- 8
633	x Ophiuchi	3.42	K 0	16 54 18.383	+2.8389	-198	+ 9 29 2.86	-5.680	- 13
634	ε Herculis	3.92	A 0	16 57 34.349	+2.2952	- 35	+31 1 47.66	-5.369	+ 24
635	[60 Herculis]	4.91	A 3	17 2 5.083	+2.7814	+ 34	+12 50 13.38	-5.026	- 15
636	[Grb 2415]	6.27	A 2	17 5 27.726	+1.9566	- 29	+40 36 28.87	-4.753	- 28
637	η Ophiuchi	2.63	A 2	17 6 18.240	+3.4390	+ 23	-15 38 18.62	-4.563	+ 90
638	[η Scorpii]	3.44	F 2	17 7 3.832	+4.2939	+ 17	-43 8 50.64	-4.887	-298
639	ζ Draconis	3.22	B 5	17 8 34.644	+0.1709	- 29	+65 48 7.15	-4.438	+ 22

Nr.	Name	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0°.0001	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0°.001
640	$\alpha$ Herculis	M 3.48 5.39	M b	17 <sup>h</sup> 11 <sup>m</sup> 24.543	+2.7350	— 8	+14 28 11.90	—4.189	+ 29
641	$\delta$ Herculis	3.16	A 2	17 12 6.877	+2.4640	— 15	+24 55 18.56	—4.316	—159
643	$\pi$ Herculis	3.36	K 5	17 12 34.411	+2.0893	— 21	+36 53 17.57	—4.117	+ 1
642	[ $\iota$ Apodis]	5.60	B 8	17 14 9.951	+6.6798	— 14	—70 3 4.63	—4.008	— 27
644	$\vartheta$ Ophiuchi	3.37	B 3	17 17 38.800	+3.6828	— 7	—24 55 48.86	—3.708	— 25
645	$\beta$ Arae	2.80	K 2	17 19 23.568	+4.9829	— 14	—55 27 53.74	—3.575	— 42
646	[ $\iota$ Ophiuchi]	4.37	F 5	17 22 49.067	+3.8289	+ 6	—29 48 15.84	—3.383	—145
647	[27 H. Ophiuchi]	4.61	F 0	17 22 51.792	+3.1830	— 58	— 5 1 31.05	—3.285	— 51
648	$\delta$ Arae	3.79	B 8	17 24 41.080	+5.4119	— 70	—60 37 36.31	—3.178	—101
650	[ $\alpha$ Herculis]	5.81	A 2	17 24 51.283	+1.5899	+ 2	+48 19 7.37	—3.080	— 19
649	[ $\nu$ Scorpii]	2.80	B 3	17 25 55.913	+4.0751	— 24	—37 14 27.35	—3.008	— 39
651	$\alpha$ Arae	2.97	B 3 p	17 26 20.963	+4.6345	— 38	—49 49 19.10	—3.026	— 94
652	$\lambda$ Scorpii	1.71	B 2	17 28 47.042	+4.0711	— 14	—37 3 13.33	—2.754	— 32
653	$\beta$ Draconis	2.99	G 0	17 28 49.656	+1.3551	— 15	+52 21 11.77	—2.708	+ 10
655	[ $\nu^1$ Draconis]	4.98	A 5	17 30 46.637	+1.1811	+176	+55 13 55.76	—2.498	+ 51
657	[ $\nu^2$ Draconis]	4.95	A 5	17 30 52.063	+1.1824	+181	+55 13 14.58	—2.489	+ 52
656	$\alpha$ Ophiuchi	2.14	A 5	17 31 38.259	+2.7842	+ 80	+12 36 37.40	—2.708	—233
654	$\vartheta$ Scorpii	2.04	F 0	17 32 12.812	+4.3079	0	—42 57 16.50	—2.442	— 18
659	[ $\nu^3$ Draconis]	5.21	K 0	17 32 14.673	—0.2436	— 33	+68 10 49.28	—2.288	+134
658	$\xi$ Serpentis	3.64	A 5	17 33 31.168	+3.4339	— 34	—15 21 19.42	—2.375	— 65
664	$\omega$ Draconis	4.87	F 5	17 37 21.860	—0.3529	+ 11	+68 47 27.37	—1.653	+323
663	$\iota$ Herculis	3.79	B 3	17 37 27.591	+1.6932	— 5	+46 2 35.50	—1.972	— 4
660	[ $\alpha$ Scorpii]	2.51	B 2	17 37 34.398	+4.1481	— 15	—38 59 42.25	—1.985	— 26
662	[ $\mu$ Arae]	5.26	G 5	17 38 30.236	+4.7606	— 29	—51 47 53.82	—2.085	—208
661	$\eta$ Pavonis	3.58	K 0	17 38 45.557	+5.8845	— 22	—64 41 31.70	—1.911	— 56
665	$\beta$ Ophiuchi	2.94	K 0	17 39 57.854	+2.9631	— 27	+ 4 35 43.96	—1.597	+153
666	[ $\nu^1$ Scorpii]	3.14	F 5 p	17 42 36.965	+4.1939	— 10	—40 6 4.09	—1.522	— 3
670	$\psi$ Draconis	4.90 6.07	F 5	17 43 11.800	—1.0710	+ 31	+72 11 2.98	—1.735	—267
667	$\mu$ Herculis	3.48	G 5	17 43 40.710	+2.3472	—241	+27 45 39.98	—2.177	—751
668	[ $\gamma$ Ophiuchi]	3.74	A 0	17 44 19.910	+3.0077	— 16	+ 2 43 57.37	—1.446	— 77
669	[ $\zeta$ Scorpii]	3.25	K 2	17 45 1.423	+4.0827	+ 41	—37 1 20.63	—1.283	+ 26
671	$\xi$ Draconis	3.90	K 0	17 52 18.049	+1.0375	+120	+56 52 59.81	—0.597	+ 77
675	$\zeta$ Draconis	5.04	F 5	17 52 37.477	—2.6888	+113	+76 58 24.08	—0.404	+241
672	$\vartheta$ Herculis	3.99	K 0	17 53 49.052	+2.0572	+ 4	+37 15 32.27	—0.536	+ 5
676	$\gamma$ Draconis	2.42	K 5	17 54 57.412	+1.3927	— 9	+51 29 47.61	—0.463	— 22
674	[ $\xi$ Herculis]	3.82	K 0	17 55 0.324	+2.3312	+ 66	+29 15 15.65	—0.462	— 25
673	$\nu$ Ophiuchi	3.50	K 0	17 55 7.016	+3.3021	— 7	— 9 45 58.74	—0.545	—118
677	$\beta$ Ophiuchi	3.92	B 5 p	17 57 5.312	+3.0044	0	+ 2 56 0.98	—0.268	— 13
679	$\gamma$ Sagittarii	3.07	K 0	18 1 14.748	+3.8530	— 47	—30 25 35.99	—0.085	—194
678	[Apodis 66 G.]	5.69	K 5	18 1 19.421	+8.3869	— 44	—75 53 46.43	—0.154	—270

# Mittlere Sternörter 1929.0

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Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Verände- rung	Jährl. Eigen- bew. in o".001	Dekl. 1929.0	Jährl. Verände- rung	Jährl. Eigen- bew. in o".001
680	72 Ophiuchi	3.73	A 3	18 <sup>h</sup> 3 <sup>m</sup> 58.982	+2.8439	- 42	+ 9 33 8.81	+0.427	+ 78
681	o Herculis	3.83	A o	18 4 46.349	+2.3401	+ 2	+28 45 5.56	+0.417	o
682	μ Sagittarii	4.01	B 8 p	18 9 31.001	+3.5872	- 3	-21 4 44.48	+0.829	- 3
683	[η Sagittarii]	3.16	M b	18 12 49.315	+4.0587	- 117	-36 47 4.73	+0.958	-163
684	[Grb 2533]	5.42	B 5	18 13 26.227	+1.8655	- 6	+42 8 3.00	+1.168	- 7
685	[36 Draconis]	5.03	F 5	18 13 29.277	+0.3453	+ 533	+64 22 22.86	+1.209	+ 30
687	[δ Sagittarii]	2.84	K o	18 16 26.909	+3.8408	+ 27	-29 51 35.68	+1.405	- 32
686	[ξ Pavonis]	4.25	K 2	18 16 40.976	+5.5278	- 26	-61 31 41.18	+1.475	+ 17
688	η Serpentis	3.42	K o	18 17 38.124	+3.1036	- 372	- 2 55 7.17	+0.842	-699
689	ε Sagittarii	1.95	A o	18 19 27.554	+3.9822	- 30	-34 25 11.33	+1.573	-127
690	109 Herculis	3.92	K o	18 20 40.319	+2.5563	+ 140	+21 44 10.05	+1.549	-257
691	α Telescopii	3.76	B 3	18 21 42.544	+4.4487	- 21	-46 o 33.32	+1.848	- 48
693	[φ Draconis]	4.24	A o p	18 21 46.648	-0.8590	- 17	+71 18 1.22	+1.935	+ 33
695	χ Draconis	3.69	F 8	18 22 20.306	-1.0808	+1170	+72 42 8.85	+1.588	-363
694	b Draconis	4.85	A 2	18 22 52.440	+0.8764	- 45	+58 45 32.75	+2.056	+ 58
692	[λ Sagittarii]	2.94	K o	18 23 35.317	+3.7021	- 37	-25 27 45.10	+1.872	-188
696	[2 H. Scuti]	4.73	A 3	18 25 9.030	+3.4189	- 3	-14 36 44.86	+2.198	+ 2
697	[θ Coron. austr.]	4.69	G 5	18 28 25.954	+4.2837	+ 15	-42 21 55.48	+2.457	- 24
700	[Grb 2655]	5.84	K o	18 33 11.338	-2.8891	- 10	+77 29 34.28	+2.890	- 3
699	α Lyrae	0.14	A o	18 34 32.058	+2.0314	+ 176	+38 42 59.78	+3.290	+281
698	ζ Pavonis	4.10	K o	18 34 44.823	+7.0166	- 24	-71 29 31.09	+2.850	-178
701	[Grb 2640]	6.00	A 3	18 35 59.948	+0.1886	+ 18	+65 25 30.15	+3.220	+ 84
702	[5 H. Scuti]	5.09	G 5	18 39 39.254	+3.2673	+ 13	- 8 20 48.24	+3.460	+ 9
703	110 Herculis	4.26	F 5	18 42 36.333	+2.5813	- 12	+20 28 37.72	+3.365	-340
704	λ Pavonis	4.42	B 2	18 45 38.553	+5.5622	- 25	-62 16 16.41	+3.938	- 28
705	*3 Lyrae	var.	B <sup>8</sup> p +B <sup>2</sup> p	18 47 27.500	+2.2149	+ 3	+33 16 45.44	+4.119	- 2
707	o Draconis	4.78	K o	18 50 9.301	+0.8864	+ 105	+59 18 4.06	+4.376	+ 25
706	σ Sagittarii	2.14	B 3	18 50 51.798	+3.7200	+ 4	-26 23 11.64	+4.349	- 63
709	θ Serpent. pr.	4.50	A 5	18 52 41.389	+2.9823	+ 29	+ 4 6 35.39	+4.596	+ 28
708	λ Telescopii	5.03	B 9	18 52 47.140	+4.8018	+ 3	-53 1 59.44	+4.590	+ 14
711	*R Lyrae	var.	M b	18 53 10.501	+1.8263	+ 28	+43 51 5.95	+4.685	+ 76
710	[ξ Sagittarii]	3.61	K o	18 53 29.685	+3.5789	+ 18	-21 12 5.50	+4.620	- 16
714	[ν Draconis]	4.91	K o	18 55 16.432	-0.7291	+ 103	+71 12 9.25	+4.828	+ 40
713	γ Lyrae	3.30	A o p	18 56 17.228	+2.2438	- 4	+32 35 28.06	+4.872	- 2
712	[ε Aquilae]	4.21	K o	18 56 23.961	+2.7221	- 42	+14 58 14.13	+4.803	- 80
715	[ζ Sagittarii]	2.71	A 2	18 58 5.706	+3.8172	- 21	-29 58 59.30	+5.029	+ 2
716	ζ Aquilae	3.02	A o	19 2 8.784	+2.7570	- 7	+13 45 23.90	+5.268	-101
717	λ Aquilae	3.55	B 9	19 2 28.872	+3.1837	- 16	- 4 59 25.26	+5.311	- 87
718	α Coron. austr.	4.12	A 2	19 4 38.589	+4.0822	+ 59	-38 1 0.55	+5.470	-109
719	[ι Lyrae]	5.13	B 5	19 4 46.074	+2.1407	- 3	+35 59 16.37	+5.586	- 3

Nr. 705. Größe: Max. 3.4, Min. 4.1 Nr. 711. Größe: Max. 4.0, Min. 4.7, Größe in Harvard 50 = 4.32

Nr.	Name	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".0001	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
720	$\pi$ Sagittarii	3.02	F 2	19 5 <sup>m</sup> 32.531	+3.5680	— 5	—21 8 16.73	+ 5.619	— 35
721	[Pavonis 60 G.]	5.57	A 2	19 10 4.357	+6.0434	— 7	—66 47 9.45	+ 6.013	— 21
723	$\delta$ Draconis	3.24	K 0	19 12 32.615	+0.0182	+ 167	+67 32 11.71	+ 6.327	+ 88
722	[ $d$ Sagittarii]	5.03	K 0	19 13 28.909	+3.5103	— 12	—19 4 50.34	+ 6.308	— 9
724	$\theta$ Lyrae	4.46	K 0	19 13 54.183	+2.0817	— 7	+38 0 22.69	+ 6.351	— 1
725	$\omega$ Aquilae	5.14	A 5	19 14 29.020	+2.8157	— 3	+11 27 58.11	+ 6.413	+ 13
726	$\alpha$ Cygni	3.98	K 0	19 15 27.766	+1.3872	+ 69	+53 14 12.40	+ 6.601	+ 119
729	$\tau$ Draconis	4.63	K 0	19 16 55.731	—1.1451	— 326	+73 13 27.04	+ 6.712	+ 109
727	[ $\nu$ Sagittarii]	4.58	$\begin{matrix} B 8 \\ +F 2 \\ +P \end{matrix}$	19 17 39.731	+3.4364	0	—16 5 22.64	+ 6.661	— 2
728	$\alpha$ Sagittarii	4.11	B 8	19 18 58.167	+4.1585	+ 18	—40 45 3.95	+ 6.653	— 118
730	$\delta$ Aquilae	3.44	F 0	19 21 55.118	+3.0246	+ 167	+ 2 58 18.92	+ 7.094	+ 81
731	[Sagittar. 186 G.]	5.68	B 9	19 22 27.366	+3.7924	+ 7	—29 53 6.41	+ 7.010	— 47
734	[Grb 2900]	6.00	A 2	19 26 1.421	—3.6008	+ 96	+79 27 43.04	+ 7.313	— 35
732	* $\beta$ Cygni	3.24	$\begin{matrix} K 0 \\ +A 0 \end{matrix}$	19 27 51.452	+2.4190	— 2	+27 48 34.07	+ 7.490	— 8
733	$\epsilon$ Cygni	3.94	A 2	19 27 54.986	+1.5129	+ 22	+51 34 39.97	+ 7.627	+ 125
735	[ $t$ Telescopii]	5.02	K 0	19 29 57.111	+4.4523	— 41	—48 15 14.04	+ 7.627	— 40
736	$h$ Sagittarii	4.66	B 9	19 32 23.300	+3.6517	+ 46	—25 2 30.36	+ 7.841	— 22
737	[ $\alpha$ Aquilae]	5.04	B 0	19 33 4.368	+3.2280	+ 3	— 7 11 11.76	+ 7.919	0
738	$\theta$ Cygni	4.64	F 5	19 34 32.234	+1.6081	— 29	+50 3 21.01	+ 8.283	+ 247
740	[15 Cygni]	5.02	K 0	19 41 42.934	+2.1633	+ 59	+37 10 55.00	+ 8.642	+ 36
739	[ $\nu$ Telescopii]	5.52	A 5	19 42 13.741	+4.9053	+ 86	—56 32 5.89	+ 8.511	— 137
742	$\delta$ Cygni	2.97	A 0	19 42 45.372	+1.8756	+ 51	+44 57 23.65	+ 8.729	+ 40
741	$\gamma$ Aquilae	2.80	K 2	19 42 53.046	+2.8519	+ 9	+10 26 20.73	+ 8.699	0
743	$\delta$ Sagittae	3.78	$\begin{matrix} M a \\ +A 0 \end{matrix}$	19 44 13.303	+2.6749	+ 4	+18 21 28.89	+ 8.817	+ 13
744	[51 Aquilae]	5.55	F 0	19 46 52.490	+3.3016	— 21	—10 56 41.42	+ 9.054	+ 41
745	$\alpha$ Aquilae	0.89	A 5	19 47 19.140	+2.9268	+ 360	+ 8 40 46.65	+ 9.430	+ 383
747	$\epsilon$ Draconis	3.99	K 0	19 48 25.353	—0.1952	+ 156	+70 5 13.43	+ 9.163	+ 30
746	*[ $\eta$ Aquilae]	var.	G 0 p	19 48 51.404	+3.0564	+ 6	+ 0 49 19.78	+ 9.158	— 9
749	$\beta$ Aquilae	3.90	K 0	19 51 49.534	+2.9466	+ 25	+ 6 13 41.72	+ 8.917	— 480
748	$\epsilon$ Pavonis	4.10	A 0	19 52 24.545	+6.9674	+ 147	—73 6 1.07	+ 9.310	— 132
750	$\psi$ Cygni	4.80	A 3	19 53 47.678	+1.5512	— 43	+52 14 59.21	+ 9.518	— 31
751	$\theta^1$ Sagittarii	4.39	B 3	19 55 7.057	+3.9062	— 12	—35 28 11.29	+ 9.615	— 36
752	$\gamma$ Sagittae	3.71	K 5	19 55 35.947	+2.6675	+ 43	+19 17 53.61	+ 9.711	+ 24
753	[ $e$ Sagittarii]	4.60	M b	19 58 17.697	+3.6906	+ 21	—27 54 30.97	+ 9.910	+ 18
754	$\delta$ Pavonis	3.64	G 5	20 1 46.645	+5.9017	+1963	—66 21 55.00	+ 8.996	—1161
755	[5 Telescopii]	4.86	M a	20 1 57.113	+4.6014	— 44	—53 5 8.75	+10.168	— 2
756	$\theta$ Aquilae	3.37	A 0	20 7 38.525	+3.0955	+ 22	— 1 1 59.74	+10.601	+ 6
759	$\alpha$ Cephei	4.40	B 9	20 11 18.696	—1.9903	+ 12	+77 29 54.15	+10.893	+ 27
757	$\omega^1$ Cygni sq.	3.95	$\begin{matrix} K 0 \\ +B 8 \end{matrix}$	20 11 23.751	+1.8892	+ 4	+46 31 30.70	+10.874	+ 1
758	[33 Cygni]	4.32	A 3	20 11 44.905	+1.3954	+ 74	+56 20 59.98	+10.984	+ 85

Nr. 732. Größe und Spektrum beziehen sich auf die hellere Komponente. Die entsprechenden Werte für die schwächere Komponente sind 5.36 und B<sub>9</sub>. Nr. 746. Größe: Max. 3.7, Min. 4.5

Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in o".000r	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in o".00r
760	24 Vulpeculae	5.45	K 0	20 13 44.786	+2.5670	+ 12	+24 27 4.89	+11.025	- 19
761	$\alpha^2$ Capricorni	3.77	G 5	20 14 7.012	+3.3293	+ 40	-12 45 57.78	+11.083	+ 11
762	[ $\beta$ Capricorni]	3.25	G 0 + A 0	20 17 1.425	+3.3712	+ 23	-15 0 24.46	+11.289	+ 6
763	[ $\alpha^1$ Sagittarii]	5.64	A 0	20 17 38.633	+4.0789	+ 37	-42 16 29.33	+11.231	- 96
765	$\gamma$ Cygni	2.32	F 8 p	20 19 40.773	+2.1529	+ 4	+40 1 42.93	+11.474	0
764	$\alpha$ Pavonis	2.12	B 3	20 20 2.530	+4.7570	+ 11	-56 57 50.69	+11.415	- 85
766	[ $\rho$ Capricorni]	4.96	F 0	20 24 48.773	+3.4229	- 14	-18 2 58.33	+11.823	- 16
767	$\theta$ Cephei	4.28	A 5	20 28 23.609	+1.0092	+ 63	+62 45 18.16	+12.077	- 14
768	$\epsilon$ Delphini	3.98	B 5	20 29 49.257	+2.8660	+ 5	+11 3 39.06	+12.165	- 25
770	73 Draconis	5.18	A 2 p	20 32 27.916	-0.7717	+ 16	+74 42 41.72	+12.361	- 12
769	$\alpha$ Jndi	3.21	K 0	20 32 34.761	+4.2247	+ 33	-47 32 25.79	+12.440	+ 60
771	$\beta$ Delphini	3.72	F 5	20 34 13.169	+2.8130	+ 74	+14 20 49.56	+12.456	- 36
772	[ $\alpha$ Delphini]	5.23	G 5	20 35 40.858	+2.9138	+ 212	+ 9 50 6.23	+12.611	+ 18
773	$\nu$ Capricorni	5.33	M a	20 36 0.622	+3.4164	- 17	-18 23 23.28	+12.599	- 16
774	$\alpha$ Delphini	3.86	B 8	20 36 20.413	+2.7865	+ 45	+15 39 37.84	+12.631	- 6
775	$\beta$ Pavonis	3.60	A 5	20 38 34.931	+5.4277	- 71	-66 27 36.39	+12.791	+ 1
776	[ $\eta$ Jndi]	4.70	F 0	20 38 50.028	+4.4127	+ 157	-52 10 34.15	+12.733	- 73
777	$\alpha$ Cygni	1.33	A 2 p	20 39 0.655	+2.0450	+ 4	+45 1 33.00	+12.817	- 1
778	[ $\delta$ Delphini]	4.53	A 5	20 40 8.650	+2.8008	- 14	+14 49 7.69	+12.846	- 48
779	[ $\psi$ Capricorni]	4.26	F 8	20 41 53.697	+3.5539	- 44	-25 31 38.22	+12.854	- 157
780	$\epsilon$ Cygni	2.64	K 0	20 43 20.273	+2.4275	+ 290	+33 42 12.44	+13.434	+ 328
782	[6 II. Cephei]	4.63	G 0	20 43 35.422	+1.4894	- 87	+57 19 27.78	+12.889	- 234
781	$\epsilon$ Aquarii	3.83	A 0	20 43 50.035	+3.2481	+ 17	- 9 45 24.14	+13.111	- 28
783	$\eta$ Cephei	3.59	K 0	20 43 50.909	+1.2226	+ 131	+61 33 45.18	+13.959	+ 819
784	$\lambda$ Cygni	4.47	B 5	20 44 38.524	+2.3363	+ 5	+36 13 44.63	+13.192	0
785	$\beta$ Jndi	3.72	K 0	20 49 16.356	+4.6994	0	-58 43 24.29	+13.467	- 27
786	32 Vulpeculae	5.24	K 5	20 51 32.002	+2.5566	- 4	+27 47 12.23	+13.642	+ 1
788	$\nu$ Cygni	4.04	A 0	20 54 31.517	+2.2361	+ 9	+40 53 34.70	+13.813	- 17
787	[ $\alpha$ Octantis]	5.24	F 2	20 56 10.594	+7.3325	- 13	-77 17 47.25	+13.580	- 355
789	[I Aquarii]	6.26	G 0	20 56 49.569	+3.1591	+ 23	- 5 0 19.92	+13.843	- 133
790	$\zeta$ Microscopii	5.35	F 0	20 58 26.034	+3.8372	- 36	-38 54 36.00	+13.955	- 122
792	[ $\xi$ Cygni]	3.92	K 5	21 2 20.862	+2.1821	+ 12	+43 38 37.61	+14.315	- 3
791	[A Capricorni]	4.60	M a	21 2 58.666	+3.5105	- 30	-25 17 26.89	+14.310	- 47
793	61 Cygni pr.	5.57	K 5	21 3 42.755	+2.6867	+3505	+38 23 57.94	+17.657	+3256
794	$\nu$ Aquarii	4.52	K 0	21 5 43.724	+3.2692	+ 62	-11 39 36.48	+14.514	- 9
795	Br 2777	5.90	B 9	21 6 57.116	-1.1695	+ 74	+77 50 19.90	+14.633	+ 36
797	$\zeta$ Cygni	3.40	K 0	21 9 54.803	+2.5527	- 1	+29 56 5.47	+14.715	- 59
798	[Grb 3415]	5.65	B 2	21 9 59.827	+1.5277	- 6	+59 41 38.68	+14.776	- 2
796	[Jndi 23 G.]	5.84	A 5	21 10 41.999	+4.2896	- 19	-53 33 30.60	+14.774	- 46
799	[ $\tau$ Cygni]	3.82	F 0	21 11 57.346	+2.3943	+ 137	+37 44 29.81	+15.329	+ 435

Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".0001	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
800	$\alpha$ Equulei	4.14	M F 8 +A 3	21 12 16.513	+2.9992	+ 38	+ 4 57 12.07	+14.825	- 87
801	[4 Pisc. austr.]	4.79	A 0	21 13 38.220	+3.6408	+ 35	-32 28 13.04	+14.965	- 26
802	[ $\theta^1$ Microscop.]	4.92	A 2 p	21 16 13.599	+3.8441	+ 70	-41 6 37.88	+15.155	+ 14
803	$\alpha$ Cephei	2.60	A 5	21 16 53.165	+1.4328	+ 212	+62 17 3.47	+15.228	+ 49
804	$\iota$ Pegasi	4.24	K 0	21 18 48.140	+2.7742	+ 74	+19 29 59.40	+15.348	+ 61
805	$\gamma$ Pavonis	4.30	F 8	21 20 35.663	+4.9813	+ 129	-65 41 20.02	+16.176	+ 788
806	$\zeta$ Capricorni	3.86	G 5 p	21 22 37.014	+3.4275	- 1	-22 43 11.56	+15.524	+ 23
807	[ $\gamma$ Cygni]	5.34	K 0	21 26 49.683	+2.2134	+ 48	+16 13 36.54	+15.835	+ 103
809	$\beta$ Cephei	3.32	B 1	21 27 45.090	+0.7804	+ 20	+70 14 55.66	+15.789	+ 7
808	$\beta$ Aquarii	3.07	G 0	21 27 49.350	+3.1589	+ 11	- 5 53 3.80	+15.781	- 5
810	$\nu$ Octantis	3.74	K 0	21 33 38.815	+6.7415	+ 133	-77 42 25.28	+15.838	- 256
811	74 Cygni	5.09	A 5	21 34 6.084	+2.4038	- 3	+40 5 37.91	+16.130	+ 12
812	[ $\gamma$ Capricorni]	3.80	F 0 p	21 36 9.599	+3.3256	+ 131	-16 59 1.74	+16.208	- 16
813	[13 H. Cephei]	5.64	Oe 5	21 36 45.442	+1.8619	+ 7	+57 10 2.95	+16.257	+ 2
815	$\epsilon$ Pegasi	2.54	K 0	21 40 41.919	+2.9464	+ 18	+ 9 32 55.15	+16.454	0
814	[ $\iota$ Pisc.austr.]	4.35	A 0	21 40 43.321	+3.5768	+ 18	-33 21 2.07	+16.366	- 89
817	[ $\iota$ Cephei]	4.85	K 0	21 40 53.283	+0.8846	+ 234	+70 59 3.31	+16.562	+ 98
816	[ $\alpha$ Pegasi]	4.27	F 5	21 41 25.722	+2.7160	+ 25	+25 19 4.55	+16.500	+ 10
818	[ $\eta$ Capricorni]	5.43	A 0	21 42 42.926	+3.2308	+ 20	-11 41 38.98	+16.551	- 4
819	$\delta$ Capricorni	2.98	A 5	21 43 7.462	+3.3126	+ 178	-16 27 1.13	+16.281	- 294
821	$\pi^2$ Cygni	4.26	B 3	21 44 10.109	+2.2156	+ 8	+48 58 49.35	+16.622	- 4
820	[ $\sigma$ Jndi]	5.50	K 2	21 44 48.450	+5.1022	- 87	-69 57 40.15	+16.636	- 21
822	$\gamma$ Gruis	3.16	B 8	21 49 38.086	+3.6368	+ 77	-37 41 58.80	+16.870	- 18
823	$\iota$ Pegasi	5.05	B 3	21 49 49.817	+2.7290	+ 4	+25 35 25.44	+16.899	+ 1
824	[ $\delta$ Jndi]	4.56	F 0	21 53 5.816	+4.0932	+ 43	-55 19 52.83	+17.020	- 29
826	[ $\alpha$ Pegasi]	5.66	F 2	21 57 37.771	+2.9222	+ 36	+12 46 44.65	+17.200	- 54
825	[ $\epsilon$ Jndi]	4.74	K 5	21 57 56.549	+4.6018	+4810	-57 4 43.96	+14.691	-2577
827	$\alpha$ Aquarii	3.19	G 0	22 2 8.270	+3.0815	+ 10	- 0 39 55.73	+17.445	- 7
828	$\iota$ Aquarii	4.35	B 8	22 2 36.285	+3.2411	+ 24	-14 12 53.34	+17.420	- 51
830	$\alpha$ Cephei	5.39	K 5	22 2 50.951	+1.8225	+ 22	+62 26 19.80	+17.543	+ 60
831	[ $\iota$ Pegasi]	3.96	F 5	22 3 42.248	+2.7920	+ 219	+24 59 51.48	+17.541	+ 22
829	$\alpha$ Gruis	2.16	B 5	22 3 45.994	+3.7883	+ 119	-47 18 21.21	+17.350	- 171
832	[ $\mu$ Pisc. austr.]	4.62	A 2	22 4 14.661	+3.5023	+ 41	-33 20 8.89	+17.501	- 41
833	[27 Pegasi]	5.65	K 0	22 6 4.775	+2.6576	- 42	+32 49 29.59	+17.554	- 65
834	$\theta$ Pegasi	3.70	A 2	22 6 37.104	+3.0263	+ 184	+ 5 50 52.36	+17.672	+ 31
835	$\pi$ Pegasi	4.38	F 5	22 6 49.922	+2.6633	- 9	+32 49 45.21	+17.631	- 19
836	$\zeta$ Cephei	3.62	K 0	22 8 23.282	+2.0793	+ 14	+57 51 2.81	+17.720	+ 6
837	$\alpha$ Cephei	4.99	G 5	22 8 26.781	+1.1556	+ 54	+71 59 28.42	+17.724	+ 8
838	[ $\lambda$ Pisc.austr.]	5.40	B 9	22 10 17.553	+3.4034	+ 16	-28 7 10.46	+17.790	- 1
839	[ $\epsilon$ Octantis]	5.11	M b	22 12 9.626	+6.8248	+ 137	-80 47 39.74	+17.826	- 40

Nr.	Name	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
840	θ Aquarii	4.32	K 0	22 13 <sup>h</sup> 5 <sup>m</sup> 3.15	+3.1665	+ 76	- 8° 8' 14.89	+17.884	- 19
841	α Tucanae	2.91	K 2	22 13 39.182	+4.1251	- 98	-60 36 51.72	+17.876	- 49
842	γ Aquarii	3.97	A 0	22 17 59.378	+3.0987	+ 83	- 1 44 44.84	+18.098	+ 7
843	[31 Pegasi]	4.93	B 3 p	22 18 1.331	+2.9521	- 1	+11 50 48.69	+18.101	+ 9
844	3 Lacertae	4.58	K 0	22 20 45.867	+2.3570	- 15	+51 52 22.01	+18.004	-191
845	[ν Gruis]	5.48	K 0	22 24 29.840	+3.5210	+ 24	-39 29 30.02	+18.167	-162
846	[β <sup>1</sup> Gruis]	4.02	G 5	22 25 1.952	+3.5916	+ 17	-43 51 32.41	+18.340	- 8
847	*[δ Cephei]	var.	verän.	22 26 31.851	+2.2247	+ 17	+58 3 4.81	+18.402	+ 2
848	7 Lacertae	3.85	A 0	22 28 21.767	+2.4695	+ 147	+49 55 1.11	+18.480	+ 17
849	[ν Aquarii]	5.29	F 5	22 30 48.793	+3.2837	+ 155	-21 4 20.98	+18.402	-144
850	η Aquarii	4.13	B 8	22 31 42.508	+3.0830	+ 59	- 0 29 2.51	+18.520	- 55
851	[31 Cephei]	5.22	F 0	22 34 0.885	+1.4817	+ 383	+73 16 27.58	+18.673	+ 23
852	10 Lacertae	4.91	Oe 5	22 36 4.341	+2.6902	+ 4	+38 40 48.91	+18.709	- 6
853	[30 Cephei]	5.21	A 2	22 36 7.709	+2.1257	+ 1	+63 12 54.10	+18.696	- 22
854	[ε Pisc.austr.]	4.22	B 8	22 36 43.911	+3.3204	+ 12	-27 24 51.90	+18.738	+ 2
855	ζ Pegasi	3.61	B 8	22 37 55.215	+2.9917	+ 53	+10 27 36.67	+18.760	- 13
856	β Gruis	2.24	M b	22 38 26.054	+3.5884	+ 117	-47 15 24.05	+18.763	- 25
857	η Pegasi	3.10	G 0	22 39 40.282	+2.8108	+ 12	+29 50 57.61	+18.793	- 33
858	[13 Lacertae]	5.24	K 0	22 40 55.268	+2.6731	- 6	+41 26 46.28	+18.868	+ 5
859	λ Pegasi	4.14	K 0	22 43 6.546	+2.8885	+ 41	+23 11 29.53	+18.917	- 10
860	ε Gruis	3.69	A 2	22 44 16.437	+3.6313	+ 96	-51 41 26.89	+18.887	- 73
861	[τ Aquarii]	4.21	K 5	22 45 50.072	+3.1774	- 12	-13 58 4.07	+18.971	- 33
862	[μ Pegasi]	3.67	K 0	22 46 34.456	+2.8945	+ 109	+24 13 34.48	+18.984	- 41
863	ι Cephei	3.68	K 0	22 47 8.832	+2.1309	- 114	+65 49 36.00	+18.917	-123
864	λ Aquarii	3.84	M a	22 48 54.690	+3.1304	+ 5	- 7 57 28.33	+19.126	+ 38
865	ρ Jndi	6.14	G 0	22 49 44.614	+4.1986	- 101	-70 27 12.90	+19.172	+ 62
866	δ Aquarii	3.51	A 2	22 50 53.041	+3.1848	- 33	-16 11 55.72	+19.120	- 19
867	α Pisc. austr.	1.29	A 3	22 53 43.840	+3.3176	+ 247	-29 59 56.05	+19.053	-159
868	[ζ Gruis]	4.18	G 5	22 56 41.837	+3.5508	- 80	-53 8 7.25	+19.269	- 16
869	ο Androm.	3.63	B <sub>5</sub> + Δ <sub>2p</sub>	22 58 39.015	+2.7577	+ 25	+41 56 38.16	+19.318	- 13
870	β Pegasi	2.61	M a	23 0 19.773	+2.9068	+ 145	+27 41 50.23	+19.506	+138
871	α Pegasi	2.57	A 0	23 1 13.348	+2.9873	+ 41	+14 49 22.29	+19.348	- 41
872	θ Gruis	4.35	F 5	23 2 53.106	+3.3849	- 52	-43 54 16.04	+19.387	- 38
874	π Cephei	4.56	G 5	23 5 38.046	+1.9035	+ 29	+75 0 12.62	+19.458	- 25
873	ε <sup>2</sup> Aquarii	3.80	K 0	23 5 39.794	+3.2001	+ 32	-21 33 29.26	+19.520	+ 36
875	Br 3077	5.65	K 2	23 9 51.390	+2.8832	+2532	+56 16 33.79	+19.862	+296
876	[Tucanae 25 (r.)]	5.69	G 0	23 12 42.274	+3.6195	+ 231	-62 23 19.80	+19.566	- 53
877	γ Tucanae	4.10	F 2	23 13 17.717	+3.5104	- 59	-58 37 31.03	+19.712	+ 82
878	[γ Piscium]	3.85	K 0	23 13 29.046	+3.1096	+ 503	+ 2 53 38.39	+19.651	+ 18
879	γ Sculptoris	4.51	K 0	23 14 59.640	+3.2427	+ 10	-32 55 8.83	+19.592	- 68

Nr. 847. Spektrum wechselt von F 5 bis G 0.

Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".0001	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
880	$\tau$ Pegasi	4.65	A 5	23 <sup>h</sup> 17 <sup>m</sup> 7.203	+2.9677	+ 21	+23° 21' 4.87	+19.681	- 13
882	$\delta$ Cassiopeiae	5.20	K 5	23 21 40.519	+2.6582	+ 17	+61 53 34.01	+19.754	- 10
881	[ $\nu$ Pegasi]	4.57	G 0	23 21 49.977	+2.9926	+138	+23 0 46.61	+19.802	+ 35
883	[ $\sigma$ Gruis]	5.54	F 0	23 22 38.491	+3.3615	- 4	-53 6 53.86	+19.897	+119
884	$\alpha$ Piscium	4.94	$\Lambda$ 2 p	23 23 17.554	+3.0753	+ 56	+ 0 52 0.03	+19.695	- 93
885	$\gamma$ Pegasi	4.67	K 0	23 25 33.727	+3.0328	+ 38	+12 22 6.86	+19.846	+ 28
886	[ $\beta$ Sculptoris]	4.46	B 9	23 29 10.087	+3.2205	+ 65	-38 12 40.52	+19.877	+ 14
887	[ $\eta$ Pegasi]	5.21	K 2	23 30 25.672	+2.9738	+ 40	+30 55 59.87	+19.866	- 12
888	[Aquarii 248 G.]	6.51	K 0	23 31 52.352	+3.0950	- 5	- 7 51 27.12	+19.917	+ 23
889	[Phoenicis IIG.]	4.86	A 2	23 34 1.948	+3.2334	+ 47	-45 53 8.69	+19.879	- 37
890	[ $\lambda$ Androm.]	4.00	K 0	23 34 4.958	+2.9319	+156	+46 4 23.78	+19.493	-423
891	$\epsilon$ Androm.	4.28	B 8	23 34 38.904	+2.9386	+ 27	+42 52 29.18	+19.917	- 5
892	$\iota$ Piscium	4.28	F 8	23 36 17.838	+3.0849	+247	+ 5 14 28.39	+19.497	-440
893	$\gamma$ Cephei	3.42	K 0	23 36 25.112	+2.4486	-184	+77 14 9.82	+20.095	+157
894	$\omega^2$ Aquarii	4.62	A 0	23 39 2.505	+3.1119	+ 65	-14 56 15.40	+19.898	- 63
895	$\delta$ H. Cephei	5.02	A 0	23 44 30.187	+2.8581	+ 23	+67 24 44.13	+20.000	+ 1
896	Iac. $\delta$ Sculpt.	4.64	A 0	23 45 13.811	+3.1267	+ 71	-28 31 23.01	+19.898	-105
897	[Aquarii 268 G.]	6.08	K 0	23 46 34.916	+3.0957	+ 86	-10 22 13.80	+20.096	+ 86
898	$\varphi$ Pegasi	5.23	M a	23 48 52.380	+3.0501	- 8	+18 43 33.02	+19.982	- 39
899	[ $\rho$ Cassiopeiae]	4.85	F 8 p	23 50 49.591	+2.9895	- 7	+57 6 15.72	+20.032	+ 4
900	[ $\zeta$ Piscium]	5.07	K 0	23 55 2.278	+3.0712	- 37	- 3 56 59.72	+19.971	- 68
901	[ $\pi$ Phoenicis]	5.14	K 0	23 55 15.296	+3.1127	+ 30	-53 8 33.77	+20.086	+ 46
902	$\omega$ Piscium	4.03	F 5	23 55 39.839	+3.0800	+100	+ 6 28 12.78	+19.931	-109
903	$\epsilon$ Tucanae	4.71	B 9	23 56 14.266	+3.1285	+ 64	-65 58 20.09	+20.009	- 33
904	[ $\theta$ Octantis]	4.73	K 0	23 57 58.059	+3.1043	-219	-77 27 27.74	+19.873	-171



Nr.	N a m e	Gr.	Spektrum	AR. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in o".cor	Dekl. 1929.0	Jährl. Veränderung	Jährl. Eigenbew. in o".cor
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## Nördliche Polsterne

<i>Na</i>	43 H. Cephei	4.52	K 0	0 <sup>h</sup> 58 <sup>m</sup> 42.323	+ 7.845	+ 76	+85° 52' 38.03"	+19.389	— 1
<i>Nb</i>	α Ursae min.	2.12	F 8	1 36 20.236	+32.244	+152	+88 55 24.36	+18.300	+ 1
<i>Nc</i>	*Grb 750	6.70	F 8	4 13 35.332	+17.832	+ 16	+85 21 59.51	+ 9.008	+ 32
<i>Nd</i>	51 H. Cephei	5.26	M a	7 7 52.411	+28.813	— 51	+87 9 46.75	— 5.885	— 35
<i>Ne</i>	I H. Dracon.	4.58	K 2	9 27 6.564	+ 8.694	— 6	+81 38 32.89	—15.767	— 20
<i>Nf</i>	[30 H. Camel.]	5.34	F 2	10 22 34.907	+ 7.464	— 46	+82 55 16.30	—18.229	+ 31
<i>Ng</i>	ε Ursae min.	4.40	G 5	16 53 10.770	— 6.211	+ 7	+82 9 24.55	— 5.755	+ 6
<i>Nh</i>	δ Ursae min.	4.44	A 0	17 55 7.374	—19.490	+ 15	+86 36 49.02	— 0.369	+ 57
<i>Ni</i>	λ Ursae min.	6.55	M b	18 48 0.364	—74.488	— 98	+89 1 59.93	+ 4.174	+ 7
<i>Nk</i>	76 Draconis	5.69	A 0	20 47 50.207	— 4.231	+ 16	+82 16 11.44	+13.429	+ 27

Nr. Ne Größe aus Harvard <sup>54</sup> entnommen.

## Südliche Polsterne

<i>Sa</i>	Octantis 4 G.	5.63	K 0	1 <sup>h</sup> 41 <sup>m</sup> 18.507	— 3.616	+ 18	—85° 7' 43.60"	+18.152	+ 34
<i>Sb</i>	[ξ Mensae]	5.85	K 0	5 6 53.347	— 6.902	— 4	—82 34 4.94	+ 4.618	+ 14
<i>Sc</i>	ζ Octantis	5.38	F 0	9 7 20.081	— 8.337	— 94	—85 22 52.73	—14.571	+ 49
<i>Sd</i>	ι Octantis	5.38	K 0	12 47 19.766	+ 6.090	+ 42	—84 44 17.69	—19.593	+ 25
<i>Se</i>	Octantis 20 G.	6.52	A 2	14 51 30.561	+27.264	—183	—87 51 49.23	—14.758	— 69
<i>Sf</i>	Octantis 26 G.	6.13	A 0	16 34 3.123	+22.005	+ 5	—86 14 28.33	— 7.344	— 2
<i>Sg</i>	χ Octantis	5.22	K 0	18 13 20.603	+35.660	— 87	—87 39 43.13	+ 1.037	—129
<i>Sh</i>	σ Octantis	5.48	F 0	19 46 3.006	+88.515	+109	—89 11 49.82	+ 8.948	+ 1
<i>Si</i>	β Octantis	4.34	F 0	22 38 54.565	+ 6.242	— 26	—81 45 16.94	+18.805	+ 3
<i>Sk</i>	τ Octantis	5.56	K 0	23 18 7.658	+ 9.629	+ 20	—87 52 21.84	+19.726	+ 15

Von den Sternen, deren Namen eingeklammert sind, folgen keine Ephemeriden.

Tag	1) $\alpha$ Andromedae		2) $\beta$ Cassiopeiae		3) $\epsilon$ Phoenicis		7) $\gamma$ Pegasi	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$0^h 4^m$	$+28^\circ 41'$	$0^h 5^m$	$+58^\circ 45'$	$0^h 5^m$	$-46^\circ 7'$	$0^h 9^m$	$+14^\circ 47'$
Jan. 0	41.563 <sup>137</sup>	57.52 <sup>89</sup>	20.932 <sup>316</sup>	40.53 <sup>71</sup>	47.861 <sup>187</sup>	102.68 <sup>40</sup>	33.516 <sup>112</sup>	18.15 <sup>80</sup>
10	41.426 <sup>130</sup>	56.63 <sup>115</sup>	20.616 <sup>304</sup>	39.82 <sup>123</sup>	47.674 <sup>170</sup>	102.28 <sup>85</sup>	33.404 <sup>106</sup>	17.35 <sup>91</sup>
20	41.296 <sup>118</sup>	55.48 <sup>136</sup>	20.312 <sup>279</sup>	38.59 <sup>168</sup>	47.504 <sup>149</sup>	101.43 <sup>129</sup>	33.298 <sup>97</sup>	16.44 <sup>98</sup>
30	41.178 <sup>99</sup>	54.12 <sup>150</sup>	20.033 <sup>242</sup>	36.91 <sup>208</sup>	47.355 <sup>123</sup>	100.14 <sup>170</sup>	33.201 <sup>82</sup>	15.46 <sup>100</sup>
Feb. 9	41.079 <sup>75</sup>	52.62 <sup>159</sup>	19.791 <sup>193</sup>	34.83 <sup>238</sup>	47.232 <sup>89</sup>	98.44 <sup>206</sup>	33.119 <sup>61</sup>	14.46 <sup>99</sup>
19	41.004 <sup>43</sup>	51.03 <sup>159</sup>	19.598 <sup>133</sup>	32.45 <sup>259</sup>	47.143 <sup>52</sup>	96.38 <sup>239</sup>	33.058 <sup>34</sup>	13.47 <sup>90</sup>
März 1	40.961 <sup>6</sup>	49.44 <sup>153</sup>	19.465 <sup>64</sup>	29.86 <sup>268</sup>	47.091 <sup>10</sup>	93.99 <sup>265</sup>	33.024 <sup>2</sup>	12.57 <sup>78</sup>
11	40.955 <sup>35</sup>	47.91 <sup>138</sup>	19.401 <sup>12</sup>	27.18 <sup>266</sup>	47.081 <sup>36</sup>	91.34 <sup>288</sup>	33.022 <sup>34</sup>	11.79 <sup>58</sup>
21	40.990 <sup>80</sup>	46.53 <sup>116</sup>	19.413 <sup>91</sup>	24.52 <sup>252</sup>	47.117 <sup>86</sup>	88.46 <sup>303</sup>	33.056 <sup>74</sup>	11.21 <sup>36</sup>
31	41.070 <sup>127</sup>	45.37 <sup>88</sup>	19.504 <sup>171</sup>	22.00 <sup>230</sup>	47.203 <sup>137</sup>	85.43 <sup>314</sup>	33.130 <sup>116</sup>	10.85 <sup>8</sup>
Apr. 10	41.197 <sup>174</sup>	44.49 <sup>55</sup>	19.675 <sup>248</sup>	19.70 <sup>195</sup>	47.340 <sup>189</sup>	82.29 <sup>317</sup>	33.246 <sup>158</sup>	10.77 <sup>21</sup>
20	41.371 <sup>218</sup>	43.94 <sup>18</sup>	19.923 <sup>321</sup>	17.75 <sup>155</sup>	47.529 <sup>239</sup>	79.12 <sup>314</sup>	33.404 <sup>199</sup>	10.98 <sup>54</sup>
30	41.589 <sup>258</sup>	43.76 <sup>21</sup>	20.244 <sup>380</sup>	16.20 <sup>108</sup>	47.768 <sup>287</sup>	75.98 <sup>305</sup>	33.603 <sup>237</sup>	11.52 <sup>85</sup>
Mai 10	41.847 <sup>292</sup>	43.97 <sup>60</sup>	20.624 <sup>434</sup>	15.12 <sup>58</sup>	48.055 <sup>328</sup>	72.93 <sup>289</sup>	33.840 <sup>269</sup>	12.37 <sup>115</sup>
20	42.139 <sup>320</sup>	44.57 <sup>99</sup>	21.058 <sup>473</sup>	14.54 <sup>4</sup>	48.383 <sup>365</sup>	70.04 <sup>267</sup>	34.109 <sup>295</sup>	13.52 <sup>144</sup>
30	42.459 <sup>338</sup>	45.56 <sup>135</sup>	21.531 <sup>499</sup>	14.50 <sup>48</sup>	48.748 <sup>392</sup>	67.37 <sup>238</sup>	34.404 <sup>315</sup>	14.96 <sup>169</sup>
Juni 9	42.797 <sup>348</sup>	46.91 <sup>168</sup>	22.030 <sup>512</sup>	14.98 <sup>100</sup>	49.140 <sup>410</sup>	64.99 <sup>203</sup>	34.719 <sup>326</sup>	16.65 <sup>189</sup>
19	43.145 <sup>349</sup>	48.59 <sup>196</sup>	22.542 <sup>510</sup>	15.98 <sup>149</sup>	49.550 <sup>418</sup>	62.96 <sup>164</sup>	35.045 <sup>328</sup>	18.54 <sup>205</sup>
29	43.494 <sup>340</sup>	50.55 <sup>219</sup>	23.052 <sup>494</sup>	17.47 <sup>195</sup>	49.968 <sup>415</sup>	61.32 <sup>120</sup>	35.373 <sup>322</sup>	20.59 <sup>216</sup>
Juli 9	43.834 <sup>324</sup>	52.74 <sup>237</sup>	23.546 <sup>469</sup>	19.42 <sup>234</sup>	50.383 <sup>402</sup>	60.12 <sup>74</sup>	35.695 <sup>308</sup>	22.75 <sup>221</sup>
19	44.158 <sup>301</sup>	55.11 <sup>249</sup>	24.015 <sup>430</sup>	21.76 <sup>270</sup>	50.785 <sup>377</sup>	59.38 <sup>25</sup>	36.003 <sup>288</sup>	24.96 <sup>221</sup>
29	44.459 <sup>270</sup>	57.60 <sup>255</sup>	24.445 <sup>384</sup>	24.46 <sup>298</sup>	51.162 <sup>344</sup>	59.13 <sup>21</sup>	36.291 <sup>260</sup>	27.17 <sup>215</sup>
Aug. 8	44.729 <sup>236</sup>	60.15 <sup>256</sup>	24.829 <sup>330</sup>	27.44 <sup>321</sup>	51.506 <sup>302</sup>	59.34 <sup>68</sup>	36.551 <sup>229</sup>	29.32 <sup>206</sup>
18	44.965 <sup>196</sup>	62.71 <sup>251</sup>	25.159 <sup>271</sup>	30.65 <sup>336</sup>	51.808 <sup>253</sup>	60.02 <sup>111</sup>	36.780 <sup>192</sup>	31.38 <sup>192</sup>
28	45.161 <sup>155</sup>	65.22 <sup>243</sup>	25.430 <sup>208</sup>	34.01 <sup>344</sup>	52.061 <sup>199</sup>	61.13 <sup>150</sup>	36.972 <sup>155</sup>	33.30 <sup>175</sup>
Sept. 7	45.316 <sup>115</sup>	67.65 <sup>229</sup>	25.638 <sup>145</sup>	37.45 <sup>346</sup>	52.260 <sup>143</sup>	62.63 <sup>182</sup>	37.127 <sup>117</sup>	35.05 <sup>155</sup>
17	45.431 <sup>74</sup>	69.94 <sup>212</sup>	25.783 <sup>81</sup>	40.91 <sup>341</sup>	52.403 <sup>85</sup>	64.45 <sup>207</sup>	37.244 <sup>79</sup>	36.60 <sup>135</sup>
26	45.505 <sup>36</sup>	72.06 <sup>191</sup>	25.864 <sup>19</sup>	44.32 <sup>329</sup>	52.488 <sup>29</sup>	66.52 <sup>223</sup>	37.323 <sup>44</sup>	37.95 <sup>112</sup>
Okt. 6	45.541 <sup>1</sup>	73.97 <sup>168</sup>	25.883 <sup>41</sup>	47.61 <sup>310</sup>	52.517 <sup>23</sup>	68.75 <sup>228</sup>	37.367 <sup>11</sup>	39.07 <sup>89</sup>
16	45.542 <sup>31</sup>	75.65 <sup>143</sup>	25.842 <sup>96</sup>	50.71 <sup>285</sup>	52.494 <sup>71</sup>	71.03 <sup>225</sup>	37.378 <sup>18</sup>	39.96 <sup>67</sup>
26	45.511 <sup>57</sup>	77.08 <sup>115</sup>	25.746 <sup>147</sup>	53.56 <sup>254</sup>	52.423 <sup>111</sup>	73.28 <sup>212</sup>	37.360 <sup>42</sup>	40.63 <sup>44</sup>
Nov. 5	45.454 <sup>81</sup>	78.23 <sup>86</sup>	25.599 <sup>192</sup>	56.10 <sup>215</sup>	52.312 <sup>145</sup>	75.40 <sup>190</sup>	37.318 <sup>64</sup>	41.07 <sup>22</sup>
15	45.373 <sup>100</sup>	79.09 <sup>55</sup>	25.407 <sup>233</sup>	58.25 <sup>173</sup>	52.167 <sup>169</sup>	77.30 <sup>159</sup>	37.254 <sup>80</sup>	41.29 <sup>2</sup>
25	45.273 <sup>115</sup>	79.64 <sup>23</sup>	25.174 <sup>265</sup>	59.98 <sup>124</sup>	51.998 <sup>187</sup>	78.89 <sup>122</sup>	37.174 <sup>94</sup>	41.31 <sup>18</sup>
Dez. 5	45.158 <sup>126</sup>	79.87 <sup>9</sup>	24.909 <sup>291</sup>	61.22 <sup>73</sup>	51.811 <sup>195</sup>	80.11 <sup>80</sup>	37.080 <sup>102</sup>	41.13 <sup>37</sup>
15	45.032 <sup>133</sup>	79.78 <sup>40</sup>	24.618 <sup>308</sup>	61.95 <sup>19</sup>	51.616 <sup>197</sup>	80.91 <sup>35</sup>	36.978 <sup>108</sup>	40.76 <sup>55</sup>
25	44.899 <sup>135</sup>	79.38 <sup>70</sup>	24.310 <sup>313</sup>	62.14 <sup>37</sup>	51.419 <sup>193</sup>	81.26 <sup>11</sup>	36.870 <sup>111</sup>	40.21 <sup>70</sup>
35	44.764	78.68	23.997	61.77	51.226	81.15	36.759	39.51
Mittl. Ort	42.798	54.53	22.636	29.44	48.668	81.64	34.620	19.73
sec $\delta$ , tg $\delta$	1.140	+0.548	1.928	+1.648	1.443	-1.041	1.034	+0.264

# Obere Kulmination Greenwich

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Tag	9) $\epsilon$ Ceti		10) $\zeta$ Tucanae		11) $\beta$ Hydri		12) $\alpha$ Phoenicis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$0^h 15^m$	$-9^\circ 12'$	$0^h 16^m$	$-65^\circ 17'$	$0^h 21^m$	$-77^\circ 38'$	$0^h 22^m$	$-42^\circ 41'$
Jan. 0	47.693 <sup>105</sup>	72.80 <sup>51</sup>	22.45 <sup>39</sup>	56.06 <sup>84</sup>	63.15 <sup>87</sup>	100.07 <sup>108</sup>	45.965 <sup>177</sup>	50.10 <sup>14</sup>
10	47.588 <sup>100</sup>	73.31 <sup>36</sup>	22.06 <sup>35</sup>	55.22 <sup>141</sup>	62.28 <sup>80</sup>	98.99 <sup>167</sup>	45.788 <sup>168</sup>	49.96 <sup>59</sup>
20	47.488 <sup>90</sup>	73.67 <sup>19</sup>	21.71 <sup>32</sup>	53.81 <sup>192</sup>	61.48 <sup>73</sup>	97.32 <sup>220</sup>	45.620 <sup>151</sup>	49.37 <sup>102</sup>
30	47.398 <sup>76</sup>	73.86 <sup>0</sup>	21.39 <sup>27</sup>	51.89 <sup>239</sup>	60.75 <sup>63</sup>	95.12 <sup>268</sup>	45.469 <sup>130</sup>	48.35 <sup>143</sup>
Feb. 9	47.322 <sup>57</sup>	73.86 <sup>19</sup>	21.12 <sup>21</sup>	49.50 <sup>279</sup>	60.12 <sup>51</sup>	92.44 <sup>309</sup>	45.339 <sup>102</sup>	46.92 <sup>182</sup>
19	47.265 <sup>33</sup>	73.67 <sup>41</sup>	20.91 <sup>15</sup>	46.71 <sup>313</sup>	59.61 <sup>37</sup>	89.35 <sup>341</sup>	45.237 <sup>69</sup>	45.10 <sup>215</sup>
März 1	47.232 <sup>3</sup>	73.26 <sup>63</sup>	20.76 <sup>7</sup>	43.58 <sup>340</sup>	59.24 <sup>24</sup>	85.94 <sup>366</sup>	45.168 <sup>31</sup>	42.95 <sup>244</sup>
11	47.229 <sup>30</sup>	72.63 <sup>87</sup>	20.69 <sup>1</sup>	40.18 <sup>359</sup>	59.00 <sup>8</sup>	82.28 <sup>381</sup>	45.137 <sup>13</sup>	40.51 <sup>270</sup>
21	47.259 <sup>68</sup>	71.76 <sup>111</sup>	20.68 <sup>8</sup>	36.59 <sup>370</sup>	58.92 <sup>7</sup>	78.47 <sup>389</sup>	45.150 <sup>59</sup>	37.81 <sup>289</sup>
31	47.327 <sup>107</sup>	70.65 <sup>134</sup>	20.76 <sup>16</sup>	32.89 <sup>373</sup>	58.99 <sup>22</sup>	74.58 <sup>388</sup>	45.209 <sup>108</sup>	34.92 <sup>302</sup>
Apr. 10	47.434 <sup>148</sup>	69.31 <sup>156</sup>	20.92 <sup>25</sup>	29.16 <sup>369</sup>	59.21 <sup>38</sup>	70.70 <sup>380</sup>	45.317 <sup>159</sup>	31.90 <sup>310</sup>
20	47.582 <sup>187</sup>	67.75 <sup>177</sup>	21.17 <sup>32</sup>	25.47 <sup>358</sup>	59.59 <sup>53</sup>	66.90 <sup>363</sup>	45.476 <sup>209</sup>	28.80 <sup>312</sup>
30	47.769 <sup>225</sup>	65.98 <sup>193</sup>	21.49 <sup>40</sup>	21.89 <sup>338</sup>	60.12 <sup>67</sup>	63.27 <sup>338</sup>	45.685 <sup>256</sup>	25.68 <sup>307</sup>
Mai 10	47.994 <sup>258</sup>	64.05 <sup>207</sup>	21.89 <sup>46</sup>	18.51 <sup>310</sup>	60.79 <sup>79</sup>	59.89 <sup>306</sup>	45.941 <sup>299</sup>	22.61 <sup>295</sup>
20	48.252 <sup>285</sup>	61.98 <sup>215</sup>	22.35 <sup>52</sup>	15.41 <sup>278</sup>	61.58 <sup>90</sup>	56.83 <sup>268</sup>	46.240 <sup>336</sup>	19.66 <sup>277</sup>
30	48.537 <sup>306</sup>	59.83 <sup>218</sup>	22.87 <sup>57</sup>	12.63 <sup>237</sup>	62.48 <sup>100</sup>	54.15 <sup>224</sup>	46.576 <sup>365</sup>	16.89 <sup>252</sup>
Juni 9	48.843 <sup>319</sup>	57.65 <sup>217</sup>	23.44 <sup>61</sup>	10.26 <sup>192</sup>	63.48 <sup>106</sup>	51.91 <sup>174</sup>	46.941 <sup>386</sup>	14.37 <sup>221</sup>
19	49.162 <sup>325</sup>	55.48 <sup>209</sup>	24.05 <sup>62</sup>	8.34 <sup>143</sup>	64.54 <sup>111</sup>	50.17 <sup>121</sup>	47.327 <sup>397</sup>	12.16 <sup>185</sup>
29	49.487 <sup>321</sup>	53.39 <sup>197</sup>	24.67 <sup>62</sup>	6.91 <sup>89</sup>	65.65 <sup>111</sup>	48.96 <sup>64</sup>	47.724 <sup>397</sup>	10.31 <sup>144</sup>
Juli 9	49.808 <sup>311</sup>	51.42 <sup>179</sup>	25.29 <sup>61</sup>	6.02 <sup>35</sup>	66.76 <sup>110</sup>	48.32 <sup>7</sup>	48.121 <sup>388</sup>	8.87 <sup>100</sup>
19	50.119 <sup>292</sup>	49.63 <sup>157</sup>	25.90 <sup>58</sup>	5.67 <sup>21</sup>	67.86 <sup>106</sup>	48.25 <sup>50</sup>	48.509 <sup>369</sup>	7.87 <sup>53</sup>
29	50.411 <sup>266</sup>	48.06 <sup>132</sup>	26.48 <sup>53</sup>	5.88 <sup>76</sup>	68.92 <sup>97</sup>	48.75 <sup>106</sup>	48.878 <sup>339</sup>	7.34 <sup>5</sup>
Aug. 8	50.677 <sup>236</sup>	46.74 <sup>104</sup>	27.01 <sup>48</sup>	6.64 <sup>126</sup>	69.89 <sup>86</sup>	49.81 <sup>158</sup>	49.217 <sup>303</sup>	7.29 <sup>42</sup>
18	50.913 <sup>201</sup>	45.70 <sup>75</sup>	27.49 <sup>40</sup>	7.90 <sup>175</sup>	70.75 <sup>73</sup>	51.39 <sup>204</sup>	49.520 <sup>260</sup>	7.71 <sup>86</sup>
28	51.114 <sup>163</sup>	44.95 <sup>45</sup>	27.89 <sup>31</sup>	9.65 <sup>214</sup>	71.48 <sup>58</sup>	53.43 <sup>244</sup>	49.780 <sup>210</sup>	8.57 <sup>127</sup>
Sept. 7	51.277 <sup>125</sup>	44.50 <sup>17</sup>	28.20 <sup>23</sup>	11.79 <sup>244</sup>	72.06 <sup>41</sup>	55.87 <sup>274</sup>	49.990 <sup>158</sup>	9.84 <sup>162</sup>
17	51.402 <sup>86</sup>	44.33 <sup>10</sup>	28.43 <sup>12</sup>	14.23 <sup>267</sup>	72.47 <sup>22</sup>	58.61 <sup>293</sup>	50.148 <sup>105</sup>	11.46 <sup>191</sup>
26 <sup>*)</sup>	51.488 <sup>50</sup>	44.43 <sup>33</sup>	28.55 <sup>4</sup>	16.90 <sup>280</sup>	72.69 <sup>3</sup>	61.54 <sup>302</sup>	50.253 <sup>53</sup>	13.37 <sup>210</sup>
Okt. 6	51.538 <sup>17</sup>	44.76 <sup>53</sup>	28.59 <sup>6</sup>	19.70 <sup>280</sup>	72.72 <sup>15</sup>	64.56 <sup>299</sup>	50.306 <sup>3</sup>	15.47 <sup>222</sup>
16	51.555 <sup>14</sup>	45.29 <sup>68</sup>	28.53 <sup>14</sup>	22.50 <sup>269</sup>	72.57 <sup>33</sup>	67.55 <sup>283</sup>	50.309 <sup>42</sup>	17.69 <sup>222</sup>
26	51.541 <sup>39</sup>	45.97 <sup>79</sup>	28.39 <sup>22</sup>	25.19 <sup>216</sup>	72.24 <sup>50</sup>	70.38 <sup>257</sup>	50.267 <sup>83</sup>	19.91 <sup>214</sup>
Nov. 5	51.502 <sup>60</sup>	46.76 <sup>85</sup>	28.17 <sup>29</sup>	27.65 <sup>213</sup>	71.74 <sup>63</sup>	72.95 <sup>217</sup>	50.184 <sup>115</sup>	22.05 <sup>197</sup>
15	51.442 <sup>77</sup>	47.61 <sup>86</sup>	27.88 <sup>33</sup>	29.78 <sup>171</sup>	71.11 <sup>74</sup>	75.12 <sup>169</sup>	50.069 <sup>142</sup>	24.02 <sup>171</sup>
25	51.365 <sup>90</sup>	48.47 <sup>84</sup>	27.55 <sup>38</sup>	31.49 <sup>122</sup>	70.37 <sup>83</sup>	76.81 <sup>114</sup>	49.927 <sup>162</sup>	25.73 <sup>138</sup>
Dez. 5	51.275 <sup>99</sup>	49.31 <sup>78</sup>	27.17 <sup>39</sup>	32.71 <sup>67</sup>	69.54 <sup>88</sup>	77.95 <sup>55</sup>	49.765 <sup>175</sup>	27.11 <sup>100</sup>
15	51.176 <sup>103</sup>	50.09 <sup>69</sup>	26.78 <sup>40</sup>	33.38 <sup>9</sup>	68.66 <sup>90</sup>	78.50 <sup>8</sup>	49.590 <sup>180</sup>	28.11 <sup>57</sup>
25	51.073 <sup>104</sup>	50.78 <sup>58</sup>	26.38 <sup>40</sup>	33.47 <sup>50</sup>	67.76 <sup>89</sup>	78.42 <sup>70</sup>	49.410 <sup>180</sup>	28.68 <sup>13</sup>
35	50.969	51.36	25.98	32.97	66.87	77.72	49.230	28.81
Mittl. Ort	48.624	62.89	22.90	31.73	62.91	74.71	46.633	30.12
sec $\delta$ , tg $\delta$	1.013	-0.162	2.392	-2.173	4.677	-4.569	1.361	-0.923

\*) Bei Stern 11) und 12) lies Sept. 27

Tag	13) $\iota$ Ceti		17) $\zeta$ Cassiopeiae		18) $\pi$ Andromedae		20) $\delta$ Andromedae	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$0^{\text{h}} 26^{\text{m}}$	$-4^{\circ} 20'$	$0^{\text{h}} 32^{\text{m}}$	$+53^{\circ} 30'$	$0^{\text{h}} 33^{\text{m}}$	$+33^{\circ} 19'$	$0^{\text{h}} 35^{\text{m}}$	$+30^{\circ} 28'$
Jan. 0	24.031 <sub>106</sub>	66.17 <sub>58</sub>	58.930 <sub>262</sub>	33.64 <sub>44</sub>	3.892 <sub>152</sub>	48.54 <sub>66</sub>	30.491 <sub>144</sub>	26.22 <sub>66</sub>
10	23.925 <sub>103</sub>	66.75 <sub>49</sub>	58.668 <sub>261</sub>	33.20 <sub>92</sub>	3.740 <sub>153</sub>	47.88 <sub>96</sub>	30.347 <sub>144</sub>	25.56 <sub>93</sub>
20	23.822 <sub>95</sub>	67.24 <sub>36</sub>	58.407 <sub>249</sub>	32.28 <sub>137</sub>	3.587 <sub>145</sub>	46.92 <sub>122</sub>	30.203 <sub>138</sub>	24.63 <sub>116</sub>
30	23.727 <sub>83</sub>	67.60 <sub>22</sub>	58.158 <sub>225</sub>	30.91 <sub>175</sub>	3.442 <sub>130</sub>	45.70 <sub>143</sub>	30.065 <sub>124</sub>	23.47 <sub>136</sub>
Feb. 9	23.644 <sub>65</sub>	67.82 <sub>5</sub>	57.933 <sub>190</sub>	29.16 <sub>206</sub>	3.312 <sub>109</sub>	44.27 <sub>158</sub>	29.941 <sub>104</sub>	22.11 <sub>148</sub>
19	23.579 <sub>43</sub>	67.87 <sub>14</sub>	57.743 <sub>143</sub>	27.10 <sub>229</sub>	3.203 <sub>79</sub>	42.69 <sub>166</sub>	29.837 <sub>76</sub>	20.63 <sub>154</sub>
März I	23.536 <sub>13</sub>	67.73 <sub>35</sub>	57.600 <sub>89</sub>	24.81 <sub>241</sub>	3.124 <sub>42</sub>	41.03 <sub>166</sub>	29.761 <sub>40</sub>	19.09 <sub>151</sub>
11	23.523 <sub>19</sub>	67.38 <sub>57</sub>	57.511 <sub>25</sub>	22.40 <sub>242</sub>	3.082 <sub>1</sub>	39.37 <sub>157</sub>	29.721 <sub>1</sub>	17.58 <sub>142</sub>
21	23.542 <sub>57</sub>	66.81 <sub>81</sub>	57.486 <sub>43</sub>	19.98 <sub>233</sub>	3.083 <sub>49</sub>	37.80 <sub>140</sub>	29.722 <sub>46</sub>	16.16 <sub>136</sub>
31	23.599 <sub>96</sub>	66.00 <sub>106</sub>	57.529 <sub>115</sub>	17.65 <sub>214</sub>	3.132 <sub>99</sub>	36.40 <sub>117</sub>	29.768 <sub>95</sub>	14.90 <sub>102</sub>
Apr. 10	23.695 <sub>138</sub>	64.94 <sub>130</sub>	57.644 <sub>184</sub>	15.51 <sub>186</sub>	3.231 <sub>149</sub>	35.23 <sub>88</sub>	29.863 <sub>145</sub>	13.88 <sub>73</sub>
20	23.833 <sub>178</sub>	63.64 <sub>152</sub>	57.828 <sub>252</sub>	13.65 <sub>151</sub>	3.380 <sub>199</sub>	34.35 <sub>53</sub>	30.008 <sub>192</sub>	13.15 <sub>39</sub>
30	24.011 <sub>216</sub>	62.12 <sub>172</sub>	58.080 <sub>313</sub>	12.14 <sub>108</sub>	3.579 <sub>244</sub>	33.82 <sub>16</sub>	30.200 <sub>236</sub>	12.76 <sub>3</sub>
Mai 10	24.227 <sub>250</sub>	60.40 <sub>189</sub>	58.393 <sub>365</sub>	11.06 <sub>63</sub>	3.823 <sub>283</sub>	33.66 <sub>24</sub>	30.436 <sub>276</sub>	12.73 <sub>35</sub>
20	24.477 <sub>278</sub>	58.51 <sub>203</sub>	58.758 <sub>408</sub>	10.43 <sub>14</sub>	4.106 <sub>317</sub>	33.90 <sub>64</sub>	30.712 <sub>309</sub>	13.08 <sub>73</sub>
30	24.755 <sub>301</sub>	56.48 <sub>210</sub>	59.166 <sub>439</sub>	10.29 <sub>35</sub>	4.423 <sub>341</sub>	34.54 <sub>102</sub>	31.021 <sub>333</sub>	13.81 <sub>110</sub>
Juni 9	25.056 <sub>315</sub>	54.38 <sub>213</sub>	59.605 <sub>458</sub>	10.64 <sub>83</sub>	4.764 <sub>357</sub>	35.56 <sub>138</sub>	31.354 <sub>349</sub>	14.91 <sub>143</sub>
19	25.371 <sub>322</sub>	52.25 <sub>211</sub>	60.063 <sub>464</sub>	11.47 <sub>130</sub>	5.121 <sub>363</sub>	36.94 <sub>170</sub>	31.703 <sub>356</sub>	16.34 <sub>173</sub>
29	25.693 <sub>320</sub>	50.14 <sub>204</sub>	60.527 <sub>459</sub>	12.77 <sub>172</sub>	5.484 <sub>360</sub>	38.64 <sub>198</sub>	32.059 <sub>352</sub>	18.07 <sub>199</sub>
Juli 9	26.013 <sub>310</sub>	48.10 <sub>191</sub>	60.986 <sub>442</sub>	14.49 <sub>212</sub>	5.844 <sub>347</sub>	40.62 <sub>221</sub>	32.411 <sub>342</sub>	20.06 <sub>219</sub>
19	26.323 <sub>294</sub>	46.19 <sub>173</sub>	61.428 <sub>416</sub>	16.61 <sub>245</sub>	6.191 <sub>328</sub>	42.83 <sub>239</sub>	32.753 <sub>323</sub>	22.25 <sub>235</sub>
29	26.617 <sub>269</sub>	44.46 <sub>152</sub>	61.844 <sub>380</sub>	19.06 <sub>273</sub>	6.519 <sub>301</sub>	45.22 <sub>251</sub>	33.076 <sub>296</sub>	24.60 <sub>244</sub>
Aug. 8	26.886 <sub>241</sub>	42.94 <sub>127</sub>	62.224 <sub>337</sub>	21.79 <sub>295</sub>	6.820 <sub>268</sub>	47.73 <sub>258</sub>	33.372 <sub>265</sub>	27.04 <sub>249</sub>
18	27.127 <sub>207</sub>	41.67 <sub>101</sub>	62.561 <sub>290</sub>	24.74 <sub>311</sub>	7.088 <sub>231</sub>	50.31 <sub>259</sub>	33.637 <sub>230</sub>	29.53 <sub>249</sub>
28	27.334 <sub>171</sub>	40.66 <sub>74</sub>	62.851 <sub>237</sub>	27.85 <sub>321</sub>	7.319 <sub>191</sub>	52.90 <sub>256</sub>	33.867 <sub>192</sub>	32.02 <sub>243</sub>
Sept. 7	27.505 <sub>134</sub>	39.92 <sub>46</sub>	63.088 <sub>184</sub>	31.06 <sub>324</sub>	7.510 <sub>152</sub>	55.46 <sub>246</sub>	34.059 <sub>152</sub>	34.45 <sub>233</sub>
17	27.639 <sub>97</sub>	39.46 <sub>19</sub>	63.272 <sub>128</sub>	34.30 <sub>320</sub>	7.662 <sub>110</sub>	57.92 <sub>234</sub>	34.211 <sub>112</sub>	36.78 <sub>219</sub>
27	27.736 <sub>61</sub>	39.27 <sub>4</sub>	63.400 <sub>75</sub>	37.50 <sub>311</sub>	7.772 <sub>71</sub>	60.26 <sub>218</sub>	34.323 <sub>74</sub>	38.97 <sub>202</sub>
Okt. 6	27.797 <sub>27</sub>	39.31 <sub>25</sub>	63.475 <sub>23</sub>	40.61 <sub>296</sub>	7.843 <sub>34</sub>	62.44 <sub>198</sub>	34.397 <sub>38</sub>	40.99 <sub>181</sub>
16	27.824 <sub>1</sub>	39.56 <sub>43</sub>	63.498 <sub>27</sub>	43.57 <sub>275</sub>	7.877 <sub>0</sub>	64.42 <sub>174</sub>	34.435 <sub>4</sub>	42.80 <sub>159</sub>
26	27.823 <sub>28</sub>	39.99 <sub>56</sub>	63.471 <sub>74</sub>	46.32 <sub>248</sub>	7.877 <sub>33</sub>	66.16 <sub>149</sub>	34.439 <sub>26</sub>	44.39 <sub>134</sub>
Nov. 5	27.795 <sub>58</sub>	40.55 <sub>66</sub>	63.397 <sub>117</sub>	48.80 <sub>215</sub>	7.844 <sub>60</sub>	67.65 <sub>120</sub>	34.413 <sub>54</sub>	45.73 <sub>106</sub>
15	27.745 <sub>60</sub>	41.21 <sub>71</sub>	63.280 <sub>156</sub>	50.95 <sub>176</sub>	7.784 <sub>85</sub>	68.85 <sub>90</sub>	34.359 <sub>78</sub>	46.79 <sub>78</sub>
25	27.677 <sub>82</sub>	41.92 <sub>74</sub>	63.124 <sub>189</sub>	52.71 <sub>135</sub>	7.699 <sub>107</sub>	69.75 <sub>57</sub>	34.281 <sub>98</sub>	47.57 <sub>48</sub>
Dez. 5	27.595 <sub>93</sub>	42.66 <sub>73</sub>	62.935 <sub>219</sub>	54.06 <sub>88</sub>	7.592 <sub>124</sub>	70.32 <sub>23</sub>	34.183 <sub>116</sub>	48.05 <sub>16</sub>
15	27.502 <sub>99</sub>	43.39 <sub>69</sub>	62.716 <sub>240</sub>	54.94 <sub>38</sub>	7.468 <sub>138</sub>	70.55 <sub>11</sub>	34.067 <sub>129</sub>	48.21 <sub>16</sub>
25	27.403 <sub>104</sub>	44.08 <sub>63</sub>	62.476 <sub>255</sub>	55.32 <sub>11</sub>	7.330 <sub>146</sub>	70.44 <sub>43</sub>	33.938 <sub>138</sub>	48.05 <sub>46</sub>
35	27.299	44.71	62.221	55.21	7.184	70.01	33.800	47.59
Mittl. Ort sec $\delta$ , tg $\delta$	24.924 1.003	58.17 -0.076	60.283 1.681	22.97 +1.352	4.998 1.197	43.39 +0.658	31.559 1.160	21.92 +0.588

# Obere Kulmination Greenwich

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Tag	21) $\alpha$ Cassiopeiae		22) $\beta$ Ceti		25) $\alpha$ Cassiopeiae		24) $\gamma$ Cassiopeiae	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$0^h 36^m$	$+56^\circ 8'$	$0^h 40^m$	$-18^\circ 22'$	$0^h 40^m$	$+47^\circ 53'$	$0^h 40^m$	$+74^\circ 35'$
Jan. 0	26.559 <sup>287</sup>	64.93 <sup>36</sup>	0.856 <sup>118</sup>	46.44 <sup>45</sup>	44.365 <sup>218</sup>	55.15 <sup>43</sup>	53.46 <sup>73</sup>	75.50 <sup>6</sup>
10	26.272 <sup>288</sup>	64.57 <sup>86</sup>	0.738 <sup>116</sup>	46.89 <sup>19</sup>	44.147 <sup>221</sup>	54.72 <sup>87</sup>	52.73 <sup>73</sup>	75.56 <sup>55</sup>
20	25.984 <sup>274</sup>	63.71 <sup>133</sup>	0.622 <sup>110</sup>	47.08 <sup>7</sup>	43.926 <sup>212</sup>	53.85 <sup>127</sup>	52.00 <sup>69</sup>	75.01 <sup>115</sup>
30	25.710 <sup>250</sup>	62.38 <sup>174</sup>	0.512 <sup>97</sup>	47.01 <sup>34</sup>	43.714 <sup>194</sup>	52.58 <sup>162</sup>	51.31 <sup>64</sup>	73.86 <sup>168</sup>
Feb. 9	25.460 <sup>213</sup>	60.64 <sup>207</sup>	0.415 <sup>81</sup>	46.67 <sup>61</sup>	43.520 <sup>165</sup>	50.96 <sup>190</sup>	50.67 <sup>55</sup>	72.18 <sup>214</sup>
19	25.247 <sup>163</sup>	58.57 <sup>232</sup>	0.334 <sup>59</sup>	46.06 <sup>88</sup>	43.355 <sup>127</sup>	49.06 <sup>209</sup>	50.12 <sup>44</sup>	70.04 <sup>250</sup>
März 1	25.084 <sup>105</sup>	56.25 <sup>247</sup>	0.275 <sup>30</sup>	45.18 <sup>115</sup>	43.228 <sup>81</sup>	46.97 <sup>220</sup>	49.68 <sup>31</sup>	67.54 <sup>278</sup>
11	24.979 <sup>36</sup>	53.78 <sup>250</sup>	0.245 <sup>4</sup>	44.03 <sup>140</sup>	43.147 <sup>25</sup>	44.77 <sup>219</sup>	49.37 <sup>16</sup>	64.76 <sup>291</sup>
21	24.943 <sup>36</sup>	51.28 <sup>242</sup>	0.249 <sup>41</sup>	42.63 <sup>165</sup>	43.122 <sup>35</sup>	42.58 <sup>210</sup>	49.21 <sup>1</sup>	61.85 <sup>293</sup>
31	24.979 <sup>113</sup>	48.86 <sup>226</sup>	0.290 <sup>82</sup>	40.98 <sup>186</sup>	43.157 <sup>97</sup>	40.48 <sup>191</sup>	49.20 <sup>15</sup>	58.92 <sup>283</sup>
Apr. 10	25.092 <sup>187</sup>	46.60 <sup>198</sup>	0.372 <sup>125</sup>	39.12 <sup>207</sup>	43.254 <sup>161</sup>	38.57 <sup>164</sup>	49.35 <sup>30</sup>	56.09 <sup>262</sup>
20	25.279 <sup>259</sup>	44.62 <sup>164</sup>	0.497 <sup>167</sup>	37.05 <sup>222</sup>	43.415 <sup>222</sup>	36.93 <sup>129</sup>	49.65 <sup>45</sup>	53.47 <sup>231</sup>
30	25.538 <sup>325</sup>	42.98 <sup>122</sup>	0.664 <sup>207</sup>	34.83 <sup>235</sup>	43.637 <sup>279</sup>	35.64 <sup>90</sup>	50.10 <sup>58</sup>	51.16 <sup>191</sup>
Mai 10	25.863 <sup>381</sup>	41.76 <sup>76</sup>	0.871 <sup>244</sup>	32.48 <sup>242</sup>	43.916 <sup>327</sup>	34.74 <sup>46</sup>	50.68 <sup>69</sup>	49.25 <sup>145</sup>
20	26.244 <sup>426</sup>	41.00 <sup>28</sup>	1.115 <sup>277</sup>	30.06 <sup>244</sup>	44.243 <sup>368</sup>	34.28 <sup>0</sup>	51.37 <sup>78</sup>	47.80 <sup>94</sup>
30	26.670 <sup>460</sup>	40.72 <sup>22</sup>	1.392 <sup>302</sup>	27.62 <sup>240</sup>	44.611 <sup>397</sup>	34.28 <sup>46</sup>	52.15 <sup>85</sup>	46.86 <sup>40</sup>
Juni 9	27.130 <sup>481</sup>	40.94 <sup>72</sup>	1.694 <sup>320</sup>	25.22 <sup>231</sup>	45.008 <sup>417</sup>	34.74 <sup>91</sup>	53.00 <sup>88</sup>	46.46 <sup>15</sup>
19	27.611 <sup>489</sup>	41.66 <sup>120</sup>	2.014 <sup>330</sup>	22.91 <sup>216</sup>	45.425 <sup>426</sup>	35.65 <sup>134</sup>	53.88 <sup>90</sup>	46.61 <sup>69</sup>
29	28.100 <sup>483</sup>	42.86 <sup>165</sup>	2.344 <sup>332</sup>	20.75 <sup>195</sup>	45.851 <sup>422</sup>	36.99 <sup>174</sup>	54.78 <sup>90</sup>	47.30 <sup>123</sup>
Juli 9	28.583 <sup>468</sup>	44.51 <sup>205</sup>	2.676 <sup>326</sup>	18.80 <sup>170</sup>	46.273 <sup>409</sup>	38.73 <sup>208</sup>	55.68 <sup>87</sup>	48.53 <sup>173</sup>
19	29.051 <sup>440</sup>	46.56 <sup>241</sup>	3.002 <sup>310</sup>	17.10 <sup>140</sup>	46.682 <sup>387</sup>	40.81 <sup>239</sup>	56.55 <sup>81</sup>	50.26 <sup>219</sup>
29	29.491 <sup>403</sup>	48.97 <sup>271</sup>	3.312 <sup>289</sup>	15.70 <sup>107</sup>	47.069 <sup>357</sup>	43.20 <sup>263</sup>	57.36 <sup>75</sup>	52.45 <sup>260</sup>
Aug. 8	29.894 <sup>360</sup>	51.68 <sup>295</sup>	3.601 <sup>260</sup>	14.63 <sup>72</sup>	47.426 <sup>318</sup>	45.83 <sup>282</sup>	58.11 <sup>67</sup>	55.05 <sup>296</sup>
18	30.254 <sup>308</sup>	54.63 <sup>313</sup>	3.861 <sup>228</sup>	13.91 <sup>36</sup>	47.744 <sup>277</sup>	48.65 <sup>295</sup>	58.78 <sup>57</sup>	58.01 <sup>325</sup>
28	30.562 <sup>255</sup>	57.76 <sup>325</sup>	4.089 <sup>190</sup>	13.55 <sup>1</sup>	48.021 <sup>231</sup>	51.60 <sup>302</sup>	59.35 <sup>47</sup>	61.26 <sup>347</sup>
Sept. 7	30.817 <sup>198</sup>	61.01 <sup>330</sup>	4.279 <sup>152</sup>	13.54 <sup>32</sup>	48.252 <sup>182</sup>	54.62 <sup>303</sup>	59.82 <sup>36</sup>	64.73 <sup>364</sup>
17	31.015 <sup>140</sup>	64.31 <sup>339</sup>	4.431 <sup>113</sup>	13.86 <sup>62</sup>	48.434 <sup>134</sup>	57.65 <sup>298</sup>	60.18 <sup>24</sup>	68.37 <sup>372</sup>
27	31.155 <sup>83</sup>	67.60 <sup>321</sup>	4.544 <sup>74</sup>	14.48 <sup>87</sup>	48.568 <sup>87</sup>	60.63 <sup>287</sup>	60.42 <sup>13</sup>	72.09 <sup>374</sup>
Okt. 6	31.238 <sup>27</sup>	70.81 <sup>307</sup>	4.618 <sup>38</sup>	15.35 <sup>107</sup>	48.655 <sup>40</sup>	63.50 <sup>272</sup>	60.55 <sup>0</sup>	75.83 <sup>367</sup>
16	31.265 <sup>27</sup>	73.88 <sup>287</sup>	4.656 <sup>5</sup>	16.42 <sup>120</sup>	48.695 <sup>4</sup>	66.22 <sup>251</sup>	60.55 <sup>12</sup>	79.50 <sup>352</sup>
26	31.238 <sup>77</sup>	76.75 <sup>261</sup>	4.661 <sup>24</sup>	17.62 <sup>129</sup>	48.691 <sup>46</sup>	68.73 <sup>225</sup>	60.43 <sup>23</sup>	83.02 <sup>329</sup>
Nov. 5	31.161 <sup>125</sup>	79.36 <sup>228</sup>	4.637 <sup>49</sup>	18.91 <sup>130</sup>	48.645 <sup>83</sup>	70.98 <sup>195</sup>	60.20 <sup>34</sup>	86.31 <sup>299</sup>
15	31.096 <sup>168</sup>	81.64 <sup>190</sup>	4.588 <sup>71</sup>	20.21 <sup>124</sup>	48.562 <sup>119</sup>	72.93 <sup>159</sup>	59.86 <sup>45</sup>	89.30 <sup>261</sup>
25	30.868 <sup>205</sup>	83.54 <sup>147</sup>	4.517 <sup>88</sup>	21.45 <sup>114</sup>	48.443 <sup>149</sup>	74.52 <sup>119</sup>	59.41 <sup>53</sup>	91.91 <sup>216</sup>
Dez. 5	30.663 <sup>238</sup>	85.01 <sup>100</sup>	4.429 <sup>101</sup>	22.59 <sup>99</sup>	48.294 <sup>175</sup>	75.71 <sup>77</sup>	58.88 <sup>61</sup>	94.07 <sup>163</sup>
15	30.425 <sup>262</sup>	86.01 <sup>49</sup>	4.328 <sup>110</sup>	23.58 <sup>80</sup>	48.119 <sup>196</sup>	76.48 <sup>33</sup>	58.27 <sup>68</sup>	95.70 <sup>106</sup>
25	30.163 <sup>278</sup>	86.50 <sup>1</sup>	4.218 <sup>115</sup>	24.38 <sup>58</sup>	47.923 <sup>210</sup>	76.81 <sup>14</sup>	57.59 <sup>71</sup>	96.76 <sup>106</sup>
35	29.885	86.49	4.103	24.96	47.713	76.67	56.88	97.21 <sup>45</sup>
Mittl. Ort	27.932	53.57	1.575	33.93	45.574	45.67	55.49	60.92
sec $\delta$ , tg $\delta$	1.795	+1.491	1.054	-0.332	1.491	+1.107	3.766	+3.630

Tag	27) ζ Andromedae		32) γ Cassiopeiae		33) μ Andromedae		35) α Sculptoris	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	0 <sup>h</sup> 43 <sup>m</sup>	+23° 52'	0 <sup>h</sup> 52 <sup>m</sup>	+60° 19'	0 <sup>h</sup> 52 <sup>m</sup>	+38° 6'	0 <sup>h</sup> 55 <sup>m</sup>	-29° 44'
Jan. 0	33.274	54.63	23.15	69.98	47.294	59.62	10.588	43.48
10	33.144	54.00	22.82	69.90	47.126	59.18	10.445	43.85
20	33.013	53.16	22.48	69.28	46.954	58.39	10.303	43.86
30	32.886	52.14	22.15	68.16	46.785	57.29	10.166	43.50
Feb. 9	32.770	51.00	21.84	66.58	46.627	55.91	10.040	42.78
19	32.672	49.79	21.57	64.61	46.491	54.33	9.931	41.71
März 1	32.598	48.56	21.35	62.34	46.383	52.61	9.846	40.30
11	32.556	47.39	21.20	59.86	46.312	50.83	9.791	38.59
21	32.552	46.32	21.12	57.30	46.287	49.08	9.770	36.59
31	32.590	45.44	21.12	54.74	46.311	47.45	9.790	34.34
Apr. 10	32.674	44.78	21.21	52.32	46.389	46.01	9.853	31.87
20	32.804	44.41	21.39	50.12	46.522	44.83	9.961	29.25
30	32.981	44.35	21.65	48.23	46.709	43.97	10.116	26.50
Mai 10	33.201	44.62	21.98	46.72	46.946	43.47	10.315	23.68
20	33.459	45.24	22.38	45.65	47.228	43.36	10.555	20.86
30	33.750	46.19	22.83	45.06	47.548	43.66	10.832	18.10
Juni 9	34.065	47.45	23.33	44.98	47.896	44.36	11.140	15.45
19	34.397	49.00	23.85	45.40	48.265	45.45	11.470	12.99
29	34.738	50.79	24.39	46.31	48.643	46.89	11.815	10.78
Juli 9	35.078	52.78	24.93	47.69	49.023	48.66	12.165	8.86
19	35.409	54.92	25.45	49.51	49.393	50.71	12.512	7.29
29	35.723	57.16	25.95	51.72	49.746	52.99	12.847	6.11
Aug. 8	36.014	59.44	26.41	54.28	50.074	55.44	13.161	5.35
18	36.276	61.72	26.83	57.12	50.372	58.01	13.449	5.01
28	36.505	63.94	27.19	60.19	50.634	60.65	13.703	5.10
Sept. 7	36.697	66.06	27.50	63.43	50.856	63.31	13.919	5.60
17	36.853	68.06	27.75	66.76	51.038	65.92	14.095	6.48
27	36.971	69.89	27.94	70.13	51.178	68.45	14.227	7.70
Okt. 6	37.053	71.54	28.06	73.47	51.277	70.86	14.318	9.18
16	37.101	72.98	28.12	76.72	51.337	73.10	14.367	10.87
26	37.117	74.20	28.11	79.80	51.360	75.13	14.379	12.67
Nov. 5	37.103	75.19	28.05	82.65	51.347	76.93	14.355	14.51
15	37.064	75.94	27.93	85.20	51.302	78.45	14.301	16.30
25	37.001	76.44	27.76	87.39	51.226	79.67	14.221	17.97
Dez. 5	36.918	76.69	27.54	89.17	51.125	80.55	14.119	19.45
15	36.818	76.69	27.27	90.48	50.999	81.09	14.000	20.67
25	36.705	76.45	26.98	91.28	50.855	81.26	13.869	21.59
35	36.582	75.96	26.66	91.54	50.697	81.06	13.730	22.17
Mittl. Ort see δ, tg δ	34.243 1.094	52.32 +0.443	24.46 2.020	57.43 +1.756	48.317 1.271	52.59 +0.784	11.106 1.152	27.78 -0.571

# Obere Kulmination Greenwich

31\*

Tag	36) ε Piscium		38) β Phoenicis		42) β Andromedae		45) υ Piscium	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	0 <sup>h</sup> 59 <sup>m</sup>	+7° 30'	1 <sup>h</sup> 2 <sup>m</sup>	-47° 5'	1 <sup>h</sup> 5 <sup>m</sup>	+35° 14'	1 <sup>h</sup> 15 <sup>m</sup>	+26° 53'
Jan. 0	14.588 <sup>110</sup>	26.80 <sup>62</sup>	54.762 <sup>217</sup>	75.97 <sup>16</sup>	44.096 <sup>155</sup>	46.92 <sup>38</sup>	32.711 <sup>133</sup>	32.76 <sup>41</sup>
10	14.478 <sup>114</sup>	26.18 <sup>65</sup>	54.545 <sup>214</sup>	76.13 <sup>34</sup>	43.941 <sup>163</sup>	46.54 <sup>69</sup>	32.578 <sup>141</sup>	32.35 <sup>64</sup>
20	14.364 <sup>113</sup>	25.53 <sup>65</sup>	54.331 <sup>206</sup>	75.79 <sup>83</sup>	43.778 <sup>164</sup>	45.85 <sup>98</sup>	32.437 <sup>143</sup>	31.71 <sup>85</sup>
30	14.251 <sup>107</sup>	24.88 <sup>60</sup>	54.125 <sup>191</sup>	74.96 <sup>130</sup>	43.614 <sup>154</sup>	44.87 <sup>123</sup>	32.294 <sup>139</sup>	30.86 <sup>101</sup>
Feb. 9	14.144 <sup>93</sup>	24.28 <sup>54</sup>	53.934 <sup>167</sup>	73.66 <sup>174</sup>	43.460 <sup>138</sup>	43.64 <sup>142</sup>	32.155 <sup>125</sup>	29.85 <sup>114</sup>
19	14.051 <sup>72</sup>	23.74 <sup>44</sup>	53.767 <sup>137</sup>	71.92 <sup>213</sup>	43.322 <sup>113</sup>	42.22 <sup>155</sup>	32.030 <sup>105</sup>	28.71 <sup>120</sup>
März 1	13.979 <sup>47</sup>	23.30 <sup>30</sup>	53.630 <sup>99</sup>	69.79 <sup>249</sup>	43.209 <sup>78</sup>	40.67 <sup>161</sup>	31.925 <sup>75</sup>	27.51 <sup>121</sup>
11	13.932 <sup>14</sup>	23.00 <sup>12</sup>	53.531 <sup>56</sup>	67.30 <sup>279</sup>	43.131 <sup>37</sup>	39.06 <sup>158</sup>	31.850 <sup>38</sup>	26.30 <sup>115</sup>
21	13.918 <sup>24</sup>	22.88 <sup>8</sup>	53.475 <sup>7</sup>	64.51 <sup>303</sup>	43.094 <sup>11</sup>	37.48 <sup>148</sup>	31.812 <sup>4</sup>	25.15 <sup>103</sup>
31	13.942 <sup>64</sup>	22.96 <sup>33</sup>	53.468 <sup>46</sup>	61.48 <sup>321</sup>	43.105 <sup>63</sup>	36.00 <sup>130</sup>	31.816 <sup>50</sup>	24.12 <sup>84</sup>
Apr. 10	14.006 <sup>108</sup>	23.29 <sup>57</sup>	53.514 <sup>102</sup>	58.27 <sup>332</sup>	43.168 <sup>115</sup>	34.70 <sup>106</sup>	31.866 <sup>100</sup>	23.28 <sup>60</sup>
20	14.114 <sup>151</sup>	23.86 <sup>84</sup>	53.616 <sup>157</sup>	54.95 <sup>338</sup>	43.283 <sup>169</sup>	33.64 <sup>76</sup>	31.966 <sup>149</sup>	22.68 <sup>32</sup>
30	14.265 <sup>193</sup>	24.70 <sup>110</sup>	53.773 <sup>213</sup>	51.57 <sup>335</sup>	43.452 <sup>219</sup>	32.88 <sup>42</sup>	32.115 <sup>196</sup>	22.36 <sup>1</sup>
Mai 10	14.458 <sup>230</sup>	25.80 <sup>134</sup>	53.986 <sup>264</sup>	48.22 <sup>326</sup>	43.671 <sup>264</sup>	32.46 <sup>6</sup>	32.311 <sup>239</sup>	22.35 <sup>31</sup>
20	14.688 <sup>263</sup>	27.14 <sup>156</sup>	54.250 <sup>310</sup>	44.96 <sup>310</sup>	43.935 <sup>303</sup>	32.40 <sup>33</sup>	32.550 <sup>277</sup>	22.66 <sup>65</sup>
30	14.951 <sup>290</sup>	28.70 <sup>175</sup>	54.560 <sup>350</sup>	41.86 <sup>285</sup>	44.238 <sup>333</sup>	32.73 <sup>70</sup>	32.827 <sup>307</sup>	23.31 <sup>96</sup>
Juni 9	15.241 <sup>308</sup>	30.45 <sup>189</sup>	54.910 <sup>380</sup>	39.01 <sup>255</sup>	44.571 <sup>355</sup>	33.43 <sup>107</sup>	33.134 <sup>329</sup>	24.27 <sup>127</sup>
19	15.549 <sup>319</sup>	32.34 <sup>200</sup>	55.290 <sup>401</sup>	36.46 <sup>217</sup>	44.926 <sup>368</sup>	34.50 <sup>140</sup>	33.463 <sup>343</sup>	25.54 <sup>153</sup>
29	15.868 <sup>323</sup>	34.34 <sup>203</sup>	55.691 <sup>413</sup>	34.29 <sup>176</sup>	45.294 <sup>370</sup>	35.90 <sup>170</sup>	33.806 <sup>348</sup>	27.07 <sup>177</sup>
Juli 9	16.191 <sup>318</sup>	36.37 <sup>204</sup>	56.104 <sup>413</sup>	32.53 <sup>129</sup>	45.664 <sup>365</sup>	37.60 <sup>196</sup>	34.154 <sup>345</sup>	28.84 <sup>195</sup>
19	16.509 <sup>305</sup>	38.41 <sup>198</sup>	56.517 <sup>402</sup>	31.24 <sup>79</sup>	46.029 <sup>351</sup>	39.56 <sup>217</sup>	34.499 <sup>333</sup>	30.79 <sup>208</sup>
29	16.814 <sup>285</sup>	40.39 <sup>187</sup>	56.919 <sup>381</sup>	30.45 <sup>27</sup>	46.380 <sup>329</sup>	41.73 <sup>232</sup>	34.832 <sup>314</sup>	32.87 <sup>217</sup>
Aug. 8	17.099 <sup>261</sup>	42.26 <sup>173</sup>	57.300 <sup>350</sup>	30.18 <sup>24</sup>	46.709 <sup>301</sup>	44.05 <sup>243</sup>	35.146 <sup>290</sup>	35.04 <sup>221</sup>
18	17.360 <sup>231</sup>	43.99 <sup>155</sup>	57.650 <sup>312</sup>	30.42 <sup>75</sup>	47.010 <sup>268</sup>	46.48 <sup>249</sup>	35.436 <sup>261</sup>	37.25 <sup>220</sup>
28	17.591 <sup>199</sup>	45.54 <sup>135</sup>	57.962 <sup>266</sup>	31.17 <sup>123</sup>	47.278 <sup>231</sup>	48.97 <sup>249</sup>	35.697 <sup>227</sup>	39.45 <sup>214</sup>
Sept. 7	17.790 <sup>164</sup>	46.89 <sup>113</sup>	58.228 <sup>215</sup>	32.40 <sup>164</sup>	47.509 <sup>194</sup>	51.46 <sup>244</sup>	35.924 <sup>193</sup>	41.59 <sup>205</sup>
17	17.954 <sup>130</sup>	48.02 <sup>89</sup>	58.443 <sup>161</sup>	34.04 <sup>199</sup>	47.703 <sup>154</sup>	53.90 <sup>236</sup>	36.117 <sup>157</sup>	43.64 <sup>193</sup>
27	18.084 <sup>95</sup>	48.91 <sup>67</sup>	58.604 <sup>105</sup>	36.03 <sup>226</sup>	47.857 <sup>115</sup>	56.26 <sup>224</sup>	36.274 <sup>121</sup>	45.57 <sup>178</sup>
Okt. 6*)	18.179 <sup>63</sup>	49.58 <sup>45</sup>	58.709 <sup>50</sup>	38.29 <sup>244</sup>	47.972 <sup>77</sup>	58.50 <sup>207</sup>	36.395 <sup>86</sup>	47.35 <sup>160</sup>
16	18.242 <sup>33</sup>	50.03 <sup>24</sup>	58.759 <sup>1</sup>	40.73 <sup>251</sup>	48.049 <sup>40</sup>	60.57 <sup>189</sup>	36.481 <sup>52</sup>	48.95 <sup>140</sup>
26	18.275 <sup>5</sup>	50.27 <sup>6</sup>	58.758 <sup>51</sup>	43.24 <sup>247</sup>	48.089 <sup>6</sup>	62.46 <sup>166</sup>	36.533 <sup>21</sup>	50.35 <sup>120</sup>
Nov. 5	18.280 <sup>20</sup>	50.33 <sup>10</sup>	58.707 <sup>98</sup>	45.71 <sup>234</sup>	48.095 <sup>26</sup>	64.12 <sup>141</sup>	36.554 <sup>9</sup>	51.55 <sup>98</sup>
15	18.260 <sup>43</sup>	50.23 <sup>24</sup>	58.614 <sup>131</sup>	48.05 <sup>209</sup>	48.069 <sup>56</sup>	65.53 <sup>113</sup>	36.545 <sup>35</sup>	52.53 <sup>75</sup>
25	18.217 <sup>62</sup>	49.99 <sup>36</sup>	58.483 <sup>162</sup>	50.14 <sup>178</sup>	48.013 <sup>83</sup>	66.66 <sup>83</sup>	36.510 <sup>62</sup>	53.28 <sup>50</sup>
Dez. 5	18.155 <sup>79</sup>	49.63 <sup>46</sup>	58.321 <sup>185</sup>	51.92 <sup>139</sup>	47.930 <sup>108</sup>	67.49 <sup>52</sup>	36.448 <sup>85</sup>	53.78 <sup>25</sup>
15	18.076 <sup>93</sup>	49.17 <sup>54</sup>	58.136 <sup>203</sup>	53.31 <sup>95</sup>	47.822 <sup>128</sup>	68.01 <sup>18</sup>	36.363 <sup>105</sup>	54.03 <sup>0</sup>
25	17.983 <sup>103</sup>	48.63 <sup>59</sup>	57.933 <sup>213</sup>	54.26 <sup>46</sup>	47.694 <sup>145</sup>	68.19 <sup>16</sup>	36.258 <sup>121</sup>	54.03 <sup>25</sup>
35	17.880	48.04	57.720	54.72	47.549	68.03	36.137	53.78
Mittl. Ort	15.360	29.82	54.980	55.96	45.013	40.49	33.510	28.79
sec δ, tg δ	1.009	+0.132	1.469	-1.076	1.224	+0.707	1.121	+0.507

\*) Bei Stern 38), 42) und 45) lies Okt. 7

Tag	47) $\delta$ Ceti		48) $\delta$ Cassiopeiae		50) $\eta$ Piscium		51) $\alpha$ Cassiopeiae	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$1^h 20^m$	$-8^\circ 32'$	$1^h 21^m$	$+59^\circ 51'$	$1^h 27^m$	$+14^\circ 58'$	$1^h 32^m$	$+72^\circ 40'$
Jan. 0	27.893 <sup>112</sup>	65.50 <sup>66</sup>	8.237 <sup>316</sup>	73.84 <sup>26</sup>	40.163 <sup>113</sup>	49.18 <sup>50</sup>	47.13 <sup>60</sup>	59.66 <sup>73</sup>
10	27.781 <sup>118</sup>	66.16 <sup>50</sup>	7.921 <sup>332</sup>	74.10 <sup>26</sup>	40.050 <sup>123</sup>	48.68 <sup>61</sup>	46.53 <sup>63</sup>	60.39 <sup>12</sup>
20	27.663 <sup>120</sup>	66.66 <sup>31</sup>	7.589 <sup>334</sup>	73.84 <sup>78</sup>	39.927 <sup>127</sup>	48.07 <sup>67</sup>	45.90 <sup>64</sup>	60.51 <sup>46</sup>
30	27.543 <sup>116</sup>	66.97 <sup>12</sup>	7.255 <sup>322</sup>	73.06 <sup>125</sup>	39.800 <sup>125</sup>	47.40 <sup>72</sup>	45.26 <sup>62</sup>	60.05 <sup>104</sup>
Feb. 9	27.427 <sup>106</sup>	67.09 <sup>9</sup>	6.933 <sup>293</sup>	71.81 <sup>167</sup>	39.675 <sup>116</sup>	46.68 <sup>73</sup>	44.64 <sup>57</sup>	59.01 <sup>155</sup>
19	27.321 <sup>89</sup>	67.00 <sup>31</sup>	6.640 <sup>251</sup>	70.14 <sup>201</sup>	39.559 <sup>99</sup>	45.95 <sup>70</sup>	44.07 <sup>50</sup>	57.46 <sup>201</sup>
März 1	27.232 <sup>65</sup>	66.69 <sup>55</sup>	6.389 <sup>193</sup>	68.13 <sup>227</sup>	39.460 <sup>75</sup>	45.25 <sup>63</sup>	43.57 <sup>40</sup>	55.45 <sup>236</sup>
11	27.167 <sup>35</sup>	66.14 <sup>78</sup>	6.196 <sup>124</sup>	65.86 <sup>242</sup>	39.385 <sup>42</sup>	44.62 <sup>51</sup>	43.17 <sup>28</sup>	53.09 <sup>261</sup>
21	27.132 <sup>0</sup>	65.36 <sup>104</sup>	6.072 <sup>45</sup>	63.44 <sup>247</sup>	39.343 <sup>5</sup>	44.11 <sup>35</sup>	42.89 <sup>16</sup>	50.48 <sup>276</sup>
31	27.132 <sup>40</sup>	64.32 <sup>127</sup>	6.027 <sup>38</sup>	60.97 <sup>242</sup>	39.338 <sup>37</sup>	43.76 <sup>14</sup>	42.73 <sup>1</sup>	47.72 <sup>279</sup>
Apr. 10	27.172 <sup>82</sup>	63.05 <sup>150</sup>	6.065 <sup>124</sup>	58.55 <sup>225</sup>	39.375 <sup>82</sup>	43.62 <sup>9</sup>	42.72 <sup>12</sup>	44.93 <sup>270</sup>
20	27.254 <sup>126</sup>	61.55 <sup>171</sup>	6.189 <sup>209</sup>	56.30 <sup>200</sup>	39.457 <sup>129</sup>	43.71 <sup>35</sup>	42.84 <sup>27</sup>	42.23 <sup>250</sup>
30	27.380 <sup>169</sup>	59.84 <sup>191</sup>	6.398 <sup>288</sup>	54.30 <sup>168</sup>	39.586 <sup>173</sup>	44.06 <sup>61</sup>	43.11 <sup>40</sup>	39.73 <sup>222</sup>
Mai 10	27.549 <sup>209</sup>	57.93 <sup>205</sup>	6.686 <sup>360</sup>	52.62 <sup>129</sup>	39.759 <sup>215</sup>	44.67 <sup>89</sup>	43.51 <sup>52</sup>	37.51 <sup>185</sup>
20	27.758 <sup>244</sup>	55.88 <sup>217</sup>	7.046 <sup>422</sup>	51.33 <sup>85</sup>	39.974 <sup>251</sup>	45.56 <sup>115</sup>	44.03 <sup>62</sup>	35.66 <sup>143</sup>
30	28.002 <sup>274</sup>	53.71 <sup>223</sup>	7.468 <sup>471</sup>	50.48 <sup>38</sup>	40.225 <sup>282</sup>	46.71 <sup>138</sup>	44.65 <sup>71</sup>	34.23 <sup>96</sup>
Juni 9	28.276 <sup>297</sup>	51.48 <sup>224</sup>	7.939 <sup>507</sup>	50.10 <sup>10</sup>	40.507 <sup>305</sup>	48.09 <sup>159</sup>	45.36 <sup>77</sup>	33.27 <sup>45</sup>
19	28.573 <sup>312</sup>	49.24 <sup>219</sup>	8.446 <sup>531</sup>	50.20 <sup>58</sup>	40.812 <sup>320</sup>	49.68 <sup>175</sup>	46.13 <sup>82</sup>	32.82 <sup>7</sup>
29	28.885 <sup>319</sup>	47.05 <sup>210</sup>	8.977 <sup>539</sup>	50.78 <sup>104</sup>	41.132 <sup>328</sup>	51.43 <sup>188</sup>	46.95 <sup>83</sup>	32.89 <sup>58</sup>
Juli 9	29.204 <sup>319</sup>	44.95 <sup>194</sup>	9.516 <sup>535</sup>	51.82 <sup>148</sup>	41.460 <sup>327</sup>	53.31 <sup>195</sup>	47.78 <sup>84</sup>	33.47 <sup>108</sup>
19	29.523 <sup>311</sup>	43.01 <sup>173</sup>	10.051 <sup>519</sup>	53.30 <sup>189</sup>	41.787 <sup>318</sup>	55.26 <sup>197</sup>	48.62 <sup>82</sup>	34.55 <sup>156</sup>
29	29.834 <sup>296</sup>	41.28 <sup>148</sup>	10.570 <sup>492</sup>	55.19 <sup>225</sup>	42.105 <sup>393</sup>	57.23 <sup>196</sup>	49.44 <sup>78</sup>	36.11 <sup>200</sup>
Aug. 8	30.130 <sup>273</sup>	39.80 <sup>121</sup>	11.062 <sup>455</sup>	57.44 <sup>256</sup>	42.408 <sup>282</sup>	59.19 <sup>188</sup>	50.22 <sup>73</sup>	38.11 <sup>240</sup>
18	30.403 <sup>248</sup>	38.59 <sup>90</sup>	11.517 <sup>410</sup>	60.00 <sup>281</sup>	42.690 <sup>256</sup>	61.07 <sup>177</sup>	50.95 <sup>67</sup>	40.51 <sup>275</sup>
28	30.651 <sup>217</sup>	37.69 <sup>58</sup>	11.927 <sup>359</sup>	62.81 <sup>302</sup>	42.946 <sup>226</sup>	62.84 <sup>163</sup>	51.62 <sup>59</sup>	43.26 <sup>305</sup>
Sept. 7	30.868 <sup>183</sup>	37.11 <sup>26</sup>	12.286 <sup>304</sup>	65.83 <sup>315</sup>	43.172 <sup>194</sup>	64.47 <sup>147</sup>	52.21 <sup>50</sup>	46.31 <sup>327</sup>
17	31.051 <sup>149</sup>	36.85 <sup>4</sup>	12.590 <sup>245</sup>	68.98 <sup>323</sup>	43.366 <sup>160</sup>	65.94 <sup>127</sup>	52.71 <sup>41</sup>	49.58 <sup>345</sup>
27	31.200 <sup>115</sup>	36.89 <sup>31</sup>	12.835 <sup>184</sup>	72.21 <sup>325</sup>	43.526 <sup>128</sup>	67.21 <sup>108</sup>	53.12 <sup>31</sup>	53.03 <sup>355</sup>
Okt. 7	31.315 <sup>81</sup>	37.20 <sup>55</sup>	13.019 <sup>124</sup>	75.46 <sup>321</sup>	43.654 <sup>95</sup>	68.29 <sup>87</sup>	53.43 <sup>21</sup>	56.58 <sup>358</sup>
16	31.396 <sup>49</sup>	37.75 <sup>74</sup>	13.143 <sup>62</sup>	78.67 <sup>309</sup>	43.749 <sup>64</sup>	69.16 <sup>69</sup>	53.64 <sup>10</sup>	60.16 <sup>354</sup>
26	31.445 <sup>19</sup>	38.49 <sup>89</sup>	13.205 <sup>1</sup>	81.76 <sup>291</sup>	43.813 <sup>35</sup>	69.85 <sup>48</sup>	53.74 <sup>1</sup>	63.70 <sup>341</sup>
Nov. 5	31.464 <sup>7</sup>	39.38 <sup>98</sup>	13.206 <sup>59</sup>	84.67 <sup>268</sup>	43.848 <sup>19</sup>	70.33 <sup>31</sup>	53.73 <sup>12</sup>	67.11 <sup>322</sup>
15	31.457 <sup>33</sup>	40.36 <sup>102</sup>	13.147 <sup>115</sup>	87.35 <sup>236</sup>	43.854 <sup>19</sup>	70.64 <sup>14</sup>	53.61 <sup>23</sup>	70.33 <sup>294</sup>
25	31.424 <sup>54</sup>	41.38 <sup>100</sup>	13.032 <sup>170</sup>	89.71 <sup>200</sup>	43.835 <sup>43</sup>	70.78 <sup>2</sup>	53.38 <sup>32</sup>	73.27 <sup>257</sup>
Dez. 5	31.370 <sup>74</sup>	42.38 <sup>96</sup>	12.862 <sup>219</sup>	91.71 <sup>157</sup>	43.792 <sup>66</sup>	70.76 <sup>17</sup>	53.06 <sup>41</sup>	75.84 <sup>214</sup>
15	31.296 <sup>90</sup>	43.34 <sup>86</sup>	12.643 <sup>261</sup>	93.28 <sup>110</sup>	43.726 <sup>85</sup>	70.59 <sup>30</sup>	52.65 <sup>50</sup>	77.98 <sup>165</sup>
25	31.206 <sup>104</sup>	44.20 <sup>74</sup>	12.382 <sup>296</sup>	94.38 <sup>60</sup>	43.641 <sup>102</sup>	70.29 <sup>43</sup>	52.15 <sup>56</sup>	79.63 <sup>109</sup>
35	31.102	44.94	12.086	94.98	43.539	69.86	51.59	80.72
Mittl. Ort	28.429	57.39	9.262	60.95	40.818	48.95	48.20	44.59
sec $\delta$ , tg $\delta$	1.011	-0.150	1.992	+1.723	1.035	+0.268	3.359	+3.206



# Obere Kulmination Greenwich

33<sup>a</sup>

Tag	52) υ Persei		54) α Eridani		55) 43 Cassiopeiae		57) φ Persei	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	1 <sup>h</sup> 33 <sup>m</sup>	+48° 16'	1 <sup>h</sup> 35 <sup>m</sup>	-57° 35'	1 <sup>h</sup> 36 <sup>m</sup>	+67° 40'	1 <sup>h</sup> 39 <sup>m</sup>	+50° 19'
Jan. 0	36.580 <sub>207</sub>	19.27 <sub>13</sub>	4.810 <sub>313</sub>	70.44 <sub>36</sub>	62.37 <sub>44</sub>	79.63 <sub>66</sub>	11.122 <sub>218</sub>	65.26 <sub>25</sub>
10	36.373 <sub>223</sub>	19.40 <sub>30</sub>	4.497 <sub>320</sub>	70.80 <sub>19</sub>	61.93 <sub>47</sub>	80.29 <sub>8</sub>	10.904 <sub>237</sub>	65.51 <sub>21</sub>
20	36.150 <sub>231</sub>	19.10 <sub>71</sub>	4.177 <sub>316</sub>	70.61 <sub>76</sub>	61.46 <sub>48</sub>	80.37 <sub>48</sub>	10.667 <sub>245</sub>	65.30 <sub>63</sub>
30	35.919 <sub>226</sub>	18.39 <sub>109</sub>	3.861 <sub>302</sub>	69.85 <sub>130</sub>	60.98 <sub>47</sub>	79.89 <sub>102</sub>	10.422 <sub>242</sub>	64.67 <sub>105</sub>
Febr. 9	35.693 <sub>210</sub>	17.30 <sub>144</sub>	3.559 <sub>278</sub>	68.55 <sub>180</sub>	60.51 <sub>43</sub>	78.87 <sub>151</sub>	10.180 <sub>227</sub>	63.62 <sub>140</sub>
19	35.483 <sub>183</sub>	15.86 <sub>171</sub>	3.281 <sub>245</sub>	66.75 <sub>226</sub>	60.08 <sub>38</sub>	77.36 <sub>194</sub>	9.953 <sub>198</sub>	62.22 <sub>160</sub>
März I	35.300 <sub>144</sub>	14.15 <sub>190</sub>	3.036 <sub>202</sub>	64.49 <sub>266</sub>	59.70 <sub>31</sub>	75.42 <sub>227</sub>	9.755 <sub>159</sub>	60.53 <sub>192</sub>
11	35.156 <sub>94</sub>	12.25 <sub>199</sub>	2.834 <sub>150</sub>	61.83 <sub>300</sub>	59.39 <sub>22</sub>	73.15 <sub>251</sub>	9.596 <sub>109</sub>	58.61 <sub>204</sub>
21	35.062 <sub>38</sub>	10.26 <sub>202</sub>	2.684 <sub>92</sub>	58.83 <sub>327</sub>	59.17 <sub>12</sub>	70.64 <sub>263</sub>	9.487 <sub>49</sub>	56.57 <sub>207</sub>
31	35.024 <sub>25</sub>	8.24 <sub>193</sub>	2.592 <sub>27</sub>	55.56 <sub>348</sub>	59.05 <sub>0</sub>	68.01 <sub>264</sub>	9.438 <sub>16</sub>	54.50 <sub>202</sub>
Apr. 10	35.049 <sub>91</sub>	6.31 <sub>177</sub>	2.565 <sub>41</sub>	52.08 <sub>361</sub>	59.05 <sub>10</sub>	65.37 <sub>255</sub>	9.454 <sub>84</sub>	52.48 <sub>187</sub>
20	35.140 <sub>157</sub>	4.54 <sub>153</sub>	2.606 <sub>112</sub>	48.47 <sub>368</sub>	59.15 <sub>22</sub>	62.82 <sub>236</sub>	9.538 <sub>153</sub>	50.61 <sub>164</sub>
30	35.297 <sub>220</sub>	3.01 <sub>122</sub>	2.718 <sub>182</sub>	44.79 <sub>365</sub>	59.37 <sub>32</sub>	60.46 <sub>207</sub>	9.691 <sub>219</sub>	48.97 <sub>134</sub>
Mai 10	35.517 <sub>278</sub>	1.79 <sub>86</sub>	2.900 <sub>249</sub>	41.14 <sub>355</sub>	59.69 <sub>42</sub>	58.39 <sub>172</sub>	9.910 <sub>280</sub>	47.63 <sub>100</sub>
20	35.795 <sub>329</sub>	0.93 <sub>47</sub>	3.149 <sub>313</sub>	37.59 <sub>337</sub>	60.11 <sub>50</sub>	56.67 <sub>129</sub>	10.190 <sub>334</sub>	46.63 <sub>60</sub>
30	36.124 <sub>370</sub>	0.46 <sub>6</sub>	3.462 <sub>368</sub>	34.22 <sub>311</sub>	60.61 <sub>57</sub>	55.38 <sub>83</sub>	10.524 <sub>378</sub>	46.03 <sub>19</sub>
Juni 9	36.494 <sub>403</sub>	0.40 <sub>37</sub>	3.830 <sub>415</sub>	31.11 <sub>279</sub>	61.18 <sub>63</sub>	54.55 <sub>35</sub>	10.902 <sub>411</sub>	45.84 <sub>24</sub>
19	36.895 <sub>421</sub>	0.77 <sub>78</sub>	4.245 <sub>451</sub>	28.32 <sub>239</sub>	61.81 <sub>56</sub>	54.20 <sub>15</sub>	11.313 <sub>435</sub>	46.08 <sub>66</sub>
29	37.318 <sub>432</sub>	1.55 <sub>117</sub>	4.696 <sub>476</sub>	25.93 <sub>193</sub>	62.47 <sub>68</sub>	54.35 <sub>66</sub>	11.748 <sub>446</sub>	46.74 <sub>107</sub>
Juli 9	37.750 <sub>432</sub>	2.72 <sub>154</sub>	5.172 <sub>488</sub>	24.00 <sub>142</sub>	63.15 <sub>68</sub>	55.01 <sub>113</sub>	12.194 <sub>447</sub>	47.81 <sub>144</sub>
19	38.182 <sub>422</sub>	4.26 <sub>186</sub>	5.660 <sub>487</sub>	22.58 <sub>88</sub>	63.83 <sub>66</sub>	56.14 <sub>158</sub>	12.641 <sub>438</sub>	49.25 <sub>178</sub>
29	38.604 <sub>402</sub>	6.12 <sub>214</sub>	6.147 <sub>473</sub>	21.70 <sub>31</sub>	64.49 <sub>64</sub>	57.72 <sub>200</sub>	13.079 <sub>420</sub>	51.03 <sub>209</sub>
Aug. 8	39.006 <sub>375</sub>	8.26 <sub>238</sub>	6.620 <sub>446</sub>	21.39 <sub>25</sub>	65.13 <sub>60</sub>	59.72 <sub>238</sub>	13.499 <sub>392</sub>	53.12 <sub>234</sub>
18	39.381 <sub>342</sub>	10.64 <sub>256</sub>	7.066 <sub>407</sub>	21.64 <sub>83</sub>	65.73 <sub>55</sub>	62.10 <sub>270</sub>	13.891 <sub>360</sub>	55.46 <sub>254</sub>
28	39.723 <sub>304</sub>	13.20 <sub>269</sub>	7.473 <sub>359</sub>	22.47 <sub>135</sub>	66.28 <sub>49</sub>	64.80 <sub>297</sub>	14.251 <sub>321</sub>	58.00 <sub>270</sub>
Sept. 7	40.027 <sub>262</sub>	15.89 <sub>277</sub>	7.832 <sub>301</sub>	23.82 <sub>183</sub>	66.77 <sub>42</sub>	67.77 <sub>318</sub>	14.572 <sub>278</sub>	60.70 <sub>279</sub>
17	40.289 <sub>218</sub>	18.66 <sub>279</sub>	8.133 <sub>237</sub>	25.65 <sub>223</sub>	67.19 <sub>34</sub>	70.95 <sub>333</sub>	14.850 <sub>234</sub>	63.49 <sub>283</sub>
27	40.507 <sub>173</sub>	21.45 <sub>277</sub>	8.370 <sub>168</sub>	27.88 <sub>255</sub>	67.53 <sub>27</sub>	74.28 <sub>341</sub>	15.084 <sub>187</sub>	66.32 <sub>283</sub>
Okt. 7	40.680 <sub>128</sub>	24.22 <sub>269</sub>	8.538 <sub>98</sub>	30.43 <sub>278</sub>	67.80 <sub>19</sub>	77.69 <sub>343</sub>	15.271 <sub>140</sub>	69.15 <sub>278</sub>
16	40.808 <sub>82</sub>	26.91 <sub>256</sub>	8.636 <sub>28</sub>	33.21 <sub>287</sub>	67.99 <sub>11</sub>	81.12 <sub>338</sub>	15.411 <sub>93</sub>	71.93 <sub>266</sub>
26	40.890 <sub>37</sub>	29.47 <sub>239</sub>	8.664 <sub>39</sub>	36.08 <sub>287</sub>	68.10 <sub>2</sub>	84.50 <sub>325</sub>	15.504 <sub>46</sub>	74.59 <sub>250</sub>
Nov. 5	40.927 <sub>6</sub>	31.86 <sub>217</sub>	8.625 <sub>102</sub>	38.95 <sub>273</sub>	68.12 <sub>6</sub>	87.75 <sub>305</sub>	15.550 <sub>0</sub>	77.09 <sub>229</sub>
15	40.921 <sub>49</sub>	34.03 <sub>190</sub>	8.523 <sub>160</sub>	41.68 <sub>251</sub>	68.06 <sub>14</sub>	90.80 <sub>277</sub>	15.550 <sub>47</sub>	79.38 <sub>202</sub>
25	40.872 <sub>89</sub>	35.93 <sub>157</sub>	8.363 <sub>208</sub>	44.19 <sub>215</sub>	67.92 <sub>22</sub>	93.57 <sub>243</sub>	15.503 <sub>90</sub>	81.40 <sub>171</sub>
Dez. 5	40.783 <sub>127</sub>	37.50 <sub>122</sub>	8.155 <sub>250</sub>	46.34 <sub>174</sub>	67.70 <sub>30</sub>	96.00 <sub>201</sub>	15.413 <sub>130</sub>	83.11 <sub>135</sub>
15	40.656 <sub>161</sub>	38.72 <sub>83</sub>	7.905 <sub>282</sub>	48.08 <sub>124</sub>	67.40 <sub>36</sub>	98.01 <sub>153</sub>	15.283 <sub>167</sub>	84.46 <sub>95</sub>
25	40.495 <sub>189</sub>	39.55 <sub>41</sub>	7.623 <sub>305</sub>	49.32 <sub>71</sub>	67.04 <sub>41</sub>	99.54 <sub>100</sub>	15.116 <sub>198</sub>	85.41 <sub>52</sub>
35	40.306	39.96	7.318	50.03	66.63	100.54	14.918	85.93
Mittl. Ort	37.399	8.83	4.371	49.65	63.31	65.24	11.910	54.27
sec δ, tg δ	1.502	+1.121	1.866	-1.576	2.634	+2.436	1.567	+1.206

## Scheinbare Sternörter 1929

Tag	59) $\tau$ Ceti*)		60) $\sigma$ Piscium		61) Lac. e Sculptoris		62) $\zeta$ Ceti	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	1 <sup>h</sup> 40 <sup>m</sup>	-16° 18'	1 <sup>h</sup> 41 <sup>m</sup>	+8° 47'	1 <sup>h</sup> 42 <sup>m</sup>	-25° 24'	1 <sup>h</sup> 47 <sup>m</sup>	-10° 40'
Jan. 0	45.803 <sub>122</sub>	49.60 <sub>69</sub>	37.952 <sub>107</sub>	61.98 <sub>55</sub>	18.955 <sub>135</sub>	38.90 <sub>74</sub>	56.937 <sub>110</sub>	74.83 <sub>74</sub>
10	45.681 <sub>131</sub>	50.29 <sub>44</sub>	37.845 <sub>118</sub>	61.43 <sub>56</sub>	18.820 <sub>144</sub>	39.64 <sub>41</sub>	56.827 <sub>123</sub>	75.57 <sub>55</sub>
20	45.550 <sub>136</sub>	50.73 <sub>18</sub>	37.727 <sub>125</sub>	60.87 <sub>58</sub>	18.676 <sub>148</sub>	40.05 <sub>6</sub>	56.704 <sub>129</sub>	76.12 <sub>35</sub>
30	45.414 <sub>135</sub>	50.91 <sub>11</sub>	37.602 <sub>126</sub>	60.29 <sub>55</sub>	18.528 <sub>147</sub>	40.11 <sub>30</sub>	56.575 <sub>130</sub>	76.47 <sub>11</sub>
Feb. 9	45.279 <sub>125</sub>	50.80 <sub>39</sub>	37.476 <sub>119</sub>	59.74 <sub>50</sub>	18.381 <sub>138</sub>	39.81 <sub>65</sub>	56.445 <sub>123</sub>	76.59 <sub>12</sub>
19	45.154 <sub>111</sub>	50.41 <sub>67</sub>	37.357 <sub>104</sub>	59.24 <sub>43</sub>	18.243 <sub>122</sub>	39.16 <sub>99</sub>	56.322 <sub>110</sub>	76.47 <sub>37</sub>
März 1	45.043 <sub>89</sub>	49.74 <sub>95</sub>	37.253 <sub>83</sub>	58.81 <sub>31</sub>	18.121 <sub>99</sub>	38.17 <sub>132</sub>	56.212 <sub>90</sub>	76.10 <sub>61</sub>
11	44.954 <sub>59</sub>	48.79 <sub>123</sub>	37.170 <sub>53</sub>	58.50 <sub>16</sub>	18.022 <sub>68</sub>	36.85 <sub>164</sub>	56.122 <sub>62</sub>	75.49 <sub>86</sub>
21	44.895 <sub>23</sub>	47.56 <sub>149</sub>	37.117 <sub>17</sub>	58.34 <sub>1</sub>	17.954 <sub>33</sub>	35.21 <sub>192</sub>	56.060 <sub>28</sub>	74.63 <sub>112</sub>
31	44.872 <sub>16</sub>	46.07 <sub>174</sub>	37.100 <sub>23</sub>	58.35 <sub>23</sub>	17.921 <sub>9</sub>	33.29 <sub>217</sub>	56.032 <sub>12</sub>	73.51 <sub>137</sub>
Apr. 10	44.888 <sub>59</sub>	44.33 <sub>196</sub>	37.123 <sub>66</sub>	58.58 <sub>45</sub>	17.930 <sub>54</sub>	31.12 <sub>239</sub>	56.044 <sub>54</sub>	72.14 <sub>160</sub>
20	44.947 <sub>104</sub>	42.37 <sub>216</sub>	37.189 <sub>112</sub>	59.03 <sub>69</sub>	17.984 <sub>100</sub>	28.73 <sub>257</sub>	56.098 <sub>98</sub>	70.54 <sub>181</sub>
30	45.051 <sub>148</sub>	40.21 <sub>232</sub>	37.301 <sub>156</sub>	59.72 <sub>94</sub>	18.084 <sub>147</sub>	26.16 <sub>270</sub>	56.196 <sub>142</sub>	68.73 <sub>200</sub>
Mai 10	45.199 <sub>191</sub>	37.89 <sub>243</sub>	37.457 <sub>199</sub>	60.66 <sub>117</sub>	18.231 <sub>192</sub>	23.46 <sub>277</sub>	56.338 <sub>184</sub>	66.73 <sub>215</sub>
20	45.390 <sub>229</sub>	35.46 <sub>250</sub>	37.656 <sub>236</sub>	61.83 <sub>140</sub>	18.423 <sub>232</sub>	20.69 <sub>279</sub>	56.522 <sub>223</sub>	64.58 <sub>225</sub>
30	45.619 <sub>261</sub>	32.96 <sub>251</sub>	37.892 <sub>267</sub>	63.23 <sub>158</sub>	18.655 <sub>267</sub>	17.90 <sub>274</sub>	56.745 <sub>257</sub>	62.33 <sub>231</sub>
Juni 9	45.880 <sub>289</sub>	30.45 <sub>245</sub>	38.159 <sub>293</sub>	64.81 <sub>174</sub>	18.922 <sub>297</sub>	15.16 <sub>262</sub>	57.002 <sub>283</sub>	60.02 <sub>232</sub>
19	46.169 <sub>307</sub>	28.00 <sub>235</sub>	38.452 <sub>311</sub>	66.55 <sub>186</sub>	19.219 <sub>318</sub>	12.54 <sub>245</sub>	57.285 <sub>303</sub>	57.70 <sub>226</sub>
29	46.476 <sub>318</sub>	25.65 <sub>218</sub>	38.763 <sub>319</sub>	68.41 <sub>192</sub>	19.537 <sub>331</sub>	10.09 <sub>220</sub>	57.588 <sub>315</sub>	55.44 <sub>215</sub>
Juli 9	46.794 <sub>321</sub>	23.47 <sub>196</sub>	39.082 <sub>322</sub>	70.33 <sub>194</sub>	19.868 <sub>336</sub>	7.89 <sub>191</sub>	57.903 <sub>320</sub>	53.29 <sub>199</sub>
19	47.115 <sub>316</sub>	21.51 <sub>168</sub>	39.404 <sub>316</sub>	72.27 <sub>190</sub>	20.204 <sub>332</sub>	5.98 <sub>156</sub>	58.223 <sub>315</sub>	51.30 <sub>177</sub>
29	47.431 <sub>303</sub>	19.83 <sub>136</sub>	39.720 <sub>303</sub>	74.17 <sub>183</sub>	20.536 <sub>322</sub>	4.42 <sub>117</sub>	58.538 <sub>305</sub>	49.53 <sub>150</sub>
Aug. 8	47.734 <sub>285</sub>	18.47 <sub>102</sub>	40.023 <sub>285</sub>	76.00 <sub>170</sub>	20.858 <sub>302</sub>	3.25 <sub>75</sub>	58.843 <sub>287</sub>	48.03 <sub>120</sub>
18	48.019 <sub>259</sub>	17.45 <sub>65</sub>	40.308 <sub>260</sub>	77.70 <sub>154</sub>	21.160 <sub>277</sub>	2.50 <sub>33</sub>	59.130 <sub>265</sub>	46.83 <sub>87</sub>
28	48.278 <sub>231</sub>	16.80 <sub>27</sub>	40.568 <sub>233</sub>	79.24 <sub>135</sub>	21.437 <sub>248</sub>	2.17 <sub>11</sub>	59.395 <sub>237</sub>	45.96 <sub>53</sub>
Sept. 7	48.509 <sub>198</sub>	16.53 <sub>9</sub>	40.801 <sub>203</sub>	80.59 <sub>114</sub>	21.685 <sub>213</sub>	2.28 <sub>51</sub>	59.632 <sub>207</sub>	45.43 <sub>20</sub>
17	48.707 <sub>164</sub>	16.62 <sub>44</sub>	41.004 <sub>171</sub>	81.73 <sub>91</sub>	21.898 <sub>177</sub>	2.79 <sub>90</sub>	59.839 <sub>175</sub>	45.23 <sub>13</sub>
27	48.871 <sub>128</sub>	17.06 <sub>74</sub>	41.175 <sub>140</sub>	82.64 <sub>70</sub>	22.075 <sub>139</sub>	3.69 <sub>123</sub>	60.014 <sub>141</sub>	45.36 <sub>43</sub>
Okt. 7	48.999 <sub>94</sub>	17.80 <sub>101</sub>	41.315 <sub>107</sub>	83.34 <sub>48</sub>	22.214 <sub>102</sub>	4.92 <sub>149</sub>	60.155 <sub>109</sub>	45.79 <sub>69</sub>
17	49.093 <sub>60</sub>	18.81 <sub>119</sub>	41.422 <sub>77</sub>	83.82 <sub>29</sub>	22.316 <sub>65</sub>	6.41 <sub>169</sub>	60.264 <sub>76</sub>	46.48 <sub>91</sub>
26	49.153 <sub>28</sub>	20.00 <sub>134</sub>	41.499 <sub>47</sub>	84.11 <sub>10</sub>	22.381 <sub>29</sub>	8.10 <sub>181</sub>	60.340 <sub>45</sub>	47.39 <sub>105</sub>
Nov. 5	49.181 <sub>2</sub>	21.34 <sub>140</sub>	41.546 <sub>20</sub>	84.21 <sub>5</sub>	22.410 <sub>4</sub>	9.91 <sub>183</sub>	60.385 <sub>16</sub>	48.44 <sub>116</sub>
15	49.179 <sub>30</sub>	22.74 <sub>140</sub>	41.566 <sub>7</sub>	84.16 <sub>19</sub>	22.406 <sub>34</sub>	11.74 <sub>179</sub>	60.401 <sub>12</sub>	49.60 <sub>119</sub>
25	49.149 <sub>54</sub>	24.14 <sub>133</sub>	41.559 <sub>32</sub>	83.97 <sub>31</sub>	22.372 <sub>61</sub>	13.53 <sub>167</sub>	60.389 <sub>37</sub>	50.79 <sub>117</sub>
Dez. 5	49.095 <sub>77</sub>	25.47 <sub>121</sub>	41.527 <sub>55</sub>	83.66 <sub>39</sub>	22.311 <sub>86</sub>	15.20 <sub>148</sub>	60.352 <sub>60</sub>	51.96 <sub>111</sub>
15	49.018 <sub>97</sub>	26.68 <sub>104</sub>	41.472 <sub>76</sub>	83.27 <sub>46</sub>	22.225 <sub>107</sub>	16.68 <sub>123</sub>	60.292 <sub>82</sub>	53.07 <sub>99</sub>
25	48.921 <sub>112</sub>	27.72 <sub>83</sub>	41.396 <sub>94</sub>	82.81 <sub>52</sub>	22.118 <sub>124</sub>	17.91 <sub>94</sub>	60.210 <sub>99</sub>	54.06 <sub>85</sub>
35	48.809	28.55	41.302	82.29	21.994	18.85	60.111	54.91
Mittl. Ort	46.165	39.41	38.489	63.55	19.185	26.07	57.290	66.84
sec $\delta$ , tg $\delta$	1.042	-0.293	1.012	+0.155	1.107	-0.475	1.018	-0.189

\*) Die jährliche Parallaxe (0.31) ist bereits berücksichtigt.

# Obere Kulmination Greenwich

35\*

Tag	64) α Trianguli		63) ε Cassiopeiae		65) ξ Piscium		66) β Arietis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	1 <sup>h</sup> 49 <sup>m</sup>	+29° 13'	1 <sup>h</sup> 49 <sup>m</sup>	+63° 19'	1 <sup>h</sup> 49 <sup>m</sup>	+2° 50'	1 <sup>h</sup> 50 <sup>m</sup>	+20° 27'
Jan. 0	1.092 <sup>129</sup>	66.38 <sup>17</sup>	15.19 <sup>35</sup>	30.57 <sup>69</sup>	52.211 <sup>103</sup>	11.84 <sup>62</sup>	42.224 <sup>114</sup>	44.46 <sup>34</sup>
10	0.963 <sup>145</sup>	66.21 <sup>41</sup>	14.84 <sup>37</sup>	31.26 <sup>15</sup>	52.108 <sup>117</sup>	11.22 <sup>57</sup>	42.110 <sup>129</sup>	44.12 <sup>48</sup>
20	0.818 <sup>155</sup>	65.80 <sup>64</sup>	14.47 <sup>39</sup>	31.41 <sup>38</sup>	51.991 <sup>125</sup>	10.65 <sup>51</sup>	41.981 <sup>138</sup>	43.64 <sup>62</sup>
30	0.663 <sup>156</sup>	65.16 <sup>83</sup>	14.08 <sup>39</sup>	31.03 <sup>90</sup>	51.866 <sup>126</sup>	10.14 <sup>42</sup>	41.843 <sup>140</sup>	43.02 <sup>72</sup>
Febr. 9	0.507 <sup>149</sup>	64.33 <sup>100</sup>	13.69 <sup>37</sup>	30.13 <sup>136</sup>	51.740 <sup>121</sup>	9.72 <sup>31</sup>	41.703 <sup>134</sup>	42.30 <sup>79</sup>
19	0.358 <sup>133</sup>	63.33 <sup>112</sup>	13.32 <sup>32</sup>	28.77 <sup>178</sup>	51.619 <sup>109</sup>	9.41 <sup>18</sup>	41.569 <sup>120</sup>	41.51 <sup>83</sup>
März 1	0.225 <sup>108</sup>	62.21 <sup>117</sup>	13.00 <sup>27</sup>	26.99 <sup>211</sup>	51.510 <sup>87</sup>	9.23 <sup>3</sup>	41.449 <sup>97</sup>	40.68 <sup>81</sup>
11	0.117 <sup>73</sup>	61.04 <sup>116</sup>	12.73 <sup>20</sup>	24.88 <sup>233</sup>	51.423 <sup>60</sup>	9.20 <sup>15</sup>	41.352 <sup>67</sup>	39.87 <sup>74</sup>
21	0.044 <sup>32</sup>	59.88 <sup>110</sup>	12.53 <sup>11</sup>	22.55 <sup>247</sup>	51.363 <sup>26</sup>	9.35 <sup>36</sup>	41.285 <sup>28</sup>	39.13 <sup>64</sup>
31	0.012 <sup>14</sup>	58.78 <sup>97</sup>	12.42 <sup>2</sup>	20.08 <sup>249</sup>	51.337 <sup>14</sup>	9.71 <sup>57</sup>	41.257 <sup>14</sup>	38.49 <sup>47</sup>
Apr. 10	0.026 <sup>65</sup>	57.81 <sup>78</sup>	12.40 <sup>7</sup>	17.59 <sup>241</sup>	51.351 <sup>57</sup>	10.28 <sup>80</sup>	41.271 <sup>61</sup>	38.02 <sup>26</sup>
20	0.091 <sup>116</sup>	57.03 <sup>54</sup>	12.47 <sup>17</sup>	15.18 <sup>223</sup>	51.408 <sup>101</sup>	11.08 <sup>104</sup>	41.332 <sup>109</sup>	37.76 <sup>3</sup>
30	0.207 <sup>168</sup>	56.49 <sup>27</sup>	12.64 <sup>26</sup>	12.95 <sup>197</sup>	51.509 <sup>145</sup>	12.12 <sup>126</sup>	41.441 <sup>157</sup>	37.73 <sup>24</sup>
Mai 10	0.375 <sup>214</sup>	56.22 <sup>3</sup>	12.90 <sup>35</sup>	10.98 <sup>164</sup>	51.654 <sup>188</sup>	13.38 <sup>147</sup>	41.598 <sup>201</sup>	37.97 <sup>50</sup>
20	0.589 <sup>257</sup>	56.25 <sup>34</sup>	13.25 <sup>43</sup>	9.34 <sup>123</sup>	51.842 <sup>225</sup>	14.85 <sup>165</sup>	41.799 <sup>242</sup>	38.47 <sup>78</sup>
30	0.846 <sup>292</sup>	56.59 <sup>65</sup>	13.68 <sup>48</sup>	8.11 <sup>81</sup>	52.067 <sup>259</sup>	16.50 <sup>181</sup>	42.041 <sup>275</sup>	39.25 <sup>105</sup>
Juni 9	1.138 <sup>321</sup>	57.24 <sup>96</sup>	14.16 <sup>54</sup>	7.30 <sup>34</sup>	52.326 <sup>285</sup>	18.31 <sup>192</sup>	42.316 <sup>303</sup>	40.30 <sup>128</sup>
19	1.459 <sup>341</sup>	58.20 <sup>123</sup>	14.70 <sup>57</sup>	6.96 <sup>14</sup>	52.611 <sup>303</sup>	20.23 <sup>197</sup>	42.619 <sup>321</sup>	41.58 <sup>149</sup>
29	1.800 <sup>351</sup>	59.43 <sup>147</sup>	15.27 <sup>59</sup>	7.10 <sup>61</sup>	52.914 <sup>315</sup>	22.20 <sup>200</sup>	42.940 <sup>333</sup>	43.07 <sup>167</sup>
Juli 9	2.151 <sup>354</sup>	60.90 <sup>169</sup>	15.86 <sup>60</sup>	7.71 <sup>106</sup>	53.229 <sup>318</sup>	24.20 <sup>195</sup>	43.273 <sup>336</sup>	44.74 <sup>179</sup>
19	2.505 <sup>348</sup>	62.59 <sup>185</sup>	16.46 <sup>59</sup>	8.77 <sup>149</sup>	53.547 <sup>314</sup>	26.15 <sup>186</sup>	43.609 <sup>331</sup>	46.53 <sup>188</sup>
29	2.853 <sup>335</sup>	64.44 <sup>197</sup>	17.05 <sup>56</sup>	10.26 <sup>189</sup>	53.861 <sup>303</sup>	28.01 <sup>173</sup>	43.940 <sup>318</sup>	48.41 <sup>191</sup>
Aug. 8	3.188 <sup>315</sup>	66.41 <sup>205</sup>	17.61 <sup>53</sup>	12.15 <sup>225</sup>	54.164 <sup>285</sup>	29.74 <sup>154</sup>	44.258 <sup>300</sup>	50.32 <sup>190</sup>
18	3.503 <sup>291</sup>	68.46 <sup>207</sup>	18.14 <sup>50</sup>	14.40 <sup>255</sup>	54.449 <sup>263</sup>	31.28 <sup>134</sup>	44.558 <sup>277</sup>	52.22 <sup>185</sup>
28	3.794 <sup>262</sup>	70.53 <sup>206</sup>	18.64 <sup>45</sup>	16.95 <sup>281</sup>	54.712 <sup>237</sup>	32.62 <sup>109</sup>	44.835 <sup>250</sup>	54.07 <sup>177</sup>
Sept. 7	4.056 <sup>230</sup>	72.59 <sup>201</sup>	19.09 <sup>39</sup>	19.76 <sup>301</sup>	54.949 <sup>207</sup>	33.71 <sup>85</sup>	45.085 <sup>219</sup>	55.84 <sup>164</sup>
17	4.286 <sup>196</sup>	74.60 <sup>192</sup>	19.48 <sup>33</sup>	22.77 <sup>315</sup>	55.156 <sup>177</sup>	34.56 <sup>59</sup>	45.304 <sup>188</sup>	57.48 <sup>150</sup>
27	4.482 <sup>162</sup>	76.52 <sup>180</sup>	19.81 <sup>26</sup>	25.92 <sup>323</sup>	55.333 <sup>145</sup>	35.15 <sup>34</sup>	45.492 <sup>156</sup>	58.98 <sup>133</sup>
Okt. 7	4.644 <sup>128</sup>	78.32 <sup>167</sup>	20.07 <sup>20</sup>	29.15 <sup>325</sup>	55.478 <sup>114</sup>	35.49 <sup>11</sup>	45.648 <sup>123</sup>	60.31 <sup>116</sup>
17	4.772 <sup>94</sup>	79.99 <sup>151</sup>	20.27 <sup>13</sup>	32.40 <sup>320</sup>	55.592 <sup>83</sup>	35.60 <sup>10</sup>	45.771 <sup>91</sup>	61.47 <sup>99</sup>
26	4.866 <sup>60</sup>	81.50 <sup>134</sup>	20.40 <sup>6</sup>	35.60 <sup>310</sup>	55.675 <sup>54</sup>	35.50 <sup>27</sup>	45.862 <sup>61</sup>	62.46 <sup>80</sup>
Nov. 5	4.926 <sup>28</sup>	82.84 <sup>114</sup>	20.46 <sup>1</sup>	38.70 <sup>291</sup>	55.729 <sup>25</sup>	35.23 <sup>41</sup>	45.923 <sup>30</sup>	63.26 <sup>63</sup>
15	4.954 <sup>4</sup>	83.98 <sup>93</sup>	20.45 <sup>8</sup>	41.61 <sup>266</sup>	55.754 <sup>2</sup>	34.82 <sup>52</sup>	45.953 <sup>27</sup>	63.89 <sup>44</sup>
25	4.950 <sup>34</sup>	84.91 <sup>71</sup>	20.37 <sup>15</sup>	44.27 <sup>234</sup>	55.752 <sup>27</sup>	34.30 <sup>58</sup>	45.955 <sup>2</sup>	64.33 <sup>28</sup>
Dez. 5	4.916 <sup>63</sup>	85.62 <sup>48</sup>	20.22 <sup>21</sup>	46.61 <sup>195</sup>	55.725 <sup>50</sup>	33.72 <sup>63</sup>	45.928 <sup>53</sup>	64.61 <sup>10</sup>
15	4.853 <sup>90</sup>	86.10 <sup>24</sup>	20.01 <sup>27</sup>	48.56 <sup>151</sup>	55.675 <sup>73</sup>	33.09 <sup>65</sup>	45.875 <sup>77</sup>	64.71 <sup>7</sup>
25	4.763 <sup>113</sup>	86.34 <sup>1</sup>	19.74 <sup>31</sup>	50.07 <sup>101</sup>	55.602 <sup>91</sup>	32.44 <sup>63</sup>	45.798 <sup>100</sup>	64.64 <sup>24</sup>
35	4.650	86.33	19.43	51.08	55.511	31.81	45.698	64.40
Mittl. Ort	1.705	61.10	15.96	16.83	52.662	15.23	42.781	41.94
sec δ, tg δ	1.146	+0.560	2.227	+1.990	1.001	+0.050	1.067	+0.373

Tag	67) $\psi$ Phoenicis		68) $\gamma$ Eridani		72) $\alpha$ Hydri		71) $\nu$ Ceti	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	1 <sup>h</sup> 50 <sup>m</sup>	-46° 38'	1 <sup>h</sup> 53 <sup>m</sup>	-51° 57'	1 <sup>h</sup> 56 <sup>m</sup>	-61° 54'	1 <sup>h</sup> 56 <sup>m</sup>	-21° 24'
Jan. 0	48.255 <sup>218</sup>	78.49 <sup>70</sup>	12.094 <sup>256</sup>	62.68 <sup>66</sup>	32.86 <sup>37</sup>	74.46 <sup>58</sup>	39.385 <sup>125</sup>	87.44 <sup>83</sup>
10	48.037 <sup>230</sup>	79.19 <sup>19</sup>	11.838 <sup>267</sup>	63.34 <sup>13</sup>	32.49 <sup>39</sup>	75.04 <sup>1</sup>	39.260 <sup>137</sup>	88.27 <sup>54</sup>
20	47.807 <sup>232</sup>	79.38 <sup>31</sup>	11.571 <sup>270</sup>	63.47 <sup>42</sup>	32.10 <sup>39</sup>	75.03 <sup>59</sup>	39.123 <sup>145</sup>	88.81 <sup>21</sup>
30	47.575 <sup>229</sup>	79.07 <sup>82</sup>	11.301 <sup>265</sup>	63.05 <sup>94</sup>	31.71 <sup>38</sup>	74.44 <sup>115</sup>	38.978 <sup>146</sup>	89.02 <sup>11</sup>
Febr. 9	47.346 <sup>216</sup>	78.25 <sup>130</sup>	11.036 <sup>250</sup>	62.11 <sup>145</sup>	31.33 <sup>36</sup>	73.29 <sup>168</sup>	38.832 <sup>140</sup>	88.91 <sup>44</sup>
19	47.130 <sup>194</sup>	76.95 <sup>175</sup>	10.786 <sup>225</sup>	60.66 <sup>191</sup>	30.97 <sup>32</sup>	71.61 <sup>217</sup>	38.692 <sup>127</sup>	88.47 <sup>76</sup>
März 1	46.936 <sup>163</sup>	75.20 <sup>216</sup>	10.561 <sup>192</sup>	58.75 <sup>234</sup>	30.65 <sup>28</sup>	69.44 <sup>260</sup>	38.565 <sup>106</sup>	87.71 <sup>109</sup>
11	46.773 <sup>126</sup>	73.04 <sup>252</sup>	10.369 <sup>149</sup>	56.41 <sup>270</sup>	30.37 <sup>23</sup>	66.84 <sup>297</sup>	38.459 <sup>79</sup>	86.62 <sup>138</sup>
21	46.647 <sup>80</sup>	70.52 <sup>283</sup>	10.220 <sup>99</sup>	53.71 <sup>302</sup>	30.14 <sup>16</sup>	63.87 <sup>327</sup>	38.380 <sup>44</sup>	85.24 <sup>168</sup>
31	46.567 <sup>29</sup>	67.69 <sup>308</sup>	10.121 <sup>44</sup>	50.69 <sup>326</sup>	29.98 <sup>9</sup>	60.00 <sup>351</sup>	38.336 <sup>4</sup>	83.56 <sup>193</sup>
Apr. 10	46.538 <sup>25</sup>	64.61 <sup>327</sup>	10.077 <sup>17</sup>	47.43 <sup>344</sup>	29.89 <sup>1</sup>	57.09 <sup>366</sup>	38.332 <sup>40</sup>	81.63 <sup>217</sup>
20	46.563 <sup>84</sup>	61.34 <sup>340</sup>	10.094 <sup>80</sup>	43.99 <sup>355</sup>	29.88 <sup>7</sup>	53.43 <sup>375</sup>	38.372 <sup>86</sup>	79.46 <sup>237</sup>
30	46.647 <sup>142</sup>	57.94 <sup>345</sup>	10.174 <sup>143</sup>	40.44 <sup>359</sup>	29.95 <sup>14</sup>	49.68 <sup>375</sup>	38.458 <sup>131</sup>	77.09 <sup>252</sup>
Mai 10	46.789 <sup>197</sup>	54.49 <sup>342</sup>	10.317 <sup>205</sup>	36.85 <sup>354</sup>	30.09 <sup>23</sup>	45.93 <sup>366</sup>	38.589 <sup>176</sup>	74.57 <sup>262</sup>
20	46.986 <sup>251</sup>	51.07 <sup>333</sup>	10.522 <sup>263</sup>	33.31 <sup>342</sup>	30.32 <sup>30</sup>	42.27 <sup>351</sup>	38.765 <sup>217</sup>	71.95 <sup>268</sup>
30	47.237 <sup>297</sup>	47.74 <sup>315</sup>	10.785 <sup>315</sup>	29.89 <sup>322</sup>	30.62 <sup>36</sup>	38.76 <sup>327</sup>	38.982 <sup>254</sup>	69.27 <sup>266</sup>
Juni 9	47.534 <sup>337</sup>	44.59 <sup>290</sup>	11.100 <sup>360</sup>	26.67 <sup>295</sup>	30.98 <sup>43</sup>	35.49 <sup>294</sup>	39.236 <sup>283</sup>	66.61 <sup>259</sup>
19	47.871 <sup>367</sup>	41.69 <sup>259</sup>	11.460 <sup>395</sup>	23.72 <sup>260</sup>	31.41 <sup>47</sup>	32.55 <sup>255</sup>	39.519 <sup>306</sup>	64.02 <sup>246</sup>
29	48.238 <sup>390</sup>	39.10 <sup>219</sup>	11.855 <sup>420</sup>	21.12 <sup>218</sup>	31.88 <sup>51</sup>	30.00 <sup>210</sup>	39.825 <sup>321</sup>	61.56 <sup>225</sup>
Juli 9	48.628 <sup>401</sup>	36.91 <sup>176</sup>	12.275 <sup>435</sup>	18.94 <sup>172</sup>	32.39 <sup>53</sup>	27.90 <sup>159</sup>	40.146 <sup>328</sup>	59.31 <sup>199</sup>
19	49.029 <sup>402</sup>	35.15 <sup>126</sup>	12.710 <sup>437</sup>	17.22 <sup>120</sup>	32.92 <sup>53</sup>	26.31 <sup>104</sup>	40.474 <sup>326</sup>	57.32 <sup>169</sup>
29	49.431 <sup>392</sup>	33.89 <sup>74</sup>	13.147 <sup>429</sup>	16.02 <sup>65</sup>	33.45 <sup>53</sup>	25.27 <sup>46</sup>	40.800 <sup>317</sup>	55.63 <sup>133</sup>
Aug. 8	49.823 <sup>374</sup>	33.15 <sup>20</sup>	13.576 <sup>409</sup>	15.37 <sup>9</sup>	33.98 <sup>51</sup>	24.81 <sup>14</sup>	41.117 <sup>301</sup>	54.30 <sup>94</sup>
18	50.197 <sup>345</sup>	32.95 <sup>34</sup>	13.985 <sup>379</sup>	15.28 <sup>47</sup>	34.49 <sup>48</sup>	24.95 <sup>72</sup>	41.418 <sup>280</sup>	53.36 <sup>53</sup>
28	50.542 <sup>309</sup>	33.29 <sup>87</sup>	14.364 <sup>340</sup>	15.75 <sup>102</sup>	34.97 <sup>42</sup>	25.67 <sup>128</sup>	41.698 <sup>252</sup>	52.83 <sup>12</sup>
Sept. 7	50.851 <sup>266</sup>	34.16 <sup>136</sup>	14.704 <sup>293</sup>	16.77 <sup>151</sup>	35.39 <sup>36</sup>	26.95 <sup>179</sup>	41.950 <sup>221</sup>	52.71 <sup>29</sup>
17	51.117 <sup>218</sup>	35.52 <sup>179</sup>	14.997 <sup>240</sup>	18.28 <sup>196</sup>	35.75 <sup>30</sup>	28.74 <sup>223</sup>	42.171 <sup>187</sup>	53.00 <sup>67</sup>
27	51.335 <sup>168</sup>	37.31 <sup>215</sup>	15.237 <sup>184</sup>	20.24 <sup>232</sup>	36.05 <sup>22</sup>	30.97 <sup>253</sup>	42.358 <sup>152</sup>	53.67 <sup>100</sup>
Okt. 7	51.503 <sup>115</sup>	39.46 <sup>243</sup>	15.421 <sup>124</sup>	22.56 <sup>258</sup>	36.27 <sup>14</sup>	33.56 <sup>285</sup>	42.510 <sup>116</sup>	54.67 <sup>128</sup>
17	51.618 <sup>62</sup>	41.89 <sup>259</sup>	15.545 <sup>65</sup>	25.14 <sup>275</sup>	36.41 <sup>7</sup>	36.41 <sup>299</sup>	42.626 <sup>81</sup>	55.95 <sup>150</sup>
26	51.680 <sup>12</sup>	44.48 <sup>266</sup>	15.610 <sup>7</sup>	27.89 <sup>281</sup>	36.48 <sup>2</sup>	39.40 <sup>302</sup>	42.707 <sup>48</sup>	57.45 <sup>165</sup>
Nov. 5	51.692 <sup>36</sup>	47.14 <sup>261</sup>	15.617 <sup>48</sup>	30.70 <sup>273</sup>	36.46 <sup>10</sup>	42.42 <sup>291</sup>	42.755 <sup>15</sup>	59.10 <sup>171</sup>
15	51.656 <sup>81</sup>	49.75 <sup>246</sup>	15.569 <sup>100</sup>	33.43 <sup>256</sup>	36.36 <sup>16</sup>	45.33 <sup>270</sup>	42.770 <sup>16</sup>	60.81 <sup>170</sup>
25	51.575 <sup>121</sup>	52.21 <sup>221</sup>	15.469 <sup>146</sup>	35.99 <sup>228</sup>	36.20 <sup>23</sup>	48.03 <sup>238</sup>	42.754 <sup>44</sup>	62.51 <sup>162</sup>
Dez. 5	51.454 <sup>155</sup>	54.42 <sup>187</sup>	15.323 <sup>185</sup>	38.27 <sup>192</sup>	35.97 <sup>28</sup>	50.41 <sup>196</sup>	42.710 <sup>70</sup>	64.13 <sup>146</sup>
15	51.299 <sup>185</sup>	56.29 <sup>146</sup>	15.138 <sup>218</sup>	40.19 <sup>148</sup>	35.69 <sup>33</sup>	52.37 <sup>148</sup>	42.640 <sup>93</sup>	65.59 <sup>126</sup>
25	51.114 <sup>207</sup>	57.75 <sup>100</sup>	14.920 <sup>243</sup>	41.67 <sup>98</sup>	35.36 <sup>36</sup>	53.85 <sup>93</sup>	42.547 <sup>112</sup>	66.85 <sup>100</sup>
35	50.907	58.75	14.677	42.65	35.00	54.78	42.435	67.85
Mittl. Ort	48.026	60.52	11.674	43.77	31.92	54.11	39.572	76.37
sec $\delta$ , tg $\delta$	1.457	-1.059	1.623	-1.278	2.124	-1.874	1.074	-0.392

# Obere Kulmination Greenwich

Tag	70) $\delta$ Cassiopeiae		73) $\gamma$ Andromedae		74) $\alpha$ Arietis		75) $\beta$ Trianguli	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	1 <sup>h</sup> 57 <sup>m</sup>	+72° 4'	1 <sup>h</sup> 59 <sup>m</sup>	+41° 59'	2 <sup>h</sup> 3 <sup>m</sup>	+23° 7'	2 <sup>h</sup> 5 <sup>m</sup>	+34° 39'
Jan. 0	19.26	58.90	31.330	32.25	9.443	42.68	18.158	15.29
10	18.72	59.92	31.166	32.47	9.330	42.45	18.022	15.36
20	18.12	60.37	30.981	32.33	9.199	42.05	17.866	15.14
30	17.51	60.23	30.783	31.84	9.056	41.49	17.696	14.65
Febr. 9	16.90	59.52	30.582	31.01	8.909	40.81	17.521	13.90
19	16.32	58.26	30.388	29.90	8.765	40.02	17.351	12.92
März 1	15.80	56.53	30.212	28.54	8.634	39.16	17.195	11.77
11	15.36	54.40	30.065	27.00	8.525	38.28	17.064	10.50
21	15.03	51.96	29.959	25.36	8.445	37.44	16.968	9.17
31	14.81	49.33	29.900	23.70	8.404	36.69	16.914	7.86
Apr. 10	14.73	46.61	29.897	22.09	8.405	36.07	16.909	6.63
20	14.78	43.92	29.952	20.62	8.454	35.64	16.957	5.54
30	14.98	41.36	30.068	19.35	8.553	35.43	17.060	4.66
Mai 10	15.30	39.04	30.243	18.34	8.700	35.47	17.218	4.03
20	15.75	37.02	30.473	17.64	8.893	35.78	17.426	3.69
30	16.31	35.39	30.753	17.28	9.129	36.37	17.682	3.66
Juni 9	16.96	34.19	31.075	17.28	9.401	37.23	17.977	3.97
19	17.68	33.46	31.431	17.65	9.702	38.34	18.304	4.60
29	18.46	33.22	31.812	18.38	10.024	39.67	18.654	5.53
Juli 9	19.27	33.49	32.207	19.44	10.360	41.20	19.019	6.75
19	20.09	34.25	32.607	20.83	10.700	42.88	19.390	8.22
29	20.91	35.49	33.003	22.49	11.037	44.68	19.757	9.90
Aug. 8	21.71	37.18	33.386	24.39	11.365	46.53	20.114	11.77
18	22.46	39.28	33.750	26.48	11.675	48.41	20.454	13.76
28	23.17	41.75	34.087	28.73	11.964	50.27	20.770	15.84
Sept. 7	23.81	44.54	34.394	31.07	12.227	52.06	21.058	17.96
17	24.37	47.59	34.666	33.47	12.461	53.76	21.316	20.08
27	24.85	50.85	34.902	35.89	12.664	55.34	21.540	22.17
Okt. 7	25.23	54.26	35.098	38.27	12.836	56.79	21.730	24.19
17	25.53	57.73	35.255	40.59	12.975	58.07	21.884	26.11
26	25.72	61.22	35.372	42.80	13.082	59.19	22.002	27.90
Nov. 5	25.80	64.64	35.450	44.86	13.158	60.15	22.085	29.54
15	25.77	67.91	35.488	46.74	13.202	60.93	22.132	31.01
25	25.64	70.95	35.486	48.40	13.216	61.53	22.144	32.28
Dez. 5	25.40	73.68	35.446	49.80	13.200	61.96	22.121	33.32
15	25.07	76.02	35.368	50.92	13.155	62.21	22.064	34.12
25	24.64	77.92	35.255	51.71	13.082	62.27	21.976	34.66
35	24.14	79.29	35.112	52.16	12.985	62.16	21.859	34.91
Mittl. Ort	19.94	43.84	31.932	23.19	9.943	39.08	18.697	8.20
sec $\delta$ , tg $\delta$	3.250	+3.092	1.345	+0.900	1.087	+0.427	1.216	+0.691

Tag	76) 55 Cassiopeiae		78) Lac. $\mu$ Fornacis		80) 67 Ceti		85) $\xi^2$ Ceti	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	2 <sup>h</sup> 8 <sup>m</sup>	+66° 11'	2 <sup>h</sup> 9 <sup>m</sup>	-31° 2'	2 <sup>h</sup> 13 <sup>m</sup>	-6° 44'	2 <sup>h</sup> 24 <sup>m</sup>	+8° 8'
Jan. 0	52.57 <sup>38</sup>	48.32 <sup>100</sup>	46.955 <sup>146</sup>	96.12 <sup>95</sup>	26.187 <sup>102</sup>	61.03 <sup>78</sup>	22.569 <sup>95</sup>	32.81 <sup>51</sup>
10	52.19 <sup>42</sup>	49.32 <sup>47</sup>	46.809 <sup>161</sup>	97.07 <sup>57</sup>	26.085 <sup>119</sup>	61.81 <sup>63</sup>	22.474 <sup>114</sup>	32.30 <sup>52</sup>
20	51.77 <sup>44</sup>	49.79 <sup>9</sup>	46.648 <sup>171</sup>	97.64 <sup>16</sup>	25.966 <sup>130</sup>	62.44 <sup>46</sup>	22.360 <sup>129</sup>	31.78 <sup>50</sup>
30	51.33 <sup>45</sup>	49.70 <sup>62</sup>	46.477 <sup>173</sup>	97.80 <sup>26</sup>	25.836 <sup>136</sup>	62.90 <sup>26</sup>	22.231 <sup>137</sup>	31.28 <sup>46</sup>
Febr. 9	50.88 <sup>43</sup>	49.08 <sup>113</sup>	46.304 <sup>168</sup>	97.54 <sup>65</sup>	25.700 <sup>134</sup>	63.16 <sup>6</sup>	22.094 <sup>137</sup>	30.82 <sup>41</sup>
19	50.45 <sup>39</sup>	47.95 <sup>159</sup>	46.136 <sup>156</sup>	96.89 <sup>105</sup>	25.566 <sup>124</sup>	63.22 <sup>16</sup>	21.957 <sup>130</sup>	30.41 <sup>34</sup>
März 1	50.06 <sup>34</sup>	46.36 <sup>196</sup>	45.980 <sup>135</sup>	95.84 <sup>143</sup>	25.442 <sup>107</sup>	63.06 <sup>38</sup>	21.827 <sup>114</sup>	30.07 <sup>23</sup>
11	49.72 <sup>26</sup>	44.40 <sup>225</sup>	45.845 <sup>106</sup>	94.41 <sup>178</sup>	25.335 <sup>82</sup>	62.68 <sup>62</sup>	21.713 <sup>88</sup>	29.84 <sup>10</sup>
21	49.46 <sup>17</sup>	42.15 <sup>244</sup>	45.739 <sup>70</sup>	92.63 <sup>209</sup>	25.253 <sup>50</sup>	62.06 <sup>85</sup>	21.625 <sup>57</sup>	29.74 <sup>5</sup>
31	49.29 <sup>7</sup>	39.71 <sup>253</sup>	45.669 <sup>29</sup>	90.54 <sup>237</sup>	25.203 <sup>13</sup>	61.21 <sup>110</sup>	21.568 <sup>18</sup>	29.79 <sup>24</sup>
Apr. 10	49.22 <sup>3</sup>	37.18 <sup>250</sup>	45.640 <sup>17</sup>	88.17 <sup>261</sup>	25.190 <sup>30</sup>	60.11 <sup>133</sup>	21.550 <sup>24</sup>	30.03 <sup>45</sup>
20	49.25 <sup>14</sup>	34.68 <sup>238</sup>	45.657 <sup>65</sup>	85.56 <sup>280</sup>	25.220 <sup>74</sup>	58.78 <sup>155</sup>	21.574 <sup>70</sup>	30.48 <sup>66</sup>
30	49.39 <sup>24</sup>	32.30 <sup>217</sup>	45.722 <sup>116</sup>	82.76 <sup>293</sup>	25.294 <sup>119</sup>	57.23 <sup>176</sup>	21.644 <sup>116</sup>	31.14 <sup>89</sup>
Mai 10	49.63 <sup>34</sup>	30.13 <sup>188</sup>	45.838 <sup>163</sup>	79.83 <sup>301</sup>	25.413 <sup>163</sup>	55.47 <sup>193</sup>	21.760 <sup>161</sup>	32.03 <sup>109</sup>
20	49.97 <sup>43</sup>	28.25 <sup>151</sup>	46.001 <sup>209</sup>	76.82 <sup>301</sup>	25.576 <sup>203</sup>	53.54 <sup>206</sup>	21.921 <sup>202</sup>	33.12 <sup>131</sup>
30	50.40 <sup>51</sup>	26.74 <sup>111</sup>	46.210 <sup>249</sup>	73.81 <sup>296</sup>	25.779 <sup>238</sup>	51.48 <sup>216</sup>	22.123 <sup>239</sup>	34.43 <sup>148</sup>
Juni 9	50.91 <sup>56</sup>	25.63 <sup>66</sup>	46.459 <sup>283</sup>	70.85 <sup>282</sup>	26.017 <sup>269</sup>	49.32 <sup>219</sup>	22.362 <sup>269</sup>	35.91 <sup>163</sup>
19	51.47 <sup>61</sup>	24.97 <sup>20</sup>	46.742 <sup>311</sup>	68.03 <sup>263</sup>	26.286 <sup>291</sup>	47.13 <sup>219</sup>	22.631 <sup>292</sup>	37.54 <sup>174</sup>
29	52.08 <sup>64</sup>	24.77 <sup>28</sup>	47.053 <sup>330</sup>	65.40 <sup>236</sup>	26.577 <sup>306</sup>	44.94 <sup>213</sup>	22.923 <sup>309</sup>	39.28 <sup>180</sup>
Juli 9	52.72 <sup>66</sup>	25.05 <sup>74</sup>	47.383 <sup>341</sup>	63.04 <sup>203</sup>	26.883 <sup>314</sup>	42.81 <sup>200</sup>	23.232 <sup>317</sup>	41.08 <sup>182</sup>
19	53.38 <sup>65</sup>	25.79 <sup>118</sup>	47.724 <sup>343</sup>	61.01 <sup>165</sup>	27.197 <sup>315</sup>	40.81 <sup>182</sup>	23.549 <sup>318</sup>	42.90 <sup>179</sup>
29	54.03 <sup>64</sup>	26.97 <sup>161</sup>	48.067 <sup>337</sup>	59.36 <sup>123</sup>	27.512 <sup>308</sup>	38.99 <sup>160</sup>	23.867 <sup>313</sup>	44.69 <sup>171</sup>
Aug. 8	54.67 <sup>61</sup>	28.58 <sup>199</sup>	48.404 <sup>323</sup>	58.13 <sup>76</sup>	27.820 <sup>294</sup>	37.39 <sup>133</sup>	24.180 <sup>300</sup>	46.40 <sup>158</sup>
18	55.28 <sup>58</sup>	30.57 <sup>234</sup>	48.727 <sup>303</sup>	57.37 <sup>29</sup>	28.114 <sup>275</sup>	36.06 <sup>104</sup>	24.480 <sup>283</sup>	47.98 <sup>143</sup>
28	55.86 <sup>52</sup>	32.91 <sup>262</sup>	49.030 <sup>275</sup>	57.08 <sup>18</sup>	28.389 <sup>252</sup>	35.02 <sup>72</sup>	24.763 <sup>261</sup>	49.41 <sup>124</sup>
Sept. 7	56.38 <sup>47</sup>	35.53 <sup>288</sup>	49.305 <sup>243</sup>	57.26 <sup>65</sup>	28.641 <sup>225</sup>	34.30 <sup>40</sup>	25.024 <sup>236</sup>	50.65 <sup>102</sup>
17	56.85 <sup>41</sup>	38.41 <sup>306</sup>	49.548 <sup>208</sup>	57.91 <sup>108</sup>	28.866 <sup>196</sup>	33.90 <sup>8</sup>	25.260 <sup>208</sup>	51.67 <sup>81</sup>
27	57.26 <sup>34</sup>	41.47 <sup>319</sup>	49.756 <sup>171</sup>	58.99 <sup>145</sup>	29.062 <sup>166</sup>	33.82 <sup>21</sup>	25.468 <sup>180</sup>	52.48 <sup>58</sup>
Okt. 7	57.60 <sup>26</sup>	44.66 <sup>326</sup>	49.927 <sup>131</sup>	60.44 <sup>175</sup>	29.228 <sup>134</sup>	34.03 <sup>49</sup>	25.648 <sup>150</sup>	53.06 <sup>36</sup>
17	57.86 <sup>19</sup>	47.92 <sup>326</sup>	50.058 <sup>92</sup>	62.19 <sup>199</sup>	29.362 <sup>103</sup>	34.52 <sup>71</sup>	25.798 <sup>121</sup>	53.42 <sup>17</sup>
26 <sup>*)</sup>	58.05 <sup>12</sup>	51.18 <sup>320</sup>	50.150 <sup>54</sup>	64.18 <sup>213</sup>	29.465 <sup>73</sup>	35.23 <sup>88</sup>	25.919 <sup>91</sup>	53.59 <sup>0</sup>
Nov. 5	58.17 <sup>3</sup>	54.38 <sup>307</sup>	50.204 <sup>16</sup>	66.31 <sup>218</sup>	29.538 <sup>43</sup>	36.11 <sup>101</sup>	26.010 <sup>61</sup>	53.59 <sup>15</sup>
15	58.20 <sup>5</sup>	57.45 <sup>285</sup>	50.220 <sup>19</sup>	68.49 <sup>213</sup>	29.581 <sup>13</sup>	37.12 <sup>107</sup>	26.071 <sup>32</sup>	53.44 <sup>27</sup>
25	58.15 <sup>13</sup>	60.30 <sup>258</sup>	50.201 <sup>52</sup>	70.62 <sup>200</sup>	29.594 <sup>14</sup>	38.19 <sup>109</sup>	26.103 <sup>4</sup>	53.17 <sup>37</sup>
Dez. 5	58.02 <sup>21</sup>	62.88 <sup>222</sup>	50.149 <sup>83</sup>	72.62 <sup>179</sup>	29.580 <sup>40</sup>	39.28 <sup>106</sup>	26.107 <sup>26</sup>	52.80 <sup>44</sup>
15	57.81 <sup>28</sup>	65.10 <sup>180</sup>	50.066 <sup>109</sup>	74.41 <sup>151</sup>	29.540 <sup>66</sup>	40.34 <sup>98</sup>	26.081 <sup>52</sup>	52.36 <sup>48</sup>
25	57.53 <sup>34</sup>	66.90 <sup>132</sup>	49.957 <sup>133</sup>	75.92 <sup>118</sup>	29.474 <sup>88</sup>	41.32 <sup>87</sup>	26.029 <sup>78</sup>	51.88 <sup>50</sup>
IQ. + 35	57.19	68.22	49.824	77.10	29.386	42.19	25.951	51.38
Mittelort	53.11	34.11	46.917	82.86	26.430	55.17	22.868	33.57
scod, d, g-d	0.477	+2.266	1.167	-0.602	1.007	-0.118	1.010	+0.143

\*) Bei Stern 85 lies Okt. 27

# Obere Kulmination Greenwich

Tag	87) 36 H. Cassiopeiae		90) $\mu$ Hydri		89) $\nu$ Arietis		91) $\delta$ Ceti	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	2 <sup>h</sup> 31 <sup>m</sup>	+72° 30'	2 <sup>h</sup> 33 <sup>m</sup>	-79° 24'	2 <sup>h</sup> 34 <sup>m</sup>	+21° 39'	2 <sup>h</sup> 35 <sup>m</sup>	+0° 1'
Jan. 0	14.29	48.41	13.21	89.04	46.473	22.80	50.282	20.02
10	13.78	49.86	12.08	89.84	46.374	22.66	50.191	19.32
20	13.21	50.76	10.90	90.03	46.252	22.39	50.078	18.70
30	12.59	51.08	9.68	89.61	46.112	21.98	49.950	18.19
Febr. 9	11.96	50.83	8.48	88.60	45.961	21.47	49.812	17.81
19	11.33	50.01	7.32	87.03	45.808	20.86	49.672	17.57
März 1	10.75	48.68	6.23	84.95	45.662	20.19	49.537	17.48
11	10.23	46.89	5.24	82.41	45.531	19.50	49.417	17.57
21	9.81	44.73	4.37	79.48	45.427	18.82	49.319	17.84
31	9.50	42.30	3.65	76.21	45.357	18.21	49.252	18.31
Apr. 10	9.32	39.70	3.10	72.70	45.328	17.70	49.221	19.00
20	9.27	37.03	2.72	69.02	45.344	17.35	49.232	19.91
30	9.37	34.41	2.53	65.23	45.409	17.18	49.287	21.03
Mai 10	9.61	31.94	2.54	61.42	45.524	17.23	49.388	22.36
20	9.98	29.70	2.74	57.69	45.687	17.52	49.533	23.89
30	10.47	27.78	3.13	54.10	45.894	18.05	49.720	25.59
Juni 9	11.07	26.23	3.71	50.74	46.140	18.82	49.944	27.42
19	11.76	25.10	4.45	47.69	46.420	19.82	50.200	29.35
29	12.52	24.42	5.34	45.02	46.725	21.03	50.482	31.33
Juli 9	13.34	24.22	6.36	42.80	47.048	22.41	50.781	33.30
19	14.18	24.50	7.47	41.10	47.381	23.93	51.091	35.22
29	15.04	25.26	8.64	39.95	47.717	25.54	51.404	37.03
Aug. 8	15.89	26.47	9.84	39.39	48.048	27.21	51.713	38.69
18	16.72	28.11	11.03	39.43	48.368	28.89	52.013	40.15
28	17.51	30.15	12.18	40.09	48.671	30.55	52.297	41.37
Sept. 7	18.24	32.54	13.25	41.33	48.953	32.15	52.561	42.33
17	18.91	35.24	14.19	43.11	49.210	33.65	52.802	43.01
27	19.50	38.20	14.99	45.37	49.441	35.03	53.016	43.41
Okt. 7	20.01	41.36	15.61	48.03	49.642	36.29	53.202	43.54
17	20.43	44.67	16.03	50.99	49.814	37.39	53.360	43.42
27	20.74	48.05	16.24	54.13	49.955	38.35	53.488	43.08
Nov. 5	20.95	51.44	16.22	57.33	50.065	39.16	53.586	42.56
15	21.04	54.75	15.98	60.45	50.143	39.83	53.655	41.90
25	21.02	57.92	15.53	63.39	50.189	40.34	53.693	41.13
Dez. 5	20.89	60.85	14.88	66.01	50.204	40.72	53.702	40.32
15	20.64	63.47	14.06	68.23	50.186	40.96	53.682	39.50
25	20.29	65.70	13.09	69.95	50.136	41.05	53.634	38.70
35	19.84	67.47	12.01	71.11	50.057	41.00	53.560	37.94
Mittl. Ort	14.43	33.49	8.01	69.57	46.791	19.19	50.464	23.03
sec $\delta$ , tg $\delta$	3.327	+3.173	5.446	-5.353	1.076	+0.397	1.000	0.000

Tag	93) $\delta$ Persei		97) $\pi$ Ceti		98) $\mu$ Ceti		100) $\alpha$ Arietis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	2 <sup>h</sup> 39 <sup>m</sup>	+48° 55'	2 <sup>h</sup> 40 <sup>m</sup>	-14° 9'	2 <sup>h</sup> 41 <sup>m</sup>	+9° 48'	2 <sup>h</sup> 45 <sup>m</sup>	+26° 58'
Jan. 0	20.029 <sup>170</sup>	56.21 <sup>77</sup>	44.533 <sup>101</sup>	37.89 <sup>99</sup>	5.819 <sup>88</sup>	55.17 <sup>46</sup>	47.672 <sup>99</sup>	13.36 <sup>7</sup>
10	19.859 <sup>204</sup>	56.98 <sup>39</sup>	44.432 <sup>123</sup>	38.88 <sup>77</sup>	5.731 <sup>111</sup>	54.71 <sup>48</sup>	47.573 <sup>126</sup>	13.43 <sup>11</sup>
20	19.655 <sup>229</sup>	57.37 <sup>2</sup>	44.309 <sup>139</sup>	39.65 <sup>51</sup>	5.620 <sup>128</sup>	54.23 <sup>47</sup>	47.447 <sup>148</sup>	13.32 <sup>29</sup>
30	19.426 <sup>244</sup>	57.35 <sup>41</sup>	44.170 <sup>149</sup>	40.16 <sup>24</sup>	5.492 <sup>140</sup>	53.76 <sup>45</sup>	47.299 <sup>161</sup>	13.03 <sup>46</sup>
Febr. 9	19.182 <sup>245</sup>	56.94 <sup>78</sup>	44.021 <sup>151</sup>	40.40 <sup>4</sup>	5.352 <sup>143</sup>	53.31 <sup>41</sup>	47.138 <sup>165</sup>	12.57 <sup>61</sup>
19	18.937 <sup>234</sup>	56.16 <sup>112</sup>	43.870 <sup>146</sup>	40.36 <sup>32</sup>	5.209 <sup>138</sup>	52.90 <sup>36</sup>	46.973 <sup>160</sup>	11.96 <sup>74</sup>
März 1	18.703 <sup>208</sup>	55.04 <sup>141</sup>	43.724 <sup>132</sup>	40.04 <sup>61</sup>	5.071 <sup>124</sup>	52.54 <sup>27</sup>	46.813 <sup>144</sup>	11.22 <sup>81</sup>
11	18.495 <sup>170</sup>	53.63 <sup>161</sup>	43.592 <sup>110</sup>	39.43 <sup>89</sup>	4.947 <sup>101</sup>	52.27 <sup>17</sup>	46.669 <sup>119</sup>	10.41 <sup>85</sup>
21	18.325 <sup>121</sup>	52.02 <sup>176</sup>	43.482 <sup>80</sup>	38.54 <sup>117</sup>	4.846 <sup>71</sup>	52.10 <sup>2</sup>	46.550 <sup>84</sup>	9.56 <sup>84</sup>
31	18.204 <sup>63</sup>	50.26 <sup>181</sup>	43.402 <sup>43</sup>	37.37 <sup>144</sup>	4.775 <sup>33</sup>	52.08 <sup>14</sup>	46.466 <sup>42</sup>	8.72 <sup>77</sup>
Apr. 10	18.141 <sup>2</sup>	48.45 <sup>178</sup>	43.359 <sup>2</sup>	35.93 <sup>168</sup>	4.742 <sup>10</sup>	52.22 <sup>33</sup>	46.424 <sup>6</sup>	7.95 <sup>66</sup>
20	18.143 <sup>70</sup>	46.67 <sup>167</sup>	43.357 <sup>42</sup>	34.25 <sup>191</sup>	4.752 <sup>55</sup>	52.55 <sup>54</sup>	46.430 <sup>56</sup>	7.29 <sup>49</sup>
30	18.213 <sup>138</sup>	45.00 <sup>150</sup>	43.399 <sup>88</sup>	32.34 <sup>211</sup>	4.807 <sup>101</sup>	53.09 <sup>75</sup>	46.486 <sup>107</sup>	6.80 <sup>29</sup>
Mai 10	18.351 <sup>205</sup>	43.50 <sup>125</sup>	43.487 <sup>134</sup>	30.23 <sup>226</sup>	4.908 <sup>147</sup>	53.84 <sup>96</sup>	46.593 <sup>158</sup>	6.51 <sup>6</sup>
20	18.556 <sup>263</sup>	42.25 <sup>96</sup>	43.621 <sup>177</sup>	27.97 <sup>238</sup>	5.055 <sup>190</sup>	54.80 <sup>116</sup>	46.751 <sup>205</sup>	6.45 <sup>18</sup>
30	18.819 <sup>318</sup>	41.29 <sup>64</sup>	43.798 <sup>216</sup>	25.59 <sup>244</sup>	5.245 <sup>228</sup>	55.96 <sup>135</sup>	46.956 <sup>247</sup>	6.63 <sup>44</sup>
Juni 9	19.137 <sup>363</sup>	40.65 <sup>28</sup>	44.014 <sup>249</sup>	23.15 <sup>245</sup>	5.473 <sup>261</sup>	57.31 <sup>150</sup>	47.203 <sup>282</sup>	7.07 <sup>69</sup>
19	19.500 <sup>399</sup>	40.37 <sup>9</sup>	44.263 <sup>276</sup>	20.70 <sup>239</sup>	5.734 <sup>286</sup>	58.81 <sup>162</sup>	47.485 <sup>310</sup>	7.76 <sup>92</sup>
29	19.899 <sup>423</sup>	40.46 <sup>45</sup>	44.539 <sup>297</sup>	18.31 <sup>228</sup>	6.020 <sup>304</sup>	60.43 <sup>170</sup>	47.795 <sup>330</sup>	8.68 <sup>113</sup>
Juli 9	20.322 <sup>439</sup>	40.91 <sup>79</sup>	44.836 <sup>310</sup>	16.03 <sup>210</sup>	6.324 <sup>316</sup>	62.13 <sup>173</sup>	48.125 <sup>343</sup>	9.81 <sup>132</sup>
19	20.761 <sup>444</sup>	41.70 <sup>112</sup>	45.146 <sup>314</sup>	13.93 <sup>187</sup>	6.640 <sup>319</sup>	63.86 <sup>172</sup>	48.468 <sup>347</sup>	11.13 <sup>146</sup>
29	21.205 <sup>439</sup>	42.82 <sup>143</sup>	45.460 <sup>313</sup>	12.06 <sup>158</sup>	6.959 <sup>316</sup>	65.58 <sup>166</sup>	48.815 <sup>345</sup>	12.59 <sup>157</sup>
Aug. 8	21.644 <sup>427</sup>	44.25 <sup>169</sup>	45.773 <sup>305</sup>	10.48 <sup>125</sup>	7.275 <sup>306</sup>	67.24 <sup>156</sup>	49.160 <sup>334</sup>	14.16 <sup>163</sup>
18	22.071 <sup>407</sup>	45.94 <sup>192</sup>	46.078 <sup>289</sup>	9.23 <sup>90</sup>	7.581 <sup>292</sup>	68.80 <sup>142</sup>	49.494 <sup>319</sup>	15.79 <sup>166</sup>
28	22.478 <sup>380</sup>	47.86 <sup>211</sup>	46.367 <sup>270</sup>	8.33 <sup>52</sup>	7.873 <sup>272</sup>	70.22 <sup>124</sup>	49.813 <sup>299</sup>	17.45 <sup>166</sup>
Sept. 7	22.858 <sup>349</sup>	49.97 <sup>226</sup>	46.637 <sup>247</sup>	7.81 <sup>13</sup>	8.145 <sup>249</sup>	71.46 <sup>105</sup>	50.112 <sup>275</sup>	19.11 <sup>161</sup>
17	23.207 <sup>315</sup>	52.23 <sup>236</sup>	46.884 <sup>219</sup>	7.68 <sup>25</sup>	8.394 <sup>223</sup>	72.51 <sup>84</sup>	50.387 <sup>249</sup>	20.72 <sup>155</sup>
27	23.522 <sup>275</sup>	54.59 <sup>243</sup>	47.103 <sup>190</sup>	7.93 <sup>59</sup>	8.617 <sup>197</sup>	73.35 <sup>63</sup>	50.636 <sup>221</sup>	22.27 <sup>145</sup>
Okt. 7	23.797 <sup>235</sup>	57.02 <sup>245</sup>	47.293 <sup>159</sup>	8.52 <sup>90</sup>	8.814 <sup>168</sup>	73.98 <sup>42</sup>	50.857 <sup>190</sup>	23.72 <sup>135</sup>
17	24.032 <sup>192</sup>	59.47 <sup>242</sup>	47.452 <sup>127</sup>	9.42 <sup>115</sup>	8.982 <sup>139</sup>	74.40 <sup>23</sup>	51.047 <sup>159</sup>	25.07 <sup>124</sup>
27	24.224 <sup>146</sup>	61.89 <sup>236</sup>	47.579 <sup>96</sup>	10.57 <sup>135</sup>	9.121 <sup>110</sup>	74.63 <sup>7</sup>	51.206 <sup>127</sup>	26.31 <sup>110</sup>
Nov. 5	24.370 <sup>99</sup>	64.25 <sup>225</sup>	47.675 <sup>65</sup>	11.92 <sup>148</sup>	9.231 <sup>80</sup>	74.70 <sup>8</sup>	51.333 <sup>94</sup>	27.41 <sup>97</sup>
15	24.469 <sup>51</sup>	66.50 <sup>210</sup>	47.740 <sup>32</sup>	13.40 <sup>153</sup>	9.311 <sup>49</sup>	74.62 <sup>20</sup>	51.427 <sup>60</sup>	28.38 <sup>83</sup>
25	24.520 <sup>5</sup>	68.60 <sup>189</sup>	47.772 <sup>1</sup>	14.93 <sup>152</sup>	9.360 <sup>19</sup>	74.42 <sup>30</sup>	51.487 <sup>25</sup>	29.21 <sup>68</sup>
Dez. 5	24.522 <sup>48</sup>	70.49 <sup>164</sup>	47.773 <sup>29</sup>	16.45 <sup>145</sup>	9.379 <sup>12</sup>	74.12 <sup>37</sup>	51.512 <sup>10</sup>	29.89 <sup>53</sup>
15	24.474 <sup>96</sup>	72.13 <sup>134</sup>	47.744 <sup>58</sup>	17.90 <sup>131</sup>	9.367 <sup>41</sup>	73.75 <sup>41</sup>	51.502 <sup>45</sup>	30.42 <sup>36</sup>
25	24.378 <sup>140</sup>	73.47 <sup>100</sup>	47.686 <sup>85</sup>	19.21 <sup>113</sup>	9.326 <sup>69</sup>	73.34 <sup>45</sup>	51.457 <sup>78</sup>	30.78 <sup>18</sup>
35	24.238	74.47	47.601	20.34	9.257	72.89	51.379	30.96
Mittl. Ort	20.359	45.39	44.552	30.77	6.043	55.02	47.950	8.09
sec $\delta$ , tg $\delta$	1.522	+1.148	1.031	-0.252	1.015	+0.173	1.122	+0.509



# Obere Kulmination Greenwich

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Tag	101) $\beta$ Fornacis		102) $\tau^2$ Eridani		103) $\tau$ Persei		104) $\eta$ Eridani	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	2 <sup>h</sup> 46 <sup>m</sup>	—32° 41'	2 <sup>h</sup> 47 <sup>m</sup>	—21° 17'	2 <sup>h</sup> 49 <sup>m</sup>	+52° 28'	2 <sup>h</sup> 52 <sup>m</sup>	—9° 10'
Jan. 0	7.412 <sub>141</sub>	83.96 <sub>127</sub>	49.159 <sub>111</sub>	54.63 <sub>116</sub>	12.425 <sub>182</sub>	34.97 <sub>98</sub>	57.442 <sub>91</sub>	52.72 <sub>97</sub>
10	7.271 <sub>164</sub>	85.23 <sub>87</sub>	49.048 <sub>133</sub>	55.79 <sub>85</sub>	12.243 <sub>222</sub>	35.95 <sub>57</sub>	57.351 <sub>115</sub>	53.69 <sub>78</sub>
20	7.107 <sub>181</sub>	86.10 <sub>45</sub>	48.915 <sub>151</sub>	56.64 <sub>53</sub>	12.021 <sub>252</sub>	36.52 <sub>16</sub>	57.236 <sub>133</sub>	54.47 <sub>57</sub>
30	6.926 <sub>190</sub>	86.55 <sub>2</sub>	48.764 <sub>162</sub>	57.17 <sub>20</sub>	11.769 <sub>269</sub>	36.68 <sub>27</sub>	57.103 <sub>145</sub>	55.04 <sub>34</sub>
Febr. 9	6.736 <sub>192</sub>	86.57 <sub>41</sub>	48.602 <sub>165</sub>	57.37 <sub>15</sub>	11.500 <sub>275</sub>	36.41 <sub>68</sub>	56.958 <sub>150</sub>	55.38 <sub>11</sub>
19	6.544 <sub>186</sub>	86.16 <sub>84</sub>	48.437 <sub>159</sub>	57.22 <sub>50</sub>	11.225 <sub>263</sub>	35.73 <sub>105</sub>	56.808 <sub>147</sub>	55.49 <sub>13</sub>
März 1	6.358 <sub>170</sub>	85.32 <sub>124</sub>	48.278 <sub>147</sub>	56.72 <sub>83</sub>	10.962 <sub>239</sub>	34.68 <sub>138</sub>	56.661 <sub>135</sub>	55.36 <sub>39</sub>
11	6.188 <sub>146</sub>	84.08 <sub>163</sub>	48.131 <sub>125</sub>	55.89 <sub>117</sub>	10.723 <sub>199</sub>	33.30 <sub>163</sub>	56.526 <sub>114</sub>	54.97 <sub>63</sub>
21	6.042 <sub>112</sub>	82.45 <sub>197</sub>	48.006 <sub>94</sub>	54.72 <sub>147</sub>	10.524 <sub>147</sub>	31.67 <sub>181</sub>	56.412 <sub>86</sub>	54.34 <sub>89</sub>
31	5.930 <sub>74</sub>	80.48 <sub>229</sub>	47.912 <sub>58</sub>	53.25 <sub>176</sub>	10.377 <sub>86</sub>	29.86 <sub>191</sub>	56.326 <sub>51</sub>	53.45 <sub>114</sub>
Apr. 10	5.856 <sub>28</sub>	78.19 <sub>256</sub>	47.854 <sub>15</sub>	51.49 <sub>203</sub>	10.291 <sub>17</sub>	27.95 <sub>192</sub>	56.275 <sub>10</sub>	52.31 <sub>138</sub>
20	5.828 <sub>20</sub>	75.63 <sub>279</sub>	47.839 <sub>29</sub>	49.46 <sub>226</sub>	10.274 <sub>55</sub>	26.03 <sub>184</sub>	56.265 <sub>33</sub>	50.93 <sub>161</sub>
30	5.848 <sub>71</sub>	72.84 <sub>296</sub>	47.868 <sub>77</sub>	47.20 <sub>245</sub>	10.329 <sub>129</sub>	24.19 <sub>169</sub>	56.298 <sub>79</sub>	49.32 <sub>181</sub>
Mai 10	5.919 <sub>122</sub>	69.88 <sub>306</sub>	47.945 <sub>124</sub>	44.75 <sub>259</sub>	10.458 <sub>199</sub>	22.50 <sub>147</sub>	56.377 <sub>125</sub>	47.51 <sub>199</sub>
20	6.041 <sub>170</sub>	66.82 <sub>311</sub>	48.069 <sub>168</sub>	42.16 <sub>268</sub>	10.657 <sub>266</sub>	21.03 <sub>119</sub>	56.502 <sub>167</sub>	45.52 <sub>212</sub>
30	6.211 <sub>215</sub>	63.71 <sub>308</sub>	48.237 <sub>209</sub>	39.48 <sub>271</sub>	10.923 <sub>325</sub>	19.84 <sub>88</sub>	56.669 <sub>207</sub>	43.40 <sub>222</sub>
Juni 9	6.426 <sub>255</sub>	60.63 <sub>298</sub>	48.446 <sub>245</sub>	36.77 <sub>268</sub>	11.248 <sub>374</sub>	18.96 <sub>52</sub>	56.876 <sub>241</sub>	41.18 <sub>225</sub>
19	6.681 <sub>287</sub>	57.65 <sub>281</sub>	48.691 <sub>275</sub>	34.09 <sub>258</sub>	11.622 <sub>415</sub>	18.44 <sub>16</sub>	57.117 <sub>269</sub>	38.93 <sub>225</sub>
29	6.968 <sub>313</sub>	54.84 <sub>256</sub>	48.966 <sub>297</sub>	31.51 <sub>241</sub>	12.037 <sub>444</sub>	18.28 <sub>22</sub>	57.386 <sub>290</sub>	36.68 <sub>217</sub>
Juli 9	7.281 <sub>331</sub>	52.28 <sub>225</sub>	49.263 <sub>313</sub>	29.10 <sub>219</sub>	12.481 <sub>463</sub>	18.50 <sub>59</sub>	57.676 <sub>304</sub>	34.51 <sub>205</sub>
19	7.612 <sub>340</sub>	50.03 <sub>187</sub>	49.576 <sub>320</sub>	26.91 <sub>190</sub>	12.944 <sub>471</sub>	19.09 <sub>94</sub>	57.980 <sub>310</sub>	32.46 <sub>186</sub>
29	7.952 <sub>344</sub>	48.16 <sub>145</sub>	49.896 <sub>319</sub>	25.01 <sub>155</sub>	13.415 <sub>469</sub>	20.03 <sub>126</sub>	58.290 <sub>310</sub>	30.60 <sub>162</sub>
Aug. 8	8.293 <sub>331</sub>	46.71 <sub>98</sub>	50.215 <sub>313</sub>	23.46 <sub>117</sub>	13.884 <sub>459</sub>	21.29 <sub>156</sub>	58.600 <sub>304</sub>	28.98 <sub>135</sub>
18	8.627 <sub>320</sub>	45.73 <sub>48</sub>	50.528 <sub>299</sub>	22.29 <sub>75</sub>	14.343 <sub>440</sub>	22.85 <sub>183</sub>	58.904 <sub>291</sub>	27.63 <sub>102</sub>
28	8.947 <sub>300</sub>	45.25 <sub>2</sub>	50.827 <sub>280</sub>	21.54 <sub>32</sub>	14.783 <sub>414</sub>	24.68 <sub>205</sub>	59.195 <sub>273</sub>	26.61 <sub>68</sub>
Sept. 7	9.247 <sub>273</sub>	45.27 <sub>52</sub>	51.107 <sub>256</sub>	21.22 <sub>12</sub>	15.197 <sub>383</sub>	26.73 <sub>223</sub>	59.468 <sub>251</sub>	25.93 <sub>33</sub>
17	9.520 <sub>242</sub>	45.79 <sub>99</sub>	51.363 <sub>229</sub>	21.34 <sub>53</sub>	15.580 <sub>347</sub>	28.96 <sub>238</sub>	59.719 <sub>227</sub>	25.60 <sub>1</sub>
27	9.762 <sub>208</sub>	46.78 <sub>142</sub>	51.592 <sub>198</sub>	21.87 <sub>92</sub>	15.927 <sub>307</sub>	31.34 <sub>248</sub>	59.946 <sub>200</sub>	25.61 <sub>35</sub>
Okt. 7	9.970 <sub>171</sub>	48.20 <sub>178</sub>	51.790 <sub>167</sub>	22.79 <sub>126</sub>	16.234 <sub>265</sub>	33.82 <sub>253</sub>	60.146 <sub>171</sub>	25.96 <sub>65</sub>
17	10.141 <sub>132</sub>	49.98 <sub>206</sub>	51.957 <sub>134</sub>	24.05 <sub>153</sub>	16.499 <sub>218</sub>	36.35 <sub>255</sub>	60.317 <sub>141</sub>	26.61 <sub>90</sub>
27	10.273 <sub>93</sub>	52.04 <sub>226</sub>	52.091 <sub>99</sub>	25.58 <sub>174</sub>	16.717 <sub>169</sub>	38.90 <sub>251</sub>	60.458 <sub>111</sub>	27.51 <sub>110</sub>
Nov. 5	10.366 <sub>54</sub>	54.30 <sub>235</sub>	52.190 <sub>66</sub>	27.32 <sub>186</sub>	16.886 <sub>119</sub>	41.41 <sub>229</sub>	60.569 <sub>79</sub>	28.61 <sub>124</sub>
15	10.420 <sub>15</sub>	56.65 <sub>236</sub>	52.256 <sub>32</sub>	29.18 <sub>190</sub>	17.005 <sub>65</sub>	43.83 <sub>242</sub>	60.648 <sub>49</sub>	29.85 <sub>132</sub>
25	10.435 <sub>23</sub>	59.01 <sub>227</sub>	52.288 <sub>1</sub>	31.08 <sub>185</sub>	17.070 <sub>10</sub>	46.12 <sub>210</sub>	60.697 <sub>17</sub>	31.17 <sub>133</sub>
Dez. 5	10.412 <sub>59</sub>	61.28 <sub>208</sub>	52.287 <sub>35</sub>	32.93 <sub>175</sub>	17.080 <sub>45</sub>	48.22 <sub>186</sub>	60.714 <sub>14</sub>	32.50 <sub>128</sub>
15	10.353 <sub>93</sub>	63.36 <sub>182</sub>	52.252 <sub>65</sub>	34.68 <sub>156</sub>	17.035 <sub>99</sub>	50.08 <sub>156</sub>	60.700 <sub>44</sub>	33.78 <sub>121</sub>
25	10.260 <sub>123</sub>	65.18 <sub>149</sub>	52.187 <sub>93</sub>	36.24 <sub>133</sub>	16.936 <sub>149</sub>	51.64 <sub>121</sub>	60.656 <sub>73</sub>	34.99 <sub>107</sub>
35	10.137	66.67	52.094	37.57	16.787	52.85	60.583	36.06
Mittl. Ort	7.106	72.16	49.045	45.84	12.667	23.47	57.452	47.55
see $\delta$ , tg $\delta$	1.188	—0.642	1.073	—0.390	1.642	+1.302	1.013	—0.161

Tag	106) $\beta$ Eridani		105) 47 H. Cephei		107) $\alpha$ Ceti		108) $\gamma$ Persei	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$2^h 55^m$	$-40^\circ 34'$	$2^h 56^m$	$+79^\circ 8'$	$2^h 58^m$	$+3^\circ 48'$	$2^h 59^m$	$+53^\circ 13'$
Jan. 0	34.583 <sub>169</sub>	91.25 <sub>141</sub>	35.00 <sub>80</sub>	41.60 <sub>193</sub>	33.821 <sub>81</sub>	42.48 <sub>63</sub>	38.318 <sub>176</sub>	58.57 <sub>110</sub>
10	34.414 <sub>195</sub>	92.66 <sub>96</sub>	34.20 <sub>92</sub>	43.53 <sub>138</sub>	33.740 <sub>105</sub>	41.85 <sub>58</sub>	38.142 <sub>220</sub>	59.67 <sub>70</sub>
20	34.219 <sub>214</sub>	93.62 <sub>49</sub>	33.28 <sub>101</sub>	44.91 <sub>80</sub>	33.635 <sub>126</sub>	41.27 <sub>51</sub>	37.922 <sub>254</sub>	60.37 <sub>28</sub>
30	34.005 <sub>226</sub>	94.11 <sub>0</sub>	32.27 <sub>106</sub>	45.71 <sub>19</sub>	33.509 <sub>140</sub>	40.76 <sub>41</sub>	37.668 <sub>275</sub>	60.65 <sub>14</sub>
Febr. 9	33.779 <sub>228</sub>	94.11 <sub>49</sub>	31.21 <sub>105</sub>	45.90 <sub>41</sub>	33.369 <sub>147</sub>	40.35 <sub>31</sub>	37.393 <sub>282</sub>	60.51 <sub>56</sub>
19	33.551 <sub>222</sub>	93.62 <sub>96</sub>	30.16 <sub>102</sub>	45.49 <sub>99</sub>	33.222 <sub>144</sub>	40.04 <sub>20</sub>	37.111 <sub>275</sub>	59.95 <sub>95</sub>
März 1	33.329 <sub>205</sub>	92.66 <sub>141</sub>	29.14 <sub>92</sub>	44.50 <sub>152</sub>	33.078 <sub>133</sub>	39.84 <sub>5</sub>	36.836 <sub>251</sub>	59.00 <sub>129</sub>
11	33.124 <sub>180</sub>	91.25 <sub>182</sub>	28.22 <sub>80</sub>	42.98 <sub>197</sub>	32.945 <sub>114</sub>	39.79 <sub>9</sub>	36.585 <sub>215</sub>	57.71 <sub>156</sub>
21	32.944 <sub>146</sub>	89.43 <sub>221</sub>	27.42 <sub>63</sub>	41.01 <sub>234</sub>	32.831 <sub>85</sub>	39.88 <sub>27</sub>	36.370 <sub>163</sub>	56.15 <sub>177</sub>
31	32.798 <sub>104</sub>	87.22 <sub>254</sub>	26.79 <sub>44</sub>	38.67 <sub>260</sub>	32.746 <sub>50</sub>	40.15 <sub>46</sub>	36.207 <sub>102</sub>	54.38 <sub>189</sub>
Apr. 10	32.694 <sub>55</sub>	84.68 <sub>282</sub>	26.35 <sub>22</sub>	36.07 <sub>275</sub>	32.696 <sub>9</sub>	40.61 <sub>65</sub>	36.105 <sub>33</sub>	52.49 <sub>192</sub>
20	32.639 <sub>3</sub>	81.86 <sub>306</sub>	26.13 <sub>1</sub>	33.32 <sub>279</sub>	32.687 <sub>35</sub>	41.26 <sub>86</sub>	36.072 <sub>39</sub>	50.57 <sub>188</sub>
30	32.636 <sub>51</sub>	78.80 <sub>322</sub>	26.12 <sub>22</sub>	30.53 <sub>273</sub>	32.722 <sub>81</sub>	42.12 <sub>107</sub>	36.111 <sub>114</sub>	48.69 <sub>174</sub>
Mai 10	32.687 <sub>106</sub>	75.58 <sub>331</sub>	26.34 <sub>43</sub>	27.80 <sub>258</sub>	32.803 <sub>127</sub>	43.19 <sub>126</sub>	36.225 <sub>188</sub>	46.95 <sub>155</sub>
20	32.793 <sub>160</sub>	72.27 <sub>334</sub>	26.77 <sub>63</sub>	25.22 <sub>232</sub>	32.930 <sub>169</sub>	44.45 <sub>144</sub>	36.413 <sub>255</sub>	45.40 <sub>129</sub>
30	32.953 <sub>210</sub>	68.93 <sub>329</sub>	27.40 <sub>81</sub>	22.90 <sub>200</sub>	33.099 <sub>209</sub>	45.89 <sub>160</sub>	36.668 <sub>317</sub>	44.11 <sub>99</sub>
Juni 9	33.163 <sub>255</sub>	65.64 <sub>316</sub>	28.21 <sub>97</sub>	20.90 <sub>162</sub>	33.308 <sub>243</sub>	47.49 <sub>171</sub>	36.985 <sub>370</sub>	43.12 <sub>65</sub>
19	33.418 <sub>293</sub>	62.48 <sub>296</sub>	29.18 <sub>109</sub>	19.28 <sub>119</sub>	33.551 <sub>270</sub>	49.20 <sub>179</sub>	37.355 <sub>412</sub>	42.47 <sub>29</sub>
29	33.711 <sub>323</sub>	59.52 <sub>267</sub>	30.27 <sub>120</sub>	18.09 <sub>72</sub>	33.821 <sub>292</sub>	50.99 <sub>183</sub>	37.767 <sub>444</sub>	42.18 <sub>8</sub>
Juli 9	34.034 <sub>346</sub>	56.85 <sub>232</sub>	31.47 <sub>128</sub>	17.37 <sub>25</sub>	34.113 <sub>305</sub>	52.82 <sub>180</sub>	38.211 <sub>467</sub>	42.26 <sub>44</sub>
19	34.380 <sub>360</sub>	54.53 <sub>189</sub>	32.75 <sub>132</sub>	17.12 <sub>25</sub>	34.418 <sub>312</sub>	54.62 <sub>173</sub>	38.678 <sub>477</sub>	42.70 <sub>79</sub>
29	34.740 <sub>364</sub>	52.64 <sub>143</sub>	34.07 <sub>133</sub>	17.37 <sub>73</sub>	34.730 <sub>311</sub>	56.35 <sub>163</sub>	39.155 <sub>479</sub>	43.49 <sub>113</sub>
Aug. 8	35.104 <sub>360</sub>	51.21 <sub>91</sub>	35.40 <sub>131</sub>	18.10 <sub>120</sub>	35.041 <sub>305</sub>	57.98 <sub>146</sub>	39.634 <sub>470</sub>	44.62 <sub>143</sub>
18	35.464 <sub>347</sub>	50.30 <sub>37</sub>	36.71 <sub>128</sub>	19.30 <sub>163</sub>	35.346 <sub>293</sub>	59.44 <sub>126</sub>	40.104 <sub>453</sub>	46.05 <sub>170</sub>
28	35.811 <sub>327</sub>	49.93 <sub>17</sub>	37.99 <sub>122</sub>	20.93 <sub>205</sub>	35.639 <sub>276</sub>	60.70 <sub>104</sub>	40.557 <sub>430</sub>	47.75 <sub>194</sub>
Sept. 7	36.138 <sub>299</sub>	50.10 <sub>71</sub>	39.21 <sub>113</sub>	22.98 <sub>243</sub>	35.915 <sub>256</sub>	61.74 <sub>80</sub>	40.987 <sub>401</sub>	49.69 <sub>213</sub>
17	36.437 <sub>267</sub>	50.81 <sub>123</sub>	40.34 <sub>103</sub>	25.41 <sub>276</sub>	36.171 <sub>233</sub>	62.54 <sub>53</sub>	41.388 <sub>366</sub>	51.82 <sub>230</sub>
27	36.704 <sub>230</sub>	52.04 <sub>168</sub>	41.37 <sub>90</sub>	28.17 <sub>303</sub>	36.404 <sub>207</sub>	63.07 <sub>29</sub>	41.754 <sub>328</sub>	54.12 <sub>242</sub>
Okt. 7	36.934 <sub>188</sub>	53.72 <sub>207</sub>	42.27 <sub>76</sub>	31.20 <sub>326</sub>	36.611 <sub>180</sub>	63.36 <sub>5</sub>	42.082 <sub>285</sub>	56.54 <sub>249</sub>
17	37.122 <sub>146</sub>	55.79 <sub>237</sub>	43.03 <sub>60</sub>	34.46 <sub>341</sub>	36.791 <sub>152</sub>	63.41 <sub>17</sub>	42.367 <sub>239</sub>	59.03 <sub>252</sub>
27	37.268 <sub>100</sub>	58.16 <sub>258</sub>	43.63 <sub>43</sub>	37.87 <sub>350</sub>	36.943 <sub>123</sub>	63.24 <sub>34</sub>	42.606 <sub>190</sub>	61.55 <sub>250</sub>
Nov. 5*)	37.368 <sub>55</sub>	60.74 <sub>268</sub>	44.06 <sub>25</sub>	41.37 <sub>350</sub>	37.066 <sub>93</sub>	62.90 <sub>49</sub>	42.796 <sub>138</sub>	64.05 <sub>245</sub>
15	37.423 <sub>11</sub>	63.42 <sub>266</sub>	44.31 <sub>5</sub>	44.87 <sub>343</sub>	37.159 <sub>63</sub>	62.41 <sub>60</sub>	42.934 <sub>83</sub>	66.50 <sub>232</sub>
25	37.434 <sub>33</sub>	66.08 <sub>256</sub>	44.36 <sub>14</sub>	48.30 <sub>326</sub>	37.222 <sub>32</sub>	61.81 <sub>66</sub>	43.017 <sub>26</sub>	68.82 <sub>217</sub>
Dez. 5	37.401 <sub>75</sub>	68.64 <sub>234</sub>	44.22 <sub>33</sub>	51.56 <sub>301</sub>	37.254 <sub>0</sub>	61.15 <sub>69</sub>	43.043 <sub>31</sub>	70.99 <sub>193</sub>
15	37.326 <sub>114</sub>	70.98 <sub>204</sub>	43.89 <sub>52</sub>	54.57 <sub>266</sub>	37.254 <sub>31</sub>	60.46 <sub>69</sub>	43.012 <sub>87</sub>	72.92 <sub>166</sub>
25	37.212 <sub>148</sub>	73.02 <sub>167</sub>	43.37 <sub>69</sub>	57.23 <sub>223</sub>	37.223 <sub>61</sub>	59.77 <sub>67</sub>	42.925 <sub>142</sub>	74.58 <sub>132</sub>
35	37.064	74.69	42.68	59.46	37.162	59.10	42.783	75.90
Mittl. Ort	34.020	78.26	34.15	26.41	33.918	43.70	38.474	47.02
sec $\delta$ , tg $\delta$	1.317	-0.857	5.308	+5.213	1.002	+0.067	1.671	+1.338

\*) Bei Stern 108) lies Nov. 6

# Obere Kulmination Greenwich

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Tag	109) $\rho$ Persei		110) $\mu$ Horologii		111) $\beta$ Persei		114) $\delta$ Arietis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$3^h 0^m$	$+38^\circ 33'$	$3^h 1^m$	$-60^\circ 0'$	$3^h 3^m$	$+40^\circ 40'$	$3^h 7^m$	$+19^\circ 27'$
Jan. 0	36.946 <sup>113</sup>	67.33 <sup>56</sup>	57.74 <sup>32</sup>	61.72 <sup>147</sup>	32.289 <sup>117</sup>	68.93 <sup>66</sup>	33.750 <sup>79</sup>	36.97 <sup>11</sup>
10	36.833 <sup>147</sup>	67.89 <sup>28</sup>	57.42 <sup>36</sup>	63.19 <sup>92</sup>	32.172 <sup>154</sup>	69.59 <sup>37</sup>	33.671 <sup>108</sup>	36.86 <sup>21</sup>
20	36.686 <sup>174</sup>	68.17 <sup>1</sup>	57.06 <sup>39</sup>	64.11 <sup>35</sup>	32.018 <sup>181</sup>	69.96 <sup>6</sup>	33.563 <sup>131</sup>	36.65 <sup>29</sup>
30	36.512 <sup>193</sup>	68.16 <sup>29</sup>	56.67 <sup>40</sup>	64.46 <sup>23</sup>	31.837 <sup>200</sup>	70.02 <sup>24</sup>	33.432 <sup>149</sup>	36.36 <sup>38</sup>
Febr. 9	36.319 <sup>200</sup>	67.87 <sup>56</sup>	56.27 <sup>40</sup>	64.23 <sup>79</sup>	31.637 <sup>209</sup>	69.78 <sup>54</sup>	33.283 <sup>157</sup>	35.98 <sup>44</sup>
19	36.119 <sup>196</sup>	67.31 <sup>81</sup>	55.87 <sup>38</sup>	63.44 <sup>133</sup>	31.428 <sup>206</sup>	69.24 <sup>81</sup>	33.126 <sup>156</sup>	35.54 <sup>49</sup>
März 1	35.923 <sup>180</sup>	66.50 <sup>102</sup>	55.49 <sup>36</sup>	62.11 <sup>183</sup>	31.222 <sup>189</sup>	68.43 <sup>104</sup>	32.970 <sup>146</sup>	35.05 <sup>50</sup>
11	35.743 <sup>153</sup>	65.48 <sup>117</sup>	55.13 <sup>33</sup>	60.28 <sup>229</sup>	31.033 <sup>161</sup>	67.39 <sup>121</sup>	32.824 <sup>125</sup>	34.55 <sup>49</sup>
21	35.590 <sup>115</sup>	64.31 <sup>126</sup>	54.80 <sup>27</sup>	57.99 <sup>270</sup>	30.872 <sup>123</sup>	66.18 <sup>132</sup>	32.699 <sup>96</sup>	34.06 <sup>45</sup>
31	35.475 <sup>68</sup>	63.05 <sup>129</sup>	54.53 <sup>21</sup>	55.29 <sup>304</sup>	30.749 <sup>76</sup>	64.86 <sup>137</sup>	32.603 <sup>58</sup>	33.61 <sup>35</sup>
Apr. 10	35.407 <sup>15</sup>	61.76 <sup>125</sup>	54.32 <sup>15</sup>	52.25 <sup>332</sup>	30.673 <sup>21</sup>	63.49 <sup>134</sup>	32.545 <sup>15</sup>	33.26 <sup>23</sup>
20	35.392 <sup>41</sup>	60.51 <sup>114</sup>	54.17 <sup>7</sup>	48.93 <sup>353</sup>	30.652 <sup>38</sup>	62.15 <sup>126</sup>	32.530 <sup>33</sup>	33.03 <sup>6</sup>
30	35.433 <sup>100</sup>	59.37 <sup>99</sup>	54.10 <sup>0</sup>	45.40 <sup>366</sup>	30.690 <sup>98</sup>	60.89 <sup>110</sup>	32.563 <sup>81</sup>	32.97 <sup>12</sup>
Mai 10	35.533 <sup>158</sup>	58.38 <sup>78</sup>	54.10 <sup>9</sup>	41.74 <sup>371</sup>	30.788 <sup>157</sup>	59.79 <sup>90</sup>	32.644 <sup>130</sup>	33.09 <sup>32</sup>
20	35.691 <sup>211</sup>	57.60 <sup>53</sup>	54.19 <sup>16</sup>	38.03 <sup>369</sup>	30.945 <sup>213</sup>	58.89 <sup>66</sup>	32.774 <sup>175</sup>	33.41 <sup>53</sup>
30	35.902 <sup>260</sup>	57.07 <sup>26</sup>	54.35 <sup>23</sup>	34.34 <sup>357</sup>	31.158 <sup>262</sup>	58.23 <sup>39</sup>	32.949 <sup>218</sup>	33.94 <sup>74</sup>
Juni 9	36.162 <sup>301</sup>	56.81 <sup>3</sup>	54.58 <sup>30</sup>	30.77 <sup>337</sup>	31.420 <sup>306</sup>	57.84 <sup>9</sup>	33.167 <sup>254</sup>	34.68 <sup>93</sup>
19	36.463 <sup>335</sup>	56.84 <sup>32</sup>	54.88 <sup>37</sup>	27.40 <sup>308</sup>	31.726 <sup>341</sup>	57.75 <sup>20</sup>	33.421 <sup>283</sup>	35.61 <sup>111</sup>
29	36.798 <sup>360</sup>	57.16 <sup>60</sup>	55.25 <sup>41</sup>	24.32 <sup>273</sup>	32.067 <sup>367</sup>	57.95 <sup>50</sup>	33.704 <sup>306</sup>	36.72 <sup>127</sup>
Juli 9	37.158 <sup>377</sup>	57.76 <sup>87</sup>	55.66 <sup>45</sup>	21.59 <sup>229</sup>	32.434 <sup>385</sup>	58.45 <sup>78</sup>	34.010 <sup>321</sup>	37.99 <sup>137</sup>
19	37.535 <sup>385</sup>	58.63 <sup>111</sup>	56.11 <sup>48</sup>	19.30 <sup>179</sup>	32.819 <sup>394</sup>	59.23 <sup>104</sup>	34.331 <sup>329</sup>	39.36 <sup>145</sup>
29	37.920 <sup>384</sup>	59.74 <sup>132</sup>	56.59 <sup>50</sup>	17.51 <sup>124</sup>	33.213 <sup>394</sup>	60.27 <sup>126</sup>	34.660 <sup>329</sup>	40.81 <sup>149</sup>
Aug. 8	38.304 <sup>377</sup>	61.06 <sup>150</sup>	57.09 <sup>49</sup>	16.27 <sup>65</sup>	33.607 <sup>387</sup>	61.53 <sup>146</sup>	34.989 <sup>324</sup>	42.30 <sup>148</sup>
18	38.681 <sup>364</sup>	62.56 <sup>164</sup>	57.58 <sup>49</sup>	15.62 <sup>4</sup>	33.994 <sup>374</sup>	62.99 <sup>163</sup>	35.313 <sup>313</sup>	43.78 <sup>145</sup>
28	39.045 <sup>343</sup>	64.20 <sup>176</sup>	58.07 <sup>46</sup>	15.58 <sup>57</sup>	34.368 <sup>354</sup>	64.62 <sup>176</sup>	35.626 <sup>296</sup>	45.23 <sup>136</sup>
Sept. 7	39.388 <sup>320</sup>	65.96 <sup>182</sup>	58.53 <sup>42</sup>	16.15 <sup>116</sup>	34.722 <sup>331</sup>	66.38 <sup>185</sup>	35.922 <sup>277</sup>	46.59 <sup>127</sup>
17	39.708 <sup>294</sup>	67.78 <sup>186</sup>	58.95 <sup>37</sup>	17.31 <sup>171</sup>	35.053 <sup>303</sup>	68.23 <sup>191</sup>	36.199 <sup>254</sup>	47.86 <sup>114</sup>
27	40.002 <sup>263</sup>	69.64 <sup>188</sup>	59.32 <sup>32</sup>	19.02 <sup>219</sup>	35.356 <sup>273</sup>	70.14 <sup>194</sup>	36.453 <sup>229</sup>	49.00 <sup>100</sup>
Okt. 7	40.265 <sup>230</sup>	71.52 <sup>185</sup>	59.64 <sup>25</sup>	21.21 <sup>261</sup>	35.629 <sup>240</sup>	72.08 <sup>194</sup>	36.682 <sup>203</sup>	50.00 <sup>87</sup>
17	40.495 <sup>196</sup>	73.37 <sup>181</sup>	59.89 <sup>18</sup>	23.82 <sup>290</sup>	35.869 <sup>204</sup>	74.02 <sup>190</sup>	36.885 <sup>174</sup>	50.87 <sup>72</sup>
27	40.691 <sup>160</sup>	75.18 <sup>173</sup>	60.07 <sup>11</sup>	26.72 <sup>309</sup>	36.073 <sup>167</sup>	75.92 <sup>184</sup>	37.059 <sup>144</sup>	51.59 <sup>59</sup>
Nov. 6	40.851 <sup>121</sup>	76.91 <sup>164</sup>	60.18 <sup>3</sup>	29.81 <sup>316</sup>	36.240 <sup>127</sup>	77.76 <sup>176</sup>	37.203 <sup>114</sup>	52.18 <sup>46</sup>
15	40.972 <sup>82</sup>	78.55 <sup>151</sup>	60.21 <sup>5</sup>	32.97 <sup>310</sup>	36.367 <sup>86</sup>	79.52 <sup>164</sup>	37.317 <sup>80</sup>	52.64 <sup>34</sup>
25	41.054 <sup>39</sup>	80.06 <sup>136</sup>	60.16 <sup>12</sup>	36.07 <sup>292</sup>	36.453 <sup>42</sup>	81.16 <sup>148</sup>	37.397 <sup>47</sup>	52.98 <sup>24</sup>
Dez. 5	41.093 <sup>4</sup>	81.42 <sup>118</sup>	60.04 <sup>18</sup>	38.99 <sup>263</sup>	36.495 <sup>2</sup>	82.64 <sup>130</sup>	37.444 <sup>13</sup>	53.22 <sup>13</sup>
15	41.089 <sup>45</sup>	82.60 <sup>96</sup>	59.86 <sup>24</sup>	41.62 <sup>225</sup>	36.493 <sup>47</sup>	83.94 <sup>108</sup>	37.457 <sup>22</sup>	53.35 <sup>4</sup>
25	41.044 <sup>87</sup>	83.56 <sup>72</sup>	59.62 <sup>29</sup>	43.87 <sup>179</sup>	36.446 <sup>89</sup>	85.02 <sup>83</sup>	37.435 <sup>57</sup>	53.39 <sup>6</sup>
35	40.957	84.28	59.33	45.66	36.357	85.85	37.378	53.33
Mittl. Ort	37.155	58.98	56.17	45.96	32.477	60.09	33.891	33.56
sec $\delta$ , tg $\delta$	1.279	+0.797	2.001	-1.733	1.319	+0.860	1.061	+0.353

Tag	117) 12 Eridani		115) 48 H. Cephei		120) $\alpha$ Persei		121) $\sigma$ Tauri	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	3 <sup>h</sup> 9 <sup>m</sup>	-29° 15'	3 <sup>h</sup> 11 <sup>m</sup>	+77° 28'	3 <sup>h</sup> 19 <sup>m</sup>	+49° 36'	3 <sup>h</sup> 20 <sup>m</sup>	+8° 46'
Jan. 0	3.578 <sup>121</sup>	67.88 <sup>141</sup>	15.48 <sup>63</sup>	50.22 <sup>203</sup>	14.554 <sup>137</sup>	46.21 <sup>112</sup>	59.356 <sup>68</sup>	48.97 <sup>49</sup>
10	3.457 <sup>147</sup>	69.29 <sup>105</sup>	14.85 <sup>75</sup>	52.25 <sup>152</sup>	14.417 <sup>180</sup>	47.33 <sup>77</sup>	59.288 <sup>98</sup>	48.48 <sup>46</sup>
20	3.310 <sup>169</sup>	70.34 <sup>65</sup>	14.10 <sup>85</sup>	53.77 <sup>96</sup>	14.237 <sup>218</sup>	48.10 <sup>40</sup>	59.190 <sup>122</sup>	48.02 <sup>44</sup>
30	3.141 <sup>183</sup>	70.99 <sup>25</sup>	13.25 <sup>89</sup>	54.73 <sup>36</sup>	14.019 <sup>245</sup>	48.50 <sup>1</sup>	59.068 <sup>141</sup>	47.58 <sup>40</sup>
Febr. 9	2.958 <sup>190</sup>	71.24 <sup>17</sup>	12.36 <sup>91</sup>	55.09 <sup>23</sup>	13.774 <sup>258</sup>	48.51 <sup>36</sup>	58.927 <sup>151</sup>	47.18 <sup>34</sup>
19	2.768 <sup>188</sup>	71.07 <sup>58</sup>	11.45 <sup>89</sup>	54.86 <sup>81</sup>	13.516 <sup>256</sup>	48.15 <sup>73</sup>	58.776 <sup>153</sup>	46.84 <sup>27</sup>
März 1	2.580 <sup>176</sup>	70.49 <sup>97</sup>	10.56 <sup>82</sup>	54.05 <sup>134</sup>	13.260 <sup>241</sup>	47.42 <sup>105</sup>	58.623 <sup>145</sup>	46.57 <sup>20</sup>
11	2.404 <sup>156</sup>	69.52 <sup>136</sup>	9.74 <sup>72</sup>	52.71 <sup>181</sup>	13.019 <sup>210</sup>	46.37 <sup>132</sup>	58.478 <sup>128</sup>	46.37 <sup>8</sup>
21	2.248 <sup>127</sup>	68.16 <sup>171</sup>	9.02 <sup>59</sup>	50.90 <sup>219</sup>	12.809 <sup>168</sup>	45.05 <sup>153</sup>	58.350 <sup>102</sup>	46.29 <sup>4</sup>
31	2.121 <sup>91</sup>	66.45 <sup>204</sup>	8.43 <sup>42</sup>	48.71 <sup>248</sup>	12.641 <sup>115</sup>	43.52 <sup>165</sup>	58.248 <sup>68</sup>	46.33 <sup>19</sup>
Apr. 10	2.030 <sup>48</sup>	64.41 <sup>233</sup>	8.01 <sup>25</sup>	46.23 <sup>266</sup>	12.526 <sup>52</sup>	41.87 <sup>171</sup>	58.180 <sup>28</sup>	46.52 <sup>35</sup>
20	1.982 <sup>2</sup>	62.08 <sup>257</sup>	7.76 <sup>5</sup>	43.57 <sup>274</sup>	12.474 <sup>14</sup>	40.16 <sup>169</sup>	58.152 <sup>16</sup>	46.87 <sup>54</sup>
30	1.980 <sup>48</sup>	59.51 <sup>278</sup>	7.71 <sup>14</sup>	40.83 <sup>270</sup>	12.488 <sup>84</sup>	38.47 <sup>159</sup>	58.168 <sup>62</sup>	47.41 <sup>73</sup>
Mai 10	2.028 <sup>97</sup>	56.73 <sup>292</sup>	7.85 <sup>33</sup>	38.13 <sup>258</sup>	12.572 <sup>152</sup>	36.88 <sup>143</sup>	58.230 <sup>109</sup>	48.14 <sup>92</sup>
20	2.125 <sup>146</sup>	53.81 <sup>299</sup>	8.18 <sup>51</sup>	35.55 <sup>236</sup>	12.724 <sup>218</sup>	35.45 <sup>121</sup>	58.339 <sup>153</sup>	49.06 <sup>110</sup>
30	2.271 <sup>190</sup>	50.82 <sup>301</sup>	8.69 <sup>67</sup>	33.19 <sup>207</sup>	12.942 <sup>276</sup>	34.24 <sup>94</sup>	58.492 <sup>194</sup>	50.16 <sup>127</sup>
Juni 9	2.461 <sup>231</sup>	47.81 <sup>296</sup>	9.36 <sup>82</sup>	31.12 <sup>171</sup>	13.218 <sup>329</sup>	33.30 <sup>65</sup>	58.686 <sup>231</sup>	51.43 <sup>140</sup>
19	2.692 <sup>266</sup>	44.85 <sup>283</sup>	10.18 <sup>94</sup>	29.41 <sup>131</sup>	13.547 <sup>373</sup>	32.65 <sup>33</sup>	58.917 <sup>261</sup>	52.83 <sup>152</sup>
29	2.958 <sup>293</sup>	42.02 <sup>263</sup>	11.12 <sup>103</sup>	28.10 <sup>87</sup>	13.920 <sup>406</sup>	32.32 <sup>0</sup>	59.178 <sup>284</sup>	54.35 <sup>158</sup>
Juli 9	3.251 <sup>313</sup>	39.39 <sup>235</sup>	12.15 <sup>111</sup>	27.23 <sup>41</sup>	14.326 <sup>430</sup>	32.32 <sup>33</sup>	59.462 <sup>301</sup>	55.93 <sup>161</sup>
19	3.564 <sup>326</sup>	37.04 <sup>202</sup>	13.26 <sup>115</sup>	26.82 <sup>6</sup>	14.756 <sup>445</sup>	32.65 <sup>64</sup>	59.763 <sup>311</sup>	57.54 <sup>160</sup>
29	3.890 <sup>331</sup>	35.02 <sup>163</sup>	14.41 <sup>118</sup>	26.88 <sup>54</sup>	15.201 <sup>450</sup>	33.29 <sup>95</sup>	60.074 <sup>314</sup>	59.14 <sup>152</sup>
Aug. 8	4.221 <sup>328</sup>	33.39 <sup>119</sup>	15.59 <sup>117</sup>	27.42 <sup>100</sup>	15.651 <sup>446</sup>	34.24 <sup>122</sup>	60.388 <sup>311</sup>	60.66 <sup>142</sup>
18	4.549 <sup>319</sup>	32.20 <sup>71</sup>	16.76 <sup>115</sup>	28.42 <sup>143</sup>	16.097 <sup>435</sup>	35.46 <sup>147</sup>	60.699 <sup>302</sup>	62.08 <sup>128</sup>
28	4.868 <sup>302</sup>	31.49 <sup>22</sup>	17.91 <sup>111</sup>	29.85 <sup>185</sup>	16.532 <sup>416</sup>	36.93 <sup>168</sup>	61.001 <sup>288</sup>	63.36 <sup>109</sup>
Sept. 7	5.170 <sup>281</sup>	31.27 <sup>27</sup>	19.02 <sup>104</sup>	31.70 <sup>223</sup>	16.948 <sup>393</sup>	38.61 <sup>186</sup>	61.289 <sup>272</sup>	64.45 <sup>90</sup>
17	5.451 <sup>254</sup>	31.54 <sup>74</sup>	20.06 <sup>95</sup>	33.93 <sup>256</sup>	17.341 <sup>365</sup>	40.47 <sup>201</sup>	61.561 <sup>251</sup>	65.35 <sup>68</sup>
27	5.705 <sup>225</sup>	32.28 <sup>119</sup>	21.01 <sup>85</sup>	36.49 <sup>286</sup>	17.706 <sup>332</sup>	42.48 <sup>212</sup>	61.812 <sup>228</sup>	66.03 <sup>46</sup>
Okt. 7	5.930 <sup>192</sup>	33.47 <sup>157</sup>	21.86 <sup>73</sup>	39.35 <sup>309</sup>	18.038 <sup>296</sup>	44.60 <sup>220</sup>	62.040 <sup>203</sup>	66.49 <sup>26</sup>
17	6.122 <sup>156</sup>	35.04 <sup>189</sup>	22.59 <sup>61</sup>	42.44 <sup>327</sup>	18.334 <sup>255</sup>	46.80 <sup>224</sup>	62.243 <sup>177</sup>	66.75 <sup>6</sup>
27	6.278 <sup>120</sup>	36.93 <sup>212</sup>	23.20 <sup>46</sup>	45.71 <sup>338</sup>	18.589 <sup>212</sup>	49.04 <sup>224</sup>	62.420 <sup>149</sup>	66.81 <sup>10</sup>
Nov. 6	6.398 <sup>83</sup>	39.05 <sup>226</sup>	23.66 <sup>30</sup>	49.09 <sup>342</sup>	18.801 <sup>165</sup>	51.28 <sup>220</sup>	62.569 <sup>119</sup>	66.71 <sup>24</sup>
15	6.481 <sup>44</sup>	41.31 <sup>230</sup>	23.96 <sup>13</sup>	52.51 <sup>337</sup>	18.966 <sup>114</sup>	53.48 <sup>212</sup>	62.688 <sup>88</sup>	66.47 <sup>35</sup>
25	6.525 <sup>7</sup>	43.61 <sup>226</sup>	24.09 <sup>4</sup>	55.88 <sup>324</sup>	19.080 <sup>61</sup>	55.60 <sup>199</sup>	62.776 <sup>55</sup>	66.12 <sup>42</sup>
Dez. 5	6.532 <sup>31</sup>	45.87 <sup>212</sup>	24.05 <sup>21</sup>	59.12 <sup>302</sup>	19.141 <sup>7</sup>	57.59 <sup>182</sup>	62.831 <sup>22</sup>	65.70 <sup>47</sup>
15	6.501 <sup>67</sup>	47.99 <sup>190</sup>	23.84 <sup>38</sup>	62.14 <sup>271</sup>	19.148 <sup>48</sup>	59.41 <sup>158</sup>	62.853 <sup>13</sup>	65.23 <sup>49</sup>
25	6.434 <sup>100</sup>	49.89 <sup>161</sup>	23.46 <sup>53</sup>	64.85 <sup>231</sup>	19.100 <sup>101</sup>	60.99 <sup>130</sup>	62.840 <sup>46</sup>	64.74 <sup>50</sup>
35	6.334	51.50	22.93	67.16	18.999	62.29	62.794	64.24
Mittl. Ort	3.210	58.20	14.54	35.49	14.599	35.60	59.382	48.24
sec $\delta$ , tg $\delta$	1.146	-0.560	4.612	+4.502	1.543	+1.175	1.012	+0.154

# Obere Kulmination Greenwich

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Tag	122) $\alpha$ H. Camelop.		125) $\gamma$ Tauri		127) $\epsilon$ Eridani <sup>1)</sup>		131) $\delta$ Persei	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	3 <sup>h</sup> 23 <sup>m</sup>	+59° 41'	3 <sup>h</sup> 26 <sup>m</sup>	+12° 41'	3 <sup>h</sup> 29 <sup>m</sup>	−9° 41'	3 <sup>h</sup> 37 <sup>m</sup>	+47° 33'
Jan. 0	18.329 <sup>196</sup>	53.05 <sup>153</sup>	56.975 <sup>65</sup>	41.78 <sup>34</sup>	35.217 <sup>78</sup>	55.76 <sup>111</sup>	51.711 <sup>109</sup>	53.24 <sup>115</sup>
10	18.133 <sup>255</sup>	54.58 <sup>113</sup>	56.910 <sup>96</sup>	41.44 <sup>35</sup>	35.139 <sup>107</sup>	56.87 <sup>90</sup>	51.602 <sup>156</sup>	54.39 <sup>86</sup>
20	17.878 <sup>301</sup>	55.71 <sup>69</sup>	56.814 <sup>121</sup>	41.09 <sup>36</sup>	35.032 <sup>132</sup>	57.77 <sup>68</sup>	51.446 <sup>196</sup>	55.25 <sup>52</sup>
30	17.577 <sup>334</sup>	56.40 <sup>22</sup>	56.693 <sup>142</sup>	40.73 <sup>36</sup>	34.900 <sup>149</sup>	58.45 <sup>44</sup>	51.250 <sup>226</sup>	55.77 <sup>17</sup>
Febr. 9	17.243 <sup>350</sup>	56.62 <sup>26</sup>	56.551 <sup>154</sup>	40.37 <sup>35</sup>	34.751 <sup>160</sup>	58.89 <sup>20</sup>	51.024 <sup>245</sup>	55.94 <sup>19</sup>
19	16.893 <sup>348</sup>	56.36 <sup>70</sup>	56.397 <sup>156</sup>	40.02 <sup>32</sup>	34.591 <sup>162</sup>	59.09 <sup>6</sup>	50.779 <sup>248</sup>	55.75 <sup>54</sup>
März 1	16.545 <sup>328</sup>	55.66 <sup>112</sup>	56.241 <sup>149</sup>	39.70 <sup>28</sup>	34.429 <sup>155</sup>	59.03 <sup>32</sup>	50.531 <sup>239</sup>	55.21 <sup>85</sup>
11	16.217 <sup>290</sup>	54.54 <sup>147</sup>	56.092 <sup>133</sup>	39.42 <sup>21</sup>	34.274 <sup>140</sup>	58.71 <sup>58</sup>	50.292 <sup>214</sup>	54.36 <sup>112</sup>
21	15.927 <sup>235</sup>	53.07 <sup>176</sup>	55.959 <sup>107</sup>	39.21 <sup>12</sup>	34.134 <sup>114</sup>	58.13 <sup>84</sup>	50.078 <sup>177</sup>	53.24 <sup>133</sup>
31	15.692 <sup>167</sup>	51.31 <sup>198</sup>	55.852 <sup>73</sup>	39.09 <sup>0</sup>	34.020 <sup>82</sup>	57.29 <sup>109</sup>	49.901 <sup>129</sup>	51.91 <sup>148</sup>
Apr. 10	15.525 <sup>90</sup>	49.33 <sup>209</sup>	55.779 <sup>32</sup>	39.09 <sup>15</sup>	33.938 <sup>44</sup>	56.20 <sup>134</sup>	49.772 <sup>71</sup>	50.43 <sup>156</sup>
20	15.435 <sup>5</sup>	47.24 <sup>212</sup>	55.747 <sup>12</sup>	39.24 <sup>30</sup>	33.894 <sup>1</sup>	54.86 <sup>157</sup>	49.701 <sup>8</sup>	48.87 <sup>156</sup>
30	15.430 <sup>82</sup>	45.12 <sup>206</sup>	55.759 <sup>58</sup>	39.54 <sup>49</sup>	33.893 <sup>45</sup>	53.29 <sup>177</sup>	49.693 <sup>58</sup>	47.31 <sup>150</sup>
Mai 10	15.512 <sup>168</sup>	43.06 <sup>193</sup>	55.817 <sup>106</sup>	40.03 <sup>68</sup>	33.938 <sup>90</sup>	51.52 <sup>195</sup>	49.751 <sup>125</sup>	45.81 <sup>137</sup>
20	15.680 <sup>251</sup>	41.13 <sup>172</sup>	55.923 <sup>151</sup>	40.71 <sup>85</sup>	34.028 <sup>135</sup>	49.57 <sup>210</sup>	49.876 <sup>189</sup>	44.44 <sup>118</sup>
30	15.931 <sup>326</sup>	39.41 <sup>145</sup>	56.074 <sup>194</sup>	41.56 <sup>104</sup>	34.163 <sup>176</sup>	47.47 <sup>219</sup>	50.065 <sup>247</sup>	43.26 <sup>95</sup>
Juni 9	16.257 <sup>392</sup>	37.96 <sup>115</sup>	56.268 <sup>231</sup>	42.60 <sup>119</sup>	34.339 <sup>213</sup>	45.28 <sup>225</sup>	50.312 <sup>301</sup>	42.31 <sup>69</sup>
19	16.649 <sup>449</sup>	36.81 <sup>79</sup>	56.499 <sup>261</sup>	43.79 <sup>132</sup>	34.552 <sup>245</sup>	43.03 <sup>224</sup>	50.613 <sup>345</sup>	41.62 <sup>40</sup>
29	17.098 <sup>492</sup>	36.02 <sup>42</sup>	56.760 <sup>286</sup>	45.11 <sup>142</sup>	34.797 <sup>270</sup>	40.79 <sup>217</sup>	50.958 <sup>381</sup>	41.22 <sup>11</sup>
Juli 9	17.590 <sup>526</sup>	35.60 <sup>5</sup>	57.046 <sup>303</sup>	46.53 <sup>147</sup>	35.067 <sup>289</sup>	38.62 <sup>206</sup>	51.339 <sup>407</sup>	41.11 <sup>20</sup>
19	18.116 <sup>546</sup>	35.55 <sup>33</sup>	57.349 <sup>314</sup>	48.00 <sup>149</sup>	35.356 <sup>300</sup>	36.56 <sup>188</sup>	51.746 <sup>426</sup>	41.31 <sup>48</sup>
29	18.662 <sup>555</sup>	35.88 <sup>70</sup>	57.663 <sup>318</sup>	49.49 <sup>146</sup>	35.656 <sup>305</sup>	34.68 <sup>165</sup>	52.172 <sup>434</sup>	41.79 <sup>76</sup>
Aug. 8	19.217 <sup>553</sup>	36.58 <sup>106</sup>	57.981 <sup>315</sup>	50.95 <sup>139</sup>	35.961 <sup>304</sup>	33.03 <sup>136</sup>	52.606 <sup>434</sup>	42.55 <sup>102</sup>
18	19.770 <sup>543</sup>	37.64 <sup>138</sup>	58.296 <sup>307</sup>	52.34 <sup>129</sup>	36.265 <sup>297</sup>	31.67 <sup>105</sup>	53.040 <sup>427</sup>	43.57 <sup>125</sup>
28	20.313 <sup>522</sup>	39.02 <sup>169</sup>	58.603 <sup>296</sup>	53.63 <sup>114</sup>	36.562 <sup>284</sup>	30.62 <sup>69</sup>	53.467 <sup>414</sup>	44.82 <sup>145</sup>
Sept. 7	20.835 <sup>494</sup>	40.71 <sup>195</sup>	58.899 <sup>278</sup>	54.77 <sup>99</sup>	36.846 <sup>267</sup>	29.93 <sup>33</sup>	53.881 <sup>395</sup>	46.27 <sup>163</sup>
17	21.329 <sup>460</sup>	42.66 <sup>218</sup>	59.177 <sup>258</sup>	55.76 <sup>80</sup>	37.113 <sup>247</sup>	29.60 <sup>4</sup>	54.276 <sup>371</sup>	47.90 <sup>176</sup>
27	21.789 <sup>418</sup>	44.84 <sup>238</sup>	59.435 <sup>237</sup>	56.56 <sup>62</sup>	37.360 <sup>223</sup>	29.64 <sup>38</sup>	54.647 <sup>342</sup>	49.66 <sup>188</sup>
Okt. 7	22.207 <sup>372</sup>	47.22 <sup>252</sup>	59.672 <sup>212</sup>	57.18 <sup>44</sup>	37.583 <sup>198</sup>	30.02 <sup>70</sup>	54.989 <sup>310</sup>	51.54 <sup>197</sup>
17	22.579 <sup>320</sup>	49.74 <sup>263</sup>	59.884 <sup>186</sup>	57.62 <sup>27</sup>	37.781 <sup>170</sup>	30.72 <sup>99</sup>	55.299 <sup>273</sup>	53.51 <sup>201</sup>
27	22.899 <sup>262</sup>	52.37 <sup>269</sup>	60.070 <sup>158</sup>	57.89 <sup>11</sup>	37.951 <sup>141</sup>	31.71 <sup>120</sup>	55.572 <sup>234</sup>	55.52 <sup>204</sup>
Nov. 6	23.161 <sup>201</sup>	55.06 <sup>268</sup>	60.228 <sup>128</sup>	58.00 <sup>1</sup>	38.092 <sup>110</sup>	32.91 <sup>136</sup>	55.806 <sup>189</sup>	57.56 <sup>203</sup>
15	23.362 <sup>133</sup>	57.74 <sup>263</sup>	60.356 <sup>97</sup>	57.99 <sup>12</sup>	38.202 <sup>78</sup>	34.27 <sup>146</sup>	55.995 <sup>141</sup>	59.59 <sup>197</sup>
25	23.495 <sup>64</sup>	60.37 <sup>252</sup>	60.453 <sup>64</sup>	57.87 <sup>19</sup>	38.280 <sup>45</sup>	35.73 <sup>148</sup>	56.136 <sup>91</sup>	61.56 <sup>188</sup>
Dez. 5	23.559 <sup>9</sup>	62.89 <sup>233</sup>	60.517 <sup>29</sup>	57.68 <sup>26</sup>	38.325 <sup>10</sup>	37.21 <sup>145</sup>	56.227 <sup>36</sup>	63.44 <sup>174</sup>
15	23.550 <sup>82</sup>	65.22 <sup>207</sup>	60.546 <sup>7</sup>	57.42 <sup>30</sup>	38.335 <sup>23</sup>	38.66 <sup>136</sup>	56.263 <sup>18</sup>	65.18 <sup>155</sup>
25	23.468 <sup>150</sup>	67.29 <sup>176</sup>	60.539 <sup>42</sup>	57.12 <sup>33</sup>	38.312 <sup>56</sup>	40.02 <sup>121</sup>	56.245 <sup>72</sup>	66.73 <sup>132</sup>
35	23.318	69.05	60.497	56.79	38.256	41.23	56.173	68.05
Mittl. Ort	18.202	40.74	56.995	39.89	35.063	51.75	51.651	43.29
sec $\delta$ , tg $\delta$	1.982	+1.711	1.025	+0.225	1.014	−0.171	1.482	+1.094

1) Die jährliche Parallaxe (0.32) ist bereits berücksichtigt.

Tag	134) $\nu$ Persei		138) $\delta$ Camelop.		139) $\eta$ Tauri		141) $\beta$ Reticuli	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$3^h 40^m$	$+42^\circ 21'$	$3^h 42^m$	$+71^\circ 6'$	$3^h 43^m$	$+23^\circ 53'$	$3^h 43^m$	$-65^\circ 1'$
Jan. 0	21.827 <sup>90</sup>	29.37 <sup>95</sup>	50.72 <sup>32</sup>	70.07 <sup>212</sup>	15.616 <sup>58</sup>	17.48 <sup>14</sup>	20.67 <sup>37</sup>	61.82 <sup>196</sup>
10	21.737 <sup>133</sup>	30.32 <sup>68</sup>	50.40 <sup>41</sup>	72.19 <sup>168</sup>	15.558 <sup>95</sup>	17.62 <sup>4</sup>	20.30 <sup>42</sup>	63.78 <sup>143</sup>
20	21.604 <sup>172</sup>	31.00 <sup>41</sup>	49.99 <sup>50</sup>	73.87 <sup>120</sup>	15.463 <sup>126</sup>	17.66 <sup>6</sup>	19.88 <sup>47</sup>	65.21 <sup>88</sup>
30	21.432 <sup>200</sup>	31.41 <sup>10</sup>	49.49 <sup>55</sup>	75.07 <sup>66</sup>	15.337 <sup>150</sup>	17.60 <sup>19</sup>	19.41 <sup>50</sup>	66.09 <sup>31</sup>
Febr. 9	21.232 <sup>217</sup>	31.51 <sup>21</sup>	48.94 <sup>58</sup>	75.73 <sup>12</sup>	15.187 <sup>166</sup>	17.41 <sup>29</sup>	18.91 <sup>51</sup>	66.40 <sup>28</sup>
19	21.015 <sup>223</sup>	31.30 <sup>50</sup>	48.36 <sup>59</sup>	75.85 <sup>43</sup>	15.021 <sup>172</sup>	17.12 <sup>38</sup>	18.40 <sup>51</sup>	66.12 <sup>84</sup>
März 1	20.792 <sup>215</sup>	30.80 <sup>76</sup>	47.77 <sup>56</sup>	75.42 <sup>94</sup>	14.849 <sup>166</sup>	16.74 <sup>46</sup>	17.89 <sup>50</sup>	65.28 <sup>138</sup>
11	20.577 <sup>193</sup>	30.04 <sup>99</sup>	47.21 <sup>51</sup>	74.48 <sup>141</sup>	14.683 <sup>151</sup>	16.28 <sup>51</sup>	17.39 <sup>46</sup>	63.90 <sup>188</sup>
21	20.384 <sup>160</sup>	29.05 <sup>116</sup>	46.70 <sup>43</sup>	73.07 <sup>181</sup>	14.532 <sup>126</sup>	15.77 <sup>52</sup>	16.93 <sup>41</sup>	62.02 <sup>233</sup>
31	20.224 <sup>117</sup>	27.89 <sup>127</sup>	46.27 <sup>34</sup>	71.26 <sup>213</sup>	14.406 <sup>91</sup>	15.25 <sup>49</sup>	16.52 <sup>35</sup>	59.69 <sup>274</sup>
Apr. 10	20.107 <sup>64</sup>	26.62 <sup>132</sup>	45.93 <sup>22</sup>	69.13 <sup>234</sup>	14.315 <sup>49</sup>	14.76 <sup>43</sup>	16.17 <sup>28</sup>	56.95 <sup>307</sup>
20	20.043 <sup>6</sup>	25.30 <sup>131</sup>	45.71 <sup>10</sup>	66.79 <sup>248</sup>	14.266 <sup>2</sup>	14.33 <sup>33</sup>	15.89 <sup>20</sup>	53.88 <sup>335</sup>
30	20.037 <sup>55</sup>	23.99 <sup>123</sup>	45.61 <sup>4</sup>	64.31 <sup>250</sup>	14.264 <sup>48</sup>	14.00 <sup>20</sup>	15.69 <sup>11</sup>	50.53 <sup>355</sup>
Mai 10	20.092 <sup>116</sup>	22.76 <sup>109</sup>	45.65 <sup>16</sup>	61.81 <sup>244</sup>	14.312 <sup>98</sup>	13.80 <sup>3</sup>	15.58 <sup>2</sup>	46.98 <sup>367</sup>
20	20.208 <sup>174</sup>	21.67 <sup>91</sup>	45.81 <sup>30</sup>	59.37 <sup>229</sup>	14.410 <sup>147</sup>	13.77 <sup>14</sup>	15.56 <sup>7</sup>	43.31 <sup>371</sup>
30	20.382 <sup>230</sup>	20.76 <sup>69</sup>	46.11 <sup>41</sup>	57.08 <sup>207</sup>	14.557 <sup>192</sup>	13.91 <sup>34</sup>	15.63 <sup>16</sup>	39.60 <sup>367</sup>
Juni 9	20.612 <sup>278</sup>	20.07 <sup>44</sup>	46.52 <sup>52</sup>	55.01 <sup>177</sup>	14.749 <sup>233</sup>	14.25 <sup>52</sup>	15.79 <sup>25</sup>	35.93 <sup>354</sup>
19	20.890 <sup>319</sup>	19.63 <sup>17</sup>	47.04 <sup>61</sup>	53.24 <sup>144</sup>	14.982 <sup>267</sup>	14.77 <sup>71</sup>	16.04 <sup>32</sup>	32.39 <sup>331</sup>
29	21.209 <sup>353</sup>	19.46 <sup>9</sup>	47.65 <sup>69</sup>	51.80 <sup>106</sup>	15.249 <sup>295</sup>	15.48 <sup>87</sup>	16.36 <sup>40</sup>	29.08 <sup>301</sup>
Juli 9	21.562 <sup>378</sup>	19.55 <sup>35</sup>	48.34 <sup>74</sup>	50.74 <sup>66</sup>	15.544 <sup>315</sup>	16.35 <sup>100</sup>	16.76 <sup>46</sup>	26.07 <sup>263</sup>
19	21.940 <sup>394</sup>	19.90 <sup>61</sup>	49.08 <sup>79</sup>	50.08 <sup>23</sup>	15.859 <sup>328</sup>	17.35 <sup>111</sup>	17.22 <sup>51</sup>	23.44 <sup>216</sup>
29	22.334 <sup>402</sup>	20.51 <sup>84</sup>	49.87 <sup>82</sup>	49.85 <sup>19</sup>	16.187 <sup>336</sup>	18.46 <sup>119</sup>	17.73 <sup>54</sup>	21.28 <sup>163</sup>
Aug. 8	22.736 <sup>402</sup>	21.35 <sup>106</sup>	50.69 <sup>83</sup>	50.04 <sup>61</sup>	16.523 <sup>335</sup>	19.65 <sup>123</sup>	18.27 <sup>56</sup>	19.65 <sup>106</sup>
18	23.138 <sup>396</sup>	22.41 <sup>124</sup>	51.52 <sup>82</sup>	50.65 <sup>102</sup>	16.858 <sup>330</sup>	20.88 <sup>123</sup>	18.83 <sup>57</sup>	18.59 <sup>44</sup>
28	23.534 <sup>384</sup>	23.65 <sup>139</sup>	52.34 <sup>81</sup>	51.67 <sup>141</sup>	17.188 <sup>319</sup>	22.11 <sup>121</sup>	19.40 <sup>55</sup>	18.15 <sup>18</sup>
Sept. 7	23.918 <sup>366</sup>	25.04 <sup>152</sup>	53.15 <sup>77</sup>	53.08 <sup>177</sup>	17.507 <sup>305</sup>	23.32 <sup>116</sup>	19.95 <sup>52</sup>	18.33 <sup>81</sup>
17	24.284 <sup>344</sup>	26.56 <sup>162</sup>	53.92 <sup>72</sup>	54.85 <sup>210</sup>	17.812 <sup>286</sup>	24.48 <sup>109</sup>	20.47 <sup>48</sup>	19.14 <sup>141</sup>
27	24.628 <sup>319</sup>	28.18 <sup>170</sup>	54.64 <sup>67</sup>	56.95 <sup>239</sup>	18.098 <sup>266</sup>	25.57 <sup>99</sup>	20.95 <sup>43</sup>	20.55 <sup>196</sup>
Okt. 7	24.947 <sup>289</sup>	29.88 <sup>174</sup>	55.31 <sup>60</sup>	59.34 <sup>264</sup>	18.364 <sup>242</sup>	26.56 <sup>91</sup>	21.38 <sup>36</sup>	22.51 <sup>244</sup>
17	25.236 <sup>257</sup>	31.62 <sup>176</sup>	55.91 <sup>52</sup>	61.98 <sup>285</sup>	18.606 <sup>216</sup>	27.47 <sup>81</sup>	21.74 <sup>28</sup>	24.95 <sup>283</sup>
27	25.493 <sup>221</sup>	33.38 <sup>175</sup>	56.43 <sup>43</sup>	64.83 <sup>299</sup>	18.822 <sup>187</sup>	28.28 <sup>72</sup>	22.02 <sup>20</sup>	27.78 <sup>311</sup>
Nov. 6	25.714 <sup>181</sup>	35.13 <sup>173</sup>	56.86 <sup>34</sup>	67.82 <sup>307</sup>	19.009 <sup>157</sup>	29.00 <sup>62</sup>	22.22 <sup>11</sup>	30.89 <sup>326</sup>
16	25.895 <sup>138</sup>	36.86 <sup>167</sup>	57.20 <sup>22</sup>	70.89 <sup>309</sup>	19.166 <sup>122</sup>	29.62 <sup>54</sup>	22.33 <sup>2</sup>	34.15 <sup>329</sup>
25	26.033 <sup>92</sup>	38.53 <sup>158</sup>	57.42 <sup>11</sup>	73.98 <sup>303</sup>	19.288 <sup>86</sup>	30.16 <sup>46</sup>	22.35 <sup>8</sup>	37.44 <sup>320</sup>
Dez. 5	26.125 <sup>43</sup>	40.11 <sup>146</sup>	57.53 <sup>1</sup>	77.01 <sup>288</sup>	19.374 <sup>48</sup>	30.62 <sup>37</sup>	22.27 <sup>17</sup>	40.64 <sup>299</sup>
15	26.168 <sup>7</sup>	41.57 <sup>129</sup>	57.52 <sup>13</sup>	79.89 <sup>266</sup>	19.422 <sup>8</sup>	30.99 <sup>29</sup>	22.10 <sup>25</sup>	43.63 <sup>267</sup>
25	26.161 <sup>56</sup>	42.86 <sup>109</sup>	57.39 <sup>24</sup>	82.55 <sup>235</sup>	19.430 <sup>31</sup>	31.28 <sup>21</sup>	21.85 <sup>33</sup>	46.30 <sup>226</sup>
35	26.105	43.95	57.15	84.90	19.399	31.49	21.52	48.56
Mittl. Ort	21.792	20.46	49.90	56.78	15.600	12.62	18.17	48.98
sec $\delta$ , $\tau$ $\delta$	1.353	$+0.912$	3.090	$+2.924$	1.094	$+0.443$	2.369	$-2.147$

# Obere Kulmination Greenwich

Tag	140) $\epsilon^6$ Eridani		143) $g$ Eridani		146) $\gamma$ Hydri		144) $\zeta$ Persei	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$3^h 43^m$	$-23^\circ 27'$	$3^h 46^m$	$-36^\circ 24'$	$3^h 48^m$	$-74^\circ 26'$	$3^h 49^m$	$+31^\circ 40'$
Jan. 0	47.949 <sub>89</sub>	36.72 <sub>158</sub>	48.547 <sub>123</sub>	60.88 <sub>186</sub>	23.75 <sub>65</sub>	98.37 <sub>192</sub>	39.897 <sub>61</sub>	33.56 <sub>52</sub>
10	47.860 <sub>121</sub>	38.30 <sub>128</sub>	48.424 <sub>158</sub>	62.74 <sub>147</sub>	23.10 <sub>73</sub>	100.29 <sub>140</sub>	39.836 <sub>101</sub>	34.08 <sub>35</sub>
20	47.739 <sub>148</sub>	39.58 <sub>94</sub>	48.266 <sub>188</sub>	64.21 <sub>103</sub>	22.37 <sub>80</sub>	101.69 <sub>84</sub>	39.735 <sub>136</sub>	34.43 <sub>17</sub>
30	47.591 <sub>169</sub>	40.52 <sub>58</sub>	48.078 <sub>211</sub>	65.24 <sub>58</sub>	21.57 <sub>85</sub>	102.53 <sub>25</sub>	39.599 <sub>163</sub>	34.60 <sub>2</sub>
Febr. 9	47.422 <sub>183</sub>	41.10 <sub>21</sub>	47.867 <sub>225</sub>	65.82 <sub>11</sub>	20.72 <sub>86</sub>	102.78 <sub>33</sub>	39.436 <sub>181</sub>	34.58 <sub>21</sub>
19	47.239 <sub>187</sub>	41.31 <sub>17</sub>	47.642 <sub>228</sub>	65.93 <sub>35</sub>	19.86 <sub>86</sub>	102.45 <sub>89</sub>	39.255 <sub>188</sub>	34.37 <sub>39</sub>
März 1	47.052 <sub>182</sub>	41.14 <sub>54</sub>	47.414 <sub>223</sub>	65.58 <sub>81</sub>	19.00 <sub>83</sub>	101.56 <sub>143</sub>	39.067 <sub>185</sub>	33.98 <sub>54</sub>
11	46.870 <sub>168</sub>	40.60 <sub>91</sub>	47.191 <sub>207</sub>	64.77 <sub>125</sub>	18.17 <sub>77</sub>	100.13 <sub>193</sub>	38.882 <sub>167</sub>	33.44 <sub>68</sub>
21	46.702 <sub>145</sub>	39.69 <sub>125</sub>	46.984 <sub>181</sub>	63.52 <sub>166</sub>	17.40 <sub>71</sub>	98.20 <sub>237</sub>	38.715 <sub>141</sub>	32.76 <sub>77</sub>
31	46.557 <sub>113</sub>	38.44 <sub>157</sub>	46.803 <sub>147</sub>	61.86 <sub>203</sub>	16.69 <sub>61</sub>	95.83 <sub>277</sub>	38.574 <sub>104</sub>	31.99 <sub>80</sub>
Apr. 10	46.444 <sub>75</sub>	36.87 <sub>188</sub>	46.656 <sub>106</sub>	59.83 <sub>237</sub>	16.08 <sub>51</sub>	93.06 <sub>310</sub>	38.470 <sub>60</sub>	31.19 <sub>80</sub>
20	46.369 <sub>31</sub>	34.99 <sub>215</sub>	46.550 <sub>58</sub>	57.46 <sub>265</sub>	15.57 <sub>39</sub>	89.96 <sub>337</sub>	38.410 <sub>10</sub>	30.39 <sub>75</sub>
30	46.338 <sub>15</sub>	32.84 <sub>237</sub>	46.492 <sub>8</sub>	54.81 <sub>289</sub>	15.18 <sub>26</sub>	86.59 <sub>355</sub>	38.400 <sub>43</sub>	29.64 <sub>65</sub>
Mai 10	46.353 <sub>63</sub>	30.47 <sub>255</sub>	46.484 <sub>45</sub>	51.92 <sub>307</sub>	14.92 <sub>11</sub>	83.04 <sub>367</sub>	38.443 <sub>97</sub>	28.99 <sub>50</sub>
20	46.416 <sub>110</sub>	27.92 <sub>269</sub>	46.529 <sub>98</sub>	48.85 <sub>318</sub>	14.81 <sub>2</sub>	79.37 <sub>370</sub>	38.540 <sub>149</sub>	28.49 <sub>33</sub>
30	46.526 <sub>155</sub>	25.23 <sub>275</sub>	46.627 <sub>148</sub>	45.67 <sub>321</sub>	14.83 <sub>16</sub>	75.67 <sub>365</sub>	38.689 <sub>198</sub>	28.16 <sub>14</sub>
Juni 9	46.681 <sub>196</sub>	22.48 <sub>276</sub>	46.775 <sub>195</sub>	42.46 <sub>318</sub>	14.99 <sub>30</sub>	72.02 <sub>350</sub>	38.887 <sub>241</sub>	28.02 <sub>7</sub>
19	46.877 <sub>232</sub>	19.72 <sub>270</sub>	46.970 <sub>237</sub>	39.28 <sub>305</sub>	15.29 <sub>42</sub>	68.52 <sub>328</sub>	39.128 <sub>279</sub>	28.09 <sub>28</sub>
29	47.109 <sub>262</sub>	17.02 <sub>257</sub>	47.207 <sub>272</sub>	36.23 <sub>286</sub>	15.71 <sub>54</sub>	65.24 <sub>297</sub>	39.407 <sub>309</sub>	28.37 <sub>48</sub>
Juli 9	47.371 <sub>287</sub>	14.45 <sub>237</sub>	47.479 <sub>302</sub>	33.37 <sub>258</sub>	16.25 <sub>64</sub>	62.27 <sub>257</sub>	39.716 <sub>332</sub>	28.85 <sub>67</sub>
19	47.658 <sub>302</sub>	12.08 <sub>209</sub>	47.781 <sub>322</sub>	30.79 <sub>224</sub>	16.89 <sub>73</sub>	59.70 <sub>210</sub>	40.048 <sub>347</sub>	29.52 <sub>83</sub>
29	47.960 <sub>312</sub>	9.99 <sub>176</sub>	48.103 <sub>336</sub>	28.55 <sub>182</sub>	17.62 <sub>79</sub>	57.60 <sub>158</sub>	40.395 <sub>356</sub>	30.35 <sub>98</sub>
Aug. 8	48.272 <sub>315</sub>	8.23 <sub>138</sub>	48.439 <sub>342</sub>	26.73 <sub>136</sub>	18.41 <sub>82</sub>	56.02 <sub>100</sub>	40.751 <sub>357</sub>	31.33 <sub>110</sub>
18	48.587 <sub>312</sub>	6.85 <sub>95</sub>	48.781 <sub>340</sub>	25.37 <sub>84</sub>	19.23 <sub>83</sub>	55.02 <sub>38</sub>	41.108 <sub>352</sub>	32.43 <sub>117</sub>
28	48.899 <sub>302</sub>	5.90 <sub>49</sub>	49.121 <sub>330</sub>	24.53 <sub>29</sub>	20.06 <sub>83</sub>	54.64 <sub>25</sub>	41.460 <sub>343</sub>	33.60 <sub>123</sub>
Sept. 7	49.201 <sub>287</sub>	5.41 <sub>2</sub>	49.451 <sub>315</sub>	24.24 <sub>25</sub>	20.89 <sub>79</sub>	54.89 <sub>86</sub>	41.803 <sub>329</sub>	34.83 <sub>126</sub>
17	49.488 <sub>267</sub>	5.39 <sub>45</sub>	49.766 <sub>293</sub>	24.49 <sub>79</sub>	21.68 <sub>73</sub>	55.75 <sub>147</sub>	42.132 <sub>310</sub>	36.09 <sub>126</sub>
27	49.755 <sub>245</sub>	5.84 <sub>88</sub>	50.059 <sub>267</sub>	25.28 <sub>129</sub>	22.41 <sub>64</sub>	57.22 <sub>202</sub>	42.442 <sub>289</sub>	37.35 <sub>125</sub>
Okt. 7	50.000 <sub>218</sub>	6.72 <sub>129</sub>	50.326 <sub>234</sub>	26.57 <sub>173</sub>	23.05 <sub>53</sub>	59.24 <sub>249</sub>	42.731 <sub>265</sub>	38.60 <sub>121</sub>
17	50.218 <sub>188</sub>	8.01 <sub>164</sub>	50.560 <sub>200</sub>	28.31 <sub>214</sub>	23.58 <sub>41</sub>	61.73 <sub>286</sub>	42.996 <sub>237</sub>	39.81 <sub>118</sub>
27	50.406 <sub>156</sub>	9.65 <sub>190</sub>	50.760 <sub>161</sub>	30.44 <sub>243</sub>	23.99 <sub>26</sub>	64.59 <sub>314</sub>	43.233 <sub>207</sub>	40.99 <sub>113</sub>
Nov. 6	50.562 <sub>121</sub>	11.55 <sub>210</sub>	50.921 <sub>119</sub>	32.87 <sub>262</sub>	24.25 <sub>12</sub>	67.73 <sub>329</sub>	43.440 <sub>175</sub>	42.12 <sub>107</sub>
16	50.683 <sub>86</sub>	13.65 <sub>219</sub>	51.040 <sub>77</sub>	35.49 <sub>272</sub>	24.37 <sub>3</sub>	71.02 <sub>331</sub>	43.615 <sub>137</sub>	43.19 <sub>100</sub>
25	50.769 <sub>49</sub>	15.84 <sub>221</sub>	51.117 <sub>33</sub>	38.21 <sub>270</sub>	24.34 <sub>18</sub>	74.33 <sub>321</sub>	43.752 <sub>98</sub>	44.19 <sub>93</sub>
Dez. 5	50.818 <sub>10</sub>	18.05 <sub>213</sub>	51.150 <sub>12</sub>	40.91 <sub>258</sub>	24.16 <sub>33</sub>	77.54 <sub>299</sub>	43.850 <sub>56</sub>	45.12 <sub>84</sub>
15	50.828 <sub>27</sub>	20.18 <sub>198</sub>	51.138 <sub>56</sub>	43.49 <sub>237</sub>	23.83 <sub>46</sub>	80.53 <sub>265</sub>	43.906 <sub>13</sub>	45.96 <sub>73</sub>
25	50.801 <sub>66</sub>	22.16 <sub>175</sub>	51.082 <sub>97</sub>	45.86 <sub>208</sub>	23.37 <sub>58</sub>	83.18 <sub>224</sub>	43.919 <sub>32</sub>	46.69 <sub>59</sub>
35	50.735	23.91	50.985	47.94	22.79	85.42	43.887	47.28
Mittl. Ort	47.521	30.34	47.811	52.13	19.14	85.42	39.852	26.96
sec $\delta$ , tg $\delta$	1.090	-0.434	1.243	-0.738	3.732	-3.595	1.175	+0.617

Tag	145) $\eta$ Camelop.		147) $\varepsilon$ Persei		148) $\xi$ Persei		149) $\gamma$ Eridani	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	3 <sup>h</sup> 51 <sup>m</sup>	+60° 54'	3 <sup>h</sup> 53 <sup>m</sup>	+39° 48'	3 <sup>h</sup> 54 <sup>m</sup>	+35° 35'	3 <sup>h</sup> 54 <sup>m</sup>	-13° 42'
Jan. 0	4.48 <sup>17</sup>	21.50 <sup>180</sup>	5.077 <sup>71</sup>	30.76 <sup>90</sup>	21.258 <sup>62</sup>	25.01 <sup>71</sup>	43.262 <sup>64</sup>	37.96 <sup>136</sup>
10	4.31 <sup>23</sup>	23.30 <sup>143</sup>	5.006 <sup>116</sup>	31.66 <sup>67</sup>	21.196 <sup>105</sup>	25.72 <sup>52</sup>	43.198 <sup>98</sup>	39.32 <sup>113</sup>
20	4.08 <sup>29</sup>	24.73 <sup>102</sup>	4.890 <sup>155</sup>	32.33 <sup>43</sup>	21.091 <sup>142</sup>	26.24 <sup>31</sup>	43.100 <sup>126</sup>	40.45 <sup>87</sup>
30	3.79 <sup>34</sup>	25.75 <sup>56</sup>	4.735 <sup>186</sup>	32.76 <sup>16</sup>	20.949 <sup>172</sup>	26.55 <sup>9</sup>	42.974 <sup>149</sup>	41.32 <sup>61</sup>
Febr. 9	3.45 <sup>36</sup>	26.31 <sup>9</sup>	4.549 <sup>206</sup>	32.92 <sup>12</sup>	20.777 <sup>191</sup>	26.64 <sup>14</sup>	42.825 <sup>165</sup>	41.93 <sup>31</sup>
19	3.09 <sup>37</sup>	26.40 <sup>37</sup>	4.343 <sup>213</sup>	32.80 <sup>38</sup>	20.586 <sup>200</sup>	26.50 <sup>37</sup>	42.660 <sup>172</sup>	42.24 <sup>1</sup>
März 1	2.72 <sup>36</sup>	26.03 <sup>81</sup>	4.130 <sup>210</sup>	32.42 <sup>63</sup>	20.386 <sup>196</sup>	26.13 <sup>56</sup>	42.488 <sup>169</sup>	42.26 <sup>28</sup>
11	2.36 <sup>33</sup>	25.22 <sup>121</sup>	3.920 <sup>192</sup>	31.79 <sup>83</sup>	20.190 <sup>180</sup>	25.57 <sup>74</sup>	42.319 <sup>157</sup>	41.98 <sup>58</sup>
21	2.03 <sup>28</sup>	24.01 <sup>155</sup>	3.728 <sup>162</sup>	30.96 <sup>101</sup>	20.010 <sup>152</sup>	24.83 <sup>87</sup>	42.162 <sup>136</sup>	41.40 <sup>86</sup>
31	1.75 <sup>22</sup>	22.46 <sup>182</sup>	3.566 <sup>122</sup>	29.95 <sup>111</sup>	19.858 <sup>114</sup>	23.96 <sup>94</sup>	42.026 <sup>107</sup>	40.54 <sup>114</sup>
Apr. 10	1.53 <sup>14</sup>	20.64 <sup>200</sup>	3.444 <sup>73</sup>	28.84 <sup>117</sup>	19.744 <sup>69</sup>	23.02 <sup>97</sup>	41.919 <sup>71</sup>	39.40 <sup>142</sup>
20	1.39 <sup>5</sup>	18.64 <sup>209</sup>	3.371 <sup>19</sup>	27.67 <sup>115</sup>	19.675 <sup>17</sup>	22.05 <sup>95</sup>	41.848 <sup>29</sup>	37.98 <sup>166</sup>
30	1.34 <sup>3</sup>	16.55 <sup>211</sup>	3.352 <sup>40</sup>	26.52 <sup>109</sup>	19.658 <sup>39</sup>	21.10 <sup>86</sup>	41.819 <sup>15</sup>	36.32 <sup>188</sup>
Mai 10	1.37 <sup>12</sup>	14.44 <sup>204</sup>	3.392 <sup>99</sup>	25.43 <sup>98</sup>	19.697 <sup>94</sup>	20.24 <sup>74</sup>	41.834 <sup>61</sup>	34.44 <sup>207</sup>
20	1.49 <sup>21</sup>	12.40 <sup>189</sup>	3.491 <sup>156</sup>	24.45 <sup>81</sup>	19.791 <sup>149</sup>	19.50 <sup>57</sup>	41.895 <sup>106</sup>	32.37 <sup>223</sup>
30	1.70 <sup>29</sup>	10.51 <sup>168</sup>	3.647 <sup>210</sup>	23.64 <sup>61</sup>	19.940 <sup>200</sup>	18.93 <sup>38</sup>	42.001 <sup>150</sup>	30.14 <sup>233</sup>
Juni 9	1.99 <sup>37</sup>	8.83 <sup>143</sup>	3.857 <sup>258</sup>	23.03 <sup>40</sup>	20.140 <sup>246</sup>	18.55 <sup>17</sup>	42.151 <sup>189</sup>	27.81 <sup>238</sup>
19	2.36 <sup>43</sup>	7.40 <sup>111</sup>	4.115 <sup>299</sup>	22.63 <sup>15</sup>	20.386 <sup>285</sup>	18.38 <sup>4</sup>	42.340 <sup>223</sup>	25.43 <sup>237</sup>
29	2.79 <sup>48</sup>	6.29 <sup>78</sup>	4.414 <sup>334</sup>	22.48 <sup>5</sup>	20.671 <sup>318</sup>	18.42 <sup>27</sup>	42.563 <sup>253</sup>	23.06 <sup>231</sup>
Juli 9	3.27 <sup>52</sup>	5.51 <sup>42</sup>	4.748 <sup>359</sup>	22.57 <sup>33</sup>	20.989 <sup>342</sup>	18.69 <sup>48</sup>	42.816 <sup>276</sup>	20.75 <sup>217</sup>
19	3.79 <sup>55</sup>	5.09 <sup>6</sup>	5.107 <sup>377</sup>	22.90 <sup>55</sup>	21.331 <sup>359</sup>	19.17 <sup>68</sup>	43.092 <sup>292</sup>	18.58 <sup>199</sup>
29	4.34 <sup>57</sup>	5.03 <sup>29</sup>	5.484 <sup>387</sup>	23.45 <sup>77</sup>	21.690 <sup>369</sup>	19.85 <sup>85</sup>	43.384 <sup>301</sup>	16.59 <sup>172</sup>
Aug. 8	4.91 <sup>58</sup>	5.32 <sup>66</sup>	5.871 <sup>390</sup>	24.22 <sup>95</sup>	22.059 <sup>371</sup>	20.70 <sup>99</sup>	43.685 <sup>305</sup>	14.87 <sup>143</sup>
18	5.49 <sup>57</sup>	5.98 <sup>99</sup>	6.261 <sup>386</sup>	25.17 <sup>111</sup>	22.430 <sup>368</sup>	21.69 <sup>112</sup>	43.990 <sup>303</sup>	13.44 <sup>107</sup>
28	6.06 <sup>56</sup>	6.97 <sup>131</sup>	6.647 <sup>376</sup>	26.28 <sup>124</sup>	22.798 <sup>358</sup>	22.81 <sup>121</sup>	44.293 <sup>294</sup>	12.37 <sup>69</sup>
Sept. 7	6.62 <sup>55</sup>	8.28 <sup>160</sup>	7.023 <sup>362</sup>	27.52 <sup>135</sup>	23.156 <sup>345</sup>	24.02 <sup>128</sup>	44.587 <sup>283</sup>	11.68 <sup>30</sup>
17	7.17 <sup>51</sup>	9.88 <sup>186</sup>	7.385 <sup>343</sup>	28.87 <sup>143</sup>	23.501 <sup>326</sup>	25.30 <sup>132</sup>	44.870 <sup>266</sup>	11.38 <sup>11</sup>
27	7.68 <sup>47</sup>	11.74 <sup>210</sup>	7.728 <sup>319</sup>	30.30 <sup>150</sup>	23.827 <sup>305</sup>	26.62 <sup>134</sup>	45.136 <sup>246</sup>	11.49 <sup>50</sup>
Okt. 7	8.15 <sup>44</sup>	13.84 <sup>228</sup>	8.047 <sup>294</sup>	31.80 <sup>153</sup>	24.132 <sup>280</sup>	27.96 <sup>135</sup>	45.382 <sup>223</sup>	11.99 <sup>87</sup>
17	8.59 <sup>38</sup>	16.12 <sup>245</sup>	8.341 <sup>264</sup>	33.33 <sup>155</sup>	24.412 <sup>253</sup>	29.31 <sup>134</sup>	45.605 <sup>197</sup>	12.86 <sup>117</sup>
27	8.97 <sup>33</sup>	18.57 <sup>256</sup>	8.605 <sup>229</sup>	34.88 <sup>155</sup>	24.665 <sup>221</sup>	30.65 <sup>132</sup>	45.802 <sup>169</sup>	14.03 <sup>143</sup>
Nov. 6	9.30 <sup>26</sup>	21.13 <sup>261</sup>	8.834 <sup>193</sup>	36.43 <sup>153</sup>	24.886 <sup>186</sup>	31.97 <sup>128</sup>	45.971 <sup>138</sup>	15.46 <sup>162</sup>
16	9.56 <sup>20</sup>	23.74 <sup>262</sup>	9.027 <sup>152</sup>	37.96 <sup>148</sup>	25.072 <sup>148</sup>	33.25 <sup>123</sup>	46.109 <sup>105</sup>	17.08 <sup>173</sup>
25	9.76 <sup>12</sup>	26.36 <sup>257</sup>	9.179 <sup>108</sup>	39.44 <sup>141</sup>	25.220 <sup>106</sup>	34.48 <sup>116</sup>	46.214 <sup>70</sup>	18.81 <sup>178</sup>
Dez. 5	9.88 <sup>4</sup>	28.93 <sup>245</sup>	9.287 <sup>61</sup>	40.85 <sup>132</sup>	25.326 <sup>62</sup>	35.64 <sup>107</sup>	46.284 <sup>34</sup>	20.59 <sup>174</sup>
15	9.92 <sup>3</sup>	31.38 <sup>225</sup>	9.348 <sup>11</sup>	42.17 <sup>118</sup>	25.388 <sup>16</sup>	36.71 <sup>95</sup>	46.318 <sup>3</sup>	22.33 <sup>164</sup>
25	9.89 <sup>12</sup>	33.63 <sup>199</sup>	9.359 <sup>38</sup>	43.35 <sup>101</sup>	25.404 <sup>31</sup>	37.66 <sup>81</sup>	46.315 <sup>40</sup>	23.97 <sup>148</sup>
35	9.77	35.62	9.321	44.36	25.373	38.47	46.275	25.45
Mittl. Ort	4.08	9.68	4.987	22.52	21.181	17.62	42.940	34.26
sec $\delta$ , tg $\delta$	2.056	+1.797	1.302	+0.833	1.230	+0.716	1.029	-0.244



# Obere Kulmination Greenwich

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Tag	150) λ Tauri		151) ν Tauri		152) ε Persei		154) ο' Eridani	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	3 <sup>h</sup> 56 <sup>m</sup>	+12° 17'	3 <sup>h</sup> 59 <sup>m</sup>	+5° 47'	4 <sup>h</sup> 3 <sup>m</sup>	+47° 31'	4 <sup>h</sup> 8 <sup>m</sup>	-7° 0'
Jan. 0	44.732 <sup>3</sup>	29.66 <sup>45</sup>	22.791 <sup>44</sup>	37.14 <sup>63</sup>	30.201 <sup>79</sup>	37.86 <sup>130</sup>	24.205 <sup>48</sup>	79.54 <sup>117</sup>
10	44.687 <sup>80</sup>	29.32 <sup>35</sup>	22.747 <sup>79</sup>	36.51 <sup>57</sup>	30.122 <sup>133</sup>	39.16 <sup>104</sup>	24.157 <sup>82</sup>	80.71 <sup>100</sup>
20	44.607 <sup>111</sup>	28.97 <sup>33</sup>	22.668 <sup>110</sup>	35.94 <sup>49</sup>	29.989 <sup>178</sup>	40.20 <sup>73</sup>	24.075 <sup>113</sup>	81.71 <sup>81</sup>
30	44.496 <sup>137</sup>	28.64 <sup>31</sup>	22.558 <sup>135</sup>	35.45 <sup>40</sup>	29.811 <sup>216</sup>	40.93 <sup>41</sup>	23.962 <sup>139</sup>	82.52 <sup>59</sup>
Febr. 9	44.359 <sup>154</sup>	28.33 <sup>29</sup>	22.423 <sup>151</sup>	35.05 <sup>31</sup>	29.595 <sup>240</sup>	41.34 <sup>7</sup>	23.823 <sup>157</sup>	83.11 <sup>36</sup>
19	44.205 <sup>161</sup>	28.04 <sup>25</sup>	22.272 <sup>160</sup>	34.74 <sup>21</sup>	29.355 <sup>251</sup>	41.41 <sup>28</sup>	23.666 <sup>166</sup>	83.47 <sup>13</sup>
März 1	44.044 <sup>160</sup>	27.79 <sup>21</sup>	22.112 <sup>159</sup>	34.53 <sup>10</sup>	29.104 <sup>248</sup>	41.13 <sup>61</sup>	23.500 <sup>167</sup>	83.60 <sup>11</sup>
11	43.884 <sup>148</sup>	27.58 <sup>15</sup>	21.953 <sup>148</sup>	34.43 <sup>3</sup>	28.856 <sup>230</sup>	40.52 <sup>89</sup>	23.333 <sup>156</sup>	83.49 <sup>35</sup>
21	43.736 <sup>126</sup>	27.43 <sup>7</sup>	21.805 <sup>126</sup>	34.46 <sup>16</sup>	28.626 <sup>198</sup>	39.63 <sup>114</sup>	23.177 <sup>138</sup>	83.14 <sup>59</sup>
31	43.610 <sup>96</sup>	27.36 <sup>3</sup>	21.679 <sup>98</sup>	34.62 <sup>31</sup>	28.428 <sup>155</sup>	38.49 <sup>133</sup>	23.039 <sup>110</sup>	82.55 <sup>83</sup>
Apr. 10	43.514 <sup>58</sup>	27.39 <sup>16</sup>	21.581 <sup>61</sup>	34.93 <sup>48</sup>	28.273 <sup>101</sup>	37.16 <sup>144</sup>	22.929 <sup>75</sup>	81.72 <sup>107</sup>
20	43.456 <sup>15</sup>	27.55 <sup>31</sup>	21.520 <sup>20</sup>	35.41 <sup>65</sup>	28.172 <sup>40</sup>	35.72 <sup>150</sup>	22.854 <sup>36</sup>	80.65 <sup>129</sup>
30	43.441 <sup>31</sup>	27.86 <sup>46</sup>	21.500 <sup>26</sup>	36.06 <sup>83</sup>	28.132 <sup>25</sup>	34.22 <sup>148</sup>	22.818 <sup>9</sup>	79.36 <sup>150</sup>
Mai 10	43.472 <sup>77</sup>	28.32 <sup>63</sup>	21.526 <sup>71</sup>	36.89 <sup>100</sup>	28.157 <sup>91</sup>	32.74 <sup>141</sup>	22.827 <sup>53</sup>	77.86 <sup>169</sup>
20	43.549 <sup>124</sup>	28.95 <sup>79</sup>	21.597 <sup>116</sup>	37.89 <sup>117</sup>	28.248 <sup>156</sup>	31.33 <sup>127</sup>	22.880 <sup>98</sup>	76.17 <sup>186</sup>
30	43.673 <sup>167</sup>	29.74 <sup>95</sup>	21.713 <sup>158</sup>	39.06 <sup>131</sup>	28.404 <sup>217</sup>	30.06 <sup>108</sup>	22.978 <sup>141</sup>	74.31 <sup>197</sup>
Juni 9	43.840 <sup>206</sup>	30.69 <sup>110</sup>	21.871 <sup>198</sup>	40.37 <sup>143</sup>	28.621 <sup>272</sup>	28.98 <sup>86</sup>	23.119 <sup>181</sup>	72.34 <sup>206</sup>
19	44.046 <sup>240</sup>	31.79 <sup>121</sup>	22.069 <sup>231</sup>	41.80 <sup>152</sup>	28.893 <sup>321</sup>	28.12 <sup>62</sup>	23.300 <sup>215</sup>	70.28 <sup>209</sup>
29	44.286 <sup>267</sup>	33.00 <sup>130</sup>	22.300 <sup>259</sup>	43.32 <sup>157</sup>	29.214 <sup>360</sup>	27.50 <sup>34</sup>	23.515 <sup>244</sup>	68.19 <sup>206</sup>
Juli 9	44.553 <sup>289</sup>	34.30 <sup>135</sup>	22.559 <sup>280</sup>	44.89 <sup>157</sup>	29.574 <sup>392</sup>	27.16 <sup>8</sup>	23.759 <sup>268</sup>	66.13 <sup>198</sup>
19	44.842 <sup>304</sup>	35.65 <sup>136</sup>	22.839 <sup>296</sup>	46.46 <sup>153</sup>	29.966 <sup>415</sup>	27.08 <sup>20</sup>	24.027 <sup>285</sup>	64.15 <sup>185</sup>
29	45.146 <sup>312</sup>	37.01 <sup>133</sup>	23.135 <sup>304</sup>	47.99 <sup>144</sup>	30.381 <sup>429</sup>	27.28 <sup>46</sup>	24.312 <sup>297</sup>	62.30 <sup>165</sup>
Aug. 8	45.458 <sup>314</sup>	38.34 <sup>126</sup>	23.439 <sup>307</sup>	49.43 <sup>131</sup>	30.810 <sup>435</sup>	27.74 <sup>71</sup>	24.609 <sup>301</sup>	60.65 <sup>141</sup>
18	45.772 <sup>311</sup>	39.60 <sup>115</sup>	23.746 <sup>305</sup>	50.74 <sup>114</sup>	31.245 <sup>433</sup>	28.45 <sup>94</sup>	24.910 <sup>300</sup>	59.24 <sup>112</sup>
28	46.083 <sup>303</sup>	40.75 <sup>101</sup>	24.051 <sup>297</sup>	51.88 <sup>94</sup>	31.678 <sup>426</sup>	29.39 <sup>115</sup>	25.210 <sup>294</sup>	58.12 <sup>79</sup>
Sept. 7	46.386 <sup>291</sup>	41.76 <sup>85</sup>	24.348 <sup>286</sup>	52.82 <sup>71</sup>	32.104 <sup>412</sup>	30.54 <sup>132</sup>	25.504 <sup>285</sup>	57.33 <sup>45</sup>
17	46.677 <sup>276</sup>	42.61 <sup>67</sup>	24.634 <sup>271</sup>	53.53 <sup>47</sup>	32.516 <sup>392</sup>	31.86 <sup>149</sup>	25.789 <sup>271</sup>	56.88 <sup>10</sup>
27	46.953 <sup>257</sup>	43.28 <sup>49</sup>	24.905 <sup>253</sup>	54.00 <sup>23</sup>	32.908 <sup>369</sup>	33.35 <sup>162</sup>	26.060 <sup>253</sup>	56.78 <sup>25</sup>
Okt. 7	47.210 <sup>236</sup>	43.77 <sup>30</sup>	25.158 <sup>232</sup>	54.23 <sup>0</sup>	33.277 <sup>340</sup>	34.97 <sup>173</sup>	26.313 <sup>232</sup>	57.03 <sup>57</sup>
17	47.446 <sup>213</sup>	44.07 <sup>14</sup>	25.390 <sup>209</sup>	54.23 <sup>20</sup>	33.617 <sup>307</sup>	36.70 <sup>181</sup>	26.545 <sup>210</sup>	57.60 <sup>86</sup>
27	47.659 <sup>187</sup>	44.21 <sup>1</sup>	25.599 <sup>183</sup>	54.03 <sup>40</sup>	33.924 <sup>270</sup>	38.51 <sup>187</sup>	26.755 <sup>183</sup>	58.46 <sup>111</sup>
Nov. 6	47.846 <sup>158</sup>	44.20 <sup>13</sup>	25.782 <sup>155</sup>	53.63 <sup>53</sup>	34.194 <sup>228</sup>	40.38 <sup>190</sup>	26.938 <sup>155</sup>	59.57 <sup>128</sup>
16	48.004 <sup>127</sup>	44.07 <sup>23</sup>	25.937 <sup>125</sup>	53.10 <sup>63</sup>	34.422 <sup>181</sup>	42.28 <sup>189</sup>	27.093 <sup>124</sup>	60.85 <sup>140</sup>
25	48.131 <sup>93</sup>	43.84 <sup>29</sup>	26.062 <sup>91</sup>	52.47 <sup>69</sup>	34.603 <sup>130</sup>	44.17 <sup>184</sup>	27.217 <sup>89</sup>	62.25 <sup>146</sup>
Dez. 5	48.224 <sup>57</sup>	43.55 <sup>33</sup>	26.153 <sup>55</sup>	51.78 <sup>72</sup>	34.733 <sup>74</sup>	46.01 <sup>175</sup>	27.306 <sup>53</sup>	63.71 <sup>145</sup>
15	48.281 <sup>19</sup>	43.22 <sup>35</sup>	26.208 <sup>18</sup>	51.06 <sup>71</sup>	34.807 <sup>17</sup>	47.76 <sup>162</sup>	27.359 <sup>16</sup>	65.16 <sup>139</sup>
25	48.300 <sup>19</sup>	42.87 <sup>36</sup>	26.226 <sup>19</sup>	50.35 <sup>67</sup>	34.824 <sup>41</sup>	49.38 <sup>144</sup>	27.375 <sup>22</sup>	66.55 <sup>127</sup>
35	48.281	42.51	26.207	49.68	34.783	50.82	27.353	67.82
Mittl. Ort	44.625	27.37	22.638	36.28	29.987	28.39	23.911	77.86
sec δ, tg δ	1.023	+0.218	1.005	+0.101	1.481	+1.092	1.008	-0.123

Tag	155) $\alpha$ Horologii		156) $\alpha$ Reticuli		160) $\gamma^4$ Eridani		162) $\delta$ Tauri	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	4 <sup>h</sup> 11 <sup>m</sup>	-42° 27'	4 <sup>h</sup> 13 <sup>m</sup>	-62° 38'	4 <sup>h</sup> 15 <sup>m</sup>	-33° 57'	4 <sup>h</sup> 18 <sup>m</sup>	+17° 22'
Jan. 0	39.846 <sup>129</sup>	75.60 <sup>219</sup>	32.74 <sup>29</sup>	74.27 <sup>233</sup>	13.129 <sup>94</sup>	81.58 <sup>205</sup>	50.426 <sup>28</sup>	41.96 <sup>11</sup>
10	39.717 <sup>172</sup>	77.79 <sup>178</sup>	32.45 <sup>36</sup>	76.60 <sup>185</sup>	13.035 <sup>134</sup>	83.63 <sup>170</sup>	50.398 <sup>68</sup>	41.85 <sup>13</sup>
20	39.545 <sup>208</sup>	79.57 <sup>133</sup>	32.09 <sup>41</sup>	78.45 <sup>133</sup>	12.901 <sup>169</sup>	85.33 <sup>129</sup>	50.330 <sup>103</sup>	41.72 <sup>15</sup>
30	39.337 <sup>237</sup>	80.90 <sup>84</sup>	31.68 <sup>45</sup>	79.78 <sup>78</sup>	12.732 <sup>196</sup>	86.62 <sup>87</sup>	50.227 <sup>133</sup>	41.57 <sup>17</sup>
Febr. 9	39.100 <sup>257</sup>	81.74 <sup>35</sup>	31.23 <sup>47</sup>	80.56 <sup>21</sup>	12.536 <sup>215</sup>	87.49 <sup>41</sup>	50.094 <sup>154</sup>	41.40 <sup>20</sup>
19	38.843 <sup>265</sup>	82.09 <sup>15</sup>	30.76 <sup>48</sup>	80.77 <sup>36</sup>	12.321 <sup>226</sup>	87.90 <sup>4</sup>	49.940 <sup>167</sup>	41.20 <sup>21</sup>
März 1	38.578 <sup>263</sup>	81.94 <sup>65</sup>	30.28 <sup>47</sup>	80.41 <sup>91</sup>	12.095 <sup>225</sup>	87.86 <sup>49</sup>	49.773 <sup>169</sup>	40.99 <sup>23</sup>
11	38.315 <sup>251</sup>	81.29 <sup>113</sup>	29.81 <sup>45</sup>	79.50 <sup>143</sup>	11.870 <sup>215</sup>	87.37 <sup>93</sup>	49.604 <sup>160</sup>	40.76 <sup>22</sup>
21	38.064 <sup>227</sup>	80.16 <sup>158</sup>	29.36 <sup>42</sup>	78.07 <sup>192</sup>	11.655 <sup>194</sup>	86.44 <sup>134</sup>	49.444 <sup>140</sup>	40.54 <sup>20</sup>
31	37.837 <sup>194</sup>	78.58 <sup>198</sup>	28.94 <sup>37</sup>	76.15 <sup>236</sup>	11.461 <sup>165</sup>	85.10 <sup>173</sup>	49.304 <sup>113</sup>	40.34 <sup>15</sup>
Apr. 10	37.643 <sup>153</sup>	76.60 <sup>236</sup>	28.57 <sup>31</sup>	73.79 <sup>275</sup>	11.296 <sup>127</sup>	83.37 <sup>209</sup>	49.191 <sup>76</sup>	40.19 <sup>8</sup>
20	37.490 <sup>105</sup>	74.24 <sup>268</sup>	28.26 <sup>23</sup>	71.04 <sup>307</sup>	11.169 <sup>83</sup>	81.28 <sup>239</sup>	49.115 <sup>33</sup>	40.11 <sup>3</sup>
30	37.385 <sup>52</sup>	71.56 <sup>295</sup>	28.03 <sup>16</sup>	67.97 <sup>334</sup>	11.086 <sup>35</sup>	78.89 <sup>267</sup>	49.082 <sup>12</sup>	40.14 <sup>14</sup>
Mai 10	37.333 <sup>3</sup>	68.61 <sup>316</sup>	27.87 <sup>8</sup>	64.63 <sup>352</sup>	11.051 <sup>16</sup>	76.22 <sup>287</sup>	49.094 <sup>60</sup>	40.28 <sup>29</sup>
20	37.336 <sup>60</sup>	65.45 <sup>329</sup>	27.79 <sup>1</sup>	61.11 <sup>363</sup>	11.067 <sup>66</sup>	73.35 <sup>303</sup>	49.154 <sup>107</sup>	40.57 <sup>43</sup>
30	37.396 <sup>115</sup>	62.16 <sup>335</sup>	27.80 <sup>9</sup>	57.48 <sup>365</sup>	11.133 <sup>117</sup>	70.32 <sup>310</sup>	49.261 <sup>152</sup>	41.00 <sup>58</sup>
Juni 9	37.511 <sup>167</sup>	58.81 <sup>333</sup>	27.89 <sup>18</sup>	53.83 <sup>360</sup>	11.250 <sup>163</sup>	67.22 <sup>311</sup>	49.413 <sup>193</sup>	41.58 <sup>72</sup>
19	37.678 <sup>215</sup>	55.48 <sup>322</sup>	28.07 <sup>25</sup>	50.23 <sup>344</sup>	11.413 <sup>207</sup>	64.11 <sup>305</sup>	49.606 <sup>230</sup>	42.30 <sup>86</sup>
29	37.893 <sup>258</sup>	52.26 <sup>303</sup>	28.32 <sup>33</sup>	46.79 <sup>319</sup>	11.620 <sup>244</sup>	61.06 <sup>289</sup>	49.836 <sup>260</sup>	43.16 <sup>96</sup>
Juli 9	38.151 <sup>293</sup>	49.23 <sup>277</sup>	28.65 <sup>39</sup>	43.60 <sup>287</sup>	11.864 <sup>275</sup>	58.17 <sup>266</sup>	50.096 <sup>284</sup>	44.12 <sup>104</sup>
19	38.444 <sup>323</sup>	46.46 <sup>242</sup>	29.04 <sup>43</sup>	40.73 <sup>245</sup>	12.139 <sup>300</sup>	55.51 <sup>236</sup>	50.380 <sup>303</sup>	45.16 <sup>108</sup>
29	38.767 <sup>343</sup>	44.04 <sup>199</sup>	29.47 <sup>48</sup>	38.28 <sup>197</sup>	12.439 <sup>318</sup>	53.15 <sup>199</sup>	50.683 <sup>314</sup>	46.24 <sup>110</sup>
Aug. 8	39.110 <sup>355</sup>	42.05 <sup>151</sup>	29.95 <sup>51</sup>	36.31 <sup>142</sup>	12.757 <sup>328</sup>	51.16 <sup>154</sup>	50.997 <sup>319</sup>	47.34 <sup>108</sup>
18	39.465 <sup>360</sup>	40.54 <sup>97</sup>	30.46 <sup>52</sup>	34.89 <sup>82</sup>	13.085 <sup>331</sup>	49.62 <sup>106</sup>	51.316 <sup>320</sup>	48.42 <sup>102</sup>
28	39.825 <sup>356</sup>	39.57 <sup>41</sup>	30.98 <sup>52</sup>	34.07 <sup>20</sup>	13.416 <sup>328</sup>	48.56 <sup>53</sup>	51.636 <sup>315</sup>	49.44 <sup>93</sup>
Sept. 7	40.181 <sup>345</sup>	39.16 <sup>18</sup>	31.50 <sup>50</sup>	33.87 <sup>43</sup>	13.744 <sup>318</sup>	48.03 <sup>1</sup>	51.951 <sup>306</sup>	50.37 <sup>82</sup>
17	40.526 <sup>326</sup>	39.34 <sup>76</sup>	32.00 <sup>48</sup>	34.30 <sup>107</sup>	14.062 <sup>303</sup>	48.04 <sup>55</sup>	52.257 <sup>294</sup>	51.19 <sup>69</sup>
27	40.852 <sup>302</sup>	40.10 <sup>131</sup>	32.48 <sup>43</sup>	35.37 <sup>166</sup>	14.365 <sup>282</sup>	48.59 <sup>107</sup>	52.551 <sup>278</sup>	51.88 <sup>56</sup>
Okt. 7	41.154 <sup>274</sup>	41.41 <sup>181</sup>	32.91 <sup>38</sup>	37.03 <sup>218</sup>	14.647 <sup>255</sup>	49.66 <sup>155</sup>	52.829 <sup>260</sup>	52.44 <sup>42</sup>
17	41.425 <sup>231</sup>	43.22 <sup>225</sup>	33.29 <sup>32</sup>	39.21 <sup>263</sup>	14.902 <sup>225</sup>	51.21 <sup>196</sup>	53.089 <sup>238</sup>	52.86 <sup>30</sup>
27	41.659 <sup>194</sup>	45.47 <sup>259</sup>	33.61 <sup>25</sup>	41.84 <sup>299</sup>	15.127 <sup>191</sup>	53.17 <sup>231</sup>	53.327 <sup>213</sup>	53.16 <sup>18</sup>
Nov. 6	41.853 <sup>149</sup>	48.06 <sup>283</sup>	33.86 <sup>17</sup>	44.83 <sup>323</sup>	15.318 <sup>153</sup>	55.48 <sup>254</sup>	53.540 <sup>186</sup>	53.34 <sup>9</sup>
16	42.002 <sup>101</sup>	50.89 <sup>297</sup>	34.03 <sup>8</sup>	48.06 <sup>334</sup>	15.471 <sup>111</sup>	58.02 <sup>269</sup>	53.726 <sup>155</sup>	53.43 <sup>2</sup>
25 <sup>24</sup>	42.103 <sup>51</sup>	53.86 <sup>299</sup>	34.11 <sup>1</sup>	51.40 <sup>332</sup>	15.582 <sup>69</sup>	60.71 <sup>273</sup>	53.881 <sup>119</sup>	53.45 <sup>3</sup>
Dez. 5	42.154 <sup>0</sup>	56.85 <sup>289</sup>	34.10 <sup>9</sup>	54.72 <sup>320</sup>	15.651 <sup>23</sup>	63.44 <sup>266</sup>	54.000 <sup>82</sup>	53.42 <sup>7</sup>
15	42.154 <sup>50</sup>	59.74 <sup>270</sup>	34.01 <sup>17</sup>	57.92 <sup>294</sup>	15.674 <sup>22</sup>	66.10 <sup>250</sup>	54.082 <sup>42</sup>	53.35 <sup>9</sup>
25	42.104 <sup>100</sup>	62.44 <sup>241</sup>	33.84 <sup>25</sup>	60.86 <sup>260</sup>	15.652 <sup>66</sup>	68.60 <sup>225</sup>	54.124 <sup>0</sup>	53.26 <sup>11</sup>
35	42.004	64.85	33.59	63.46	15.586	70.85	54.124	53.15
Mittl. Ort	38.792	67.74	30.30	64.39	12.338	75.24	50.252	38.30
sec $\delta$ , tg $\delta$	1.356	-0.915	2.177	-1.933	1.206	-0.674	1.048	+0.313

\*) Bei Stern 162) lies Nov. 26

# Obere Kulmination Greenwich

51\*

Tag	164) ε Tauri		168) α Tauri		171) α Doradus		169) υ Eridani	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	4 <sup>h</sup> 24 <sup>m</sup>	+19° 1'	4 <sup>h</sup> 31 <sup>m</sup>	+16° 22'	4 <sup>h</sup> 32 <sup>m</sup>	-55° 10'	4 <sup>h</sup> 32 <sup>m</sup>	-3° 29'
Jan. 0	28.286 <sup>24</sup>	31.69 <sup>3</sup>	50.873 <sup>17</sup>	8.09 <sup>17</sup>	29.557 <sup>188</sup>	95.37 <sup>251</sup>	46.548 <sup>27</sup>	47.33 <sup>112</sup>
10	28.262 <sup>64</sup>	31.66 <sup>6</sup>	50.856 <sup>59</sup>	7.92 <sup>16</sup>	29.369 <sup>245</sup>	97.88 <sup>209</sup>	46.521 <sup>64</sup>	48.45 <sup>97</sup>
20	28.198 <sup>101</sup>	31.60 <sup>8</sup>	50.797 <sup>95</sup>	7.76 <sup>17</sup>	29.124 <sup>294</sup>	99.97 <sup>161</sup>	46.457 <sup>100</sup>	49.42 <sup>80</sup>
30	28.097 <sup>132</sup>	31.52 <sup>12</sup>	50.702 <sup>128</sup>	7.59 <sup>17</sup>	28.830 <sup>332</sup>	101.58 <sup>109</sup>	46.357 <sup>129</sup>	50.22 <sup>61</sup>
Febr. 9	27.965 <sup>155</sup>	31.40 <sup>16</sup>	50.574 <sup>151</sup>	7.42 <sup>18</sup>	28.498 <sup>360</sup>	102.67 <sup>54</sup>	46.228 <sup>151</sup>	50.83 <sup>42</sup>
19	27.810 <sup>169</sup>	31.24 <sup>19</sup>	50.423 <sup>166</sup>	7.24 <sup>18</sup>	28.138 <sup>374</sup>	103.21 <sup>0</sup>	46.077 <sup>165</sup>	51.25 <sup>21</sup>
März 1	27.641 <sup>171</sup>	31.05 <sup>23</sup>	50.257 <sup>170</sup>	7.06 <sup>18</sup>	27.764 <sup>375</sup>	103.21 <sup>56</sup>	45.912 <sup>169</sup>	51.46 <sup>0</sup>
11	27.470 <sup>164</sup>	30.82 <sup>24</sup>	50.087 <sup>164</sup>	6.88 <sup>18</sup>	27.389 <sup>363</sup>	102.65 <sup>107</sup>	45.743 <sup>163</sup>	51.46 <sup>20</sup>
21	27.306 <sup>144</sup>	30.58 <sup>22</sup>	49.923 <sup>146</sup>	6.70 <sup>14</sup>	27.026 <sup>339</sup>	101.58 <sup>157</sup>	45.580 <sup>147</sup>	51.26 <sup>41</sup>
31	27.162 <sup>117</sup>	30.36 <sup>21</sup>	49.777 <sup>120</sup>	6.56 <sup>9</sup>	26.687 <sup>301</sup>	100.01 <sup>203</sup>	45.433 <sup>124</sup>	50.85 <sup>63</sup>
Apr. 10	27.045 <sup>81</sup>	30.15 <sup>15</sup>	49.657 <sup>85</sup>	6.47 <sup>3</sup>	26.386 <sup>255</sup>	97.98 <sup>244</sup>	45.309 <sup>90</sup>	50.22 <sup>84</sup>
20	26.964 <sup>39</sup>	30.00 <sup>5</sup>	49.572 <sup>45</sup>	6.44 <sup>7</sup>	26.131 <sup>198</sup>	95.54 <sup>279</sup>	45.219 <sup>53</sup>	49.38 <sup>105</sup>
30	26.925 <sup>8</sup>	29.95 <sup>5</sup>	49.527 <sup>0</sup>	6.51 <sup>19</sup>	25.933 <sup>137</sup>	92.75 <sup>310</sup>	45.166 <sup>11</sup>	48.33 <sup>124</sup>
Mai 10	26.933 <sup>55</sup>	30.00 <sup>17</sup>	49.527 <sup>47</sup>	6.70 <sup>32</sup>	25.796 <sup>69</sup>	89.65 <sup>333</sup>	45.155 <sup>34</sup>	47.09 <sup>144</sup>
20	26.988 <sup>103</sup>	30.17 <sup>32</sup>	49.574 <sup>94</sup>	7.02 <sup>45</sup>	25.727 <sup>1</sup>	86.32 <sup>348</sup>	45.189 <sup>78</sup>	45.65 <sup>159</sup>
30	27.091 <sup>149</sup>	30.49 <sup>47</sup>	49.668 <sup>139</sup>	7.47 <sup>60</sup>	25.728 <sup>69</sup>	82.84 <sup>356</sup>	45.267 <sup>121</sup>	44.06 <sup>172</sup>
Juni 9	27.240 <sup>190</sup>	30.96 <sup>60</sup>	49.807 <sup>180</sup>	8.07 <sup>72</sup>	25.797 <sup>138</sup>	79.28 <sup>355</sup>	45.388 <sup>162</sup>	42.34 <sup>182</sup>
19	27.430 <sup>227</sup>	31.56 <sup>74</sup>	49.987 <sup>218</sup>	8.79 <sup>84</sup>	25.935 <sup>202</sup>	75.73 <sup>344</sup>	45.550 <sup>198</sup>	40.52 <sup>186</sup>
29	27.657 <sup>258</sup>	32.30 <sup>85</sup>	50.205 <sup>249</sup>	9.63 <sup>94</sup>	26.137 <sup>260</sup>	72.29 <sup>326</sup>	45.748 <sup>228</sup>	38.66 <sup>187</sup>
Juli 9	27.915 <sup>285</sup>	33.15 <sup>94</sup>	50.454 <sup>274</sup>	10.57 <sup>101</sup>	26.397 <sup>313</sup>	69.03 <sup>298</sup>	45.976 <sup>254</sup>	36.79 <sup>182</sup>
19	28.200 <sup>302</sup>	34.09 <sup>100</sup>	50.728 <sup>294</sup>	11.58 <sup>105</sup>	26.710 <sup>356</sup>	66.05 <sup>261</sup>	46.230 <sup>274</sup>	34.97 <sup>172</sup>
29	28.502 <sup>314</sup>	35.09 <sup>102</sup>	51.022 <sup>308</sup>	12.63 <sup>104</sup>	27.066 <sup>391</sup>	63.44 <sup>217</sup>	46.504 <sup>288</sup>	33.25 <sup>156</sup>
Aug. 8	28.816 <sup>322</sup>	36.11 <sup>101</sup>	51.330 <sup>315</sup>	13.67 <sup>102</sup>	27.457 <sup>416</sup>	61.27 <sup>166</sup>	46.792 <sup>295</sup>	31.69 <sup>136</sup>
18	29.138 <sup>322</sup>	37.12 <sup>97</sup>	51.645 <sup>317</sup>	14.69 <sup>94</sup>	27.873 <sup>431</sup>	59.61 <sup>109</sup>	47.087 <sup>299</sup>	30.33 <sup>110</sup>
28	29.460 <sup>319</sup>	38.09 <sup>90</sup>	51.962 <sup>315</sup>	15.63 <sup>85</sup>	28.304 <sup>434</sup>	58.52 <sup>48</sup>	47.386 <sup>297</sup>	29.23 <sup>81</sup>
Sept. 7	29.779 <sup>311</sup>	38.99 <sup>81</sup>	52.277 <sup>307</sup>	16.48 <sup>73</sup>	28.738 <sup>428</sup>	58.04 <sup>14</sup>	47.683 <sup>291</sup>	28.42 <sup>50</sup>
17	30.090 <sup>299</sup>	39.80 <sup>70</sup>	52.584 <sup>298</sup>	17.21 <sup>59</sup>	29.166 <sup>410</sup>	58.18 <sup>78</sup>	47.974 <sup>280</sup>	27.92 <sup>18</sup>
27	30.389 <sup>284</sup>	40.50 <sup>58</sup>	52.882 <sup>284</sup>	17.80 <sup>45</sup>	29.576 <sup>382</sup>	58.96 <sup>137</sup>	48.254 <sup>267</sup>	27.74 <sup>15</sup>
Okt. 7	30.673 <sup>267</sup>	41.08 <sup>46</sup>	53.166 <sup>268</sup>	18.25 <sup>31</sup>	29.958 <sup>346</sup>	60.33 <sup>194</sup>	48.521 <sup>250</sup>	27.89 <sup>46</sup>
17	30.940 <sup>246</sup>	41.54 <sup>34</sup>	53.434 <sup>248</sup>	18.56 <sup>18</sup>	30.304 <sup>300</sup>	62.27 <sup>241</sup>	48.771 <sup>230</sup>	28.35 <sup>73</sup>
27	31.186 <sup>221</sup>	41.88 <sup>25</sup>	53.682 <sup>224</sup>	18.74 <sup>7</sup>	30.604 <sup>247</sup>	64.68 <sup>281</sup>	49.001 <sup>207</sup>	29.08 <sup>97</sup>
Nov. 6	31.407 <sup>194</sup>	42.13 <sup>16</sup>	53.906 <sup>197</sup>	18.81 <sup>3</sup>	30.851 <sup>187</sup>	67.49 <sup>309</sup>	49.208 <sup>180</sup>	30.05 <sup>115</sup>
16	31.601 <sup>162</sup>	42.29 <sup>10</sup>	54.103 <sup>166</sup>	18.78 <sup>10</sup>	31.038 <sup>123</sup>	70.58 <sup>328</sup>	49.388 <sup>149</sup>	31.20 <sup>128</sup>
26	31.763 <sup>127</sup>	42.39 <sup>6</sup>	54.269 <sup>133</sup>	18.68 <sup>14</sup>	31.161 <sup>55</sup>	73.86 <sup>331</sup>	49.537 <sup>116</sup>	32.48 <sup>134</sup>
Dez. 5	31.890 <sup>89</sup>	42.45 <sup>2</sup>	54.402 <sup>94</sup>	18.54 <sup>16</sup>	31.216 <sup>14</sup>	77.17 <sup>324</sup>	49.653 <sup>79</sup>	33.82 <sup>134</sup>
15	31.979 <sup>47</sup>	42.47 <sup>1</sup>	54.496 <sup>53</sup>	18.38 <sup>18</sup>	31.202 <sup>83</sup>	80.41 <sup>305</sup>	49.732 <sup>41</sup>	35.16 <sup>130</sup>
25	32.026 <sup>5</sup>	42.46 <sup>2</sup>	54.549 <sup>12</sup>	18.20 <sup>18</sup>	31.119 <sup>149</sup>	83.46 <sup>276</sup>	49.773 <sup>1</sup>	36.46 <sup>120</sup>
35	32.031	42.44	54.561	18.02	30.970	86.22	49.774	37.66
Mittl. Ort	28.095	27.67	50.651	4.52	27.720	87.86	46.209	47.24
sec δ, tg δ	1.058	+0.345	1.042	+0.294	1.752	-1.438	1.002	-0.061

Tag	172) 53 Eridani		174) $\tau$ Tauri		173) Grb 848		175) 4 Camelop.	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	4 <sup>h</sup> 34 <sup>m</sup>	—14° 26'	4 <sup>h</sup> 37 <sup>m</sup>	+22° 49'	4 <sup>h</sup> 39 <sup>m</sup>	+75° 48'	4 <sup>h</sup> 42 <sup>m</sup>	+56° 37'
Jan. 0	56.119 <sub>38</sub>	32.44 <sub>158</sub>	59.111 <sub>13</sub>	24.43 <sub>18</sub>	16.98 <sub>26</sub>	66.27 <sub>268</sub>	5.479 <sub>58</sub>	68.79 <sub>190</sub>
10	56.081 <sub>76</sub>	34.02 <sub>136</sub>	59.098 <sub>56</sub>	24.61 <sub>13</sub>	16.72 <sub>41</sub>	68.95 <sub>234</sub>	5.421 <sub>130</sub>	70.69 <sub>166</sub>
20	56.005 <sub>111</sub>	35.38 <sub>111</sub>	59.042 <sub>97</sub>	24.74 <sub>8</sub>	16.31 <sub>55</sub>	71.29 <sub>193</sub>	5.291 <sub>196</sub>	72.35 <sub>136</sub>
30	55.894 <sub>141</sub>	36.49 <sub>82</sub>	58.945 <sub>130</sub>	24.82 <sub>2</sub>	15.76 <sub>66</sub>	73.22 <sub>145</sub>	5.095 <sub>250</sub>	73.71 <sub>100</sub>
Febr. 9	55.753 <sub>163</sub>	37.31 <sub>53</sub>	58.815 <sub>156</sub>	24.84 <sub>5</sub>	15.10 <sub>75</sub>	74.67 <sub>92</sub>	4.845 <sub>292</sub>	74.71 <sub>60</sub>
19	55.590 <sub>177</sub>	37.84 <sub>22</sub>	58.659 <sub>173</sub>	24.79 <sub>12</sub>	14.35 <sub>79</sub>	75.59 <sub>36</sub>	4.553 <sub>317</sub>	75.31 <sub>19</sub>
März 1	55.413 <sub>181</sub>	38.06 <sub>9</sub>	58.486 <sub>178</sub>	24.67 <sub>20</sub>	13.56 <sub>80</sub>	75.95 <sub>21</sub>	4.236 <sub>325</sub>	75.50 <sub>23</sub>
11	55.232 <sub>176</sub>	37.97 <sub>39</sub>	58.308 <sub>172</sub>	24.47 <sub>26</sub>	12.76 <sub>77</sub>	75.74 <sub>75</sub>	3.911 <sub>313</sub>	75.27 <sub>62</sub>
21	55.056 <sub>160</sub>	37.58 <sub>69</sub>	58.136 <sub>155</sub>	24.21 <sub>29</sub>	11.99 <sub>70</sub>	74.99 <sub>126</sub>	3.598 <sub>286</sub>	74.65 <sub>98</sub>
31	54.896 <sub>136</sub>	36.89 <sub>99</sub>	57.981 <sub>128</sub>	23.92 <sub>30</sub>	11.29 <sub>60</sub>	73.73 <sub>169</sub>	3.312 <sub>241</sub>	73.67 <sub>130</sub>
Apr. 10	54.760 <sub>103</sub>	35.90 <sub>127</sub>	57.853 <sub>93</sub>	23.62 <sub>29</sub>	10.69 <sub>47</sub>	72.04 <sub>206</sub>	3.071 <sub>185</sub>	72.37 <sub>154</sub>
20	54.657 <sub>66</sub>	34.63 <sub>153</sub>	57.760 <sub>51</sub>	23.33 <sub>23</sub>	10.22 <sub>34</sub>	69.98 <sub>234</sub>	2.886 <sub>116</sub>	70.83 <sub>172</sub>
30	54.591 <sub>23</sub>	33.10 <sub>176</sub>	57.709 <sub>5</sub>	23.10 <sub>16</sub>	9.88 <sub>18</sub>	67.64 <sub>252</sub>	2.770 <sub>43</sub>	69.11 <sub>182</sub>
Mai 10	54.568 <sub>21</sub>	31.34 <sub>197</sub>	57.704 <sub>44</sub>	22.94 <sub>6</sub>	9.70 <sub>1</sub>	65.12 <sub>260</sub>	2.727 <sub>36</sub>	67.29 <sub>186</sub>
20	54.589 <sub>67</sub>	29.37 <sub>214</sub>	57.748 <sub>92</sub>	22.88 <sub>6</sub>	9.69 <sub>16</sub>	62.52 <sub>261</sub>	2.763 <sub>114</sub>	65.43 <sub>181</sub>
30	54.656 <sub>110</sub>	27.23 <sub>227</sub>	57.840 <sub>139</sub>	22.94 <sub>20</sub>	9.85 <sub>33</sub>	59.91 <sub>252</sub>	2.877 <sub>189</sub>	63.62 <sub>171</sub>
Juni 9	54.766 <sub>152</sub>	24.96 <sub>234</sub>	57.979 <sub>183</sub>	23.14 <sub>33</sub>	10.18 <sub>47</sub>	57.39 <sub>236</sub>	3.066 <sub>261</sub>	61.91 <sub>156</sub>
19	54.918 <sub>190</sub>	22.62 <sub>235</sub>	58.162 <sub>221</sub>	23.47 <sub>46</sub>	10.65 <sub>62</sub>	55.03 <sub>213</sub>	3.327 <sub>325</sub>	60.35 <sub>135</sub>
29	55.108 <sub>222</sub>	20.27 <sub>231</sub>	58.383 <sub>255</sub>	23.93 <sub>59</sub>	11.27 <sub>75</sub>	52.90 <sub>183</sub>	3.652 <sub>380</sub>	59.00 <sub>111</sub>
Juli 9	55.330 <sub>249</sub>	17.96 <sub>220</sub>	58.638 <sub>282</sub>	24.52 <sub>69</sub>	12.02 <sub>85</sub>	51.07 <sub>151</sub>	4.032 <sub>428</sub>	57.89 <sub>84</sub>
19	55.579 <sub>271</sub>	15.76 <sub>203</sub>	58.920 <sub>302</sub>	25.21 <sub>77</sub>	12.87 <sub>95</sub>	49.56 <sub>114</sub>	4.460 <sub>465</sub>	57.05 <sub>56</sub>
29	55.850 <sub>286</sub>	13.73 <sub>179</sub>	59.222 <sub>318</sub>	25.98 <sub>83</sub>	13.82 <sub>101</sub>	48.42 <sub>74</sub>	4.925 <sub>493</sub>	56.49 <sub>27</sub>
Aug. 8	56.136 <sub>296</sub>	11.94 <sub>149</sub>	59.540 <sub>326</sub>	26.81 <sub>84</sub>	14.83 <sub>106</sub>	47.68 <sub>33</sub>	5.418 <sub>511</sub>	56.22 <sub>3</sub>
18	56.432 <sub>300</sub>	10.45 <sub>115</sub>	59.866 <sub>329</sub>	27.65 <sub>84</sub>	15.89 <sub>108</sub>	47.35 <sub>9</sub>	5.929 <sub>521</sub>	56.25 <sub>33</sub>
28	56.732 <sub>299</sub>	9.30 <sub>77</sub>	60.195 <sub>328</sub>	28.49 <sub>81</sub>	16.97 <sub>110</sub>	47.44 <sub>50</sub>	6.450 <sub>522</sub>	56.58 <sub>60</sub>
Sept. 7	57.031 <sub>293</sub>	8.53 <sub>36</sub>	60.523 <sub>322</sub>	29.30 <sub>76</sub>	18.07 <sub>109</sub>	47.94 <sub>92</sub>	6.972 <sub>516</sub>	57.18 <sub>87</sub>
17	57.324 <sub>283</sub>	8.17 <sub>5</sub>	60.845 <sub>312</sub>	30.06 <sub>68</sub>	19.16 <sub>106</sub>	48.86 <sub>131</sub>	7.488 <sub>503</sub>	58.05 <sub>113</sub>
27	57.607 <sub>269</sub>	8.22 <sub>47</sub>	61.157 <sub>299</sub>	30.74 <sub>60</sub>	20.22 <sub>101</sub>	50.17 <sub>168</sub>	7.991 <sub>483</sub>	59.18 <sub>137</sub>
Okt. 7	57.876 <sub>251</sub>	8.69 <sub>86</sub>	61.456 <sub>283</sub>	31.34 <sub>53</sub>	21.23 <sub>94</sub>	51.85 <sub>204</sub>	8.474 <sub>456</sub>	60.55 <sub>158</sub>
17	58.127 <sub>230</sub>	9.55 <sub>121</sub>	61.739 <sub>264</sub>	31.87 <sub>44</sub>	22.17 <sub>87</sub>	53.89 <sub>235</sub>	8.930 <sub>423</sub>	62.13 <sub>178</sub>
27	58.357 <sub>205</sub>	10.76 <sub>150</sub>	62.003 <sub>240</sub>	32.31 <sub>38</sub>	23.04 <sub>76</sub>	56.24 <sub>262</sub>	9.353 <sub>381</sub>	63.91 <sub>194</sub>
Nov. 6	58.562 <sub>176</sub>	12.26 <sub>172</sub>	62.243 <sub>212</sub>	32.69 <sub>32</sub>	23.80 <sub>64</sub>	58.86 <sub>285</sub>	9.734 <sub>333</sub>	65.85 <sub>208</sub>
16	58.738 <sub>144</sub>	13.98 <sub>187</sub>	62.455 <sub>181</sub>	33.01 <sub>28</sub>	24.44 <sub>50</sub>	61.71 <sub>301</sub>	10.067 <sub>277</sub>	67.93 <sub>218</sub>
26	58.882 <sub>109</sub>	15.85 <sub>194</sub>	62.636 <sub>145</sub>	33.29 <sub>26</sub>	24.94 <sub>36</sub>	64.72 <sub>310</sub>	10.344 <sub>213</sub>	70.11 <sub>222</sub>
Dez. 5	58.991 <sub>70</sub>	17.79 <sub>193</sub>	62.781 <sub>105</sub>	33.55 <sub>23</sub>	25.30 <sub>19</sub>	67.82 <sub>309</sub>	10.557 <sub>144</sub>	72.33 <sub>222</sub>
15	59.061 <sub>31</sub>	19.72 <sub>185</sub>	62.886 <sub>62</sub>	33.78 <sub>20</sub>	25.49 <sub>2</sub>	70.91 <sub>301</sub>	10.701 <sub>70</sub>	74.55 <sub>215</sub>
25	59.092 <sub>10</sub>	21.57 <sub>172</sub>	62.948 <sub>18</sub>	33.98 <sub>18</sub>	25.51 <sub>15</sub>	73.92 <sub>283</sub>	10.771 <sub>7</sub>	76.70 <sub>201</sub>
35	59.082	23.29	62.966	34.16	25.36	76.75	10.764	78.71
Mittl. Ort	55.649	30.51	58.876	19.69	14.78	54.73	4.845	59.14
sec $\delta$ , tg $\delta$	1.033	-0.258	1.085	+0.421	4.081	+3.956	1.818	+1.518

# Obere Kulmination Greenwich

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Tag	178) $\eta$ Camelop.		180) $\pi^5$ Orionis		181) $\iota$ Aurigae		183) $\varepsilon$ Aurigae	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$4^h 46^m$	$+66^\circ 13'$	$4^h 50^m$	$+2^\circ 19'$	$4^h 52^m$	$+33^\circ 3'$	$4^h 56^m$	$+43^\circ 43'$
Jan. 0	59.82 <sub>10</sub>	38.86 <sub>235</sub>	33.433 <sub>8</sub>	33.68 <sub>89</sub>	22.340 <sub>3</sub>	25.22 <sub>74</sub>	52.636 <sub>7</sub>	19.31 <sub>132</sub>
10	59.72 <sub>20</sub>	41.21 <sub>208</sub>	33.425 <sub>48</sub>	32.79 <sub>78</sub>	22.337 <sub>53</sub>	25.96 <sub>65</sub>	52.629 <sub>65</sub>	20.63 <sub>117</sub>
20	59.52 <sub>29</sub>	43.29 <sub>172</sub>	33.377 <sub>86</sub>	32.01 <sub>66</sub>	22.284 <sub>99</sub>	26.61 <sub>53</sub>	52.564 <sub>119</sub>	21.80 <sub>98</sub>
30	59.23 <sub>36</sub>	45.01 <sub>131</sub>	33.291 <sub>119</sub>	31.35 <sub>52</sub>	22.185 <sub>138</sub>	27.14 <sub>38</sub>	52.445 <sub>166</sub>	22.78 <sub>75</sub>
Febr. 9	58.87 <sub>42</sub>	46.32 <sub>84</sub>	33.172 <sub>144</sub>	30.83 <sub>37</sub>	22.047 <sub>169</sub>	27.52 <sub>21</sub>	52.279 <sub>202</sub>	23.53 <sub>48</sub>
19	58.45 <sub>45</sub>	47.16 <sub>36</sub>	33.028 <sub>161</sub>	30.46 <sub>23</sub>	21.878 <sub>191</sub>	27.73 <sub>4</sub>	52.077 <sub>225</sub>	24.01 <sub>19</sub>
März 1	58.00 <sub>47</sub>	47.52 <sub>14</sub>	32.867 <sub>169</sub>	30.23 <sub>8</sub>	21.687 <sub>198</sub>	27.77 <sub>14</sub>	51.852 <sub>236</sub>	24.20 <sub>9</sub>
11	57.53 <sub>45</sub>	47.38 <sub>62</sub>	32.698 <sub>165</sub>	30.15 <sub>8</sub>	21.489 <sub>195</sub>	27.63 <sub>31</sub>	51.616 <sub>233</sub>	24.11 <sub>37</sub>
21	57.08 <sub>41</sub>	46.76 <sub>107</sub>	32.533 <sub>152</sub>	30.23 <sub>23</sub>	21.294 <sub>179</sub>	27.32 <sub>45</sub>	51.383 <sub>215</sub>	23.74 <sub>63</sub>
31	56.67 <sub>35</sub>	45.69 <sub>144</sub>	32.381 <sub>130</sub>	30.46 <sub>40</sub>	21.115 <sub>152</sub>	26.87 <sub>57</sub>	51.168 <sub>184</sub>	23.11 <sub>84</sub>
Apr. 10	56.32 <sub>28</sub>	44.25 <sub>177</sub>	32.251 <sub>100</sub>	30.86 <sub>56</sub>	20.963 <sub>115</sub>	26.30 <sub>66</sub>	50.984 <sub>142</sub>	22.27 <sub>102</sub>
20	56.04 <sub>19</sub>	42.48 <sub>202</sub>	32.151 <sub>63</sub>	31.42 <sub>74</sub>	20.848 <sub>70</sub>	25.64 <sub>69</sub>	50.842 <sub>92</sub>	21.25 <sub>113</sub>
30	55.85 <sub>9</sub>	40.46 <sub>217</sub>	32.088 <sub>21</sub>	32.16 <sub>91</sub>	20.778 <sub>21</sub>	24.95 <sub>68</sub>	50.750 <sub>36</sub>	20.12 <sub>120</sub>
Mai 10	55.76 <sub>1</sub>	38.29 <sub>225</sub>	32.067 <sub>22</sub>	33.07 <sub>107</sub>	20.757 <sub>31</sub>	24.27 <sub>64</sub>	50.714 <sub>24</sub>	18.92 <sub>121</sub>
20	55.77 <sub>11</sub>	36.04 <sub>225</sub>	32.089 <sub>66</sub>	34.14 <sub>122</sub>	20.788 <sub>85</sub>	23.63 <sub>57</sub>	50.738 <sub>85</sub>	17.71 <sub>116</sub>
30	55.88 <sub>22</sub>	33.79 <sub>217</sub>	32.155 <sub>110</sub>	35.36 <sub>135</sub>	20.873 <sub>135</sub>	23.06 <sub>45</sub>	50.823 <sub>144</sub>	16.55 <sub>107</sub>
Juni 9	56.10 <sub>31</sub>	31.62 <sub>202</sub>	32.265 <sub>150</sub>	36.71 <sub>145</sub>	21.008 <sub>183</sub>	22.61 <sub>32</sub>	50.967 <sub>199</sub>	15.48 <sub>95</sub>
19	56.41 <sub>40</sub>	29.60 <sub>181</sub>	32.415 <sub>187</sub>	38.16 <sub>153</sub>	21.191 <sub>227</sub>	22.29 <sub>18</sub>	51.166 <sub>249</sub>	14.53 <sub>79</sub>
29	56.81 <sub>48</sub>	27.79 <sub>155</sub>	32.602 <sub>219</sub>	39.69 <sub>156</sub>	21.418 <sub>265</sub>	22.11 <sub>3</sub>	51.415 <sub>293</sub>	13.74 <sub>61</sub>
Juli 9	57.29 <sub>55</sub>	26.24 <sub>127</sub>	32.821 <sub>246</sub>	41.25 <sub>154</sub>	21.683 <sub>296</sub>	22.08 <sub>11</sub>	51.708 <sub>330</sub>	13.13 <sub>42</sub>
19	57.84 <sub>60</sub>	24.97 <sub>94</sub>	33.067 <sub>268</sub>	42.79 <sub>148</sub>	21.979 <sub>321</sub>	22.19 <sub>26</sub>	52.038 <sub>361</sub>	12.71 <sub>22</sub>
29	58.44 <sub>64</sub>	24.03 <sub>60</sub>	33.335 <sub>283</sub>	44.27 <sub>138</sub>	22.300 <sub>329</sub>	22.45 <sub>38</sub>	52.399 <sub>383</sub>	12.49 <sub>3</sub>
Aug. 8	59.08 <sub>67</sub>	23.43 <sub>24</sub>	33.618 <sub>293</sub>	45.65 <sub>122</sub>	22.639 <sub>351</sub>	22.83 <sub>48</sub>	52.782 <sub>398</sub>	12.46 <sub>16</sub>
18	59.75 <sub>68</sub>	23.19 <sub>11</sub>	33.911 <sub>299</sub>	46.87 <sub>102</sub>	22.990 <sub>358</sub>	23.31 <sub>57</sub>	53.180 <sub>407</sub>	12.62 <sub>35</sub>
28	60.43 <sub>69</sub>	23.30 <sub>46</sub>	34.210 <sub>299</sub>	47.89 <sub>79</sub>	23.348 <sub>359</sub>	23.88 <sub>65</sub>	53.587 <sub>410</sub>	12.97 <sub>51</sub>
Sept. 7	61.12 <sub>69</sub>	23.76 <sub>81</sub>	34.509 <sub>296</sub>	48.68 <sub>53</sub>	23.707 <sub>355</sub>	24.53 <sub>69</sub>	53.997 <sub>408</sub>	13.48 <sub>67</sub>
17	61.81 <sub>67</sub>	24.57 <sub>114</sub>	34.805 <sub>288</sub>	49.21 <sub>26</sub>	24.062 <sub>348</sub>	25.22 <sub>72</sub>	54.405 <sub>400</sub>	14.15 <sub>80</sub>
27	62.48 <sub>65</sub>	25.71 <sub>146</sub>	35.093 <sub>278</sub>	49.47 <sub>2</sub>	24.410 <sub>336</sub>	25.94 <sub>75</sub>	54.805 <sub>387</sub>	14.95 <sub>94</sub>
Ok. 7	63.13 <sub>61</sub>	27.17 <sub>176</sub>	35.371 <sub>264</sub>	49.45 <sub>28</sub>	24.746 <sub>320</sub>	26.69 <sub>77</sub>	55.192 <sub>370</sub>	15.89 <sub>106</sub>
17	63.74 <sub>56</sub>	28.93 <sub>202</sub>	35.635 <sub>246</sub>	49.17 <sub>52</sub>	25.066 <sub>300</sub>	27.46 <sub>78</sub>	55.562 <sub>348</sub>	16.95 <sub>116</sub>
27	64.30 <sub>51</sub>	30.95 <sub>225</sub>	35.881 <sub>225</sub>	48.65 <sub>72</sub>	25.366 <sub>277</sub>	28.24 <sub>80</sub>	55.910 <sub>320</sub>	18.11 <sub>126</sub>
Nov. 6	64.81 <sub>44</sub>	33.20 <sub>244</sub>	36.106 <sub>200</sub>	47.93 <sub>89</sub>	25.643 <sub>248</sub>	29.04 <sub>82</sub>	56.230 <sub>286</sub>	19.37 <sub>134</sub>
16	65.25 <sub>36</sub>	35.64 <sub>259</sub>	36.306 <sub>171</sub>	47.04 <sub>99</sub>	25.891 <sub>213</sub>	29.86 <sub>82</sub>	56.516 <sub>246</sub>	20.71 <sub>141</sub>
26	65.61 <sub>37</sub>	38.23 <sub>267</sub>	36.477 <sub>138</sub>	46.05 <sub>106</sub>	26.104 <sub>174</sub>	30.68 <sub>83</sub>	56.762 <sub>199</sub>	22.12 <sub>146</sub>
Dez. 5	65.88 <sub>18</sub>	40.90 <sub>269</sub>	36.615 <sub>101</sub>	44.99 <sub>107</sub>	26.278 <sub>130</sub>	31.51 <sub>83</sub>	56.961 <sub>148</sub>	23.58 <sub>147</sub>
15	66.06 <sub>7</sub>	43.59 <sub>261</sub>	36.716 <sub>62</sub>	43.92 <sub>103</sub>	26.408 <sub>82</sub>	32.34 <sub>81</sub>	57.109 <sub>92</sub>	25.05 <sub>143</sub>
25	66.13 <sub>3</sub>	46.20 <sub>248</sub>	36.778 <sub>20</sub>	42.89 <sub>97</sub>	26.490 <sub>32</sub>	33.15 <sub>77</sub>	57.201 <sub>34</sub>	26.48 <sub>137</sub>
35	66.10	48.68	36.798	41.92	26.522	33.92	57.235	27.85
Mittl. Ort sec $\delta$ , tg $\delta$	58.69 2.481	28.42 +2.270	33.091 1.001	32.24 +0.041	22.026 1.193	18.96 +0.651	52.204 1.384	11.70 +0.956

Tag	182) $\iota$ Camelop.		184) $\iota$ Tauri		185) $\eta$ Aurigae		186) $\varepsilon$ Leporis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$4^{\text{h}} 57^{\text{m}}$	$+60^{\circ} 20'$	$4^{\text{h}} 58^{\text{m}}$	$+21^{\circ} 29'$	$5^{\text{h}} 1^{\text{m}}$	$+41^{\circ} 8'$	$5^{\text{h}} 2^{\text{m}}$	$-22^{\circ} 27'$
Jan. 0	6.52 <sub>4</sub>	35.98 <sub>214</sub>	51.310 <sub>6</sub>	28.60 <sub>11</sub>	32.369 <sub>2</sub>	31.73 <sub>119</sub>	27.971 <sub>28</sub>	56.77 <sub>204</sub>
10	6.48 <sub>13</sub>	38.12 <sub>191</sub>	51.316 <sub>39</sub>	28.71 <sub>10</sub>	32.371 <sub>56</sub>	32.92 <sub>107</sub>	27.943 <sub>71</sub>	58.81 <sub>178</sub>
20	6.35 <sub>21</sub>	40.03 <sub>161</sub>	51.277 <sub>82</sub>	28.81 <sub>8</sub>	32.315 <sub>107</sub>	33.99 <sub>90</sub>	27.872 <sub>111</sub>	60.59 <sub>148</sub>
30	6.14 <sub>27</sub>	41.64 <sub>125</sub>	51.195 <sub>118</sub>	28.89 <sub>4</sub>	32.208 <sub>153</sub>	34.89 <sub>69</sub>	27.761 <sub>145</sub>	62.07 <sub>114</sub>
Febr. 9	5.87 <sub>32</sub>	42.89 <sub>84</sub>	51.077 <sub>148</sub>	28.93 <sub>0</sub>	32.055 <sub>189</sub>	35.58 <sub>46</sub>	27.616 <sub>172</sub>	63.21 <sub>78</sub>
19	5.55 <sub>35</sub>	43.73 <sub>40</sub>	50.929 <sub>168</sub>	28.93 <sub>6</sub>	31.866 <sub>214</sub>	36.04 <sub>20</sub>	27.444 <sub>191</sub>	63.99 <sub>41</sub>
März 1	5.20 <sub>37</sub>	44.13 <sub>4</sub>	50.761 <sub>178</sub>	28.87 <sub>10</sub>	31.652 <sub>225</sub>	36.24 <sub>6</sub>	27.253 <sub>200</sub>	64.40 <sub>3</sub>
11	4.83 <sub>36</sub>	44.09 <sub>47</sub>	50.583 <sub>175</sub>	28.77 <sub>15</sub>	31.427 <sub>223</sub>	36.18 <sub>31</sub>	27.053 <sub>198</sub>	64.43 <sub>34</sub>
21	4.47 <sub>33</sub>	43.62 <sub>88</sub>	50.408 <sub>162</sub>	28.62 <sub>19</sub>	31.204 <sub>206</sub>	35.87 <sub>55</sub>	26.855 <sub>186</sub>	64.09 <sub>70</sub>
31	4.14 <sub>29</sub>	42.74 <sub>123</sub>	50.246 <sub>139</sub>	28.43 <sub>20</sub>	30.998 <sub>178</sub>	35.32 <sub>75</sub>	26.669 <sub>166</sub>	63.39 <sub>106</sub>
Apr. 10	3.85 <sub>23</sub>	41.51 <sub>154</sub>	50.107 <sub>106</sub>	28.23 <sub>19</sub>	30.820 <sub>139</sub>	34.57 <sub>90</sub>	26.503 <sub>136</sub>	62.33 <sub>139</sub>
20	3.62 <sub>16</sub>	39.97 <sub>176</sub>	50.001 <sub>68</sub>	28.04 <sub>15</sub>	30.681 <sub>91</sub>	33.67 <sub>100</sub>	26.367 <sub>100</sub>	60.94 <sub>169</sub>
30	3.46 <sub>8</sub>	38.21 <sub>191</sub>	49.933 <sub>23</sub>	27.89 <sub>8</sub>	30.590 <sub>37</sub>	32.67 <sub>107</sub>	26.267 <sub>59</sub>	59.25 <sub>197</sub>
Mai 10	3.38 <sub>0</sub>	36.30 <sub>199</sub>	49.910 <sub>24</sub>	27.81 <sub>1</sub>	30.553 <sub>20</sub>	31.60 <sub>107</sub>	26.208 <sub>15</sub>	57.28 <sub>221</sub>
20	3.38 <sub>10</sub>	34.31 <sub>200</sub>	49.934 <sub>72</sub>	27.80 <sub>10</sub>	30.573 <sub>78</sub>	30.53 <sub>103</sub>	26.193 <sub>31</sub>	55.07 <sub>240</sub>
30	3.48 <sub>17</sub>	32.31 <sub>193</sub>	50.006 <sub>117</sub>	27.90 <sub>22</sub>	30.651 <sub>135</sub>	29.50 <sub>95</sub>	26.224 <sub>77</sub>	52.67 <sub>255</sub>
Juni 9	3.65 <sub>25</sub>	30.38 <sub>181</sub>	50.123 <sub>162</sub>	28.12 <sub>33</sub>	30.786 <sub>188</sub>	28.55 <sub>82</sub>	26.301 <sub>120</sub>	50.12 <sub>263</sub>
19	3.90 <sub>33</sub>	28.57 <sub>162</sub>	50.285 <sub>201</sub>	28.45 <sub>43</sub>	30.974 <sub>237</sub>	27.73 <sub>68</sub>	26.421 <sub>160</sub>	47.49 <sub>264</sub>
29	4.23 <sub>39</sub>	26.95 <sub>140</sub>	50.486 <sub>236</sub>	28.88 <sub>54</sub>	31.211 <sub>279</sub>	27.05 <sub>51</sub>	26.581 <sub>197</sub>	44.85 <sub>259</sub>
Juli 9	4.62 <sub>45</sub>	25.55 <sub>115</sub>	50.722 <sub>265</sub>	29.42 <sub>63</sub>	31.490 <sub>316</sub>	26.54 <sub>34</sub>	26.778 <sub>229</sub>	42.26 <sub>247</sub>
19	5.07 <sub>50</sub>	24.40 <sub>86</sub>	50.987 <sub>288</sub>	30.05 <sub>69</sub>	31.806 <sub>345</sub>	26.20 <sub>16</sub>	27.007 <sub>256</sub>	39.79 <sub>227</sub>
29	5.57 <sub>53</sub>	23.54 <sub>56</sub>	51.275 <sub>305</sub>	30.74 <sub>72</sub>	32.151 <sub>367</sub>	26.04 <sub>1</sub>	27.263 <sub>276</sub>	37.52 <sub>200</sub>
Aug. 8	6.10 <sub>55</sub>	22.98 <sub>26</sub>	51.580 <sub>317</sub>	31.46 <sub>73</sub>	32.518 <sub>382</sub>	26.05 <sub>18</sub>	27.539 <sub>291</sub>	35.52 <sub>167</sub>
18	6.65 <sub>57</sub>	22.72 <sub>6</sub>	51.897 <sub>323</sub>	32.19 <sub>71</sub>	32.900 <sub>392</sub>	26.23 <sub>33</sub>	27.830 <sub>301</sub>	33.85 <sub>128</sub>
28	7.22 <sub>57</sub>	22.78 <sub>36</sub>	52.220 <sub>326</sub>	32.90 <sub>66</sub>	33.292 <sub>395</sub>	26.56 <sub>48</sub>	28.131 <sub>305</sub>	32.57 <sub>84</sub>
Sept. 7	7.79 <sub>58</sub>	23.14 <sub>66</sub>	52.546 <sub>323</sub>	33.56 <sub>59</sub>	33.687 <sub>394</sub>	27.04 <sub>61</sub>	28.436 <sub>304</sub>	31.73 <sub>38</sub>
17	8.37 <sub>56</sub>	23.80 <sub>96</sub>	52.869 <sub>316</sub>	34.15 <sub>52</sub>	34.081 <sub>387</sub>	27.65 <sub>72</sub>	28.740 <sub>298</sub>	31.35 <sub>11</sub>
27	8.93 <sub>55</sub>	24.76 <sub>123</sub>	53.185 <sub>307</sub>	34.67 <sub>42</sub>	34.468 <sub>376</sub>	28.37 <sub>83</sub>	29.038 <sub>288</sub>	31.46 <sub>59</sub>
Okt. 7	9.48 <sub>52</sub>	25.99 <sub>149</sub>	53.492 <sub>294</sub>	35.09 <sub>34</sub>	34.844 <sub>360</sub>	29.20 <sub>93</sub>	29.326 <sub>272</sub>	32.05 <sub>105</sub>
17	10.00 <sub>48</sub>	27.48 <sub>172</sub>	53.786 <sub>276</sub>	35.43 <sub>25</sub>	35.204 <sub>339</sub>	30.13 <sub>102</sub>	29.598 <sub>253</sub>	33.10 <sub>146</sub>
27	10.48 <sub>44</sub>	29.20 <sub>194</sub>	54.062 <sub>256</sub>	35.68 <sub>19</sub>	35.543 <sub>313</sub>	31.15 <sub>110</sub>	29.851 <sub>229</sub>	34.56 <sub>181</sub>
Nov. 6	10.92 <sub>39</sub>	31.14 <sub>212</sub>	54.318 <sub>231</sub>	35.87 <sub>14</sub>	35.856 <sub>282</sub>	32.25 <sub>117</sub>	30.080 <sub>201</sub>	36.37 <sub>210</sub>
16	11.31 <sub>33</sub>	33.26 <sub>226</sub>	54.549 <sub>200</sub>	36.01 <sub>10</sub>	36.138 <sub>244</sub>	33.42 <sub>124</sub>	30.281 <sub>167</sub>	38.47 <sub>229</sub>
26	11.64 <sub>26</sub>	35.52 <sub>234</sub>	54.749 <sub>166</sub>	36.11 <sub>9</sub>	36.382 <sub>201</sub>	34.66 <sub>128</sub>	30.448 <sub>130</sub>	40.76 <sub>239</sub>
Dez. 6	11.90 <sub>18</sub>	37.86 <sub>238</sub>	54.915 <sub>126</sub>	36.20 <sub>8</sub>	36.583 <sub>151</sub>	35.94 <sub>130</sub>	30.578 <sub>90</sub>	43.15 <sub>241</sub>
15	12.08 <sub>9</sub>	40.24 <sub>234</sub>	55.041 <sub>83</sub>	36.28 <sub>9</sub>	36.734 <sub>97</sub>	37.24 <sub>128</sub>	30.668 <sub>47</sub>	45.56 <sub>234</sub>
25	12.17 <sub>2</sub>	42.58 <sub>223</sub>	55.124 <sub>38</sub>	36.37 <sub>9</sub>	36.831 <sub>41</sub>	38.52 <sub>123</sub>	30.715 <sub>1</sub>	47.90 <sub>218</sub>
35	12.19	44.81	55.162	36.46	36.872	39.75	30.716	50.08
Mittl. Ort	5.65	26.52	51.007	24.09	31.952	24.57	27.300	55.16
see $\delta$ , tg $\delta$	2.021	+1.756	1.075	+0.394	1.328	+0.874	1.082	-0.413

# Obere Kulmination Greenwich

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Tag	188) $\beta$ Eridani		192) $\mu$ Aurigae		191) 19 H. Camelop.		194) $\beta$ Orionis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	5 <sup>h</sup> 4 <sup>m</sup>	—5° 10'	5 <sup>h</sup> 8 <sup>m</sup>	+38° 24'	5 <sup>h</sup> 10 <sup>m</sup>	+79° 9'	5 <sup>h</sup> 11 <sup>m</sup>	—8° 16'
Jan. 0	21.950	36.47	34.429	14.07	52.79	23.70	7.967	56.27
10	21.947	37.78	34.441	15.13	52.58	26.65	7.967	57.74
20	21.902	38.92	34.398	16.09	52.15	29.34	7.924	59.04
30	21.818	39.88	34.303	16.91	51.52	31.67	7.842	60.13
Febr. 9	21.701	40.63	34.162	17.55	50.72	33.55	7.724	60.99
19	21.556	41.17	33.985	18.00	49.79	34.92	7.578	61.60
März 1	21.392	41.48	33.783	18.22	48.78	35.74	7.412	61.96
11	21.218	41.56	33.569	18.21	47.73	35.98	7.236	62.07
21	21.046	41.42	33.355	17.97	46.68	35.64	7.060	61.92
31	20.884	41.06	33.155	17.52	45.69	34.76	6.893	61.52
Apr. 10	20.743	40.47	32.980	16.89	44.80	33.37	6.746	60.87
20	20.630	39.66	32.843	16.12	44.06	31.55	6.626	59.97
30	20.552	38.63	32.751	15.25	43.48	29.37	6.540	58.84
Mai 10	20.513	37.40	32.710	14.33	43.09	26.92	6.493	57.50
20	20.517	35.99	32.723	13.41	42.91	24.29	6.489	55.95
30	20.565	34.41	32.792	12.53	42.94	21.58	6.528	54.24
Juni 9	20.655	32.70	32.915	11.73	43.18	18.87	6.610	52.38
19	20.787	30.88	33.090	11.03	43.63	16.25	6.733	50.43
29	20.956	29.01	33.313	10.46	44.28	13.78	6.894	48.43
Juli 9	21.158	27.15	33.577	10.04	45.10	11.55	7.089	46.43
19	21.389	25.32	33.876	9.77	46.08	9.60	7.313	44.48
29	21.643	23.60	34.204	9.66	47.20	7.97	7.562	42.66
Aug. 8	21.915	22.04	34.555	9.70	48.43	6.71	7.830	41.01
18	22.200	20.69	34.922	9.88	49.74	5.85	8.111	39.59
28	22.493	19.60	35.298	10.19	51.12	5.40	8.402	38.46
Sept. 7	22.788	18.80	35.679	10.62	52.53	5.37	8.697	37.65
17	23.083	18.34	36.059	11.14	53.96	5.77	8.992	37.19
27	23.372	18.21	36.434	11.76	55.37	6.60	9.283	37.10
Okt. 7	23.652	18.43	36.800	12.46	56.74	7.84	9.565	37.38
17	23.920	18.98	37.152	13.24	58.05	9.47	9.836	38.02
27	24.171	19.83	37.485	14.09	59.27	11.48	10.091	38.99
Nov. 6	24.402	20.93	37.794	15.00	60.37	13.84	10.327	40.24
16	24.609	22.25	38.074	15.98	61.32	16.49	10.538	41.71
26	24.787	23.70	38.319	17.02	62.11	19.38	10.720	43.34
Dez. 6	24.932	25.23	38.523	18.11	62.71	22.44	10.869	45.06
15	25.040	26.78	38.679	19.22	63.09	25.59	10.981	46.79
25	25.108	28.28	38.783	20.33	63.25	28.74	11.052	48.48
35	25.134	29.68	38.833	21.40	63.19	31.79	11.081	50.07
Mittl. Ort	21.511	37.22	34.016	7.42	49.14	13.54	7.482	56.86
sec $\delta$ , tg $\delta$	1.004	—0.091	1.276	+0.793	5.314	+5.219	1.011	—0.146

Tag	193) $\alpha$ Aurigae		196) $\delta$ Doradus		201) $\gamma$ Orionis		202) $\beta$ Tauri	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	5 <sup>h</sup> 11 <sup>m</sup>	+45° 55'	5 <sup>h</sup> 13 <sup>m</sup>	-67° 15'	5 <sup>h</sup> 21 <sup>m</sup>	+6° 17'	5 <sup>h</sup> 21 <sup>m</sup>	+28° 32'
Jan. 0	26.979	46.89	51.87	58.74	19.716	14.45	48.520	61.92
10	26.989	48.35	51.61	61.69	19.737	13.68	48.549	62.42
20	26.936	49.67	51.25	64.26	19.714	13.02	48.528	62.90
30	26.824	50.81	50.81	66.39	19.649	12.47	48.458	63.34
Febr. 9	26.662	51.72	50.30	68.02	19.546	12.04	48.346	63.70
19	26.459	52.37	49.74	69.11	19.413	11.72	48.198	63.96
März 1	26.227	52.71	49.15	69.65	19.258	11.51	48.025	64.10
11	25.981	52.75	48.54	69.63	19.090	11.42	47.838	64.13
21	25.736	52.48	47.94	69.06	18.920	11.44	47.648	64.03
31	25.505	51.93	47.35	67.97	18.758	11.57	47.468	63.82
Apr. 10	25.303	51.13	46.81	66.37	18.615	11.83	47.309	63.52
20	25.141	50.12	46.32	64.31	18.498	12.21	47.181	63.14
30	25.030	48.96	45.90	61.84	18.415	12.73	47.091	62.72
Mai 10	24.974	47.70	45.56	59.01	18.371	13.38	47.046	62.30
20	24.979	46.39	45.30	55.88	18.370	14.17	47.049	61.91
30	25.047	45.09	45.14	52.53	18.412	15.08	47.101	61.57
Juni 9	25.176	43.84	45.08	49.03	18.496	16.12	47.202	61.30
19	25.362	42.70	45.11	45.47	18.622	17.26	47.350	61.12
29	25.601	41.70	45.24	41.93	18.786	18.47	47.540	61.05
Juli 9	25.888	40.86	45.47	38.53	18.984	19.71	47.769	61.08
19	26.215	40.20	45.78	35.33	19.211	20.97	48.030	61.20
29	26.576	39.73	46.18	32.44	19.463	22.20	48.318	61.42
Aug. 8	26.962	39.46	46.64	29.94	19.733	23.34	48.628	61.71
18	27.368	39.39	47.16	27.93	20.018	24.37	48.953	62.06
28	27.786	39.51	47.72	26.46	20.313	25.24	49.288	62.45
Sept. 7	28.210	39.81	48.31	25.59	20.612	25.91	49.630	62.85
17	28.634	40.29	48.91	25.35	20.913	26.37	49.973	63.26
27	29.053	40.93	49.50	25.76	21.211	26.59	50.313	63.66
Okt. 7	29.463	41.72	50.07	26.83	21.503	26.57	50.647	64.04
17	29.857	42.66	50.59	28.50	21.786	26.32	50.971	64.41
27	30.230	43.74	51.06	30.72	22.056	25.87	51.280	64.78
Nov. 6	30.577	44.95	51.46	33.42	22.307	25.23	51.570	65.14
16	30.890	46.27	51.77	36.50	22.537	24.45	51.836	65.51
26	31.163	47.69	51.99	39.83	22.740	23.57	52.072	65.90
Dez. 6	31.389	49.19	52.10	43.30	22.911	22.64	52.272	66.32
15	31.562	50.73	52.11	46.79	23.046	21.71	52.431	66.77
25	31.676	52.27	52.01	50.16	23.140	20.81	52.544	67.25
35	31.728	53.77	51.80	53.32	23.191	19.98	52.608	67.74
Mittl. Ort	26.453	39.45	48.43	54.66	19.324	11.78	48.136	56.66
sec $\delta$ , tg $\delta$	1.438	+1.033	2.588	-2.387	1.006	+0.110	1.138	+0.544



Tag	203) 17 Camelop.		206) δ Orionis		207) α Leporis		205) Grb 966	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	5 <sup>h</sup> 23 <sup>m</sup>	+63° 0'	5 <sup>h</sup> 28 <sup>m</sup>	—0° 20'	5 <sup>h</sup> 29 <sup>m</sup>	—17° 51'	5 <sup>h</sup> 30 <sup>m</sup>	+74° 59'
Jan. 0	28.68 <sup>0</sup>	45.60 <sup>235</sup>	23.144 <sup>22</sup>	59.41 <sup>114</sup>	36.529 <sup>3</sup>	78.87 <sup>199</sup>	15.85 <sup>5</sup>	69.50 <sup>287</sup>
10	28.68 <sup>10</sup>	47.95 <sup>217</sup>	23.166 <sup>22</sup>	60.55 <sup>100</sup>	36.532 <sup>42</sup>	80.86 <sup>178</sup>	15.80 <sup>2</sup>	72.37 <sup>266</sup>
20	28.58 <sup>19</sup>	50.12 <sup>190</sup>	23.144 <sup>64</sup>	61.55 <sup>85</sup>	36.490 <sup>84</sup>	82.64 <sup>151</sup>	15.58 <sup>38</sup>	75.03 <sup>235</sup>
30	28.39 <sup>27</sup>	52.02 <sup>157</sup>	23.080 <sup>101</sup>	62.40 <sup>67</sup>	36.406 <sup>122</sup>	84.15 <sup>122</sup>	15.20 <sup>50</sup>	77.38 <sup>198</sup>
Febr. 9	28.12 <sup>33</sup>	53.59 <sup>119</sup>	22.979 <sup>133</sup>	63.07 <sup>49</sup>	36.284 <sup>153</sup>	85.37 <sup>90</sup>	14.70 <sup>62</sup>	79.36 <sup>152</sup>
19	27.79 <sup>37</sup>	54.78 <sup>74</sup>	22.846 <sup>156</sup>	63.56 <sup>32</sup>	36.131 <sup>176</sup>	86.27 <sup>56</sup>	14.08 <sup>70</sup>	80.88 <sup>101</sup>
März 1	27.42 <sup>40</sup>	55.52 <sup>29</sup>	22.690 <sup>169</sup>	63.88 <sup>13</sup>	35.955 <sup>190</sup>	86.83 <sup>22</sup>	13.38 <sup>74</sup>	81.89 <sup>46</sup>
11	27.02 <sup>41</sup>	55.81 <sup>17</sup>	22.521 <sup>172</sup>	64.01 <sup>5</sup>	35.765 <sup>192</sup>	87.05 <sup>12</sup>	12.64 <sup>75</sup>	82.35 <sup>8</sup>
21	26.61 <sup>38</sup>	55.64 <sup>61</sup>	22.349 <sup>165</sup>	63.96 <sup>22</sup>	35.573 <sup>186</sup>	86.93 <sup>45</sup>	11.89 <sup>72</sup>	82.27 <sup>62</sup>
31	26.23 <sup>35</sup>	55.03 <sup>102</sup>	22.184 <sup>148</sup>	63.74 <sup>41</sup>	35.387 <sup>169</sup>	86.48 <sup>78</sup>	11.17 <sup>66</sup>	81.65 <sup>112</sup>
Apr. 10	25.88 <sup>29</sup>	54.01 <sup>138</sup>	22.036 <sup>123</sup>	63.33 <sup>59</sup>	35.218 <sup>143</sup>	85.70 <sup>109</sup>	10.51 <sup>56</sup>	80.53 <sup>156</sup>
20	25.59 <sup>21</sup>	52.63 <sup>167</sup>	21.913 <sup>91</sup>	62.74 <sup>77</sup>	35.075 <sup>112</sup>	84.61 <sup>138</sup>	9.95 <sup>45</sup>	78.97 <sup>193</sup>
30	25.38 <sup>14</sup>	50.96 <sup>189</sup>	21.822 <sup>53</sup>	61.97 <sup>94</sup>	34.963 <sup>73</sup>	83.23 <sup>165</sup>	9.50 <sup>32</sup>	77.04 <sup>223</sup>
Mai 10	25.24 <sup>5</sup>	49.07 <sup>203</sup>	21.769 <sup>12</sup>	61.03 <sup>110</sup>	34.890 <sup>32</sup>	81.58 <sup>189</sup>	9.18 <sup>17</sup>	74.81 <sup>243</sup>
20	25.19 <sup>4</sup>	47.04 <sup>210</sup>	21.757 <sup>31</sup>	59.93 <sup>126</sup>	34.858 <sup>11</sup>	79.69 <sup>209</sup>	9.01 <sup>1</sup>	72.38 <sup>256</sup>
30	25.23 <sup>13</sup>	44.94 <sup>211</sup>	21.788 <sup>73</sup>	58.67 <sup>138</sup>	34.869 <sup>55</sup>	77.60 <sup>225</sup>	9.00 <sup>14</sup>	69.82 <sup>259</sup>
Juni 9	25.36 <sup>22</sup>	42.83 <sup>203</sup>	21.861 <sup>114</sup>	57.29 <sup>148</sup>	34.924 <sup>98</sup>	75.35 <sup>235</sup>	9.14 <sup>29</sup>	67.23 <sup>255</sup>
19	25.58 <sup>31</sup>	40.80 <sup>191</sup>	21.975 <sup>152</sup>	55.81 <sup>155</sup>	35.022 <sup>137</sup>	73.00 <sup>240</sup>	9.43 <sup>44</sup>	64.68 <sup>244</sup>
29	25.89 <sup>37</sup>	38.89 <sup>173</sup>	22.127 <sup>186</sup>	54.26 <sup>157</sup>	35.159 <sup>174</sup>	70.60 <sup>239</sup>	9.87 <sup>57</sup>	62.24 <sup>226</sup>
Juli 9	26.26 <sup>44</sup>	37.16 <sup>151</sup>	22.313 <sup>216</sup>	52.69 <sup>156</sup>	35.333 <sup>206</sup>	68.21 <sup>230</sup>	10.44 <sup>69</sup>	59.98 <sup>202</sup>
19	26.70 <sup>50</sup>	35.65 <sup>126</sup>	22.529 <sup>241</sup>	51.13 <sup>148</sup>	35.539 <sup>234</sup>	65.91 <sup>215</sup>	11.13 <sup>79</sup>	57.96 <sup>174</sup>
29	27.20 <sup>54</sup>	34.39 <sup>98</sup>	22.770 <sup>261</sup>	49.65 <sup>136</sup>	35.773 <sup>257</sup>	63.76 <sup>193</sup>	11.92 <sup>88</sup>	56.22 <sup>142</sup>
Aug. 8	27.74 <sup>58</sup>	33.41 <sup>68</sup>	23.031 <sup>277</sup>	48.29 <sup>119</sup>	36.030 <sup>275</sup>	61.83 <sup>164</sup>	12.80 <sup>95</sup>	54.80 <sup>106</sup>
18	28.32 <sup>61</sup>	32.73 <sup>37</sup>	23.308 <sup>287</sup>	47.10 <sup>98</sup>	36.305 <sup>287</sup>	60.19 <sup>131</sup>	13.75 <sup>100</sup>	53.74 <sup>69</sup>
28	28.93 <sup>62</sup>	32.36 <sup>6</sup>	23.595 <sup>294</sup>	46.12 <sup>74</sup>	36.592 <sup>296</sup>	58.88 <sup>91</sup>	14.75 <sup>104</sup>	53.05 <sup>30</sup>
Sept. 7	29.55 <sup>63</sup>	32.30 <sup>26</sup>	23.889 <sup>296</sup>	45.38 <sup>45</sup>	36.888 <sup>299</sup>	57.97 <sup>48</sup>	15.79 <sup>106</sup>	52.75 <sup>9</sup>
17	30.18 <sup>62</sup>	32.56 <sup>58</sup>	24.185 <sup>294</sup>	44.93 <sup>15</sup>	37.187 <sup>298</sup>	57.49 <sup>3</sup>	16.85 <sup>106</sup>	52.84 <sup>50</sup>
27	30.80 <sup>61</sup>	33.14 <sup>89</sup>	24.479 <sup>290</sup>	44.78 <sup>15</sup>	37.485 <sup>292</sup>	57.46 <sup>43</sup>	17.91 <sup>104</sup>	53.34 <sup>89</sup>
Okt. 7	31.41 <sup>59</sup>	34.03 <sup>118</sup>	24.769 <sup>281</sup>	44.93 <sup>45</sup>	37.777 <sup>283</sup>	57.89 <sup>86</sup>	18.95 <sup>100</sup>	54.23 <sup>128</sup>
17	32.00 <sup>56</sup>	35.21 <sup>147</sup>	25.050 <sup>269</sup>	45.38 <sup>71</sup>	38.060 <sup>268</sup>	58.75 <sup>127</sup>	19.95 <sup>95</sup>	55.51 <sup>166</sup>
27	32.56 <sup>52</sup>	36.68 <sup>173</sup>	25.319 <sup>251</sup>	46.09 <sup>95</sup>	38.328 <sup>249</sup>	60.02 <sup>162</sup>	20.90 <sup>87</sup>	57.17 <sup>200</sup>
Nov. 6	33.08 <sup>47</sup>	38.41 <sup>197</sup>	25.570 <sup>230</sup>	47.04 <sup>113</sup>	38.577 <sup>224</sup>	61.64 <sup>191</sup>	21.77 <sup>78</sup>	59.17 <sup>231</sup>
16	33.55 <sup>40</sup>	40.38 <sup>218</sup>	25.800 <sup>203</sup>	48.17 <sup>126</sup>	38.801 <sup>195</sup>	63.55 <sup>211</sup>	22.55 <sup>67</sup>	61.48 <sup>258</sup>
26	33.95 <sup>33</sup>	42.56 <sup>232</sup>	26.003 <sup>172</sup>	49.43 <sup>133</sup>	38.996 <sup>161</sup>	65.66 <sup>224</sup>	23.22 <sup>53</sup>	64.06 <sup>278</sup>
Dez. 6	34.28 <sup>25</sup>	44.88 <sup>242</sup>	26.175 <sup>136</sup>	50.76 <sup>135</sup>	39.157 <sup>121</sup>	67.90 <sup>229</sup>	23.75 <sup>39</sup>	66.84 <sup>292</sup>
15	34.53 <sup>15</sup>	47.30 <sup>245</sup>	26.311 <sup>95</sup>	52.11 <sup>132</sup>	39.278 <sup>79</sup>	70.19 <sup>224</sup>	24.14 <sup>22</sup>	69.76 <sup>296</sup>
25	34.68 <sup>6</sup>	49.75 <sup>240</sup>	26.406 <sup>52</sup>	53.43 <sup>122</sup>	39.357 <sup>34</sup>	72.43 <sup>212</sup>	24.36 <sup>5</sup>	72.72 <sup>292</sup>
35	34.74	52.15	26.458	54.65	39.391	74.55	24.41	75.64
Mittl. Ort sec δ, tg δ	27.51 2.203	37.10 +1.964	22.698 1.000	61.49 —0.006	35.886 1.051	79.28 —0.322	13.19 3.864	60.61 +3.732

Tag	209) $\iota$ Orionis		210) $\epsilon$ Orionis		212) $\beta$ Doradus		211) $\zeta$ Tauri	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	5 <sup>h</sup> 31 <sup>m</sup>	—5° 57'	5 <sup>h</sup> 32 <sup>m</sup>	—1° 14'	5 <sup>h</sup> 32 <sup>m</sup>	—62° 31'	5 <sup>h</sup> 33 <sup>m</sup>	+21° 6'
Jan. 0	58.071 <sup>21</sup>	17.61 <sup>145</sup>	37.056 <sup>25</sup>	43.54 <sup>121</sup>	63.15 <sup>17</sup>	71.88 <sup>312</sup>	24.425 <sup>39</sup>	6.91 <sup>0</sup>
10	58.092 <sup>24</sup>	19.06 <sup>128</sup>	37.081 <sup>19</sup>	44.75 <sup>106</sup>	62.98 <sup>25</sup>	75.00 <sup>278</sup>	24.464 <sup>9</sup>	6.97 <sup>19</sup>
20	58.068 <sup>67</sup>	20.34 <sup>108</sup>	37.062 <sup>62</sup>	45.81 <sup>89</sup>	62.73 <sup>33</sup>	77.78 <sup>237</sup>	24.455 <sup>56</sup>	7.07 <sup>12</sup>
30	58.001 <sup>104</sup>	21.42 <sup>87</sup>	37.000 <sup>99</sup>	46.70 <sup>71</sup>	62.40 <sup>39</sup>	80.15 <sup>191</sup>	24.399 <sup>98</sup>	7.19 <sup>11</sup>
Febr. 9	57.897 <sup>135</sup>	22.29 <sup>64</sup>	36.901 <sup>132</sup>	47.41 <sup>53</sup>	62.01 <sup>44</sup>	82.06 <sup>139</sup>	24.301 <sup>133</sup>	7.30 <sup>10</sup>
19	57.762 <sup>159</sup>	22.93 <sup>42</sup>	36.769 <sup>155</sup>	47.94 <sup>34</sup>	61.57 <sup>48</sup>	83.45 <sup>85</sup>	24.168 <sup>159</sup>	7.40 <sup>7</sup>
März 1	57.603 <sup>173</sup>	23.35 <sup>18</sup>	36.614 <sup>169</sup>	48.28 <sup>14</sup>	61.09 <sup>49</sup>	84.30 <sup>30</sup>	24.009 <sup>174</sup>	7.47 <sup>2</sup>
11	57.430 <sup>176</sup>	23.53 <sup>7</sup>	36.445 <sup>173</sup>	48.42 <sup>4</sup>	60.60 <sup>50</sup>	84.60 <sup>25</sup>	23.835 <sup>179</sup>	7.49 <sup>2</sup>
21	57.254 <sup>170</sup>	23.46 <sup>29</sup>	36.272 <sup>166</sup>	48.38 <sup>23</sup>	60.10 <sup>49</sup>	84.35 <sup>78</sup>	23.656 <sup>172</sup>	7.47 <sup>5</sup>
31	57.084 <sup>154</sup>	23.17 <sup>52</sup>	36.106 <sup>151</sup>	48.15 <sup>42</sup>	59.61 <sup>46</sup>	83.57 <sup>129</sup>	23.484 <sup>154</sup>	7.42 <sup>8</sup>
Apr. 10	56.930 <sup>129</sup>	22.65 <sup>75</sup>	35.955 <sup>125</sup>	47.73 <sup>61</sup>	59.15 <sup>41</sup>	82.28 <sup>178</sup>	23.330 <sup>127</sup>	7.34 <sup>9</sup>
20	56.801 <sup>97</sup>	21.90 <sup>96</sup>	35.830 <sup>94</sup>	47.12 <sup>79</sup>	58.74 <sup>37</sup>	80.50 <sup>222</sup>	23.203 <sup>93</sup>	7.25 <sup>8</sup>
30	56.704 <sup>60</sup>	20.94 <sup>117</sup>	35.736 <sup>57</sup>	46.33 <sup>96</sup>	58.37 <sup>30</sup>	78.28 <sup>260</sup>	23.110 <sup>51</sup>	7.17 <sup>5</sup>
Mai 10	56.644 <sup>19</sup>	19.77 <sup>136</sup>	35.679 <sup>16</sup>	45.37 <sup>114</sup>	58.07 <sup>23</sup>	75.68 <sup>294</sup>	23.059 <sup>7</sup>	7.12 <sup>0</sup>
20	56.625 <sup>22</sup>	18.41 <sup>153</sup>	35.663 <sup>26</sup>	44.23 <sup>129</sup>	57.84 <sup>15</sup>	72.74 <sup>320</sup>	23.052 <sup>38</sup>	7.12 <sup>7</sup>
30	56.647 <sup>65</sup>	16.88 <sup>167</sup>	35.689 <sup>69</sup>	42.94 <sup>141</sup>	57.69 <sup>7</sup>	69.54 <sup>339</sup>	23.090 <sup>84</sup>	7.19 <sup>15</sup>
Juni 9	56.712 <sup>106</sup>	15.21 <sup>177</sup>	35.758 <sup>109</sup>	41.53 <sup>152</sup>	57.62 <sup>1</sup>	66.15 <sup>350</sup>	23.174 <sup>129</sup>	7.34 <sup>24</sup>
19	56.818 <sup>144</sup>	13.44 <sup>183</sup>	35.867 <sup>148</sup>	40.01 <sup>158</sup>	57.63 <sup>9</sup>	62.65 <sup>351</sup>	23.303 <sup>169</sup>	7.58 <sup>31</sup>
29	56.962 <sup>179</sup>	11.61 <sup>184</sup>	36.015 <sup>181</sup>	38.43 <sup>161</sup>	57.72 <sup>18</sup>	59.14 <sup>344</sup>	23.472 <sup>205</sup>	7.89 <sup>39</sup>
Juli 9	57.141 <sup>209</sup>	9.77 <sup>180</sup>	36.196 <sup>212</sup>	36.82 <sup>158</sup>	57.90 <sup>24</sup>	55.70 <sup>327</sup>	23.677 <sup>237</sup>	8.28 <sup>45</sup>
19	57.350 <sup>235</sup>	7.97 <sup>170</sup>	36.408 <sup>238</sup>	35.24 <sup>151</sup>	58.14 <sup>32</sup>	52.43 <sup>300</sup>	23.914 <sup>264</sup>	8.73 <sup>49</sup>
29	57.585 <sup>257</sup>	6.27 <sup>155</sup>	36.646 <sup>258</sup>	33.73 <sup>138</sup>	58.46 <sup>38</sup>	49.43 <sup>265</sup>	24.178 <sup>285</sup>	9.22 <sup>51</sup>
Aug. 8	57.842 <sup>272</sup>	4.72 <sup>135</sup>	36.904 <sup>274</sup>	32.35 <sup>121</sup>	58.84 <sup>43</sup>	46.78 <sup>220</sup>	24.463 <sup>302</sup>	9.73 <sup>50</sup>
18	58.114 <sup>284</sup>	3.37 <sup>109</sup>	37.178 <sup>285</sup>	31.14 <sup>100</sup>	59.27 <sup>47</sup>	44.58 <sup>169</sup>	24.765 <sup>313</sup>	10.23 <sup>48</sup>
28	58.398 <sup>291</sup>	2.28 <sup>79</sup>	37.463 <sup>292</sup>	30.14 <sup>73</sup>	59.74 <sup>49</sup>	42.89 <sup>110</sup>	25.078 <sup>320</sup>	10.71 <sup>42</sup>
Sept. 7	58.689 <sup>295</sup>	1.49 <sup>46</sup>	37.755 <sup>296</sup>	29.41 <sup>45</sup>	60.23 <sup>52</sup>	41.79 <sup>48</sup>	25.398 <sup>323</sup>	11.13 <sup>34</sup>
17	58.984 <sup>293</sup>	1.03 <sup>11</sup>	38.051 <sup>295</sup>	28.96 <sup>13</sup>	60.75 <sup>51</sup>	41.31 <sup>18</sup>	25.721 <sup>323</sup>	11.47 <sup>26</sup>
27	59.277 <sup>289</sup>	0.92 <sup>25</sup>	38.346 <sup>290</sup>	28.83 <sup>17</sup>	61.26 <sup>50</sup>	41.49 <sup>82</sup>	26.044 <sup>318</sup>	11.73 <sup>18</sup>
Okt. 7	59.566 <sup>281</sup>	1.17 <sup>58</sup>	38.636 <sup>283</sup>	29.00 <sup>47</sup>	61.76 <sup>47</sup>	42.31 <sup>145</sup>	26.362 <sup>310</sup>	11.91 <sup>8</sup>
17	59.847 <sup>268</sup>	1.75 <sup>91</sup>	38.919 <sup>270</sup>	29.47 <sup>75</sup>	62.23 <sup>43</sup>	43.76 <sup>204</sup>	26.672 <sup>298</sup>	11.99 <sup>1</sup>
27	60.115 <sup>251</sup>	2.66 <sup>118</sup>	39.189 <sup>253</sup>	30.22 <sup>100</sup>	62.66 <sup>38</sup>	45.80 <sup>254</sup>	26.970 <sup>282</sup>	12.00 <sup>4</sup>
Nov. 6	60.366 <sup>230</sup>	3.84 <sup>140</sup>	39.442 <sup>233</sup>	31.22 <sup>118</sup>	63.04 <sup>32</sup>	48.34 <sup>296</sup>	27.252 <sup>261</sup>	11.96 <sup>8</sup>
16	60.596 <sup>202</sup>	5.24 <sup>156</sup>	39.675 <sup>206</sup>	32.40 <sup>132</sup>	63.36 <sup>24</sup>	51.30 <sup>327</sup>	27.513 <sup>233</sup>	11.88 <sup>10</sup>
26	60.798 <sup>171</sup>	6.80 <sup>165</sup>	39.881 <sup>175</sup>	33.72 <sup>140</sup>	63.60 <sup>15</sup>	54.57 <sup>346</sup>	27.746 <sup>200</sup>	11.78 <sup>8</sup>
Dec. 6	60.969 <sup>134</sup>	8.45 <sup>168</sup>	40.056 <sup>139</sup>	35.12 <sup>141</sup>	63.75 <sup>7</sup>	58.03 <sup>352</sup>	27.946 <sup>162</sup>	11.70 <sup>6</sup>
15	61.103 <sup>93</sup>	10.13 <sup>163</sup>	40.195 <sup>99</sup>	36.53 <sup>138</sup>	63.82 <sup>2</sup>	61.55 <sup>347</sup>	28.108 <sup>119</sup>	11.64 <sup>2</sup>
25	61.196 <sup>51</sup>	11.76 <sup>155</sup>	40.294 <sup>55</sup>	37.91 <sup>129</sup>	63.80 <sup>11</sup>	65.02 <sup>329</sup>	28.227 <sup>73</sup>	11.62 <sup>2</sup>
35	61.247	13.31	40.349	39.20	63.69	68.31	28.300	11.64
Mittl. Ort sec $\delta$ , tg $\delta$	57.573 1.005	19.25 —0.104	36.596 1.000	45.66 —0.022	60.39 2.168	69.90 —1.924	24.034 1.072	2.54 +0.386

# Obere Kulmination Greenwich

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Tag	215) α Columbae		216) ο Aurigae		219) ζ Leporis		220) ζ Orionis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	5 <sup>h</sup> 37 <sup>m</sup>	-34° 6'	5 <sup>h</sup> 40 <sup>m</sup>	+49° 47'	5 <sup>h</sup> 43 <sup>m</sup>	-14° 50'	5 <sup>h</sup> 44 <sup>m</sup>	-9° 41'
Jan. 0	5.614 <sup>20</sup>	40.62 <sup>265</sup>	24.637 <sup>46</sup>	56.38 <sup>172</sup>	44.883 <sup>21</sup>	48.78 <sup>193</sup>	23.878 <sup>28</sup>	35.38 <sup>168</sup>
10	5.594 <sup>71</sup>	43.27 <sup>238</sup>	24.683 <sup>24</sup>	58.10 <sup>163</sup>	44.904 <sup>26</sup>	50.71 <sup>173</sup>	23.906 <sup>18</sup>	37.06 <sup>150</sup>
20	5.523 <sup>118</sup>	45.65 <sup>204</sup>	24.659 <sup>91</sup>	59.73 <sup>147</sup>	44.878 <sup>69</sup>	52.44 <sup>148</sup>	23.888 <sup>62</sup>	38.56 <sup>128</sup>
30	5.405 <sup>161</sup>	47.69 <sup>166</sup>	24.568 <sup>151</sup>	61.20 <sup>126</sup>	44.809 <sup>108</sup>	53.92 <sup>121</sup>	23.826 <sup>101</sup>	39.84 <sup>105</sup>
Febr. 9	5.244 <sup>194</sup>	49.35 <sup>124</sup>	24.417 <sup>202</sup>	62.46 <sup>100</sup>	44.701 <sup>142</sup>	55.13 <sup>92</sup>	23.725 <sup>134</sup>	40.89 <sup>79</sup>
19	5.050 <sup>220</sup>	50.59 <sup>79</sup>	24.215 <sup>239</sup>	63.46 <sup>69</sup>	44.559 <sup>167</sup>	56.05 <sup>60</sup>	23.591 <sup>159</sup>	41.68 <sup>52</sup>
März 1	4.830 <sup>236</sup>	51.38 <sup>35</sup>	23.976 <sup>263</sup>	64.15 <sup>36</sup>	44.392 <sup>182</sup>	56.65 <sup>29</sup>	23.432 <sup>175</sup>	42.20 <sup>25</sup>
11	4.594 <sup>239</sup>	51.73 <sup>11</sup>	23.713 <sup>270</sup>	64.51 <sup>1</sup>	44.210 <sup>188</sup>	56.94 <sup>2</sup>	23.257 <sup>181</sup>	42.45 <sup>2</sup>
21	4.355 <sup>233</sup>	51.62 <sup>56</sup>	23.443 <sup>262</sup>	64.52 <sup>31</sup>	44.022 <sup>183</sup>	56.92 <sup>34</sup>	23.076 <sup>176</sup>	42.43 <sup>29</sup>
31	4.122 <sup>217</sup>	51.06 <sup>98</sup>	23.181 <sup>239</sup>	64.21 <sup>62</sup>	43.839 <sup>169</sup>	56.58 <sup>64</sup>	22.900 <sup>162</sup>	42.14 <sup>54</sup>
Apr. 10	3.905 <sup>190</sup>	50.08 <sup>139</sup>	22.942 <sup>201</sup>	63.59 <sup>90</sup>	43.670 <sup>146</sup>	55.94 <sup>93</sup>	22.738 <sup>139</sup>	41.60 <sup>80</sup>
20	3.715 <sup>156</sup>	48.69 <sup>178</sup>	22.741 <sup>153</sup>	62.69 <sup>113</sup>	43.524 <sup>116</sup>	55.01 <sup>121</sup>	22.599 <sup>108</sup>	40.80 <sup>105</sup>
30	3.559 <sup>117</sup>	46.91 <sup>211</sup>	22.588 <sup>98</sup>	61.56 <sup>129</sup>	43.408 <sup>79</sup>	53.80 <sup>146</sup>	22.491 <sup>73</sup>	39.75 <sup>127</sup>
Mai 10	3.442 <sup>72</sup>	44.80 <sup>241</sup>	22.490 <sup>36</sup>	60.27 <sup>141</sup>	43.329 <sup>39</sup>	52.34 <sup>170</sup>	22.418 <sup>34</sup>	38.48 <sup>148</sup>
20	3.370 <sup>24</sup>	42.39 <sup>265</sup>	22.454 <sup>29</sup>	58.86 <sup>147</sup>	43.290 <sup>3</sup>	50.64 <sup>189</sup>	22.384 <sup>9</sup>	37.00 <sup>166</sup>
30	3.346 <sup>24</sup>	39.74 <sup>284</sup>	22.483 <sup>93</sup>	57.39 <sup>148</sup>	43.293 <sup>45</sup>	48.75 <sup>206</sup>	22.393 <sup>50</sup>	35.34 <sup>181</sup>
Juni 9	3.370 <sup>72</sup>	36.90 <sup>295</sup>	22.576 <sup>156</sup>	55.91 <sup>144</sup>	43.338 <sup>87</sup>	46.69 <sup>217</sup>	22.443 <sup>91</sup>	33.53 <sup>192</sup>
19	3.442 <sup>117</sup>	33.95 <sup>300</sup>	22.732 <sup>215</sup>	54.47 <sup>134</sup>	43.425 <sup>126</sup>	44.52 <sup>222</sup>	22.534 <sup>130</sup>	31.61 <sup>198</sup>
29	3.559 <sup>161</sup>	30.95 <sup>296</sup>	22.947 <sup>267</sup>	53.13 <sup>122</sup>	43.551 <sup>162</sup>	42.30 <sup>223</sup>	22.664 <sup>165</sup>	29.63 <sup>199</sup>
Juli 9	3.720 <sup>199</sup>	27.99 <sup>284</sup>	23.214 <sup>315</sup>	51.91 <sup>107</sup>	43.713 <sup>195</sup>	40.07 <sup>217</sup>	22.829 <sup>197</sup>	27.64 <sup>194</sup>
19	3.919 <sup>234</sup>	25.15 <sup>264</sup>	23.529 <sup>356</sup>	50.84 <sup>90</sup>	43.908 <sup>224</sup>	37.90 <sup>203</sup>	23.026 <sup>224</sup>	25.70 <sup>183</sup>
29	4.153 <sup>264</sup>	22.51 <sup>235</sup>	23.885 <sup>388</sup>	49.94 <sup>71</sup>	44.132 <sup>247</sup>	35.87 <sup>185</sup>	23.250 <sup>247</sup>	23.87 <sup>167</sup>
Aug. 8	4.417 <sup>288</sup>	20.16 <sup>198</sup>	24.273 <sup>415</sup>	49.23 <sup>52</sup>	44.379 <sup>265</sup>	34.02 <sup>159</sup>	23.497 <sup>265</sup>	22.20 <sup>144</sup>
18	4.705 <sup>305</sup>	18.18 <sup>156</sup>	24.688 <sup>434</sup>	48.71 <sup>31</sup>	44.644 <sup>281</sup>	32.43 <sup>127</sup>	23.762 <sup>279</sup>	20.76 <sup>117</sup>
28	5.010 <sup>318</sup>	16.62 <sup>107</sup>	25.122 <sup>447</sup>	48.40 <sup>10</sup>	44.925 <sup>290</sup>	31.16 <sup>90</sup>	24.041 <sup>289</sup>	19.59 <sup>84</sup>
Sept. 7	5.328 <sup>325</sup>	15.55 <sup>53</sup>	25.569 <sup>455</sup>	48.30 <sup>10</sup>	45.215 <sup>295</sup>	30.26 <sup>51</sup>	24.330 <sup>293</sup>	18.75 <sup>48</sup>
17	5.653 <sup>325</sup>	15.02 <sup>2</sup>	26.024 <sup>456</sup>	48.40 <sup>29</sup>	45.510 <sup>297</sup>	29.75 <sup>8</sup>	24.623 <sup>295</sup>	18.27 <sup>9</sup>
27	5.978 <sup>320</sup>	15.04 <sup>59</sup>	26.480 <sup>451</sup>	48.69 <sup>49</sup>	45.807 <sup>294</sup>	29.67 <sup>35</sup>	24.918 <sup>292</sup>	18.18 <sup>29</sup>
Okt. 7	6.298 <sup>309</sup>	15.63 <sup>113</sup>	26.931 <sup>441</sup>	49.18 <sup>69</sup>	46.101 <sup>287</sup>	30.02 <sup>78</sup>	25.210 <sup>286</sup>	18.47 <sup>67</sup>
17	6.607 <sup>291</sup>	16.76 <sup>164</sup>	27.372 <sup>424</sup>	49.87 <sup>88</sup>	46.388 <sup>274</sup>	30.80 <sup>116</sup>	25.496 <sup>274</sup>	19.14 <sup>102</sup>
27	6.898 <sup>268</sup>	18.40 <sup>209</sup>	27.796 <sup>400</sup>	50.75 <sup>107</sup>	46.662 <sup>258</sup>	31.96 <sup>151</sup>	25.770 <sup>259</sup>	20.16 <sup>133</sup>
Nov. 6	7.166 <sup>238</sup>	20.49 <sup>246</sup>	28.196 <sup>369</sup>	51.82 <sup>125</sup>	46.920 <sup>236</sup>	33.47 <sup>179</sup>	26.029 <sup>237</sup>	21.49 <sup>159</sup>
16	7.404 <sup>202</sup>	22.95 <sup>273</sup>	28.565 <sup>328</sup>	53.07 <sup>141</sup>	47.156 <sup>209</sup>	35.26 <sup>200</sup>	26.266 <sup>211</sup>	23.08 <sup>176</sup>
26	7.606 <sup>161</sup>	25.68 <sup>290</sup>	28.893 <sup>280</sup>	54.48 <sup>155</sup>	47.365 <sup>176</sup>	37.26 <sup>213</sup>	26.477 <sup>180</sup>	24.84 <sup>188</sup>
Dez. 6	7.767 <sup>115</sup>	28.58 <sup>297</sup>	29.173 <sup>225</sup>	56.03 <sup>165</sup>	47.541 <sup>138</sup>	39.39 <sup>217</sup>	26.657 <sup>143</sup>	26.72 <sup>192</sup>
16	7.882 <sup>66</sup>	31.55 <sup>294</sup>	29.398 <sup>161</sup>	57.68 <sup>172</sup>	47.679 <sup>96</sup>	41.56 <sup>215</sup>	26.800 <sup>102</sup>	28.64 <sup>188</sup>
25	7.948 <sup>13</sup>	34.49 <sup>279</sup>	29.559 <sup>93</sup>	59.40 <sup>172</sup>	47.775 <sup>52</sup>	43.71 <sup>204</sup>	26.902 <sup>58</sup>	30.52 <sup>179</sup>
35	7.961	37.28	29.652	61.12	47.827	45.75	26.960	32.31
Mittl. Ort	4.612	40.26	23.917	49.63	44.266	50.15	23.324	37.15
sec δ, tg δ	1.208	-0.677	1.549	+1.183	1.035	-0.265	1.014	-0.171

Tag	224) $\alpha$ Orionis		225) $\delta$ Aurigae		227) $\beta$ Aurigae		228) $\theta$ Aurigae	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	5 <sup>h</sup> 51 <sup>m</sup>	+7 <sup>o</sup> 23'	5 <sup>h</sup> 53 <sup>m</sup>	+54 <sup>o</sup> 16'	5 <sup>h</sup> 54 <sup>m</sup>	+44 <sup>o</sup> 56'	5 <sup>h</sup> 54 <sup>m</sup>	+37 <sup>o</sup> 12'
Jan. 0	20.088	46.23	41.753	59.50	19.907	37.19	53.326	38.76
10	20.137	45.46	41.818	61.46	19.974	38.64	53.393	39.76
20	20.139	44.79	41.805	63.34	19.976	40.05	53.401	40.75
30	20.097	44.25	41.716	65.07	19.914	41.37	53.353	41.69
Febr. 9	20.013	43.83	41.559	66.58	19.795	42.53	53.252	42.53
19	19.894	43.52	41.343	67.82	19.626	43.48	53.107	43.23
März 1	19.747	43.33	41.082	68.72	19.419	44.19	52.928	43.76
11	19.583	43.25	40.792	69.26	19.186	44.62	52.726	44.09
21	19.412	43.27	40.490	69.42	18.944	44.76	52.514	44.21
31	19.245	43.40	40.193	69.20	18.706	44.61	52.306	44.12
Apr. 10	19.091	43.63	39.918	68.63	18.486	44.19	52.114	43.83
20	18.960	43.96	39.680	67.73	18.297	43.53	51.951	43.36
30	18.859	44.41	39.492	66.56	18.149	42.66	51.824	42.75
Mai 10	18.794	44.97	39.362	65.16	18.051	41.62	51.741	42.04
20	18.769	45.64	39.298	63.59	18.008	40.47	51.708	41.25
30	18.786	46.43	39.304	61.92	18.023	39.26	51.727	40.44
Juni 9	18.845	47.32	39.380	60.21	18.096	38.03	51.798	39.63
19	18.945	48.30	39.524	58.51	18.227	36.83	51.920	38.85
29	19.083	49.35	39.734	56.87	18.412	35.69	52.090	38.14
Juli 9	19.256	50.43	40.003	55.34	18.645	34.64	52.303	37.51
19	19.461	51.52	40.327	53.95	18.923	33.70	52.556	36.97
29	19.692	52.58	40.697	52.73	19.239	32.90	52.842	36.54
Aug. 8	19.946	53.57	41.107	51.70	19.586	32.25	53.155	36.20
18	20.217	54.45	41.549	50.89	19.959	31.74	53.492	35.96
28	20.501	55.18	42.016	50.30	20.352	31.39	53.845	35.82
Sept. 7	20.795	55.73	42.500	49.94	20.759	31.19	54.211	35.76
17	21.095	56.07	42.996	49.81	21.175	31.15	54.585	35.78
27	21.397	56.19	43.497	49.92	21.595	31.26	54.962	35.89
Okt. 7	21.698	56.08	43.997	50.28	22.014	31.52	55.338	36.07
17	21.994	55.75	44.487	50.87	22.426	31.94	55.709	36.33
27	22.280	55.22	44.962	51.71	22.826	32.52	56.069	36.67
Nov. 6	22.553	54.51	45.413	52.78	23.208	33.25	56.413	37.11
16	22.808	53.67	45.830	54.08	23.563	34.15	56.735	37.65
26	23.038	52.74	46.205	55.58	23.884	35.20	57.027	38.29
Dez. 6	23.239	51.76	46.528	57.27	24.163	36.39	57.283	39.04
16	23.404	50.79	46.790	59.09	24.393	37.69	57.494	39.89
25	23.528	49.86	46.983	61.01	24.565	39.08	57.655	40.81
35	23.609	49.01	47.100	62.96	24.676	40.52	57.761	41.78
Mittl. Ort sec $\delta$ , tg $\delta$	19.649 1.008	42.98 +0.130	40.848 1.713	53.01 +1.391	19.252 1.413	31.31 +0.998	52.789 1.256	33.40 +0.759

# Obere Kulmination Greenwich

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Tag	229) $\eta$ Columbae		232) $\nu$ Orionis		236) $\eta$ Geminorum		234) 22 H. Camelop.	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$5^h 56^m$	$-42^\circ 48'$	$6^h 3^m$	$+14^\circ 46'$	$6^h 10^m$	$+22^\circ 31'$	$6^h 10^m$	$+69^\circ 20'$
Jan. 0	59.722 <sub>21</sub>	65.94 <sub>301</sub>	31.544 <sub>65</sub>	45.56 <sub>36</sub>	35.993 <sub>78</sub>	48.39 <sub>9</sub>	63.61 <sub>70</sub>	58.04 <sub>268</sub>
10	59.701 <sub>80</sub>	68.95 <sub>275</sub>	31.609 <sub>17</sub>	45.20 <sub>28</sub>	36.071 <sub>26</sub>	48.48 <sub>16</sub>	63.71 <sub>3</sub>	60.72 <sub>260</sub>
20	59.621 <sub>134</sub>	71.70 <sub>242</sub>	31.626 <sub>30</sub>	44.92 <sub>19</sub>	36.097 <sub>25</sub>	48.64 <sub>22</sub>	63.68 <sub>16</sub>	63.32 <sub>243</sub>
30	59.487 <sub>183</sub>	74.12 <sub>202</sub>	31.596 <sub>75</sub>	44.73 <sub>11</sub>	36.072 <sub>71</sub>	48.86 <sub>24</sub>	63.52 <sub>27</sub>	65.75 <sub>216</sub>
Febr. 9	59.304 <sub>224</sub>	76.14 <sub>157</sub>	31.521 <sub>113</sub>	44.62 <sub>6</sub>	36.001 <sub>113</sub>	49.10 <sub>24</sub>	63.25 <sub>37</sub>	67.91 <sub>181</sub>
19	59.080 <sub>255</sub>	77.71 <sub>109</sub>	31.408 <sub>143</sub>	44.56 <sub>0</sub>	35.888 <sub>145</sub>	49.34 <sub>23</sub>	62.88 <sub>44</sub>	69.72 <sub>139</sub>
März 1	58.825 <sub>274</sub>	78.80 <sub>61</sub>	31.265 <sub>163</sub>	44.56 <sub>4</sub>	35.743 <sub>168</sub>	49.57 <sub>18</sub>	62.44 <sub>50</sub>	71.11 <sub>92</sub>
11	58.551 <sub>283</sub>	79.41 <sub>11</sub>	31.102 <sub>172</sub>	44.60 <sub>6</sub>	35.575 <sub>179</sub>	49.75 <sub>14</sub>	61.94 <sub>53</sub>	72.03 <sub>42</sub>
21	58.268 <sub>280</sub>	79.52 <sub>38</sub>	30.930 <sub>171</sub>	44.66 <sub>9</sub>	35.396 <sub>179</sub>	49.89 <sub>8</sub>	61.41 <sub>53</sub>	72.45 <sub>8</sub>
31	57.988 <sub>266</sub>	79.14 <sub>86</sub>	30.759 <sub>159</sub>	44.75 <sub>11</sub>	35.217 <sub>167</sub>	49.97 <sub>2</sub>	60.88 <sub>50</sub>	72.37 <sub>57</sub>
Apr. 10	57.722 <sub>241</sub>	78.28 <sub>131</sub>	30.600 <sub>138</sub>	44.86 <sub>15</sub>	35.050 <sub>146</sub>	49.99 <sub>2</sub>	60.38 <sub>45</sub>	71.80 <sub>102</sub>
20	57.481 <sub>208</sub>	76.97 <sub>174</sub>	30.462 <sub>108</sub>	45.01 <sub>19</sub>	34.904 <sub>116</sub>	49.97 <sub>4</sub>	59.93 <sub>38</sub>	70.78 <sub>143</sub>
30	57.273 <sub>167</sub>	75.23 <sub>213</sub>	30.354 <sub>72</sub>	45.20 <sub>25</sub>	34.788 <sub>79</sub>	49.93 <sub>7</sub>	59.55 <sub>29</sub>	69.35 <sub>178</sub>
Mai 10	57.106 <sub>121</sub>	73.10 <sub>246</sub>	30.282 <sub>32</sub>	45.45 <sub>31</sub>	34.709 <sub>38</sub>	49.86 <sub>5</sub>	59.26 <sub>19</sub>	67.57 <sub>205</sub>
20	56.985 <sub>71</sub>	70.64 <sub>275</sub>	30.250 <sub>10</sub>	45.76 <sub>38</sub>	34.671 <sub>5</sub>	49.81 <sub>4</sub>	59.07 <sub>9</sub>	65.52 <sub>224</sub>
30	56.914 <sub>19</sub>	67.89 <sub>297</sub>	30.260 <sub>53</sub>	46.14 <sub>45</sub>	34.676 <sub>50</sub>	49.77 <sub>1</sub>	58.98 <sub>3</sub>	63.28 <sub>237</sub>
Juni 9	56.895 <sub>34</sub>	64.92 <sub>312</sub>	30.313 <sub>94</sub>	46.59 <sub>52</sub>	34.726 <sub>93</sub>	49.78 <sub>5</sub>	59.01 <sub>14</sub>	60.91 <sub>242</sub>
19	56.929 <sub>85</sub>	61.80 <sub>319</sub>	30.407 <sub>134</sub>	47.11 <sub>58</sub>	34.819 <sub>135</sub>	49.83 <sub>9</sub>	59.15 <sub>24</sub>	58.49 <sub>240</sub>
29	57.014 <sub>135</sub>	58.61 <sub>318</sub>	30.541 <sub>170</sub>	47.69 <sub>62</sub>	34.954 <sub>173</sub>	49.92 <sub>14</sub>	59.39 <sub>35</sub>	56.09 <sub>232</sub>
Juli 9	57.149 <sub>180</sub>	55.43 <sub>307</sub>	30.711 <sub>203</sub>	48.31 <sub>64</sub>	35.127 <sub>207</sub>	50.06 <sub>18</sub>	59.74 <sub>44</sub>	53.77 <sub>217</sub>
19	57.329 <sub>223</sub>	52.36 <sub>288</sub>	30.914 <sub>231</sub>	48.95 <sub>64</sub>	35.334 <sub>237</sub>	50.24 <sub>21</sub>	60.18 <sub>53</sub>	51.60 <sub>198</sub>
29	57.552 <sub>261</sub>	49.48 <sub>260</sub>	31.145 <sub>254</sub>	49.59 <sub>60</sub>	35.571 <sub>262</sub>	50.45 <sub>21</sub>	60.71 <sub>60</sub>	49.62 <sub>175</sub>
Aug. 8	57.813 <sub>292</sub>	46.88 <sub>222</sub>	31.399 <sub>274</sub>	50.19 <sub>55</sub>	35.833 <sub>283</sub>	50.66 <sub>20</sub>	61.31 <sub>66</sub>	47.87 <sub>148</sub>
18	58.105 <sub>317</sub>	44.66 <sub>179</sub>	31.673 <sub>288</sub>	50.74 <sub>46</sub>	36.116 <sub>300</sub>	50.86 <sub>17</sub>	61.97 <sub>71</sub>	46.39 <sub>119</sub>
28	58.422 <sub>337</sub>	42.87 <sub>127</sub>	31.961 <sub>300</sub>	51.20 <sub>35</sub>	36.416 <sub>312</sub>	51.03 <sub>12</sub>	62.68 <sub>75</sub>	45.20 <sub>86</sub>
Sept. 7	58.759 <sub>349</sub>	41.60 <sub>70</sub>	32.261 <sub>308</sub>	51.55 <sub>20</sub>	36.728 <sub>321</sub>	51.15 <sub>6</sub>	63.43 <sub>78</sub>	44.34 <sub>52</sub>
17	59.108 <sub>355</sub>	40.90 <sub>11</sub>	32.569 <sub>312</sub>	51.75 <sub>6</sub>	37.049 <sub>327</sub>	51.21 <sub>2</sub>	64.21 <sub>80</sub>	43.82 <sub>17</sub>
27	59.463 <sub>354</sub>	40.79 <sub>50</sub>	32.881 <sub>312</sub>	51.81 <sub>10</sub>	37.376 <sub>329</sub>	51.19 <sub>8</sub>	65.01 <sub>80</sub>	43.65 <sub>20</sub>
Okt. 7	59.817 <sub>344</sub>	41.29 <sub>110</sub>	33.193 <sub>310</sub>	51.71 <sub>25</sub>	37.705 <sub>326</sub>	51.11 <sub>16</sub>	65.81 <sub>79</sub>	43.85 <sub>56</sub>
17	60.161 <sub>327</sub>	42.39 <sub>166</sub>	33.503 <sub>302</sub>	51.46 <sub>37</sub>	38.031 <sub>320</sub>	50.95 <sub>21</sub>	66.60 <sub>77</sub>	44.41 <sub>93</sub>
27	60.488 <sub>303</sub>	44.05 <sub>217</sub>	33.805 <sub>290</sub>	51.09 <sub>49</sub>	38.351 <sub>309</sub>	50.74 <sub>24</sub>	67.37 <sub>73</sub>	45.34 <sub>129</sub>
Nov. 6	60.791 <sub>270</sub>	46.22 <sub>260</sub>	34.095 <sub>273</sub>	50.60 <sub>56</sub>	38.660 <sub>292</sub>	50.50 <sub>26</sub>	68.10 <sub>67</sub>	46.63 <sub>164</sub>
16	61.061 <sub>231</sub>	48.82 <sub>293</sub>	34.368 <sub>249</sub>	50.04 <sub>60</sub>	38.952 <sub>269</sub>	50.24 <sub>23</sub>	68.77 <sub>61</sub>	48.27 <sub>196</sub>
26	61.292 <sub>184</sub>	51.75 <sub>315</sub>	34.617 <sub>221</sub>	49.44 <sub>60</sub>	39.221 <sub>238</sub>	50.01 <sub>20</sub>	69.38 <sub>52</sub>	50.23 <sub>222</sub>
Dez. 6	61.476 <sub>132</sub>	54.90 <sub>327</sub>	34.838 <sub>185</sub>	48.84 <sub>58</sub>	39.459 <sub>202</sub>	49.81 <sub>13</sub>	69.90 <sub>42</sub>	52.45 <sub>245</sub>
16	61.608 <sub>21</sub>	58.17 <sub>326</sub>	35.023 <sub>143</sub>	48.26 <sub>51</sub>	39.661 <sub>160</sub>	49.68 <sub>5</sub>	70.32 <sub>31</sub>	54.90 <sub>260</sub>
25	61.684 <sub>17</sub>	61.43 <sub>316</sub>	35.166 <sub>98</sub>	47.75 <sub>44</sub>	39.821 <sub>111</sub>	49.63 <sub>2</sub>	70.63 <sub>17</sub>	57.50 <sub>266</sub>
35	61.701	64.59	35.264	47.31	39.932	49.65	70.80	60.16
Mittl. Ort	58.404	66.75	31.105	41.74	35.535	44.20	61.58	51.75
sec $\delta$ , tg $\delta$	1.363	-0.927	1.034	+0.264	1.083	+0.415	2.835	+2.653

Tag	240) $\zeta$ Canis maj.		241) $\mu$ Geminorum		242) $\psi$ Aurigae		243) $\beta$ Canis maj.	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	6 <sup>h</sup> 17 <sup>m</sup>	-30° 1'	6 <sup>h</sup> 18 <sup>m</sup>	+22° 33'	6 <sup>h</sup> 19 <sup>m</sup>	+49° 19'	6 <sup>h</sup> 19 <sup>m</sup>	-17° 54'
Jan. 0	36.119	48.22	40.423	9.88	26.754	39.10	35.037	67.29
10	36.151	50.95	40.509	9.96	26.858	40.78	35.088	69.52
20	36.130	53.47	40.544	10.11	26.890	42.47	35.090	71.56
30	36.059	55.71	40.527	10.33	26.851	44.08	35.045	73.35
Febr. 9	35.941	57.61	40.462	10.58	26.746	45.55	34.956	74.87
19	35.784	59.14	40.355	10.84	26.582	46.83	34.828	76.08
März 1	35.595	60.27	40.214	11.09	26.371	47.85	34.670	76.96
11	35.384	60.98	40.049	11.31	26.127	48.57	34.491	77.51
21	35.161	61.26	39.871	11.47	25.865	48.97	34.300	77.72
31	34.938	61.12	39.693	11.58	25.602	49.04	34.109	77.59
Apr. 10	34.724	60.57	39.524	11.63	25.350	48.79	33.925	77.13
20	34.529	59.61	39.375	11.63	25.127	48.23	33.760	76.35
30	34.361	58.28	39.255	11.60	24.942	47.40	33.621	75.27
Mai 10	34.227	56.59	39.171	11.55	24.806	46.34	33.513	73.90
20	34.131	54.59	39.127	11.50	24.726	45.10	33.442	72.28
30	34.078	52.32	39.126	11.46	24.705	43.73	33.410	70.43
Juni 9	34.068	49.82	39.168	11.45	24.746	42.28	33.419	68.40
19	34.103	47.17	39.254	11.48	24.847	40.80	33.469	66.23
29	34.181	44.42	39.381	11.55	25.007	39.33	33.559	63.97
Juli 9	34.301	41.66	39.547	11.65	25.222	37.92	33.686	61.69
19	34.459	38.95	39.747	11.79	25.487	36.59	33.848	59.45
29	34.653	36.37	39.977	11.94	25.796	35.38	34.041	57.32
Aug. 8	34.878	34.02	40.233	12.10	26.143	34.30	34.261	55.38
18	35.131	31.97	40.511	12.24	26.523	33.37	34.505	53.67
28	35.406	30.29	40.807	12.35	26.929	32.60	34.768	52.28
Sept. 7	35.700	29.04	41.116	12.41	27.355	32.01	35.047	51.25
17	36.007	28.29	41.436	12.41	27.797	31.59	35.337	50.64
27	36.322	28.06	41.762	12.33	28.248	31.37	35.635	50.46
Okt. 7	36.640	28.38	42.092	12.18	28.704	31.34	35.936	50.75
17	36.955	29.23	42.421	11.96	29.158	31.51	36.236	51.49
27	37.261	30.60	42.744	11.68	29.604	31.89	36.529	52.65
Nov. 6	37.552	32.44	43.058	11.38	30.034	32.49	36.810	54.21
16	37.821	34.68	43.356	11.07	30.441	33.30	37.073	56.11
26	38.061	37.23	43.632	10.78	30.814	34.33	37.311	58.25
Dec. 6	38.266	40.00	43.878	10.54	31.145	35.56	37.519	60.58
16	38.429	42.91	44.088	10.37	31.424	36.97	37.690	62.99
26	38.545	45.83	44.256	10.28	31.643	38.51	37.820	65.40
35	38.611	48.67	44.376	10.28	31.794	40.14	37.902	67.73
Mittl. Ort	35.208	50.88	39.955	5.78	25.930	34.02	34.356	70.26
sec $\delta$ , tg $\delta$	1.155	-0.578	1.083	+0.415	1.534	+1.164	1.051	-0.323

# Obere Kulmination Greenwich

Tag	244) 8 Monocerotis		245) $\alpha$ Argus		246) $\iota$ Monocerotis		247) 8 Lyncis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	6 <sup>h</sup> 19 <sup>m</sup>	+4° 37'	6 <sup>h</sup> 22 <sup>m</sup>	-52° 38'	6 <sup>h</sup> 24 <sup>m</sup>	-4° 42'	6 <sup>h</sup> 31 <sup>m</sup>	+61° 32'
Jan. 0	60.847 <sup>74</sup>	52.25 <sup>102</sup>	24.301 <sup>21</sup>	79.92 <sup>336</sup>	27.751 <sup>70</sup>	57.77 <sup>157</sup>	13.76 <sup>14</sup>	49.96 <sup>230</sup>
10	60.921 <sup>27</sup>	51.23 <sup>89</sup>	24.280 <sup>93</sup>	83.28 <sup>313</sup>	27.821 <sup>22</sup>	59.34 <sup>141</sup>	13.90 <sup>4</sup>	52.26 <sup>230</sup>
20	60.948 <sup>22</sup>	50.34 <sup>74</sup>	24.187 <sup>159</sup>	86.41 <sup>282</sup>	27.843 <sup>24</sup>	60.75 <sup>122</sup>	13.94 <sup>6</sup>	54.56 <sup>221</sup>
30	60.926 <sup>65</sup>	49.60 <sup>58</sup>	24.028 <sup>221</sup>	89.23 <sup>244</sup>	27.819 <sup>68</sup>	61.97 <sup>101</sup>	13.88 <sup>14</sup>	56.77 <sup>202</sup>
Febr. 9	60.861 <sup>103</sup>	49.02 <sup>43</sup>	23.807 <sup>272</sup>	91.67 <sup>198</sup>	27.751 <sup>107</sup>	62.98 <sup>79</sup>	13.74 <sup>23</sup>	58.79 <sup>176</sup>
19	60.758 <sup>135</sup>	48.59 <sup>28</sup>	23.535 <sup>313</sup>	93.65 <sup>151</sup>	27.644 <sup>138</sup>	63.77 <sup>55</sup>	13.51 <sup>30</sup>	60.55 <sup>142</sup>
März 1	60.623 <sup>156</sup>	48.31 <sup>13</sup>	23.222 <sup>341</sup>	95.16 <sup>100</sup>	27.506 <sup>160</sup>	64.32 <sup>33</sup>	13.21 <sup>34</sup>	61.97 <sup>104</sup>
11	60.467 <sup>168</sup>	48.18 <sup>0</sup>	22.881 <sup>357</sup>	96.16 <sup>47</sup>	27.346 <sup>172</sup>	64.65 <sup>11</sup>	12.87 <sup>37</sup>	63.01 <sup>61</sup>
21	60.299 <sup>170</sup>	48.18 <sup>13</sup>	22.524 <sup>360</sup>	96.63 <sup>5</sup>	27.174 <sup>174</sup>	64.76 <sup>12</sup>	12.50 <sup>38</sup>	63.62 <sup>18</sup>
31	60.129 <sup>161</sup>	48.31 <sup>25</sup>	22.164 <sup>349</sup>	96.58 <sup>56</sup>	27.000 <sup>166</sup>	64.64 <sup>33</sup>	12.12 <sup>36</sup>	63.80 <sup>26</sup>
Apr. 10	59.968 <sup>142</sup>	48.56 <sup>38</sup>	21.815 <sup>326</sup>	96.02 <sup>107</sup>	26.834 <sup>149</sup>	64.31 <sup>54</sup>	11.76 <sup>34</sup>	63.54 <sup>68</sup>
20	59.826 <sup>117</sup>	48.94 <sup>51</sup>	21.489 <sup>295</sup>	94.95 <sup>155</sup>	26.685 <sup>124</sup>	63.77 <sup>75</sup>	11.42 <sup>28</sup>	62.86 <sup>106</sup>
30	59.709 <sup>84</sup>	49.45 <sup>63</sup>	21.194 <sup>252</sup>	93.40 <sup>197</sup>	26.561 <sup>93</sup>	63.02 <sup>94</sup>	11.14 <sup>23</sup>	61.80 <sup>139</sup>
Mai 10	59.625 <sup>47</sup>	50.08 <sup>75</sup>	20.942 <sup>203</sup>	91.43 <sup>237</sup>	26.468 <sup>57</sup>	62.08 <sup>113</sup>	10.91 <sup>15</sup>	60.41 <sup>166</sup>
20	59.578 <sup>9</sup>	50.83 <sup>86</sup>	20.739 <sup>149</sup>	89.06 <sup>271</sup>	26.411 <sup>19</sup>	60.95 <sup>128</sup>	10.76 <sup>8</sup>	58.75 <sup>186</sup>
30	59.569 <sup>32</sup>	51.69 <sup>97</sup>	20.590 <sup>90</sup>	86.35 <sup>297</sup>	26.392 <sup>20</sup>	59.67 <sup>142</sup>	10.68 <sup>1</sup>	56.89 <sup>202</sup>
Juni 9	59.601 <sup>72</sup>	52.66 <sup>104</sup>	20.500 <sup>30</sup>	83.38 <sup>318</sup>	26.412 <sup>60</sup>	58.25 <sup>153</sup>	10.69 <sup>8</sup>	54.87 <sup>209</sup>
19	59.673 <sup>110</sup>	53.70 <sup>111</sup>	20.470 <sup>31</sup>	80.20 <sup>330</sup>	26.472 <sup>97</sup>	56.72 <sup>160</sup>	10.77 <sup>17</sup>	52.78 <sup>212</sup>
29	59.783 <sup>145</sup>	54.81 <sup>114</sup>	20.501 <sup>92</sup>	76.90 <sup>333</sup>	26.569 <sup>133</sup>	55.12 <sup>163</sup>	10.94 <sup>24</sup>	50.66 <sup>208</sup>
Juli 9	59.928 <sup>177</sup>	55.95 <sup>113</sup>	20.593 <sup>150</sup>	73.57 <sup>326</sup>	26.702 <sup>166</sup>	53.49 <sup>160</sup>	11.18 <sup>32</sup>	48.58 <sup>199</sup>
19	60.105 <sup>206</sup>	57.08 <sup>109</sup>	20.743 <sup>205</sup>	70.31 <sup>311</sup>	26.868 <sup>195</sup>	51.89 <sup>154</sup>	11.50 <sup>37</sup>	46.59 <sup>187</sup>
29	60.311 <sup>231</sup>	58.17 <sup>100</sup>	20.948 <sup>256</sup>	67.20 <sup>285</sup>	27.063 <sup>220</sup>	50.35 <sup>141</sup>	11.87 <sup>44</sup>	44.72 <sup>170</sup>
Aug. 8	60.542 <sup>251</sup>	59.17 <sup>88</sup>	21.204 <sup>300</sup>	64.35 <sup>251</sup>	27.283 <sup>242</sup>	48.94 <sup>123</sup>	12.31 <sup>48</sup>	43.02 <sup>149</sup>
18	60.793 <sup>268</sup>	60.05 <sup>71</sup>	21.504 <sup>339</sup>	61.84 <sup>207</sup>	27.525 <sup>260</sup>	47.71 <sup>101</sup>	12.79 <sup>52</sup>	41.53 <sup>127</sup>
28	61.061 <sup>282</sup>	60.76 <sup>51</sup>	21.843 <sup>370</sup>	59.77 <sup>156</sup>	27.785 <sup>275</sup>	46.70 <sup>73</sup>	13.31 <sup>55</sup>	40.26 <sup>102</sup>
Sept. 7	61.343 <sup>292</sup>	61.27 <sup>28</sup>	22.213 <sup>393</sup>	58.21 <sup>99</sup>	28.060 <sup>286</sup>	45.97 <sup>43</sup>	13.86 <sup>58</sup>	39.24 <sup>74</sup>
17	61.635 <sup>298</sup>	61.55 <sup>3</sup>	22.606 <sup>407</sup>	57.22 <sup>36</sup>	28.346 <sup>293</sup>	45.54 <sup>8</sup>	14.44 <sup>60</sup>	38.50 <sup>46</sup>
27	61.933 <sup>301</sup>	61.58 <sup>23</sup>	23.013 <sup>412</sup>	56.86 <sup>27</sup>	28.639 <sup>297</sup>	45.46 <sup>26</sup>	15.04 <sup>61</sup>	38.04 <sup>16</sup>
Oktober 7	62.234 <sup>301</sup>	61.35 <sup>48</sup>	23.425 <sup>408</sup>	57.13 <sup>92</sup>	28.936 <sup>297</sup>	45.72 <sup>60</sup>	15.65 <sup>60</sup>	37.88 <sup>15</sup>
17	62.535 <sup>296</sup>	60.87 <sup>71</sup>	23.833 <sup>391</sup>	58.05 <sup>153</sup>	29.233 <sup>292</sup>	46.32 <sup>92</sup>	16.25 <sup>60</sup>	38.03 <sup>47</sup>
27	62.831 <sup>286</sup>	60.16 <sup>91</sup>	24.224 <sup>366</sup>	59.58 <sup>211</sup>	29.525 <sup>283</sup>	47.24 <sup>121</sup>	16.85 <sup>58</sup>	38.50 <sup>80</sup>
Nov. 6	63.117 <sup>272</sup>	59.25 <sup>107</sup>	24.590 <sup>329</sup>	61.69 <sup>259</sup>	29.808 <sup>267</sup>	48.45 <sup>144</sup>	17.43 <sup>54</sup>	39.30 <sup>111</sup>
16	63.389 <sup>250</sup>	58.18 <sup>118</sup>	24.919 <sup>283</sup>	64.28 <sup>300</sup>	30.075 <sup>247</sup>	49.89 <sup>162</sup>	17.97 <sup>50</sup>	40.41 <sup>142</sup>
26	63.639 <sup>223</sup>	57.00 <sup>124</sup>	25.202 <sup>228</sup>	67.28 <sup>329</sup>	30.322 <sup>219</sup>	51.51 <sup>173</sup>	18.47 <sup>44</sup>	41.83 <sup>170</sup>
Dez. 6	63.862 <sup>189</sup>	55.76 <sup>124</sup>	25.430 <sup>165</sup>	70.57 <sup>347</sup>	30.541 <sup>185</sup>	53.24 <sup>177</sup>	18.91 <sup>37</sup>	43.53 <sup>194</sup>
16	64.051 <sup>150</sup>	54.52 <sup>119</sup>	25.595 <sup>96</sup>	74.04 <sup>354</sup>	30.726 <sup>145</sup>	55.01 <sup>175</sup>	19.28 <sup>30</sup>	45.47 <sup>213</sup>
26	64.201 <sup>105</sup>	53.33 <sup>111</sup>	25.691 <sup>25</sup>	77.58 <sup>347</sup>	30.871 <sup>101</sup>	56.76 <sup>166</sup>	19.58 <sup>20</sup>	47.60 <sup>225</sup>
35	64.306 <sup>27</sup>	52.22 <sup>27</sup>	25.716 <sup>27</sup>	81.05 <sup>28</sup>	30.972 <sup>101</sup>	58.42 <sup>29</sup>	19.78 <sup>29</sup>	49.85 <sup>29</sup>
Mittl. Ort sec $\delta$ , tg $\delta$	60.370 1.003	48.72 +0.081	22.471 1.649	82.88 -1.311	27.216 1.003	61.17 -0.083	12.37 2.099	45.10 +1.845

Tag	249) $\xi^2$ Canis maj.		251) $\gamma$ Geminorum		250) $\zeta$ Aurigae		248) $\alpha$ H. Camelop.	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	6 <sup>h</sup> 32 <sup>m</sup>	-22° 54'	6 <sup>h</sup> 33 <sup>m</sup>	+16° 27'	6 <sup>h</sup> 33 <sup>m</sup>	+39° 27'	6 <sup>h</sup> 34 <sup>m</sup>	+79° 38'
Jan. 0	5.572	23.42	37.131	44.58	45.085	22.67	13.89	49.04
10	5.629	25.92	37.228	44.25	45.201	23.76	14.11	52.09
20	5.636	28.24	37.275	44.02	45.255	24.90	14.08	55.10
30	5.593	30.31	37.271	43.89	45.246	26.05	13.80	57.97
Febr. 9	5.505	32.09	37.219	43.86	45.179	27.14	13.30	60.57
19	5.375	33.53	37.126	43.90	45.060	28.13	12.60	62.82
März 1	5.213	34.62	36.997	44.00	44.898	28.97	11.73	64.63
11	5.028	35.34	36.843	44.13	44.705	29.62	10.74	65.93
21	4.829	35.69	36.674	44.27	44.493	30.05	9.67	66.68
31	4.626	35.66	36.502	44.43	44.276	30.25	8.58	66.86
Apr. 10	4.431	35.26	36.337	44.59	44.066	30.22	7.52	66.48
20	4.251	34.50	36.189	44.76	43.879	29.96	6.53	65.55
30	4.096	33.41	36.065	44.94	43.722	29.50	5.65	64.13
Mai 10	3.971	32.00	35.974	45.14	43.604	28.87	4.92	62.28
20	3.882	30.30	35.920	45.36	43.531	28.10	4.36	60.07
30	3.831	28.34	35.906	45.63	43.508	27.24	4.00	57.58
Juni 9	3.822	26.17	35.933	45.94	43.536	26.31	3.85	54.88
19	3.854	23.85	36.001	46.28	43.615	25.34	3.91	52.07
29	3.926	21.43	36.109	46.66	43.743	24.38	4.18	49.21
Juli 9	4.037	18.97	36.253	47.07	43.918	23.45	4.65	46.39
19	4.184	16.54	36.431	47.49	44.135	22.56	5.32	43.68
29	4.365	14.22	36.639	47.90	44.389	21.72	6.16	41.13
Aug. 8	4.575	12.09	36.873	48.28	44.676	20.96	7.17	38.81
18	4.811	10.21	37.130	48.60	44.992	20.28	8.32	36.76
28	5.070	8.66	37.405	48.83	45.331	19.67	9.59	35.03
Sept. 7	5.347	7.49	37.696	48.95	45.690	19.15	10.96	33.66
17	5.638	6.77	37.999	48.96	46.063	18.71	12.40	32.66
27	5.939	6.52	38.310	48.83	46.447	18.37	13.89	32.08
Okt. 7	6.246	6.76	38.627	48.55	46.838	18.12	15.41	31.93
17	6.553	7.50	38.946	48.15	47.230	17.98	16.92	32.21
27	6.855	8.71	39.262	47.64	47.619	17.97	18.40	32.94
Nov. 6	7.147	10.36	39.571	47.03	47.998	18.09	19.81	34.11
16	7.420	12.38	39.867	46.37	48.360	18.35	21.13	35.71
26	7.670	14.69	40.143	45.70	48.697	18.78	22.32	37.71
Dez. 6	7.889	17.22	40.392	45.04	49.001	19.37	23.35	40.06
16	8.070	19.86	40.608	44.43	49.264	20.12	24.19	42.71
26	8.208	22.53	40.783	43.90	49.476	21.01	24.81	45.59
35	8.298	25.14	40.913	43.47	49.632	22.02	25.19	48.59
Mittl. Ort	4.813	27.01	36.665	40.74	44.446	18.46	8.95	43.90
sec $\delta$ , tg $\delta$	1.086	-0.423	1.043	+0.295	1.295	+0.823	5.564	+5.473



# Obere Kulmination Greenwich

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Tag	252) $\nu$ Argus		253) $S$ Monocerotis		254) $\epsilon$ Geminorum		256) $\epsilon$ Geminorum	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$6^{\text{h}} 35^{\text{m}}$	$-43^{\circ} 7'$	$6^{\text{h}} 37^{\text{m}}$	$+9^{\circ} 57'$	$6^{\text{h}} 39^{\text{m}}$	$+25^{\circ} 12'$	$6^{\text{h}} 41^{\text{m}}$	$+12^{\circ} 58'$
Jan. 0*)	36.610 <sup>26</sup>	55.03 <sup>323</sup>	4.595 <sup>95</sup>	49.85 <sup>75</sup>	34.425 <sup>110</sup>	14.58 <sup>20</sup>	18.788 <sup>101</sup>	28.38 <sup>58</sup>
10	36.636 <sup>35</sup>	58.26 <sup>303</sup>	4.690 <sup>46</sup>	49.10 <sup>62</sup>	34.535 <sup>57</sup>	14.78 <sup>29</sup>	18.889 <sup>52</sup>	27.80 <sup>46</sup>
20	36.601 <sup>94</sup>	61.29 <sup>275</sup>	4.736 <sup>4</sup>	48.48 <sup>48</sup>	34.592 <sup>3</sup>	15.07 <sup>37</sup>	18.941 <sup>2</sup>	27.34 <sup>33</sup>
30	36.507 <sup>149</sup>	64.04 <sup>240</sup>	4.732 <sup>49</sup>	48.00 <sup>36</sup>	34.595 <sup>49</sup>	15.44 <sup>41</sup>	18.943 <sup>46</sup>	27.01 <sup>21</sup>
Feb. 9	36.358 <sup>196</sup>	66.44 <sup>199</sup>	4.683 <sup>91</sup>	47.64 <sup>23</sup>	34.546 <sup>94</sup>	15.85 <sup>43</sup>	18.897 <sup>88</sup>	26.80 <sup>11</sup>
19	36.162 <sup>235</sup>	68.43 <sup>154</sup>	4.592 <sup>126</sup>	47.41 <sup>12</sup>	34.452 <sup>131</sup>	16.28 <sup>40</sup>	18.809 <sup>124</sup>	26.69 <sup>2</sup>
März 1	35.927 <sup>262</sup>	69.97 <sup>108</sup>	4.466 <sup>150</sup>	47.29 <sup>2</sup>	34.321 <sup>160</sup>	16.68 <sup>35</sup>	18.685 <sup>149</sup>	26.67 <sup>5</sup>
11	35.665 <sup>278</sup>	71.05 <sup>58</sup>	4.316 <sup>165</sup>	47.27 <sup>7</sup>	34.161 <sup>177</sup>	17.03 <sup>29</sup>	18.536 <sup>165</sup>	26.72 <sup>11</sup>
21	35.387 <sup>283</sup>	71.63 <sup>9</sup>	4.151 <sup>169</sup>	47.34 <sup>14</sup>	33.984 <sup>181</sup>	17.32 <sup>21</sup>	18.371 <sup>170</sup>	26.83 <sup>15</sup>
31	35.104 <sup>276</sup>	71.72 <sup>39</sup>	3.982 <sup>162</sup>	47.48 <sup>21</sup>	33.803 <sup>176</sup>	17.53 <sup>12</sup>	18.201 <sup>164</sup>	26.98 <sup>20</sup>
Apr. 10	34.828 <sup>259</sup>	71.33 <sup>87</sup>	3.820 <sup>148</sup>	47.69 <sup>28</sup>	33.627 <sup>158</sup>	17.65 <sup>3</sup>	18.037 <sup>149</sup>	27.18 <sup>23</sup>
20	34.569 <sup>233</sup>	70.46 <sup>132</sup>	3.672 <sup>123</sup>	47.97 <sup>36</sup>	33.469 <sup>133</sup>	17.68 <sup>4</sup>	17.888 <sup>126</sup>	27.41 <sup>28</sup>
30	34.336 <sup>198</sup>	69.14 <sup>174</sup>	3.549 <sup>92</sup>	48.33 <sup>43</sup>	33.336 <sup>100</sup>	17.64 <sup>9</sup>	17.762 <sup>94</sup>	27.69 <sup>32</sup>
Mai 10	34.138 <sup>158</sup>	67.40 <sup>211</sup>	3.457 <sup>57</sup>	48.76 <sup>50</sup>	33.236 <sup>61</sup>	17.55 <sup>14</sup>	17.668 <sup>60</sup>	28.01 <sup>37</sup>
20	33.980 <sup>112</sup>	65.29 <sup>245</sup>	3.400 <sup>19</sup>	49.26 <sup>58</sup>	33.175 <sup>20</sup>	17.41 <sup>16</sup>	17.608 <sup>21</sup>	28.38 <sup>42</sup>
30	33.868 <sup>64</sup>	62.84 <sup>272</sup>	3.381 <sup>21</sup>	49.84 <sup>64</sup>	33.155 <sup>24</sup>	17.25 <sup>17</sup>	17.587 <sup>19</sup>	28.80 <sup>47</sup>
Juni 9	33.804 <sup>14</sup>	60.12 <sup>293</sup>	3.402 <sup>61</sup>	50.48 <sup>71</sup>	33.179 <sup>67</sup>	17.08 <sup>16</sup>	17.606 <sup>58</sup>	29.27 <sup>53</sup>
19	33.790 <sup>37</sup>	57.19 <sup>307</sup>	3.463 <sup>99</sup>	51.19 <sup>75</sup>	33.246 <sup>109</sup>	16.92 <sup>15</sup>	17.664 <sup>97</sup>	29.80 <sup>56</sup>
29	33.827 <sup>86</sup>	54.12 <sup>311</sup>	3.562 <sup>134</sup>	51.94 <sup>77</sup>	33.355 <sup>148</sup>	16.77 <sup>13</sup>	17.761 <sup>134</sup>	30.36 <sup>58</sup>
Juli 9	33.913 <sup>134</sup>	51.01 <sup>308</sup>	3.696 <sup>168</sup>	52.71 <sup>78</sup>	33.503 <sup>184</sup>	16.64 <sup>11</sup>	17.895 <sup>166</sup>	30.94 <sup>58</sup>
19	34.047 <sup>179</sup>	47.93 <sup>295</sup>	3.864 <sup>197</sup>	53.49 <sup>75</sup>	33.687 <sup>216</sup>	16.53 <sup>9</sup>	18.061 <sup>197</sup>	31.52 <sup>56</sup>
29	34.226 <sup>221</sup>	44.98 <sup>273</sup>	4.061 <sup>223</sup>	54.24 <sup>68</sup>	33.903 <sup>244</sup>	16.44 <sup>10</sup>	18.258 <sup>223</sup>	32.08 <sup>52</sup>
Aug. 8	34.447 <sup>257</sup>	42.25 <sup>242</sup>	4.284 <sup>246</sup>	54.92 <sup>59</sup>	34.147 <sup>269</sup>	16.34 <sup>11</sup>	18.481 <sup>246</sup>	32.60 <sup>42</sup>
18	34.704 <sup>289</sup>	39.83 <sup>203</sup>	4.530 <sup>264</sup>	55.51 <sup>45</sup>	34.416 <sup>289</sup>	16.23 <sup>13</sup>	18.727 <sup>265</sup>	33.02 <sup>32</sup>
28	34.993 <sup>315</sup>	37.80 <sup>155</sup>	4.794 <sup>279</sup>	55.96 <sup>30</sup>	34.705 <sup>306</sup>	16.10 <sup>17</sup>	18.992 <sup>282</sup>	33.34 <sup>19</sup>
Sept. 7	35.308 <sup>337</sup>	36.25 <sup>102</sup>	5.073 <sup>292</sup>	56.26 <sup>12</sup>	35.011 <sup>319</sup>	15.93 <sup>21</sup>	19.274 <sup>294</sup>	33.53 <sup>2</sup>
17	35.645 <sup>351</sup>	35.23 <sup>43</sup>	5.365 <sup>301</sup>	56.38 <sup>8</sup>	35.330 <sup>330</sup>	15.72 <sup>27</sup>	19.568 <sup>304</sup>	33.55 <sup>14</sup>
27	35.996 <sup>359</sup>	34.80 <sup>17</sup>	5.666 <sup>308</sup>	56.30 <sup>29</sup>	35.660 <sup>336</sup>	15.45 <sup>31</sup>	19.872 <sup>311</sup>	33.41 <sup>32</sup>
Okt. 7	36.355 <sup>358</sup>	34.97 <sup>79</sup>	5.974 <sup>309</sup>	56.01 <sup>48</sup>	35.996 <sup>339</sup>	15.14 <sup>35</sup>	20.183 <sup>313</sup>	33.09 <sup>48</sup>
17	36.713 <sup>349</sup>	35.76 <sup>138</sup>	6.283 <sup>307</sup>	55.53 <sup>67</sup>	36.335 <sup>338</sup>	14.79 <sup>38</sup>	20.496 <sup>313</sup>	32.61 <sup>63</sup>
27	37.062 <sup>334</sup>	37.14 <sup>193</sup>	6.590 <sup>301</sup>	54.86 <sup>82</sup>	36.673 <sup>330</sup>	14.41 <sup>38</sup>	20.809 <sup>306</sup>	31.98 <sup>76</sup>
Nov. 6	37.396 <sup>308</sup>	39.07 <sup>241</sup>	6.891 <sup>288</sup>	54.04 <sup>93</sup>	37.003 <sup>318</sup>	14.03 <sup>35</sup>	21.115 <sup>295</sup>	31.22 <sup>84</sup>
16	37.704 <sup>273</sup>	41.48 <sup>281</sup>	7.179 <sup>269</sup>	53.11 <sup>100</sup>	37.321 <sup>297</sup>	13.68 <sup>29</sup>	21.410 <sup>276</sup>	30.38 <sup>89</sup>
26	37.977 <sup>231</sup>	44.29 <sup>310</sup>	7.448 <sup>243</sup>	52.11 <sup>102</sup>	37.618 <sup>270</sup>	13.39 <sup>22</sup>	21.686 <sup>250</sup>	29.49 <sup>89</sup>
Dez. 6	38.208 <sup>182</sup>	47.39 <sup>330</sup>	7.691 <sup>210</sup>	51.09 <sup>100</sup>	37.888 <sup>235</sup>	13.17 <sup>12</sup>	21.936 <sup>217</sup>	28.60 <sup>85</sup>
16	38.390 <sup>126</sup>	50.69 <sup>337</sup>	7.901 <sup>172</sup>	50.09 <sup>94</sup>	38.123 <sup>193</sup>	13.05 <sup>1</sup>	22.153 <sup>179</sup>	27.75 <sup>78</sup>
26	38.516 <sup>66</sup>	54.06 <sup>332</sup>	8.073 <sup>126</sup>	49.15 <sup>85</sup>	38.316 <sup>145</sup>	13.04 <sup>10</sup>	22.332 <sup>134</sup>	26.97 <sup>67</sup>
35	38.582	57.38	8.199	48.30	38.461	13.14	22.466	26.30
Mittl. Ort	35.299	59.05	4.126	46.06	33.926	10.72	18.320	24.57
sec $\delta$ , tg $\delta$	1.370	-0.937	1.015	+0.176	1.105	+0.471	1.026	+0.230

\* Bel Stern 256) Hes Jan. 1

Tag	257) $\alpha$ Canis maj. 1)		258) 18 Monocerotis		262) $\alpha$ Pictoris		261) $\theta$ Geminorum	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	6 <sup>h</sup> 42 <sup>m</sup>	-16° 36'	6 <sup>h</sup> 44 <sup>m</sup>	+2° 29'	6 <sup>h</sup> 47 <sup>m</sup>	-61° 51'	6 <sup>h</sup> 48 <sup>m</sup>	+34° 2'
Jan. 1	1.741 <sup>70</sup>	61.89 <sup>228</sup>	10.078 <sup>95</sup>	31.73 <sup>122</sup>	30.44 <sup>1</sup>	48.00 <sup>357</sup>	7.288 <sup>128</sup>	58.06 <sup>73</sup>
10	1.811 <sup>20</sup>	64.17 <sup>210</sup>	10.173 <sup>47</sup>	30.51 <sup>108</sup>	30.43 <sup>11</sup>	51.57 <sup>341</sup>	7.416 <sup>69</sup>	58.79 <sup>81</sup>
20	1.831 <sup>28</sup>	66.27 <sup>187</sup>	10.220 <sup>1</sup>	29.43 <sup>91</sup>	30.32 <sup>20</sup>	54.98 <sup>314</sup>	7.485 <sup>11</sup>	59.60 <sup>87</sup>
30	1.803 <sup>74</sup>	68.14 <sup>160</sup>	10.219 <sup>47</sup>	28.52 <sup>74</sup>	30.12 <sup>28</sup>	58.12 <sup>279</sup>	7.496 <sup>46</sup>	60.47 <sup>87</sup>
Feb. 9	1.729 <sup>114</sup>	69.74 <sup>130</sup>	10.172 <sup>89</sup>	27.78 <sup>55</sup>	29.84 <sup>35</sup>	60.91 <sup>238</sup>	7.450 <sup>97</sup>	61.34 <sup>83</sup>
19	1.615 <sup>147</sup>	71.04 <sup>98</sup>	10.083 <sup>123</sup>	27.23 <sup>38</sup>	29.49 <sup>40</sup>	63.29 <sup>191</sup>	7.353 <sup>139</sup>	62.17 <sup>74</sup>
März 1	1.468 <sup>172</sup>	72.02 <sup>66</sup>	9.960 <sup>148</sup>	26.85 <sup>21</sup>	29.09 <sup>45</sup>	65.20 <sup>141</sup>	7.214 <sup>171</sup>	62.91 <sup>62</sup>
11	1.296 <sup>185</sup>	72.68 <sup>33</sup>	9.812 <sup>164</sup>	26.64 <sup>5</sup>	28.64 <sup>47</sup>	66.61 <sup>88</sup>	7.043 <sup>191</sup>	63.53 <sup>47</sup>
21	1.111 <sup>189</sup>	73.01 <sup>0</sup>	9.648 <sup>169</sup>	26.59 <sup>10</sup>	28.17 <sup>48</sup>	67.49 <sup>35</sup>	6.852 <sup>199</sup>	64.00 <sup>29</sup>
31	0.922 <sup>184</sup>	73.01 <sup>32</sup>	9.479 <sup>163</sup>	26.69 <sup>25</sup>	27.69 <sup>48</sup>	67.84 <sup>19</sup>	6.653 <sup>194</sup>	64.29 <sup>10</sup>
Apr. 10	0.738 <sup>169</sup>	72.69 <sup>63</sup>	9.316 <sup>150</sup>	26.94 <sup>39</sup>	27.21 <sup>46</sup>	67.65 <sup>72</sup>	6.459 <sup>178</sup>	64.39 <sup>6</sup>
20	0.569 <sup>145</sup>	72.06 <sup>92</sup>	9.166 <sup>127</sup>	27.33 <sup>52</sup>	26.75 <sup>42</sup>	66.93 <sup>122</sup>	6.281 <sup>151</sup>	64.33 <sup>23</sup>
30	0.424 <sup>116</sup>	71.14 <sup>119</sup>	9.039 <sup>98</sup>	27.85 <sup>66</sup>	26.33 <sup>39</sup>	65.71 <sup>170</sup>	6.130 <sup>117</sup>	64.10 <sup>37</sup>
Mai 10	0.308 <sup>82</sup>	69.95 <sup>145</sup>	8.941 <sup>65</sup>	28.51 <sup>79</sup>	25.94 <sup>33</sup>	64.01 <sup>213</sup>	6.013 <sup>76</sup>	63.73 <sup>48</sup>
20	0.226 <sup>44</sup>	68.50 <sup>167</sup>	8.876 <sup>28</sup>	29.30 <sup>90</sup>	25.61 <sup>26</sup>	61.88 <sup>252</sup>	5.937 <sup>31</sup>	63.25 <sup>58</sup>
30	0.182 <sup>5</sup>	66.83 <sup>185</sup>	8.848 <sup>11</sup>	30.20 <sup>101</sup>	25.35 <sup>20</sup>	59.36 <sup>285</sup>	5.906 <sup>15</sup>	62.67 <sup>64</sup>
Juni 9	0.177 <sup>35</sup>	64.98 <sup>199</sup>	8.859 <sup>49</sup>	31.21 <sup>109</sup>	25.15 <sup>12</sup>	56.51 <sup>310</sup>	5.921 <sup>62</sup>	62.03 <sup>67</sup>
19	0.212 <sup>74</sup>	62.99 <sup>209</sup>	8.908 <sup>86</sup>	32.30 <sup>115</sup>	25.03 <sup>5</sup>	53.41 <sup>328</sup>	5.983 <sup>107</sup>	61.36 <sup>68</sup>
29	0.286 <sup>110</sup>	60.90 <sup>212</sup>	8.994 <sup>121</sup>	33.45 <sup>117</sup>	24.98 <sup>3</sup>	50.13 <sup>337</sup>	6.090 <sup>150</sup>	60.68 <sup>67</sup>
Juli 9	0.396 <sup>146</sup>	58.78 <sup>209</sup>	9.115 <sup>154</sup>	34.62 <sup>117</sup>	25.01 <sup>11</sup>	46.76 <sup>336</sup>	6.240 <sup>189</sup>	60.01 <sup>66</sup>
19	0.542 <sup>177</sup>	56.69 <sup>199</sup>	9.269 <sup>184</sup>	35.79 <sup>112</sup>	25.12 <sup>17</sup>	43.40 <sup>326</sup>	6.429 <sup>226</sup>	59.35 <sup>64</sup>
29	0.719 <sup>205</sup>	54.70 <sup>184</sup>	9.453 <sup>210</sup>	36.91 <sup>102</sup>	25.29 <sup>25</sup>	40.14 <sup>305</sup>	6.655 <sup>257</sup>	58.71 <sup>60</sup>
Aug. 8	0.924 <sup>230</sup>	52.86 <sup>160</sup>	9.663 <sup>233</sup>	37.93 <sup>89</sup>	25.54 <sup>32</sup>	37.09 <sup>275</sup>	6.912 <sup>285</sup>	58.11 <sup>57</sup>
18	1.154 <sup>251</sup>	51.26 <sup>132</sup>	9.896 <sup>253</sup>	38.82 <sup>72</sup>	25.86 <sup>37</sup>	34.34 <sup>234</sup>	7.197 <sup>308</sup>	57.54 <sup>54</sup>
28	1.405 <sup>269</sup>	49.94 <sup>96</sup>	10.149 <sup>269</sup>	39.54 <sup>49</sup>	26.23 <sup>42</sup>	32.00 <sup>187</sup>	7.505 <sup>328</sup>	57.00 <sup>50</sup>
Sept. 7	1.674 <sup>284</sup>	48.98 <sup>57</sup>	10.418 <sup>282</sup>	40.03 <sup>25</sup>	26.65 <sup>47</sup>	30.13 <sup>130</sup>	7.833 <sup>343</sup>	56.50 <sup>47</sup>
17	1.958 <sup>293</sup>	48.41 <sup>14</sup>	10.700 <sup>293</sup>	40.28 <sup>2</sup>	27.12 <sup>49</sup>	28.83 <sup>69</sup>	8.176 <sup>357</sup>	56.03 <sup>45</sup>
27	2.251 <sup>299</sup>	48.27 <sup>30</sup>	10.993 <sup>300</sup>	40.26 <sup>29</sup>	27.61 <sup>50</sup>	28.14 <sup>4</sup>	8.533 <sup>365</sup>	55.58 <sup>40</sup>
Okt. 7	2.550 <sup>301</sup>	48.57 <sup>75</sup>	11.293 <sup>303</sup>	39.97 <sup>57</sup>	28.11 <sup>51</sup>	28.10 <sup>63</sup>	8.898 <sup>369</sup>	55.18 <sup>36</sup>
17	2.851 <sup>298</sup>	49.32 <sup>118</sup>	11.596 <sup>302</sup>	39.40 <sup>83</sup>	28.62 <sup>50</sup>	28.73 <sup>128</sup>	9.267 <sup>369</sup>	54.82 <sup>28</sup>
27	3.149 <sup>289</sup>	50.50 <sup>157</sup>	11.898 <sup>296</sup>	38.57 <sup>106</sup>	29.12 <sup>46</sup>	30.01 <sup>189</sup>	9.636 <sup>363</sup>	54.54 <sup>19</sup>
Nov. 6	3.438 <sup>274</sup>	52.07 <sup>189</sup>	12.194 <sup>284</sup>	37.51 <sup>123</sup>	29.58 <sup>42</sup>	31.90 <sup>244</sup>	9.999 <sup>350</sup>	54.35 <sup>8</sup>
16	3.712 <sup>252</sup>	53.96 <sup>216</sup>	12.478 <sup>266</sup>	36.28 <sup>136</sup>	30.00 <sup>37</sup>	34.34 <sup>290</sup>	10.349 <sup>329</sup>	54.27 <sup>4</sup>
26	3.964 <sup>224</sup>	56.12 <sup>234</sup>	12.744 <sup>240</sup>	34.92 <sup>143</sup>	30.37 <sup>30</sup>	37.24 <sup>327</sup>	10.678 <sup>300</sup>	54.31 <sup>19</sup>
Dez. 6	4.188 <sup>188</sup>	58.46 <sup>244</sup>	12.084 <sup>209</sup>	33.49 <sup>145</sup>	30.67 <sup>22</sup>	40.51 <sup>352</sup>	10.978 <sup>263</sup>	54.50 <sup>35</sup>
16	4.376 <sup>148</sup>	60.90 <sup>244</sup>	13.193 <sup>171</sup>	32.04 <sup>141</sup>	30.89 <sup>13</sup>	44.03 <sup>365</sup>	11.241 <sup>217</sup>	54.85 <sup>49</sup>
26	4.524 <sup>102</sup>	63.34 <sup>239</sup>	13.364 <sup>127</sup>	30.63 <sup>132</sup>	31.02 <sup>33</sup>	47.68 <sup>365</sup>	11.458 <sup>166</sup>	55.34 <sup>64</sup>
35	4.626	65.73	13.491	29.31	31.06	51.33	11.624	55.98
Mittl. Ort	1.085	65.71	9.586	27.84	27.85	53.54	6.708	54.37
sec $\delta$ , tg $\delta$	1.044	-0.0298	1.001	+0.044	2.121	-1.870	1.207	+0.676

1) Ort des Hauptsterns; die jährliche Parallaxe (0.38) ist bereits berücksichtigt.

# Obere Kulmination Greenwich

67\*

Tag	266) ♀ Canis maj.		265) ♂ Lyncis		268) ε Canis maj.		269) ζ Geminorum	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	6 <sup>h</sup> 50 <sup>m</sup>	—11° 56'	6 <sup>h</sup> 51 <sup>m</sup>	+58° 30'	6 <sup>h</sup> 55 <sup>m</sup>	—28° 52'	6 <sup>h</sup> 59 <sup>m</sup>	+20° 40'
Jan. 1	54.071 <sup>3</sup> <sub>89</sub>	50.40 <sup>205</sup>	9.337 <sup>170</sup>	68.45 <sup>212</sup>	50.935 <sup>75</sup>	22.98 <sup>285</sup>	54.547 <sup>127</sup>	36.96 <sup>15</sup>
10	54.160 <sup>40</sup>	52.45 <sup>189</sup>	9.507 <sup>80</sup>	70.57 <sup>217</sup>	51.010 <sup>21</sup>	25.83 <sup>268</sup>	54.584 <sup>75</sup>	36.81 <sup>2</sup>
20	54.200 <sup>10</sup>	54.34 <sup>169</sup>	9.587 <sup>11</sup>	72.74 <sup>213</sup>	51.031 <sup>31</sup>	28.51 <sup>245</sup>	54.659 <sup>22</sup>	36.79 <sup>10</sup>
30	54.190 <sup>56</sup>	56.03 <sup>143</sup>	9.576 <sup>97</sup>	74.87 <sup>202</sup>	51.000 <sup>82</sup>	30.96 <sup>215</sup>	54.681 <sup>29</sup>	36.89 <sup>19</sup>
Feb. 9	54.134 <sup>97</sup>	57.46 <sup>117</sup>	9.479 <sup>175</sup>	76.89 <sup>181</sup>	50.918 <sup>125</sup>	33.11 <sup>180</sup>	54.652 <sup>75</sup>	37.08 <sup>25</sup>
19	54.037 <sup>132</sup>	58.63 <sup>89</sup>	9.304 <sup>241</sup>	78.70 <sup>153</sup>	50.793 <sup>163</sup>	34.91 <sup>143</sup>	54.577 <sup>115</sup>	37.33 <sup>30</sup>
März 1	53.905 <sup>157</sup>	59.52 <sup>60</sup>	9.063 <sup>291</sup>	80.23 <sup>119</sup>	50.630 <sup>191</sup>	36.34 <sup>103</sup>	54.462 <sup>145</sup>	37.63 <sup>30</sup>
11	53.748 <sup>174</sup>	60.12 <sup>31</sup>	8.772 <sup>323</sup>	81.42 <sup>81</sup>	50.439 <sup>209</sup>	37.37 <sup>63</sup>	54.317 <sup>164</sup>	37.93 <sup>29</sup>
21	53.574 <sup>180</sup>	60.43 <sup>3</sup>	8.449 <sup>337</sup>	82.23 <sup>41</sup>	50.230 <sup>216</sup>	38.00 <sup>21</sup>	54.153 <sup>173</sup>	38.22 <sup>27</sup>
31	53.394 <sup>177</sup>	60.46 <sup>26</sup>	8.112 <sup>332</sup>	82.64 <sup>1</sup>	50.014 <sup>213</sup>	38.21 <sup>20</sup>	53.980 <sup>171</sup>	38.49 <sup>22</sup>
Apr. 10	53.217 <sup>163</sup>	60.20 <sup>53</sup>	7.780 <sup>308</sup>	82.63 <sup>42</sup>	49.801 <sup>201</sup>	38.01 <sup>60</sup>	53.809 <sup>158</sup>	38.71 <sup>18</sup>
20	53.054 <sup>142</sup>	59.67 <sup>79</sup>	7.472 <sup>271</sup>	82.21 <sup>79</sup>	49.600 <sup>181</sup>	37.41 <sup>99</sup>	53.651 <sup>136</sup>	38.89 <sup>13</sup>
30	52.912 <sup>115</sup>	58.88 <sup>104</sup>	7.201 <sup>220</sup>	81.42 <sup>113</sup>	49.419 <sup>152</sup>	36.42 <sup>134</sup>	53.515 <sup>107</sup>	39.02 <sup>10</sup>
Mai 10	52.797 <sup>83</sup>	57.84 <sup>126</sup>	6.981 <sup>159</sup>	80.29 <sup>142</sup>	49.267 <sup>119</sup>	35.08 <sup>168</sup>	53.408 <sup>73</sup>	39.12 <sup>8</sup>
20	52.714 <sup>47</sup>	56.58 <sup>147</sup>	6.822 <sup>92</sup>	78.87 <sup>165</sup>	49.148 <sup>82</sup>	33.40 <sup>197</sup>	53.335 <sup>34</sup>	39.20 <sup>7</sup>
30	52.667 <sup>9</sup>	55.11 <sup>164</sup>	6.730 <sup>19</sup>	77.22 <sup>183</sup>	49.066 <sup>42</sup>	31.43 <sup>222</sup>	53.301 <sup>5</sup>	39.27 <sup>6</sup>
Juni 9	52.658 <sup>29</sup>	53.47 <sup>177</sup>	6.711 <sup>53</sup>	75.39 <sup>194</sup>	49.024 <sup>0</sup>	29.21 <sup>242</sup>	53.306 <sup>46</sup>	39.33 <sup>7</sup>
19	52.687 <sup>66</sup>	51.70 <sup>187</sup>	6.764 <sup>125</sup>	73.45 <sup>200</sup>	49.024 <sup>40</sup>	26.79 <sup>255</sup>	53.352 <sup>86</sup>	39.40 <sup>7</sup>
29	52.753 <sup>103</sup>	49.83 <sup>191</sup>	6.889 <sup>195</sup>	71.45 <sup>201</sup>	49.064 <sup>81</sup>	24.24 <sup>262</sup>	53.438 <sup>123</sup>	39.47 <sup>7</sup>
Juli 9	52.856 <sup>137</sup>	47.92 <sup>189</sup>	7.084 <sup>260</sup>	69.44 <sup>197</sup>	49.145 <sup>120</sup>	21.62 <sup>261</sup>	53.561 <sup>158</sup>	39.54 <sup>7</sup>
19	52.993 <sup>167</sup>	46.03 <sup>182</sup>	7.344 <sup>319</sup>	67.47 <sup>188</sup>	49.265 <sup>156</sup>	19.01 <sup>253</sup>	53.719 <sup>190</sup>	39.61 <sup>6</sup>
29	53.160 <sup>195</sup>	44.21 <sup>169</sup>	7.663 <sup>373</sup>	65.59 <sup>176</sup>	49.421 <sup>190</sup>	16.48 <sup>235</sup>	53.909 <sup>219</sup>	39.67 <sup>2</sup>
Aug. 8	53.355 <sup>221</sup>	42.52 <sup>149</sup>	8.036 <sup>419</sup>	63.83 <sup>161</sup>	49.611 <sup>220</sup>	14.13 <sup>211</sup>	54.128 <sup>244</sup>	39.69 <sup>2</sup>
18	53.576 <sup>243</sup>	41.03 <sup>123</sup>	8.455 <sup>460</sup>	62.22 <sup>142</sup>	49.831 <sup>247</sup>	12.02 <sup>180</sup>	54.372 <sup>265</sup>	39.67 <sup>9</sup>
28	53.819 <sup>261</sup>	39.80 <sup>92</sup>	8.915 <sup>494</sup>	60.80 <sup>122</sup>	50.078 <sup>271</sup>	10.22 <sup>138</sup>	54.637 <sup>285</sup>	39.58 <sup>17</sup>
Sept. 7	54.080 <sup>276</sup>	38.88 <sup>56</sup>	9.409 <sup>522</sup>	59.58 <sup>98</sup>	50.349 <sup>289</sup>	8.84 <sup>92</sup>	54.922 <sup>300</sup>	39.41 <sup>26</sup>
17	54.356 <sup>288</sup>	38.32 <sup>17</sup>	9.931 <sup>542</sup>	58.60 <sup>72</sup>	50.638 <sup>305</sup>	7.92 <sup>42</sup>	55.222 <sup>313</sup>	39.15 <sup>36</sup>
27	54.644 <sup>297</sup>	38.15 <sup>24</sup>	10.473 <sup>556</sup>	57.88 <sup>46</sup>	50.943 <sup>315</sup>	7.50 <sup>64</sup>	55.535 <sup>324</sup>	38.79 <sup>45</sup>
Okt. 7	54.941 <sup>301</sup>	38.39 <sup>64</sup>	11.029 <sup>561</sup>	57.42 <sup>18</sup>	51.258 <sup>320</sup>	7.61 <sup>11</sup>	55.859 <sup>330</sup>	38.34 <sup>54</sup>
17	55.242 <sup>300</sup>	39.03 <sup>104</sup>	11.590 <sup>559</sup>	57.24 <sup>13</sup>	51.578 <sup>318</sup>	8.25 <sup>116</sup>	56.189 <sup>330</sup>	37.80 <sup>62</sup>
27	55.542 <sup>294</sup>	40.07 <sup>139</sup>	12.149 <sup>547</sup>	57.37 <sup>44</sup>	51.896 <sup>311</sup>	9.41 <sup>166</sup>	56.519 <sup>328</sup>	37.18 <sup>65</sup>
Nov. 6	55.836 <sup>282</sup>	41.46 <sup>169</sup>	12.696 <sup>524</sup>	57.81 <sup>76</sup>	52.207 <sup>295</sup>	11.07 <sup>208</sup>	56.847 <sup>319</sup>	36.53 <sup>67</sup>
16	56.118 <sup>263</sup>	43.15 <sup>194</sup>	13.220 <sup>488</sup>	58.57 <sup>107</sup>	52.502 <sup>272</sup>	13.15 <sup>244</sup>	57.166 <sup>301</sup>	35.86 <sup>65</sup>
26	56.381 <sup>237</sup>	45.09 <sup>211</sup>	13.708 <sup>440</sup>	59.64 <sup>137</sup>	52.774 <sup>242</sup>	15.59 <sup>271</sup>	57.467 <sup>278</sup>	35.21 <sup>59</sup>
Dez. 6	56.618 <sup>203</sup>	47.20 <sup>220</sup>	14.148 <sup>381</sup>	61.01 <sup>164</sup>	53.016 <sup>204</sup>	18.30 <sup>289</sup>	57.745 <sup>246</sup>	34.62 <sup>50</sup>
16	56.821 <sup>165</sup>	49.40 <sup>221</sup>	14.529 <sup>309</sup>	62.65 <sup>186</sup>	53.220 <sup>159</sup>	21.19 <sup>296</sup>	57.991 <sup>207</sup>	34.12 <sup>38</sup>
26	56.986 <sup>120</sup>	51.61 <sup>215</sup>	14.838 <sup>228</sup>	64.51 <sup>201</sup>	53.379 <sup>109</sup>	24.15 <sup>293</sup>	58.198 <sup>161</sup>	33.74 <sup>26</sup>
35*)	57.106	53.76	15.066	66.52	53.488	27.08	58.359	33.48
Mittl. Ort sec 2, tg 0	53.477 1.022	54.73 —0.212	8.078 1.915	64.78 +1.633	50.082 1.142	28.10 —0.551	53.972 1.069	33.36 +0.377

\*) Bei Stern 268) und 269) lies Dez. 36

Tag	271) $\gamma$ Canis maj.		273) $\delta$ Canis maj.		274) $\beta_3$ Aurigae		277) $\lambda$ Geminorum	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	7 <sup>h</sup> 0 <sup>m</sup>	—15° 31'	7 <sup>h</sup> 5 <sup>m</sup>	—26° 16'	7 <sup>h</sup> 6 <sup>m</sup>	+39° 26'	7 <sup>h</sup> 14 <sup>m</sup>	+16° 40'
Jan. 1	33.439 <sup>95</sup>	33.43 <sup>227</sup>	31.009 <sup>89</sup>	40.55 <sup>278</sup>	47.190 <sup>158</sup>	20.02 <sup>100</sup>	1.319 <sup>138</sup>	14.86 <sup>45</sup>
10	33.534 <sup>45</sup>	35.70 <sup>211</sup>	31.098 <sup>36</sup>	43.33 <sup>262</sup>	47.348 <sup>95</sup>	21.02 <sup>111</sup>	1.457 <sup>86</sup>	14.41 <sup>30</sup>
20	33.579 <sup>4</sup>	37.81 <sup>190</sup>	31.134 <sup>17</sup>	45.95 <sup>240</sup>	47.443 <sup>31</sup>	22.13 <sup>118</sup>	1.543 <sup>34</sup>	14.11 <sup>17</sup>
30	33.575 <sup>52</sup>	39.71 <sup>164</sup>	31.117 <sup>67</sup>	48.35 <sup>211</sup>	47.474 <sup>31</sup>	23.31 <sup>119</sup>	1.577 <sup>16</sup>	13.94 <sup>3</sup>
Feb. 9	33.523 <sup>96</sup>	41.35 <sup>136</sup>	31.050 <sup>111</sup>	50.46 <sup>179</sup>	47.443 <sup>88</sup>	24.50 <sup>114</sup>	1.561 <sup>63</sup>	13.91 <sup>8</sup>
19	33.427 <sup>130</sup>	42.71 <sup>105</sup>	30.939 <sup>149</sup>	52.25 <sup>143</sup>	47.355 <sup>136</sup>	25.64 <sup>103</sup>	1.498 <sup>103</sup>	13.99 <sup>15</sup>
März 1	33.297 <sup>158</sup>	43.76 <sup>74</sup>	30.790 <sup>179</sup>	53.68 <sup>105</sup>	47.219 <sup>173</sup>	26.67 <sup>88</sup>	1.395 <sup>135</sup>	14.14 <sup>21</sup>
11	33.139 <sup>176</sup>	44.50 <sup>43</sup>	30.611 <sup>197</sup>	54.73 <sup>66</sup>	47.046 <sup>200</sup>	27.55 <sup>69</sup>	1.260 <sup>156</sup>	14.35 <sup>25</sup>
21	32.963 <sup>184</sup>	44.93 <sup>11</sup>	30.414 <sup>206</sup>	55.39 <sup>27</sup>	46.846 <sup>211</sup>	28.24 <sup>46</sup>	1.104 <sup>167</sup>	14.60 <sup>26</sup>
31	32.779 <sup>182</sup>	45.04 <sup>20</sup>	30.208 <sup>205</sup>	55.66 <sup>12</sup>	46.635 <sup>211</sup>	28.70 <sup>23</sup>	0.937 <sup>166</sup>	14.86 <sup>26</sup>
Apr. 10	32.597 <sup>170</sup>	44.84 <sup>50</sup>	30.003 <sup>195</sup>	55.54 <sup>51</sup>	46.424 <sup>197</sup>	28.93 <sup>1</sup>	0.771 <sup>156</sup>	15.12 <sup>25</sup>
20	32.427 <sup>151</sup>	44.34 <sup>79</sup>	29.808 <sup>176</sup>	55.03 <sup>88</sup>	46.227 <sup>173</sup>	28.92 <sup>24</sup>	0.615 <sup>138</sup>	15.37 <sup>26</sup>
30	32.276 <sup>124</sup>	43.55 <sup>107</sup>	29.632 <sup>150</sup>	54.15 <sup>122</sup>	46.054 <sup>140</sup>	28.68 <sup>44</sup>	0.477 <sup>112</sup>	15.63 <sup>24</sup>
Mai 10	32.152 <sup>93</sup>	42.48 <sup>132</sup>	29.482 <sup>118</sup>	52.93 <sup>155</sup>	45.914 <sup>100</sup>	28.24 <sup>62</sup>	0.365 <sup>80</sup>	15.87 <sup>24</sup>
20	32.059 <sup>59</sup>	41.16 <sup>154</sup>	29.364 <sup>82</sup>	51.38 <sup>183</sup>	45.814 <sup>54</sup>	27.62 <sup>77</sup>	0.285 <sup>44</sup>	16.11 <sup>25</sup>
30	32.000 <sup>21</sup>	39.62 <sup>174</sup>	29.282 <sup>44</sup>	49.55 <sup>208</sup>	45.760 <sup>7</sup>	26.85 <sup>88</sup>	0.241 <sup>7</sup>	16.36 <sup>26</sup>
Juni 9	31.979 <sup>17</sup>	37.88 <sup>189</sup>	29.238 <sup>5</sup>	47.47 <sup>228</sup>	45.753 <sup>41</sup>	25.97 <sup>96</sup>	0.234 <sup>32</sup>	16.62 <sup>26</sup>
19	31.996 <sup>54</sup>	35.99 <sup>199</sup>	29.233 <sup>35</sup>	45.19 <sup>242</sup>	45.794 <sup>90</sup>	25.01 <sup>102</sup>	0.266 <sup>70</sup>	16.88 <sup>27</sup>
29	32.050 <sup>90</sup>	34.00 <sup>205</sup>	29.268 <sup>75</sup>	42.77 <sup>249</sup>	45.884 <sup>136</sup>	23.99 <sup>104</sup>	0.336 <sup>106</sup>	17.15 <sup>27</sup>
Juli 9	32.140 <sup>125</sup>	31.95 <sup>204</sup>	29.343 <sup>112</sup>	40.28 <sup>249</sup>	46.020 <sup>178</sup>	22.95 <sup>105</sup>	0.442 <sup>140</sup>	17.42 <sup>25</sup>
19	32.265 <sup>157</sup>	29.91 <sup>197</sup>	29.455 <sup>147</sup>	37.79 <sup>242</sup>	46.198 <sup>218</sup>	21.90 <sup>103</sup>	0.582 <sup>172</sup>	17.67 <sup>22</sup>
29	32.422 <sup>187</sup>	27.94 <sup>183</sup>	29.602 <sup>180</sup>	35.37 <sup>226</sup>	46.416 <sup>254</sup>	20.87 <sup>100</sup>	0.754 <sup>200</sup>	17.89 <sup>17</sup>
Aug. 8	32.609 <sup>213</sup>	26.11 <sup>162</sup>	29.782 <sup>211</sup>	33.11 <sup>203</sup>	46.670 <sup>285</sup>	19.87 <sup>96</sup>	0.954 <sup>226</sup>	18.06 <sup>10</sup>
18	32.822 <sup>237</sup>	24.49 <sup>136</sup>	29.993 <sup>237</sup>	31.08 <sup>173</sup>	46.955 <sup>313</sup>	18.91 <sup>91</sup>	1.180 <sup>248</sup>	18.16 <sup>0</sup>
28	33.059 <sup>256</sup>	23.13 <sup>104</sup>	30.230 <sup>261</sup>	29.35 <sup>135</sup>	47.268 <sup>337</sup>	18.00 <sup>85</sup>	1.428 <sup>269</sup>	18.16 <sup>11</sup>
Sept. 7	33.315 <sup>274</sup>	22.09 <sup>65</sup>	30.491 <sup>282</sup>	28.00 <sup>92</sup>	47.605 <sup>357</sup>	17.15 <sup>79</sup>	1.697 <sup>286</sup>	18.05 <sup>24</sup>
17	33.589 <sup>288</sup>	21.44 <sup>24</sup>	30.773 <sup>297</sup>	27.08 <sup>43</sup>	47.962 <sup>374</sup>	16.36 <sup>71</sup>	1.983 <sup>301</sup>	17.81 <sup>38</sup>
27	33.877 <sup>298</sup>	21.20 <sup>19</sup>	31.070 <sup>309</sup>	26.65 <sup>7</sup>	48.336 <sup>386</sup>	15.65 <sup>62</sup>	2.284 <sup>313</sup>	17.43 <sup>52</sup>
Okt. 7	34.175 <sup>304</sup>	21.39 <sup>63</sup>	31.379 <sup>316</sup>	26.72 <sup>60</sup>	48.722 <sup>395</sup>	15.03 <sup>52</sup>	2.597 <sup>321</sup>	16.91 <sup>65</sup>
17	34.479 <sup>304</sup>	22.02 <sup>106</sup>	31.695 <sup>317</sup>	27.32 <sup>111</sup>	49.117 <sup>398</sup>	14.51 <sup>39</sup>	2.918 <sup>325</sup>	16.26 <sup>76</sup>
27	34.783 <sup>299</sup>	23.08 <sup>145</sup>	32.012 <sup>311</sup>	28.43 <sup>158</sup>	49.515 <sup>394</sup>	14.12 <sup>24</sup>	3.243 <sup>324</sup>	15.50 <sup>85</sup>
Nov. 6	35.082 <sup>288</sup>	24.53 <sup>178</sup>	32.323 <sup>298</sup>	30.01 <sup>200</sup>	49.909 <sup>383</sup>	13.88 <sup>8</sup>	3.567 <sup>318</sup>	14.65 <sup>90</sup>
16	35.370 <sup>270</sup>	26.31 <sup>206</sup>	32.621 <sup>277</sup>	32.01 <sup>236</sup>	50.292 <sup>364</sup>	13.80 <sup>11</sup>	3.885 <sup>303</sup>	13.75 <sup>91</sup>
26	35.640 <sup>244</sup>	28.37 <sup>226</sup>	32.898 <sup>249</sup>	34.37 <sup>263</sup>	50.656 <sup>336</sup>	13.91 <sup>32</sup>	4.188 <sup>281</sup>	12.84 <sup>87</sup>
Dec. 6	35.884 <sup>211</sup>	30.63 <sup>237</sup>	33.147 <sup>214</sup>	37.00 <sup>279</sup>	50.992 <sup>298</sup>	14.23 <sup>51</sup>	4.469 <sup>252</sup>	11.97 <sup>80</sup>
16	36.095 <sup>172</sup>	33.00 <sup>241</sup>	33.361 <sup>171</sup>	39.79 <sup>288</sup>	51.290 <sup>252</sup>	14.74 <sup>71</sup>	4.721 <sup>214</sup>	11.17 <sup>69</sup>
26	36.267 <sup>127</sup>	35.41 <sup>236</sup>	33.532 <sup>122</sup>	42.67 <sup>285</sup>	51.542 <sup>197</sup>	15.45 <sup>89</sup>	4.935 <sup>170</sup>	10.48 <sup>56</sup>
36	36.394	37.77	33.654	45.52	51.739	16.34	5.105	9.92
Mittl. Ort sec $\delta$ , tg $\delta$	32.812 1.038	38.27 —0.278	30.223 1.115	46.12 —0.494	46.523 1.295	17.02 +0.823	0.850 1.044	11.27 +0.300

# Obere Kulmination Greenwich

Tag	278) $\pi$ Argus		279) $\delta$ Geminorum		281) $\delta$ Volantis		280) $\gamma$ Lynceis seq.	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	7 <sup>h</sup> 14 <sup>m</sup>	—36° 57'	7 <sup>h</sup> 15 <sup>m</sup>	+22° 6'	7 <sup>h</sup> 16 <sup>m</sup>	—67° 49'	7 <sup>h</sup> 17 <sup>m</sup>	+55° 24'
Jan. 1	39.081 <sup>87</sup>	62.18 <sup>320</sup>	53.588 <sup>145</sup>	55.81 <sup>11</sup>	55.70 <sup>2</sup>	29.97 <sup>37I</sup>	6.038 <sup>207</sup>	63.84 <sup>187</sup>
10	39.168 <sup>28</sup>	65.38 <sup>307</sup>	53.733 <sup>93</sup>	55.70 <sup>4</sup>	55.72 <sup>10</sup>	33.68 <sup>36I</sup>	6.245 <sup>124</sup>	65.71 <sup>200</sup>
20	39.196 <sup>30</sup>	68.45 <sup>284</sup>	53.826 <sup>39</sup>	55.74 <sup>16</sup>	55.62 <sup>2I</sup>	37.29 <sup>342</sup>	6.309 <sup>39</sup>	67.71 <sup>203</sup>
30	39.166 <sup>84</sup>	71.29 <sup>255</sup>	53.865 <sup>15</sup>	55.90 <sup>27</sup>	55.41 <sup>3I</sup>	40.71 <sup>313</sup>	6.408 <sup>45</sup>	69.74 <sup>198</sup>
Feb. 9	39.082 <sup>134</sup>	73.84 <sup>220</sup>	53.850 <sup>62</sup>	56.17 <sup>35</sup>	55.10 <sup>40</sup>	43.84 <sup>277</sup>	6.363 <sup>12I</sup>	71.72 <sup>185</sup>
19	38.948 <sup>176</sup>	76.04 <sup>18I</sup>	53.788 <sup>105</sup>	56.52 <sup>38</sup>	54.70 <sup>48</sup>	46.61 <sup>235</sup>	6.242 <sup>188</sup>	73.57 <sup>165</sup>
März 1	38.772 <sup>208</sup>	77.85 <sup>139</sup>	53.683 <sup>137</sup>	56.90 <sup>40</sup>	54.22 <sup>54</sup>	48.96 <sup>187</sup>	6.054 <sup>240</sup>	75.22 <sup>138</sup>
11	38.564 <sup>230</sup>	79.24 <sup>94</sup>	53.546 <sup>160</sup>	57.30 <sup>38</sup>	53.68 <sup>58</sup>	50.83 <sup>137</sup>	5.814 <sup>278</sup>	76.60 <sup>104</sup>
21	38.334 <sup>242</sup>	80.18 <sup>49</sup>	53.386 <sup>17I</sup>	57.68 <sup>33</sup>	53.10 <sup>60</sup>	52.20 <sup>85</sup>	5.536 <sup>299</sup>	77.64 <sup>67</sup>
31	38.092 <sup>243</sup>	80.67 <sup>3</sup>	53.215 <sup>172</sup>	58.01 <sup>28</sup>	52.50 <sup>61</sup>	53.05 <sup>3I</sup>	5.237 <sup>30I</sup>	78.31 <sup>29</sup>
Apr. 10	37.849 <sup>234</sup>	80.70 <sup>42</sup>	53.043 <sup>162</sup>	58.29 <sup>22</sup>	51.89 <sup>60</sup>	53.36 <sup>22</sup>	4.936 <sup>288</sup>	78.60 <sup>10</sup>
20	37.615 <sup>216</sup>	80.28 <sup>85</sup>	52.881 <sup>143</sup>	58.51 <sup>16</sup>	51.29 <sup>58</sup>	53.14 <sup>75</sup>	4.648 <sup>260</sup>	78.50 <sup>48</sup>
30	37.399 <sup>190</sup>	79.43 <sup>127</sup>	52.738 <sup>116</sup>	58.67 <sup>10</sup>	50.71 <sup>53</sup>	52.39 <sup>126</sup>	4.388 <sup>220</sup>	78.02 <sup>82</sup>
Mai 10	37.209 <sup>157</sup>	78.16 <sup>165</sup>	52.622 <sup>83</sup>	58.77 <sup>5</sup>	50.18 <sup>48</sup>	51.13 <sup>173</sup>	4.168 <sup>169</sup>	77.20 <sup>112</sup>
20	37.052 <sup>121</sup>	76.51 <sup>199</sup>	52.539 <sup>46</sup>	58.82 <sup>1</sup>	49.70 <sup>41</sup>	49.40 <sup>216</sup>	3.999 <sup>111</sup>	76.08 <sup>139</sup>
30	36.931 <sup>80</sup>	74.52 <sup>230</sup>	52.493 <sup>8</sup>	58.83 <sup>1</sup>	49.29 <sup>34</sup>	47.24 <sup>255</sup>	3.888 <sup>49</sup>	74.69 <sup>160</sup>
Juni 9	36.851 <sup>37</sup>	72.22 <sup>253</sup>	52.485 <sup>32</sup>	58.82 <sup>3</sup>	48.95 <sup>25</sup>	44.69 <sup>286</sup>	3.839 <sup>16</sup>	73.09 <sup>176</sup>
19	36.814 <sup>6</sup>	69.69 <sup>272</sup>	52.517 <sup>71</sup>	58.79 <sup>4</sup>	48.70 <sup>16</sup>	41.83 <sup>310</sup>	3.855 <sup>80</sup>	71.33 <sup>186</sup>
29	36.820 <sup>50</sup>	66.97 <sup>282</sup>	52.588 <sup>109</sup>	58.75 <sup>5</sup>	48.54 <sup>7</sup>	38.73 <sup>327</sup>	3.935 <sup>144</sup>	69.47 <sup>192</sup>
Juli 9	36.870 <sup>92</sup>	64.15 <sup>285</sup>	52.697 <sup>144</sup>	58.70 <sup>8</sup>	48.47 <sup>3</sup>	35.46 <sup>333</sup>	4.079 <sup>203</sup>	67.55 <sup>194</sup>
19	36.962 <sup>134</sup>	61.30 <sup>278</sup>	52.841 <sup>177</sup>	58.62 <sup>10</sup>	48.50 <sup>13</sup>	32.13 <sup>329</sup>	4.282 <sup>259</sup>	65.61 <sup>191</sup>
29	37.006 <sup>172</sup>	58.52 <sup>263</sup>	53.018 <sup>206</sup>	58.52 <sup>13</sup>	48.63 <sup>22</sup>	28.84 <sup>317</sup>	4.541 <sup>310</sup>	63.70 <sup>184</sup>
Aug. 8	37.268 <sup>209</sup>	55.89 <sup>239</sup>	53.224 <sup>233</sup>	58.39 <sup>19</sup>	48.85 <sup>30</sup>	25.67 <sup>293</sup>	4.851 <sup>357</sup>	61.86 <sup>174</sup>
18	37.477 <sup>242</sup>	53.50 <sup>207</sup>	53.457 <sup>257</sup>	58.20 <sup>25</sup>	49.15 <sup>39</sup>	22.74 <sup>259</sup>	5.208 <sup>397</sup>	60.12 <sup>160</sup>
28	37.719 <sup>271</sup>	51.43 <sup>166</sup>	53.714 <sup>277</sup>	57.95 <sup>32</sup>	49.54 <sup>47</sup>	20.15 <sup>215</sup>	5.605 <sup>433</sup>	58.52 <sup>145</sup>
Sept. 7	37.990 <sup>296</sup>	49.77 <sup>119</sup>	53.991 <sup>296</sup>	57.63 <sup>41</sup>	50.01 <sup>52</sup>	18.00 <sup>164</sup>	6.038 <sup>464</sup>	57.07 <sup>127</sup>
17	38.286 <sup>317</sup>	48.58 <sup>65</sup>	54.287 <sup>311</sup>	57.22 <sup>50</sup>	50.53 <sup>57</sup>	16.36 <sup>106</sup>	6.502 <sup>488</sup>	55.80 <sup>106</sup>
27	38.603 <sup>332</sup>	47.93 <sup>10</sup>	54.598 <sup>323</sup>	56.72 <sup>58</sup>	51.10 <sup>61</sup>	15.30 <sup>41</sup>	6.990 <sup>507</sup>	54.74 <sup>82</sup>
Okt. 7	38.935 <sup>340</sup>	47.83 <sup>50</sup>	54.921 <sup>332</sup>	56.14 <sup>66</sup>	51.71 <sup>62</sup>	14.89 <sup>25</sup>	7.497 <sup>520</sup>	53.92 <sup>57</sup>
17	39.275 <sup>342</sup>	48.33 <sup>106</sup>	55.253 <sup>337</sup>	55.48 <sup>71</sup>	52.33 <sup>62</sup>	15.14 <sup>91</sup>	8.017 <sup>524</sup>	53.35 <sup>30</sup>
27	39.617 <sup>336</sup>	49.39 <sup>162</sup>	55.590 <sup>337</sup>	54.77 <sup>74</sup>	52.95 <sup>59</sup>	16.05 <sup>156</sup>	8.541 <sup>521</sup>	53.05 <sup>1</sup>
Nov. 6	39.953 <sup>322</sup>	51.01 <sup>212</sup>	55.927 <sup>329</sup>	54.03 <sup>74</sup>	53.54 <sup>54</sup>	17.61 <sup>215</sup>	9.062 <sup>506</sup>	53.06 <sup>32</sup>
16	40.275 <sup>298</sup>	53.13 <sup>254</sup>	56.256 <sup>315</sup>	53.29 <sup>70</sup>	54.08 <sup>49</sup>	19.76 <sup>268</sup>	9.568 <sup>481</sup>	53.38 <sup>63</sup>
26	40.573 <sup>266</sup>	55.67 <sup>287</sup>	56.571 <sup>293</sup>	52.59 <sup>61</sup>	54.57 <sup>40</sup>	22.44 <sup>311</sup>	10.049 <sup>443</sup>	54.01 <sup>96</sup>
Dez. 6	40.839 <sup>225</sup>	58.54 <sup>311</sup>	56.864 <sup>262</sup>	51.98 <sup>51</sup>	54.97 <sup>31</sup>	25.55 <sup>343</sup>	10.492 <sup>393</sup>	54.97 <sup>126</sup>
16	41.064 <sup>178</sup>	61.65 <sup>324</sup>	57.126 <sup>224</sup>	51.47 <sup>38</sup>	55.28 <sup>20</sup>	28.98 <sup>364</sup>	10.885 <sup>332</sup>	56.23 <sup>152</sup>
26	41.242 <sup>124</sup>	64.89 <sup>327</sup>	57.350 <sup>179</sup>	51.09 <sup>23</sup>	55.48 <sup>9</sup>	32.62 <sup>374</sup>	11.217 <sup>259</sup>	57.75 <sup>174</sup>
36	41.366	68.16	57.529	50.86	55.57	36.36	11.476	59.49
Mittl. Ort sec $\delta$ , tg $\delta$	38.061 1.252	68.94 —0.753	53.100 1.079	52.50 +0.406	52.38 2.650	38.63 —2.454	4.902 1.762	61.61 +1.450

Tag	282) $\epsilon$ Geminorum		285) $\beta$ Canis min.		284) Grb 1308		286) $\rho$ Geminorum	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	7 <sup>h</sup> 21 <sup>m</sup>	+27° 56'	7 <sup>h</sup> 23 <sup>m</sup>	+8° 25'	7 <sup>h</sup> 23 <sup>m</sup>	+68° 36'	7 <sup>h</sup> 24 <sup>m</sup>	+31° 55'
Jan. 1	19.725 <sub>158</sub>	29.53 <sub>23</sub>	18.560 <sub>139</sub>	65.34 <sub>99</sub>	32.73 <sub>31</sub>	48.97 <sub>250</sub>	33.431 <sub>167</sub>	41.05 <sub>48</sub>
11	19.883 <sub>103</sub>	29.76 <sub>40</sub>	18.699 <sub>89</sub>	64.35 <sub>84</sub>	33.04 <sub>15</sub>	51.47 <sub>261</sub>	33.598 <sub>111</sub>	41.53 <sub>63</sub>
20	19.986 <sub>46</sub>	30.16 <sub>50</sub>	18.788 <sub>39</sub>	63.51 <sub>67</sub>	33.19 <sub>3</sub>	54.08 <sub>262</sub>	33.709 <sub>51</sub>	42.16 <sub>75</sub>
30	20.032 <sub>9</sub>	30.66 <sub>59</sub>	18.827 <sub>11</sub>	62.84 <sub>51</sub>	33.22 <sub>9</sub>	56.70 <sub>254</sub>	33.760 <sub>7</sub>	42.91 <sub>82</sub>
Feb. 9	20.023 <sub>61</sub>	31.25 <sub>63</sub>	18.816 <sub>57</sub>	62.33 <sub>34</sub>	33.13 <sub>21</sub>	59.24 <sub>235</sub>	33.753 <sub>60</sub>	43.73 <sub>85</sub>
19	19.962 <sub>106</sub>	31.88 <sub>64</sub>	18.759 <sub>96</sub>	61.99 <sub>19</sub>	32.92 <sub>31</sub>	61.59 <sub>208</sub>	33.693 <sub>107</sub>	44.58 <sub>83</sub>
März 1	19.856 <sub>141</sub>	32.52 <sub>61</sub>	18.663 <sub>127</sub>	61.80 <sub>6</sub>	32.61 <sub>39</sub>	63.67 <sub>171</sub>	33.586 <sub>144</sub>	45.41 <sub>75</sub>
11	19.715 <sub>165</sub>	33.13 <sub>53</sub>	18.536 <sub>149</sub>	61.74 <sub>6</sub>	32.22 <sub>45</sub>	65.38 <sub>127</sub>	33.442 <sub>171</sub>	46.16 <sub>65</sub>
21	19.550 <sub>179</sub>	33.66 <sub>44</sub>	18.387 <sub>161</sub>	61.80 <sub>16</sub>	31.77 <sub>49</sub>	66.65 <sub>83</sub>	33.271 <sub>185</sub>	46.81 <sub>51</sub>
31	19.371 <sub>180</sub>	34.10 <sub>32</sub>	18.226 <sub>162</sub>	61.96 <sub>24</sub>	31.28 <sub>50</sub>	67.48 <sub>32</sub>	33.086 <sub>188</sub>	47.32 <sub>36</sub>
Apr. 10	19.191 <sub>171</sub>	34.42 <sub>19</sub>	18.064 <sub>154</sub>	62.20 <sub>32</sub>	30.78 <sub>48</sub>	67.80 <sub>17</sub>	32.898 <sub>178</sub>	47.68 <sub>19</sub>
20	19.020 <sub>152</sub>	34.61 <sub>7</sub>	17.910 <sub>138</sub>	62.52 <sub>38</sub>	30.30 <sub>45</sub>	67.63 <sub>65</sub>	32.720 <sub>160</sub>	47.87 <sub>3</sub>
30	18.868 <sub>125</sub>	34.68 <sub>4</sub>	17.772 <sub>113</sub>	62.90 <sub>46</sub>	29.85 <sub>39</sub>	66.98 <sub>108</sub>	32.560 <sub>133</sub>	47.90 <sub>13</sub>
Mai 10	18.743 <sub>92</sub>	34.64 <sub>14</sub>	17.659 <sub>85</sub>	63.36 <sub>53</sub>	29.46 <sub>31</sub>	65.90 <sub>149</sub>	32.427 <sub>98</sub>	47.77 <sub>27</sub>
20	18.651 <sub>54</sub>	34.50 <sub>23</sub>	17.574 <sub>51</sub>	63.89 <sub>58</sub>	29.15 <sub>23</sub>	64.41 <sub>182</sub>	32.329 <sub>59</sub>	47.50 <sub>37</sub>
30	18.597 <sub>13</sub>	34.27 <sub>29</sub>	17.523 <sub>16</sub>	64.47 <sub>64</sub>	28.92 <sub>14</sub>	62.59 <sub>210</sub>	32.270 <sub>18</sub>	47.13 <sub>48</sub>
Juni 9	18.584 <sub>27</sub>	33.98 <sub>35</sub>	17.507 <sub>20</sub>	65.11 <sub>67</sub>	28.78 <sub>4</sub>	60.49 <sub>231</sub>	32.252 <sub>25</sub>	46.65 <sub>55</sub>
19	18.611 <sub>69</sub>	33.63 <sub>39</sub>	17.527 <sub>56</sub>	65.78 <sub>71</sub>	28.74 <sub>6</sub>	58.18 <sub>246</sub>	32.277 <sub>67</sub>	46.10 <sub>61</sub>
29	18.680 <sub>108</sub>	33.24 <sub>41</sub>	17.583 <sub>90</sub>	66.49 <sub>72</sub>	28.80 <sub>16</sub>	55.72 <sub>254</sub>	32.344 <sub>108</sub>	45.49 <sub>65</sub>
Juli 9	18.788 <sub>145</sub>	32.83 <sub>44</sub>	17.673 <sub>124</sub>	67.21 <sub>70</sub>	28.96 <sub>25</sub>	53.18 <sub>255</sub>	32.452 <sub>147</sub>	44.84 <sub>68</sub>
19	18.933 <sub>179</sub>	32.39 <sub>46</sub>	17.797 <sub>154</sub>	67.91 <sub>66</sub>	29.21 <sub>35</sub>	50.63 <sub>252</sub>	32.599 <sub>183</sub>	44.16 <sub>69</sub>
29	19.112 <sub>211</sub>	31.93 <sub>49</sub>	17.951 <sub>183</sub>	68.57 <sub>58</sub>	29.56 <sub>43</sub>	48.11 <sub>242</sub>	32.782 <sub>216</sub>	43.47 <sub>72</sub>
Aug. 8	19.323 <sub>239</sub>	31.44 <sub>51</sub>	18.134 <sub>208</sub>	69.15 <sub>47</sub>	29.99 <sub>50</sub>	45.69 <sub>228</sub>	32.998 <sub>246</sub>	42.75 <sub>72</sub>
18	19.562 <sub>265</sub>	30.93 <sub>55</sub>	18.342 <sub>232</sub>	69.62 <sub>34</sub>	30.49 <sub>58</sub>	43.41 <sub>209</sub>	33.244 <sub>273</sub>	42.03 <sub>74</sub>
28	19.827 <sub>287</sub>	30.38 <sub>58</sub>	18.574 <sub>252</sub>	69.96 <sub>16</sub>	31.07 <sub>63</sub>	41.32 <sub>186</sub>	33.517 <sub>296</sub>	41.29 <sub>74</sub>
Sept. 7	20.114 <sub>307</sub>	29.80 <sub>62</sub>	18.826 <sub>270</sub>	70.12 <sub>4</sub>	31.70 <sub>68</sub>	39.46 <sub>159</sub>	33.813 <sub>317</sub>	40.55 <sub>76</sub>
17	20.421 <sub>323</sub>	29.18 <sub>65</sub>	19.096 <sub>286</sub>	70.08 <sub>25</sub>	32.38 <sub>73</sub>	37.87 <sub>129</sub>	34.130 <sub>335</sub>	39.79 <sub>76</sub>
27	20.744 <sub>337</sub>	28.53 <sub>69</sub>	19.382 <sub>299</sub>	69.83 <sub>47</sub>	33.11 <sub>75</sub>	36.58 <sub>96</sub>	34.465 <sub>350</sub>	39.03 <sub>75</sub>
Okt. 7	21.081 <sub>348</sub>	27.84 <sub>70</sub>	19.681 <sub>308</sub>	69.36 <sub>69</sub>	33.86 <sub>78</sub>	35.62 <sub>60</sub>	34.815 <sub>361</sub>	38.28 <sub>72</sub>
17	21.429 <sub>352</sub>	27.14 <sub>69</sub>	19.989 <sub>315</sub>	68.67 <sub>89</sub>	34.64 <sub>78</sub>	35.02 <sub>21</sub>	35.176 <sub>367</sub>	37.56 <sub>67</sub>
27	21.781 <sub>353</sub>	26.45 <sub>67</sub>	20.304 <sub>315</sub>	67.78 <sub>106</sub>	35.42 <sub>78</sub>	34.81 <sub>19</sub>	35.543 <sub>367</sub>	36.89 <sub>60</sub>
Nov. 6	22.134 <sub>347</sub>	25.78 <sub>60</sub>	20.619 <sub>309</sub>	66.72 <sub>119</sub>	36.20 <sub>75</sub>	35.00 <sub>60</sub>	35.910 <sub>362</sub>	36.29 <sub>50</sub>
16	22.481 <sub>332</sub>	25.18 <sub>50</sub>	20.928 <sub>296</sub>	65.53 <sub>128</sub>	36.95 <sub>71</sub>	35.60 <sub>102</sub>	36.272 <sub>347</sub>	35.79 <sub>36</sub>
26	22.813 <sub>311</sub>	24.68 <sub>37</sub>	21.224 <sub>276</sub>	64.25 <sub>130</sub>	37.66 <sub>65</sub>	36.62 <sub>141</sub>	36.619 <sub>324</sub>	35.43 <sub>20</sub>
Dez. 6	23.124 <sub>279</sub>	24.31 <sub>23</sub>	21.500 <sub>248</sub>	62.95 <sub>129</sub>	38.31 <sub>58</sub>	38.03 <sub>178</sub>	36.943 <sub>293</sub>	35.23 <sub>2</sub>
16	23.403 <sub>239</sub>	24.08 <sub>6</sub>	21.748 <sub>213</sub>	61.66 <sub>121</sub>	38.89 <sub>48</sub>	39.81 <sub>210</sub>	37.236 <sub>252</sub>	35.21 <sub>16</sub>
26	23.642 <sub>193</sub>	24.02 <sub>11</sub>	21.961 <sub>170</sub>	60.45 <sub>110</sub>	39.37 <sub>36</sub>	41.91 <sub>235</sub>	37.488 <sub>203</sub>	35.37 <sub>35</sub>
36	23.835	24.13	22.131	59.35	39.73	44.26	37.691	35.72
Mittl. Ort	19.200	26.60	18.104	61.31	30.55	47.25	32.868	38.41
sec $\delta$ , tg $\delta$	1.132	+0.530	1.011	+0.148	2.742	+2.553	1.178	+0.623

# Obere Kulmination Greenwich

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Tag	287) $\alpha$ Geminorum <sup>1)</sup>		289) $\gamma$ Monocerotis		291) $\alpha$ Canis min. <sup>2)</sup>		292) $\gamma$ Lynceis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	7 <sup>h</sup> 30 <sup>m</sup>	+32° 2'	7 <sup>h</sup> 33 <sup>m</sup>	-3° 56'	7 <sup>h</sup> 35 <sup>m</sup>	+5° 24'	7 <sup>h</sup> 36 <sup>m</sup>	+58° 52'
Jan. 1	4.847 <sup>173</sup>	48.80 <sup>45</sup>	45.407 <sup>138</sup>	59.41 <sup>175</sup>	35.684 <sup>143</sup>	34.23 <sup>124</sup>	61.939 <sup>256</sup>	43.41 <sup>197</sup>
11	5.020 <sup>116</sup>	49.25 <sup>62</sup>	45.545 <sup>89</sup>	61.16 <sup>161</sup>	35.827 <sup>94</sup>	32.99 <sup>108</sup>	62.195 <sup>165</sup>	45.38 <sup>213</sup>
20	5.136 <sup>57</sup>	49.87 <sup>74</sup>	45.634 <sup>39</sup>	62.77 <sup>142</sup>	35.921 <sup>44</sup>	31.91 <sup>90</sup>	62.360 <sup>72</sup>	47.51 <sup>221</sup>
30	5.193 <sup>1</sup>	50.61 <sup>83</sup>	45.673 <sup>10</sup>	64.19 <sup>121</sup>	35.965 <sup>6</sup>	31.01 <sup>71</sup>	62.432 <sup>20</sup>	49.72 <sup>219</sup>
Feb. 9	5.192 <sup>56</sup>	51.44 <sup>86</sup>	45.663 <sup>55</sup>	65.40 <sup>98</sup>	35.959 <sup>51</sup>	30.30 <sup>53</sup>	62.412 <sup>106</sup>	51.91 <sup>209</sup>
19	5.136 <sup>103</sup>	52.30 <sup>84</sup>	45.608 <sup>95</sup>	66.38 <sup>74</sup>	35.908 <sup>92</sup>	29.77 <sup>35</sup>	62.306 <sup>184</sup>	54.00 <sup>189</sup>
März 1	5.033 <sup>141</sup>	53.14 <sup>78</sup>	45.513 <sup>126</sup>	67.12 <sup>52</sup>	35.816 <sup>124</sup>	29.42 <sup>19</sup>	62.122 <sup>246</sup>	55.89 <sup>163</sup>
11	4.892 <sup>169</sup>	53.92 <sup>68</sup>	45.387 <sup>149</sup>	67.64 <sup>29</sup>	35.692 <sup>146</sup>	29.23 <sup>4</sup>	61.876 <sup>293</sup>	57.52 <sup>129</sup>
21	4.723 <sup>184</sup>	54.60 <sup>54</sup>	45.238 <sup>162</sup>	67.93 <sup>8</sup>	35.546 <sup>160</sup>	29.19 <sup>9</sup>	61.583 <sup>323</sup>	58.81 <sup>91</sup>
31	4.539 <sup>188</sup>	55.14 <sup>38</sup>	45.076 <sup>165</sup>	68.01 <sup>13</sup>	35.386 <sup>162</sup>	29.28 <sup>21</sup>	61.260 <sup>332</sup>	59.72 <sup>50</sup>
Apr. 10	4.351 <sup>181</sup>	55.52 <sup>21</sup>	44.911 <sup>158</sup>	67.88 <sup>33</sup>	35.224 <sup>155</sup>	29.49 <sup>31</sup>	60.928 <sup>326</sup>	60.22 <sup>8</sup>
20	4.170 <sup>162</sup>	55.73 <sup>5</sup>	44.753 <sup>144</sup>	67.55 <sup>52</sup>	35.069 <sup>140</sup>	29.80 <sup>41</sup>	60.602 <sup>302</sup>	60.30 <sup>33</sup>
30	4.008 <sup>135</sup>	55.78 <sup>11</sup>	44.609 <sup>122</sup>	67.03 <sup>70</sup>	34.929 <sup>118</sup>	30.21 <sup>50</sup>	60.300 <sup>264</sup>	59.97 <sup>72</sup>
Mai 10	3.873 <sup>103</sup>	55.67 <sup>25</sup>	44.487 <sup>96</sup>	66.33 <sup>86</sup>	34.811 <sup>90</sup>	30.71 <sup>58</sup>	60.036 <sup>214</sup>	59.25 <sup>108</sup>
20	3.770 <sup>65</sup>	55.42 <sup>37</sup>	44.391 <sup>65</sup>	65.47 <sup>101</sup>	34.721 <sup>58</sup>	31.29 <sup>66</sup>	59.822 <sup>156</sup>	58.17 <sup>140</sup>
30	3.705 <sup>23</sup>	55.05 <sup>48</sup>	44.326 <sup>32</sup>	64.46 <sup>114</sup>	34.663 <sup>25</sup>	31.95 <sup>72</sup>	59.666 <sup>92</sup>	56.77 <sup>165</sup>
Juni 9	3.682 <sup>18</sup>	54.57 <sup>56</sup>	44.294 <sup>3</sup>	63.32 <sup>125</sup>	34.638 <sup>11</sup>	32.67 <sup>77</sup>	59.574 <sup>24</sup>	55.12 <sup>186</sup>
19	3.700 <sup>61</sup>	54.01 <sup>63</sup>	44.297 <sup>37</sup>	62.07 <sup>132</sup>	34.649 <sup>45</sup>	33.44 <sup>81</sup>	59.550 <sup>46</sup>	53.26 <sup>202</sup>
29	3.761 <sup>102</sup>	53.38 <sup>67</sup>	44.334 <sup>71</sup>	60.75 <sup>137</sup>	34.694 <sup>80</sup>	34.25 <sup>82</sup>	59.596 <sup>113</sup>	51.24 <sup>212</sup>
Juli 9	3.863 <sup>141</sup>	52.71 <sup>71</sup>	44.405 <sup>103</sup>	59.38 <sup>136</sup>	34.774 <sup>113</sup>	35.07 <sup>80</sup>	59.709 <sup>180</sup>	49.12 <sup>218</sup>
19	4.004 <sup>176</sup>	52.00 <sup>74</sup>	44.508 <sup>135</sup>	58.02 <sup>131</sup>	34.887 <sup>143</sup>	35.87 <sup>74</sup>	59.889 <sup>242</sup>	46.94 <sup>217</sup>
29	4.180 <sup>210</sup>	51.26 <sup>76</sup>	44.643 <sup>163</sup>	56.71 <sup>122</sup>	35.030 <sup>171</sup>	36.61 <sup>67</sup>	60.131 <sup>300</sup>	44.77 <sup>214</sup>
Aug. 8	4.390 <sup>240</sup>	50.50 <sup>77</sup>	44.806 <sup>190</sup>	55.49 <sup>106</sup>	35.201 <sup>197</sup>	37.28 <sup>54</sup>	60.431 <sup>354</sup>	42.63 <sup>205</sup>
18	4.630 <sup>267</sup>	49.73 <sup>79</sup>	44.996 <sup>214</sup>	54.43 <sup>87</sup>	35.398 <sup>221</sup>	37.82 <sup>38</sup>	60.785 <sup>402</sup>	40.58 <sup>193</sup>
28	4.897 <sup>292</sup>	48.94 <sup>81</sup>	45.210 <sup>236</sup>	53.56 <sup>62</sup>	35.619 <sup>243</sup>	38.20 <sup>19</sup>	61.187 <sup>446</sup>	38.65 <sup>178</sup>
Sept. 7	5.189 <sup>314</sup>	48.13 <sup>81</sup>	45.446 <sup>257</sup>	52.94 <sup>34</sup>	35.862 <sup>261</sup>	38.39 <sup>3</sup>	61.633 <sup>483</sup>	36.87 <sup>160</sup>
17	5.503 <sup>332</sup>	47.32 <sup>82</sup>	45.703 <sup>274</sup>	52.60 <sup>2</sup>	36.123 <sup>279</sup>	38.36 <sup>27</sup>	62.116 <sup>515</sup>	35.27 <sup>137</sup>
27	5.835 <sup>348</sup>	46.50 <sup>81</sup>	45.977 <sup>289</sup>	52.58 <sup>31</sup>	36.402 <sup>293</sup>	38.09 <sup>51</sup>	62.631 <sup>542</sup>	33.90 <sup>113</sup>
Okt. 7	6.183 <sup>360</sup>	45.69 <sup>78</sup>	46.266 <sup>299</sup>	52.89 <sup>65</sup>	36.695 <sup>303</sup>	37.58 <sup>77</sup>	63.173 <sup>561</sup>	32.77 <sup>84</sup>
17	6.543 <sup>367</sup>	44.91 <sup>74</sup>	46.565 <sup>307</sup>	53.54 <sup>97</sup>	36.998 <sup>311</sup>	36.81 <sup>99</sup>	63.734 <sup>570</sup>	31.93 <sup>54</sup>
27	6.910 <sup>368</sup>	44.17 <sup>65</sup>	46.872 <sup>309</sup>	54.51 <sup>127</sup>	37.309 <sup>312</sup>	35.82 <sup>119</sup>	64.304 <sup>571</sup>	31.39 <sup>21</sup>
Nov. 6	7.278 <sup>363</sup>	43.52 <sup>55</sup>	47.181 <sup>303</sup>	55.78 <sup>153</sup>	37.621 <sup>308</sup>	34.63 <sup>137</sup>	64.875 <sup>561</sup>	31.18 <sup>14</sup>
16	7.641 <sup>351</sup>	42.97 <sup>42</sup>	47.484 <sup>292</sup>	57.31 <sup>172</sup>	37.929 <sup>296</sup>	33.26 <sup>147</sup>	65.436 <sup>538</sup>	31.32 <sup>51</sup>
26	7.992 <sup>328</sup>	42.55 <sup>25</sup>	47.776 <sup>273</sup>	59.03 <sup>186</sup>	38.225 <sup>278</sup>	31.79 <sup>152</sup>	65.974 <sup>502</sup>	31.83 <sup>87</sup>
Dez. 6	8.320 <sup>297</sup>	42.30 <sup>6</sup>	48.049 <sup>245</sup>	60.89 <sup>192</sup>	38.503 <sup>250</sup>	30.27 <sup>152</sup>	66.476 <sup>451</sup>	32.70 <sup>122</sup>
16	8.617 <sup>257</sup>	42.24 <sup>13</sup>	48.294 <sup>210</sup>	62.81 <sup>191</sup>	38.753 <sup>215</sup>	28.75 <sup>146</sup>	66.927 <sup>387</sup>	33.92 <sup>154</sup>
26	8.874 <sup>209</sup>	42.37 <sup>31</sup>	48.594 <sup>169</sup>	64.72 <sup>186</sup>	38.968 <sup>174</sup>	27.29 <sup>135</sup>	67.314 <sup>310</sup>	35.46 <sup>181</sup>
36	9.083	42.68	48.673	66.58	39.142	25.94	67.624	37.27
Mittl. Ort	4.285	46.33	44.924	64.53	35.233	30.01	60.614	42.40
sec $\delta$ , tg $\delta$	1.180	+0.626	1.002	-0.069	1.004	+0.095	1.935	+1.656

<sup>1)</sup> AR. der Mitte; Dekl. des folgenden helleren Sterns.

<sup>2)</sup> Ort des hellen Sterns; die jährliche Parallaxe (0.33) ist bereits berücksichtigt.

Tag	294) $\alpha$ Geminorum		295) $\beta$ Geminorum		297) $\zeta$ Volantis		296) $\pi$ Geminorum	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	7 <sup>h</sup> 40 <sup>m</sup>	+24° 34'	7 <sup>h</sup> 40 <sup>m</sup>	+28° 11'	7 <sup>h</sup> 42 <sup>m</sup>	-72° 25'	7 <sup>h</sup> 42 <sup>m</sup>	+33° 35'
Jan. 1	10.352 <sup>173</sup>	13.54 <sup>5</sup>	58.985 <sup>178</sup>	59.19 <sup>17</sup>	46.23 <sup>7</sup>	57.75 <sup>374</sup>	56.555 <sup>190</sup>	31.12 <sup>50</sup>
11	10.525 <sup>120</sup>	13.49 <sup>13</sup>	59.163 <sup>124</sup>	59.36 <sup>35</sup>	46.30 <sup>7</sup>	61.49 <sup>372</sup>	56.745 <sup>133</sup>	31.62 <sup>68</sup>
20	10.645 <sup>65</sup>	13.62 <sup>27</sup>	59.287 <sup>66</sup>	59.71 <sup>50</sup>	46.23 <sup>20</sup>	65.21 <sup>360</sup>	56.878 <sup>73</sup>	32.30 <sup>82</sup>
30	10.710 <sup>10</sup>	13.89 <sup>41</sup>	59.353 <sup>10</sup>	60.21 <sup>61</sup>	46.03 <sup>34</sup>	68.81 <sup>337</sup>	56.951 <sup>12</sup>	33.12 <sup>92</sup>
Feb. 9	10.720 <sup>41</sup>	14.30 <sup>49</sup>	59.363 <sup>43</sup>	60.82 <sup>68</sup>	45.69 <sup>46</sup>	72.18 <sup>306</sup>	56.963 <sup>43</sup>	34.04 <sup>97</sup>
19	10.679 <sup>88</sup>	14.79 <sup>54</sup>	59.320 <sup>91</sup>	61.50 <sup>71</sup>	45.23 <sup>55</sup>	75.24 <sup>269</sup>	56.920 <sup>94</sup>	35.01 <sup>95</sup>
März 1	10.591 <sup>124</sup>	15.33 <sup>56</sup>	59.229 <sup>129</sup>	62.21 <sup>70</sup>	44.68 <sup>64</sup>	77.93 <sup>227</sup>	56.826 <sup>134</sup>	35.96 <sup>90</sup>
11	10.467 <sup>151</sup>	15.89 <sup>53</sup>	59.100 <sup>157</sup>	62.91 <sup>63</sup>	44.04 <sup>71</sup>	80.20 <sup>179</sup>	56.692 <sup>165</sup>	36.86 <sup>79</sup>
21	10.316 <sup>167</sup>	16.42 <sup>47</sup>	58.943 <sup>174</sup>	63.54 <sup>54</sup>	43.33 <sup>75</sup>	81.99 <sup>128</sup>	56.527 <sup>183</sup>	37.65 <sup>64</sup>
31	10.149 <sup>172</sup>	16.89 <sup>39</sup>	58.769 <sup>179</sup>	64.08 <sup>42</sup>	42.58 <sup>76</sup>	83.27 <sup>76</sup>	56.344 <sup>189</sup>	38.29 <sup>47</sup>
Apr. 10	9.977 <sup>167</sup>	17.28 <sup>31</sup>	58.590 <sup>174</sup>	64.50 <sup>30</sup>	41.82 <sup>77</sup>	84.03 <sup>23</sup>	56.155 <sup>184</sup>	38.76 <sup>29</sup>
20	9.810 <sup>151</sup>	17.59 <sup>21</sup>	58.416 <sup>158</sup>	64.80 <sup>16</sup>	41.05 <sup>75</sup>	84.26 <sup>31</sup>	55.971 <sup>168</sup>	39.05 <sup>11</sup>
30	9.659 <sup>128</sup>	17.80 <sup>11</sup>	58.258 <sup>134</sup>	64.96 <sup>4</sup>	40.30 <sup>71</sup>	83.95 <sup>83</sup>	55.803 <sup>144</sup>	39.16 <sup>8</sup>
Mai 10	9.531 <sup>98</sup>	17.91 <sup>3</sup>	58.124 <sup>104</sup>	65.00 <sup>8</sup>	39.59 <sup>65</sup>	83.12 <sup>134</sup>	55.659 <sup>112</sup>	39.08 <sup>24</sup>
20	9.433 <sup>65</sup>	17.94 <sup>5</sup>	58.020 <sup>70</sup>	64.92 <sup>19</sup>	38.94 <sup>59</sup>	81.78 <sup>180</sup>	55.547 <sup>76</sup>	38.84 <sup>40</sup>
30	9.368 <sup>28</sup>	17.89 <sup>11</sup>	57.950 <sup>31</sup>	64.73 <sup>28</sup>	38.35 <sup>50</sup>	79.98 <sup>222</sup>	55.471 <sup>36</sup>	38.44 <sup>52</sup>
Juni 9	9.340 <sup>11</sup>	17.78 <sup>17</sup>	57.919 <sup>9</sup>	64.45 <sup>35</sup>	37.85 <sup>41</sup>	77.76 <sup>259</sup>	55.435 <sup>6</sup>	37.92 <sup>62</sup>
19	9.351 <sup>49</sup>	17.61 <sup>22</sup>	57.928 <sup>48</sup>	64.10 <sup>42</sup>	37.44 <sup>30</sup>	75.17 <sup>289</sup>	55.441 <sup>49</sup>	37.30 <sup>72</sup>
29	9.400 <sup>87</sup>	17.39 <sup>25</sup>	57.976 <sup>86</sup>	63.68 <sup>47</sup>	37.14 <sup>19</sup>	72.28 <sup>312</sup>	55.490 <sup>89</sup>	36.58 <sup>79</sup>
Juli 9	9.487 <sup>122</sup>	17.14 <sup>30</sup>	58.062 <sup>124</sup>	63.21 <sup>52</sup>	36.95 <sup>7</sup>	69.16 <sup>324</sup>	55.579 <sup>128</sup>	35.79 <sup>83</sup>
19	9.609 <sup>155</sup>	16.84 <sup>35</sup>	58.186 <sup>158</sup>	62.69 <sup>56</sup>	36.88 <sup>5</sup>	65.92 <sup>328</sup>	55.707 <sup>165</sup>	34.96 <sup>88</sup>
29	9.764 <sup>187</sup>	16.49 <sup>39</sup>	58.344 <sup>191</sup>	62.13 <sup>60</sup>	36.93 <sup>17</sup>	62.64 <sup>322</sup>	55.872 <sup>200</sup>	34.08 <sup>91</sup>
Aug. 8	9.951 <sup>216</sup>	16.10 <sup>45</sup>	58.535 <sup>220</sup>	61.53 <sup>64</sup>	37.10 <sup>28</sup>	59.42 <sup>305</sup>	56.072 <sup>231</sup>	33.17 <sup>93</sup>
18	10.167 <sup>241</sup>	15.65 <sup>51</sup>	58.755 <sup>247</sup>	60.89 <sup>69</sup>	37.38 <sup>40</sup>	56.37 <sup>277</sup>	56.303 <sup>260</sup>	32.24 <sup>95</sup>
28	10.408 <sup>266</sup>	15.14 <sup>58</sup>	59.002 <sup>272</sup>	60.20 <sup>73</sup>	37.78 <sup>51</sup>	53.60 <sup>240</sup>	56.563 <sup>287</sup>	31.29 <sup>97</sup>
Sept. 7	10.674 <sup>287</sup>	14.56 <sup>66</sup>	59.274 <sup>294</sup>	59.47 <sup>79</sup>	38.29 <sup>59</sup>	51.20 <sup>192</sup>	56.850 <sup>310</sup>	30.32 <sup>97</sup>
17	10.961 <sup>306</sup>	13.90 <sup>73</sup>	59.568 <sup>314</sup>	58.68 <sup>82</sup>	38.88 <sup>67</sup>	49.28 <sup>138</sup>	57.160 <sup>331</sup>	29.35 <sup>97</sup>
27	11.267 <sup>322</sup>	13.17 <sup>80</sup>	59.882 <sup>330</sup>	57.86 <sup>86</sup>	39.55 <sup>72</sup>	47.90 <sup>78</sup>	57.491 <sup>349</sup>	28.38 <sup>95</sup>
Okt. 7	11.589 <sup>335</sup>	12.37 <sup>85</sup>	60.212 <sup>344</sup>	57.00 <sup>88</sup>	40.27 <sup>75</sup>	47.12 <sup>12</sup>	57.840 <sup>363</sup>	27.43 <sup>92</sup>
17	11.924 <sup>344</sup>	11.52 <sup>88</sup>	60.556 <sup>353</sup>	56.12 <sup>86</sup>	41.02 <sup>76</sup>	47.00 <sup>56</sup>	58.203 <sup>373</sup>	26.51 <sup>85</sup>
27	12.268 <sup>348</sup>	10.64 <sup>89</sup>	60.909 <sup>357</sup>	55.26 <sup>83</sup>	41.78 <sup>74</sup>	47.56 <sup>121</sup>	58.576 <sup>377</sup>	25.66 <sup>75</sup>
Nov. 6	12.616 <sup>345</sup>	9.75 <sup>85</sup>	61.266 <sup>354</sup>	54.43 <sup>76</sup>	42.52 <sup>70</sup>	48.77 <sup>183</sup>	58.953 <sup>374</sup>	24.91 <sup>63</sup>
16	12.961 <sup>334</sup>	8.90 <sup>78</sup>	61.620 <sup>343</sup>	53.67 <sup>66</sup>	43.22 <sup>63</sup>	50.60 <sup>241</sup>	59.327 <sup>363</sup>	24.28 <sup>48</sup>
26	13.295 <sup>315</sup>	8.12 <sup>67</sup>	61.963 <sup>324</sup>	53.01 <sup>52</sup>	43.85 <sup>54</sup>	53.01 <sup>289</sup>	59.690 <sup>343</sup>	23.80 <sup>29</sup>
Dec. 6	13.610 <sup>287</sup>	7.45 <sup>53</sup>	62.287 <sup>295</sup>	52.49 <sup>35</sup>	44.39 <sup>43</sup>	55.90 <sup>328</sup>	60.033 <sup>313</sup>	23.51 <sup>8</sup>
16	13.897 <sup>251</sup>	6.92 <sup>37</sup>	62.582 <sup>258</sup>	52.14 <sup>16</sup>	44.82 <sup>30</sup>	59.18 <sup>356</sup>	60.346 <sup>274</sup>	23.43 <sup>14</sup>
26	14.148 <sup>207</sup>	6.55 <sup>19</sup>	62.840 <sup>213</sup>	51.98 <sup>3</sup>	45.12 <sup>16</sup>	62.74 <sup>372</sup>	60.620 <sup>226</sup>	23.57 <sup>35</sup>
36	14.355	6.36	63.053	52.01	45.28	66.46	60.846	23.92
Mittl. Ort sec $\delta$ , tg $\delta$	9.864 1.100	10.84 +0.457	58.470 1.135	56.79 +0.536	42.10 3.314	69.14 -3.159	55.982 1.200	29.17 +0.664



# Obere Kulmination Greenwich

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Tag	300) Grb 1374		303) $\chi$ Argus		305) $\chi$ Geminorum		306) $\zeta$ Argus	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	7 <sup>h</sup> 51 <sup>m</sup>	+74° 6'	7 <sup>h</sup> 54 <sup>m</sup>	-52° 47'	7 <sup>h</sup> 59 <sup>m</sup>	+27° 59'	8 <sup>h</sup> 1 <sup>m</sup>	-39° 47'
Jan. 1	47.12 <sub>45</sub>	36.99 <sub>258</sub>	59.989 <sub>128</sub>	17.17 <sub>366</sub>	10.174 <sub>198</sub>	43.05 <sub>7</sub>	6.202 <sub>143</sub>	58.33 <sub>338</sub>
11	47.57 <sub>28</sub>	39.57 <sub>276</sub>	60.117 <sub>53</sub>	20.83 <sub>362</sub>	10.372 <sub>145</sub>	43.12 <sub>28</sub>	6.345 <sub>83</sub>	61.71 <sub>333</sub>
20*)	47.85 <sub>12</sub>	42.33 <sub>284</sub>	60.170 <sub>22</sub>	24.45 <sub>348</sub>	10.517 <sub>87</sub>	43.40 <sub>46</sub>	6.428 <sub>21</sub>	65.04 <sub>317</sub>
30	47.97 <sub>5</sub>	45.17 <sub>281</sub>	60.148 <sub>93</sub>	27.93 <sub>326</sub>	10.604 <sub>30</sub>	43.86 <sub>59</sub>	6.449 <sub>38</sub>	68.21 <sub>295</sub>
Feb. 9	47.92 <sub>21</sub>	47.98 <sub>267</sub>	60.055 <sub>160</sub>	31.19 <sub>295</sub>	10.634 <sub>24</sub>	44.45 <sub>70</sub>	6.411 <sub>93</sub>	71.16 <sub>265</sub>
19	47.71 <sub>35</sub>	50.65 <sub>242</sub>	59.895 <sub>217</sub>	34.14 <sub>258</sub>	10.610 <sub>73</sub>	45.15 <sub>74</sub>	6.318 <sub>142</sub>	73.81 <sub>230</sub>
März 1	47.36 <sub>48</sub>	53.07 <sub>208</sub>	59.678 <sub>265</sub>	36.72 <sub>216</sub>	10.537 <sub>114</sub>	45.89 <sub>75</sub>	6.176 <sub>183</sub>	76.11 <sub>190</sub>
11	46.88 <sub>58</sub>	55.15 <sub>165</sub>	59.413 <sub>301</sub>	38.88 <sub>170</sub>	10.423 <sub>145</sub>	46.64 <sub>70</sub>	5.993 <sub>213</sub>	78.01 <sub>148</sub>
21	46.30 <sub>63</sub>	56.80 <sub>118</sub>	59.112 <sub>326</sub>	40.58 <sub>120</sub>	10.278 <sub>164</sub>	47.34 <sub>63</sub>	5.780 <sub>234</sub>	79.49 <sub>103</sub>
31	45.67 <sub>67</sub>	57.98 <sub>66</sub>	58.786 <sub>337</sub>	41.78 <sub>71</sub>	10.114 <sub>174</sub>	47.97 <sub>53</sub>	5.546 <sub>244</sub>	80.52 <sub>57</sub>
Apr. 10	45.00 <sub>67</sub>	58.64 <sub>13</sub>	58.449 <sub>337</sub>	42.49 <sub>19</sub>	9.940 <sub>171</sub>	48.50 <sub>39</sub>	5.302 <sub>243</sub>	81.09 <sub>11</sub>
20	44.33 <sub>65</sub>	58.77 <sub>40</sub>	58.112 <sub>326</sub>	42.68 <sub>32</sub>	9.769 <sub>159</sub>	48.89 <sub>26</sub>	5.059 <sub>234</sub>	81.20 <sub>34</sub>
30	43.68 <sub>58</sub>	58.37 <sub>90</sub>	57.786 <sub>305</sub>	42.36 <sub>81</sub>	9.610 <sub>139</sub>	49.15 <sub>12</sub>	4.825 <sub>216</sub>	80.86 <sub>78</sub>
Mai 10	43.10 <sub>50</sub>	57.47 <sub>136</sub>	57.481 <sub>276</sub>	41.55 <sub>129</sub>	9.471 <sub>112</sub>	49.27 <sub>0</sub>	4.609 <sub>192</sub>	80.08 <sub>121</sub>
20	42.60 <sub>41</sub>	56.11 <sub>177</sub>	57.205 <sub>239</sub>	40.26 <sub>174</sub>	9.359 <sub>80</sub>	49.27 <sub>13</sub>	4.417 <sub>162</sub>	78.87 <sub>160</sub>
30	42.19 <sub>30</sub>	54.34 <sub>212</sub>	56.966 <sub>196</sub>	38.52 <sub>213</sub>	9.279 <sub>44</sub>	49.14 <sub>24</sub>	4.255 <sub>127</sub>	77.27 <sub>195</sub>
Juni 9	41.89 <sub>17</sub>	52.22 <sub>241</sub>	56.770 <sub>149</sub>	36.39 <sub>247</sub>	9.235 <sub>7</sub>	48.90 <sub>33</sub>	4.128 <sub>89</sub>	75.32 <sub>225</sub>
19	41.72 <sub>4</sub>	49.81 <sub>262</sub>	56.621 <sub>97</sub>	33.92 <sub>276</sub>	9.228 <sub>32</sub>	48.57 <sub>41</sub>	4.039 <sub>49</sub>	73.07 <sub>250</sub>
29	41.68 <sub>8</sub>	47.19 <sub>277</sub>	56.524 <sub>42</sub>	31.16 <sub>297</sub>	9.260 <sub>69</sub>	48.16 <sub>49</sub>	3.990 <sub>7</sub>	70.57 <sub>267</sub>
Juli 9	41.76 <sub>21</sub>	44.42 <sub>285</sub>	56.482 <sub>13</sub>	28.19 <sub>308</sub>	9.329 <sub>105</sub>	47.67 <sub>55</sub>	3.983 <sub>36</sub>	67.90 <sub>278</sub>
19	41.97 <sub>33</sub>	41.57 <sub>286</sub>	56.495 <sub>68</sub>	25.11 <sub>311</sub>	9.434 <sub>140</sub>	47.12 <sub>61</sub>	4.019 <sub>78</sub>	65.12 <sub>279</sub>
29	42.30 <sub>46</sub>	38.71 <sub>281</sub>	56.563 <sub>125</sub>	22.00 <sub>305</sub>	9.574 <sub>173</sub>	46.51 <sub>68</sub>	4.097 <sub>120</sub>	62.33 <sub>271</sub>
Aug. 8	42.76 <sub>56</sub>	35.90 <sub>270</sub>	56.688 <sub>180</sub>	18.95 <sub>288</sub>	9.747 <sub>203</sub>	45.83 <sub>73</sub>	4.217 <sub>161</sub>	59.62 <sub>256</sub>
18	43.32 <sub>66</sub>	33.20 <sub>254</sub>	56.868 <sub>232</sub>	16.07 <sub>261</sub>	9.950 <sub>231</sub>	45.10 <sub>79</sub>	4.378 <sub>199</sub>	57.06 <sub>229</sub>
28	43.98 <sub>75</sub>	30.66 <sub>232</sub>	57.100 <sub>280</sub>	13.46 <sub>223</sub>	10.181 <sub>258</sub>	44.31 <sub>85</sub>	4.577 <sub>237</sub>	54.77 <sub>195</sub>
Sept. 7	44.73 <sub>84</sub>	28.34 <sub>206</sub>	57.380 <sub>324</sub>	11.23 <sub>179</sub>	10.439 <sub>282</sub>	43.46 <sub>92</sub>	4.814 <sub>270</sub>	52.82 <sub>153</sub>
17	45.57 <sub>90</sub>	26.28 <sub>176</sub>	57.704 <sub>363</sub>	9.44 <sub>125</sub>	10.721 <sub>304</sub>	42.54 <sub>96</sub>	5.084 <sub>301</sub>	51.29 <sub>102</sub>
27	46.47 <sub>95</sub>	24.52 <sub>141</sub>	58.067 <sub>393</sub>	8.19 <sub>66</sub>	11.025 <sub>324</sub>	41.58 <sub>101</sub>	5.385 <sub>325</sub>	50.27 <sub>48</sub>
Okt. 7	47.42 <sub>99</sub>	23.11 <sub>102</sub>	58.460 <sub>414</sub>	7.53 <sub>3</sub>	11.349 <sub>340</sub>	40.57 <sub>103</sub>	5.710 <sub>345</sub>	49.79 <sub>11</sub>
17	48.41 <sub>102</sub>	22.09 <sub>60</sub>	58.874 <sub>425</sub>	7.50 <sub>62</sub>	11.689 <sub>352</sub>	39.54 <sub>103</sub>	6.055 <sub>357</sub>	49.90 <sub>70</sub>
27	49.43 <sub>102</sub>	21.49 <sub>16</sub>	59.299 <sub>426</sub>	8.12 <sub>126</sub>	12.041 <sub>359</sub>	38.51 <sub>100</sub>	6.412 <sub>360</sub>	50.60 <sub>129</sub>
Nov. 6	50.45 <sub>99</sub>	21.33 <sub>31</sub>	59.725 <sub>413</sub>	9.38 <sub>186</sub>	12.400 <sub>360</sub>	37.51 <sub>92</sub>	6.772 <sub>355</sub>	51.89 <sub>184</sub>
16	51.44 <sub>96</sub>	21.64 <sub>78</sub>	60.138 <sub>388</sub>	11.24 <sub>241</sub>	12.760 <sub>352</sub>	36.59 <sub>82</sub>	7.127 <sub>339</sub>	53.73 <sub>233</sub>
26	52.40 <sub>90</sub>	22.42 <sub>123</sub>	60.526 <sub>351</sub>	13.65 <sub>288</sub>	13.112 <sub>336</sub>	35.77 <sub>67</sub>	7.466 <sub>313</sub>	56.06 <sub>274</sub>
Dez. 6	53.30 <sub>80</sub>	23.65 <sub>167</sub>	60.877 <sub>301</sub>	16.53 <sub>324</sub>	13.448 <sub>311</sub>	35.10 <sub>49</sub>	7.779 <sub>278</sub>	58.80 <sub>306</sub>
16	54.10 <sub>68</sub>	25.32 <sub>207</sub>	61.178 <sub>242</sub>	19.77 <sub>350</sub>	13.759 <sub>275</sub>	34.61 <sub>29</sub>	8.057 <sub>233</sub>	61.86 <sub>328</sub>
26	54.78 <sub>55</sub>	27.39 <sub>239</sub>	61.420 <sub>175</sub>	23.27 <sub>364</sub>	14.034 <sub>231</sub>	34.32 <sub>8</sub>	8.290 <sub>180</sub>	65.14 <sub>338</sub>
36	55.33	29.78	61.595	26.91	14.265	34.24	8.470	68.52
Mittl. Ort	43.94	37.19	58.477	28.20	9.680	41.12	5.258	68.47
sec $\delta$ , tg $\delta$	3.652	+3.513	1.654	-1.317	1.133	+0.532	1.302	-0.833

\*) Bei Stern 306) lies Jan. 21

Tag	307) 27 Lyncis		308) 1 Navis		309) 7 Argus		311) 20 Navis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	8 <sup>h</sup> 3 <sup>m</sup>	+51° 42'	8 <sup>h</sup> 4 <sup>m</sup>	-24° 5'	8 <sup>h</sup> 7 <sup>m</sup>	-47° 7'	8 <sup>h</sup> 10 <sup>m</sup>	-15° 34'
Jan. 1	8.526 <sup>264</sup>	46.63 <sup>145</sup>	31.793 <sup>154</sup>	46.01 <sup>283</sup>	21.799 <sup>149</sup>	24.78 <sup>356</sup>	4.674 <sup>165</sup>	16.54 <sup>246</sup>
11	8.790 <sup>191</sup>	48.08 <sup>167</sup>	31.947 <sup>103</sup>	49.74 <sup>274</sup>	21.948 <sup>82</sup>	28.34 <sup>354</sup>	4.839 <sup>116</sup>	19.00 <sup>235</sup>
21	8.981 <sup>21</sup>	49.75 <sup>183</sup>	32.050 <sup>49</sup>	52.48 <sup>257</sup>	22.030 <sup>14</sup>	31.88 <sup>342</sup>	4.955 <sup>64</sup>	21.35 <sup>218</sup>
30	9.093 <sup>32</sup>	51.58 <sup>190</sup>	32.099 <sup>3</sup>	55.05 <sup>235</sup>	22.044 <sup>51</sup>	35.30 <sup>320</sup>	5.019 <sup>13</sup>	23.53 <sup>195</sup>
Feb. 9	9.125 <sup>43</sup>	53.48 <sup>189</sup>	32.096 <sup>53</sup>	57.40 <sup>206</sup>	21.993 <sup>112</sup>	38.50 <sup>292</sup>	5.032 <sup>34</sup>	25.48 <sup>170</sup>
19	9.082 <sup>113</sup>	55.37 <sup>180</sup>	32.043 <sup>97</sup>	59.46 <sup>175</sup>	21.881 <sup>167</sup>	41.42 <sup>256</sup>	4.998 <sup>78</sup>	27.18 <sup>141</sup>
März 1	8.969 <sup>170</sup>	57.17 <sup>163</sup>	31.946 <sup>133</sup>	61.21 <sup>141</sup>	21.714 <sup>212</sup>	43.98 <sup>216</sup>	4.920 <sup>114</sup>	28.59 <sup>111</sup>
11	8.799 <sup>216</sup>	58.80 <sup>139</sup>	31.813 <sup>160</sup>	62.62 <sup>106</sup>	21.502 <sup>248</sup>	46.14 <sup>172</sup>	4.806 <sup>141</sup>	29.70 <sup>80</sup>
21	8.583 <sup>247</sup>	60.19 <sup>109</sup>	31.653 <sup>179</sup>	63.68 <sup>69</sup>	21.254 <sup>271</sup>	47.86 <sup>125</sup>	4.665 <sup>160</sup>	30.50 <sup>49</sup>
31	8.336 <sup>262</sup>	61.28 <sup>76</sup>	31.474 <sup>187</sup>	64.37 <sup>32</sup>	20.983 <sup>283</sup>	49.11 <sup>78</sup>	4.505 <sup>168</sup>	30.99 <sup>20</sup>
Apr. 10	8.074 <sup>262</sup>	62.04 <sup>39</sup>	31.287 <sup>187</sup>	64.69 <sup>4</sup>	20.700 <sup>286</sup>	49.89 <sup>28</sup>	4.337 <sup>168</sup>	31.19 <sup>10</sup>
20	7.812 <sup>249</sup>	62.43 <sup>4</sup>	31.100 <sup>177</sup>	64.65 <sup>40</sup>	20.414 <sup>278</sup>	50.17 <sup>21</sup>	4.169 <sup>160</sup>	31.09 <sup>39</sup>
30	7.563 <sup>223</sup>	62.47 <sup>32</sup>	30.923 <sup>161</sup>	64.25 <sup>74</sup>	20.136 <sup>260</sup>	49.96 <sup>68</sup>	4.009 <sup>145</sup>	30.70 <sup>67</sup>
Mai 10	7.340 <sup>187</sup>	62.15 <sup>65</sup>	30.762 <sup>139</sup>	63.51 <sup>106</sup>	19.876 <sup>236</sup>	49.28 <sup>115</sup>	3.864 <sup>123</sup>	30.03 <sup>93</sup>
20	7.153 <sup>143</sup>	61.50 <sup>96</sup>	30.623 <sup>112</sup>	62.45 <sup>137</sup>	19.640 <sup>205</sup>	48.13 <sup>158</sup>	3.741 <sup>98</sup>	29.10 <sup>116</sup>
30	7.010 <sup>93</sup>	60.54 <sup>122</sup>	30.511 <sup>81</sup>	61.08 <sup>163</sup>	19.435 <sup>168</sup>	46.55 <sup>196</sup>	3.643 <sup>68</sup>	27.94 <sup>137</sup>
Juni 9	6.917 <sup>41</sup>	59.32 <sup>145</sup>	30.430 <sup>49</sup>	59.45 <sup>185</sup>	19.267 <sup>126</sup>	44.59 <sup>231</sup>	3.575 <sup>38</sup>	26.57 <sup>155</sup>
19	6.876 <sup>14</sup>	57.87 <sup>164</sup>	30.381 <sup>14</sup>	57.60 <sup>204</sup>	19.141 <sup>83</sup>	42.28 <sup>259</sup>	3.537 <sup>5</sup>	25.02 <sup>170</sup>
29	6.890 <sup>69</sup>	56.23 <sup>177</sup>	30.367 <sup>21</sup>	55.56 <sup>216</sup>	19.058 <sup>36</sup>	39.69 <sup>280</sup>	3.532 <sup>27</sup>	23.32 <sup>178</sup>
Juli 9	6.959 <sup>122</sup>	54.46 <sup>188</sup>	30.388 <sup>55</sup>	53.40 <sup>221</sup>	19.022 <sup>12</sup>	36.89 <sup>292</sup>	3.559 <sup>60</sup>	21.54 <sup>182</sup>
19	7.081 <sup>173</sup>	52.58 <sup>194</sup>	30.443 <sup>89</sup>	51.19 <sup>222</sup>	19.034 <sup>61</sup>	33.97 <sup>297</sup>	3.619 <sup>92</sup>	19.72 <sup>181</sup>
29	7.254 <sup>222</sup>	50.64 <sup>196</sup>	30.532 <sup>124</sup>	48.97 <sup>213</sup>	19.095 <sup>109</sup>	31.00 <sup>292</sup>	3.711 <sup>122</sup>	17.91 <sup>172</sup>
Aug. 8	7.476 <sup>268</sup>	48.68 <sup>195</sup>	30.656 <sup>155</sup>	46.84 <sup>196</sup>	19.204 <sup>157</sup>	28.08 <sup>276</sup>	3.833 <sup>153</sup>	16.19 <sup>157</sup>
18	7.744 <sup>309</sup>	46.73 <sup>190</sup>	30.811 <sup>186</sup>	44.88 <sup>174</sup>	19.361 <sup>203</sup>	25.32 <sup>252</sup>	3.986 <sup>181</sup>	14.62 <sup>137</sup>
28	8.053 <sup>349</sup>	44.83 <sup>183</sup>	30.997 <sup>216</sup>	43.14 <sup>142</sup>	19.564 <sup>247</sup>	22.80 <sup>218</sup>	4.167 <sup>209</sup>	13.25 <sup>108</sup>
Sept. 7	8.402 <sup>384</sup>	43.00 <sup>172</sup>	31.213 <sup>243</sup>	41.72 <sup>105</sup>	19.811 <sup>288</sup>	20.62 <sup>175</sup>	4.376 <sup>234</sup>	12.17 <sup>75</sup>
17	8.786 <sup>416</sup>	41.28 <sup>158</sup>	31.456 <sup>268</sup>	40.67 <sup>63</sup>	20.099 <sup>323</sup>	18.87 <sup>124</sup>	4.610 <sup>258</sup>	11.42 <sup>38</sup>
27	9.202 <sup>443</sup>	39.70 <sup>142</sup>	31.724 <sup>289</sup>	40.04 <sup>15</sup>	20.422 <sup>353</sup>	17.63 <sup>67</sup>	4.868 <sup>279</sup>	11.04 <sup>4</sup>
Okt. 7	9.645 <sup>466</sup>	38.28 <sup>121</sup>	32.013 <sup>306</sup>	39.89 <sup>34</sup>	20.775 <sup>375</sup>	16.96 <sup>6</sup>	5.147 <sup>296</sup>	11.08 <sup>47</sup>
17	10.111 <sup>481</sup>	37.07 <sup>97</sup>	32.319 <sup>319</sup>	40.23 <sup>84</sup>	21.150 <sup>388</sup>	16.90 <sup>56</sup>	5.443 <sup>309</sup>	11.55 <sup>90</sup>
27	10.592 <sup>490</sup>	36.10 <sup>70</sup>	32.638 <sup>324</sup>	41.07 <sup>132</sup>	21.538 <sup>394</sup>	17.46 <sup>119</sup>	5.752 <sup>317</sup>	12.45 <sup>132</sup>
Nov. 6	11.082 <sup>489</sup>	35.40 <sup>40</sup>	32.962 <sup>323</sup>	42.39 <sup>177</sup>	21.932 <sup>387</sup>	18.65 <sup>179</sup>	6.069 <sup>317</sup>	13.77 <sup>169</sup>
16	11.571 <sup>478</sup>	35.00 <sup>7</sup>	33.285 <sup>313</sup>	44.16 <sup>215</sup>	22.319 <sup>370</sup>	20.44 <sup>230</sup>	6.386 <sup>309</sup>	15.46 <sup>200</sup>
26	12.049 <sup>454</sup>	34.93 <sup>27</sup>	33.598 <sup>294</sup>	46.31 <sup>246</sup>	22.689 <sup>340</sup>	22.74 <sup>277</sup>	6.695 <sup>294</sup>	17.46 <sup>225</sup>
Dez. 6	12.503 <sup>418</sup>	35.20 <sup>62</sup>	33.892 <sup>265</sup>	48.77 <sup>269</sup>	23.029 <sup>300</sup>	25.51 <sup>313</sup>	6.989 <sup>269</sup>	19.71 <sup>243</sup>
16	12.921 <sup>369</sup>	35.82 <sup>96</sup>	34.157 <sup>230</sup>	51.46 <sup>283</sup>	23.329 <sup>249</sup>	28.64 <sup>340</sup>	7.258 <sup>236</sup>	22.14 <sup>252</sup>
26	13.290 <sup>310</sup>	36.78 <sup>125</sup>	34.387 <sup>187</sup>	54.29 <sup>287</sup>	23.578 <sup>190</sup>	32.04 <sup>355</sup>	7.494 <sup>195</sup>	24.66 <sup>252</sup>
36	13.600	38.03	34.574	57.16	23.768	35.59	7.689	27.18
Mittl. Ort	7.553	46.79	31.189	55.30	20.631	36.16	4.187	23.98
sec δ, tg δ	1.614	+1.267	1.095	-0.447	1.470	-1.077	1.038	-0.279

# Obere Kulmination Greenwich

75\*

Tag	310) Br 1147		312) ♀ Cancri		314) ♀ Lynceis		315) ε Argus	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	8 <sup>h</sup> 10 <sup>m</sup>	+75° 58'	8 <sup>h</sup> 12 <sup>m</sup>	+9° 24'	8 <sup>h</sup> 17 <sup>m</sup>	+43° 24'	8 <sup>h</sup> 21 <sup>m</sup>	-59° 16'
Jan. 1	43.83 <sup>56</sup>	33.42 <sup>252</sup>	40.385 <sup>187</sup>	23.79 <sup>112</sup>	59.641 <sup>254</sup>	61.80 <sup>89</sup>	5.328 <sup>175</sup>	35.99 <sup>373</sup>
11	44.39 <sup>38</sup>	35.94 <sup>276</sup>	40.572 <sup>139</sup>	22.67 <sup>93</sup>	59.895 <sup>191</sup>	62.69 <sup>114</sup>	5.503 <sup>89</sup>	39.72 <sup>378</sup>
21	44.77 <sup>20</sup>	38.70 <sup>289</sup>	40.711 <sup>88</sup>	21.74 <sup>74</sup>	60.086 <sup>124</sup>	63.83 <sup>134</sup>	5.592 <sup>3</sup>	43.50 <sup>370</sup>
30	44.97 <sup>1</sup>	41.59 <sup>290</sup>	40.799 <sup>36</sup>	21.00 <sup>55</sup>	60.210 <sup>55</sup>	65.17 <sup>147</sup>	5.595 <sup>82</sup>	47.20 <sup>353</sup>
Feb. 9	44.98 <sup>18</sup>	44.49 <sup>281</sup>	40.835 <sup>13</sup>	20.45 <sup>35</sup>	60.265 <sup>12</sup>	66.64 <sup>153</sup>	5.513 <sup>161</sup>	50.73 <sup>328</sup>
19	44.80 <sup>35</sup>	47.30 <sup>259</sup>	40.822 <sup>57</sup>	20.10 <sup>18</sup>	60.253 <sup>73</sup>	68.17 <sup>151</sup>	5.352 <sup>231</sup>	54.01 <sup>296</sup>
März 1	44.45 <sup>49</sup>	49.89 <sup>227</sup>	40.765 <sup>95</sup>	19.92 <sup>3</sup>	60.180 <sup>126</sup>	69.68 <sup>143</sup>	5.121 <sup>292</sup>	56.97 <sup>257</sup>
11	43.96 <sup>61</sup>	52.16 <sup>188</sup>	40.670 <sup>123</sup>	19.89 <sup>10</sup>	60.054 <sup>166</sup>	71.11 <sup>128</sup>	4.829 <sup>339</sup>	59.54 <sup>214</sup>
21	43.35 <sup>70</sup>	54.04 <sup>141</sup>	40.547 <sup>142</sup>	19.99 <sup>20</sup>	59.888 <sup>195</sup>	72.39 <sup>107</sup>	4.490 <sup>374</sup>	61.68 <sup>166</sup>
31	42.65 <sup>75</sup>	55.45 <sup>90</sup>	40.405 <sup>152</sup>	20.19 <sup>29</sup>	59.693 <sup>211</sup>	73.46 <sup>82</sup>	4.116 <sup>395</sup>	63.34 <sup>115</sup>
Apr. 10	41.90 <sup>76</sup>	56.35 <sup>35</sup>	40.253 <sup>152</sup>	20.48 <sup>35</sup>	59.482 <sup>215</sup>	74.28 <sup>54</sup>	3.721 <sup>404</sup>	64.49 <sup>64</sup>
20	41.14 <sup>75</sup>	56.70 <sup>19</sup>	40.101 <sup>143</sup>	20.83 <sup>40</sup>	59.267 <sup>205</sup>	74.82 <sup>26</sup>	3.317 <sup>400</sup>	65.13 <sup>11</sup>
30	40.39 <sup>69</sup>	56.51 <sup>71</sup>	39.958 <sup>127</sup>	21.23 <sup>45</sup>	59.062 <sup>186</sup>	75.08 <sup>4</sup>	2.917 <sup>385</sup>	65.24 <sup>40</sup>
Mai 10	39.70 <sup>62</sup>	55.80 <sup>121</sup>	39.831 <sup>105</sup>	21.68 <sup>49</sup>	58.876 <sup>157</sup>	75.04 <sup>31</sup>	2.532 <sup>360</sup>	64.84 <sup>91</sup>
20	39.08 <sup>52</sup>	54.59 <sup>165</sup>	39.726 <sup>78</sup>	22.17 <sup>51</sup>	58.719 <sup>123</sup>	74.73 <sup>58</sup>	2.172 <sup>324</sup>	63.93 <sup>140</sup>
30	38.56 <sup>40</sup>	52.94 <sup>204</sup>	39.648 <sup>49</sup>	22.68 <sup>53</sup>	58.596 <sup>82</sup>	74.15 <sup>82</sup>	1.848 <sup>283</sup>	62.53 <sup>185</sup>
Juni 9	38.16 <sup>27</sup>	50.90 <sup>237</sup>	39.599 <sup>18</sup>	23.21 <sup>55</sup>	58.514 <sup>39</sup>	73.33 <sup>102</sup>	1.565 <sup>233</sup>	60.68 <sup>224</sup>
19	37.89 <sup>14</sup>	48.53 <sup>263</sup>	39.581 <sup>15</sup>	23.76 <sup>55</sup>	58.475 <sup>5</sup>	72.31 <sup>120</sup>	1.332 <sup>177</sup>	58.44 <sup>258</sup>
29	37.75 <sup>1</sup>	45.90 <sup>281</sup>	39.596 <sup>47</sup>	24.31 <sup>54</sup>	58.480 <sup>50</sup>	71.11 <sup>135</sup>	1.155 <sup>118</sup>	55.86 <sup>286</sup>
Juli 9	37.76 <sup>15</sup>	43.09 <sup>294</sup>	39.643 <sup>79</sup>	24.85 <sup>50</sup>	58.530 <sup>95</sup>	69.76 <sup>146</sup>	1.037 <sup>54</sup>	53.00 <sup>304</sup>
19	37.91 <sup>29</sup>	40.15 <sup>299</sup>	39.722 <sup>109</sup>	25.35 <sup>44</sup>	58.625 <sup>137</sup>	68.30 <sup>155</sup>	0.983 <sup>13</sup>	49.96 <sup>313</sup>
29	38.20 <sup>43</sup>	37.16 <sup>298</sup>	39.831 <sup>138</sup>	25.79 <sup>35</sup>	58.762 <sup>178</sup>	66.75 <sup>161</sup>	0.996 <sup>80</sup>	46.83 <sup>314</sup>
Aug. 8	38.63 <sup>55</sup>	34.18 <sup>290</sup>	39.969 <sup>166</sup>	26.14 <sup>24</sup>	58.940 <sup>216</sup>	65.14 <sup>165</sup>	1.076 <sup>147</sup>	43.69 <sup>303</sup>
18	39.18 <sup>68</sup>	31.28 <sup>277</sup>	40.135 <sup>192</sup>	26.38 <sup>11</sup>	59.156 <sup>253</sup>	63.49 <sup>166</sup>	1.223 <sup>213</sup>	40.66 <sup>283</sup>
28	39.86 <sup>78</sup>	28.51 <sup>258</sup>	40.327 <sup>217</sup>	26.49 <sup>6</sup>	59.409 <sup>288</sup>	61.83 <sup>165</sup>	1.436 <sup>277</sup>	37.83 <sup>250</sup>
Sept. 7	40.64 <sup>88</sup>	25.93 <sup>233</sup>	40.544 <sup>241</sup>	26.43 <sup>27</sup>	59.697 <sup>319</sup>	60.18 <sup>162</sup>	1.713 <sup>336</sup>	35.33 <sup>210</sup>
17	41.52 <sup>96</sup>	23.60 <sup>204</sup>	40.785 <sup>264</sup>	26.16 <sup>47</sup>	60.016 <sup>349</sup>	58.56 <sup>156</sup>	2.049 <sup>388</sup>	33.23 <sup>160</sup>
27	42.48 <sup>104</sup>	21.56 <sup>170</sup>	41.049 <sup>283</sup>	25.69 <sup>68</sup>	60.365 <sup>374</sup>	57.00 <sup>147</sup>	2.437 <sup>431</sup>	31.63 <sup>103</sup>
Okt. 7	43.52 <sup>109</sup>	19.86 <sup>132</sup>	41.332 <sup>300</sup>	25.01 <sup>90</sup>	60.739 <sup>398</sup>	55.53 <sup>135</sup>	2.868 <sup>465</sup>	30.60 <sup>40</sup>
17	44.61 <sup>112</sup>	18.54 <sup>89</sup>	41.632 <sup>314</sup>	24.11 <sup>109</sup>	61.137 <sup>415</sup>	54.18 <sup>119</sup>	3.333 <sup>486</sup>	30.20 <sup>26</sup>
27	45.73 <sup>114</sup>	17.65 <sup>44</sup>	41.946 <sup>323</sup>	23.02 <sup>126</sup>	61.552 <sup>426</sup>	52.99 <sup>100</sup>	3.819 <sup>494</sup>	30.46 <sup>91</sup>
Nov. 6	46.87 <sup>113</sup>	17.21 <sup>6</sup>	42.269 <sup>325</sup>	21.76 <sup>138</sup>	61.978 <sup>430</sup>	51.99 <sup>79</sup>	4.313 <sup>485</sup>	31.37 <sup>155</sup>
16	48.00 <sup>110</sup>	17.27 <sup>54</sup>	42.594 <sup>321</sup>	20.38 <sup>146</sup>	62.408 <sup>424</sup>	51.20 <sup>51</sup>	4.798 <sup>462</sup>	32.92 <sup>216</sup>
26	49.10 <sup>103</sup>	17.81 <sup>103</sup>	42.915 <sup>307</sup>	18.92 <sup>149</sup>	62.832 <sup>408</sup>	50.69 <sup>23</sup>	5.260 <sup>424</sup>	35.08 <sup>268</sup>
Dez. 6	50.13 <sup>93</sup>	18.84 <sup>151</sup>	43.222 <sup>286</sup>	17.43 <sup>145</sup>	63.240 <sup>380</sup>	50.46 <sup>8</sup>	5.684 <sup>370</sup>	37.76 <sup>311</sup>
16	51.06 <sup>82</sup>	20.35 <sup>194</sup>	43.508 <sup>255</sup>	15.98 <sup>137</sup>	63.620 <sup>342</sup>	50.54 <sup>39</sup>	6.054 <sup>304</sup>	40.87 <sup>345</sup>
26	51.88 <sup>67</sup>	22.29 <sup>231</sup>	43.763 <sup>217</sup>	14.61 <sup>124</sup>	63.962 <sup>292</sup>	50.93 <sup>72</sup>	6.358 <sup>228</sup>	44.32 <sup>366</sup>
36	52.55	24.60	43.980	13.37	64.254	51.65	6.586	47.98
Mittl. Ort sec δ, tg δ	40.15 4.127	34.93 +4.004	40.003 1.014	19.86 +0.166	58.934 1.377	62.06 +0.946	3.559 1.958	49.70 -1.683

Tag	316) Br 1197		318) ♃ Chamael.		317) ♀ Ursae maj.		320) Grb 1450	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	8 <sup>h</sup> 22 <sup>m</sup>	—3° 40'	8 <sup>h</sup> 22 <sup>m</sup>	—77° 15'	8 <sup>h</sup> 24 <sup>m</sup>	+60° 57'	8 <sup>h</sup> 28 <sup>m</sup>	+38° 15'
Jan. I	7.214 <sup>184</sup>	19.43 <sup>189</sup>	53.21 <sup>24</sup>	6.54 <sup>368</sup>	24.32 <sup>35</sup>	24.14 <sup>178</sup>	18.999 <sup>250</sup>	40.31 <sup>53</sup>
II	7.398 <sup>137</sup>	21.32 <sup>174</sup>	53.45 <sup>4</sup>	10.22 <sup>379</sup>	24.67 <sup>26</sup>	25.92 <sup>205</sup>	19.249 <sup>193</sup>	40.84 <sup>79</sup>
21	7.535 <sup>87</sup>	23.06 <sup>155</sup>	53.49 <sup>14</sup>	14.01 <sup>376</sup>	24.93 <sup>17</sup>	27.97 <sup>225</sup>	19.442 <sup>131</sup>	41.63 <sup>101</sup>
30	7.622 <sup>37</sup>	24.61 <sup>135</sup>	53.35 <sup>32</sup>	17.77 <sup>365</sup>	25.10 <sup>6</sup>	30.22 <sup>234</sup>	19.573 <sup>66</sup>	42.64 <sup>117</sup>
Feb. 9	7.659 <sup>12</sup>	25.96 <sup>111</sup>	53.03 <sup>49</sup>	21.42 <sup>343</sup>	25.16 <sup>3</sup>	32.56 <sup>234</sup>	19.639 <sup>4</sup>	43.81 <sup>127</sup>
19	7.647 <sup>56</sup>	27.07 <sup>87</sup>	52.54 <sup>65</sup>	24.85 <sup>315</sup>	25.13 <sup>13</sup>	34.90 <sup>224</sup>	19.643 <sup>54</sup>	45.08 <sup>131</sup>
März I	7.591 <sup>92</sup>	27.94 <sup>64</sup>	51.89 <sup>77</sup>	28.00 <sup>280</sup>	25.00 <sup>19</sup>	37.14 <sup>204</sup>	19.589 <sup>104</sup>	46.39 <sup>127</sup>
II	7.499 <sup>121</sup>	28.58 <sup>41</sup>	51.12 <sup>87</sup>	30.80 <sup>239</sup>	24.81 <sup>26</sup>	39.18 <sup>177</sup>	19.485 <sup>144</sup>	47.66 <sup>118</sup>
21	7.378 <sup>141</sup>	28.99 <sup>19</sup>	50.25 <sup>96</sup>	33.19 <sup>192</sup>	24.55 <sup>31</sup>	40.95 <sup>142</sup>	19.341 <sup>172</sup>	48.84 <sup>103</sup>
31	7.237 <sup>151</sup>	29.18 <sup>1</sup>	49.29 <sup>102</sup>	35.11 <sup>144</sup>	24.24 <sup>34</sup>	42.37 <sup>103</sup>	19.169 <sup>188</sup>	49.87 <sup>83</sup>
Apr. 10	7.086 <sup>153</sup>	29.17 <sup>20</sup>	48.27 <sup>104</sup>	36.55 <sup>92</sup>	23.90 <sup>35</sup>	43.40 <sup>59</sup>	18.981 <sup>193</sup>	50.70 <sup>62</sup>
20	6.933 <sup>146</sup>	28.97 <sup>39</sup>	47.23 <sup>104</sup>	37.47 <sup>39</sup>	23.55 <sup>34</sup>	43.99 <sup>16</sup>	18.788 <sup>186</sup>	51.32 <sup>37</sup>
30	6.787 <sup>133</sup>	28.58 <sup>55</sup>	46.19 <sup>103</sup>	37.86 <sup>15</sup>	23.21 <sup>31</sup>	44.15 <sup>28</sup>	18.602 <sup>171</sup>	51.69 <sup>12</sup>
Mai 10	6.654 <sup>112</sup>	28.03 <sup>71</sup>	45.16 <sup>98</sup>	37.71 <sup>67</sup>	22.90 <sup>28</sup>	43.87 <sup>71</sup>	18.431 <sup>145</sup>	51.81 <sup>12</sup>
20	6.542 <sup>88</sup>	27.32 <sup>85</sup>	44.18 <sup>91</sup>	37.04 <sup>119</sup>	22.62 <sup>23</sup>	43.16 <sup>109</sup>	18.286 <sup>115</sup>	51.69 <sup>36</sup>
30	6.454 <sup>62</sup>	26.47 <sup>97</sup>	43.27 <sup>82</sup>	35.85 <sup>166</sup>	22.39 <sup>17</sup>	42.07 <sup>144</sup>	18.171 <sup>80</sup>	51.33 <sup>56</sup>
Juni 9	6.392 <sup>32</sup>	25.50 <sup>107</sup>	42.45 <sup>72</sup>	34.19 <sup>210</sup>	22.22 <sup>11</sup>	40.63 <sup>175</sup>	18.091 <sup>42</sup>	50.77 <sup>76</sup>
19	6.360 <sup>1</sup>	24.43 <sup>115</sup>	41.73 <sup>59</sup>	32.09 <sup>248</sup>	22.11 <sup>4</sup>	38.88 <sup>200</sup>	18.049 <sup>1</sup>	50.01 <sup>92</sup>
29	6.359 <sup>30</sup>	23.28 <sup>119</sup>	41.14 <sup>45</sup>	29.61 <sup>279</sup>	22.07 <sup>2</sup>	36.88 <sup>219</sup>	18.048 <sup>39</sup>	49.09 <sup>107</sup>
Juli 9	6.389 <sup>60</sup>	22.09 <sup>119</sup>	40.69 <sup>29</sup>	26.82 <sup>302</sup>	22.09 <sup>9</sup>	34.69 <sup>235</sup>	18.087 <sup>79</sup>	48.02 <sup>119</sup>
19	6.449 <sup>90</sup>	20.90 <sup>116</sup>	40.40 <sup>14</sup>	23.80 <sup>317</sup>	22.18 <sup>16</sup>	32.34 <sup>244</sup>	18.166 <sup>118</sup>	46.83 <sup>129</sup>
29	6.539 <sup>119</sup>	19.74 <sup>107</sup>	40.26 <sup>3</sup>	20.63 <sup>320</sup>	22.34 <sup>23</sup>	29.90 <sup>249</sup>	18.284 <sup>155</sup>	45.54 <sup>138</sup>
Aug. 8	6.658 <sup>147</sup>	18.67 <sup>94</sup>	40.29 <sup>20</sup>	17.43 <sup>315</sup>	22.57 <sup>28</sup>	27.41 <sup>249</sup>	18.439 <sup>190</sup>	44.16 <sup>144</sup>
18	6.805 <sup>174</sup>	17.73 <sup>76</sup>	40.49 <sup>37</sup>	14.28 <sup>298</sup>	22.85 <sup>34</sup>	24.92 <sup>243</sup>	18.629 <sup>225</sup>	42.72 <sup>148</sup>
28	6.979 <sup>201</sup>	16.97 <sup>54</sup>	40.86 <sup>52</sup>	11.30 <sup>270</sup>	23.19 <sup>40</sup>	22.49 <sup>235</sup>	18.854 <sup>257</sup>	41.24 <sup>151</sup>
Sept. 7	7.180 <sup>226</sup>	16.43 <sup>27</sup>	41.38 <sup>67</sup>	8.60 <sup>232</sup>	23.59 <sup>44</sup>	20.14 <sup>220</sup>	19.111 <sup>288</sup>	39.73 <sup>153</sup>
17	7.406 <sup>249</sup>	16.16 <sup>3</sup>	42.05 <sup>80</sup>	6.28 <sup>185</sup>	24.03 <sup>49</sup>	17.94 <sup>202</sup>	19.399 <sup>317</sup>	38.20 <sup>151</sup>
27	7.655 <sup>271</sup>	16.19 <sup>35</sup>	42.85 <sup>89</sup>	4.43 <sup>129</sup>	24.52 <sup>53</sup>	15.92 <sup>180</sup>	19.716 <sup>342</sup>	36.69 <sup>148</sup>
Okt. 7	7.926 <sup>290</sup>	16.54 <sup>69</sup>	43.74 <sup>97</sup>	3.14 <sup>68</sup>	25.05 <sup>57</sup>	14.12 <sup>153</sup>	20.058 <sup>366</sup>	35.21 <sup>142</sup>
17	8.216 <sup>305</sup>	17.23 <sup>101</sup>	44.71 <sup>101</sup>	2.46 <sup>3</sup>	25.62 <sup>59</sup>	12.59 <sup>122</sup>	20.424 <sup>384</sup>	33.79 <sup>131</sup>
27	8.521 <sup>314</sup>	18.24 <sup>131</sup>	45.72 <sup>102</sup>	2.43 <sup>64</sup>	26.21 <sup>60</sup>	11.37 <sup>88</sup>	20.808 <sup>398</sup>	32.48 <sup>118</sup>
Nov. 6	8.835 <sup>318</sup>	19.55 <sup>157</sup>	46.74 <sup>99</sup>	3.07 <sup>130</sup>	26.81 <sup>61</sup>	10.49 <sup>49</sup>	21.206 <sup>403</sup>	31.30 <sup>100</sup>
16	9.153 <sup>314</sup>	21.12 <sup>179</sup>	47.73 <sup>92</sup>	4.37 <sup>192</sup>	27.42 <sup>60</sup>	10.00 <sup>8</sup>	21.609 <sup>401</sup>	30.30 <sup>79</sup>
26	9.467 <sup>301</sup>	22.91 <sup>194</sup>	48.65 <sup>82</sup>	6.29 <sup>247</sup>	28.02 <sup>57</sup>	9.92 <sup>35</sup>	22.010 <sup>388</sup>	29.51 <sup>53</sup>
Dez. 6	9.768 <sup>281</sup>	24.85 <sup>202</sup>	49.47 <sup>68</sup>	8.76 <sup>295</sup>	28.59 <sup>53</sup>	10.27 <sup>77</sup>	22.398 <sup>364</sup>	28.98 <sup>26</sup>
16	10.049 <sup>251</sup>	26.87 <sup>203</sup>	50.15 <sup>53</sup>	11.71 <sup>333</sup>	29.12 <sup>48</sup>	11.04 <sup>118</sup>	22.762 <sup>330</sup>	28.72 <sup>4</sup>
26	10.300 <sup>213</sup>	28.90 <sup>197</sup>	50.68 <sup>35</sup>	15.04 <sup>360</sup>	29.60 <sup>40</sup>	12.22 <sup>155</sup>	23.092 <sup>285</sup>	28.76 <sup>33</sup>
36	10.513	30.87	51.03	18.64	30.00	13.77	23.377	29.09
Mittl. Ort sec δ, tg δ	6.837 1.002	25.35 —0.064	47.95 4.533	21.84 —4.422	22.90 2.060	26.07 +1.801	18.416 1.274	40.49 +0.789

# Obere Kulmination Greenwich

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Tag	321) ♀ Cancri		326) ♂ Cancri		327) α Pyxidis		328) ♀ Cancri	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	8 <sup>h</sup> 28 <sup>m</sup>	+20° 40'	8 <sup>h</sup> 40 <sup>m</sup>	+18° 24'	8 <sup>h</sup> 40 <sup>m</sup>	-32° 55'	8 <sup>h</sup> 42 <sup>m</sup>	+29° 1'
Jan. 1	36.771 <sup>216</sup>	62.79 <sup>51</sup>	39.548 <sup>223</sup>	61.03 <sup>71</sup>	44.906 <sup>192</sup>	35.13 <sup>319</sup>	24.755 <sup>243</sup>	15.33 <sup>9</sup>
11	36.987 <sup>166</sup>	62.28 <sup>29</sup>	39.771 <sup>176</sup>	60.32 <sup>48</sup>	45.098 <sup>138</sup>	38.32 <sup>317</sup>	24.998 <sup>192</sup>	15.24 <sup>17</sup>
21	37.153 <sup>113</sup>	61.99 <sup>7</sup>	39.947 <sup>124</sup>	59.84 <sup>26</sup>	45.236 <sup>81</sup>	41.49 <sup>306</sup>	25.190 <sup>136</sup>	15.41 <sup>40</sup>
30*)	37.266 <sup>58</sup>	61.92 <sup>12</sup>	40.071 <sup>69</sup>	59.58 <sup>5</sup>	45.317 <sup>25</sup>	44.55 <sup>288</sup>	25.326 <sup>78</sup>	15.81 <sup>61</sup>
Feb. 9	37.324 <sup>6</sup>	62.04 <sup>28</sup>	40.140 <sup>17</sup>	59.53 <sup>14</sup>	45.342 <sup>29</sup>	47.43 <sup>264</sup>	25.404 <sup>21</sup>	16.42 <sup>77</sup>
19	37.330 <sup>43</sup>	62.32 <sup>42</sup>	40.157 <sup>31</sup>	59.67 <sup>29</sup>	45.313 <sup>79</sup>	50.07 <sup>233</sup>	25.425 <sup>32</sup>	17.19 <sup>87</sup>
März 1	37.287 <sup>84</sup>	62.74 <sup>50</sup>	40.126 <sup>73</sup>	59.96 <sup>40</sup>	45.234 <sup>121</sup>	52.40 <sup>199</sup>	25.393 <sup>78</sup>	18.06 <sup>92</sup>
11	37.203 <sup>118</sup>	63.24 <sup>55</sup>	40.053 <sup>107</sup>	60.36 <sup>48</sup>	45.113 <sup>155</sup>	54.39 <sup>162</sup>	25.315 <sup>115</sup>	18.98 <sup>91</sup>
21	37.085 <sup>140</sup>	63.79 <sup>56</sup>	39.946 <sup>132</sup>	60.84 <sup>52</sup>	44.958 <sup>180</sup>	56.01 <sup>122</sup>	25.200 <sup>143</sup>	19.89 <sup>86</sup>
31	36.945 <sup>153</sup>	64.35 <sup>53</sup>	39.814 <sup>146</sup>	61.36 <sup>52</sup>	44.778 <sup>195</sup>	57.23 <sup>82</sup>	25.057 <sup>159</sup>	20.75 <sup>77</sup>
Apr. 10	36.792 <sup>157</sup>	64.88 <sup>49</sup>	39.668 <sup>151</sup>	61.88 <sup>50</sup>	44.583 <sup>202</sup>	58.05 <sup>41</sup>	24.898 <sup>166</sup>	21.52 <sup>63</sup>
20	36.635 <sup>150</sup>	65.37 <sup>43</sup>	39.517 <sup>147</sup>	62.38 <sup>46</sup>	44.381 <sup>199</sup>	58.46 <sup>1</sup>	24.732 <sup>162</sup>	22.15 <sup>49</sup>
30	36.485 <sup>135</sup>	65.80 <sup>35</sup>	39.370 <sup>135</sup>	62.84 <sup>40</sup>	44.182 <sup>189</sup>	58.45 <sup>41</sup>	24.570 <sup>149</sup>	22.64 <sup>33</sup>
Mai 10	36.350 <sup>115</sup>	66.15 <sup>28</sup>	39.235 <sup>116</sup>	63.24 <sup>35</sup>	43.993 <sup>173</sup>	58.04 <sup>80</sup>	24.421 <sup>130</sup>	22.97 <sup>16</sup>
20	36.235 <sup>90</sup>	66.43 <sup>19</sup>	39.119 <sup>93</sup>	63.59 <sup>28</sup>	43.820 <sup>151</sup>	57.24 <sup>117</sup>	24.291 <sup>105</sup>	23.13 <sup>0</sup>
30	36.145 <sup>60</sup>	66.62 <sup>11</sup>	39.026 <sup>66</sup>	63.87 <sup>21</sup>	43.669 <sup>125</sup>	56.07 <sup>150</sup>	24.186 <sup>75</sup>	23.13 <sup>16</sup>
Juni 9	36.085 <sup>28</sup>	66.73 <sup>4</sup>	38.960 <sup>36</sup>	64.08 <sup>14</sup>	43.544 <sup>95</sup>	54.57 <sup>181</sup>	24.111 <sup>42</sup>	22.97 <sup>30</sup>
19	36.057 <sup>5</sup>	66.77 <sup>3</sup>	38.924 <sup>5</sup>	64.22 <sup>7</sup>	43.449 <sup>63</sup>	52.76 <sup>206</sup>	24.069 <sup>9</sup>	22.67 <sup>44</sup>
29	36.062 <sup>38</sup>	66.74 <sup>11</sup>	38.919 <sup>26</sup>	64.29 <sup>0</sup>	43.386 <sup>29</sup>	50.70 <sup>225</sup>	24.060 <sup>26</sup>	22.23 <sup>56</sup>
Juli 9	36.100 <sup>71</sup>	66.63 <sup>18</sup>	38.945 <sup>58</sup>	64.29 <sup>8</sup>	43.357 <sup>7</sup>	48.45 <sup>238</sup>	24.086 <sup>60</sup>	21.67 <sup>68</sup>
19	36.171 <sup>102</sup>	66.45 <sup>27</sup>	39.003 <sup>89</sup>	64.21 <sup>17</sup>	43.364 <sup>43</sup>	46.07 <sup>244</sup>	24.146 <sup>94</sup>	20.99 <sup>79</sup>
29	36.273 <sup>133</sup>	66.18 <sup>36</sup>	39.092 <sup>119</sup>	64.04 <sup>27</sup>	43.407 <sup>79</sup>	43.63 <sup>242</sup>	24.240 <sup>127</sup>	20.20 <sup>89</sup>
Aug. 8	36.406 <sup>163</sup>	65.82 <sup>46</sup>	39.211 <sup>148</sup>	63.77 <sup>37</sup>	43.486 <sup>117</sup>	41.21 <sup>231</sup>	24.367 <sup>159</sup>	19.31 <sup>99</sup>
18	36.569 <sup>191</sup>	65.36 <sup>56</sup>	39.359 <sup>176</sup>	63.40 <sup>50</sup>	43.603 <sup>153</sup>	38.90 <sup>212</sup>	24.526 <sup>190</sup>	18.32 <sup>109</sup>
28	36.760 <sup>218</sup>	64.80 <sup>69</sup>	39.535 <sup>204</sup>	62.90 <sup>64</sup>	43.756 <sup>190</sup>	36.78 <sup>184</sup>	24.716 <sup>219</sup>	17.23 <sup>117</sup>
Sept. 7	36.978 <sup>244</sup>	64.11 <sup>81</sup>	39.739 <sup>231</sup>	62.26 <sup>78</sup>	43.946 <sup>224</sup>	34.94 <sup>148</sup>	24.935 <sup>248</sup>	16.06 <sup>125</sup>
17	37.222 <sup>269</sup>	63.30 <sup>94</sup>	39.970 <sup>256</sup>	61.48 <sup>92</sup>	44.170 <sup>256</sup>	33.46 <sup>105</sup>	25.183 <sup>276</sup>	14.81 <sup>132</sup>
27	37.491 <sup>291</sup>	62.36 <sup>106</sup>	40.226 <sup>280</sup>	60.56 <sup>107</sup>	44.426 <sup>286</sup>	32.41 <sup>56</sup>	25.459 <sup>302</sup>	13.49 <sup>138</sup>
Okt. 7	37.782 <sup>312</sup>	61.30 <sup>116</sup>	40.506 <sup>303</sup>	59.49 <sup>120</sup>	44.712 <sup>312</sup>	31.85 <sup>3</sup>	25.761 <sup>326</sup>	12.11 <sup>141</sup>
17	38.094 <sup>328</sup>	60.14 <sup>124</sup>	40.809 <sup>321</sup>	58.29 <sup>131</sup>	45.024 <sup>332</sup>	31.82 <sup>51</sup>	26.087 <sup>345</sup>	10.70 <sup>141</sup>
27	38.422 <sup>341</sup>	58.90 <sup>129</sup>	41.130 <sup>335</sup>	56.98 <sup>138</sup>	45.356 <sup>344</sup>	32.33 <sup>106</sup>	26.432 <sup>360</sup>	9.29 <sup>136</sup>
Nov. 6	38.763 <sup>346</sup>	57.61 <sup>130</sup>	41.465 <sup>343</sup>	55.60 <sup>141</sup>	45.700 <sup>348</sup>	33.39 <sup>158</sup>	26.792 <sup>369</sup>	7.93 <sup>129</sup>
16	39.109 <sup>344</sup>	56.31 <sup>126</sup>	41.808 <sup>343</sup>	54.19 <sup>140</sup>	46.048 <sup>344</sup>	34.97 <sup>206</sup>	27.161 <sup>369</sup>	6.64 <sup>117</sup>
26	39.453 <sup>334</sup>	55.05 <sup>118</sup>	42.151 <sup>334</sup>	52.79 <sup>134</sup>	46.392 <sup>329</sup>	37.03 <sup>247</sup>	27.530 <sup>361</sup>	5.47 <sup>99</sup>
Dez. 6	39.787 <sup>314</sup>	53.87 <sup>104</sup>	42.485 <sup>317</sup>	51.45 <sup>122</sup>	46.721 <sup>303</sup>	39.50 <sup>280</sup>	27.891 <sup>342</sup>	4.48 <sup>78</sup>
16	40.101 <sup>284</sup>	52.83 <sup>87</sup>	42.802 <sup>289</sup>	50.23 <sup>106</sup>	47.024 <sup>268</sup>	42.30 <sup>304</sup>	28.233 <sup>313</sup>	3.70 <sup>54</sup>
26	40.385 <sup>246</sup>	51.96 <sup>67</sup>	43.091 <sup>253</sup>	49.17 <sup>86</sup>	47.292 <sup>225</sup>	45.34 <sup>318</sup>	28.546 <sup>274</sup>	3.16 <sup>28</sup>
36	40.631	51.29	43.344	48.31	47.517	48.52	28.820	2.88
Mittl. Ort sec δ, tg δ	36.385 1.069	60.67 +0.378	39.203 1.054	58.78 +0.333	44.307 1.191	46.53 -0.648	24.331 1.144	14.80 +0.555

\*) Bei Stern 326), 327) und 328) lies Jan. 31

Tag	330) $\delta$ Argus		334) $\zeta$ Hydrae		336) $\epsilon$ Carinae		335) $\iota$ Ursae maj.	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	8 <sup>h</sup> 42 <sup>m</sup>	—54° 26'	8 <sup>h</sup> 51 <sup>m</sup>	+6° 12'	8 <sup>h</sup> 53 <sup>m</sup>	—60° 22'	8 <sup>h</sup> 54 <sup>m</sup>	+48° 19'
Jan. I	45.876 <sub>208</sub>	37.80 <sub>366</sub>	38.830 <sub>219</sub>	64.69 <sub>144</sub>	27.97 <sub>24</sub>	5.42 <sub>368</sub>	22.138 <sub>315</sub>	15.10 <sub>90</sub>
II	46.084 <sub>134</sub>	41.46 <sub>372</sub>	39.049 <sub>173</sub>	63.25 <sub>126</sub>	28.21 <sub>16</sub>	9.10 <sub>379</sub>	22.453 <sub>251</sub>	16.00 <sub>123</sub>
2I	46.218 <sub>57</sub>	45.18 <sub>370</sub>	39.222 <sub>124</sub>	61.99 <sub>105</sub>	28.37 <sub>7</sub>	12.89 <sub>380</sub>	22.704 <sub>181</sub>	17.23 <sub>150</sub>
3I	46.275 <sub>20</sub>	48.88 <sub>356</sub>	39.346 <sub>73</sub>	60.94 <sub>82</sub>	28.44 <sub>2</sub>	16.69 <sub>370</sub>	22.885 <sub>106</sub>	18.73 <sub>169</sub>
Feb. 9	46.255 <sub>92</sub>	52.44 <sub>334</sub>	39.419 <sub>23</sub>	60.12 <sub>61</sub>	28.42 <sub>11</sub>	20.39 <sub>352</sub>	22.991 <sub>33</sub>	20.42 <sub>181</sub>
19	46.163 <sub>157</sub>	55.78 <sub>304</sub>	39.442 <sub>24</sub>	59.51 <sub>40</sub>	28.31 <sub>18</sub>	23.91 <sub>325</sub>	23.024 <sub>37</sub>	22.23 <sub>185</sub>
März I	46.006 <sub>215</sub>	58.82 <sub>269</sub>	39.418 <sub>64</sub>	59.11 <sub>20</sub>	28.13 <sub>25</sub>	27.16 <sub>292</sub>	22.987 <sub>99</sub>	24.08 <sub>179</sub>
II	45.791 <sub>261</sub>	61.51 <sub>228</sub>	39.354 <sub>96</sub>	58.91 <sub>3</sub>	27.88 <sub>30</sub>	30.08 <sub>252</sub>	22.888 <sub>150</sub>	25.87 <sub>165</sub>
2I	45.530 <sub>296</sub>	63.79 <sub>183</sub>	39.258 <sub>121</sub>	58.88 <sub>11</sub>	27.58 <sub>35</sub>	32.60 <sub>208</sub>	22.738 <sub>190</sub>	27.52 <sub>145</sub>
3I	45.234 <sub>319</sub>	65.62 <sub>135</sub>	39.137 <sub>136</sub>	58.99 <sub>23</sub>	27.23 <sub>38</sub>	34.68 <sub>160</sub>	22.548 <sub>217</sub>	28.97 <sub>119</sub>
Apr. 10	44.915 <sub>332</sub>	66.97 <sub>86</sub>	39.001 <sub>142</sub>	59.22 <sub>33</sub>	26.85 <sub>39</sub>	36.28 <sub>111</sub>	22.331 <sub>229</sub>	30.16 <sub>89</sub>
20	44.583 <sub>332</sub>	67.83 <sub>34</sub>	38.859 <sub>140</sub>	59.55 <sub>41</sub>	26.46 <sub>40</sub>	37.39 <sub>58</sub>	22.102 <sub>230</sub>	31.05 <sub>55</sub>
30	44.251 <sub>324</sub>	68.17 <sub>16</sub>	38.719 <sub>130</sub>	59.96 <sub>48</sub>	26.06 <sub>40</sub>	37.97 <sub>7</sub>	21.872 <sub>218</sub>	31.60 <sub>20</sub>
Mai 10	43.927 <sub>306</sub>	68.01 <sub>66</sub>	38.589 <sub>115</sub>	60.44 <sub>54</sub>	25.66 <sub>38</sub>	38.04 <sub>46</sub>	21.654 <sub>197</sub>	31.80 <sub>14</sub>
20	43.621 <sub>280</sub>	67.35 <sub>115</sub>	38.474 <sub>94</sub>	60.98 <sub>58</sub>	25.28 <sub>36</sub>	37.58 <sub>97</sub>	21.457 <sub>167</sub>	31.66 <sub>47</sub>
30	43.341 <sub>246</sub>	66.20 <sub>160</sub>	38.380 <sub>71</sub>	61.56 <sub>61</sub>	24.92 <sub>32</sub>	36.61 <sub>144</sub>	21.290 <sub>131</sub>	31.19 <sub>79</sub>
Juni 9	43.095 <sub>207</sub>	64.60 <sub>200</sub>	38.309 <sub>44</sub>	62.17 <sub>63</sub>	24.60 <sub>28</sub>	35.17 <sub>188</sub>	21.159 <sub>90</sub>	30.40 <sub>107</sub>
19	42.888 <sub>163</sub>	62.60 <sub>235</sub>	38.265 <sub>16</sub>	62.80 <sub>63</sub>	24.32 <sub>23</sub>	33.29 <sub>228</sub>	21.069 <sub>47</sub>	29.33 <sub>133</sub>
29	42.725 <sub>114</sub>	60.25 <sub>265</sub>	38.249 <sub>12</sub>	63.43 <sub>62</sub>	24.09 <sub>17</sub>	31.01 <sub>259</sub>	21.022 <sub>1</sub>	28.00 <sub>154</sub>
Jüli 9	42.611 <sub>60</sub>	57.60 <sub>286</sub>	38.261 <sub>41</sub>	64.05 <sub>59</sub>	23.92 <sub>11</sub>	28.42 <sub>285</sub>	21.021 <sub>44</sub>	26.46 <sub>174</sub>
19	42.551 <sub>6</sub>	54.74 <sub>299</sub>	38.302 <sub>70</sub>	64.64 <sub>52</sub>	23.81 <sub>5</sub>	25.57 <sub>302</sub>	21.065 <sub>90</sub>	24.72 <sub>188</sub>
29	42.545 <sub>51</sub>	51.75 <sub>302</sub>	38.372 <sub>98</sub>	65.16 <sub>43</sub>	23.76 <sub>2</sub>	22.55 <sub>309</sub>	21.155 <sub>135</sub>	22.84 <sub>199</sub>
Aug. 8	42.596 <sub>110</sub>	48.73 <sub>295</sub>	38.470 <sub>127</sub>	65.59 <sub>31</sub>	23.78 <sub>9</sub>	19.46 <sub>306</sub>	21.290 <sub>178</sub>	20.85 <sub>208</sub>
18	42.706 <sub>168</sub>	45.78 <sub>278</sub>	38.597 <sub>154</sub>	65.90 <sub>16</sub>	23.87 <sub>16</sub>	16.40 <sub>292</sub>	21.468 <sub>221</sub>	18.77 <sub>213</sub>
28	42.874 <sub>225</sub>	43.00 <sub>251</sub>	38.751 <sub>181</sub>	66.06 <sub>3</sub>	24.03 <sub>23</sub>	13.48 <sub>268</sub>	21.689 <sub>261</sub>	16.64 <sub>214</sub>
Sept. 7	43.099 <sub>279</sub>	40.49 <sub>214</sub>	38.932 <sub>209</sub>	66.03 <sub>24</sub>	24.26 <sub>30</sub>	10.80 <sub>234</sub>	21.950 <sub>301</sub>	14.50 <sub>211</sub>
17	43.378 <sub>329</sub>	38.35 <sub>167</sub>	39.141 <sub>235</sub>	65.79 <sub>47</sub>	24.56 <sub>36</sub>	8.46 <sub>189</sub>	22.251 <sub>338</sub>	12.39 <sub>206</sub>
27	43.707 <sub>372</sub>	36.68 <sub>114</sub>	39.376 <sub>260</sub>	65.32 <sub>72</sub>	24.92 <sub>41</sub>	6.57 <sub>137</sub>	22.589 <sub>372</sub>	10.33 <sub>196</sub>
Okt. 7	44.079 <sub>409</sub>	35.54 <sub>54</sub>	39.636 <sub>283</sub>	64.60 <sub>96</sub>	25.33 <sub>46</sub>	5.20 <sub>77</sub>	22.961 <sub>404</sub>	8.37 <sub>182</sub>
17	44.488 <sub>434</sub>	35.00 <sub>10</sub>	39.919 <sub>302</sub>	63.64 <sub>118</sub>	25.79 <sub>49</sub>	4.43 <sub>13</sub>	23.365 <sub>430</sub>	6.55 <sub>164</sub>
27	44.922 <sub>448</sub>	35.10 <sub>75</sub>	40.221 <sub>317</sub>	62.46 <sub>140</sub>	26.28 <sub>51</sub>	4.30 <sub>52</sub>	23.795 <sub>451</sub>	4.91 <sub>141</sub>
Nov. 6	45.370 <sub>450</sub>	35.85 <sub>138</sub>	40.538 <sub>327</sub>	61.06 <sub>157</sub>	26.79 <sub>51</sub>	4.82 <sub>119</sub>	24.246 <sub>463</sub>	3.50 <sub>114</sub>
16	45.820 <sub>438</sub>	37.23 <sub>198</sub>	40.865 <sub>328</sub>	59.49 <sub>167</sub>	27.30 <sub>51</sub>	6.01 <sub>181</sub>	24.709 <sub>466</sub>	2.36 <sub>83</sub>
26	46.258 <sub>411</sub>	39.21 <sub>252</sub>	41.193 <sub>321</sub>	57.82 <sub>174</sub>	27.81 <sub>47</sub>	7.82 <sub>238</sub>	25.175 <sub>455</sub>	1.53 <sub>47</sub>
Dez. 6	46.669 <sub>370</sub>	41.73 <sub>297</sub>	41.514 <sub>306</sub>	56.08 <sub>174</sub>	28.28 <sub>42</sub>	10.20 <sub>287</sub>	25.630 <sub>434</sub>	1.06 <sub>10</sub>
16	47.039 <sub>317</sub>	44.70 <sub>333</sub>	41.820 <sub>280</sub>	54.34 <sub>168</sub>	28.70 <sub>37</sub>	13.07 <sub>327</sub>	26.064 <sub>400</sub>	0.96 <sub>28</sub>
26	47.356 <sub>254</sub>	48.03 <sub>358</sub>	42.100 <sub>246</sub>	52.66 <sub>156</sub>	29.07 <sub>29</sub>	16.34 <sub>357</sub>	26.464 <sub>350</sub>	1.24 <sub>66</sub>
36	47.610	51.61	42.346	51.10	29.36	19.91	26.814	1.90
Mittl. Ort sec $\delta$ , tg $\delta$	44.603 1.720	52.53 —1.399	38.553 1.006	60.36 +0.109	26.42 2.023	21.62 —1.758	21.378 1.504	17.64 +1.123

# Obere Kulmination Greenwich

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Tag	337) $\alpha$ Cancri		339) $\iota$ Ursae maj.		341) $\kappa$ Ursae maj.		343) $\alpha$ Volantis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	8 <sup>h</sup> 54 <sup>m</sup>	+12° 7'	8 <sup>h</sup> 56 <sup>m</sup>	+42° 3'	8 <sup>h</sup> 58 <sup>m</sup>	+47° 26'	9 <sup>h</sup> 1 <sup>m</sup>	-66° 6'
Jan. 1	36.681 <sup>228</sup>	64.06 <sup>113</sup>	2.047 <sup>291</sup>	52.00 <sup>56</sup>	47.983 <sup>317</sup>	15.93 <sup>83</sup>	21.80 <sup>28</sup>	27.64 <sup>367</sup>
11	36.909 <sup>182</sup>	62.93 <sup>91</sup>	3.238 <sup>234</sup>	52.56 <sup>87</sup>	48.300 <sup>255</sup>	16.76 <sup>116</sup>	22.08 <sup>18</sup>	31.31 <sup>382</sup>
21	37.091 <sup>132</sup>	62.02 <sup>70</sup>	3.472 <sup>170</sup>	53.43 <sup>114</sup>	48.555 <sup>185</sup>	17.92 <sup>144</sup>	22.26 <sup>8</sup>	35.13 <sup>386</sup>
31	37.223 <sup>80</sup>	61.32 <sup>47</sup>	3.642 <sup>102</sup>	54.57 <sup>134</sup>	48.740 <sup>113</sup>	19.36 <sup>164</sup>	22.34 <sup>3</sup>	38.99 <sup>381</sup>
Feb. 9	37.303 <sup>29</sup>	60.85 <sup>25</sup>	3.744 <sup>36</sup>	55.91 <sup>149</sup>	48.853 <sup>40</sup>	21.00 <sup>177</sup>	22.31 <sup>13</sup>	42.80 <sup>365</sup>
19	37.332 <sup>19</sup>	60.60 <sup>6</sup>	3.780 <sup>26</sup>	57.40 <sup>156</sup>	48.893 <sup>28</sup>	22.77 <sup>182</sup>	22.18 <sup>22</sup>	46.45 <sup>341</sup>
März 1	37.313 <sup>61</sup>	60.54 <sup>10</sup>	3.754 <sup>83</sup>	58.96 <sup>154</sup>	48.865 <sup>90</sup>	24.59 <sup>178</sup>	21.96 <sup>31</sup>	49.86 <sup>309</sup>
11	37.252 <sup>94</sup>	60.64 <sup>23</sup>	3.671 <sup>129</sup>	60.50 <sup>145</sup>	48.775 <sup>142</sup>	26.37 <sup>166</sup>	21.65 <sup>37</sup>	52.95 <sup>272</sup>
21	37.158 <sup>120</sup>	60.87 <sup>33</sup>	3.542 <sup>165</sup>	61.95 <sup>131</sup>	48.633 <sup>181</sup>	28.03 <sup>147</sup>	21.28 <sup>42</sup>	55.67 <sup>229</sup>
31	37.038 <sup>135</sup>	61.20 <sup>40</sup>	3.377 <sup>188</sup>	63.26 <sup>110</sup>	48.452 <sup>208</sup>	29.50 <sup>122</sup>	20.86 <sup>47</sup>	57.96 <sup>183</sup>
Apr. 10	36.903 <sup>142</sup>	61.60 <sup>44</sup>	3.189 <sup>199</sup>	64.36 <sup>85</sup>	48.244 <sup>222</sup>	30.72 <sup>92</sup>	20.39 <sup>49</sup>	59.79 <sup>133</sup>
20	36.761 <sup>141</sup>	62.04 <sup>46</sup>	2.990 <sup>199</sup>	65.21 <sup>58</sup>	48.022 <sup>223</sup>	31.64 <sup>60</sup>	19.90 <sup>51</sup>	61.12 <sup>80</sup>
30	36.620 <sup>132</sup>	62.50 <sup>48</sup>	2.791 <sup>189</sup>	65.79 <sup>29</sup>	47.799 <sup>213</sup>	32.24 <sup>26</sup>	19.39 <sup>50</sup>	61.92 <sup>27</sup>
Mai 10	36.488 <sup>116</sup>	62.98 <sup>47</sup>	2.602 <sup>169</sup>	66.08 <sup>1</sup>	47.586 <sup>192</sup>	32.50 <sup>8</sup>	18.89 <sup>49</sup>	62.19 <sup>26</sup>
20	36.372 <sup>95</sup>	63.45 <sup>45</sup>	2.433 <sup>142</sup>	66.07 <sup>29</sup>	47.394 <sup>164</sup>	32.42 <sup>41</sup>	18.40 <sup>47</sup>	61.93 <sup>79</sup>
30	36.277 <sup>71</sup>	63.90 <sup>43</sup>	2.291 <sup>111</sup>	65.78 <sup>56</sup>	47.230 <sup>130</sup>	32.01 <sup>72</sup>	17.93 <sup>42</sup>	61.14 <sup>129</sup>
Juni 9	36.206 <sup>45</sup>	64.33 <sup>40</sup>	2.180 <sup>74</sup>	65.22 <sup>81</sup>	47.100 <sup>91</sup>	31.29 <sup>101</sup>	17.51 <sup>38</sup>	59.85 <sup>175</sup>
19	36.161 <sup>16</sup>	64.73 <sup>37</sup>	2.106 <sup>36</sup>	64.41 <sup>104</sup>	47.009 <sup>48</sup>	30.28 <sup>126</sup>	17.13 <sup>32</sup>	58.10 <sup>217</sup>
29	36.145 <sup>13</sup>	65.10 <sup>32</sup>	2.070 <sup>4</sup>	63.37 <sup>123</sup>	46.961 <sup>5</sup>	29.02 <sup>149</sup>	16.81 <sup>25</sup>	55.93 <sup>253</sup>
Juli 9	36.158 <sup>42</sup>	65.42 <sup>25</sup>	2.074 <sup>45</sup>	62.14 <sup>141</sup>	46.956 <sup>40</sup>	27.53 <sup>168</sup>	16.56 <sup>18</sup>	53.40 <sup>280</sup>
19	36.200 <sup>71</sup>	65.67 <sup>18</sup>	2.119 <sup>84</sup>	60.73 <sup>155</sup>	46.996 <sup>84</sup>	25.85 <sup>183</sup>	16.38 <sup>10</sup>	50.60 <sup>301</sup>
29	36.271 <sup>100</sup>	65.85 <sup>7</sup>	2.203 <sup>124</sup>	59.18 <sup>167</sup>	47.080 <sup>128</sup>	24.02 <sup>196</sup>	16.28 <sup>2</sup>	47.59 <sup>312</sup>
Aug. 8	36.371 <sup>128</sup>	65.92 <sup>5</sup>	2.327 <sup>163</sup>	57.51 <sup>177</sup>	47.208 <sup>171</sup>	22.06 <sup>204</sup>	16.26 <sup>7</sup>	44.47 <sup>312</sup>
18	36.499 <sup>157</sup>	65.87 <sup>19</sup>	2.490 <sup>200</sup>	55.74 <sup>183</sup>	47.379 <sup>212</sup>	20.02 <sup>210</sup>	16.33 <sup>16</sup>	41.35 <sup>302</sup>
28	36.656 <sup>184</sup>	65.68 <sup>35</sup>	2.690 <sup>236</sup>	53.91 <sup>188</sup>	47.591 <sup>253</sup>	17.92 <sup>213</sup>	16.49 <sup>24</sup>	38.33 <sup>280</sup>
Sept. 7	36.840 <sup>211</sup>	65.33 <sup>54</sup>	2.926 <sup>271</sup>	52.03 <sup>189</sup>	47.844 <sup>291</sup>	15.79 <sup>212</sup>	16.73 <sup>33</sup>	35.53 <sup>248</sup>
17	37.051 <sup>239</sup>	64.79 <sup>73</sup>	3.197 <sup>305</sup>	50.14 <sup>189</sup>	48.135 <sup>329</sup>	13.67 <sup>207</sup>	17.06 <sup>41</sup>	33.05 <sup>206</sup>
27	37.290 <sup>264</sup>	64.06 <sup>93</sup>	3.502 <sup>337</sup>	48.25 <sup>184</sup>	48.464 <sup>364</sup>	11.60 <sup>198</sup>	17.47 <sup>48</sup>	30.99 <sup>155</sup>
Okt. 7	37.554 <sup>287</sup>	63.13 <sup>112</sup>	3.839 <sup>366</sup>	46.41 <sup>175</sup>	48.828 <sup>396</sup>	9.62 <sup>186</sup>	17.95 <sup>54</sup>	29.44 <sup>96</sup>
17	37.841 <sup>307</sup>	62.01 <sup>129</sup>	4.205 <sup>391</sup>	44.66 <sup>163</sup>	49.224 <sup>422</sup>	7.76 <sup>168</sup>	18.49 <sup>57</sup>	28.48 <sup>33</sup>
27	38.148 <sup>324</sup>	60.72 <sup>144</sup>	4.596 <sup>410</sup>	43.03 <sup>147</sup>	49.646 <sup>444</sup>	6.08 <sup>147</sup>	19.06 <sup>60</sup>	28.15 <sup>33</sup>
Nov. 6	38.472 <sup>333</sup>	59.28 <sup>154</sup>	5.006 <sup>422</sup>	41.56 <sup>126</sup>	50.090 <sup>457</sup>	4.61 <sup>120</sup>	19.66 <sup>61</sup>	28.48 <sup>101</sup>
16	38.805 <sup>335</sup>	57.74 <sup>160</sup>	5.428 <sup>425</sup>	40.30 <sup>99</sup>	50.547 <sup>460</sup>	3.41 <sup>90</sup>	20.27 <sup>59</sup>	29.49 <sup>165</sup>
26	39.140 <sup>330</sup>	56.14 <sup>160</sup>	5.853 <sup>417</sup>	39.31 <sup>70</sup>	51.007 <sup>452</sup>	2.51 <sup>55</sup>	20.86 <sup>56</sup>	31.14 <sup>224</sup>
Dez. 6	39.470 <sup>314</sup>	54.54 <sup>154</sup>	6.270 <sup>399</sup>	38.61 <sup>37</sup>	51.459 <sup>432</sup>	1.96 <sup>18</sup>	21.42 <sup>50</sup>	33.38 <sup>277</sup>
16	39.784 <sup>290</sup>	53.00 <sup>142</sup>	6.669 <sup>368</sup>	38.24 <sup>2</sup>	51.891 <sup>399</sup>	1.78 <sup>20</sup>	21.92 <sup>43</sup>	36.15 <sup>320</sup>
26	40.074 <sup>255</sup>	51.58 <sup>127</sup>	7.037 <sup>325</sup>	38.22 <sup>32</sup>	52.290 <sup>354</sup>	1.98 <sup>55</sup>	22.35 <sup>34</sup>	39.35 <sup>353</sup>
36	40.329	50.31	7.362	38.54	52.644	2.53	22.69	42.88
Mittl. Ort sec $\delta$ , tg $\delta$	36.400 1.023	60.89 +0.215	2.352 1.347	53.85 +0.902	47.261 1.479	18.59 +1.089	19.81 2.470	45.05 -2.258

Tag	344) $\alpha^2$ Ursae maj.			345) $\lambda$ Argus			347) $\eta$ Hydrae			348) $\beta$ Argus		
	AR.	Dekl.		AR.	Dekl.		AR.	Dekl.		AR.	Dekl.	
1929	9 <sup>h</sup> 4 <sup>m</sup>	+67° 25'		9 <sup>h</sup> 5 <sup>m</sup>	-43° 8'		9 <sup>h</sup> 10 <sup>m</sup>	+2° 36'		9 <sup>h</sup> 12 <sup>m</sup>	-69° 25'	
Jan. I	12.15 <sub>51</sub>	23.23 <sub>173</sub>	23.614 <sub>226</sub>	28.46 <sub>343</sub>	40.534 <sub>232</sub>	57.96 <sub>171</sub>	27.95 <sub>33</sub>	9.94 <sub>361</sub>				
II	12.66 <sub>40</sub>	24.96 <sub>211</sub>	23.840 <sub>168</sub>	31.89 <sub>349</sub>	40.766 <sub>189</sub>	56.25 <sub>153</sub>	28.28 <sub>22</sub>	13.55 <sub>379</sub>				
2I	13.06 <sub>28</sub>	27.07 <sub>239</sub>	24.008 <sub>105</sub>	35.38 <sub>346</sub>	40.955 <sub>140</sub>	54.72 <sub>133</sub>	28.50 <sub>10</sub>	17.34 <sub>387</sub>				
3I	13.34 <sub>17</sub>	29.46 <sub>257</sub>	24.113 <sub>42</sub>	38.84 <sub>334</sub>	41.095 <sub>90</sub>	53.39 <sub>111</sub>	28.60 <sub>1</sub>	21.21 <sub>386</sub>				
Feb. 9	13.51 <sub>4</sub>	32.03 <sub>265</sub>	24.155 <sub>18</sub>	42.18 <sub>314</sub>	41.185 <sub>40</sub>	52.28 <sub>87</sub>	28.59 <sub>13</sub>	25.07 <sub>373</sub>				
19	13.55 <sub>7</sub>	34.68 <sub>261</sub>	24.137 <sub>75</sub>	45.32 <sub>287</sub>	41.225 <sub>7</sub>	51.41 <sub>64</sub>	28.46 <sub>24</sub>	28.80 <sub>352</sub>				
März I	13.48 <sub>19</sub>	37.29 <sub>247</sub>	24.062 <sub>125</sub>	48.19 <sub>253</sub>	41.218 <sub>48</sub>	50.77 <sub>43</sub>	28.22 <sub>33</sub>	32.32 <sub>324</sub>				
II	13.29 <sub>28</sub>	39.76 <sub>223</sub>	23.937 <sub>166</sub>	50.72 <sub>217</sub>	41.170 <sub>83</sub>	50.34 <sub>23</sub>	27.89 <sub>41</sub>	35.56 <sub>289</sub>				
2I	13.01 <sub>35</sub>	41.99 <sub>190</sub>	23.771 <sub>198</sub>	52.89 <sub>176</sub>	41.087 <sub>108</sub>	50.11 <sub>5</sub>	27.48 <sub>48</sub>	38.45 <sub>248</sub>				
3I	12.66 <sub>40</sub>	43.89 <sub>149</sub>	23.573 <sub>220</sub>	54.65 <sub>133</sub>	40.979 <sub>126</sub>	50.06 <sub>11</sub>	27.00 <sub>53</sub>	40.93 <sub>202</sub>				
Apr. 10	12.26 <sub>44</sub>	45.38 <sub>104</sub>	23.353 <sub>233</sub>	55.98 <sub>88</sub>	40.853 <sub>135</sub>	50.17 <sub>25</sub>	26.47 <sub>57</sub>	42.95 <sub>154</sub>				
20	11.82 <sub>44</sub>	46.42 <sub>57</sub>	23.120 <sub>237</sub>	56.86 <sub>42</sub>	40.718 <sub>136</sub>	50.42 <sub>36</sub>	25.90 <sub>59</sub>	44.49 <sub>102</sub>				
30	11.38 <sub>43</sub>	46.99 <sub>7</sub>	22.883 <sub>232</sub>	57.28 <sub>5</sub>	40.582 <sub>129</sub>	50.78 <sub>46</sub>	25.31 <sub>58</sub>	45.51 <sub>48</sub>				
Mai 10	10.95 <sub>41</sub>	47.06 <sub>42</sub>	22.651 <sub>220</sub>	57.23 <sub>49</sub>	40.453 <sub>117</sub>	51.24 <sub>54</sub>	24.73 <sub>58</sub>	45.99 <sub>6</sub>				
20	10.54 <sub>36</sub>	46.64 <sub>89</sub>	22.431 <sub>202</sub>	56.74 <sub>93</sub>	40.336 <sub>100</sub>	51.78 <sub>62</sub>	24.15 <sub>56</sub>	45.93 <sub>58</sub>				
30	10.18 <sub>30</sub>	45.75 <sub>132</sub>	22.229 <sub>178</sub>	55.81 <sub>134</sub>	40.236 <sub>79</sub>	52.40 <sub>67</sub>	23.59 <sub>51</sub>	45.35 <sub>110</sub>				
Juni 9	9.88 <sub>24</sub>	44.43 <sub>172</sub>	22.051 <sub>150</sub>	54.47 <sub>172</sub>	40.157 <sub>56</sub>	53.07 <sub>72</sub>	23.08 <sub>47</sub>	44.25 <sub>159</sub>				
19	9.64 <sub>16</sub>	42.71 <sub>206</sub>	21.901 <sub>118</sub>	52.75 <sub>204</sub>	40.101 <sub>31</sub>	53.79 <sub>75</sub>	22.61 <sub>41</sub>	42.66 <sub>203</sub>				
29	9.48 <sub>9</sub>	40.65 <sub>235</sub>	21.783 <sub>82</sub>	50.71 <sub>232</sub>	40.070 <sub>4</sub>	54.54 <sub>74</sub>	22.20 <sub>33</sub>	40.63 <sub>241</sub>				
Juli 9	9.39 <sub>1</sub>	38.30 <sub>259</sub>	21.701 <sub>44</sub>	48.39 <sub>252</sub>	40.066 <sub>23</sub>	55.28 <sub>72</sub>	21.87 <sub>25</sub>	38.22 <sub>273</sub>				
19	9.38 <sub>8</sub>	35.71 <sub>276</sub>	21.657 <sub>3</sub>	45.87 <sub>265</sub>	40.089 <sub>50</sub>	56.00 <sub>67</sub>	21.62 <sub>16</sub>	35.49 <sub>296</sub>				
29	9.46 <sub>16</sub>	32.95 <sub>287</sub>	21.654 <sub>40</sub>	43.22 <sub>270</sub>	40.139 <sub>78</sub>	56.67 <sub>58</sub>	21.46 <sub>7</sub>	32.53 <sub>310</sub>				
Aug. 8	9.62 <sub>24</sub>	30.08 <sub>293</sub>	21.694 <sub>83</sub>	40.52 <sub>264</sub>	40.217 <sub>106</sub>	57.25 <sub>46</sub>	21.39 <sub>4</sub>	29.43 <sub>314</sub>				
18	9.86 <sub>32</sub>	27.15 <sub>294</sub>	21.777 <sub>128</sub>	37.88 <sub>251</sub>	40.323 <sub>134</sub>	57.71 <sub>30</sub>	21.43 <sub>14</sub>	26.29 <sub>307</sub>				
28	10.18 <sub>39</sub>	24.21 <sub>288</sub>	21.905 <sub>173</sub>	35.37 <sub>226</sub>	40.457 <sub>163</sub>	58.01 <sub>11</sub>	21.57 <sub>24</sub>	23.22 <sub>289</sub>				
Sept. 7	10.57 <sub>47</sub>	21.33 <sub>277</sub>	22.078 <sub>216</sub>	33.11 <sub>193</sub>	40.620 <sub>191</sub>	58.12 <sub>11</sub>	21.81 <sub>35</sub>	20.33 <sub>260</sub>				
17	11.04 <sub>53</sub>	18.56 <sub>260</sub>	22.294 <sub>259</sub>	31.18 <sub>151</sub>	40.811 <sub>219</sub>	58.01 <sub>37</sub>	22.16 <sub>44</sub>	17.73 <sub>221</sub>				
27	11.57 <sub>59</sub>	15.96 <sub>238</sub>	22.553 <sub>298</sub>	29.67 <sub>102</sub>	41.030 <sub>246</sub>	57.64 <sub>64</sub>	22.60 <sub>52</sub>	15.52 <sub>172</sub>				
Okt. 7	12.16 <sub>64</sub>	13.58 <sub>210</sub>	22.851 <sub>331</sub>	28.65 <sub>48</sub>	41.276 <sub>272</sub>	57.00 <sub>91</sub>	23.12 <sub>59</sub>	13.80 <sub>116</sub>				
17	12.80 <sub>69</sub>	11.48 <sub>178</sub>	23.182 <sub>358</sub>	28.17 <sub>11</sub>	41.548 <sub>294</sub>	56.09 <sub>118</sub>	23.71 <sub>64</sub>	12.64 <sub>52</sub>				
27	13.49 <sub>73</sub>	9.70 <sub>139</sub>	23.540 <sub>378</sub>	28.28 <sub>71</sub>	41.842 <sub>312</sub>	54.91 <sub>142</sub>	24.35 <sub>68</sub>	12.12 <sub>13</sub>				
Nov. 6	14.22 <sub>74</sub>	8.31 <sub>96</sub>	23.918 <sub>387</sub>	28.99 <sub>131</sub>	42.154 <sub>325</sub>	53.49 <sub>163</sub>	25.03 <sub>68</sub>	12.25 <sub>80</sub>				
16	14.96 <sub>74</sub>	7.35 <sub>49</sub>	24.305 <sub>385</sub>	30.30 <sub>186</sub>	42.479 <sub>329</sub>	51.86 <sub>178</sub>	25.71 <sub>67</sub>	13.05 <sub>146</sub>				
26	15.70 <sub>73</sub>	6.86 <sub>1</sub>	24.690 <sub>371</sub>	32.16 <sub>236</sub>	42.808 <sub>325</sub>	50.08 <sub>189</sub>	26.38 <sub>64</sub>	14.51 <sub>207</sub>				
Dez. 6	16.43 <sub>69</sub>	6.85 <sub>50</sub>	25.061 <sub>346</sub>	34.52 <sub>279</sub>	43.133 <sub>313</sub>	48.19 <sub>193</sub>	27.02 <sub>58</sub>	16.58 <sub>262</sub>				
16	17.12 <sub>64</sub>	7.35 <sub>99</sub>	25.407 <sub>309</sub>	37.31 <sub>312</sub>	43.446 <sub>290</sub>	46.26 <sub>190</sub>	27.60 <sub>50</sub>	19.20 <sub>309</sub>				
26	17.76 <sub>56</sub>	8.34 <sub>145</sub>	25.716 <sub>262</sub>	40.43 <sub>335</sub>	43.736 <sub>258</sub>	44.36 <sub>181</sub>	28.10 <sub>41</sub>	22.29 <sub>344</sub>				
36	18.32	9.79	25.978	43.78	43.994	42.55	28.51	25.73				
Mittl. Ort	10.28	28.01	22.936	42.84	40.322	52.93	25.70	28.45				
sec $\delta$ , tg $\delta$	2.605	+2.405	1.371	-0.937	1.001	+0.046	2.845	-2.664				



# Obere Kulmination Greenwich

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Tag	350) 83 Cancri		352) 40 Lynceis		353) x Argus		354) α Hydrae	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	9 <sup>h</sup> 15 <sup>m</sup>	+18° 0'	9 <sup>h</sup> 16 <sup>m</sup>	+34° 41'	9 <sup>h</sup> 19 <sup>m</sup>	-54° 42'	9 <sup>h</sup> 24 <sup>m</sup>	-8° 20'
Jan. 1	1.567 <sup>252</sup>	27.84 <sup>90</sup>	44.537 <sup>289</sup>	36.04 <sup>1</sup>	55.760 <sup>270</sup>	7.84 <sup>355</sup>	6.119 <sup>236</sup>	52.49 <sup>225</sup>
11	1.819 <sup>208</sup>	26.94 <sup>65</sup>	44.826 <sup>238</sup>	36.05 <sup>33</sup>	56.030 <sup>199</sup>	11.39 <sup>370</sup>	6.355 <sup>193</sup>	54.74 <sup>214</sup>
21	2.027 <sup>158</sup>	26.29 <sup>40</sup>	45.064 <sup>181</sup>	36.38 <sup>62</sup>	56.229 <sup>124</sup>	15.09 <sup>374</sup>	6.548 <sup>146</sup>	56.88 <sup>199</sup>
31	2.185 <sup>104</sup>	25.89 <sup>15</sup>	45.245 <sup>121</sup>	37.00 <sup>88</sup>	56.353 <sup>47</sup>	18.83 <sup>368</sup>	6.694 <sup>95</sup>	58.87 <sup>178</sup>
Feb. 9*)	2.289 <sup>52</sup>	25.74 <sup>7</sup>	45.366 <sup>61</sup>	37.88 <sup>108</sup>	56.400 <sup>27</sup>	22.51 <sup>353</sup>	6.789 <sup>46</sup>	60.65 <sup>154</sup>
19	2.341 <sup>2</sup>	25.81 <sup>25</sup>	45.427 <sup>3</sup>	38.96 <sup>121</sup>	56.373 <sup>95</sup>	26.04 <sup>331</sup>	6.835 <sup>0</sup>	62.19 <sup>130</sup>
März 1	2.343 <sup>42</sup>	26.07 <sup>42</sup>	45.430 <sup>50</sup>	40.17 <sup>128</sup>	56.278 <sup>157</sup>	29.35 <sup>300</sup>	6.835 <sup>43</sup>	63.49 <sup>104</sup>
11	2.301 <sup>81</sup>	26.49 <sup>51</sup>	45.380 <sup>94</sup>	41.45 <sup>127</sup>	56.121 <sup>210</sup>	32.35 <sup>265</sup>	6.792 <sup>77</sup>	64.53 <sup>79</sup>
21	2.220 <sup>109</sup>	27.00 <sup>59</sup>	45.286 <sup>129</sup>	42.72 <sup>121</sup>	55.911 <sup>252</sup>	35.00 <sup>224</sup>	6.715 <sup>104</sup>	65.32 <sup>53</sup>
31	2.111 <sup>128</sup>	27.59 <sup>62</sup>	45.157 <sup>153</sup>	43.93 <sup>109</sup>	55.659 <sup>284</sup>	37.24 <sup>179</sup>	6.611 <sup>124</sup>	65.85 <sup>29</sup>
Apr. 10	1.983 <sup>140</sup>	28.21 <sup>60</sup>	45.004 <sup>166</sup>	45.02 <sup>92</sup>	55.375 <sup>304</sup>	39.03 <sup>132</sup>	6.487 <sup>134</sup>	66.14 <sup>6</sup>
20	1.843 <sup>141</sup>	28.81 <sup>57</sup>	44.838 <sup>170</sup>	45.94 <sup>73</sup>	55.071 <sup>315</sup>	40.35 <sup>83</sup>	6.353 <sup>138</sup>	66.20 <sup>16</sup>
30	1.702 <sup>135</sup>	29.38 <sup>51</sup>	44.668 <sup>164</sup>	46.67 <sup>50</sup>	54.756 <sup>316</sup>	41.18 <sup>33</sup>	6.215 <sup>133</sup>	66.04 <sup>36</sup>
Mai 10	1.567 <sup>122</sup>	29.89 <sup>44</sup>	44.504 <sup>151</sup>	47.17 <sup>27</sup>	54.440 <sup>308</sup>	41.51 <sup>18</sup>	6.082 <sup>124</sup>	65.68 <sup>54</sup>
20	1.445 <sup>105</sup>	30.33 <sup>37</sup>	44.353 <sup>130</sup>	47.44 <sup>3</sup>	54.132 <sup>291</sup>	41.33 <sup>68</sup>	5.958 <sup>110</sup>	65.14 <sup>72</sup>
30	1.340 <sup>83</sup>	30.70 <sup>28</sup>	44.223 <sup>105</sup>	47.47 <sup>19</sup>	53.841 <sup>267</sup>	40.65 <sup>115</sup>	5.848 <sup>92</sup>	64.42 <sup>87</sup>
Juni 9	1.257 <sup>58</sup>	30.98 <sup>20</sup>	44.118 <sup>75</sup>	47.28 <sup>42</sup>	53.574 <sup>237</sup>	39.50 <sup>159</sup>	5.756 <sup>70</sup>	63.55 <sup>100</sup>
19	1.199 <sup>31</sup>	31.18 <sup>10</sup>	44.043 <sup>44</sup>	46.86 <sup>63</sup>	53.337 <sup>200</sup>	37.91 <sup>198</sup>	5.686 <sup>47</sup>	62.55 <sup>111</sup>
29	1.168 <sup>3</sup>	31.28 <sup>1</sup>	43.999 <sup>11</sup>	46.23 <sup>82</sup>	53.137 <sup>159</sup>	35.93 <sup>234</sup>	5.639 <sup>23</sup>	61.44 <sup>118</sup>
Juli 9	1.165 <sup>26</sup>	31.29 <sup>10</sup>	43.988 <sup>23</sup>	45.41 <sup>99</sup>	52.978 <sup>111</sup>	33.59 <sup>261</sup>	5.616 <sup>3</sup>	60.26 <sup>122</sup>
19	1.191 <sup>54</sup>	31.19 <sup>21</sup>	44.011 <sup>57</sup>	44.42 <sup>115</sup>	52.867 <sup>60</sup>	30.98 <sup>280</sup>	5.619 <sup>30</sup>	59.04 <sup>121</sup>
29	1.245 <sup>83</sup>	30.98 <sup>32</sup>	44.068 <sup>92</sup>	43.27 <sup>130</sup>	52.807 <sup>6</sup>	28.18 <sup>292</sup>	5.649 <sup>58</sup>	57.83 <sup>117</sup>
Aug. 8	1.328 <sup>113</sup>	30.66 <sup>46</sup>	44.160 <sup>126</sup>	41.97 <sup>143</sup>	52.801 <sup>52</sup>	25.26 <sup>292</sup>	5.707 <sup>86</sup>	56.66 <sup>106</sup>
18	1.441 <sup>141</sup>	30.20 <sup>60</sup>	44.286 <sup>160</sup>	40.54 <sup>154</sup>	52.853 <sup>112</sup>	22.34 <sup>284</sup>	5.793 <sup>116</sup>	55.60 <sup>90</sup>
28	1.582 <sup>171</sup>	29.60 <sup>75</sup>	44.446 <sup>193</sup>	39.00 <sup>164</sup>	52.965 <sup>171</sup>	19.50 <sup>264</sup>	5.909 <sup>145</sup>	54.70 <sup>70</sup>
Sept. 7	1.753 <sup>199</sup>	28.85 <sup>91</sup>	44.639 <sup>227</sup>	37.36 <sup>171</sup>	53.136 <sup>230</sup>	16.86 <sup>234</sup>	6.054 <sup>175</sup>	54.00 <sup>44</sup>
17	1.952 <sup>229</sup>	27.94 <sup>107</sup>	44.866 <sup>259</sup>	35.65 <sup>178</sup>	53.366 <sup>288</sup>	14.52 <sup>194</sup>	6.229 <sup>206</sup>	53.56 <sup>14</sup>
27	2.181 <sup>257</sup>	26.87 <sup>123</sup>	45.125 <sup>291</sup>	33.87 <sup>181</sup>	53.654 <sup>339</sup>	12.58 <sup>147</sup>	6.435 <sup>235</sup>	53.42 <sup>19</sup>
Okt. 7	2.438 <sup>284</sup>	25.64 <sup>138</sup>	45.416 <sup>321</sup>	32.06 <sup>180</sup>	53.993 <sup>385</sup>	11.11 <sup>90</sup>	6.670 <sup>262</sup>	53.61 <sup>55</sup>
17	2.722 <sup>307</sup>	24.26 <sup>149</sup>	45.737 <sup>348</sup>	30.26 <sup>177</sup>	54.378 <sup>422</sup>	10.21 <sup>30</sup>	6.932 <sup>288</sup>	54.16 <sup>91</sup>
27	3.029 <sup>328</sup>	22.77 <sup>159</sup>	46.085 <sup>370</sup>	28.49 <sup>168</sup>	54.800 <sup>447</sup>	9.91 <sup>34</sup>	7.220 <sup>308</sup>	55.07 <sup>125</sup>
Nov. 6	3.357 <sup>341</sup>	21.18 <sup>162</sup>	46.455 <sup>385</sup>	26.81 <sup>154</sup>	55.247 <sup>461</sup>	10.25 <sup>98</sup>	7.528 <sup>321</sup>	56.32 <sup>158</sup>
16	3.698 <sup>347</sup>	19.56 <sup>162</sup>	46.840 <sup>392</sup>	25.27 <sup>136</sup>	55.708 <sup>460</sup>	11.23 <sup>161</sup>	7.849 <sup>328</sup>	57.90 <sup>186</sup>
26	4.045 <sup>345</sup>	17.94 <sup>156</sup>	47.232 <sup>391</sup>	23.91 <sup>113</sup>	56.168 <sup>444</sup>	12.84 <sup>217</sup>	8.177 <sup>326</sup>	59.76 <sup>207</sup>
Dez. 6	4.390 <sup>333</sup>	16.38 <sup>144</sup>	47.623 <sup>378</sup>	22.78 <sup>86</sup>	56.612 <sup>413</sup>	15.01 <sup>269</sup>	8.503 <sup>314</sup>	61.83 <sup>223</sup>
16	4.723 <sup>311</sup>	14.94 <sup>128</sup>	48.001 <sup>353</sup>	21.92 <sup>55</sup>	57.025 <sup>369</sup>	17.70 <sup>310</sup>	8.817 <sup>292</sup>	64.06 <sup>230</sup>
26	5.034 <sup>279</sup>	13.66 <sup>107</sup>	48.354 <sup>317</sup>	21.37 <sup>21</sup>	57.394 <sup>313</sup>	20.80 <sup>342</sup>	9.109 <sup>262</sup>	66.36 <sup>231</sup>
36	5.313	12.59	48.671	21.16	57.707	24.22	9.371	68.67
Mittl. Ort sec 2, tg δ	1.324 1.051	26.16 +0.325	44.136 1.216	37.61 +0.692	54.804 1.731	24.91 -1.413	5.945 1.011	60.09 -0.147

\*) Bei Stern 353) und 354) lies Feb. 10

Tag	355) $\beta$ Ursae maj.		359) $\psi$ Argus		358) $\theta$ Ursae maj.		357) $d$ Ursae maj.	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	9 <sup>n</sup> 25 <sup>m</sup>	+63° 22'	9 <sup>n</sup> 27 <sup>m</sup>	-40° 9'	9 <sup>n</sup> 28 <sup>m</sup>	+51° 59'	9 <sup>n</sup> 28 <sup>m</sup>	+70° 8'
Jan. I	58.55 <sub>48</sub>	19.06 <sub>136</sub>	54.548 <sub>250</sub>	3.67 <sub>33I</sub>	7.987 <sub>373</sub>	62.20 <sub>79</sub>	16.35 <sub>60</sub>	31.34 <sub>16I</sub>
II	59.03 <sub>40</sub>	20.42 <sub>176</sub>	54.798 <sub>196</sub>	6.98 <sub>340</sub>	8.360 <sub>309</sub>	62.00 <sub>119</sub>	16.95 <sub>50</sub>	32.95 <sub>203</sub>
2I	59.43 <sub>30</sub>	22.18 <sub>210</sub>	54.994 <sub>137</sub>	10.38 <sub>339</sub>	8.669 <sub>238</sub>	64.18 <sub>153</sub>	17.45 <sub>37</sub>	34.98 <sub>237</sub>
3I	59.73 <sub>19</sub>	24.28 <sub>235</sub>	55.131 <sub>77</sub>	13.77 <sub>329</sub>	8.907 <sub>16I</sub>	65.71 <sub>179</sub>	17.82 <sub>24</sub>	37.35 <sub>26I</sub>
Feb. IO	59.92 <sub>9</sub>	26.63 <sub>250</sub>	55.208 <sub>18</sub>	17.06 <sub>31I</sub>	9.068 <sub>82</sub>	67.50 <sub>198</sub>	18.06 <sub>11</sub>	39.96 <sub>275</sub>
19	60.01 <sub>I</sub>	29.13 <sub>254</sub>	55.226 <sub>37</sub>	20.17 <sub>287</sub>	9.150 <sub>5</sub>	69.48 <sub>207</sub>	18.17 <sub>3</sub>	42.71 <sub>276</sub>
März I	60.00 <sub>II</sub>	31.67 <sub>246</sub>	55.189 <sub>87</sub>	23.04 <sub>258</sub>	9.155 <sub>65</sub>	71.55 <sub>206</sub>	18.14 <sub>16</sub>	45.47 <sub>267</sub>
II	59.89 <sub>19</sub>	34.13 <sub>229</sub>	55.102 <sub>129</sub>	25.62 <sub>223</sub>	9.090 <sub>126</sub>	73.61 <sub>196</sub>	17.98 <sub>26</sub>	48.14 <sub>246</sub>
2I	59.70 <sub>26</sub>	36.42 <sub>203</sub>	54.973 <sub>163</sub>	27.85 <sub>185</sub>	8.964 <sub>177</sub>	75.57 <sub>178</sub>	17.72 <sub>36</sub>	50.60 <sub>215</sub>
3I	59.44 <sub>31</sub>	38.45 <sub>169</sub>	54.810 <sub>188</sub>	29.70 <sub>145</sub>	8.787 <sub>213</sub>	77.35 <sub>153</sub>	17.36 <sub>43</sub>	52.75 <sub>177</sub>
Apr. IO	59.13 <sub>35</sub>	40.14 <sub>129</sub>	54.622 <sub>203</sub>	31.15 <sub>102</sub>	8.574 <sub>236</sub>	78.88 <sub>122</sub>	16.93 <sub>48</sub>	54.52 <sub>132</sub>
20	58.78 <sub>36</sub>	41.43 <sub>84</sub>	54.419 <sub>21I</sub>	32.17 <sub>59</sub>	8.338 <sub>247</sub>	80.10 <sub>86</sub>	16.45 <sub>50</sub>	55.84 <sub>84</sub>
30	58.42 <sub>36</sub>	42.27 <sub>38</sub>	54.208 <sub>21I</sub>	32.76 <sub>15</sub>	8.091 <sub>244</sub>	80.96 <sub>49</sub>	15.95 <sub>50</sub>	56.68 <sub>32</sub>
Mai IO	58.06 <sub>35</sub>	42.65 <sub>10</sub>	53.997 <sub>203</sub>	32.91 <sub>29</sub>	7.847 <sub>23I</sub>	81.45 <sub>11</sub>	15.45 <sub>48</sub>	57.00 <sub>18</sub>
20	57.71 <sub>31</sub>	42.55 <sub>55</sub>	53.794 <sub>190</sub>	32.62 <sub>70</sub>	7.616 <sub>207</sub>	81.56 <sub>29</sub>	14.97 <sub>45</sub>	56.82 <sub>69</sub>
30	57.40 <sub>27</sub>	42.00 <sub>100</sub>	53.604 <sub>172</sub>	31.92 <sub>111</sub>	7.409 <sub>177</sub>	81.27 <sub>66</sub>	14.52 <sub>39</sub>	56.13 <sub>117</sub>
Juni 9	57.13 <sub>22</sub>	41.00 <sub>140</sub>	53.432 <sub>148</sub>	30.81 <sub>148</sub>	7.232 <sub>14I</sub>	80.61 <sub>100</sub>	14.13 <sub>33</sub>	54.96 <sub>160</sub>
19	56.91 <sub>16</sub>	39.60 <sub>177</sub>	53.284 <sub>12I</sub>	29.33 <sub>181</sub>	7.091 <sub>100</sub>	79.61 <sub>133</sub>	13.80 <sub>25</sub>	53.36 <sub>199</sub>
29	56.75 <sub>10</sub>	37.83 <sub>208</sub>	53.163 <sub>91</sub>	27.52 <sub>209</sub>	6.991 <sub>56</sub>	78.28 <sub>16I</sub>	13.55 <sub>17</sub>	51.37 <sub>233</sub>
Juli 9	56.65 <sub>4</sub>	35.75 <sub>236</sub>	53.072 <sub>57</sub>	25.43 <sub>230</sub>	6.935 <sub>10</sub>	76.67 <sub>186</sub>	13.38 <sub>9</sub>	49.04 <sub>26I</sub>
19	56.61 <sub>3</sub>	33.39 <sub>258</sub>	53.015 <sub>21</sub>	23.13 <sub>246</sub>	6.925 <sub>37</sub>	74.81 <sub>208</sub>	13.29 <sub>1</sub>	46.43 <sub>284</sub>
29	56.64 <sub>10</sub>	30.81 <sub>273</sub>	52.994 <sub>18</sub>	20.67 <sub>253</sub>	6.962 <sub>84</sub>	72.73 <sub>224</sub>	13.30 <sub>10</sub>	43.59 <sub>300</sub>
Aug. 8	56.74 <sub>17</sub>	28.08 <sub>285</sub>	53.012 <sub>58</sub>	18.14 <sub>251</sub>	7.046 <sub>13I</sub>	70.49 <sub>238</sub>	13.40 <sub>19</sub>	40.59 <sub>310</sub>
18	56.91 <sub>23</sub>	25.23 <sub>291</sub>	53.070 <sub>100</sub>	15.63 <sub>240</sub>	7.177 <sub>178</sub>	68.11 <sub>246</sub>	13.59 <sub>27</sub>	37.49 <sub>314</sub>
28	57.14 <sub>30</sub>	22.32 <sub>291</sub>	53.170 <sub>144</sub>	13.23 <sub>220</sub>	7.355 <sub>225</sub>	65.65 <sub>251</sub>	13.86 <sub>37</sub>	34.35 <sub>313</sub>
Sept. 7	57.44 <sub>36</sub>	19.41 <sub>285</sub>	53.314 <sub>187</sub>	11.03 <sub>190</sub>	7.580 <sub>270</sub>	63.14 <sub>252</sub>	14.23 <sub>45</sub>	31.22 <sub>304</sub>
17	57.80 <sub>42</sub>	16.56 <sub>274</sub>	53.501 <sub>229</sub>	9.13 <sub>153</sub>	7.850 <sub>315</sub>	60.62 <sub>248</sub>	14.68 <sub>53</sub>	28.18 <sub>290</sub>
27	58.22 <sub>48</sub>	13.82 <sub>258</sub>	53.730 <sub>269</sub>	7.60 <sub>107</sub>	8.165 <sub>357</sub>	58.14 <sub>240</sub>	15.21 <sub>61</sub>	25.28 <sub>269</sub>
Okt. 7	58.70 <sub>53</sub>	11.24 <sub>236</sub>	53.999 <sub>306</sub>	6.53 <sub>55</sub>	8.522 <sub>397</sub>	55.74 <sub>226</sub>	15.82 <sub>68</sub>	22.59 <sub>243</sub>
17	59.23 <sub>57</sub>	8.88 <sub>207</sub>	54.305 <sub>338</sub>	5.98 <sub>0</sub>	8.919 <sub>433</sub>	53.48 <sub>208</sub>	16.50 <sub>73</sub>	20.16 <sub>210</sub>
27	59.80 <sub>61</sub>	6.81 <sub>174</sub>	54.643 <sub>361</sub>	5.98 <sub>58</sub>	9.352 <sub>463</sub>	51.40 <sub>183</sub>	17.23 <sub>78</sub>	18.06 <sub>171</sub>
Nov. 6	60.41 <sub>65</sub>	5.07 <sub>135</sub>	55.004 <sub>376</sub>	6.56 <sub>115</sub>	9.815 <sub>483</sub>	49.57 <sub>153</sub>	18.01 <sub>81</sub>	16.35 <sub>128</sub>
16	61.06 <sub>65</sub>	3.72 <sub>90</sub>	55.380 <sub>380</sub>	7.71 <sub>170</sub>	10.298 <sub>495</sub>	48.04 <sub>118</sub>	18.82 <sub>83</sub>	15.07 <sub>80</sub>
26	61.71 <sub>64</sub>	2.82 <sub>43</sub>	55.760 <sub>373</sub>	9.41 <sub>220</sub>	10.793 <sub>494</sub>	46.86 <sub>79</sub>	19.65 <sub>82</sub>	14.27 <sub>28</sub>
Dez. 6	62.35 <sub>63</sub>	2.39 <sub>6</sub>	56.133 <sub>353</sub>	11.61 <sub>263</sub>	11.287 <sub>480</sub>	46.07 <sub>37</sub>	20.47 <sub>79</sub>	13.99 <sub>26</sub>
16	62.98 <sub>58</sub>	2.45 <sub>56</sub>	56.486 <sub>323</sub>	14.24 <sub>297</sub>	11.767 <sub>450</sub>	45.70 <sub>7</sub>	21.26 <sub>74</sub>	14.25 <sub>79</sub>
26	63.56 <sub>53</sub>	3.01 <sub>105</sub>	56.809 <sub>283</sub>	17.21 <sub>323</sub>	12.217 <sub>408</sub>	45.77 <sub>50</sub>	22.00 <sub>66</sub>	15.04 <sub>129</sub>
36	64.09	4.06	57.092	20.44	12.625	46.27	22.66	16.33
Mittl. Ort sec $\delta$ , tg $\delta$	57.16 2.231	24.88 +1.995	54.092 1.308	18.55 -0.844	7.215 1.624	66.92 +1.280	14.25 2.944	37.77 +2.769

# Obere Kulmination Greenwich

Tag	360) $\iota$ Leonis min.		366) $\dagger$ Antliae		367) $\varepsilon$ Leonis		369) $\upsilon$ Argus	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	9 <sup>h</sup> 29 <sup>m</sup>	+36° 42'	9 <sup>h</sup> 41 <sup>m</sup>	-27° 26'	9 <sup>h</sup> 41 <sup>m</sup>	+24° 5'	9 <sup>h</sup> 45 <sup>m</sup>	-64° 44'
Jan. 1	53.231 <sub>307</sub>	47.11 <sub>3</sub>	2.330 <sub>251</sub>	24.88 <sub>295</sub>	49.712 <sub>285</sub>	66.81 <sub>72</sub>	20.93 <sub>37</sub>	12.24 <sub>345</sub>
11	53.538 <sub>257</sub>	47.14 <sub>36</sub>	2.581 <sub>206</sub>	27.83 <sub>298</sub>	49.997 <sub>241</sub>	66.09 <sub>42</sub>	21.30 <sub>28</sub>	15.69 <sub>370</sub>
21	53.795 <sub>200</sub>	47.50 <sub>69</sub>	2.787 <sub>156</sub>	30.81 <sub>293</sub>	50.238 <sub>192</sub>	65.67 <sub>13</sub>	21.58 <sub>19</sub>	19.39 <sub>383</sub>
31	53.995 <sub>140</sub>	48.19 <sub>96</sub>	2.943 <sub>103</sub>	33.74 <sub>281</sub>	50.430 <sub>138</sub>	65.54 <sub>16</sub>	21.77 <sub>9</sub>	23.22 <sub>387</sub>
Feb. 10	54.135 <sub>78</sub>	49.15 <sub>117</sub>	3.046 <sub>50</sub>	36.55 <sub>261</sub>	50.568 <sub>83</sub>	65.70 <sub>40</sub>	21.86 <sub>1</sub>	27.09 <sub>381</sub>
19	54.213 <sub>18</sub>	50.32 <sub>133</sub>	3.096 <sub>1</sub>	39.16 <sub>236</sub>	50.651 <sub>31</sub>	66.10 <sub>62</sub>	21.85 <sub>10</sub>	30.90 <sub>305</sub>
März 1	54.231 <sub>37</sub>	51.65 <sub>140</sub>	3.095 <sub>46</sub>	41.52 <sub>209</sub>	50.682 <sub>18</sub>	66.72 <sub>76</sub>	21.75 <sub>18</sub>	34.55 <sub>342</sub>
11	54.194 <sub>84</sub>	53.05 <sub>141</sub>	3.049 <sub>84</sub>	43.61 <sub>177</sub>	50.664 <sub>59</sub>	67.48 <sub>86</sub>	21.57 <sub>26</sub>	37.97 <sub>311</sub>
21	54.110 <sub>121</sub>	54.46 <sub>134</sub>	2.965 <sub>115</sub>	45.38 <sub>144</sub>	50.605 <sub>93</sub>	68.34 <sub>91</sub>	21.31 <sub>32</sub>	41.08 <sub>274</sub>
31	53.989 <sub>149</sub>	55.80 <sub>122</sub>	2.850 <sub>139</sub>	46.82 <sub>110</sub>	50.512 <sub>118</sub>	69.25 <sub>90</sub>	20.99 <sub>37</sub>	43.82 <sub>233</sub>
Apr. 10	53.840 <sub>165</sub>	57.02 <sub>105</sub>	2.711 <sub>153</sub>	47.92 <sub>74</sub>	50.394 <sub>134</sub>	70.15 <sub>84</sub>	20.62 <sub>40</sub>	46.15 <sub>187</sub>
20	53.675 <sub>172</sub>	58.07 <sub>83</sub>	2.558 <sub>161</sub>	48.66 <sub>38</sub>	50.260 <sub>140</sub>	70.99 <sub>76</sub>	20.22 <sub>43</sub>	48.02 <sub>137</sub>
30	53.503 <sub>169</sub>	58.90 <sub>59</sub>	2.397 <sub>161</sub>	49.04 <sub>2</sub>	50.120 <sub>139</sub>	71.75 <sub>64</sub>	19.79 <sub>44</sub>	49.39 <sub>86</sub>
Mai 10	53.334 <sub>157</sub>	59.49 <sub>33</sub>	2.236 <sub>156</sub>	49.06 <sub>31</sub>	49.981 <sub>131</sub>	72.39 <sub>51</sub>	19.35 <sub>45</sub>	50.25 <sub>34</sub>
20	53.177 <sub>139</sub>	59.82 <sub>7</sub>	2.080 <sub>144</sub>	48.75 <sub>65</sub>	49.850 <sub>117</sub>	72.90 <sub>36</sub>	18.90 <sub>43</sub>	50.59 <sub>19</sub>
30	53.038 <sub>116</sub>	59.89 <sub>18</sub>	1.936 <sub>129</sub>	48.10 <sub>97</sub>	49.733 <sub>99</sub>	73.26 <sub>20</sub>	18.47 <sub>42</sub>	50.40 <sub>71</sub>
Juni 9	52.922 <sub>88</sub>	59.71 <sub>43</sub>	1.807 <sub>111</sub>	47.13 <sub>125</sub>	49.634 <sub>77</sub>	73.46 <sub>5</sub>	18.05 <sub>38</sub>	49.69 <sub>122</sub>
19	52.834 <sub>58</sub>	59.28 <sub>67</sub>	1.696 <sub>88</sub>	45.88 <sub>151</sub>	49.557 <sub>52</sub>	73.51 <sub>11</sub>	17.67 <sub>35</sub>	48.47 <sub>168</sub>
29	52.776 <sub>25</sub>	58.61 <sub>89</sub>	1.608 <sub>64</sub>	44.37 <sub>172</sub>	49.505 <sub>26</sub>	73.40 <sub>26</sub>	17.32 <sub>30</sub>	46.79 <sub>209</sub>
Juli 9	52.751 <sub>9</sub>	57.72 <sub>108</sub>	1.544 <sub>36</sub>	42.65 <sub>188</sub>	49.479 <sub>1</sub>	73.14 <sub>42</sub>	17.02 <sub>23</sub>	44.70 <sub>244</sub>
19	52.760 <sub>43</sub>	56.64 <sub>127</sub>	1.508 <sub>8</sub>	40.77 <sub>198</sub>	49.480 <sub>30</sub>	72.72 <sub>57</sub>	16.79 <sub>17</sub>	42.26 <sub>273</sub>
29	52.803 <sub>77</sub>	55.37 <sub>143</sub>	1.500 <sub>23</sub>	38.79 <sub>201</sub>	49.510 <sub>59</sub>	72.15 <sub>73</sub>	16.62 <sub>10</sub>	39.53 <sub>293</sub>
Aug. 8	52.880 <sub>112</sub>	53.94 <sub>158</sub>	1.523 <sub>56</sub>	36.78 <sub>198</sub>	49.569 <sub>88</sub>	71.42 <sub>88</sub>	16.52 <sub>2</sub>	36.60 <sub>302</sub>
18	52.992 <sub>147</sub>	52.36 <sub>170</sub>	1.579 <sub>90</sub>	34.80 <sub>186</sub>	49.657 <sub>119</sub>	70.54 <sub>103</sub>	16.50 <sub>6</sub>	33.58 <sub>302</sub>
28	53.139 <sub>182</sub>	50.66 <sub>180</sub>	1.669 <sub>126</sub>	32.94 <sub>166</sub>	49.776 <sub>150</sub>	69.51 <sub>118</sub>	16.56 <sub>15</sub>	30.56 <sub>291</sub>
Sept. 7	53.321 <sub>217</sub>	48.86 <sub>189</sub>	1.795 <sub>163</sub>	31.28 <sub>140</sub>	49.926 <sub>181</sub>	68.33 <sub>133</sub>	16.71 <sub>23</sub>	27.65 <sub>268</sub>
17	53.538 <sub>252</sub>	46.97 <sub>195</sub>	1.958 <sub>199</sub>	29.88 <sub>105</sub>	50.107 <sub>213</sub>	67.00 <sub>147</sub>	16.94 <sub>32</sub>	24.97 <sub>235</sub>
27	53.790 <sub>286</sub>	45.02 <sub>197</sub>	2.157 <sub>236</sub>	28.83 <sub>64</sub>	50.320 <sub>246</sub>	65.53 <sub>160</sub>	17.26 <sub>40</sub>	22.62 <sub>192</sub>
Okt. 7	54.076 <sub>318</sub>	43.05 <sub>196</sub>	2.393 <sub>269</sub>	28.19 <sub>19</sub>	50.566 <sub>276</sub>	63.93 <sub>170</sub>	17.66 <sub>46</sub>	20.70 <sub>140</sub>
17	54.394 <sub>348</sub>	41.09 <sub>191</sub>	2.662 <sub>298</sub>	28.00 <sub>29</sub>	50.842 <sub>305</sub>	62.23 <sub>177</sub>	18.12 <sub>52</sub>	19.30 <sub>81</sub>
27	54.742 <sub>372</sub>	39.18 <sub>182</sub>	2.960 <sub>323</sub>	28.29 <sub>79</sub>	51.147 <sub>329</sub>	60.46 <sub>181</sub>	18.64 <sub>56</sub>	18.49 <sub>17</sub>
Nov. 6	55.114 <sub>391</sub>	37.36 <sub>166</sub>	3.283 <sub>341</sub>	29.08 <sub>128</sub>	51.476 <sub>348</sub>	58.65 <sub>179</sub>	19.20 <sub>59</sub>	18.32 <sub>49</sub>
16	55.505 <sub>402</sub>	35.70 <sub>146</sub>	3.624 <sub>348</sub>	30.36 <sub>173</sub>	51.824 <sub>360</sub>	56.86 <sub>173</sub>	19.79 <sub>60</sub>	18.81 <sub>115</sub>
26	55.907 <sub>402</sub>	34.24 <sub>121</sub>	3.972 <sub>347</sub>	32.09 <sub>214</sub>	52.184 <sub>363</sub>	55.13 <sub>160</sub>	20.39 <sub>58</sub>	19.96 <sub>178</sub>
Dez. 6	56.309 <sub>391</sub>	33.03 <sub>91</sub>	4.319 <sub>335</sub>	34.23 <sub>248</sub>	52.547 <sub>356</sub>	53.53 <sub>142</sub>	20.97 <sub>54</sub>	21.74 <sub>235</sub>
16	56.700 <sub>369</sub>	32.12 <sub>57</sub>	4.654 <sub>312</sub>	36.71 <sub>275</sub>	52.903 <sub>338</sub>	52.11 <sub>119</sub>	21.51 <sub>50</sub>	24.09 <sub>285</sub>
26	57.069 <sub>335</sub>	31.55 <sub>23</sub>	4.966 <sub>279</sub>	39.46 <sub>292</sub>	53.241 <sub>309</sub>	50.92 <sub>93</sub>	22.01 <sub>42</sub>	26.94 <sub>327</sub>
36	57.404	31.32	5.245	42.38	53.550	49.99	22.43	30.21
Mittl. Ort	52.842	49.55	2.130	37.40	49.520	67.08	19.68	32.16
see $\delta$ , tg $\delta$	1.247	+0.746	1.127	-0.519	1.096	+0.447	2.344	-2.120

Tag	368) $\nu$ Ursae maj.		370) $\delta$ Sextantis		372) Grb 1586		378) $\pi$ Leonis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$9^{\text{h}} 45^{\text{m}}$	$+59^{\circ} 22'$	$9^{\text{h}} 47^{\text{m}}$	$-3^{\circ} 54'$	$9^{\text{h}} 52^{\text{m}}$	$+73^{\circ} 12'$	$9^{\text{h}} 56^{\text{m}}$	$+8^{\circ} 22'$
Jan. 1	58.496 <sup>457</sup>	18.85 <sup>97</sup>	39.474 <sup>257</sup>	29.06 <sup>209</sup>	7.02 <sup>75</sup>	57.67 <sup>146</sup>	27.853 <sup>272</sup>	71.37 <sup>158</sup>
11	58.953 <sup>386</sup>	19.82 <sup>141</sup>	39.731 <sup>216</sup>	31.15 <sup>197</sup>	7.77 <sup>63</sup>	59.13 <sup>193</sup>	28.125 <sup>233</sup>	69.79 <sup>136</sup>
21	59.339 <sup>305</sup>	21.23 <sup>180</sup>	39.947 <sup>172</sup>	33.12 <sup>179</sup>	8.40 <sup>49</sup>	61.06 <sup>232</sup>	28.358 <sup>188</sup>	68.43 <sup>111</sup>
31	59.644 <sup>215</sup>	23.03 <sup>209</sup>	40.119 <sup>122</sup>	34.91 <sup>158</sup>	8.89 <sup>34</sup>	63.38 <sup>262</sup>	28.546 <sup>139</sup>	67.32 <sup>86</sup>
Feb. 10	59.859 <sup>123</sup>	25.12 <sup>230</sup>	40.241 <sup>73</sup>	36.49 <sup>135</sup>	9.23 <sup>19</sup>	66.00 <sup>281</sup>	28.685 <sup>89</sup>	66.46 <sup>61</sup>
19	59.982 <sup>31</sup>	27.42 <sup>241</sup>	40.314 <sup>26</sup>	37.84 <sup>109</sup>	9.42 <sup>3</sup>	68.81 <sup>288</sup>	28.774 <sup>41</sup>	65.85 <sup>36</sup>
März 1	60.013 <sup>56</sup>	29.83 <sup>240</sup>	40.340 <sup>17</sup>	38.93 <sup>85</sup>	9.45 <sup>12</sup>	71.69 <sup>283</sup>	28.815 <sup>4</sup>	65.49 <sup>14</sup>
11	59.957 <sup>133</sup>	32.23 <sup>230</sup>	40.323 <sup>53</sup>	39.78 <sup>61</sup>	9.33 <sup>26</sup>	74.52 <sup>265</sup>	28.811 <sup>42</sup>	65.35 <sup>5</sup>
21	59.824 <sup>197</sup>	34.53 <sup>209</sup>	40.270 <sup>84</sup>	40.39 <sup>38</sup>	9.07 <sup>37</sup>	77.17 <sup>239</sup>	28.769 <sup>74</sup>	65.40 <sup>22</sup>
31	59.627 <sup>247</sup>	36.62 <sup>182</sup>	40.186 <sup>105</sup>	40.77 <sup>17</sup>	8.70 <sup>47</sup>	79.56 <sup>202</sup>	28.695 <sup>98</sup>	65.62 <sup>33</sup>
Apr. 10	59.380 <sup>283</sup>	38.44 <sup>146</sup>	40.081 <sup>119</sup>	40.94 <sup>2</sup>	8.23 <sup>54</sup>	81.58 <sup>158</sup>	28.597 <sup>113</sup>	65.95 <sup>43</sup>
20	59.097 <sup>302</sup>	39.90 <sup>107</sup>	39.962 <sup>126</sup>	40.92 <sup>20</sup>	7.69 <sup>59</sup>	83.16 <sup>110</sup>	28.484 <sup>122</sup>	66.38 <sup>49</sup>
30	58.795 <sup>306</sup>	40.97 <sup>63</sup>	39.836 <sup>126</sup>	40.72 <sup>35</sup>	7.10 <sup>60</sup>	84.26 <sup>58</sup>	28.362 <sup>122</sup>	66.87 <sup>54</sup>
Mai 10	58.489 <sup>297</sup>	41.60 <sup>19</sup>	39.710 <sup>119</sup>	40.37 <sup>50</sup>	6.50 <sup>59</sup>	84.84 <sup>5</sup>	28.240 <sup>117</sup>	67.41 <sup>55</sup>
20	58.192 <sup>277</sup>	41.79 <sup>26</sup>	39.591 <sup>109</sup>	39.87 <sup>62</sup>	5.91 <sup>56</sup>	84.89 <sup>49</sup>	28.123 <sup>107</sup>	67.96 <sup>56</sup>
30	57.915 <sup>246</sup>	41.53 <sup>69</sup>	39.482 <sup>95</sup>	39.25 <sup>73</sup>	5.35 <sup>52</sup>	84.40 <sup>99</sup>	28.016 <sup>93</sup>	68.52 <sup>55</sup>
Juni 9	57.669 <sup>207</sup>	40.84 <sup>110</sup>	39.387 <sup>76</sup>	38.52 <sup>82</sup>	4.83 <sup>45</sup>	83.41 <sup>147</sup>	27.923 <sup>76</sup>	69.07 <sup>52</sup>
19	57.462 <sup>161</sup>	39.74 <sup>149</sup>	39.311 <sup>57</sup>	37.70 <sup>89</sup>	4.38 <sup>38</sup>	81.94 <sup>190</sup>	27.847 <sup>56</sup>	69.59 <sup>49</sup>
29	57.301 <sup>112</sup>	38.25 <sup>182</sup>	39.254 <sup>35</sup>	36.81 <sup>93</sup>	4.00 <sup>29</sup>	80.04 <sup>229</sup>	27.791 <sup>35</sup>	70.08 <sup>43</sup>
Juli 9	57.189 <sup>58</sup>	36.43 <sup>212</sup>	39.219 <sup>11</sup>	35.88 <sup>95</sup>	3.71 <sup>19</sup>	77.75 <sup>262</sup>	27.756 <sup>12</sup>	70.51 <sup>36</sup>
19	57.131 <sup>3</sup>	34.31 <sup>237</sup>	39.208 <sup>14</sup>	34.93 <sup>92</sup>	3.52 <sup>9</sup>	75.13 <sup>289</sup>	27.744 <sup>13</sup>	70.87 <sup>27</sup>
29	57.128 <sup>55</sup>	31.94 <sup>258</sup>	39.222 <sup>39</sup>	34.01 <sup>86</sup>	3.43 <sup>2</sup>	72.24 <sup>310</sup>	27.757 <sup>38</sup>	71.14 <sup>16</sup>
Aug. 8	57.183 <sup>112</sup>	29.36 <sup>273</sup>	39.261 <sup>66</sup>	33.15 <sup>76</sup>	3.45 <sup>12</sup>	69.14 <sup>325</sup>	27.795 <sup>65</sup>	71.30 <sup>3</sup>
18	57.295 <sup>169</sup>	26.63 <sup>283</sup>	39.327 <sup>95</sup>	32.39 <sup>61</sup>	3.57 <sup>23</sup>	65.89 <sup>333</sup>	27.860 <sup>93</sup>	71.33 <sup>14</sup>
28	57.464 <sup>228</sup>	23.80 <sup>289</sup>	39.422 <sup>124</sup>	31.78 <sup>41</sup>	3.80 <sup>34</sup>	62.56 <sup>334</sup>	27.953 <sup>122</sup>	71.19 <sup>31</sup>
Sept. 7	57.692 <sup>285</sup>	20.91 <sup>289</sup>	39.546 <sup>156</sup>	31.37 <sup>18</sup>	4.14 <sup>44</sup>	59.22 <sup>329</sup>	28.075 <sup>152</sup>	70.88 <sup>52</sup>
17	57.977 <sup>340</sup>	18.02 <sup>283</sup>	39.702 <sup>186</sup>	31.19 <sup>8</sup>	4.58 <sup>54</sup>	55.93 <sup>317</sup>	28.227 <sup>184</sup>	70.36 <sup>75</sup>
27	58.317 <sup>394</sup>	15.19 <sup>272</sup>	39.888 <sup>218</sup>	31.27 <sup>39</sup>	5.12 <sup>63</sup>	52.76 <sup>299</sup>	28.411 <sup>215</sup>	69.61 <sup>97</sup>
Okt. 7	58.711 <sup>445</sup>	12.47 <sup>255</sup>	40.106 <sup>249</sup>	31.66 <sup>71</sup>	5.75 <sup>72</sup>	49.77 <sup>274</sup>	28.626 <sup>247</sup>	68.64 <sup>120</sup>
17	59.156 <sup>491</sup>	9.92 <sup>232</sup>	40.355 <sup>276</sup>	32.37 <sup>103</sup>	6.47 <sup>80</sup>	47.03 <sup>242</sup>	28.873 <sup>276</sup>	67.44 <sup>142</sup>
27	59.647 <sup>530</sup>	7.60 <sup>203</sup>	40.631 <sup>300</sup>	33.40 <sup>133</sup>	7.27 <sup>87</sup>	44.61 <sup>204</sup>	29.149 <sup>301</sup>	66.02 <sup>162</sup>
Nov. 6	60.177 <sup>559</sup>	5.57 <sup>168</sup>	40.931 <sup>319</sup>	34.73 <sup>162</sup>	8.14 <sup>91</sup>	42.57 <sup>159</sup>	29.450 <sup>321</sup>	64.40 <sup>177</sup>
16	60.736 <sup>578</sup>	3.89 <sup>128</sup>	41.250 <sup>329</sup>	36.35 <sup>185</sup>	9.05 <sup>94</sup>	40.98 <sup>110</sup>	29.771 <sup>335</sup>	62.63 <sup>188</sup>
26	61.314 <sup>581</sup>	2.61 <sup>82</sup>	41.579 <sup>332</sup>	38.20 <sup>203</sup>	9.99 <sup>95</sup>	39.88 <sup>56</sup>	30.106 <sup>339</sup>	60.75 <sup>193</sup>
Dez. 6	61.895 <sup>569</sup>	1.79 <sup>34</sup>	41.911 <sup>325</sup>	40.23 <sup>215</sup>	10.94 <sup>93</sup>	39.32 <sup>0</sup>	30.445 <sup>335</sup>	58.82 <sup>191</sup>
16	62.464 <sup>541</sup>	1.45 <sup>15</sup>	42.236 <sup>307</sup>	42.38 <sup>219</sup>	11.87 <sup>88</sup>	39.32 <sup>56</sup>	30.780 <sup>319</sup>	56.91 <sup>184</sup>
26	63.005 <sup>495</sup>	1.60 <sup>65</sup>	42.543 <sup>280</sup>	44.57 <sup>217</sup>	12.75 <sup>80</sup>	39.88 <sup>112</sup>	31.099 <sup>295</sup>	55.07 <sup>171</sup>
36	63.500	2.25	42.823	46.74	13.55	41.00	31.394	53.36
Mittl. Ort sec $\delta$ , tg $\delta$	57.468 1.963	25.41 +1.689	39.410 1.002	35.68 -0.068	4.59 3.463	65.72 +3.316	27.809 1.011	68.06 +0.147

# Obere Kulmination Greenwich

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Tag	379) $\gamma$ Leonis		380) $\alpha$ Leonis		381) $\lambda$ Hydrae		382) $\eta$ Velorum	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	10 <sup>h</sup> 3 <sup>m</sup>	+17° 6'	10 <sup>h</sup> 4 <sup>m</sup>	+12° 18'	10 <sup>h</sup> 7 <sup>m</sup>	-12° 0'	10 <sup>h</sup> 11 <sup>m</sup>	-41° 45'
Jan. 1	27.935 <sup>288</sup>	35.26 <sup>120</sup>	35.619 <sup>282</sup>	55.49 <sup>142</sup>	7.589 <sup>269</sup>	0.06 <sup>243</sup>	45.224 <sup>301</sup>	53.82 <sup>317</sup>
11	28.223 <sup>249</sup>	34.06 <sup>92</sup>	35.901 <sup>243</sup>	54.07 <sup>118</sup>	7.858 <sup>230</sup>	2.49 <sup>237</sup>	45.525 <sup>252</sup>	56.99 <sup>333</sup>
21	28.472 <sup>203</sup>	33.14 <sup>63</sup>	36.144 <sup>198</sup>	52.89 <sup>92</sup>	8.088 <sup>186</sup>	4.86 <sup>225</sup>	45.777 <sup>197</sup>	60.32 <sup>340</sup>
31	28.675 <sup>153</sup>	32.51 <sup>35</sup>	36.342 <sup>150</sup>	51.97 <sup>64</sup>	8.274 <sup>137</sup>	7.11 <sup>207</sup>	45.974 <sup>138</sup>	63.72 <sup>337</sup>
Feb. 10	28.828 <sup>102</sup>	32.16 <sup>7</sup>	36.492 <sup>100</sup>	51.33 <sup>38</sup>	8.411 <sup>89</sup>	9.18 <sup>186</sup>	46.112 <sup>79</sup>	67.09 <sup>328</sup>
20	28.930 <sup>51</sup>	32.09 <sup>17</sup>	36.592 <sup>50</sup>	50.95 <sup>13</sup>	8.500 <sup>41</sup>	11.04 <sup>161</sup>	46.191 <sup>21</sup>	70.37 <sup>310</sup>
März 1	28.981 <sup>5</sup>	32.26 <sup>37</sup>	36.642 <sup>5</sup>	50.82 <sup>9</sup>	8.541 <sup>2</sup>	12.65 <sup>136</sup>	46.212 <sup>31</sup>	73.47 <sup>285</sup>
11	28.986 <sup>37</sup>	32.63 <sup>53</sup>	36.647 <sup>35</sup>	50.91 <sup>27</sup>	8.539 <sup>41</sup>	14.01 <sup>109</sup>	46.181 <sup>78</sup>	76.32 <sup>257</sup>
21	28.949 <sup>70</sup>	33.16 <sup>64</sup>	36.612 <sup>69</sup>	51.18 <sup>41</sup>	8.498 <sup>72</sup>	15.10 <sup>83</sup>	46.103 <sup>118</sup>	78.89 <sup>223</sup>
31	28.879 <sup>96</sup>	33.80 <sup>71</sup>	36.543 <sup>93</sup>	51.59 <sup>51</sup>	8.426 <sup>96</sup>	15.93 <sup>57</sup>	45.985 <sup>150</sup>	81.12 <sup>186</sup>
Apr. 10	28.783 <sup>114</sup>	34.51 <sup>72</sup>	36.450 <sup>111</sup>	52.10 <sup>57</sup>	8.330 <sup>114</sup>	16.50 <sup>32</sup>	45.835 <sup>173</sup>	82.98 <sup>147</sup>
20	28.669 <sup>123</sup>	35.23 <sup>71</sup>	36.339 <sup>120</sup>	52.67 <sup>60</sup>	8.216 <sup>123</sup>	16.82 <sup>8</sup>	45.662 <sup>189</sup>	84.45 <sup>105</sup>
30	28.546 <sup>126</sup>	35.94 <sup>67</sup>	36.219 <sup>122</sup>	53.27 <sup>60</sup>	8.093 <sup>126</sup>	16.90 <sup>15</sup>	45.473 <sup>197</sup>	85.50 <sup>63</sup>
Mai 10	28.420 <sup>122</sup>	36.61 <sup>60</sup>	36.097 <sup>118</sup>	53.87 <sup>59</sup>	7.967 <sup>124</sup>	16.75 <sup>36</sup>	45.276 <sup>200</sup>	86.13 <sup>19</sup>
20	28.298 <sup>112</sup>	37.21 <sup>51</sup>	35.979 <sup>110</sup>	54.46 <sup>55</sup>	7.843 <sup>116</sup>	16.39 <sup>55</sup>	45.076 <sup>195</sup>	86.32 <sup>23</sup>
30	28.186 <sup>99</sup>	37.72 <sup>42</sup>	35.869 <sup>96</sup>	55.01 <sup>49</sup>	7.727 <sup>106</sup>	15.84 <sup>74</sup>	44.881 <sup>185</sup>	86.09 <sup>65</sup>
Juni 9	28.087 <sup>81</sup>	38.14 <sup>31</sup>	35.773 <sup>80</sup>	55.50 <sup>43</sup>	7.621 <sup>91</sup>	15.10 <sup>90</sup>	44.696 <sup>171</sup>	85.44 <sup>105</sup>
19	28.006 <sup>61</sup>	38.45 <sup>19</sup>	35.693 <sup>61</sup>	55.93 <sup>36</sup>	7.530 <sup>74</sup>	14.20 <sup>103</sup>	44.525 <sup>152</sup>	84.39 <sup>142</sup>
29	27.945 <sup>40</sup>	38.64 <sup>7</sup>	35.632 <sup>40</sup>	56.29 <sup>27</sup>	7.456 <sup>55</sup>	13.17 <sup>114</sup>	44.373 <sup>129</sup>	82.97 <sup>175</sup>
Juli 9	27.905 <sup>16</sup>	38.71 <sup>6</sup>	35.592 <sup>18</sup>	56.56 <sup>17</sup>	7.401 <sup>33</sup>	12.03 <sup>121</sup>	44.244 <sup>101</sup>	81.22 <sup>201</sup>
19	27.889 <sup>9</sup>	38.65 <sup>20</sup>	35.574 <sup>7</sup>	56.73 <sup>5</sup>	7.368 <sup>10</sup>	10.82 <sup>124</sup>	44.143 <sup>70</sup>	79.21 <sup>223</sup>
29	27.898 <sup>35</sup>	38.45 <sup>34</sup>	35.581 <sup>32</sup>	56.78 <sup>7</sup>	7.358 <sup>15</sup>	9.58 <sup>122</sup>	44.073 <sup>34</sup>	76.98 <sup>237</sup>
Aug. 8	27.933 <sup>62</sup>	38.11 <sup>50</sup>	35.613 <sup>58</sup>	56.71 <sup>22</sup>	7.373 <sup>42</sup>	8.36 <sup>115</sup>	44.039 <sup>4</sup>	74.61 <sup>243</sup>
18	27.995 <sup>90</sup>	37.61 <sup>67</sup>	35.671 <sup>86</sup>	56.49 <sup>38</sup>	7.415 <sup>71</sup>	7.21 <sup>102</sup>	44.043 <sup>47</sup>	72.18 <sup>241</sup>
28	28.085 <sup>120</sup>	36.94 <sup>84</sup>	35.757 <sup>116</sup>	56.11 <sup>57</sup>	7.486 <sup>103</sup>	6.19 <sup>85</sup>	44.090 <sup>91</sup>	69.77 <sup>228</sup>
Sept. 7	28.205 <sup>152</sup>	36.10 <sup>103</sup>	35.873 <sup>146</sup>	55.54 <sup>76</sup>	7.589 <sup>135</sup>	5.34 <sup>61</sup>	44.181 <sup>138</sup>	67.49 <sup>207</sup>
17	28.357 <sup>185</sup>	35.07 <sup>121</sup>	36.019 <sup>179</sup>	54.78 <sup>97</sup>	7.724 <sup>169</sup>	4.73 <sup>33</sup>	44.319 <sup>186</sup>	65.42 <sup>176</sup>
27	28.542 <sup>217</sup>	33.86 <sup>140</sup>	36.198 <sup>211</sup>	53.81 <sup>117</sup>	7.893 <sup>203</sup>	4.40 <sup>0</sup>	44.505 <sup>233</sup>	63.66 <sup>137</sup>
Okt. 7	28.759 <sup>249</sup>	32.46 <sup>156</sup>	36.409 <sup>244</sup>	52.64 <sup>138</sup>	8.096 <sup>237</sup>	4.40 <sup>35</sup>	44.738 <sup>278</sup>	62.29 <sup>90</sup>
17	29.008 <sup>280</sup>	30.90 <sup>171</sup>	36.653 <sup>273</sup>	51.26 <sup>157</sup>	8.333 <sup>268</sup>	4.75 <sup>73</sup>	45.016 <sup>318</sup>	61.39 <sup>39</sup>
27	29.288 <sup>308</sup>	29.19 <sup>182</sup>	36.926 <sup>301</sup>	49.69 <sup>173</sup>	8.601 <sup>295</sup>	5.48 <sup>111</sup>	45.334 <sup>353</sup>	61.00 <sup>17</sup>
Nov. 6	29.596 <sup>329</sup>	27.37 <sup>189</sup>	37.227 <sup>322</sup>	47.96 <sup>184</sup>	8.896 <sup>316</sup>	6.59 <sup>146</sup>	45.687 <sup>377</sup>	61.17 <sup>75</sup>
16	29.925 <sup>344</sup>	25.48 <sup>186</sup>	37.549 <sup>338</sup>	46.12 <sup>191</sup>	9.212 <sup>331</sup>	8.05 <sup>179</sup>	46.064 <sup>392</sup>	61.92 <sup>131</sup>
26	30.269 <sup>351</sup>	23.58 <sup>190</sup>	37.887 <sup>344</sup>	44.21 <sup>191</sup>	9.543 <sup>336</sup>	9.84 <sup>206</sup>	46.456 <sup>396</sup>	63.23 <sup>183</sup>
Dez. 6	30.620 <sup>348</sup>	21.72 <sup>175</sup>	38.231 <sup>340</sup>	42.30 <sup>186</sup>	9.879 <sup>331</sup>	11.90 <sup>226</sup>	46.852 <sup>386</sup>	65.06 <sup>232</sup>
16	30.968 <sup>334</sup>	19.97 <sup>158</sup>	38.571 <sup>327</sup>	40.44 <sup>175</sup>	10.210 <sup>316</sup>	14.16 <sup>239</sup>	47.238 <sup>364</sup>	67.38 <sup>272</sup>
26	31.302 <sup>310</sup>	18.39 <sup>137</sup>	38.898 <sup>304</sup>	38.69 <sup>158</sup>	10.526 <sup>291</sup>	16.55 <sup>246</sup>	47.602 <sup>330</sup>	70.10 <sup>303</sup>
36	31.612	17.02	39.202	37.11	10.817	19.01	47.932	73.13
Mittl. Ort sec $\delta$ , tg $\delta$	27.880 1.046	34.36 +0.308	35.595 1.024	53.35 +0.218	7.612 1.022	8.96 -0.213	45.074 1.341	70.61 -0.893

Tag	384) $\zeta$ Leonis		383) $\lambda$ Ursae maj.		386) $\mu$ Ursae maj.		387) $\zeta$ H. Urs. maj.	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$10^{\text{h}} 12^{\text{m}}$	$+23^{\circ} 45'$	$10^{\text{h}} 12^{\text{m}}$	$+43^{\circ} 15'$	$10^{\text{h}} 18^{\text{m}}$	$+41^{\circ} 51'$	$10^{\text{h}} 19^{\text{m}}$	$+65^{\circ} 55'$
Jan. 1	44.793	77.50	49.721	64.93	6.715	20.41	3.30	25.58
11	45.099	76.57	50.089	64.90	7.080	20.27	3.89	26.45
21	45.366	75.96	50.410	65.31	7.400	20.56	4.41	27.84
31	45.587	75.67	50.675	66.11	7.667	21.26	4.84	29.67
Feb. 10	45.757	75.70	50.878	67.27	7.873	22.32	5.16	31.88
20	45.873	76.02	51.015	68.72	8.015	23.68	5.38	34.36
März 1	45.937	76.58	51.086	70.39	8.093	25.27	5.48	37.01
11	45.951	77.34	51.096	72.18	8.110	27.00	5.47	39.71
21	45.922	78.23	51.049	74.01	8.072	28.79	5.36	42.34
31	45.856	79.20	50.955	75.80	7.986	30.55	5.16	44.80
Apr. 10	45.761	80.20	50.822	77.46	7.863	32.20	4.89	46.99
20	45.646	81.17	50.662	78.93	7.712	33.68	4.56	48.83
30	45.519	82.06	50.485	80.16	7.544	34.94	4.19	50.26
Mai 10	45.387	82.85	50.300	81.10	7.367	35.91	3.80	51.23
20	45.258	83.50	50.118	81.72	7.192	36.59	3.41	51.71
30	45.138	84.00	49.946	82.01	7.024	36.94	3.03	51.70
Juni 9	45.030	84.33	49.789	81.96	6.872	36.96	2.67	51.19
19	44.940	84.49	49.654	81.57	6.739	36.66	2.35	50.21
29	44.869	84.47	49.546	80.87	6.631	36.05	2.07	48.78
Juli 9	44.819	84.28	49.466	79.86	6.550	35.13	1.84	46.94
19	44.794	83.91	49.419	78.57	6.500	33.92	1.68	44.73
29	44.794	83.37	49.405	77.02	6.482	32.46	1.58	42.21
Aug. 8	44.820	82.64	49.426	75.24	6.497	30.76	1.55	39.42
18	44.875	81.74	49.484	73.26	6.548	28.85	1.59	36.42
28	44.959	80.66	49.581	71.10	6.636	26.76	1.70	33.27
Sept. 7	45.075	79.40	49.717	68.80	6.763	24.52	1.89	30.03
17	45.223	77.98	49.894	66.40	6.930	22.16	2.15	26.76
27	45.405	76.39	50.112	63.92	7.138	19.71	2.48	23.52
Okt. 7	45.622	74.66	50.372	61.42	7.387	17.22	2.88	20.38
17	45.873	72.81	50.673	58.93	7.677	14.74	3.36	17.40
27	46.157	70.86	51.013	56.52	8.006	12.31	3.90	14.66
Nov. 6	46.470	68.86	51.387	54.24	8.370	9.99	4.50	12.23
16	46.808	66.86	51.791	52.15	8.763	7.85	5.14	10.17
26	47.163	64.92	52.215	50.32	9.178	5.95	5.82	8.54
Dez. 6	47.527	63.09	52.650	48.80	9.605	4.35	6.52	7.40
16	47.890	61.43	53.083	47.64	10.032	3.10	7.22	6.80
26	48.240	60.01	53.503	46.89	10.446	2.25	7.89	6.76
36	48.568	58.87	53.895	46.57	10.835	1.82	8.52	7.27
Mittl. Ort	44.728	78.54	49.385	70.34	6.432	25.77	2.02	34.61
sec $\delta$ , tg $\delta$	1.093	+0.440	1.373	+0.941	1.343	+0.896	2.451	+2.238

# Obere Kulmination Greenwich

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Tag	389) $\mu$ Hydrae		391) $J$ Carinae		390) $\beta$ Leonis min.		392) Lac. $\alpha$ Antliae	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	10 <sup>h</sup> 22 <sup>m</sup>	—16° 28'	10 <sup>h</sup> 22 <sup>m</sup>	—73° 39'	10 <sup>h</sup> 23 <sup>m</sup>	+37° 3'	10 <sup>h</sup> 23 <sup>m</sup>	—30° 42'
Jan. I	39.267 <sup>28I</sup>	13.75 <sup>257</sup>	60.77 <sup>6I</sup>	48.64 <sup>310</sup>	47.244 <sup>350</sup>	73.35 <sup>40</sup>	53.986 <sup>293</sup>	6.54 <sup>292</sup>
II	39.548 <sup>243</sup>	16.32 <sup>255</sup>	61.38 <sup>49</sup>	51.74 <sup>347</sup>	47.594 <sup>308</sup>	72.95 <sup>0</sup>	54.279 <sup>25I</sup>	9.46 <sup>302</sup>
2I	39.791 <sup>200</sup>	18.87 <sup>247</sup>	61.87 <sup>36</sup>	55.21 <sup>372</sup>	47.902 <sup>258</sup>	72.95 <sup>40</sup>	54.530 <sup>204</sup>	12.48 <sup>304</sup>
3I	39.991 <sup>152</sup>	21.34 <sup>233</sup>	62.23 <sup>23</sup>	58.93 <sup>388</sup>	48.160 <sup>202</sup>	73.35 <sup>76</sup>	54.734 <sup>152</sup>	15.52 <sup>297</sup>
Feb. 10	40.143 <sup>103</sup>	23.67 <sup>213</sup>	62.46 <sup>9</sup>	62.81 <sup>393</sup>	48.362 <sup>142</sup>	74.11 <sup>108</sup>	54.886 <sup>100</sup>	18.49 <sup>284</sup>
20	40.246 <sup>56</sup>	25.80 <sup>190</sup>	62.55 <sup>5</sup>	66.74 <sup>389</sup>	48.504 <sup>82</sup>	75.19 <sup>132</sup>	54.986 <sup>26</sup>	21.33 <sup>264</sup>
März I	40.302 <sup>11</sup>	27.70 <sup>164</sup>	62.50 <sup>17</sup>	70.63 <sup>377</sup>	48.586 <sup>25</sup>	76.51 <sup>149</sup>	55.035 <sup>0</sup>	23.97 <sup>240</sup>
II	40.313 <sup>28</sup>	29.34 <sup>138</sup>	62.33 <sup>28</sup>	74.40 <sup>355</sup>	48.611 <sup>26</sup>	78.00 <sup>157</sup>	55.035 <sup>42</sup>	26.37 <sup>213</sup>
2I	40.285 <sup>62</sup>	30.72 <sup>110</sup>	62.05 <sup>40</sup>	77.95 <sup>326</sup>	48.585 <sup>71</sup>	79.57 <sup>159</sup>	54.993 <sup>77</sup>	28.50 <sup>181</sup>
3I	40.223 <sup>87</sup>	31.82 <sup>83</sup>	61.65 <sup>48</sup>	81.21 <sup>292</sup>	48.514 <sup>106</sup>	81.16 <sup>153</sup>	54.916 <sup>107</sup>	30.31 <sup>148</sup>
Apr. 10	40.136 <sup>107</sup>	32.65 <sup>55</sup>	61.17 <sup>56</sup>	84.13 <sup>251</sup>	48.408 <sup>133</sup>	82.69 <sup>140</sup>	54.809 <sup>128</sup>	31.79 <sup>114</sup>
20	40.029 <sup>119</sup>	33.20 <sup>28</sup>	60.61 <sup>62</sup>	86.64 <sup>206</sup>	48.275 <sup>150</sup>	84.09 <sup>121</sup>	54.681 <sup>143</sup>	32.93 <sup>78</sup>
30	39.910 <sup>125</sup>	33.48 <sup>3</sup>	59.99 <sup>66</sup>	88.70 <sup>157</sup>	48.125 <sup>158</sup>	85.30 <sup>99</sup>	54.538 <sup>151</sup>	33.71 <sup>43</sup>
Mai 10	39.785 <sup>125</sup>	33.51 <sup>22</sup>	59.33 <sup>68</sup>	90.27 <sup>105</sup>	47.967 <sup>158</sup>	86.29 <sup>73</sup>	54.387 <sup>154</sup>	34.14 <sup>7</sup>
20	39.660 <sup>121</sup>	33.29 <sup>46</sup>	58.65 <sup>70</sup>	91.32 <sup>51</sup>	47.809 <sup>151</sup>	87.02 <sup>45</sup>	54.233 <sup>150</sup>	34.21 <sup>28</sup>
30	39.539 <sup>112</sup>	32.83 <sup>68</sup>	57.95 <sup>69</sup>	91.83 <sup>4</sup>	47.658 <sup>138</sup>	87.47 <sup>16</sup>	54.083 <sup>143</sup>	33.93 <sup>63</sup>
Juni 9	39.427 <sup>101</sup>	32.15 <sup>87</sup>	57.26 <sup>67</sup>	91.79 <sup>57</sup>	47.520 <sup>120</sup>	87.63 <sup>14</sup>	53.940 <sup>131</sup>	33.30 <sup>94</sup>
19	39.326 <sup>86</sup>	31.28 <sup>105</sup>	56.59 <sup>63</sup>	91.22 <sup>110</sup>	47.400 <sup>100</sup>	87.49 <sup>43</sup>	53.809 <sup>117</sup>	32.36 <sup>123</sup>
29	39.240 <sup>69</sup>	30.23 <sup>120</sup>	55.96 <sup>58</sup>	90.12 <sup>158</sup>	47.300 <sup>75</sup>	87.06 <sup>70</sup>	53.692 <sup>98</sup>	31.13 <sup>149</sup>
Juli 9	39.171 <sup>50</sup>	29.03 <sup>130</sup>	55.38 <sup>50</sup>	88.54 <sup>203</sup>	47.225 <sup>48</sup>	86.36 <sup>97</sup>	53.594 <sup>76</sup>	29.64 <sup>170</sup>
19	39.121 <sup>27</sup>	27.73 <sup>136</sup>	54.88 <sup>41</sup>	86.51 <sup>241</sup>	47.177 <sup>19</sup>	85.39 <sup>121</sup>	53.518 <sup>51</sup>	27.94 <sup>186</sup>
29	39.094 <sup>2</sup>	26.37 <sup>138</sup>	54.47 <sup>31</sup>	84.10 <sup>271</sup>	47.158 <sup>11</sup>	84.18 <sup>145</sup>	53.467 <sup>22</sup>	26.08 <sup>195</sup>
Aug. 8	39.092 <sup>24</sup>	24.99 <sup>134</sup>	54.16 <sup>19</sup>	81.39 <sup>292</sup>	47.169 <sup>44</sup>	82.73 <sup>166</sup>	53.445 <sup>8</sup>	24.13 <sup>198</sup>
18	39.116 <sup>54</sup>	23.65 <sup>124</sup>	53.97 <sup>7</sup>	78.47 <sup>305</sup>	47.213 <sup>78</sup>	81.07 <sup>184</sup>	53.453 <sup>43</sup>	22.15 <sup>194</sup>
28	39.170 <sup>86</sup>	22.41 <sup>107</sup>	53.90 <sup>7</sup>	75.42 <sup>305</sup>	47.291 <sup>113</sup>	79.23 <sup>202</sup>	53.496 <sup>80</sup>	20.21 <sup>180</sup>
Sept. 7	39.256 <sup>120</sup>	21.34 <sup>85</sup>	53.97 <sup>20</sup>	72.37 <sup>294</sup>	47.404 <sup>151</sup>	77.21 <sup>216</sup>	53.576 <sup>119</sup>	18.41 <sup>159</sup>
17	39.376 <sup>155</sup>	20.49 <sup>58</sup>	54.17 <sup>34</sup>	69.43 <sup>272</sup>	47.555 <sup>190</sup>	75.05 <sup>227</sup>	53.695 <sup>161</sup>	16.82 <sup>130</sup>
27	39.531 <sup>192</sup>	19.91 <sup>25</sup>	54.51 <sup>47</sup>	66.71 <sup>239</sup>	47.745 <sup>229</sup>	72.78 <sup>235</sup>	53.856 <sup>202</sup>	15.52 <sup>94</sup>
Okt. 7	39.723 <sup>228</sup>	19.66 <sup>13</sup>	54.98 <sup>58</sup>	64.32 <sup>195</sup>	47.974 <sup>269</sup>	70.43 <sup>238</sup>	54.058 <sup>243</sup>	14.58 <sup>52</sup>
17	39.951 <sup>262</sup>	19.79 <sup>53</sup>	55.56 <sup>69</sup>	62.37 <sup>143</sup>	48.243 <sup>306</sup>	68.05 <sup>237</sup>	54.301 <sup>281</sup>	14.06 <sup>5</sup>
27	40.213 <sup>291</sup>	20.32 <sup>92</sup>	56.25 <sup>77</sup>	60.94 <sup>83</sup>	48.549 <sup>341</sup>	65.68 <sup>231</sup>	54.582 <sup>313</sup>	14.01 <sup>44</sup>
Nov. 6	40.504 <sup>316</sup>	21.24 <sup>132</sup>	57.02 <sup>83</sup>	60.11 <sup>18</sup>	48.890 <sup>370</sup>	63.37 <sup>219</sup>	54.895 <sup>339</sup>	14.45 <sup>94</sup>
16	40.820 <sup>334</sup>	22.56 <sup>169</sup>	57.85 <sup>86</sup>	59.93 <sup>48</sup>	49.260 <sup>391</sup>	61.18 <sup>199</sup>	55.234 <sup>353</sup>	15.39 <sup>143</sup>
26	41.154 <sup>341</sup>	24.25 <sup>201</sup>	58.71 <sup>85</sup>	60.41 <sup>114</sup>	49.651 <sup>404</sup>	59.19 <sup>174</sup>	55.590 <sup>363</sup>	16.82 <sup>188</sup>
Dez. 6	41.495 <sup>338</sup>	26.26 <sup>226</sup>	59.56 <sup>83</sup>	61.55 <sup>177</sup>	50.055 <sup>405</sup>	57.45 <sup>143</sup>	55.953 <sup>359</sup>	18.70 <sup>227</sup>
16	41.833 <sup>325</sup>	28.52 <sup>245</sup>	60.39 <sup>76</sup>	63.32 <sup>235</sup>	50.460 <sup>394</sup>	56.02 <sup>108</sup>	56.312 <sup>344</sup>	20.97 <sup>260</sup>
26	42.158 <sup>303</sup>	30.97 <sup>256</sup>	61.15 <sup>68</sup>	65.67 <sup>286</sup>	50.854 <sup>371</sup>	54.94 <sup>68</sup>	56.656 <sup>317</sup>	23.57 <sup>283</sup>
36	42.461	33.53	61.83	68.53	51.225	54.26	56.973	26.40
Mittl. Ort	39.366	24.04	59.32	71.39	47.072	77.93	54.035	20.84
sec $\delta$ , tg $\delta$	1.043	—0.296	3.557	—3.413	1.253	+0.756	1.163	—0.594

Tag	393) $\delta$ Carinae		394) $\beta$ Ursae maj.		395) $\gamma$ H. Draconis		404) $\beta$ Sextantis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$10^{\text{h}} 25^{\text{m}}$	$-58^{\circ} 22'$	$10^{\text{h}} 26^{\text{m}}$	$+56^{\circ} 20'$	$10^{\text{h}} 29^{\text{m}}$	$+76^{\circ} 4'$	$10^{\text{h}} 37^{\text{m}}$	$-1^{\circ} 21'$
Jan. 1	16.455 <sup>390</sup>	14.91 <sup>319</sup>	6.439 <sup>467</sup>	34.84 <sup>41</sup>	9.25 <sup>95</sup>	36.16 <sup>110</sup>	47.327 <sup>291</sup>	58.76 <sup>208</sup>
11	16.845 <sup>325</sup>	18.10 <sup>348</sup>	6.906 <sup>413</sup>	35.25 <sup>90</sup>	10.20 <sup>84</sup>	37.26 <sup>165</sup>	47.618 <sup>258</sup>	60.84 <sup>194</sup>
21	17.170 <sup>252</sup>	21.58 <sup>367</sup>	7.319 <sup>344</sup>	36.15 <sup>136</sup>	11.04 <sup>69</sup>	38.91 <sup>212</sup>	47.876 <sup>217</sup>	62.78 <sup>176</sup>
31	17.422 <sup>174</sup>	25.25 <sup>376</sup>	7.663 <sup>268</sup>	37.51 <sup>176</sup>	11.73 <sup>53</sup>	41.03 <sup>250</sup>	48.093 <sup>173</sup>	64.54 <sup>154</sup>
Feb. 10	17.596 <sup>96</sup>	29.01 <sup>375</sup>	7.931 <sup>185</sup>	39.27 <sup>205</sup>	12.26 <sup>35</sup>	43.53 <sup>277</sup>	48.266 <sup>125</sup>	66.08 <sup>129</sup>
20	17.692 <sup>20</sup>	32.76 <sup>366</sup>	8.116 <sup>101</sup>	41.32 <sup>227</sup>	12.61 <sup>17</sup>	46.30 <sup>294</sup>	48.391 <sup>78</sup>	67.37 <sup>103</sup>
März 1 <sup>*)</sup>	17.712 <sup>52</sup>	36.42 <sup>348</sup>	8.217 <sup>20</sup>	43.59 <sup>238</sup>	12.78 <sup>2</sup>	49.24 <sup>297</sup>	48.469 <sup>35</sup>	68.40 <sup>78</sup>
11	17.660 <sup>118</sup>	39.90 <sup>323</sup>	8.237 <sup>56</sup>	45.97 <sup>238</sup>	12.76 <sup>19</sup>	52.21 <sup>288</sup>	48.504 <sup>6</sup>	69.18 <sup>54</sup>
21	17.542 <sup>174</sup>	43.13 <sup>291</sup>	8.181 <sup>121</sup>	48.35 <sup>227</sup>	12.57 <sup>34</sup>	55.09 <sup>268</sup>	48.498 <sup>39</sup>	69.72 <sup>32</sup>
31	17.368 <sup>222</sup>	46.04 <sup>255</sup>	8.060 <sup>176</sup>	50.62 <sup>208</sup>	12.23 <sup>48</sup>	57.77 <sup>237</sup>	48.459 <sup>66</sup>	70.04 <sup>12</sup>
Apr. 10	17.146 <sup>260</sup>	48.59 <sup>214</sup>	7.884 <sup>218</sup>	52.70 <sup>181</sup>	11.75 <sup>59</sup>	60.14 <sup>197</sup>	48.393 <sup>87</sup>	70.16 <sup>6</sup>
20	16.886 <sup>289</sup>	50.73 <sup>170</sup>	7.666 <sup>246</sup>	54.51 <sup>147</sup>	11.16 <sup>66</sup>	62.11 <sup>152</sup>	48.306 <sup>100</sup>	70.10 <sup>21</sup>
30	16.597 <sup>308</sup>	52.43 <sup>122</sup>	7.420 <sup>262</sup>	55.98 <sup>108</sup>	10.50 <sup>71</sup>	63.63 <sup>100</sup>	48.206 <sup>108</sup>	69.89 <sup>34</sup>
Mai 10	16.289 <sup>320</sup>	53.65 <sup>72</sup>	7.158 <sup>266</sup>	57.06 <sup>66</sup>	9.79 <sup>73</sup>	64.63 <sup>47</sup>	48.098 <sup>109</sup>	69.55 <sup>45</sup>
20	15.969 <sup>322</sup>	54.37 <sup>22</sup>	6.892 <sup>258</sup>	57.72 <sup>23</sup>	9.06 <sup>72</sup>	65.10 <sup>9</sup>	47.989 <sup>107</sup>	69.10 <sup>54</sup>
30	15.647 <sup>316</sup>	54.59 <sup>28</sup>	6.634 <sup>241</sup>	57.95 <sup>21</sup>	8.34 <sup>69</sup>	65.01 <sup>63</sup>	47.882 <sup>100</sup>	68.56 <sup>62</sup>
Juni 9	15.331 <sup>302</sup>	54.31 <sup>78</sup>	6.393 <sup>217</sup>	57.74 <sup>65</sup>	7.65 <sup>64</sup>	64.38 <sup>115</sup>	47.782 <sup>90</sup>	67.94 <sup>67</sup>
19	15.029 <sup>280</sup>	53.53 <sup>125</sup>	6.176 <sup>186</sup>	57.09 <sup>105</sup>	7.01 <sup>57</sup>	63.23 <sup>163</sup>	47.692 <sup>77</sup>	67.27 <sup>70</sup>
29	14.749 <sup>251</sup>	52.28 <sup>167</sup>	5.990 <sup>148</sup>	56.04 <sup>144</sup>	6.44 <sup>48</sup>	61.60 <sup>209</sup>	47.615 <sup>62</sup>	66.57 <sup>72</sup>
Juli 9	14.498 <sup>215</sup>	50.61 <sup>205</sup>	5.842 <sup>108</sup>	54.60 <sup>180</sup>	5.96 <sup>38</sup>	59.51 <sup>248</sup>	47.553 <sup>45</sup>	65.85 <sup>72</sup>
19	14.283 <sup>170</sup>	48.56 <sup>238</sup>	5.734 <sup>63</sup>	52.80 <sup>210</sup>	5.58 <sup>27</sup>	57.03 <sup>282</sup>	47.508 <sup>25</sup>	65.13 <sup>67</sup>
29	14.113 <sup>119</sup>	46.18 <sup>262</sup>	5.671 <sup>16</sup>	50.70 <sup>238</sup>	5.31 <sup>16</sup>	54.21 <sup>310</sup>	47.483 <sup>4</sup>	64.46 <sup>61</sup>
Aug. 8	13.994 <sup>62</sup>	43.56 <sup>278</sup>	5.655 <sup>33</sup>	48.32 <sup>260</sup>	5.15 <sup>3</sup>	51.11 <sup>332</sup>	47.479 <sup>21</sup>	63.85 <sup>51</sup>
18	13.932 <sup>1</sup>	40.78 <sup>284</sup>	5.688 <sup>85</sup>	45.72 <sup>279</sup>	5.12 <sup>10</sup>	47.79 <sup>346</sup>	47.500 <sup>47</sup>	63.34 <sup>36</sup>
28	13.933 <sup>69</sup>	37.94 <sup>280</sup>	5.773 <sup>137</sup>	42.93 <sup>292</sup>	5.22 <sup>23</sup>	44.33 <sup>355</sup>	47.547 <sup>76</sup>	62.98 <sup>19</sup>
Sept. 7	14.002 <sup>139</sup>	35.14 <sup>265</sup>	5.910 <sup>192</sup>	40.01 <sup>300</sup>	5.45 <sup>35</sup>	40.78 <sup>355</sup>	47.623 <sup>108</sup>	62.79 <sup>2</sup>
17	14.141 <sup>211</sup>	32.49 <sup>239</sup>	6.102 <sup>246</sup>	37.01 <sup>302</sup>	5.80 <sup>48</sup>	37.23 <sup>350</sup>	47.731 <sup>142</sup>	62.81 <sup>27</sup>
27	14.352 <sup>280</sup>	30.10 <sup>203</sup>	6.348 <sup>302</sup>	33.99 <sup>299</sup>	6.28 <sup>61</sup>	33.73 <sup>336</sup>	47.873 <sup>176</sup>	63.08 <sup>55</sup>
Okt. 7	14.632 <sup>346</sup>	28.07 <sup>158</sup>	6.650 <sup>356</sup>	31.00 <sup>290</sup>	6.89 <sup>72</sup>	30.37 <sup>315</sup>	48.049 <sup>212</sup>	63.63 <sup>83</sup>
17	14.978 <sup>405</sup>	26.49 <sup>104</sup>	7.006 <sup>407</sup>	28.10 <sup>274</sup>	7.61 <sup>83</sup>	27.22 <sup>287</sup>	48.261 <sup>246</sup>	64.46 <sup>112</sup>
27	15.383 <sup>453</sup>	25.45 <sup>46</sup>	7.413 <sup>452</sup>	25.36 <sup>251</sup>	8.44 <sup>93</sup>	24.35 <sup>252</sup>	48.507 <sup>278</sup>	65.58 <sup>141</sup>
Nov. 6	15.836 <sup>490</sup>	24.99 <sup>17</sup>	7.865 <sup>492</sup>	22.85 <sup>221</sup>	9.37 <sup>101</sup>	21.83 <sup>209</sup>	48.785 <sup>304</sup>	66.99 <sup>166</sup>
16	16.326 <sup>510</sup>	25.16 <sup>81</sup>	8.357 <sup>521</sup>	20.64 <sup>185</sup>	10.38 <sup>106</sup>	19.74 <sup>160</sup>	49.089 <sup>324</sup>	68.65 <sup>189</sup>
26	16.836 <sup>514</sup>	25.97 <sup>143</sup>	8.878 <sup>537</sup>	18.79 <sup>144</sup>	11.44 <sup>110</sup>	18.14 <sup>105</sup>	49.413 <sup>335</sup>	70.54 <sup>205</sup>
Dez. 6	17.350 <sup>502</sup>	27.40 <sup>202</sup>	9.415 <sup>539</sup>	17.35 <sup>96</sup>	12.54 <sup>110</sup>	17.09 <sup>47</sup>	49.748 <sup>337</sup>	72.59 <sup>216</sup>
16	17.852 <sup>473</sup>	29.42 <sup>254</sup>	9.954 <sup>526</sup>	16.39 <sup>45</sup>	13.64 <sup>107</sup>	16.62 <sup>12</sup>	50.085 <sup>329</sup>	74.75 <sup>219</sup>
26	18.325 <sup>427</sup>	31.96 <sup>298</sup>	10.480 <sup>495</sup>	15.94 <sup>6</sup>	14.71 <sup>101</sup>	16.74 <sup>73</sup>	50.414 <sup>310</sup>	76.94 <sup>216</sup>
36	18.752	34.94	10.975	16.00	15.72	17.47	50.724	79.10
Mittl. Ort sec 2, tg 2	16.082 1.907	35.55 -1.624	5.781 1.804	43.07 +1.502	6.59 4.157	46.47 +4.035	47.504 1.000	64.46 -0.024

\*) Bei Stern 404) lies März 2



# Obere Kulmination Greenwich

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Tag	406) ♃ Argus		407) ♋ Leonis min.		408) ♄ Argus		409) ♌ Leonis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	10 <sup>h</sup> 40 <sup>m</sup>	-64° 0'	10 <sup>h</sup> 41 <sup>m</sup>	+31° 3'	10 <sup>h</sup> 43 <sup>m</sup>	-49° 2'	10 <sup>h</sup> 45 <sup>m</sup>	+10° 54'
Jan. 1	25.56 <sup>47</sup>	57.50 <sup>305</sup>	55.345 <sup>341</sup>	20.62 <sup>82</sup>	42.540 <sup>360</sup>	21.94 <sup>304</sup>	31.458 <sup>305</sup>	78.44 <sup>166</sup>
11	26.03 <sup>39</sup>	60.55 <sup>339</sup>	55.686 <sup>306</sup>	19.80 <sup>43</sup>	42.900 <sup>311</sup>	24.98 <sup>330</sup>	31.763 <sup>273</sup>	76.78 <sup>141</sup>
21	26.42 <sup>31</sup>	63.94 <sup>364</sup>	55.992 <sup>260</sup>	19.37 <sup>3</sup>	43.211 <sup>254</sup>	28.28 <sup>347</sup>	32.036 <sup>233</sup>	75.37 <sup>114</sup>
31	26.73 <sup>23</sup>	67.58 <sup>379</sup>	56.252 <sup>210</sup>	19.34 <sup>33</sup>	43.465 <sup>191</sup>	31.75 <sup>354</sup>	32.269 <sup>188</sup>	74.23 <sup>85</sup>
Feb. 10	26.96 <sup>13</sup>	71.37 <sup>384</sup>	56.462 <sup>155</sup>	19.67 <sup>66</sup>	43.656 <sup>128</sup>	35.29 <sup>352</sup>	32.457 <sup>140</sup>	73.38 <sup>55</sup>
20	27.09 <sup>5</sup>	75.21 <sup>380</sup>	56.617 <sup>100</sup>	20.33 <sup>95</sup>	43.784 <sup>65</sup>	38.81 <sup>342</sup>	32.597 <sup>92</sup>	72.83 <sup>29</sup>
März 2	27.14 <sup>4</sup>	79.01 <sup>366</sup>	56.717 <sup>46</sup>	21.28 <sup>117</sup>	43.849 <sup>6</sup>	42.23 <sup>325</sup>	32.689 <sup>46</sup>	72.54 <sup>3</sup>
11	27.10 <sup>12</sup>	82.67 <sup>346</sup>	56.763 <sup>2</sup>	22.45 <sup>131</sup>	43.855 <sup>49</sup>	45.48 <sup>300</sup>	32.735 <sup>4</sup>	72.51 <sup>19</sup>
21	26.98 <sup>19</sup>	86.13 <sup>318</sup>	56.761 <sup>45</sup>	23.76 <sup>138</sup>	43.806 <sup>96</sup>	48.48 <sup>271</sup>	32.739 <sup>31</sup>	72.70 <sup>36</sup>
31	26.79 <sup>25</sup>	89.31 <sup>285</sup>	56.716 <sup>79</sup>	25.14 <sup>139</sup>	43.710 <sup>137</sup>	51.19 <sup>238</sup>	32.708 <sup>60</sup>	73.06 <sup>50</sup>
Apr. 10	26.54 <sup>29</sup>	92.16 <sup>245</sup>	56.637 <sup>106</sup>	26.53 <sup>133</sup>	43.573 <sup>169</sup>	53.57 <sup>199</sup>	32.648 <sup>82</sup>	73.56 <sup>59</sup>
20	26.25 <sup>34</sup>	94.61 <sup>202</sup>	56.531 <sup>124</sup>	27.86 <sup>121</sup>	43.404 <sup>194</sup>	55.56 <sup>159</sup>	32.566 <sup>98</sup>	74.15 <sup>64</sup>
30	25.91 <sup>37</sup>	96.63 <sup>155</sup>	56.407 <sup>135</sup>	29.07 <sup>104</sup>	43.210 <sup>212</sup>	57.15 <sup>115</sup>	32.468 <sup>106</sup>	74.79 <sup>66</sup>
Mai 10	25.54 <sup>39</sup>	98.18 <sup>105</sup>	56.272 <sup>138</sup>	30.11 <sup>84</sup>	42.998 <sup>224</sup>	58.30 <sup>70</sup>	32.362 <sup>109</sup>	75.45 <sup>66</sup>
20	25.15 <sup>40</sup>	99.23 <sup>53</sup>	56.134 <sup>134</sup>	30.95 <sup>62</sup>	42.774 <sup>227</sup>	59.00 <sup>24</sup>	32.253 <sup>107</sup>	76.11 <sup>62</sup>
30	24.75 <sup>39</sup>	99.76 <sup>2</sup>	56.000 <sup>126</sup>	31.57 <sup>37</sup>	42.547 <sup>225</sup>	59.24 <sup>21</sup>	32.146 <sup>101</sup>	76.73 <sup>58</sup>
Juni 9	24.36 <sup>39</sup>	99.78 <sup>50</sup>	55.874 <sup>114</sup>	31.94 <sup>12</sup>	42.322 <sup>217</sup>	59.03 <sup>66</sup>	32.045 <sup>91</sup>	77.31 <sup>50</sup>
19	23.97 <sup>37</sup>	99.28 <sup>101</sup>	55.760 <sup>97</sup>	32.06 <sup>13</sup>	42.105 <sup>204</sup>	58.37 <sup>108</sup>	31.954 <sup>79</sup>	77.81 <sup>43</sup>
29	23.60 <sup>34</sup>	98.27 <sup>147</sup>	55.663 <sup>77</sup>	31.93 <sup>38</sup>	41.901 <sup>185</sup>	57.29 <sup>148</sup>	31.875 <sup>63</sup>	78.24 <sup>34</sup>
Juli 9	23.26 <sup>30</sup>	96.80 <sup>190</sup>	55.586 <sup>56</sup>	31.55 <sup>63</sup>	41.716 <sup>160</sup>	55.81 <sup>183</sup>	31.812 <sup>47</sup>	78.58 <sup>22</sup>
19	22.96 <sup>25</sup>	94.90 <sup>227</sup>	55.530 <sup>32</sup>	30.92 <sup>88</sup>	41.556 <sup>129</sup>	53.98 <sup>212</sup>	31.765 <sup>27</sup>	78.80 <sup>10</sup>
29	22.71 <sup>19</sup>	92.63 <sup>256</sup>	55.498 <sup>6</sup>	30.04 <sup>110</sup>	41.427 <sup>93</sup>	51.86 <sup>235</sup>	31.738 <sup>6</sup>	78.90 <sup>3</sup>
Aug. 8	22.52 <sup>12</sup>	90.07 <sup>278</sup>	55.492 <sup>23</sup>	28.94 <sup>132</sup>	41.334 <sup>52</sup>	49.51 <sup>249</sup>	31.732 <sup>19</sup>	78.87 <sup>19</sup>
18	22.40 <sup>4</sup>	87.29 <sup>289</sup>	55.515 <sup>53</sup>	27.62 <sup>154</sup>	41.282 <sup>4</sup>	47.02 <sup>255</sup>	31.751 <sup>44</sup>	78.68 <sup>36</sup>
28	22.36 <sup>3</sup>	84.40 <sup>291</sup>	55.568 <sup>87</sup>	26.08 <sup>172</sup>	41.278 <sup>47</sup>	44.47 <sup>252</sup>	31.795 <sup>74</sup>	78.32 <sup>56</sup>
Sept. 7	22.39 <sup>12</sup>	81.49 <sup>281</sup>	55.655 <sup>121</sup>	24.36 <sup>190</sup>	41.325 <sup>102</sup>	41.95 <sup>237</sup>	31.869 <sup>105</sup>	77.76 <sup>76</sup>
17	22.51 <sup>21</sup>	78.68 <sup>260</sup>	55.776 <sup>159</sup>	22.46 <sup>206</sup>	41.427 <sup>160</sup>	39.58 <sup>214</sup>	31.974 <sup>138</sup>	77.00 <sup>98</sup>
27	22.72 <sup>29</sup>	76.08 <sup>228</sup>	55.935 <sup>197</sup>	20.40 <sup>218</sup>	41.587 <sup>217</sup>	37.44 <sup>181</sup>	32.112 <sup>174</sup>	76.02 <sup>121</sup>
Okt. 7	23.01 <sup>38</sup>	73.80 <sup>186</sup>	56.132 <sup>236</sup>	18.22 <sup>228</sup>	41.804 <sup>272</sup>	35.63 <sup>139</sup>	32.286 <sup>210</sup>	74.81 <sup>143</sup>
17	23.39 <sup>45</sup>	71.94 <sup>136</sup>	56.368 <sup>274</sup>	15.94 <sup>233</sup>	42.076 <sup>325</sup>	34.24 <sup>89</sup>	32.496 <sup>245</sup>	73.38 <sup>163</sup>
27	23.84 <sup>51</sup>	70.58 <sup>78</sup>	56.642 <sup>310</sup>	13.61 <sup>233</sup>	42.401 <sup>369</sup>	33.35 <sup>34</sup>	32.741 <sup>277</sup>	71.75 <sup>182</sup>
Nov. 6	24.35 <sup>56</sup>	69.80 <sup>16</sup>	56.952 <sup>340</sup>	11.28 <sup>228</sup>	42.770 <sup>405</sup>	33.01 <sup>25</sup>	33.018 <sup>305</sup>	69.93 <sup>196</sup>
16	24.91 <sup>59</sup>	69.64 <sup>49</sup>	57.292 <sup>364</sup>	9.00 <sup>216</sup>	43.175 <sup>429</sup>	33.26 <sup>84</sup>	33.323 <sup>328</sup>	67.97 <sup>205</sup>
26	25.50 <sup>60</sup>	70.13 <sup>113</sup>	57.656 <sup>380</sup>	6.84 <sup>198</sup>	43.604 <sup>440</sup>	34.10 <sup>142</sup>	33.651 <sup>342</sup>	65.92 <sup>208</sup>
Dez. 6	26.10 <sup>59</sup>	71.26 <sup>175</sup>	58.036 <sup>385</sup>	4.86 <sup>172</sup>	44.044 <sup>437</sup>	35.52 <sup>196</sup>	33.993 <sup>345</sup>	63.84 <sup>206</sup>
16	26.69 <sup>55</sup>	73.01 <sup>231</sup>	58.421 <sup>378</sup>	3.14 <sup>142</sup>	44.481 <sup>420</sup>	37.48 <sup>244</sup>	34.338 <sup>340</sup>	61.78 <sup>196</sup>
26	27.24 <sup>51</sup>	75.32 <sup>280</sup>	58.799 <sup>360</sup>	1.72 <sup>108</sup>	44.901 <sup>388</sup>	39.92 <sup>285</sup>	34.678 <sup>323</sup>	59.82 <sup>180</sup>
36	27.75	78.12	59.159	0.64	45.289	42.77	35.001	58.02
Mittl. Ort sec δ, tg δ	25.19 2.283	79.58 -2.052	55.340 1.167	24.38 +0.602	42.580 1.526	41.22 -1.152	31.630 1.018	76.62 +0.193

Tag	415) $\iota$ Velorum		416) $\beta$ Ursae maj.		417) $\alpha$ Ursae maj.		418) $\gamma$ Leonis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	10 <sup>h</sup> 56 <sup>m</sup>	-41° 50'	10 <sup>h</sup> 57 <sup>m</sup>	+56° 45'	10 <sup>h</sup> 59 <sup>m</sup>	+62° 7'	11 <sup>h</sup> 1 <sup>m</sup>	+7° 42'
Jan. I	53.328 <sup>345</sup>	23.48 <sup>291</sup>	34.662 <sup>496</sup>	38.27 <sup>6</sup>	22.42 <sup>57</sup>	54.07 <sup>24</sup>	21.093 <sup>310</sup>	75.31 <sup>182</sup>
II	53.673 <sup>304</sup>	26.30 <sup>313</sup>	35.158 <sup>450</sup>	38.33 <sup>60</sup>	22.99 <sup>52</sup>	54.31 <sup>79</sup>	21.403 <sup>279</sup>	73.49 <sup>161</sup>
2I	53.977 <sup>255</sup>	29.52 <sup>327</sup>	35.608 <sup>389</sup>	38.93 <sup>111</sup>	23.51 <sup>44</sup>	55.10 <sup>132</sup>	21.682 <sup>242</sup>	71.88 <sup>136</sup>
3I	54.232 <sup>201</sup>	32.79 <sup>331</sup>	35.997 <sup>318</sup>	40.04 <sup>156</sup>	23.95 <sup>36</sup>	56.42 <sup>177</sup>	21.924 <sup>199</sup>	70.52 <sup>107</sup>
Feb. 10	54.433 <sup>144</sup>	36.10 <sup>328</sup>	36.315 <sup>239</sup>	41.60 <sup>194</sup>	24.31 <sup>27</sup>	58.19 <sup>215</sup>	22.123 <sup>153</sup>	69.45 <sup>79</sup>
20	54.577 <sup>88</sup>	39.38 <sup>317</sup>	36.554 <sup>156</sup>	43.54 <sup>222</sup>	24.58 <sup>18</sup>	60.34 <sup>243</sup>	22.276 <sup>106</sup>	68.66 <sup>51</sup>
März 2	54.665 <sup>35</sup>	42.55 <sup>299</sup>	36.710 <sup>73</sup>	45.76 <sup>240</sup>	24.76 <sup>8</sup>	62.77 <sup>259</sup>	22.382 <sup>61</sup>	68.15 <sup>25</sup>
11	54.700 <sup>15</sup>	45.54 <sup>276</sup>	36.783 <sup>4</sup>	48.16 <sup>247</sup>	24.84 <sup>1</sup>	65.36 <sup>264</sup>	22.443 <sup>19</sup>	67.90 <sup>1</sup>
21	54.685 <sup>58</sup>	48.30 <sup>247</sup>	36.779 <sup>75</sup>	50.63 <sup>243</sup>	24.83 <sup>10</sup>	68.00 <sup>259</sup>	22.462 <sup>17</sup>	67.89 <sup>19</sup>
31	54.627 <sup>95</sup>	50.77 <sup>216</sup>	36.704 <sup>135</sup>	53.06 <sup>230</sup>	24.73 <sup>17</sup>	70.59 <sup>242</sup>	22.445 <sup>46</sup>	68.08 <sup>35</sup>
April 10	54.532 <sup>124</sup>	52.93 <sup>181</sup>	36.569 <sup>185</sup>	55.36 <sup>207</sup>	24.56 <sup>23</sup>	73.01 <sup>216</sup>	22.399 <sup>70</sup>	68.43 <sup>47</sup>
20	54.408 <sup>148</sup>	54.74 <sup>143</sup>	36.384 <sup>222</sup>	57.43 <sup>177</sup>	24.33 <sup>27</sup>	75.17 <sup>183</sup>	22.329 <sup>87</sup>	68.90 <sup>55</sup>
30	54.260 <sup>165</sup>	56.17 <sup>104</sup>	36.162 <sup>247</sup>	59.20 <sup>141</sup>	24.06 <sup>30</sup>	77.00 <sup>142</sup>	22.324 <sup>98</sup>	69.45 <sup>61</sup>
Mai 10	54.095 <sup>176</sup>	57.21 <sup>63</sup>	35.915 <sup>261</sup>	60.61 <sup>99</sup>	23.76 <sup>32</sup>	78.42 <sup>99</sup>	22.144 <sup>103</sup>	70.06 <sup>63</sup>
20	53.919 <sup>180</sup>	57.84 <sup>21</sup>	35.654 <sup>263</sup>	61.60 <sup>56</sup>	23.44 <sup>33</sup>	79.41 <sup>51</sup>	22.041 <sup>104</sup>	70.69 <sup>63</sup>
30	53.739 <sup>181</sup>	58.05 <sup>19</sup>	35.391 <sup>255</sup>	62.16 <sup>12</sup>	23.11 <sup>32</sup>	79.92 <sup>3</sup>	21.937 <sup>100</sup>	71.32 <sup>60</sup>
Juni 9	53.558 <sup>177</sup>	57.86 <sup>59</sup>	35.136 <sup>240</sup>	62.28 <sup>34</sup>	22.79 <sup>30</sup>	79.95 <sup>45</sup>	21.837 <sup>94</sup>	71.92 <sup>57</sup>
19	53.381 <sup>166</sup>	57.27 <sup>98</sup>	34.896 <sup>217</sup>	61.94 <sup>78</sup>	22.49 <sup>28</sup>	79.50 <sup>92</sup>	21.743 <sup>84</sup>	72.49 <sup>51</sup>
29	53.215 <sup>152</sup>	56.29 <sup>133</sup>	34.679 <sup>188</sup>	61.16 <sup>121</sup>	22.21 <sup>24</sup>	78.58 <sup>137</sup>	21.659 <sup>72</sup>	73.00 <sup>43</sup>
Juli 9	53.063 <sup>133</sup>	54.96 <sup>164</sup>	34.491 <sup>153</sup>	59.95 <sup>160</sup>	21.97 <sup>20</sup>	77.21 <sup>179</sup>	21.587 <sup>56</sup>	73.43 <sup>35</sup>
19	52.930 <sup>110</sup>	53.32 <sup>190</sup>	34.338 <sup>114</sup>	58.35 <sup>196</sup>	21.77 <sup>15</sup>	75.42 <sup>216</sup>	21.531 <sup>40</sup>	73.78 <sup>25</sup>
29	52.820 <sup>80</sup>	51.42 <sup>210</sup>	34.224 <sup>71</sup>	56.39 <sup>228</sup>	21.62 <sup>10</sup>	73.26 <sup>249</sup>	21.491 <sup>20</sup>	74.03 <sup>12</sup>
Aug. 8	52.740 <sup>46</sup>	49.32 <sup>223</sup>	34.153 <sup>25</sup>	54.11 <sup>256</sup>	21.52 <sup>5</sup>	70.77 <sup>277</sup>	21.471 <sup>2</sup>	74.15 <sup>3</sup>
18	52.694 <sup>7</sup>	47.09 <sup>228</sup>	34.128 <sup>25</sup>	51.55 <sup>280</sup>	21.47 <sup>2</sup>	68.00 <sup>301</sup>	21.473 <sup>27</sup>	74.12 <sup>19</sup>
28	52.687 <sup>36</sup>	44.81 <sup>224</sup>	34.153 <sup>77</sup>	48.75 <sup>298</sup>	21.49 <sup>7</sup>	64.99 <sup>319</sup>	21.500 <sup>55</sup>	73.93 <sup>39</sup>
Sept. 7	52.723 <sup>83</sup>	42.57 <sup>210</sup>	34.230 <sup>132</sup>	45.77 <sup>311</sup>	21.56 <sup>14</sup>	61.80 <sup>331</sup>	21.555 <sup>87</sup>	73.54 <sup>59</sup>
17	52.806 <sup>134</sup>	40.47 <sup>188</sup>	34.362 <sup>190</sup>	42.66 <sup>320</sup>	21.70 <sup>21</sup>	58.49 <sup>336</sup>	21.642 <sup>121</sup>	72.95 <sup>82</sup>
27	52.940 <sup>185</sup>	38.59 <sup>156</sup>	34.552 <sup>248</sup>	39.46 <sup>320</sup>	21.91 <sup>28</sup>	55.13 <sup>335</sup>	21.763 <sup>157</sup>	72.13 <sup>106</sup>
Okt. 7	53.125 <sup>236</sup>	37.03 <sup>117</sup>	34.800 <sup>307</sup>	36.26 <sup>316</sup>	22.19 <sup>34</sup>	51.78 <sup>328</sup>	21.920 <sup>194</sup>	71.07 <sup>130</sup>
17	53.361 <sup>284</sup>	35.86 <sup>71</sup>	35.107 <sup>364</sup>	33.10 <sup>304</sup>	22.53 <sup>41</sup>	48.50 <sup>313</sup>	22.114 <sup>230</sup>	69.77 <sup>153</sup>
27	53.645 <sup>327</sup>	35.15 <sup>19</sup>	35.471 <sup>417</sup>	30.06 <sup>284</sup>	22.94 <sup>47</sup>	45.37 <sup>290</sup>	22.344 <sup>265</sup>	68.24 <sup>174</sup>
Nov. 6	53.972 <sup>363</sup>	34.96 <sup>35</sup>	35.888 <sup>465</sup>	27.22 <sup>258</sup>	23.41 <sup>52</sup>	42.47 <sup>259</sup>	22.609 <sup>295</sup>	66.50 <sup>192</sup>
16	54.335 <sup>388</sup>	35.31 <sup>90</sup>	36.353 <sup>503</sup>	24.64 <sup>224</sup>	23.93 <sup>57</sup>	39.88 <sup>221</sup>	22.904 <sup>320</sup>	64.58 <sup>205</sup>
26	54.723 <sup>403</sup>	36.21 <sup>144</sup>	36.856 <sup>529</sup>	22.40 <sup>183</sup>	24.50 <sup>60</sup>	37.67 <sup>177</sup>	23.224 <sup>336</sup>	62.53 <sup>212</sup>
Dez. 6	55.126 <sup>405</sup>	37.65 <sup>193</sup>	37.385 <sup>542</sup>	20.57 <sup>136</sup>	25.10 <sup>62</sup>	35.90 <sup>126</sup>	23.560 <sup>342</sup>	60.41 <sup>213</sup>
16	55.531 <sup>393</sup>	39.58 <sup>238</sup>	37.927 <sup>539</sup>	19.21 <sup>84</sup>	25.72 <sup>61</sup>	34.64 <sup>72</sup>	23.902 <sup>340</sup>	58.28 <sup>208</sup>
26	55.924 <sup>369</sup>	41.96 <sup>274</sup>	38.466 <sup>518</sup>	18.37 <sup>30</sup>	26.33 <sup>59</sup>	33.92 <sup>14</sup>	24.242 <sup>326</sup>	56.20 <sup>195</sup>
36	56.293	44.70	38.984	18.07	26.92	33.78	24.568	54.25
Mittl. Ort	53.563	41.25	34.189	48.01	21.72	64.66	21.361	72.78
sec $\delta$ , tg $\delta$	1.342	-0.896	1.824	+1.526	2.140	+1.891	1.009	+0.136

# Obere Kulmination Greenwich

Tag	420) $\psi$ Ursae maj.		421) $\beta$ Crateris		422) $\delta$ Leonis		423) $\theta$ Leonis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	11 <sup>h</sup> 5 <sup>m</sup>	+44 <sup>o</sup> 52'	11 <sup>h</sup> 8 <sup>m</sup>	-22 <sup>o</sup> 26'	11 <sup>h</sup> 10 <sup>m</sup>	+20 <sup>o</sup> 54'	11 <sup>h</sup> 10 <sup>m</sup>	+15 <sup>o</sup> 48'
Jan. 1	40.876 <sub>409</sub>	54.54 <sub>48</sub>	9.441 <sub>316</sub>	4.04 <sub>261</sub>	19.898 <sub>332</sub>	44.89 <sub>141</sub>	30.717 <sub>324</sub>	64.31 <sub>159</sub>
11	41.285 <sub>373</sub>	54.06 <sub>1</sub>	9.757 <sub>283</sub>	6.65 <sub>268</sub>	20.230 <sub>303</sub>	43.48 <sub>109</sub>	31.041 <sub>294</sub>	62.72 <sub>130</sub>
21	41.658 <sub>326</sub>	54.07 <sub>49</sub>	10.040 <sub>243</sub>	9.33 <sub>267</sub>	20.533 <sub>265</sub>	42.39 <sub>73</sub>	31.335 <sub>258</sub>	61.42 <sub>99</sub>
31	41.984 <sub>269</sub>	54.56 <sub>94</sub>	10.283 <sub>200</sub>	12.00 <sub>260</sub>	20.798 <sub>221</sub>	41.66 <sub>37</sub>	31.593 <sub>215</sub>	60.43 <sub>65</sub>
Feb. 10	42.253 <sub>208</sub>	55.50 <sub>133</sub>	10.483 <sub>152</sub>	14.60 <sub>246</sub>	21.019 <sub>173</sub>	41.29 <sub>3</sub>	31.808 <sub>168</sub>	59.78 <sub>33</sub>
20	42.461 <sub>143</sub>	56.83 <sub>165</sub>	10.635 <sub>104</sub>	17.06 <sub>228</sub>	21.192 <sub>123</sub>	41.26 <sub>28</sub>	31.976 <sub>120</sub>	59.45 <sub>3</sub>
März 2	42.604 <sub>79</sub>	58.48 <sub>187</sub>	10.739 <sub>59</sub>	19.34 <sub>206</sub>	21.315 <sub>75</sub>	41.54 <sub>55</sub>	32.096 <sub>73</sub>	59.42 <sub>24</sub>
11	42.683 <sub>20</sub>	60.35 <sub>201</sub>	10.798 <sub>18</sub>	21.40 <sub>181</sub>	21.390 <sub>30</sub>	42.09 <sub>77</sub>	32.169 <sub>30</sub>	59.66 <sub>48</sub>
21	42.703 <sub>36</sub>	62.36 <sub>205</sub>	10.816 <sub>19</sub>	23.21 <sub>154</sub>	21.420 <sub>10</sub>	42.86 <sub>93</sub>	32.199 <sub>9</sub>	60.14 <sub>65</sub>
31	42.667 <sub>82</sub>	64.41 <sub>233</sub>	10.797 <sub>50</sub>	24.75 <sub>127</sub>	21.410 <sub>43</sub>	43.79 <sub>102</sub>	32.190 <sub>40</sub>	60.79 <sub>77</sub>
April 10	42.585 <sub>120</sub>	66.41 <sub>187</sub>	10.747 <sub>75</sub>	26.02 <sub>99</sub>	21.367 <sub>70</sub>	44.81 <sub>106</sub>	32.150 <sub>66</sub>	61.56 <sub>84</sub>
20	42.465 <sub>148</sub>	68.28 <sub>166</sub>	10.672 <sub>94</sub>	27.01 <sub>70</sub>	21.297 <sub>89</sub>	45.87 <sub>104</sub>	32.084 <sub>85</sub>	62.40 <sub>87</sub>
30	42.317 <sub>167</sub>	69.94 <sub>140</sub>	10.578 <sub>107</sub>	27.71 <sub>42</sub>	21.208 <sub>103</sub>	46.91 <sub>99</sub>	31.999 <sub>98</sub>	63.27 <sub>86</sub>
Mai 10	42.150 <sub>178</sub>	71.34 <sub>108</sub>	10.471 <sub>116</sub>	28.13 <sub>15</sub>	21.105 <sub>110</sub>	47.90 <sub>89</sub>	31.901 <sub>105</sub>	64.13 <sub>80</sub>
20	41.972 <sub>180</sub>	72.42 <sub>74</sub>	10.355 <sub>120</sub>	28.28 <sub>13</sub>	20.995 <sub>113</sub>	48.79 <sub>76</sub>	31.796 <sub>107</sub>	64.93 <sub>72</sub>
30	41.792 <sub>176</sub>	73.16 <sub>38</sub>	10.235 <sub>120</sub>	28.15 <sub>39</sub>	20.882 <sub>110</sub>	49.55 <sub>60</sub>	31.689 <sub>105</sub>	65.65 <sub>62</sub>
Juni 9	41.616 <sub>166</sub>	73.54 <sub>0</sub>	10.115 <sub>115</sub>	27.76 <sub>64</sub>	20.772 <sub>104</sub>	50.15 <sub>44</sub>	31.584 <sub>99</sub>	66.27 <sub>50</sub>
19	41.450 <sub>151</sub>	73.54 <sub>37</sub>	10.000 <sub>109</sub>	27.12 <sub>86</sub>	20.668 <sub>94</sub>	50.59 <sub>25</sub>	31.485 <sub>89</sub>	66.77 <sub>36</sub>
29	41.299 <sub>130</sub>	73.17 <sub>74</sub>	9.891 <sub>98</sub>	26.26 <sub>106</sub>	20.574 <sub>81</sub>	50.84 <sub>6</sub>	31.396 <sub>78</sub>	67.13 <sub>22</sub>
Juli 9	41.169 <sub>107</sub>	72.43 <sub>109</sub>	9.793 <sub>85</sub>	25.20 <sub>123</sub>	20.493 <sub>66</sub>	50.90 <sub>13</sub>	31.318 <sub>64</sub>	67.35 <sub>5</sub>
19	41.062 <sub>80</sub>	71.34 <sub>142</sub>	9.708 <sub>68</sub>	23.97 <sub>136</sub>	20.427 <sub>49</sub>	50.77 <sub>34</sub>	31.254 <sub>47</sub>	67.40 <sub>11</sub>
29	40.982 <sub>50</sub>	69.92 <sub>173</sub>	9.640 <sub>48</sub>	22.61 <sub>144</sub>	20.378 <sub>28</sub>	50.43 <sub>54</sub>	31.207 <sub>27</sub>	67.29 <sub>28</sub>
Aug. 8	40.932 <sub>16</sub>	68.19 <sub>200</sub>	9.592 <sub>23</sub>	21.17 <sub>146</sub>	20.350 <sub>5</sub>	49.89 <sub>76</sub>	31.180 <sub>5</sub>	67.01 <sub>48</sub>
18	40.916 <sub>21</sub>	66.19 <sub>225</sub>	9.569 <sub>5</sub>	19.71 <sub>143</sub>	20.345 <sub>21</sub>	49.13 <sub>96</sub>	31.175 <sub>20</sub>	66.53 <sub>67</sub>
28	40.937 <sub>59</sub>	63.94 <sub>247</sub>	9.574 <sub>38</sub>	18.28 <sub>133</sub>	20.366 <sub>50</sub>	48.17 <sub>118</sub>	31.195 <sub>49</sub>	65.86 <sub>87</sub>
Sept. 7	40.996 <sub>101</sub>	61.47 <sub>264</sub>	9.612 <sub>73</sub>	16.95 <sub>116</sub>	20.416 <sub>83</sub>	46.99 <sub>139</sub>	31.244 <sub>80</sub>	64.99 <sub>109</sub>
17	41.097 <sub>147</sub>	58.83 <sub>277</sub>	9.685 <sub>112</sub>	15.79 <sub>93</sub>	20.499 <sub>118</sub>	45.60 <sub>159</sub>	31.324 <sub>115</sub>	63.90 <sub>131</sub>
27	41.244 <sub>193</sub>	56.06 <sub>286</sub>	9.797 <sub>154</sub>	14.86 <sub>63</sub>	20.617 <sub>155</sub>	44.01 <sub>179</sub>	31.439 <sub>152</sub>	62.59 <sub>152</sub>
Okt. 7	41.437 <sub>241</sub>	53.20 <sub>290</sub>	9.951 <sub>195</sub>	14.23 <sub>28</sub>	20.772 <sub>195</sub>	42.22 <sub>196</sub>	31.591 <sub>190</sub>	61.07 <sub>172</sub>
17	41.678 <sub>289</sub>	50.30 <sub>287</sub>	10.146 <sub>236</sub>	13.95 <sub>11</sub>	20.967 <sub>233</sub>	40.26 <sub>211</sub>	31.781 <sub>228</sub>	59.35 <sub>189</sub>
27	41.967 <sub>333</sub>	47.43 <sub>277</sub>	10.382 <sub>273</sub>	14.06 <sub>53</sub>	21.200 <sub>270</sub>	38.15 <sub>222</sub>	32.009 <sub>264</sub>	57.46 <sub>205</sub>
Nov. 6	42.300 <sub>373</sub>	44.66 <sub>261</sub>	10.655 <sub>307</sub>	14.59 <sub>95</sub>	21.470 <sub>303</sub>	35.93 <sub>228</sub>	32.273 <sub>297</sub>	55.41 <sub>216</sub>
16	42.673 <sub>407</sub>	42.05 <sub>238</sub>	10.962 <sub>332</sub>	15.54 <sub>137</sub>	21.773 <sub>331</sub>	33.65 <sub>227</sub>	32.570 <sub>323</sub>	53.25 <sub>220</sub>
26	43.080 <sub>429</sub>	39.67 <sub>208</sub>	11.294 <sub>348</sub>	16.91 <sub>175</sub>	22.104 <sub>350</sub>	31.38 <sub>221</sub>	32.893 <sub>342</sub>	51.05 <sub>219</sub>
Dez. 6	43.509 <sub>442</sub>	37.59 <sub>170</sub>	11.642 <sub>354</sub>	18.66 <sub>208</sub>	22.454 <sub>359</sub>	29.17 <sub>208</sub>	33.235 <sub>352</sub>	48.86 <sub>212</sub>
16	43.951 <sub>441</sub>	35.89 <sub>127</sub>	11.996 <sub>349</sub>	20.74 <sub>234</sub>	22.813 <sub>359</sub>	27.09 <sub>187</sub>	33.587 <sub>350</sub>	46.74 <sub>197</sub>
26	44.392 <sub>426</sub>	34.62 <sub>80</sub>	12.345 <sub>333</sub>	23.08 <sub>255</sub>	23.172 <sub>347</sub>	25.22 <sub>162</sub>	33.937 <sub>338</sub>	44.77 <sub>177</sub>
36	44.818	33.82	12.678	25.63	23.519	23.60	34.275	43.00
Mittl. Ort sec $\delta$ , tg $\delta$	40.783 1.411	62.40 +0.996	9.817 1.082	16.29 -0.413	20.131 1.071	46.65 +0.382	30.988 1.039	64.52 +0.283

Tag	425) $\nu$ Ursae maj.		426) $\delta$ Crateris		427) $\sigma$ Leonis		428) $\pi$ Centauri	
	AR	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$11^{\text{h}} 14^{\text{m}}$	$+33^{\circ} 28'$	$11^{\text{h}} 15^{\text{m}}$	$-14^{\circ} 23'$	$11^{\text{h}} 17^{\text{m}}$	$+6^{\circ} 24'$	$11^{\text{h}} 17^{\text{m}}$	$-54^{\circ} 5'$
Jan. I	38.815 <sub>364</sub>	49.49 <sub>99</sub>	46.935 <sub>313</sub>	29.17 <sub>243</sub>	28.224 <sub>316</sub>	70.01 <sub>191</sub>	45.382 <sub>425</sub>	45.28 <sub>276</sub>
II	39.179 <sub>334</sub>	48.50 <sub>56</sub>	47.248 <sub>283</sub>	31.60 <sub>243</sub>	28.540 <sub>289</sub>	68.10 <sub>171</sub>	45.807 <sub>378</sub>	48.04 <sub>311</sub>
2I	39.513 <sub>294</sub>	47.94 <sub>12</sub>	47.531 <sub>247</sub>	34.03 <sub>235</sub>	28.820 <sub>253</sub>	66.39 <sub>147</sub>	46.185 <sub>322</sub>	51.15 <sub>335</sub>
3I	39.807 <sub>247</sub>	47.82 <sub>29</sub>	47.778 <sub>205</sub>	36.38 <sub>223</sub>	29.082 <sub>213</sub>	64.92 <sub>119</sub>	46.507 <sub>260</sub>	54.50 <sub>352</sub>
Feb. 10	40.054 <sub>193</sub>	48.11 <sub>68</sub>	47.983 <sub>160</sub>	38.61 <sub>205</sub>	29.295 <sub>167</sub>	63.73 <sub>90</sub>	46.767 <sub>193</sub>	58.02 <sub>358</sub>
20	40.247 <sub>139</sub>	48.79 <sub>101</sub>	48.143 <sub>114</sub>	40.66 <sub>184</sub>	29.462 <sub>122</sub>	62.83 <sub>61</sub>	46.960 <sub>126</sub>	61.60 <sub>356</sub>
März 2	40.386 <sub>85</sub>	49.80 <sub>127</sub>	48.257 <sub>70</sub>	42.50 <sub>160</sub>	29.584 <sub>77</sub>	62.22 <sub>34</sub>	47.086 <sub>61</sub>	65.16 <sub>347</sub>
II*)	40.471 <sub>33</sub>	51.07 <sub>147</sub>	48.327 <sub>29</sub>	44.10 <sub>135</sub>	29.661 <sub>37</sub>	61.88 <sub>10</sub>	47.147 <sub>1</sub>	68.63 <sub>330</sub>
2I	40.504 <sub>12</sub>	52.54 <sub>158</sub>	48.356 <sub>7</sub>	45.45 <sub>110</sub>	29.698 <sub>1</sub>	61.78 <sub>12</sub>	47.148 <sub>56</sub>	71.93 <sub>306</sub>
3I	40.492 <sub>51</sub>	54.12 <sub>160</sub>	48.349 <sub>37</sub>	46.55 <sub>85</sub>	29.697 <sub>32</sub>	61.90 <sub>29</sub>	47.092 <sub>105</sub>	74.99 <sub>277</sub>
April 10	40.441 <sub>83</sub>	55.72 <sub>157</sub>	48.312 <sub>62</sub>	47.40 <sub>60</sub>	29.665 <sub>56</sub>	62.19 <sub>42</sub>	46.987 <sub>146</sub>	77.76 <sub>243</sub>
20	40.358 <sub>108</sub>	57.29 <sub>146</sub>	48.250 <sub>80</sub>	48.00 <sub>37</sub>	29.609 <sub>75</sub>	62.61 <sub>53</sub>	46.841 <sub>182</sub>	80.19 <sub>206</sub>
30	40.250 <sub>124</sub>	58.75 <sub>129</sub>	48.170 <sub>94</sub>	48.37 <sub>14</sub>	29.534 <sub>88</sub>	63.14 <sub>59</sub>	46.659 <sub>210</sub>	82.25 <sub>164</sub>
Mai 10	40.126 <sub>133</sub>	60.04 <sub>108</sub>	48.076 <sub>102</sub>	48.51 <sub>7</sub>	29.446 <sub>96</sub>	63.73 <sub>62</sub>	46.449 <sub>232</sub>	83.89 <sub>120</sub>
20	39.993 <sub>137</sub>	61.12 <sub>84</sub>	47.974 <sub>106</sub>	48.44 <sub>28</sub>	29.350 <sub>99</sub>	64.35 <sub>64</sub>	46.217 <sub>246</sub>	85.09 <sub>74</sub>
30	39.856 <sub>135</sub>	61.96 <sub>57</sub>	47.868 <sub>107</sub>	48.16 <sub>46</sub>	29.251 <sub>99</sub>	64.99 <sub>62</sub>	45.971 <sub>254</sub>	85.83 <sub>28</sub>
Juni 9	39.721 <sub>128</sub>	62.53 <sub>28</sub>	47.761 <sub>104</sub>	47.70 <sub>63</sub>	29.152 <sub>95</sub>	65.61 <sub>59</sub>	45.717 <sub>255</sub>	86.11 <sub>20</sub>
19	39.593 <sub>118</sub>	62.81 <sub>1</sub>	47.657 <sub>98</sub>	47.07 <sub>78</sub>	29.057 <sub>88</sub>	66.20 <sub>54</sub>	45.462 <sub>250</sub>	85.91 <sub>67</sub>
29	39.475 <sub>103</sub>	62.80 <sub>31</sub>	47.559 <sub>89</sub>	46.29 <sub>92</sub>	28.969 <sub>78</sub>	66.74 <sub>48</sub>	45.212 <sub>238</sub>	85.24 <sub>110</sub>
Juli 9	39.372 <sub>86</sub>	62.49 <sub>59</sub>	47.470 <sub>77</sub>	45.37 <sub>101</sub>	28.891 <sub>65</sub>	67.22 <sub>39</sub>	44.974 <sub>218</sub>	84.14 <sub>151</sub>
19	39.286 <sub>65</sub>	61.90 <sub>88</sub>	47.393 <sub>62</sub>	44.36 <sub>108</sub>	28.826 <sub>51</sub>	67.61 <sub>30</sub>	44.756 <sub>192</sub>	82.63 <sub>187</sub>
29	39.221 <sub>41</sub>	61.02 <sub>115</sub>	47.331 <sub>44</sub>	43.28 <sub>110</sub>	28.775 <sub>33</sub>	67.91 <sub>17</sub>	44.564 <sub>157</sub>	80.76 <sub>217</sub>
Aug. 8	39.180 <sub>16</sub>	59.87 <sub>142</sub>	47.287 <sub>21</sub>	42.18 <sub>109</sub>	28.742 <sub>12</sub>	68.08 <sub>3</sub>	44.407 <sub>115</sub>	78.59 <sub>240</sub>
18	39.164 <sub>14</sub>	58.45 <sub>165</sub>	47.266 <sub>4</sub>	41.09 <sub>101</sub>	28.730 <sub>12</sub>	68.11 <sub>13</sub>	44.292 <sub>66</sub>	76.19 <sub>254</sub>
28	39.178 <sub>46</sub>	56.80 <sub>188</sub>	47.270 <sub>34</sub>	40.08 <sub>90</sub>	28.742 <sub>39</sub>	67.98 <sub>32</sub>	44.226 <sub>10</sub>	73.65 <sub>260</sub>
Sept. 7	39.224 <sub>82</sub>	54.92 <sub>209</sub>	47.304 <sub>67</sub>	39.18 <sub>71</sub>	28.781 <sub>71</sub>	67.66 <sub>53</sub>	44.216 <sub>52</sub>	71.05 <sub>255</sub>
17	39.306 <sub>121</sub>	52.83 <sub>227</sub>	47.371 <sub>103</sub>	38.47 <sub>48</sub>	28.852 <sub>104</sub>	67.13 <sub>76</sub>	44.268 <sub>118</sub>	68.50 <sub>239</sub>
27	39.427 <sub>162</sub>	50.56 <sub>241</sub>	47.474 <sub>143</sub>	37.99 <sub>21</sub>	28.956 <sub>141</sub>	66.37 <sub>100</sub>	44.386 <sub>185</sub>	66.11 <sub>214</sub>
Okt. 7	39.589 <sub>205</sub>	48.15 <sub>253</sub>	47.617 <sub>183</sub>	37.78 <sub>12</sub>	29.097 <sub>179</sub>	65.37 <sub>125</sub>	44.571 <sub>252</sub>	63.97 <sub>179</sub>
17	39.794 <sub>247</sub>	45.62 <sub>259</sub>	47.800 <sub>222</sub>	37.90 <sub>47</sub>	29.276 <sub>218</sub>	64.12 <sub>149</sub>	44.823 <sub>316</sub>	62.18 <sub>134</sub>
27	40.041 <sub>287</sub>	43.03 <sub>259</sub>	48.022 <sub>260</sub>	38.37 <sub>84</sub>	29.494 <sub>254</sub>	62.63 <sub>172</sub>	45.139 <sub>373</sub>	60.84 <sub>83</sub>
Nov. 6	40.328 <sub>325</sub>	40.44 <sub>254</sub>	48.282 <sub>293</sub>	39.21 <sub>121</sub>	29.748 <sub>286</sub>	60.91 <sub>191</sub>	45.512 <sub>422</sub>	60.01 <sub>26</sub>
16	40.653 <sub>356</sub>	37.90 <sub>242</sub>	48.575 <sub>319</sub>	40.42 <sub>154</sub>	30.034 <sub>313</sub>	59.00 <sub>205</sub>	45.934 <sub>457</sub>	59.75 <sub>33</sub>
26	41.009 <sub>377</sub>	35.48 <sub>223</sub>	48.894 <sub>337</sub>	41.96 <sub>185</sub>	30.347 <sub>333</sub>	56.95 <sub>214</sub>	46.391 <sub>479</sub>	60.08 <sub>93</sub>
Dez. 6	41.386 <sub>390</sub>	33.25 <sub>197</sub>	49.231 <sub>345</sub>	43.81 <sub>211</sub>	30.680 <sub>342</sub>	54.81 <sub>218</sub>	46.870 <sub>486</sub>	61.01 <sub>151</sub>
16	41.776 <sub>391</sub>	31.28 <sub>164</sub>	49.576 <sub>342</sub>	45.92 <sub>230</sub>	31.022 <sub>342</sub>	52.63 <sub>214</sub>	47.356 <sub>476</sub>	62.52 <sub>205</sub>
26	42.167 <sub>379</sub>	29.64 <sub>126</sub>	49.918 <sub>329</sub>	48.22 <sub>241</sub>	31.364 <sub>330</sub>	50.49 <sub>203</sub>	47.832 <sub>451</sub>	64.57 <sub>252</sub>
36	42.546	28.38	50.247	50.63	31.694	48.46	48.283	67.09
Mittl. Ort	38.949	54.93	47.352	38.80	28.583	67.34	45.742	66.23
sec $\delta$ , tg $\delta$	1.199	+0.661	1.032	-0.257	1.006	+0.112	1.705	-1.382

\*) Bei Stern 427) und 428) lies März 12

# Obere Kulmination Greenwich

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Tag	429) Grb 1771		433) $\lambda$ Draconis		434) $\epsilon$ Hydrae		436) $\lambda$ Centauri	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	11 <sup>h</sup> 18 <sup>m</sup>	+64° 42'	11 <sup>h</sup> 27 <sup>m</sup>	+69° 42'	11 <sup>h</sup> 29 <sup>m</sup>	-31° 27'	11 <sup>h</sup> 32 <sup>m</sup>	-62° 37'
Jan. I	39.85 <sub>62</sub>	57.88 <sub>8</sub>	13.59 <sub>75</sub>	70.53 <sub>12</sub>	29.803 <sub>342</sub>	37.59 <sub>262</sub>	29.31 <sub>52</sub>	13.96 <sub>255</sub>
II	40.47 <sub>57</sub>	57.96 <sub>67</sub>	14.34 <sub>69</sub>	70.65 <sub>74</sub>	30.145 <sub>310</sub>	40.21 <sub>280</sub>	29.83 <sub>48</sub>	16.51 <sub>297</sub>
2I	41.04 <sub>51</sub>	58.63 <sub>122</sub>	15.03 <sub>62</sub>	71.39 <sub>131</sub>	30.455 <sub>272</sub>	43.01 <sub>288</sub>	30.31 <sub>41</sub>	19.48 <sub>330</sub>
3I	41.55 <sub>42</sub>	59.85 <sub>172</sub>	15.65 <sub>52</sub>	72.70 <sub>182</sub>	30.727 <sub>227</sub>	45.89 <sub>290</sub>	30.72 <sub>33</sub>	22.78 <sub>353</sub>
Feb. 10	41.97 <sub>33</sub>	61.57 <sub>214</sub>	16.17 <sub>41</sub>	74.52 <sub>225</sub>	30.954 <sub>179</sub>	48.79 <sub>284</sub>	31.05 <sub>26</sub>	26.31 <sub>368</sub>
20	42.30 <sub>23</sub>	63.71 <sub>245</sub>	16.58 <sub>29</sub>	76.77 <sub>258</sub>	31.133 <sub>131</sub>	51.63 <sub>272</sub>	31.31 <sub>17</sub>	29.99 <sub>373</sub>
März 2	42.53 <sub>12</sub>	66.16 <sub>266</sub>	16.87 <sub>16</sub>	79.35 <sub>278</sub>	31.264 <sub>82</sub>	54.35 <sub>254</sub>	31.48 <sub>9</sub>	33.72 <sub>370</sub>
12	42.65 <sub>3</sub>	68.82 <sub>275</sub>	17.03 <sub>4</sub>	82.13 <sub>288</sub>	31.346 <sub>38</sub>	56.89 <sub>232</sub>	31.57 <sub>2</sub>	37.42 <sub>358</sub>
2I	42.68 <sub>7</sub>	71.57 <sub>272</sub>	17.07 <sub>8</sub>	85.01 <sub>285</sub>	31.384 <sub>2</sub>	59.21 <sub>208</sub>	31.59 <sub>6</sub>	41.00 <sub>340</sub>
3I	42.61 <sub>16</sub>	74.29 <sub>258</sub>	16.99 <sub>18</sub>	87.86 <sub>271</sub>	31.382 <sub>36</sub>	61.29 <sub>180</sub>	31.53 <sub>12</sub>	44.40 <sub>315</sub>
Apr. 10	42.45 <sub>22</sub>	76.87 <sub>234</sub>	16.81 <sub>28</sub>	90.57 <sub>246</sub>	31.346 <sub>66</sub>	63.09 <sub>151</sub>	31.41 <sub>17</sub>	47.55 <sub>283</sub>
20	42.23 <sub>28</sub>	79.21 <sub>202</sub>	16.53 <sub>36</sub>	93.03 <sub>212</sub>	31.280 <sub>89</sub>	64.60 <sub>120</sub>	31.24 <sub>23</sub>	50.38 <sub>247</sub>
30	41.95 <sub>33</sub>	81.23 <sub>163</sub>	16.17 <sub>41</sub>	95.15 <sub>171</sub>	31.191 <sub>108</sub>	65.80 <sub>88</sub>	31.01 <sub>27</sub>	52.85 <sub>207</sub>
Mai 10	41.62 <sub>35</sub>	82.86 <sub>120</sub>	15.76 <sub>44</sub>	96.86 <sub>125</sub>	31.083 <sub>121</sub>	66.68 <sub>55</sub>	30.74 <sub>30</sub>	54.92 <sub>162</sub>
20	41.27 <sub>36</sub>	84.06 <sub>71</sub>	15.32 <sub>47</sub>	98.11 <sub>74</sub>	30.962 <sub>129</sub>	67.23 <sub>22</sub>	30.44 <sub>33</sub>	56.54 <sub>114</sub>
30	40.91 <sub>36</sub>	84.77 <sub>21</sub>	14.85 <sub>48</sub>	98.85 <sub>22</sub>	30.833 <sub>135</sub>	67.45 <sub>10</sub>	30.11 <sub>34</sub>	57.68 <sub>65</sub>
Juni 9	40.55 <sub>35</sub>	84.98 <sub>29</sub>	14.37 <sub>46</sub>	99.07 <sub>30</sub>	30.698 <sub>136</sub>	67.35 <sub>42</sub>	29.77 <sub>35</sub>	58.33 <sub>14</sub>
19	40.20 <sub>33</sub>	84.69 <sub>79</sub>	13.91 <sub>44</sub>	98.77 <sub>82</sub>	30.562 <sub>133</sub>	66.93 <sub>72</sub>	29.42 <sub>36</sub>	58.47 <sub>36</sub>
29	39.87 <sub>30</sub>	83.90 <sub>126</sub>	13.47 <sub>41</sub>	97.95 <sub>132</sub>	30.429 <sub>126</sub>	66.21 <sub>100</sub>	29.06 <sub>34</sub>	58.11 <sub>85</sub>
Juli 9	39.57 <sub>26</sub>	82.64 <sub>170</sub>	13.06 <sub>36</sub>	96.63 <sub>178</sub>	30.303 <sub>116</sub>	65.21 <sub>124</sub>	28.72 <sub>32</sub>	57.26 <sub>132</sub>
19	39.31 <sub>21</sub>	80.94 <sub>212</sub>	12.70 <sub>30</sub>	94.85 <sub>222</sub>	30.187 <sub>100</sub>	63.97 <sub>146</sub>	28.40 <sub>29</sub>	55.94 <sub>174</sub>
29	39.10 <sub>16</sub>	78.82 <sub>248</sub>	12.40 <sub>24</sub>	92.63 <sub>259</sub>	30.087 <sub>81</sub>	62.51 <sub>162</sub>	28.11 <sub>25</sub>	54.20 <sub>211</sub>
Aug. 8	38.94 <sub>10</sub>	76.34 <sub>279</sub>	12.16 <sub>16</sub>	90.04 <sub>292</sub>	30.006 <sub>55</sub>	60.89 <sub>172</sub>	27.86 <sub>20</sub>	52.09 <sub>241</sub>
18	38.84 <sub>4</sub>	73.55 <sub>306</sub>	12.00 <sub>9</sub>	87.12 <sub>321</sub>	29.951 <sub>27</sub>	59.17 <sub>176</sub>	27.66 <sub>13</sub>	49.68 <sub>263</sub>
28	38.80 <sub>2</sub>	70.49 <sub>327</sub>	11.91 <sub>1</sub>	83.91 <sub>341</sub>	29.924 <sub>9</sub>	57.41 <sub>172</sub>	27.53 <sub>6</sub>	47.05 <sub>274</sub>
Sept. 7	38.82 <sub>10</sub>	67.22 <sub>341</sub>	11.90 <sub>8</sub>	80.50 <sub>355</sub>	29.933 <sub>47</sub>	55.69 <sub>161</sub>	27.47 <sub>1</sub>	44.31 <sub>277</sub>
17	38.92 <sub>18</sub>	63.81 <sub>350</sub>	11.98 <sub>17</sub>	76.95 <sub>364</sub>	29.980 <sub>91</sub>	54.08 <sub>142</sub>	27.48 <sub>10</sub>	41.54 <sub>268</sub>
27	39.10 <sub>25</sub>	60.31 <sub>351</sub>	12.15 <sub>26</sub>	73.31 <sub>365</sub>	30.071 <sub>136</sub>	52.66 <sub>115</sub>	27.58 <sub>19</sub>	38.86 <sub>248</sub>
Okt. 7	39.35 <sub>32</sub>	56.80 <sub>345</sub>	12.41 <sub>36</sub>	69.66 <sub>358</sub>	30.207 <sub>184</sub>	51.51 <sub>82</sub>	27.77 <sub>28</sub>	36.38 <sub>217</sub>
17	39.67 <sub>40</sub>	53.35 <sub>332</sub>	12.77 <sub>45</sub>	66.08 <sub>342</sub>	30.391 <sub>230</sub>	50.69 <sub>41</sub>	28.05 <sub>36</sub>	34.21 <sub>176</sub>
27	40.07 <sub>47</sub>	50.03 <sub>310</sub>	13.22 <sub>54</sub>	62.66 <sub>320</sub>	30.621 <sub>274</sub>	50.28 <sub>2</sub>	28.41 <sub>44</sub>	32.45 <sub>127</sub>
Nov. 6	40.54 <sub>54</sub>	46.93 <sub>280</sub>	13.76 <sub>62</sub>	59.46 <sub>288</sub>	30.895 <sub>312</sub>	50.30 <sub>49</sub>	28.85 <sub>49</sub>	31.18 <sub>70</sub>
16	41.08 <sub>59</sub>	44.13 <sub>243</sub>	14.38 <sub>61</sub>	56.58 <sub>248</sub>	31.207 <sub>343</sub>	50.79 <sub>96</sub>	29.34 <sub>55</sub>	30.48 <sub>10</sub>
26	41.67 <sub>63</sub>	41.70 <sub>198</sub>	15.07 <sub>74</sub>	54.10 <sub>201</sub>	31.550 <sub>364</sub>	51.75 <sub>141</sub>	29.89 <sub>58</sub>	30.38 <sub>52</sub>
Dez. 6	42.30 <sub>65</sub>	39.72 <sub>146</sub>	15.81 <sub>77</sub>	52.09 <sub>148</sub>	31.914 <sub>374</sub>	53.16 <sub>183</sub>	30.47 <sub>59</sub>	30.90 <sub>114</sub>
16	42.95 <sub>66</sub>	38.26 <sub>90</sub>	16.58 <sub>79</sub>	50.61 <sub>89</sub>	32.288 <sub>372</sub>	54.99 <sub>220</sub>	31.06 <sub>58</sub>	32.04 <sub>173</sub>
26	43.61 <sub>64</sub>	37.36 <sub>31</sub>	17.37 <sub>77</sub>	49.72 <sub>28</sub>	32.660 <sub>359</sub>	57.19 <sub>249</sub>	31.64 <sub>56</sub>	33.77 <sub>227</sub>
36	44.25	37.05	18.14	49.44	33.019	59.68	32.20	36.04
Mittl. Ort	39.16	69.62	12.62	83.16	30.334	52.62	29.80	36.73
sec $\delta$ , tg $\delta$	2.341	+2.117	2.886	+2.707	1.172	-0.612	2.175	-1.931

Tag	437) $\nu$ Leonis		440) $\gamma$ Draconis		441) $\chi$ Ursae maj.		444) $\beta$ Leonis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	11 <sup>h</sup> 33 <sup>m</sup>	-0° 25'	11 <sup>h</sup> 38 <sup>m</sup>	+67° 7'	11 <sup>h</sup> 42 <sup>m</sup>	+48° 9'	11 <sup>h</sup> 45 <sup>m</sup>	+14° 57'
Jan. I	18.324	49.32	32.40	64.10	18.459	73.28	25.924	67.73
II	18.643	51.44	33.08	64.00	18.902	72.52	26.258	65.95
2I	18.937	53.43	33.72	64.51	19.317	72.30	26.569	64.45
3I	19.199	55.23	34.30	65.60	19.691	72.62	26.849	63.28
Feb. 10	19.421	56.80	34.79	67.23	20.013	73.44	27.091	62.45
20	19.600	58.12	35.18	69.31	20.276	74.72	27.289	61.96
März 2	19.735	59.17	35.47	71.75	20.474	76.39	27.442	61.81
12	19.827	59.95	35.65	74.44	20.607	78.35	27.550	61.96
21	19.878	60.47	35.72	77.26	20.675	80.52	27.615	62.36
31	19.893	60.76	35.68	80.09	20.683	82.79	27.641	62.98
Apr. 10	19.877	60.85	35.55	82.82	20.638	85.05	27.633	63.76
20	19.834	60.76	35.33	85.33	20.546	87.23	27.596	64.64
30	19.772	60.52	35.04	87.55	20.417	89.22	27.536	65.57
Mai 10	19.695	60.16	34.70	89.38	20.260	90.96	27.459	66.50
20	19.608	59.70	34.32	90.78	20.082	92.39	27.369	67.40
30	19.514	59.17	33.92	91.69	19.892	93.47	27.271	68.23
Juni 9	19.418	58.60	33.50	92.10	19.698	94.16	27.170	68.96
19	19.324	57.99	33.09	91.99	19.505	94.44	27.069	69.57
29	19.233	57.36	32.70	91.37	19.320	94.31	26.971	70.04
Juli 9	19.149	56.74	32.34	90.25	19.148	93.76	26.879	70.36
19	19.075	56.15	32.01	88.66	18.994	92.82	26.796	70.51
29	19.012	55.60	31.73	86.63	18.863	91.49	26.724	70.48
Aug. 8	18.966	55.13	31.50	84.20	18.758	89.80	26.668	70.27
18	18.938	54.77	31.33	81.42	18.684	87.77	26.631	69.86
28	18.934	54.53	31.23	78.35	18.645	85.45	26.616	69.24
Sept. 7	18.956	54.46	31.20	75.03	18.646	82.86	26.627	68.40
17	19.009	54.59	31.24	71.54	18.691	80.05	26.669	67.33
27	19.097	54.95	31.37	67.94	18.784	77.06	26.746	66.04
Okt. 7	19.222	55.56	31.58	64.30	18.927	73.95	26.860	64.52
17	19.386	56.44	31.88	60.69	19.123	70.77	27.014	62.78
27	19.589	57.60	32.26	57.21	19.373	67.59	27.209	60.84
Nov. 6	19.831	59.03	32.72	53.91	19.676	64.48	27.444	58.74
16	20.108	60.72	33.26	50.90	20.028	61.52	27.717	56.50
26	20.414	62.62	33.87	48.26	20.422	58.79	28.021	54.19
Dez. 6	20.741	64.68	34.53	46.06	20.850	56.36	28.350	51.87
16	21.080	66.86	35.22	44.38	21.300	54.31	28.695	49.61
26	21.421	69.08	35.93	43.26	21.761	52.71	29.045	47.47
36	21.753	71.27	36.63	42.76	22.216	51.61	29.390	45.52
Mittl. Ort	18.801	54.04	31.75	76.91	18.531	83.14	26.386	68.45
sec $\delta$ , tg $\delta$	1.000	-0.008	2.574	+2.372	1.499	+1.117	1.035	+0.267

# Obere Kulmination Greenwich

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Tag	445) β Virginis		447) γ Ursae maj.		450) α Virginis		452) δ Centauri	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	11 <sup>h</sup> 46 <sup>m</sup>	+2° 9'	11 <sup>h</sup> 50 <sup>m</sup>	+54° 4'	12 <sup>h</sup> 1 <sup>m</sup>	+9° 7'	12 <sup>h</sup> 4 <sup>m</sup>	-50° 19'
Jan. 1	59.269 <sup>376</sup>	57.02 <sup>209</sup>	6.297 <sup>493</sup>	70.77 <sup>66</sup>	34.999 <sup>333</sup>	38.79 <sup>197</sup>	39.300 <sup>439</sup>	17.19 <sup>233</sup>
11	59.595 <sup>304</sup>	54.93 <sup>193</sup>	6.790 <sup>465</sup>	70.11 <sup>8</sup>	35.332 <sup>343</sup>	36.82 <sup>174</sup>	39.739 <sup>407</sup>	19.52 <sup>270</sup>
21	59.899 <sup>273</sup>	53.00 <sup>172</sup>	7.255 <sup>411</sup>	70.03 <sup>48</sup>	35.645 <sup>284</sup>	35.08 <sup>147</sup>	40.146 <sup>365</sup>	22.22 <sup>298</sup>
31	60.172 <sup>236</sup>	51.28 <sup>147</sup>	7.676 <sup>366</sup>	70.51 <sup>101</sup>	35.929 <sup>249</sup>	33.61 <sup>117</sup>	40.511 <sup>316</sup>	25.20 <sup>319</sup>
Feb. 10	60.408 <sup>194</sup>	49.81 <sup>120</sup>	8.042 <sup>301</sup>	71.52 <sup>149</sup>	36.178 <sup>209</sup>	32.44 <sup>84</sup>	40.827 <sup>260</sup>	28.39 <sup>330</sup>
20	60.602 <sup>150</sup>	48.61 <sup>92</sup>	8.343 <sup>229</sup>	73.01 <sup>189</sup>	36.387 <sup>166</sup>	31.60 <sup>52</sup>	41.087 <sup>202</sup>	31.69 <sup>334</sup>
März 2	60.752 <sup>108</sup>	47.69 <sup>64</sup>	8.572 <sup>156</sup>	74.90 <sup>220</sup>	36.553 <sup>122</sup>	31.08 <sup>23</sup>	41.289 <sup>144</sup>	35.03 <sup>330</sup>
12	60.860 <sup>67</sup>	47.05 <sup>38</sup>	8.728 <sup>83</sup>	77.10 <sup>240</sup>	36.675 <sup>81</sup>	30.85 <sup>5</sup>	41.433 <sup>87</sup>	38.33 <sup>319</sup>
21 <sup>*)</sup>	60.927 <sup>30</sup>	46.67 <sup>15</sup>	8.811 <sup>13</sup>	79.50 <sup>249</sup>	36.756 <sup>43</sup>	30.90 <sup>28</sup>	41.520 <sup>35</sup>	41.52 <sup>302</sup>
31	60.957 <sup>2</sup>	46.52 <sup>5</sup>	8.824 <sup>48</sup>	81.99 <sup>248</sup>	36.799 <sup>9</sup>	31.18 <sup>47</sup>	41.555 <sup>13</sup>	44.54 <sup>281</sup>
Apr. 10	60.955 <sup>29</sup>	46.57 <sup>22</sup>	8.776 <sup>104</sup>	84.47 <sup>237</sup>	36.808 <sup>19</sup>	31.65 <sup>61</sup>	41.542 <sup>56</sup>	47.35 <sup>254</sup>
20	60.926 <sup>51</sup>	46.79 <sup>36</sup>	8.672 <sup>148</sup>	86.84 <sup>216</sup>	36.789 <sup>43</sup>	32.26 <sup>71</sup>	41.486 <sup>95</sup>	49.89 <sup>222</sup>
30	60.875 <sup>67</sup>	47.15 <sup>46</sup>	8.524 <sup>184</sup>	89.00 <sup>188</sup>	36.746 <sup>62</sup>	32.97 <sup>77</sup>	41.391 <sup>128</sup>	52.11 <sup>188</sup>
Mai 10	60.808 <sup>79</sup>	47.61 <sup>53</sup>	8.340 <sup>210</sup>	90.88 <sup>153</sup>	36.684 <sup>76</sup>	33.74 <sup>78</sup>	41.263 <sup>156</sup>	53.99 <sup>150</sup>
20	60.729 <sup>87</sup>	48.14 <sup>58</sup>	8.130 <sup>227</sup>	92.41 <sup>114</sup>	36.608 <sup>86</sup>	34.52 <sup>76</sup>	41.107 <sup>179</sup>	55.49 <sup>109</sup>
30	60.642 <sup>92</sup>	48.72 <sup>60</sup>	7.903 <sup>235</sup>	93.55 <sup>71</sup>	36.522 <sup>92</sup>	35.28 <sup>72</sup>	40.928 <sup>197</sup>	56.58 <sup>67</sup>
Juni 9	60.550 <sup>93</sup>	49.32 <sup>60</sup>	7.668 <sup>235</sup>	94.26 <sup>27</sup>	36.430 <sup>96</sup>	36.00 <sup>66</sup>	40.731 <sup>210</sup>	57.25 <sup>25</sup>
19	60.457 <sup>91</sup>	49.92 <sup>59</sup>	7.433 <sup>228</sup>	94.53 <sup>18</sup>	36.334 <sup>96</sup>	36.66 <sup>57</sup>	40.521 <sup>216</sup>	57.50 <sup>19</sup>
29	60.366 <sup>86</sup>	50.51 <sup>56</sup>	7.205 <sup>214</sup>	94.35 <sup>64</sup>	36.238 <sup>93</sup>	37.23 <sup>46</sup>	40.305 <sup>217</sup>	57.31 <sup>62</sup>
Juli 9	60.280 <sup>79</sup>	51.07 <sup>50</sup>	6.991 <sup>195</sup>	93.71 <sup>108</sup>	36.145 <sup>87</sup>	37.69 <sup>34</sup>	40.088 <sup>211</sup>	56.69 <sup>101</sup>
19	60.201 <sup>68</sup>	51.57 <sup>43</sup>	6.796 <sup>170</sup>	92.63 <sup>149</sup>	36.058 <sup>78</sup>	38.03 <sup>20</sup>	39.877 <sup>198</sup>	55.68 <sup>139</sup>
29	60.133 <sup>54</sup>	52.00 <sup>34</sup>	6.626 <sup>140</sup>	91.14 <sup>188</sup>	35.980 <sup>65</sup>	38.23 <sup>6</sup>	39.679 <sup>177</sup>	54.29 <sup>172</sup>
Aug. 8	60.079 <sup>36</sup>	52.34 <sup>22</sup>	6.486 <sup>105</sup>	89.26 <sup>223</sup>	35.915 <sup>50</sup>	38.29 <sup>11</sup>	39.502 <sup>148</sup>	52.57 <sup>199</sup>
18	60.043 <sup>15</sup>	52.56 <sup>7</sup>	6.381 <sup>65</sup>	87.03 <sup>255</sup>	35.865 <sup>29</sup>	38.18 <sup>30</sup>	39.354 <sup>110</sup>	50.58 <sup>219</sup>
28	60.028 <sup>11</sup>	52.63 <sup>9</sup>	6.316 <sup>21</sup>	84.48 <sup>282</sup>	35.836 <sup>4</sup>	37.88 <sup>50</sup>	39.244 <sup>65</sup>	48.39 <sup>231</sup>
Sept. 7	60.039 <sup>42</sup>	52.54 <sup>31</sup>	6.295 <sup>29</sup>	81.66 <sup>305</sup>	35.832 <sup>26</sup>	37.38 <sup>71</sup>	39.179 <sup>13</sup>	46.08 <sup>234</sup>
17	60.081 <sup>75</sup>	52.23 <sup>53</sup>	6.324 <sup>83</sup>	78.61 <sup>322</sup>	35.858 <sup>59</sup>	36.67 <sup>95</sup>	39.166 <sup>46</sup>	43.74 <sup>227</sup>
27	60.156 <sup>112</sup>	51.70 <sup>78</sup>	6.407 <sup>140</sup>	75.39 <sup>334</sup>	35.917 <sup>97</sup>	35.72 <sup>119</sup>	39.212 <sup>110</sup>	41.47 <sup>211</sup>
Okt. 7	60.268 <sup>153</sup>	50.92 <sup>104</sup>	6.547 <sup>201</sup>	72.05 <sup>339</sup>	36.014 <sup>137</sup>	34.53 <sup>143</sup>	39.322 <sup>176</sup>	39.36 <sup>185</sup>
17	60.421 <sup>193</sup>	49.88 <sup>130</sup>	6.748 <sup>261</sup>	68.66 <sup>336</sup>	36.151 <sup>179</sup>	33.10 <sup>166</sup>	39.498 <sup>242</sup>	37.51 <sup>149</sup>
27	60.614 <sup>233</sup>	48.58 <sup>155</sup>	7.009 <sup>320</sup>	65.30 <sup>326</sup>	36.330 <sup>219</sup>	31.44 <sup>187</sup>	39.740 <sup>304</sup>	36.02 <sup>106</sup>
Nov. 6	60.847 <sup>269</sup>	47.03 <sup>179</sup>	7.329 <sup>377</sup>	62.04 <sup>309</sup>	36.549 <sup>259</sup>	29.57 <sup>205</sup>	40.044 <sup>359</sup>	34.96 <sup>56</sup>
16	61.116 <sup>301</sup>	45.24 <sup>198</sup>	7.706 <sup>425</sup>	58.95 <sup>282</sup>	36.808 <sup>292</sup>	27.52 <sup>219</sup>	40.403 <sup>405</sup>	34.40 <sup>3</sup>
26	61.417 <sup>324</sup>	43.26 <sup>212</sup>	8.131 <sup>465</sup>	56.13 <sup>248</sup>	37.100 <sup>319</sup>	25.33 <sup>227</sup>	40.808 <sup>439</sup>	34.37 <sup>53</sup>
Dez. 6	61.741 <sup>339</sup>	41.14 <sup>221</sup>	8.596 <sup>493</sup>	53.65 <sup>206</sup>	37.419 <sup>337</sup>	23.06 <sup>228</sup>	41.247 <sup>459</sup>	34.90 <sup>108</sup>
16	62.080 <sup>344</sup>	38.93 <sup>223</sup>	9.089 <sup>506</sup>	51.59 <sup>157</sup>	37.756 <sup>345</sup>	20.78 <sup>222</sup>	41.706 <sup>465</sup>	35.98 <sup>160</sup>
26	62.424 <sup>338</sup>	36.70 <sup>217</sup>	9.595 <sup>503</sup>	50.02 <sup>102</sup>	38.101 <sup>342</sup>	18.56 <sup>209</sup>	42.171 <sup>456</sup>	37.58 <sup>208</sup>
36	62.762	34.53	10.098	49.00	38.443	16.47	42.627	39.66
Mittl. Ort	59.813	53.44	6.291	82.07	35.588	37.91	40.204	37.28
sec δ, tg δ	1.001	+0.038	1.705	+1.381	1.013	+0.161	1.566	-1.206

\*) Bei Stern 450) und 452) lies März 22

Tag	453) ε Corvi		454) 4 II. Draconis		456) δ Ursae maj.		459) β Chamael.	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	12 <sup>h</sup> 6 <sup>m</sup>	-22° 13'	12 <sup>h</sup> 8 <sup>m</sup>	+78° 0'	12 <sup>h</sup> 11 <sup>m</sup>	+57° 25'	12 <sup>h</sup> 14 <sup>m</sup>	-78° 54'
Jan. 1	27.406	18.01	55.08	23.90	55.191	24.47	6.91	40.14
11	27.749 <sup>343</sup>	20.38 <sup>237</sup>	56.28 <sup>120</sup>	23.67 <sup>23</sup>	55.722 <sup>531</sup>	23.64 <sup>83</sup>	8.11 <sup>120</sup>	41.91 <sup>177</sup>
21	28.071 <sup>322</sup>	22.85 <sup>247</sup>	57.43 <sup>115</sup>	24.11 <sup>44</sup>	56.231 <sup>509</sup>	23.41 <sup>23</sup>	9.23 <sup>112</sup>	44.23 <sup>232</sup>
31	28.362 <sup>291</sup>	25.35 <sup>250</sup>	58.49 <sup>106</sup>	25.17 <sup>106</sup>	56.701 <sup>470</sup>	23.78 <sup>37</sup>	10.23 <sup>100</sup>	47.02 <sup>279</sup>
Feb. 10	28.616 <sup>254</sup>	27.83 <sup>248</sup>	59.42 <sup>93</sup>	26.81 <sup>164</sup>	57.117 <sup>416</sup>	24.72 <sup>94</sup>	11.10 <sup>87</sup>	50.21 <sup>319</sup>
20	28.828 <sup>212</sup>	30.20 <sup>237</sup>	60.21 <sup>79</sup>	28.95 <sup>214</sup>	57.468 <sup>351</sup>	26.18 <sup>146</sup>	11.80 <sup>70</sup>	53.71 <sup>350</sup>
März 2	28.997 <sup>169</sup>	32.44 <sup>224</sup>	60.81 <sup>60</sup>	31.50 <sup>255</sup>	57.468 <sup>278</sup>	28.08 <sup>190</sup>	12.34 <sup>54</sup>	57.42 <sup>371</sup>
12	29.123 <sup>126</sup>	34.49 <sup>205</sup>	61.22 <sup>41</sup>	34.33 <sup>283</sup>	57.746 <sup>201</sup>	30.33 <sup>225</sup>	12.71 <sup>37</sup>	61.26 <sup>384</sup>
22	29.208 <sup>85</sup>	36.33 <sup>184</sup>	61.43 <sup>21</sup>	37.34 <sup>301</sup>	57.947 <sup>123</sup>	32.82 <sup>249</sup>	12.91 <sup>20</sup>	65.14 <sup>388</sup>
31	29.255 <sup>47</sup>	37.94 <sup>161</sup>	61.43 <sup>0</sup>	40.39 <sup>305</sup>	58.070 <sup>46</sup>	35.44 <sup>262</sup>	12.93 <sup>2</sup>	68.98 <sup>384</sup>
Apr. 10	29.267 <sup>12</sup>	39.31 <sup>137</sup>	61.24 <sup>19</sup>	43.36 <sup>297</sup>	58.116 <sup>24</sup>	38.08 <sup>264</sup>	12.79 <sup>14</sup>	72.70 <sup>372</sup>
20	29.250 <sup>17</sup>	40.44 <sup>113</sup>	60.88 <sup>36</sup>	46.14 <sup>278</sup>	58.092 <sup>87</sup>	40.63 <sup>255</sup>	12.79 <sup>30</sup>	76.22 <sup>352</sup>
30	29.208 <sup>42</sup>	41.31 <sup>87</sup>	60.37 <sup>51</sup>	48.62 <sup>248</sup>	58.005 <sup>141</sup>	43.00 <sup>237</sup>	12.49 <sup>44</sup>	79.46 <sup>334</sup>
Mai 10	29.145 <sup>63</sup>	41.94 <sup>63</sup>	59.73 <sup>64</sup>	50.71 <sup>209</sup>	57.864 <sup>186</sup>	45.10 <sup>210</sup>	12.05 <sup>58</sup>	82.38 <sup>292</sup>
20	29.066 <sup>79</sup>	42.33 <sup>39</sup>	58.99 <sup>74</sup>	52.35 <sup>164</sup>	57.678 <sup>221</sup>	46.85 <sup>175</sup>	11.47 <sup>70</sup>	84.90 <sup>252</sup>
30	28.973 <sup>93</sup>	42.47 <sup>14</sup>	58.18 <sup>81</sup>	53.49 <sup>114</sup>	57.457 <sup>245</sup>	48.85 <sup>136</sup>	10.77 <sup>80</sup>	86.97 <sup>207</sup>
Juni 9	28.871 <sup>102</sup>	42.47 <sup>9</sup>	57.32 <sup>86</sup>	54.49 <sup>61</sup>	57.212 <sup>262</sup>	48.21 <sup>92</sup>	9.97 <sup>88</sup>	86.97 <sup>159</sup>
19	28.763 <sup>108</sup>	42.38 <sup>32</sup>	57.32 <sup>87</sup>	54.10 <sup>5</sup>	56.950 <sup>268</sup>	49.13 <sup>46</sup>	9.09 <sup>94</sup>	88.56 <sup>106</sup>
29	28.651 <sup>112</sup>	42.06 <sup>53</sup>	56.45 <sup>87</sup>	54.15 <sup>51</sup>	56.682 <sup>267</sup>	49.59 <sup>2</sup>	8.15 <sup>98</sup>	89.62 <sup>52</sup>
Juli 9	28.539 <sup>112</sup>	41.53 <sup>72</sup>	55.58 <sup>84</sup>	53.64 <sup>104</sup>	56.415 <sup>258</sup>	49.57 <sup>49</sup>	7.17 <sup>99</sup>	90.14 <sup>3</sup>
19	28.539 <sup>108</sup>	40.81 <sup>90</sup>	54.74 <sup>79</sup>	52.60 <sup>157</sup>	56.157 <sup>243</sup>	49.08 <sup>97</sup>	6.18 <sup>97</sup>	90.11 <sup>59</sup>
29	28.431 <sup>100</sup>	39.91 <sup>105</sup>	53.95 <sup>72</sup>	51.03 <sup>205</sup>	55.914 <sup>220</sup>	48.11 <sup>141</sup>	5.21 <sup>92</sup>	89.52 <sup>112</sup>
Aug. 8	28.331 <sup>88</sup>	38.86 <sup>115</sup>	53.23 <sup>62</sup>	48.98 <sup>248</sup>	55.694 <sup>192</sup>	46.70 <sup>183</sup>	4.29 <sup>84</sup>	88.40 <sup>161</sup>
18	28.243 <sup>71</sup>	37.71 <sup>122</sup>	52.61 <sup>52</sup>	46.50 <sup>288</sup>	55.502 <sup>158</sup>	44.87 <sup>223</sup>	3.45 <sup>73</sup>	86.79 <sup>206</sup>
28	28.172 <sup>48</sup>	36.49 <sup>123</sup>	52.09 <sup>41</sup>	43.62 <sup>322</sup>	55.344 <sup>116</sup>	42.64 <sup>258</sup>	2.72 <sup>60</sup>	84.73 <sup>243</sup>
Sept. 7	28.124 <sup>20</sup>	35.26 <sup>119</sup>	51.68 <sup>27</sup>	40.40 <sup>348</sup>	55.228 <sup>70</sup>	40.06 <sup>288</sup>	2.12 <sup>43</sup>	82.30 <sup>272</sup>
17	28.104 <sup>13</sup>	34.07 <sup>108</sup>	51.41 <sup>13</sup>	36.92 <sup>368</sup>	55.158 <sup>18</sup>	37.18 <sup>314</sup>	1.69 <sup>25</sup>	79.58 <sup>291</sup>
27	28.117 <sup>52</sup>	32.99 <sup>92</sup>	51.28 <sup>2</sup>	33.24 <sup>382</sup>	55.140 <sup>40</sup>	34.04 <sup>333</sup>	1.44 <sup>4</sup>	76.67 <sup>299</sup>
Okt. 7	28.169 <sup>94</sup>	32.07 <sup>69</sup>	51.30 <sup>17</sup>	29.42 <sup>388</sup>	55.180 <sup>102</sup>	30.71 <sup>348</sup>	1.40 <sup>17</sup>	73.68 <sup>295</sup>
17	28.263 <sup>140</sup>	31.38 <sup>41</sup>	51.47 <sup>34</sup>	25.54 <sup>384</sup>	55.282 <sup>168</sup>	27.23 <sup>355</sup>	1.57 <sup>39</sup>	70.73 <sup>280</sup>
27	28.403 <sup>185</sup>	30.97 <sup>7</sup>	51.81 <sup>50</sup>	21.70 <sup>374</sup>	55.450 <sup>235</sup>	23.68 <sup>354</sup>	1.96 <sup>59</sup>	67.93 <sup>252</sup>
Nov. 6	28.588 <sup>230</sup>	30.90 <sup>30</sup>	52.31 <sup>65</sup>	17.96 <sup>354</sup>	55.685 <sup>303</sup>	20.14 <sup>347</sup>	2.55 <sup>79</sup>	65.41 <sup>213</sup>
16	28.818 <sup>272</sup>	31.20 <sup>68</sup>	52.96 <sup>80</sup>	14.42 <sup>325</sup>	55.988 <sup>367</sup>	16.67 <sup>329</sup>	3.34 <sup>96</sup>	63.28 <sup>166</sup>
26	29.090 <sup>307</sup>	31.88 <sup>107</sup>	53.76 <sup>94</sup>	11.17 <sup>287</sup>	56.355 <sup>425</sup>	13.38 <sup>303</sup>	4.30 <sup>109</sup>	61.62 <sup>110</sup>
Dec. 6	29.397 <sup>334</sup>	32.95 <sup>144</sup>	54.70 <sup>105</sup>	8.30 <sup>241</sup>	56.780 <sup>473</sup>	10.35 <sup>269</sup>	5.39 <sup>119</sup>	60.52 <sup>48</sup>
16	29.731 <sup>352</sup>	34.39 <sup>178</sup>	55.75 <sup>114</sup>	5.89 <sup>187</sup>	57.253 <sup>510</sup>	7.66 <sup>227</sup>	6.58 <sup>135</sup>	60.04 <sup>15</sup>
26	30.083 <sup>359</sup>	36.17 <sup>206</sup>	56.89 <sup>119</sup>	4.02 <sup>128</sup>	57.763 <sup>532</sup>	5.39 <sup>176</sup>	7.83 <sup>127</sup>	60.19 <sup>79</sup>
36	30.442 <sup>354</sup>	38.23 <sup>228</sup>	58.08 <sup>121</sup>	2.74 <sup>64</sup>	58.295 <sup>537</sup>	3.63 <sup>121</sup>	9.10 <sup>125</sup>	60.98 <sup>142</sup>
36	30.796	40.51	59.29	2.10	58.832	2.42	10.35	62.40
Mittl. Ort	28.182	29.73	53.66	38.62	55.273	37.03	8.62	65.06
sec δ, tg δ	1.080	-0.409	4.814	+4.709	1.857	+1.565	5.203	-5.106



# Obere Kulmination Greenwich

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Tag	460) $\eta$ Virginis		462) $\alpha$ Crucis med.		466) $z$ Comae		465) $\delta$ Corvi	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	12 <sup>h</sup> 16 <sup>m</sup>	—° 16'	12 <sup>h</sup> 22 <sup>m</sup>	—62° 41'	12 <sup>h</sup> 26 <sup>m</sup>	+21° 16'	12 <sup>h</sup> 26 <sup>m</sup>	—16° 7'
Jan. I	15.638 <sup>332</sup>	16.66 <sup>216</sup>	37.11 <sup>58</sup>	59.77 <sup>197</sup>	8.724 <sup>353</sup>	76.79 <sup>184</sup>	10.390 <sup>341</sup>	3.94 <sup>227</sup>
II	15.970 <sup>315</sup>	18.82 <sup>202</sup>	37.69 <sup>55</sup>	61.74 <sup>241</sup>	9.077 <sup>337</sup>	74.95 <sup>150</sup>	10.731 <sup>324</sup>	6.21 <sup>231</sup>
2I	16.285 <sup>288</sup>	20.84 <sup>184</sup>	38.24 <sup>49</sup>	64.18 <sup>284</sup>	9.414 <sup>313</sup>	73.45 <sup>111</sup>	11.055 <sup>298</sup>	8.52 <sup>230</sup>
3I	16.573 <sup>255</sup>	22.68 <sup>162</sup>	38.73 <sup>43</sup>	67.02 <sup>315</sup>	9.727 <sup>280</sup>	72.34 <sup>71</sup>	11.353 <sup>264</sup>	10.82 <sup>222</sup>
Feb. 10	16.828 <sup>217</sup>	24.30 <sup>135</sup>	39.16 <sup>37</sup>	70.17 <sup>338</sup>	10.007 <sup>241</sup>	71.63 <sup>29</sup>	11.617 <sup>227</sup>	13.04 <sup>208</sup>
20	17.045 <sup>176</sup>	25.65 <sup>108</sup>	39.53 <sup>29</sup>	73.55 <sup>353</sup>	10.248 <sup>198</sup>	71.34 <sup>9</sup>	11.844 <sup>187</sup>	15.12 <sup>191</sup>
März 2	17.221 <sup>135</sup>	26.73 <sup>80</sup>	39.82 <sup>21</sup>	77.08 <sup>359</sup>	10.446 <sup>153</sup>	71.43 <sup>44</sup>	12.031 <sup>146</sup>	17.03 <sup>171</sup>
12	17.356 <sup>95</sup>	27.53 <sup>54</sup>	40.03 <sup>14</sup>	80.67 <sup>357</sup>	10.599 <sup>110</sup>	71.87 <sup>75</sup>	12.177 <sup>106</sup>	18.74 <sup>149</sup>
22	17.451 <sup>58</sup>	28.07 <sup>29</sup>	40.17 <sup>7</sup>	84.24 <sup>348</sup>	10.709 <sup>68</sup>	72.62 <sup>100</sup>	12.283 <sup>68</sup>	20.23 <sup>125</sup>
3I	17.509 <sup>25</sup>	28.36 <sup>8</sup>	40.24 <sup>0</sup>	87.72 <sup>332</sup>	10.777 <sup>31</sup>	73.62 <sup>117</sup>	12.351 <sup>35</sup>	21.48 <sup>103</sup>
Apr. 10	17.534 <sup>3</sup>	28.44 <sup>11</sup>	40.24 <sup>6</sup>	91.04 <sup>309</sup>	10.808 <sup>3</sup>	74.79 <sup>128</sup>	12.386 <sup>5</sup>	22.51 <sup>81</sup>
20	17.531 <sup>28</sup>	28.33 <sup>27</sup>	40.18 <sup>13</sup>	94.13 <sup>281</sup>	10.805 <sup>30</sup>	76.07 <sup>132</sup>	12.391 <sup>20</sup>	23.32 <sup>59</sup>
30	17.503 <sup>47</sup>	28.06 <sup>38</sup>	40.05 <sup>18</sup>	96.94 <sup>248</sup>	10.775 <sup>54</sup>	77.39 <sup>131</sup>	12.371 <sup>42</sup>	23.91 <sup>38</sup>
Mai 10	17.456 <sup>64</sup>	27.68 <sup>47</sup>	39.87 <sup>22</sup>	99.42 <sup>210</sup>	10.721 <sup>73</sup>	78.70 <sup>124</sup>	12.329 <sup>60</sup>	24.29 <sup>19</sup>
20	17.392 <sup>76</sup>	27.21 <sup>54</sup>	39.65 <sup>26</sup>	101.52 <sup>168</sup>	10.648 <sup>88</sup>	79.94 <sup>112</sup>	12.269 <sup>75</sup>	24.48 <sup>0</sup>
30	17.316 <sup>84</sup>	26.67 <sup>58</sup>	39.39 <sup>30</sup>	103.20 <sup>123</sup>	10.560 <sup>98</sup>	81.06 <sup>97</sup>	12.194 <sup>87</sup>	24.48 <sup>17</sup>
Juni 9	17.232 <sup>91</sup>	26.09 <sup>60</sup>	39.09 <sup>32</sup>	104.43 <sup>75</sup>	10.462 <sup>105</sup>	82.03 <sup>78</sup>	12.107 <sup>96</sup>	24.31 <sup>34</sup>
19	17.141 <sup>93</sup>	25.49 <sup>60</sup>	38.77 <sup>34</sup>	105.18 <sup>26</sup>	10.357 <sup>108</sup>	82.81 <sup>58</sup>	12.011 <sup>102</sup>	23.97 <sup>49</sup>
29	17.048 <sup>94</sup>	24.89 <sup>58</sup>	38.43 <sup>34</sup>	105.44 <sup>23</sup>	10.249 <sup>109</sup>	83.39 <sup>36</sup>	11.909 <sup>105</sup>	23.48 <sup>63</sup>
Juli 9	16.954 <sup>91</sup>	24.31 <sup>55</sup>	38.09 <sup>35</sup>	105.21 <sup>72</sup>	10.140 <sup>105</sup>	83.75 <sup>11</sup>	11.804 <sup>104</sup>	22.85 <sup>74</sup>
19	16.863 <sup>85</sup>	23.76 <sup>49</sup>	37.74 <sup>33</sup>	104.49 <sup>118</sup>	10.035 <sup>99</sup>	83.86 <sup>13</sup>	11.700 <sup>100</sup>	22.11 <sup>83</sup>
29	16.778 <sup>75</sup>	23.27 <sup>41</sup>	37.41 <sup>30</sup>	103.31 <sup>160</sup>	9.936 <sup>89</sup>	83.73 <sup>38</sup>	11.600 <sup>91</sup>	21.28 <sup>89</sup>
Aug. 8	16.703 <sup>60</sup>	22.86 <sup>31</sup>	37.11 <sup>27</sup>	101.71 <sup>197</sup>	9.847 <sup>75</sup>	83.35 <sup>63</sup>	11.509 <sup>78</sup>	20.39 <sup>91</sup>
18	16.643 <sup>42</sup>	22.55 <sup>18</sup>	36.84 <sup>21</sup>	99.74 <sup>228</sup>	9.772 <sup>55</sup>	82.72 <sup>90</sup>	11.431 <sup>59</sup>	19.48 <sup>90</sup>
28	16.601 <sup>19</sup>	22.37 <sup>1</sup>	36.63 <sup>15</sup>	97.46 <sup>251</sup>	9.717 <sup>31</sup>	81.82 <sup>115</sup>	11.372 <sup>34</sup>	18.58 <sup>84</sup>
Sept. 7	16.582 <sup>11</sup>	22.36 <sup>16</sup>	36.48 <sup>8</sup>	94.95 <sup>263</sup>	9.686 <sup>1</sup>	80.67 <sup>141</sup>	11.338 <sup>3</sup>	17.74 <sup>72</sup>
17	16.593 <sup>44</sup>	22.52 <sup>38</sup>	36.40 <sup>0</sup>	92.32 <sup>266</sup>	9.685 <sup>33</sup>	79.26 <sup>166</sup>	11.335 <sup>32</sup>	17.02 <sup>55</sup>
27	16.637 <sup>82</sup>	22.90 <sup>62</sup>	36.40 <sup>9</sup>	89.66 <sup>258</sup>	9.718 <sup>71</sup>	77.60 <sup>189</sup>	11.367 <sup>73</sup>	16.47 <sup>34</sup>
Okt. 7	16.719 <sup>123</sup>	23.52 <sup>88</sup>	36.49 <sup>18</sup>	87.08 <sup>239</sup>	9.789 <sup>113</sup>	75.71 <sup>211</sup>	11.440 <sup>117</sup>	16.13 <sup>7</sup>
17	16.842 <sup>165</sup>	24.40 <sup>115</sup>	36.67 <sup>28</sup>	84.69 <sup>209</sup>	9.902 <sup>158</sup>	73.60 <sup>230</sup>	11.557 <sup>162</sup>	16.06 <sup>23</sup>
27	17.007 <sup>207</sup>	25.55 <sup>142</sup>	36.95 <sup>37</sup>	82.60 <sup>170</sup>	10.060 <sup>202</sup>	71.30 <sup>246</sup>	11.719 <sup>207</sup>	16.29 <sup>56</sup>
Nov. 6	17.214 <sup>248</sup>	26.97 <sup>167</sup>	37.32 <sup>44</sup>	80.90 <sup>122</sup>	10.262 <sup>246</sup>	68.84 <sup>255</sup>	11.926 <sup>250</sup>	16.85 <sup>90</sup>
16	17.462 <sup>283</sup>	28.64 <sup>188</sup>	37.76 <sup>51</sup>	79.68 <sup>67</sup>	10.508 <sup>284</sup>	66.29 <sup>260</sup>	12.176 <sup>287</sup>	17.75 <sup>123</sup>
26	17.745 <sup>311</sup>	30.52 <sup>206</sup>	38.27 <sup>56</sup>	79.01 <sup>9</sup>	10.792 <sup>317</sup>	63.69 <sup>257</sup>	12.463 <sup>318</sup>	18.98 <sup>155</sup>
Dez. 6	18.056 <sup>332</sup>	32.58 <sup>218</sup>	38.83 <sup>59</sup>	78.92 <sup>50</sup>	11.109 <sup>341</sup>	61.12 <sup>247</sup>	12.781 <sup>339</sup>	20.53 <sup>183</sup>
16	18.388 <sup>341</sup>	34.76 <sup>222</sup>	39.42 <sup>60</sup>	79.42 <sup>110</sup>	11.450 <sup>356</sup>	58.65 <sup>229</sup>	13.120 <sup>349</sup>	22.36 <sup>205</sup>
26	18.729 <sup>340</sup>	36.98 <sup>221</sup>	40.02 <sup>60</sup>	80.52 <sup>166</sup>	11.806 <sup>358</sup>	56.36 <sup>204</sup>	13.469 <sup>349</sup>	24.41 <sup>221</sup>
36	19.069	39.19	40.62	82.18	12.164	54.32	13.818	26.62
Mittl. Ort	16.364	20.53	38.40	82.30	9.373	80.53	11.266	13.22
sec $\delta$ , tg $\delta$	1.000	—0.005	2.181	—1.938	1.073	+0.390	1.041	—0.289

Tag	470) $\delta$ Canum. ven.		472) $\alpha$ Draconis		471) $\beta$ Corvi		473) $\gamma$ Comae seq.	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$12^{\text{h}} 30^{\text{m}}$	$+41^{\circ} 44'$	$12^{\text{h}} 30^{\text{m}}$	$+70^{\circ} 10'$	$12^{\text{h}} 30^{\text{m}}$	$-23^{\circ} 0'$	$12^{\text{h}} 31^{\text{m}}$	$+18^{\circ} 45'$
Jan. I	22.040	24.92	27.97	31.00	38.232	4.06	33.503	60.63
II	22.453 <sup>413</sup>	23.49 <sup>143</sup>	28.77 <sup>77</sup>	30.27 <sup>73</sup>	38.584 <sup>352</sup>	6.31 <sup>225</sup>	33.851 <sup>348</sup>	58.72 <sup>191</sup>
2I	22.851 <sup>398</sup>	22.56 <sup>93</sup>	29.50 <sup>76</sup>	30.19 <sup>8</sup>	38.918 <sup>334</sup>	8.69 <sup>238</sup>	34.186 <sup>335</sup>	57.13 <sup>159</sup>
3I	23.222 <sup>371</sup>	22.18 <sup>38</sup>	30.21 <sup>71</sup>	30.75 <sup>56</sup>	39.227 <sup>309</sup>	11.12 <sup>243</sup>	34.498 <sup>312</sup>	55.90 <sup>123</sup>
Feb. 10	23.555 <sup>333</sup>	22.34 <sup>16</sup>	30.85 <sup>64</sup>	31.92 <sup>117</sup>	39.502 <sup>275</sup>	13.54 <sup>242</sup>	34.777 <sup>279</sup>	55.06 <sup>84</sup>
	23.843 <sup>288</sup>	23.00 <sup>66</sup>	31.40 <sup>55</sup>	33.65 <sup>173</sup>	39.738 <sup>236</sup>	15.88 <sup>234</sup>	35.019 <sup>242</sup>	54.62 <sup>44</sup>
20	23.843 <sup>236</sup>	23.00 <sup>112</sup>	31.40 <sup>44</sup>	33.65 <sup>219</sup>	39.738 <sup>195</sup>	15.88 <sup>223</sup>	35.019 <sup>200</sup>	54.62 <sup>6</sup>
März 2	24.079 <sup>181</sup>	24.12 <sup>151</sup>	31.84 <sup>33</sup>	35.84 <sup>255</sup>	39.933 <sup>153</sup>	18.11 <sup>226</sup>	35.219 <sup>157</sup>	54.56 <sup>29</sup>
12	24.260 <sup>126</sup>	25.63 <sup>182</sup>	32.17 <sup>21</sup>	38.39 <sup>281</sup>	40.086 <sup>113</sup>	20.17 <sup>188</sup>	35.376 <sup>114</sup>	54.85 <sup>6c</sup>
22	24.386 <sup>72</sup>	27.45 <sup>204</sup>	32.38 <sup>8</sup>	41.20 <sup>294</sup>	40.199 <sup>75</sup>	22.05 <sup>166</sup>	35.490 <sup>74</sup>	55.45 <sup>85</sup>
3I	24.458 <sup>23</sup>	29.49 <sup>216</sup>	32.46 <sup>3</sup>	44.14 <sup>295</sup>	40.274 <sup>40</sup>	23.71 <sup>143</sup>	35.564 <sup>37</sup>	56.30 <sup>104</sup>
Apr. 10	24.481 <sup>21</sup>	31.65 <sup>219</sup>	32.43 <sup>14</sup>	47.09 <sup>284</sup>	40.314 <sup>9</sup>	25.14 <sup>120</sup>	35.601 <sup>5</sup>	57.34 <sup>117</sup>
20	24.460 <sup>60</sup>	33.84 <sup>212</sup>	32.29 <sup>23</sup>	49.93 <sup>263</sup>	40.323 <sup>19</sup>	26.34 <sup>97</sup>	35.606 <sup>24</sup>	58.51 <sup>123</sup>
30	24.400 <sup>93</sup>	35.96 <sup>197</sup>	32.06 <sup>52</sup>	52.56 <sup>232</sup>	40.304 <sup>42</sup>	27.31 <sup>74</sup>	35.582 <sup>47</sup>	59.74 <sup>123</sup>
Mai 10	24.307 <sup>119</sup>	37.93 <sup>176</sup>	31.74 <sup>38</sup>	54.88 <sup>194</sup>	40.262 <sup>62</sup>	28.05 <sup>50</sup>	35.535 <sup>66</sup>	60.97 <sup>119</sup>
20	24.188 <sup>139</sup>	39.69 <sup>149</sup>	31.36 <sup>44</sup>	56.82 <sup>149</sup>	40.200 <sup>78</sup>	28.55 <sup>26</sup>	35.469 <sup>82</sup>	62.16 <sup>109</sup>
30	24.049 <sup>153</sup>	41.18 <sup>116</sup>	30.92 <sup>48</sup>	58.31 <sup>100</sup>	40.122 <sup>92</sup>	28.81 <sup>4</sup>	35.387 <sup>92</sup>	63.25 <sup>96</sup>
Juni 9	23.896 <sup>162</sup>	42.34 <sup>81</sup>	30.44 <sup>49</sup>	59.31 <sup>47</sup>	40.030 <sup>102</sup>	28.85 <sup>18</sup>	35.295 <sup>101</sup>	64.21 <sup>80</sup>
19	23.734 <sup>167</sup>	43.15 <sup>44</sup>	29.95 <sup>50</sup>	59.78 <sup>5</sup>	39.928 <sup>110</sup>	28.67 <sup>39</sup>	35.194 <sup>105</sup>	65.01 <sup>62</sup>
29	23.567 <sup>165</sup>	43.59 <sup>4</sup>	29.45 <sup>49</sup>	59.73 <sup>58</sup>	39.818 <sup>115</sup>	28.28 <sup>59</sup>	35.089 <sup>106</sup>	65.63 <sup>41</sup>
Juli 9	23.402 <sup>160</sup>	43.63 <sup>35</sup>	28.96 <sup>48</sup>	59.15 <sup>111</sup>	39.703 <sup>115</sup>	27.69 <sup>77</sup>	34.983 <sup>104</sup>	66.04 <sup>19</sup>
19	23.242 <sup>150</sup>	43.28 <sup>74</sup>	28.48 <sup>44</sup>	58.04 <sup>160</sup>	39.588 <sup>111</sup>	26.92 <sup>92</sup>	34.879 <sup>100</sup>	66.23 <sup>3</sup>
29	23.092 <sup>135</sup>	42.54 <sup>113</sup>	28.04 <sup>40</sup>	56.44 <sup>207</sup>	39.477 <sup>102</sup>	26.00 <sup>105</sup>	34.779 <sup>90</sup>	66.20 <sup>26</sup>
Aug. 8	22.957 <sup>115</sup>	41.41 <sup>148</sup>	27.64 <sup>34</sup>	54.37 <sup>249</sup>	39.375 <sup>89</sup>	24.95 <sup>113</sup>	34.689 <sup>76</sup>	65.94 <sup>51</sup>
18	22.842 <sup>91</sup>	39.93 <sup>183</sup>	27.30 <sup>28</sup>	51.88 <sup>287</sup>	39.286 <sup>69</sup>	23.82 <sup>117</sup>	34.613 <sup>58</sup>	65.43 <sup>76</sup>
28	22.751 <sup>65</sup>	38.10 <sup>215</sup>	27.02 <sup>20</sup>	49.01 <sup>319</sup>	39.217 <sup>43</sup>	22.65 <sup>116</sup>	34.555 <sup>35</sup>	64.67 <sup>101</sup>
Sept. 7	22.691 <sup>24</sup>	35.95 <sup>244</sup>	26.82 <sup>13</sup>	45.82 <sup>346</sup>	39.174 <sup>11</sup>	21.49 <sup>108</sup>	34.520 <sup>7</sup>	63.66 <sup>126</sup>
17	22.667 <sup>17</sup>	33.51 <sup>269</sup>	26.69 <sup>4</sup>	42.36 <sup>365</sup>	39.163 <sup>26</sup>	20.41 <sup>94</sup>	34.513 <sup>27</sup>	62.40 <sup>151</sup>
27	22.684 <sup>63</sup>	30.82 <sup>290</sup>	26.65 <sup>6</sup>	38.71 <sup>379</sup>	39.189 <sup>69</sup>	19.47 <sup>74</sup>	34.540 <sup>65</sup>	60.89 <sup>175</sup>
Okt. 7	22.747 <sup>114</sup>	27.92 <sup>307</sup>	26.71 <sup>16</sup>	34.92 <sup>383</sup>	39.258 <sup>116</sup>	18.73 <sup>49</sup>	34.605 <sup>107</sup>	59.14 <sup>198</sup>
17	22.861 <sup>166</sup>	24.85 <sup>317</sup>	26.87 <sup>27</sup>	31.09 <sup>381</sup>	39.374 <sup>163</sup>	18.24 <sup>18</sup>	34.712 <sup>151</sup>	57.16 <sup>218</sup>
27	23.027 <sup>219</sup>	21.68 <sup>320</sup>	27.14 <sup>37</sup>	27.28 <sup>369</sup>	39.537 <sup>210</sup>	18.06 <sup>16</sup>	34.863 <sup>196</sup>	54.98 <sup>235</sup>
Nov. 6	23.246 <sup>270</sup>	18.48 <sup>317</sup>	27.51 <sup>47</sup>	23.59 <sup>347</sup>	39.747 <sup>255</sup>	18.22 <sup>54</sup>	35.059 <sup>240</sup>	52.63 <sup>247</sup>
16	23.516 <sup>318</sup>	15.31 <sup>305</sup>	27.08 <sup>57</sup>	20.12 <sup>318</sup>	40.002 <sup>295</sup>	18.76 <sup>91</sup>	35.299 <sup>278</sup>	50.16 <sup>253</sup>
26	23.834 <sup>358</sup>	12.26 <sup>285</sup>	28.55 <sup>65</sup>	16.94 <sup>278</sup>	40.297 <sup>326</sup>	19.67 <sup>128</sup>	35.577 <sup>311</sup>	47.63 <sup>254</sup>
Dez. 6	24.192 <sup>389</sup>	9.41 <sup>256</sup>	29.20 <sup>71</sup>	14.16 <sup>230</sup>	40.623 <sup>349</sup>	20.95 <sup>162</sup>	35.888 <sup>335</sup>	45.09 <sup>246</sup>
16	24.581 <sup>409</sup>	6.85 <sup>219</sup>	29.91 <sup>75</sup>	11.86 <sup>175</sup>	40.972 <sup>360</sup>	22.57 <sup>192</sup>	36.223 <sup>350</sup>	42.63 <sup>232</sup>
26	24.990 <sup>416</sup>	4.66 <sup>175</sup>	30.66 <sup>78</sup>	10.11 <sup>114</sup>	41.332 <sup>360</sup>	24.49 <sup>215</sup>	36.573 <sup>354</sup>	40.31 <sup>210</sup>
36	25.406	2.91	31.44	8.97	41.692	26.64	36.927	38.21
Mittl. Ort	22.532	34.67	27.75	45.77	39.181	15.61	34.200	63.68
sec $\delta$ , tg $\delta$	1.340	+0.892	2.949	+2.774	1.086	-0.425	1.056	+0.340

# Obere Kulmination Greenwich

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Tag	474) $\alpha$ Muscae		476) $\gamma$ Centauri		478) 76 Ursae maj.		481) $\beta$ Crucis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	12 <sup>h</sup> 32 <sup>m</sup>	-68° 44'	12 <sup>h</sup> 37 <sup>m</sup>	-48° 33'	12 <sup>h</sup> 38 <sup>m</sup>	+63° 5'	12 <sup>h</sup> 43 <sup>m</sup>	-59° 17'
Jan. I	54.22 <sup>71</sup>	17.60 <sup>173</sup>	34.210 <sup>444</sup>	53.39 <sup>201</sup>	28.09 <sup>61</sup>	55.39 <sup>102</sup>	31.997 <sup>546</sup>	41.99 <sup>177</sup>
II	54.93 <sup>67</sup>	19.33 <sup>225</sup>	34.654 <sup>424</sup>	55.40 <sup>238</sup>	28.70 <sup>60</sup>	54.37 <sup>39</sup>	32.543 <sup>521</sup>	43.76 <sup>223</sup>
2I	55.60 <sup>62</sup>	21.58 <sup>270</sup>	35.078 <sup>390</sup>	57.78 <sup>269</sup>	29.30 <sup>56</sup>	53.98 <sup>25</sup>	33.064 <sup>482</sup>	45.99 <sup>263</sup>
3I	56.22 <sup>55</sup>	24.28 <sup>306</sup>	35.468 <sup>348</sup>	60.47 <sup>291</sup>	29.86 <sup>51</sup>	54.23 <sup>86</sup>	33.546 <sup>432</sup>	48.62 <sup>295</sup>
Feb. 10	56.77 <sup>46</sup>	27.34 <sup>335</sup>	35.816 <sup>299</sup>	63.38 <sup>306</sup>	30.37 <sup>44</sup>	55.09 <sup>142</sup>	33.978 <sup>373</sup>	51.57 <sup>318</sup>
20	57.23 <sup>38</sup>	30.69 <sup>354</sup>	36.115 <sup>248</sup>	66.44 <sup>314</sup>	30.81 <sup>36</sup>	56.51 <sup>191</sup>	34.351 <sup>310</sup>	54.75 <sup>334</sup>
März 2	57.61 <sup>28</sup>	34.23 <sup>364</sup>	36.363 <sup>195</sup>	69.58 <sup>314</sup>	31.17 <sup>28</sup>	58.42 <sup>232</sup>	34.661 <sup>245</sup>	58.09 <sup>342</sup>
12	57.89 <sup>20</sup>	37.87 <sup>368</sup>	36.558 <sup>142</sup>	72.72 <sup>307</sup>	31.45 <sup>19</sup>	60.74 <sup>260</sup>	34.906 <sup>178</sup>	61.51 <sup>342</sup>
22	58.09 <sup>10</sup>	41.55 <sup>364</sup>	36.700 <sup>91</sup>	75.79 <sup>295</sup>	31.64 <sup>9</sup>	63.34 <sup>278</sup>	35.084 <sup>113</sup>	64.93 <sup>335</sup>
31*)	58.19 <sup>1</sup>	45.19 <sup>352</sup>	36.791 <sup>43</sup>	78.74 <sup>278</sup>	31.73 <sup>1</sup>	66.12 <sup>284</sup>	35.197 <sup>51</sup>	68.28 <sup>322</sup>
Apr. 10	58.20 <sup>7</sup>	48.71 <sup>333</sup>	36.834 <sup>1</sup>	81.52 <sup>256</sup>	31.74 <sup>7</sup>	68.96 <sup>278</sup>	35.248 <sup>7</sup>	71.50 <sup>303</sup>
20	58.13 <sup>15</sup>	52.04 <sup>307</sup>	36.833 <sup>40</sup>	84.08 <sup>229</sup>	31.67 <sup>14</sup>	71.74 <sup>262</sup>	35.241 <sup>61</sup>	74.53 <sup>277</sup>
30	57.98 <sup>22</sup>	55.11 <sup>276</sup>	36.793 <sup>77</sup>	86.37 <sup>200</sup>	31.53 <sup>20</sup>	74.36 <sup>236</sup>	35.180 <sup>111</sup>	77.30 <sup>248</sup>
Mai 10	57.76 <sup>28</sup>	57.87 <sup>239</sup>	36.716 <sup>109</sup>	88.37 <sup>166</sup>	31.33 <sup>26</sup>	76.72 <sup>202</sup>	35.069 <sup>157</sup>	79.78 <sup>214</sup>
20	57.48 <sup>34</sup>	60.26 <sup>198</sup>	36.607 <sup>137</sup>	90.03 <sup>130</sup>	31.07 <sup>29</sup>	78.74 <sup>162</sup>	34.912 <sup>197</sup>	81.92 <sup>175</sup>
30	57.14 <sup>39</sup>	62.24 <sup>152</sup>	36.470 <sup>162</sup>	91.33 <sup>92</sup>	30.78 <sup>32</sup>	80.36 <sup>117</sup>	34.715 <sup>232</sup>	83.67 <sup>133</sup>
Juni 9	56.75 <sup>42</sup>	63.76 <sup>103</sup>	36.308 <sup>180</sup>	92.25 <sup>52</sup>	30.46 <sup>34</sup>	81.53 <sup>69</sup>	34.483 <sup>260</sup>	85.00 <sup>89</sup>
19	56.33 <sup>45</sup>	64.79 <sup>53</sup>	36.128 <sup>195</sup>	92.77 <sup>12</sup>	30.12 <sup>35</sup>	82.22 <sup>19</sup>	34.223 <sup>282</sup>	85.89 <sup>43</sup>
29	55.88 <sup>47</sup>	65.32 <sup>1</sup>	35.933 <sup>204</sup>	92.89 <sup>29</sup>	29.77 <sup>34</sup>	82.41 <sup>33</sup>	33.941 <sup>296</sup>	86.32 <sup>4</sup>
Juli 9	55.41 <sup>46</sup>	65.33 <sup>51</sup>	35.729 <sup>207</sup>	92.60 <sup>68</sup>	29.43 <sup>33</sup>	82.08 <sup>83</sup>	33.645 <sup>300</sup>	86.28 <sup>51</sup>
19	54.95 <sup>45</sup>	64.82 <sup>101</sup>	35.522 <sup>202</sup>	91.92 <sup>106</sup>	29.10 <sup>32</sup>	81.25 <sup>132</sup>	33.345 <sup>295</sup>	85.77 <sup>96</sup>
29	54.50 <sup>42</sup>	63.81 <sup>147</sup>	35.320 <sup>189</sup>	90.86 <sup>140</sup>	28.78 <sup>29</sup>	79.93 <sup>178</sup>	33.050 <sup>278</sup>	84.81 <sup>138</sup>
Aug. 8	54.08 <sup>38</sup>	62.34 <sup>189</sup>	35.131 <sup>169</sup>	89.46 <sup>169</sup>	28.49 <sup>25</sup>	78.15 <sup>221</sup>	32.772 <sup>251</sup>	83.43 <sup>175</sup>
18	53.70 <sup>32</sup>	60.45 <sup>225</sup>	34.962 <sup>139</sup>	87.77 <sup>193</sup>	28.24 <sup>21</sup>	75.94 <sup>260</sup>	32.521 <sup>212</sup>	81.68 <sup>207</sup>
28	53.38 <sup>23</sup>	58.20 <sup>253</sup>	34.823 <sup>100</sup>	85.84 <sup>208</sup>	28.03 <sup>16</sup>	73.34 <sup>294</sup>	32.309 <sup>161</sup>	79.61 <sup>230</sup>
Sept. 7	53.15 <sup>14</sup>	55.67 <sup>271</sup>	34.723 <sup>53</sup>	83.76 <sup>217</sup>	27.87 <sup>10</sup>	70.40 <sup>324</sup>	32.148 <sup>98</sup>	77.31 <sup>246</sup>
17	53.01 <sup>4</sup>	52.96 <sup>279</sup>	34.670 <sup>1</sup>	81.59 <sup>216</sup>	27.77 <sup>3</sup>	67.16 <sup>346</sup>	32.050 <sup>27</sup>	74.85 <sup>252</sup>
27	52.97 <sup>8</sup>	50.17 <sup>275</sup>	34.671 <sup>62</sup>	79.43 <sup>206</sup>	27.74 <sup>4</sup>	63.70 <sup>364</sup>	32.023 <sup>52</sup>	72.33 <sup>248</sup>
Okt. 7	53.05 <sup>19</sup>	47.42 <sup>261</sup>	34.733 <sup>128</sup>	77.37 <sup>186</sup>	27.78 <sup>12</sup>	60.06 <sup>373</sup>	32.075 <sup>136</sup>	69.85 <sup>232</sup>
17	53.24 <sup>31</sup>	44.81 <sup>236</sup>	34.861 <sup>193</sup>	75.51 <sup>157</sup>	27.90 <sup>21</sup>	56.33 <sup>375</sup>	32.211 <sup>222</sup>	67.53 <sup>206</sup>
27	53.55 <sup>41</sup>	42.45 <sup>199</sup>	35.054 <sup>258</sup>	73.94 <sup>120</sup>	28.11 <sup>28</sup>	52.58 <sup>368</sup>	32.433 <sup>304</sup>	65.47 <sup>171</sup>
Nov. 6	53.96 <sup>52</sup>	40.46 <sup>153</sup>	35.312 <sup>319</sup>	72.74 <sup>75</sup>	28.39 <sup>36</sup>	48.90 <sup>353</sup>	32.737 <sup>381</sup>	63.76 <sup>127</sup>
16	54.48 <sup>61</sup>	38.93 <sup>100</sup>	35.631 <sup>370</sup>	71.99 <sup>27</sup>	28.75 <sup>41</sup>	45.37 <sup>327</sup>	33.118 <sup>447</sup>	62.49 <sup>77</sup>
26	55.09 <sup>67</sup>	37.93 <sup>42</sup>	36.001 <sup>412</sup>	71.72 <sup>25</sup>	29.19 <sup>50</sup>	42.10 <sup>293</sup>	33.565 <sup>499</sup>	61.72 <sup>22</sup>
Dez. 6	55.76 <sup>71</sup>	37.51 <sup>19</sup>	36.413 <sup>441</sup>	71.97 <sup>77</sup>	29.69 <sup>56</sup>	39.17 <sup>250</sup>	34.064 <sup>537</sup>	61.50 <sup>35</sup>
16	56.47 <sup>74</sup>	37.70 <sup>80</sup>	36.854 <sup>456</sup>	72.74 <sup>128</sup>	30.25 <sup>59</sup>	36.67 <sup>199</sup>	34.601 <sup>557</sup>	61.85 <sup>92</sup>
26	57.21 <sup>73</sup>	38.50 <sup>140</sup>	37.310 <sup>455</sup>	74.02 <sup>176</sup>	30.84 <sup>61</sup>	34.68 <sup>142</sup>	35.158 <sup>558</sup>	62.77 <sup>147</sup>
36	57.94	39.90	37.765	75.78	31.45	33.26	35.716	64.24
Mittl. Ort	55.86	40.96	35.452	72.50	28.26	69.52	33.512	63.42
sec $\delta$ , tg $\delta$	2.758	-2.571	1.511	-1.133	2.210	+1.971	1.959	-1.684

\*) Bei Stern 476), 478) und 481) lies April 1

Tag	482) $\alpha$ Centauri		483) $\epsilon$ Ursae maj.		484) $\delta$ Virginis		486) $\delta$ Draconis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	12 <sup>h</sup> 49 <sup>m</sup>	-39° 47'	12 <sup>h</sup> 50 <sup>m</sup>	+56° 20'	12 <sup>h</sup> 52 <sup>m</sup>	+3° 46'	12 <sup>h</sup> 52 <sup>m</sup>	+65° 48'
Jan. I	28.520 <sup>404</sup>	19.19 <sup>200</sup>	54.240 <sup>517</sup>	28.28 <sup>135</sup>	0.658 <sup>336</sup>	59.91 <sup>214</sup>	39.05 <sup>66</sup>	69.28 <sup>114</sup>
II	28.924 <sup>387</sup>	21.19 <sup>230</sup>	54.757 <sup>508</sup>	26.93 <sup>73</sup>	0.994 <sup>326</sup>	57.77 <sup>198</sup>	39.71 <sup>65</sup>	68.14 <sup>50</sup>
2I	29.311 <sup>361</sup>	23.49 <sup>254</sup>	55.265 <sup>483</sup>	26.20 <sup>11</sup>	1.320 <sup>306</sup>	55.79 <sup>176</sup>	40.36 <sup>62</sup>	67.64 <sup>15</sup>
3I	29.672 <sup>326</sup>	26.03 <sup>270</sup>	55.748 <sup>442</sup>	26.09 <sup>49</sup>	1.626 <sup>278</sup>	54.03 <sup>150</sup>	40.98 <sup>57</sup>	67.79 <sup>78</sup>
Feb. 10	29.998 <sup>284</sup>	28.73 <sup>279</sup>	56.190 <sup>388</sup>	26.58 <sup>107</sup>	1.904 <sup>245</sup>	52.53 <sup>120</sup>	41.55 <sup>50</sup>	68.57 <sup>137</sup>
20	30.282 <sup>240</sup>	31.52 <sup>281</sup>	56.578 <sup>326</sup>	27.65 <sup>159</sup>	2.149 <sup>208</sup>	51.33 <sup>89</sup>	42.05 <sup>42</sup>	69.94 <sup>189</sup>
März 2	30.522 <sup>194</sup>	34.33 <sup>277</sup>	56.904 <sup>257</sup>	29.24 <sup>201</sup>	2.357 <sup>169</sup>	50.44 <sup>59</sup>	42.47 <sup>33</sup>	71.83 <sup>230</sup>
12	30.716 <sup>149</sup>	37.10 <sup>268</sup>	57.161 <sup>184</sup>	31.25 <sup>235</sup>	2.526 <sup>130</sup>	49.85 <sup>30</sup>	42.80 <sup>23</sup>	74.13 <sup>262</sup>
22	30.865 <sup>104</sup>	39.78 <sup>253</sup>	57.345 <sup>112</sup>	33.60 <sup>257</sup>	2.656 <sup>94</sup>	49.55 <sup>4</sup>	43.03 <sup>13</sup>	76.75 <sup>283</sup>
Apr. I	30.969 <sup>63</sup>	42.31 <sup>236</sup>	57.457 <sup>42</sup>	36.17 <sup>269</sup>	2.750 <sup>60</sup>	49.51 <sup>18</sup>	43.16 <sup>3</sup>	79.58 <sup>291</sup>
10	31.032 <sup>25</sup>	44.67 <sup>215</sup>	57.499 <sup>23</sup>	38.86 <sup>268</sup>	2.810 <sup>29</sup>	49.69 <sup>37</sup>	43.19 <sup>5</sup>	82.49 <sup>287</sup>
20	31.057 <sup>9</sup>	46.82 <sup>190</sup>	57.476 <sup>81</sup>	41.54 <sup>259</sup>	2.839 <sup>2</sup>	50.06 <sup>51</sup>	43.14 <sup>14</sup>	85.36 <sup>273</sup>
30	31.048 <sup>41</sup>	48.72 <sup>163</sup>	57.395 <sup>132</sup>	44.13 <sup>238</sup>	2.841 <sup>21</sup>	50.57 <sup>62</sup>	43.00 <sup>21</sup>	88.09 <sup>249</sup>
Mai 10	31.007 <sup>69</sup>	50.35 <sup>134</sup>	57.263 <sup>174</sup>	46.51 <sup>211</sup>	2.820 <sup>41</sup>	51.19 <sup>68</sup>	42.79 <sup>27</sup>	90.58 <sup>216</sup>
20	30.938 <sup>94</sup>	51.69 <sup>103</sup>	57.089 <sup>209</sup>	48.62 <sup>175</sup>	2.779 <sup>58</sup>	51.87 <sup>70</sup>	42.52 <sup>32</sup>	92.74 <sup>176</sup>
30	30.844 <sup>116</sup>	52.72 <sup>71</sup>	56.880 <sup>235</sup>	50.37 <sup>135</sup>	2.721 <sup>73</sup>	52.57 <sup>71</sup>	42.20 <sup>36</sup>	94.50 <sup>131</sup>
Juni 9	30.728 <sup>133</sup>	53.43 <sup>37</sup>	56.645 <sup>253</sup>	51.72 <sup>91</sup>	2.648 <sup>83</sup>	53.28 <sup>69</sup>	41.84 <sup>39</sup>	95.81 <sup>82</sup>
19	30.595 <sup>148</sup>	53.80 <sup>4</sup>	56.392 <sup>263</sup>	52.63 <sup>45</sup>	2.565 <sup>92</sup>	53.97 <sup>63</sup>	41.45 <sup>40</sup>	96.63 <sup>31</sup>
29	30.447 <sup>158</sup>	53.84 <sup>30</sup>	56.129 <sup>267</sup>	53.08 <sup>4</sup>	2.473 <sup>98</sup>	54.60 <sup>57</sup>	41.05 <sup>40</sup>	96.94 <sup>21</sup>
Juli 9	30.289 <sup>162</sup>	53.54 <sup>63</sup>	55.862 <sup>262</sup>	53.04 <sup>52</sup>	2.375 <sup>101</sup>	55.17 <sup>49</sup>	40.65 <sup>39</sup>	96.73 <sup>72</sup>
19	30.127 <sup>162</sup>	52.91 <sup>94</sup>	55.600 <sup>252</sup>	52.52 <sup>100</sup>	2.274 <sup>99</sup>	55.66 <sup>39</sup>	40.26 <sup>38</sup>	96.01 <sup>123</sup>
29	29.965 <sup>154</sup>	51.97 <sup>121</sup>	55.348 <sup>233</sup>	51.52 <sup>145</sup>	2.175 <sup>95</sup>	56.05 <sup>27</sup>	39.88 <sup>35</sup>	94.78 <sup>172</sup>
Aug. 8	29.811 <sup>140</sup>	50.76 <sup>144</sup>	55.115 <sup>208</sup>	50.07 <sup>188</sup>	2.080 <sup>85</sup>	56.32 <sup>13</sup>	39.53 <sup>31</sup>	93.06 <sup>216</sup>
18	29.671 <sup>118</sup>	49.32 <sup>163</sup>	54.907 <sup>176</sup>	48.19 <sup>228</sup>	1.995 <sup>71</sup>	56.45 <sup>3</sup>	39.22 <sup>27</sup>	90.90 <sup>257</sup>
28	29.553 <sup>87</sup>	47.69 <sup>175</sup>	54.731 <sup>137</sup>	45.91 <sup>265</sup>	1.924 <sup>51</sup>	56.42 <sup>20</sup>	38.95 <sup>22</sup>	88.33 <sup>294</sup>
Sept. 7	29.466 <sup>49</sup>	45.94 <sup>180</sup>	54.594 <sup>90</sup>	43.26 <sup>296</sup>	1.873 <sup>24</sup>	56.22 <sup>41</sup>	38.73 <sup>15</sup>	85.39 <sup>324</sup>
17	29.417 <sup>3</sup>	44.14 <sup>176</sup>	54.504 <sup>37</sup>	40.30 <sup>323</sup>	1.849 <sup>8</sup>	55.81 <sup>62</sup>	38.58 <sup>7</sup>	82.15 <sup>350</sup>
27	29.414 <sup>48</sup>	42.38 <sup>165</sup>	54.467 <sup>23</sup>	37.07 <sup>344</sup>	1.857 <sup>44</sup>	55.19 <sup>86</sup>	38.51 <sup>0</sup>	78.65 <sup>368</sup>
Okt. 7	29.462 <sup>104</sup>	40.73 <sup>145</sup>	54.490 <sup>87</sup>	33.63 <sup>358</sup>	1.901 <sup>85</sup>	54.33 <sup>111</sup>	38.51 <sup>8</sup>	74.97 <sup>380</sup>
17	29.566 <sup>163</sup>	39.28 <sup>117</sup>	54.577 <sup>156</sup>	30.05 <sup>365</sup>	1.986 <sup>130</sup>	53.22 <sup>136</sup>	38.59 <sup>18</sup>	71.17 <sup>383</sup>
27	29.729 <sup>220</sup>	38.11 <sup>82</sup>	54.733 <sup>225</sup>	26.40 <sup>364</sup>	2.116 <sup>174</sup>	51.86 <sup>161</sup>	38.77 <sup>26</sup>	67.34 <sup>377</sup>
Nov. 6	29.949 <sup>275</sup>	37.29 <sup>42</sup>	54.958 <sup>295</sup>	22.76 <sup>354</sup>	2.290 <sup>218</sup>	50.25 <sup>183</sup>	39.03 <sup>36</sup>	63.57 <sup>363</sup>
16	30.224 <sup>323</sup>	36.87 <sup>2</sup>	55.253 <sup>359</sup>	19.22 <sup>336</sup>	2.508 <sup>258</sup>	48.42 <sup>202</sup>	39.39 <sup>44</sup>	59.94 <sup>339</sup>
26	30.547 <sup>363</sup>	36.89 <sup>48</sup>	55.612 <sup>416</sup>	15.86 <sup>307</sup>	2.766 <sup>292</sup>	46.40 <sup>217</sup>	39.83 <sup>52</sup>	56.55 <sup>305</sup>
Dez. 6	30.910 <sup>392</sup>	37.37 <sup>95</sup>	56.028 <sup>463</sup>	12.79 <sup>270</sup>	3.058 <sup>318</sup>	44.23 <sup>225</sup>	40.35 <sup>58</sup>	53.50 <sup>262</sup>
16	31.302 <sup>408</sup>	38.32 <sup>139</sup>	56.491 <sup>496</sup>	10.09 <sup>224</sup>	3.376 <sup>334</sup>	41.98 <sup>227</sup>	40.93 <sup>62</sup>	50.88 <sup>212</sup>
26	31.710 <sup>411</sup>	39.71 <sup>179</sup>	56.987 <sup>514</sup>	7.85 <sup>171</sup>	3.710 <sup>340</sup>	39.71 <sup>222</sup>	41.55 <sup>65</sup>	48.76 <sup>154</sup>
36	32.121	41.50	57.501	6.14	4.050	37.49	42.20	47.22
Mittl. Ort	29.764	35.60	54.682	41.60	1.570	58.29	39.30	84.06
sec $\delta$ , tg $\delta$	1.301	-0.833	1.804	+1.502	1.002	+0.066	2.442	+2.228

Tag	485) 12 Can. ven. sq.		488) ε Virginis		490) η Virginis		492) 43 Comae	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	12 <sup>h</sup> 52 <sup>m</sup>	+38° 41'	12 <sup>h</sup> 58 <sup>m</sup>	+11° 20'	13 <sup>h</sup> 6 <sup>m</sup>	—5° 9'	13 <sup>h</sup> 8 <sup>m</sup>	+28° 13'
Jan. 1	41.917 <sup>399</sup>	55.79 <sup>172</sup>	37.652 <sup>341</sup>	24.23 <sup>211</sup>	15.245 <sup>339</sup>	33.08 <sup>215</sup>	32.864 <sup>364</sup>	68.62 <sup>197</sup>
11	42.316 <sup>390</sup>	54.07 <sup>123</sup>	37.993 <sup>332</sup>	22.12 <sup>186</sup>	15.584 <sup>330</sup>	35.23 <sup>209</sup>	33.228 <sup>358</sup>	66.65 <sup>157</sup>
21	42.706 <sup>369</sup>	52.84 <sup>69</sup>	38.325 <sup>313</sup>	20.26 <sup>157</sup>	15.914 <sup>312</sup>	37.32 <sup>197</sup>	33.586 <sup>342</sup>	65.08 <sup>112</sup>
31	43.075 <sup>338</sup>	52.15 <sup>16</sup>	38.638 <sup>287</sup>	18.69 <sup>123</sup>	16.226 <sup>286</sup>	39.29 <sup>180</sup>	33.928 <sup>315</sup>	63.96 <sup>64</sup>
Feb. 10	43.413 <sup>298</sup>	51.99 <sup>36</sup>	38.925 <sup>254</sup>	17.46 <sup>88</sup>	16.512 <sup>255</sup>	41.09 <sup>158</sup>	34.243 <sup>281</sup>	63.32 <sup>17</sup>
20	43.711 <sup>252</sup>	52.35 <sup>84</sup>	39.179 <sup>217</sup>	16.58 <sup>52</sup>	16.767 <sup>220</sup>	42.67 <sup>134</sup>	34.524 <sup>242</sup>	63.15 <sup>29</sup>
März 2	43.963 <sup>201</sup>	53.19 <sup>127</sup>	39.396 <sup>178</sup>	16.06 <sup>17</sup>	16.987 <sup>182</sup>	44.01 <sup>108</sup>	34.766 <sup>200</sup>	63.44 <sup>72</sup>
12	44.164 <sup>150</sup>	54.46 <sup>162</sup>	39.574 <sup>138</sup>	15.89 <sup>14</sup>	17.169 <sup>145</sup>	45.09 <sup>82</sup>	34.966 <sup>156</sup>	64.16 <sup>108</sup>
22	44.314 <sup>101</sup>	56.08 <sup>188</sup>	39.712 <sup>100</sup>	16.03 <sup>41</sup>	17.314 <sup>110</sup>	45.91 <sup>57</sup>	35.122 <sup>112</sup>	65.24 <sup>137</sup>
Apr. 1	44.415 <sup>53</sup>	57.96 <sup>205</sup>	39.812 <sup>66</sup>	16.44 <sup>64</sup>	17.424 <sup>77</sup>	46.48 <sup>35</sup>	35.234 <sup>72</sup>	66.61 <sup>160</sup>
10	44.468 <sup>9</sup>	60.01 <sup>213</sup>	39.878 <sup>34</sup>	17.08 <sup>81</sup>	17.501 <sup>46</sup>	46.83 <sup>15</sup>	35.306 <sup>65</sup>	68.21 <sup>173</sup>
20	44.477 <sup>29</sup>	62.14 <sup>212</sup>	39.912 <sup>5</sup>	17.89 <sup>93</sup>	17.547 <sup>19</sup>	46.98 <sup>3</sup>	35.341 <sup>0</sup>	69.94 <sup>178</sup>
30	44.448 <sup>63</sup>	64.26 <sup>202</sup>	39.917 <sup>20</sup>	18.82 <sup>99</sup>	17.566 <sup>6</sup>	46.95 <sup>17</sup>	35.341 <sup>30</sup>	71.72 <sup>177</sup>
Mai 10	44.385 <sup>90</sup>	66.28 <sup>185</sup>	39.897 <sup>40</sup>	19.81 <sup>101</sup>	17.560 <sup>27</sup>	46.78 <sup>29</sup>	35.311 <sup>55</sup>	73.49 <sup>169</sup>
20	44.295 <sup>114</sup>	68.13 <sup>162</sup>	39.857 <sup>59</sup>	20.82 <sup>98</sup>	17.533 <sup>46</sup>	46.49 <sup>38</sup>	35.256 <sup>77</sup>	75.18 <sup>154</sup>
30	44.181 <sup>131</sup>	69.75 <sup>133</sup>	39.798 <sup>74</sup>	21.80 <sup>92</sup>	17.487 <sup>63</sup>	46.11 <sup>46</sup>	35.179 <sup>95</sup>	76.72 <sup>134</sup>
Juni 9	44.050 <sup>145</sup>	71.08 <sup>101</sup>	39.724 <sup>86</sup>	22.72 <sup>82</sup>	17.424 <sup>76</sup>	45.65 <sup>51</sup>	35.084 <sup>111</sup>	78.06 <sup>110</sup>
19	43.905 <sup>153</sup>	72.09 <sup>65</sup>	39.638 <sup>96</sup>	23.54 <sup>71</sup>	17.348 <sup>88</sup>	45.14 <sup>54</sup>	34.973 <sup>121</sup>	79.16 <sup>84</sup>
29	43.752 <sup>158</sup>	72.74 <sup>29</sup>	39.542 <sup>101</sup>	24.25 <sup>57</sup>	17.260 <sup>96</sup>	44.60 <sup>56</sup>	34.852 <sup>129</sup>	80.00 <sup>55</sup>
Juli 9	43.594 <sup>157</sup>	73.03 <sup>10</sup>	39.441 <sup>105</sup>	24.82 <sup>41</sup>	17.164 <sup>102</sup>	44.04 <sup>55</sup>	34.723 <sup>132</sup>	80.55 <sup>24</sup>
19	43.437 <sup>152</sup>	72.93 <sup>48</sup>	39.336 <sup>105</sup>	25.23 <sup>24</sup>	17.062 <sup>104</sup>	43.49 <sup>54</sup>	34.591 <sup>132</sup>	80.79 <sup>8</sup>
29	43.285 <sup>143</sup>	72.45 <sup>86</sup>	39.231 <sup>100</sup>	25.47 <sup>5</sup>	16.958 <sup>102</sup>	42.95 <sup>50</sup>	34.459 <sup>128</sup>	80.71 <sup>40</sup>
Aug. 8	43.142 <sup>127</sup>	71.59 <sup>123</sup>	39.131 <sup>91</sup>	25.52 <sup>15</sup>	16.856 <sup>94</sup>	42.45 <sup>44</sup>	34.331 <sup>118</sup>	80.31 <sup>72</sup>
18	43.015 <sup>107</sup>	70.36 <sup>159</sup>	39.040 <sup>78</sup>	25.37 <sup>36</sup>	16.762 <sup>82</sup>	42.01 <sup>35</sup>	34.213 <sup>102</sup>	79.59 <sup>104</sup>
28	42.908 <sup>81</sup>	68.77 <sup>193</sup>	38.962 <sup>57</sup>	25.01 <sup>58</sup>	16.680 <sup>62</sup>	41.66 <sup>24</sup>	34.111 <sup>82</sup>	78.55 <sup>136</sup>
Sept. 7	42.827 <sup>49</sup>	66.84 <sup>223</sup>	38.905 <sup>31</sup>	24.43 <sup>81</sup>	16.618 <sup>36</sup>	41.42 <sup>8</sup>	34.029 <sup>54</sup>	77.19 <sup>166</sup>
17	42.778 <sup>10</sup>	64.61 <sup>252</sup>	38.874 <sup>0</sup>	23.62 <sup>106</sup>	16.582 <sup>6</sup>	41.34 <sup>10</sup>	33.975 <sup>21</sup>	75.53 <sup>194</sup>
27	42.768 <sup>33</sup>	62.09 <sup>276</sup>	38.874 <sup>36</sup>	22.56 <sup>131</sup>	16.576 <sup>32</sup>	41.44 <sup>31</sup>	33.954 <sup>18</sup>	73.59 <sup>221</sup>
Okt. 7	42.801 <sup>82</sup>	59.33 <sup>296</sup>	38.910 <sup>78</sup>	21.25 <sup>155</sup>	16.608 <sup>74</sup>	41.75 <sup>55</sup>	33.972 <sup>62</sup>	71.38 <sup>244</sup>
17	42.883 <sup>133</sup>	56.37 <sup>310</sup>	38.988 <sup>122</sup>	19.70 <sup>179</sup>	16.682 <sup>118</sup>	42.30 <sup>82</sup>	34.034 <sup>109</sup>	68.94 <sup>264</sup>
27	43.016 <sup>187</sup>	53.27 <sup>319</sup>	39.110 <sup>167</sup>	17.91 <sup>200</sup>	16.800 <sup>165</sup>	43.12 <sup>109</sup>	34.143 <sup>159</sup>	66.30 <sup>279</sup>
Nov. 6	43.203 <sup>239</sup>	50.08 <sup>320</sup>	39.277 <sup>212</sup>	15.91 <sup>219</sup>	16.965 <sup>210</sup>	44.21 <sup>135</sup>	34.302 <sup>207</sup>	63.51 <sup>289</sup>
16	43.442 <sup>287</sup>	46.88 <sup>313</sup>	39.489 <sup>253</sup>	13.72 <sup>232</sup>	17.175 <sup>252</sup>	45.56 <sup>160</sup>	34.509 <sup>254</sup>	60.62 <sup>291</sup>
26	43.729 <sup>330</sup>	43.75 <sup>298</sup>	39.742 <sup>289</sup>	11.40 <sup>241</sup>	17.427 <sup>287</sup>	47.16 <sup>183</sup>	34.763 <sup>294</sup>	57.71 <sup>285</sup>
Dez. 6	44.059 <sup>364</sup>	40.77 <sup>274</sup>	40.031 <sup>317</sup>	8.99 <sup>242</sup>	17.714 <sup>315</sup>	48.99 <sup>200</sup>	35.057 <sup>327</sup>	54.86 <sup>272</sup>
16	44.423 <sup>388</sup>	38.03 <sup>241</sup>	40.348 <sup>336</sup>	6.57 <sup>236</sup>	18.029 <sup>333</sup>	50.99 <sup>211</sup>	35.384 <sup>351</sup>	52.14 <sup>251</sup>
26	44.811 <sup>399</sup>	35.62 <sup>201</sup>	40.684 <sup>343</sup>	4.21 <sup>223</sup>	18.362 <sup>342</sup>	53.10 <sup>216</sup>	35.735 <sup>364</sup>	49.63 <sup>220</sup>
36	45.210	33.61	41.027	1.98	18.704	55.26	36.099	47.43
Mittl. Ort	42.587	65.26	38.554	25.39	16.301	37.52	33.714	75.47
sec δ, tg δ	1.281	+0.801	1.020	+0.201	1.004	—0.090	1.135	+0.537

Tag	495) $\gamma$ Hydrae		496) $\iota$ Centauri		497) $\zeta$ Ursae maj. pr.		498) $\alpha$ Virginis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	13 <sup>h</sup> 15 <sup>m</sup>	-22° 47'	13 <sup>h</sup> 16 <sup>m</sup>	-36° 20'	13 <sup>h</sup> 21 <sup>m</sup>	+55° 17'	13 <sup>h</sup> 21 <sup>m</sup>	-10° 47'
Jan. I	2.196 <sup>358</sup>	40.80 <sup>200</sup>	34.446 <sup>394</sup>	3.43 <sup>180</sup>	3.512 <sup>496</sup>	30.97 <sup>171</sup>	25.789 <sup>343</sup>	22.53 <sup>209</sup>
II	2.554 <sup>351</sup>	42.80 <sup>214</sup>	34.840 <sup>385</sup>	5.23 <sup>209</sup>	4.008 <sup>498</sup>	29.26 <sup>112</sup>	26.132 <sup>336</sup>	24.62 <sup>210</sup>
21	2.905 <sup>332</sup>	44.94 <sup>222</sup>	35.225 <sup>365</sup>	7.32 <sup>230</sup>	4.506 <sup>483</sup>	28.14 <sup>50</sup>	26.468 <sup>320</sup>	26.72 <sup>204</sup>
31	3.237 <sup>306</sup>	47.16 <sup>222</sup>	35.590 <sup>337</sup>	9.62 <sup>245</sup>	4.989 <sup>452</sup>	27.64 <sup>13</sup>	26.788 <sup>296</sup>	28.76 <sup>193</sup>
Feb. 10	3.543 <sup>273</sup>	49.38 <sup>218</sup>	35.927 <sup>301</sup>	12.07 <sup>253</sup>	5.441 <sup>409</sup>	27.77 <sup>74</sup>	27.084 <sup>267</sup>	30.69 <sup>176</sup>
20	3.816 <sup>238</sup>	51.56 <sup>208</sup>	36.228 <sup>262</sup>	14.60 <sup>255</sup>	5.850 <sup>356</sup>	28.51 <sup>129</sup>	27.351 <sup>234</sup>	32.45 <sup>157</sup>
März 2	4.054 <sup>201</sup>	53.64 <sup>195</sup>	36.490 <sup>220</sup>	17.15 <sup>252</sup>	6.206 <sup>293</sup>	29.80 <sup>179</sup>	27.585 <sup>198</sup>	34.02 <sup>135</sup>
12	4.255 <sup>162</sup>	55.59 <sup>178</sup>	36.710 <sup>178</sup>	19.67 <sup>244</sup>	6.499 <sup>226</sup>	31.59 <sup>218</sup>	27.783 <sup>162</sup>	35.37 <sup>113</sup>
22	4.417 <sup>126</sup>	57.37 <sup>160</sup>	36.888 <sup>138</sup>	22.11 <sup>231</sup>	6.725 <sup>159</sup>	33.77 <sup>248</sup>	27.945 <sup>126</sup>	36.50 <sup>89</sup>
Apr. I	4.543 <sup>91</sup>	58.97 <sup>140</sup>	37.026 <sup>98</sup>	24.42 <sup>215</sup>	6.884 <sup>91</sup>	36.25 <sup>266</sup>	28.071 <sup>94</sup>	37.39 <sup>68</sup>
11	4.634 <sup>58</sup>	60.37 <sup>120</sup>	37.124 <sup>62</sup>	26.57 <sup>198</sup>	6.975 <sup>27</sup>	38.91 <sup>273</sup>	28.165 <sup>63</sup>	38.07 <sup>47</sup>
20	4.692 <sup>29</sup>	61.57 <sup>100</sup>	37.186 <sup>27</sup>	28.55 <sup>176</sup>	7.002 <sup>33</sup>	41.64 <sup>270</sup>	28.228 <sup>34</sup>	38.54 <sup>29</sup>
30	4.721 <sup>2</sup>	62.57 <sup>80</sup>	37.213 <sup>5</sup>	30.31 <sup>153</sup>	6.969 <sup>87</sup>	44.34 <sup>256</sup>	28.262 <sup>9</sup>	38.83 <sup>13</sup>
Mai 10	4.723 <sup>23</sup>	63.37 <sup>59</sup>	37.208 <sup>35</sup>	31.84 <sup>129</sup>	6.882 <sup>134</sup>	46.90 <sup>234</sup>	28.271 <sup>14</sup>	38.96 <sup>1</sup>
20	4.700 <sup>45</sup>	63.96 <sup>39</sup>	37.173 <sup>61</sup>	33.13 <sup>102</sup>	6.748 <sup>174</sup>	49.24 <sup>203</sup>	28.257 <sup>36</sup>	38.95 <sup>14</sup>
30	4.655 <sup>66</sup>	64.35 <sup>20</sup>	37.112 <sup>86</sup>	34.15 <sup>74</sup>	6.574 <sup>207</sup>	51.27 <sup>167</sup>	28.221 <sup>54</sup>	38.81 <sup>25</sup>
Juni 9	4.589 <sup>83</sup>	64.55 <sup>0</sup>	37.026 <sup>107</sup>	34.89 <sup>45</sup>	6.367 <sup>232</sup>	52.94 <sup>125</sup>	28.167 <sup>71</sup>	38.56 <sup>35</sup>
19	4.506 <sup>98</sup>	64.55 <sup>18</sup>	36.919 <sup>126</sup>	35.34 <sup>16</sup>	6.135 <sup>252</sup>	54.19 <sup>80</sup>	28.096 <sup>86</sup>	38.21 <sup>42</sup>
29	4.408 <sup>110</sup>	64.37 <sup>36</sup>	36.793 <sup>141</sup>	35.50 <sup>14</sup>	5.883 <sup>263</sup>	54.99 <sup>33</sup>	28.010 <sup>97</sup>	37.79 <sup>49</sup>
Juli 9	4.298 <sup>118</sup>	64.01 <sup>54</sup>	36.652 <sup>151</sup>	35.36 <sup>43</sup>	5.620 <sup>267</sup>	55.32 <sup>15</sup>	27.913 <sup>105</sup>	37.30 <sup>54</sup>
19	4.180 <sup>122</sup>	63.47 <sup>69</sup>	36.501 <sup>156</sup>	34.93 <sup>70</sup>	5.353 <sup>266</sup>	55.17 <sup>64</sup>	27.808 <sup>110</sup>	36.76 <sup>58</sup>
29	4.058 <sup>121</sup>	62.78 <sup>81</sup>	36.345 <sup>154</sup>	34.23 <sup>96</sup>	5.087 <sup>255</sup>	54.53 <sup>112</sup>	27.698 <sup>111</sup>	36.18 <sup>60</sup>
Aug. 8	3.937 <sup>115</sup>	61.97 <sup>91</sup>	36.191 <sup>146</sup>	33.27 <sup>118</sup>	4.832 <sup>238</sup>	53.41 <sup>157</sup>	27.587 <sup>105</sup>	35.58 <sup>58</sup>
18	3.822 <sup>101</sup>	61.06 <sup>98</sup>	36.045 <sup>130</sup>	32.09 <sup>136</sup>	4.594 <sup>213</sup>	51.84 <sup>200</sup>	27.482 <sup>93</sup>	35.00 <sup>54</sup>
28	3.721 <sup>80</sup>	60.08 <sup>100</sup>	35.915 <sup>105</sup>	30.73 <sup>148</sup>	4.381 <sup>181</sup>	49.84 <sup>240</sup>	27.389 <sup>76</sup>	34.46 <sup>47</sup>
Sept. 7	3.641 <sup>53</sup>	59.08 <sup>96</sup>	35.810 <sup>72</sup>	29.25 <sup>155</sup>	4.200 <sup>139</sup>	47.44 <sup>276</sup>	27.313 <sup>52</sup>	33.99 <sup>36</sup>
17	3.588 <sup>18</sup>	58.12 <sup>87</sup>	35.738 <sup>31</sup>	27.70 <sup>154</sup>	4.061 <sup>90</sup>	44.68 <sup>307</sup>	27.261 <sup>20</sup>	33.63 <sup>21</sup>
27	3.570 <sup>23</sup>	57.25 <sup>73</sup>	35.707 <sup>16</sup>	26.16 <sup>145</sup>	3.971 <sup>35</sup>	41.61 <sup>334</sup>	27.241 <sup>17</sup>	33.42 <sup>3</sup>
Okt. 7	3.593 <sup>69</sup>	56.52 <sup>52</sup>	35.723 <sup>70</sup>	24.71 <sup>129</sup>	3.936 <sup>28</sup>	38.27 <sup>353</sup>	27.258 <sup>59</sup>	33.39 <sup>19</sup>
17	3.662 <sup>118</sup>	56.00 <sup>27</sup>	35.793 <sup>126</sup>	23.42 <sup>106</sup>	3.964 <sup>96</sup>	34.74 <sup>366</sup>	27.317 <sup>106</sup>	33.58 <sup>45</sup>
27	3.780 <sup>169</sup>	55.73 <sup>2</sup>	35.919 <sup>183</sup>	22.36 <sup>76</sup>	4.060 <sup>166</sup>	31.08 <sup>371</sup>	27.423 <sup>154</sup>	34.03 <sup>73</sup>
Nov. 6	3.949 <sup>218</sup>	55.75 <sup>36</sup>	36.102 <sup>240</sup>	21.60 <sup>40</sup>	4.226 <sup>237</sup>	27.37 <sup>368</sup>	27.577 <sup>200</sup>	34.76 <sup>101</sup>
16	4.167 <sup>264</sup>	56.11 <sup>70</sup>	36.342 <sup>290</sup>	21.20 <sup>0</sup>	4.463 <sup>305</sup>	23.69 <sup>354</sup>	27.777 <sup>244</sup>	35.77 <sup>129</sup>
26	4.431 <sup>302</sup>	56.81 <sup>104</sup>	36.632 <sup>333</sup>	21.20 <sup>42</sup>	4.768 <sup>367</sup>	20.15 <sup>331</sup>	28.021 <sup>282</sup>	37.06 <sup>154</sup>
Dez. 6	4.733 <sup>332</sup>	57.85 <sup>136</sup>	36.965 <sup>366</sup>	21.62 <sup>83</sup>	5.135 <sup>420</sup>	16.84 <sup>299</sup>	28.303 <sup>313</sup>	38.60 <sup>177</sup>
16	5.065 <sup>353</sup>	59.21 <sup>165</sup>	37.331 <sup>388</sup>	22.45 <sup>124</sup>	5.555 <sup>461</sup>	13.85 <sup>257</sup>	28.616 <sup>333</sup>	40.37 <sup>194</sup>
26	5.418 <sup>362</sup>	60.86 <sup>189</sup>	37.719 <sup>398</sup>	23.69 <sup>160</sup>	6.016 <sup>489</sup>	11.28 <sup>207</sup>	28.949 <sup>344</sup>	42.31 <sup>205</sup>
36	5.780	62.75	38.117	25.29	6.505	9.21	29.293	44.36
Mittl. Ort	3.451	51.11	35.872	17.99	4.231	44.61	26.979	28.53
sec $\delta$ , tg $\delta$	1.085	-0.420	1.241	-0.736	1.756	+1.444	1.018	-0.191

Tag	499) Grb 200I		500) 69 H. Urs. maj.		501) ♀ Virginis		502) 17 H. Can. ven.	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	13 <sup>h</sup> 24 <sup>m</sup>	+72° 44'	13 <sup>h</sup> 25 <sup>m</sup>	+60° 18'	13 <sup>h</sup> 31 <sup>m</sup>	—0° 13'	13 <sup>h</sup> 31 <sup>m</sup>	+37° 32'
Jan. 1	18.83 <sub>84</sub>	79.51 <sub>141</sub>	50.21 <sub>55</sub>	29.10 <sub>168</sub>	3.253 <sub>336</sub>	58.65 <sub>214</sub>	36.758 <sub>387</sub>	34.38 <sub>207</sub>
11	19.67 <sub>85</sub>	78.10 <sub>75</sub>	50.76 <sub>56</sub>	27.42 <sub>107</sub>	3.589 <sub>332</sub>	60.79 <sub>204</sub>	37.145 <sub>388</sub>	32.31 <sub>160</sub>
21	20.52 <sub>84</sub>	77.35 <sub>9</sub>	51.32 <sub>54</sub>	26.35 <sub>42</sub>	3.921 <sub>319</sub>	62.83 <sub>187</sub>	37.533 <sub>377</sub>	30.71 <sub>107</sub>
31	21.36 <sub>79</sub>	77.26 <sub>58</sub>	51.86 <sub>51</sub>	25.93 <sub>23</sub>	4.240 <sub>297</sub>	64.70 <sub>164</sub>	37.910 <sub>354</sub>	29.64 <sub>53</sub>
Feb. 10	22.15 <sub>72</sub>	77.84 <sub>121</sub>	52.37 <sub>46</sub>	26.16 <sub>85</sub>	4.537 <sub>270</sub>	66.34 <sub>139</sub>	38.264 <sub>322</sub>	29.11 <sub>2</sub>
20	22.87 <sub>62</sub>	79.05 <sub>177</sub>	52.83 <sub>40</sub>	27.01 <sub>142</sub>	4.807 <sub>238</sub>	67.73 <sub>110</sub>	38.586 <sub>283</sub>	29.13 <sub>55</sub>
März 2	23.49 <sub>51</sub>	80.82 <sub>224</sub>	53.23 <sub>33</sub>	28.43 <sub>191</sub>	5.045 <sub>203</sub>	68.83 <sub>81</sub>	38.869 <sub>239</sub>	29.68 <sub>102</sub>
12	24.00 <sub>38</sub>	83.06 <sub>262</sub>	53.56 <sub>26</sub>	30.34 <sub>231</sub>	5.248 <sub>168</sub>	69.64 <sub>53</sub>	39.108 <sub>193</sub>	30.70 <sub>143</sub>
22	24.38 <sub>25</sub>	85.68 <sub>288</sub>	53.82 <sub>18</sub>	32.66 <sub>261</sub>	5.416 <sub>133</sub>	70.17 <sub>26</sub>	39.301 <sub>146</sub>	32.13 <sub>177</sub>
Apr. 1	24.63 <sub>12</sub>	88.56 <sub>302</sub>	54.00 <sub>10</sub>	35.27 <sub>280</sub>	5.549 <sub>100</sub>	70.43 <sub>3</sub>	39.447 <sub>100</sub>	33.90 <sub>201</sub>
11	24.75 <sub>1</sub>	91.58 <sub>304</sub>	54.10 <sub>3</sub>	38.07 <sub>286</sub>	5.649 <sub>69</sub>	70.46 <sub>17</sub>	39.547 <sub>56</sub>	35.91 <sub>215</sub>
20	24.74 <sub>14</sub>	94.62 <sub>293</sub>	54.13 <sub>4</sub>	40.93 <sub>281</sub>	5.718 <sub>41</sub>	70.29 <sub>34</sub>	39.603 <sub>15</sub>	38.06 <sub>221</sub>
30	24.60 <sub>25</sub>	97.55 <sub>273</sub>	54.09 <sub>11</sub>	43.74 <sub>266</sub>	5.759 <sub>15</sub>	69.95 <sub>47</sub>	39.618 <sub>20</sub>	40.27 <sub>217</sub>
Mai 10	24.35 <sub>35</sub>	100.28 <sub>242</sub>	53.98 <sub>17</sub>	46.40 <sub>242</sub>	5.774 <sub>9</sub>	69.48 <sub>56</sub>	39.598 <sub>53</sub>	42.44 <sub>206</sub>
20	24.00 <sub>44</sub>	102.70 <sub>205</sub>	53.81 <sub>21</sub>	48.82 <sub>210</sub>	5.765 <sub>31</sub>	68.92 <sub>61</sub>	39.545 <sub>82</sub>	44.50 <sub>188</sub>
30	23.56 <sub>50</sub>	104.75 <sub>161</sub>	53.60 <sub>25</sub>	50.92 <sub>172</sub>	5.734 <sub>90</sub>	68.31 <sub>64</sub>	39.463 <sub>107</sub>	46.38 <sub>163</sub>
Juni 9	23.06 <sub>55</sub>	106.36 <sub>112</sub>	53.35 <sub>29</sub>	52.64 <sub>127</sub>	5.684 <sub>67</sub>	67.67 <sub>65</sub>	39.356 <sub>127</sub>	48.01 <sub>133</sub>
19	22.51 <sub>60</sub>	107.48 <sub>60</sub>	53.06 <sub>30</sub>	53.91 <sub>81</sub>	5.617 <sub>81</sub>	67.02 <sub>63</sub>	39.229 <sub>143</sub>	49.34 <sub>100</sub>
29	21.91 <sub>61</sub>	108.08 <sub>6</sub>	52.76 <sub>32</sub>	54.72 <sub>31</sub>	5.536 <sub>94</sub>	66.39 <sub>59</sub>	39.086 <sub>155</sub>	50.34 <sub>64</sub>
Juli 9	21.30 <sub>62</sub>	108.14 <sub>48</sub>	52.44 <sub>33</sub>	55.03 <sub>20</sub>	5.442 <sub>104</sub>	65.80 <sub>54</sub>	38.931 <sub>163</sub>	50.98 <sub>25</sub>
19	20.68 <sub>61</sub>	107.66 <sub>101</sub>	52.11 <sub>33</sub>	54.83 <sub>70</sub>	5.338 <sub>109</sub>	65.26 <sub>46</sub>	38.768 <sub>166</sub>	51.23 <sub>13</sub>
29	20.07 <sub>58</sub>	106.65 <sub>152</sub>	51.78 <sub>31</sub>	54.13 <sub>119</sub>	5.229 <sub>110</sub>	64.80 <sub>38</sub>	38.602 <sub>163</sub>	51.10 <sub>53</sub>
Aug. 8	19.49 <sub>54</sub>	105.13 <sub>201</sub>	51.47 <sub>29</sub>	52.94 <sub>167</sub>	5.119 <sub>106</sub>	64.42 <sub>27</sub>	38.439 <sub>156</sub>	50.57 <sub>92</sub>
18	18.95 <sub>49</sub>	103.12 <sub>245</sub>	51.18 <sub>27</sub>	51.27 <sub>211</sub>	5.013 <sub>97</sub>	64.15 <sub>15</sub>	38.283 <sub>142</sub>	49.65 <sub>130</sub>
28	18.46 <sub>42</sub>	100.67 <sub>285</sub>	50.91 <sub>23</sub>	49.16 <sub>252</sub>	4.916 <sub>81</sub>	64.00 <sub>1</sub>	38.141 <sub>121</sub>	48.35 <sub>167</sub>
Sept. 7	18.04 <sub>34</sub>	97.82 <sub>321</sub>	50.68 <sub>18</sub>	46.64 <sub>288</sub>	4.835 <sub>59</sub>	64.01 <sub>17</sub>	38.020 <sub>93</sub>	46.68 <sub>202</sub>
17	17.70 <sub>25</sub>	94.61 <sub>349</sub>	50.50 <sub>12</sub>	43.76 <sub>320</sub>	4.776 <sub>29</sub>	64.18 <sub>38</sub>	37.927 <sub>59</sub>	44.66 <sub>233</sub>
27	17.45 <sub>15</sub>	91.12 <sub>372</sub>	50.38 <sub>6</sub>	40.56 <sub>346</sub>	4.747 <sub>6</sub>	64.56 <sub>59</sub>	37.868 <sub>18</sub>	42.33 <sub>263</sub>
Okt. 7	17.30 <sub>3</sub>	87.40 <sub>387</sub>	50.32 <sub>1</sub>	37.10 <sub>366</sub>	4.753 <sub>47</sub>	65.15 <sub>83</sub>	37.850 <sub>29</sub>	39.70 <sub>287</sub>
17	17.27 <sub>9</sub>	83.53 <sub>393</sub>	50.33 <sub>8</sub>	33.44 <sub>377</sub>	4.800 <sub>92</sub>	65.98 <sub>109</sub>	37.879 <sub>81</sub>	36.83 <sub>307</sub>
27	17.36 <sub>22</sub>	79.60 <sub>392</sub>	50.41 <sub>17</sub>	29.67 <sub>380</sub>	4.892 <sub>139</sub>	67.07 <sub>133</sub>	37.960 <sub>135</sub>	33.76 <sub>321</sub>
Nov. 6	17.58 <sub>35</sub>	75.68 <sub>381</sub>	50.58 <sub>24</sub>	25.87 <sub>376</sub>	5.031 <sub>185</sub>	68.40 <sub>157</sub>	38.095 <sub>190</sub>	30.55 <sub>328</sub>
16	17.93 <sub>47</sub>	71.87 <sub>359</sub>	50.82 <sub>32</sub>	22.11 <sub>360</sub>	5.216 <sub>229</sub>	69.97 <sub>179</sub>	38.285 <sub>243</sub>	27.27 <sub>327</sub>
26	18.40 <sub>58</sub>	68.28 <sub>328</sub>	51.14 <sub>40</sub>	18.51 <sub>336</sub>	5.445 <sub>268</sub>	71.76 <sub>198</sub>	38.528 <sub>290</sub>	24.00 <sub>318</sub>
Dez. 6	18.98 <sub>68</sub>	65.00 <sub>288</sub>	51.54 <sub>46</sub>	15.15 <sub>301</sub>	5.713 <sub>300</sub>	73.74 <sub>211</sub>	38.818 <sub>331</sub>	20.82 <sub>299</sub>
16	19.66 <sub>76</sub>	62.12 <sub>237</sub>	52.00 <sub>50</sub>	12.14 <sub>257</sub>	6.013 <sub>322</sub>	75.85 <sub>218</sub>	39.149 <sub>362</sub>	17.83 <sub>270</sub>
26	20.42 <sub>82</sub>	59.75 <sub>181</sub>	52.50 <sub>54</sub>	9.57 <sub>205</sub>	6.335 <sub>336</sub>	78.03 <sub>218</sub>	39.511 <sub>383</sub>	15.13 <sub>235</sub>
36	21.24	57.94	53.04	7.52	6.671	80.21	39.894	12.78
Mittl. Ort	19.29	95.44	50.92	43.61	4.419	60.70	37.691	44.24
see $\delta$ , tg $\delta$	3.374	+3.222	2.019	+1.754	1.000	-0.004	1.261	+0.769

Tag	504) ε Centauri		507) τ Bootis		509) γ Ursae maj.		510) 89 Virginis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	13 <sup>h</sup> 35 <sup>m</sup>	−53° 6′	13 <sup>h</sup> 43 <sup>m</sup>	+17° 48′	13 <sup>h</sup> 44 <sup>m</sup>	+49° 39′	13 <sup>h</sup> 45 <sup>m</sup>	−17° 46′
Jan. I	20.581 <sup>496</sup>	4.05 <sup>126</sup>	52.164 <sup>342</sup>	31.43 <sup>222</sup>	43.781 <sup>441</sup>	48.59 <sup>206</sup>	59.192 <sup>349</sup>	44.44 <sup>190</sup>
II	21.077 <sup>490</sup>	5.31 <sup>170</sup>	52.506 <sup>341</sup>	29.21 <sup>194</sup>	44.222 <sup>447</sup>	46.53 <sup>151</sup>	59.541 <sup>347</sup>	46.34 <sup>198</sup>
21	21.567 <sup>470</sup>	7.01 <sup>207</sup>	52.847 <sup>332</sup>	27.27 <sup>159</sup>	44.669 <sup>440</sup>	45.02 <sup>91</sup>	59.888 <sup>335</sup>	48.32 <sup>202</sup>
31	22.037 <sup>439</sup>	9.08 <sup>239</sup>	53.179 <sup>312</sup>	25.68 <sup>118</sup>	45.109 <sup>418</sup>	44.11 <sup>29</sup>	60.223 <sup>315</sup>	50.34 <sup>199</sup>
Feb. 10	22.476 <sup>400</sup>	11.47 <sup>265</sup>	53.491 <sup>287</sup>	24.50 <sup>77</sup>	45.527 <sup>385</sup>	43.82 <sup>32</sup>	60.538 <sup>289</sup>	52.33 <sup>190</sup>
20	22.876 <sup>353</sup>	14.12 <sup>282</sup>	53.778 <sup>255</sup>	23.73 <sup>34</sup>	45.912 <sup>342</sup>	44.14 <sup>90</sup>	60.827 <sup>257</sup>	54.23 <sup>178</sup>
März 2	23.229 <sup>304</sup>	16.94 <sup>294</sup>	54.033 <sup>219</sup>	23.39 <sup>6</sup>	46.254 <sup>292</sup>	45.04 <sup>142</sup>	61.084 <sup>225</sup>	56.01 <sup>162</sup>
12	23.533 <sup>252</sup>	19.88 <sup>299</sup>	54.252 <sup>183</sup>	23.45 <sup>43</sup>	46.546 <sup>237</sup>	46.46 <sup>186</sup>	61.309 <sup>190</sup>	57.63 <sup>144</sup>
22	23.785 <sup>200</sup>	22.87 <sup>297</sup>	54.435 <sup>146</sup>	23.88 <sup>76</sup>	46.783 <sup>179</sup>	48.32 <sup>222</sup>	61.499 <sup>155</sup>	59.07 <sup>125</sup>
Apr. I	23.985 <sup>148</sup>	25.84 <sup>291</sup>	54.581 <sup>110</sup>	24.64 <sup>103</sup>	46.962 <sup>122</sup>	50.54 <sup>246</sup>	61.654 <sup>122</sup>	60.32 <sup>106</sup>
II	24.133 <sup>98</sup>	28.75 <sup>279</sup>	54.691 <sup>76</sup>	25.67 <sup>122</sup>	47.084 <sup>67</sup>	53.00 <sup>261</sup>	61.776 <sup>91</sup>	61.38 <sup>87</sup>
20	24.231 <sup>49</sup>	31.54 <sup>262</sup>	54.767 <sup>44</sup>	26.89 <sup>136</sup>	47.151 <sup>13</sup>	55.61 <sup>264</sup>	61.867 <sup>62</sup>	62.25 <sup>69</sup>
30	24.280 <sup>2</sup>	34.16 <sup>241</sup>	54.811 <sup>15</sup>	28.25 <sup>142</sup>	47.164 <sup>35</sup>	58.25 <sup>257</sup>	61.929 <sup>33</sup>	62.94 <sup>52</sup>
Mai 10	24.282 <sup>42</sup>	36.57 <sup>216</sup>	54.826 <sup>12</sup>	29.67 <sup>142</sup>	47.129 <sup>79</sup>	60.82 <sup>242</sup>	61.962 <sup>7</sup>	63.46 <sup>35</sup>
20	24.240 <sup>83</sup>	38.73 <sup>186</sup>	54.814 <sup>36</sup>	31.09 <sup>137</sup>	47.050 <sup>118</sup>	63.24 <sup>218</sup>	61.969 <sup>18</sup>	63.81 <sup>21</sup>
30	24.157 <sup>123</sup>	40.59 <sup>153</sup>	54.778 <sup>57</sup>	32.46 <sup>127</sup>	46.932 <sup>151</sup>	65.42 <sup>187</sup>	61.951 <sup>40</sup>	64.02 <sup>6</sup>
Juni 9	24.034 <sup>159</sup>	42.12 <sup>118</sup>	54.721 <sup>77</sup>	33.73 <sup>113</sup>	46.781 <sup>179</sup>	67.29 <sup>151</sup>	61.911 <sup>61</sup>	64.08 <sup>7</sup>
19	23.875 <sup>189</sup>	43.30 <sup>79</sup>	54.644 <sup>93</sup>	34.86 <sup>95</sup>	46.602 <sup>201</sup>	68.80 <sup>111</sup>	61.850 <sup>81</sup>	64.01 <sup>20</sup>
29	23.686 <sup>214</sup>	44.09 <sup>38</sup>	54.551 <sup>107</sup>	35.81 <sup>75</sup>	46.401 <sup>218</sup>	69.91 <sup>66</sup>	61.769 <sup>97</sup>	63.81 <sup>33</sup>
Juli 9	23.472 <sup>233</sup>	44.47 <sup>2</sup>	54.444 <sup>117</sup>	36.56 <sup>53</sup>	46.183 <sup>229</sup>	70.57 <sup>21</sup>	61.672 <sup>110</sup>	63.48 <sup>43</sup>
19	23.239 <sup>243</sup>	44.45 <sup>43</sup>	54.327 <sup>124</sup>	37.09 <sup>28</sup>	45.954 <sup>233</sup>	70.78 <sup>25</sup>	61.562 <sup>120</sup>	63.05 <sup>53</sup>
29	22.996 <sup>245</sup>	44.02 <sup>83</sup>	54.203 <sup>126</sup>	37.37 <sup>3</sup>	45.721 <sup>232</sup>	70.53 <sup>71</sup>	61.442 <sup>123</sup>	62.52 <sup>62</sup>
Aug. 8	22.751 <sup>236</sup>	43.19 <sup>120</sup>	54.077 <sup>133</sup>	37.40 <sup>23</sup>	45.489 <sup>222</sup>	69.82 <sup>117</sup>	61.319 <sup>122</sup>	61.90 <sup>67</sup>
18	22.515 <sup>216</sup>	41.99 <sup>153</sup>	53.954 <sup>115</sup>	37.17 <sup>50</sup>	45.267 <sup>206</sup>	68.65 <sup>161</sup>	61.197 <sup>114</sup>	61.23 <sup>70</sup>
28	22.299 <sup>185</sup>	40.46 <sup>180</sup>	53.839 <sup>99</sup>	36.67 <sup>78</sup>	45.061 <sup>181</sup>	67.04 <sup>203</sup>	61.083 <sup>99</sup>	60.53 <sup>69</sup>
Sept. 7	22.114 <sup>141</sup>	38.66 <sup>201</sup>	53.740 <sup>78</sup>	35.89 <sup>105</sup>	44.880 <sup>150</sup>	65.01 <sup>241</sup>	60.984 <sup>76</sup>	59.84 <sup>66</sup>
17	21.973 <sup>88</sup>	36.65 <sup>213</sup>	53.662 <sup>50</sup>	34.84 <sup>134</sup>	44.730 <sup>109</sup>	62.60 <sup>275</sup>	60.908 <sup>45</sup>	59.18 <sup>56</sup>
27	21.885 <sup>24</sup>	34.52 <sup>217</sup>	53.612 <sup>14</sup>	33.50 <sup>160</sup>	44.621 <sup>61</sup>	59.85 <sup>306</sup>	60.863 <sup>7</sup>	58.62 <sup>42</sup>
Okt. 7	21.861 <sup>46</sup>	32.35 <sup>211</sup>	53.598 <sup>26</sup>	31.90 <sup>187</sup>	44.560 <sup>6</sup>	56.79 <sup>331</sup>	60.856 <sup>35</sup>	58.20 <sup>24</sup>
17	21.907 <sup>122</sup>	30.24 <sup>196</sup>	53.624 <sup>72</sup>	30.03 <sup>211</sup>	44.554 <sup>54</sup>	53.48 <sup>349</sup>	60.891 <sup>84</sup>	57.96 <sup>2</sup>
27	22.029 <sup>198</sup>	28.28 <sup>171</sup>	53.696 <sup>120</sup>	27.92 <sup>232</sup>	44.608 <sup>118</sup>	49.99 <sup>300</sup>	60.975 <sup>134</sup>	57.94 <sup>24</sup>
Nov. 6	22.227 <sup>273</sup>	26.57 <sup>137</sup>	53.816 <sup>168</sup>	25.60 <sup>250</sup>	44.726 <sup>184</sup>	46.39 <sup>304</sup>	61.109 <sup>185</sup>	58.18 <sup>53</sup>
16	22.500 <sup>341</sup>	25.20 <sup>97</sup>	53.984 <sup>215</sup>	23.10 <sup>262</sup>	44.910 <sup>247</sup>	42.75 <sup>358</sup>	61.294 <sup>231</sup>	58.71 <sup>83</sup>
26	22.841 <sup>400</sup>	24.23 <sup>51</sup>	54.199 <sup>258</sup>	20.48 <sup>267</sup>	45.157 <sup>307</sup>	39.17 <sup>343</sup>	61.525 <sup>273</sup>	59.54 <sup>112</sup>
Dez. 6	23.241 <sup>447</sup>	23.72 <sup>2</sup>	54.457 <sup>293</sup>	17.81 <sup>266</sup>	45.464 <sup>359</sup>	35.74 <sup>317</sup>	61.798 <sup>308</sup>	60.66 <sup>139</sup>
16	23.688 <sup>479</sup>	23.70 <sup>48</sup>	54.750 <sup>320</sup>	15.15 <sup>256</sup>	45.823 <sup>401</sup>	32.57 <sup>282</sup>	62.106 <sup>333</sup>	62.05 <sup>103</sup>
26	24.167 <sup>497</sup>	24.18 <sup>98</sup>	55.070 <sup>338</sup>	12.59 <sup>238</sup>	46.224 <sup>430</sup>	29.75 <sup>238</sup>	62.439 <sup>348</sup>	63.68 <sup>182</sup>
36	24.664	25.16	55.408	10.21	46.654	27.37	62.787	65.50
Mittl. Ort sec δ, tg δ	22.547 1.666	22.31 −1.332	53.285 1.050	35.75 +0.321	44.736 1.545	61.40 +1.178	60.597 1.050	52.02 −0.321



Tag	512) $\zeta$ Centauri			513) $\eta$ Bootis			517) $\Pi$ Bootis			516) $\tau$ Virginis		
	AR.	Dekl.		AR.	Dekl.		AR.	Dekl.		AR.	Dekl.	
1929	13 <sup>h</sup> 51 <sup>m</sup>	-46° 56'		13 <sup>h</sup> 51 <sup>m</sup>	+18° 44'		13 <sup>h</sup> 57 <sup>m</sup>	+27° 43'		13 <sup>h</sup> 58 <sup>m</sup>	+1° 52'	
Jan. I	4.010	6.97	122	17.091	65.89	228	56.229	36.14	230	0.594	74.97	215
II	4.460 <sup>450</sup>	8.19	161	17.432 <sup>341</sup>	63.61	197	56.582 <sup>353</sup>	33.84	193	0.926 <sup>332</sup>	72.82	202
21	4.907 <sup>447</sup>	9.80	195	17.775 <sup>343</sup>	61.64	161	56.939 <sup>357</sup>	31.91	148	1.259 <sup>333</sup>	70.80	184
31	5.340 <sup>433</sup>	11.75	221	18.110 <sup>335</sup>	60.03	120	57.289 <sup>350</sup>	30.43	100	1.584 <sup>308</sup>	68.96	160
Feb. 10	5.749 <sup>409</sup>	13.96	243	18.427 <sup>317</sup>	58.83	78	57.624 <sup>335</sup>	29.43	50	1.892 <sup>305</sup>	67.36	132
20	6.125 <sup>376</sup>	16.39	257	18.719 <sup>292</sup>	58.05	34	57.934 <sup>310</sup>	28.93	0	2.177 <sup>285</sup>	66.04	102
März 2	6.463 <sup>338</sup>	18.96	265	18.981 <sup>262</sup>	57.71	8	58.212 <sup>278</sup>	28.93	0	2.434 <sup>257</sup>	65.02	71
12	6.759 <sup>296</sup>	21.61	269	19.208 <sup>227</sup>	57.79	46	58.455 <sup>243</sup>	29.39	88	2.659 <sup>225</sup>	64.31	41
22	7.010 <sup>251</sup>	24.30	266	19.399 <sup>194</sup>	58.25	79	58.660 <sup>205</sup>	30.27	125	2.851 <sup>192</sup>	63.90	13
Apr. I	7.216 <sup>206</sup>	26.96	259	19.553 <sup>158</sup>	59.04	106	58.825 <sup>166</sup>	31.52	154	3.010 <sup>159</sup>	63.77	13
II	7.377 <sup>118</sup>	29.55	248	19.671 <sup>84</sup>	60.10	127	58.951 <sup>89</sup>	33.06	174	3.137 <sup>127</sup>	63.90	33
20 <sup>*)</sup>	7.495 <sup>76</sup>	32.03	233	19.755 <sup>52</sup>	61.37	141	59.040 <sup>53</sup>	34.80	186	3.233 <sup>96</sup>	64.23	50
30	7.571 <sup>34</sup>	34.36	213	19.807 <sup>22</sup>	62.78	148	59.093 <sup>19</sup>	36.66	191	3.299 <sup>66</sup>	64.73	62
Mai 10	7.605 <sup>6</sup>	36.49	191	19.829 <sup>6</sup>	64.26	148	59.112 <sup>11</sup>	38.57	188	3.338 <sup>39</sup>	65.35	71
20	7.599 <sup>44</sup>	38.40	166	19.823 <sup>31</sup>	65.74	142	59.101 <sup>39</sup>	40.45	177	3.352 <sup>11</sup>	66.06	75
30	7.555 <sup>79</sup>	40.06	138	19.792 <sup>53</sup>	67.16	132	59.062 <sup>64</sup>	42.22	161	3.341 <sup>64</sup>	66.81	77
Juni 9	7.476 <sup>113</sup>	41.44	106	19.739 <sup>74</sup>	68.48	117	58.998 <sup>87</sup>	43.83	141	3.308 <sup>87</sup>	67.58	75
19	7.363 <sup>143</sup>	42.50	73	19.665 <sup>91</sup>	69.65	100	58.911 <sup>107</sup>	45.24	115	3.254 <sup>115</sup>	68.33	71
29	7.220 <sup>168</sup>	43.23	38	19.574 <sup>106</sup>	70.65	78	58.804 <sup>123</sup>	46.39	87	3.181 <sup>89</sup>	69.04	64
Juli 9	7.052 <sup>188</sup>	43.61	2	19.468 <sup>118</sup>	71.43	55	58.681 <sup>135</sup>	47.26	56	3.092 <sup>102</sup>	69.68	56
19	6.864 <sup>202</sup>	43.63	34	19.350 <sup>126</sup>	71.98	30	58.546 <sup>144</sup>	47.82	24	2.990 <sup>112</sup>	70.24	47
29	6.662 <sup>208</sup>	43.29	69	19.224 <sup>129</sup>	72.28	3	58.402 <sup>148</sup>	48.06	10	2.878 <sup>117</sup>	70.71	35
Aug. 8	6.454 <sup>204</sup>	42.60	101	19.095 <sup>127</sup>	72.31	24	58.254 <sup>147</sup>	47.96	44	2.761 <sup>118</sup>	71.06	22
18	6.250 <sup>192</sup>	41.59	130	18.968 <sup>120</sup>	72.07	51	58.107 <sup>138</sup>	47.52	79	2.643 <sup>112</sup>	71.28	8
28	6.058 <sup>168</sup>	40.29	155	18.848 <sup>106</sup>	71.56	81	57.969 <sup>124</sup>	46.73	112	2.531 <sup>100</sup>	71.36	9
Sept. 7	5.890 <sup>133</sup>	38.74	173	18.742 <sup>84</sup>	70.75	109	57.845 <sup>102</sup>	45.61	145	2.431 <sup>80</sup>	71.27	27
17	5.757 <sup>89</sup>	37.01	185	18.658 <sup>57</sup>	69.66	137	57.743 <sup>74</sup>	44.16	178	2.351 <sup>53</sup>	71.00	47
27	5.668 <sup>35</sup>	35.16	188	18.601 <sup>22</sup>	68.29	165	57.669 <sup>38</sup>	42.38	208	2.298 <sup>20</sup>	70.53	70
Okt. 7	5.633 <sup>26</sup>	33.28	182	18.579 <sup>19</sup>	66.64	191	57.631 <sup>4</sup>	40.30	235	2.278 <sup>20</sup>	69.83	93
17	5.659 <sup>93</sup>	31.46	169	18.598 <sup>64</sup>	64.73	216	57.635 <sup>52</sup>	37.95	260	2.298 <sup>64</sup>	68.90	117
27	5.752 <sup>162</sup>	29.77	146	18.662 <sup>112</sup>	62.57	238	57.687 <sup>102</sup>	35.35	280	2.362 <sup>112</sup>	67.73	142
Nov. 6	5.914 <sup>230</sup>	28.31	115	18.774 <sup>162</sup>	60.19	255	57.789 <sup>154</sup>	32.55	294	2.474 <sup>160</sup>	66.31	165
16	6.144 <sup>293</sup>	27.16	78	18.936 <sup>209</sup>	57.64	267	57.943 <sup>205</sup>	29.61	302	2.634 <sup>205</sup>	64.66	186
26	6.437 <sup>349</sup>	26.38	37	19.145 <sup>252</sup>	54.97	273	58.148 <sup>251</sup>	26.59	302	2.839 <sup>248</sup>	62.80	203
Dez. 6	6.786 <sup>394</sup>	26.01	8	19.397 <sup>289</sup>	52.24	271	58.399 <sup>292</sup>	23.57	294	3.087 <sup>284</sup>	60.77	214
16	7.180 <sup>428</sup>	26.09	53	19.686 <sup>318</sup>	49.53	260	58.691 <sup>323</sup>	20.63	277	3.371 <sup>310</sup>	58.63	220
26	7.608 <sup>448</sup>	26.62	97	20.004 <sup>337</sup>	46.93	243	59.014 <sup>346</sup>	17.86	251	3.681 <sup>328</sup>	56.43	220
36	8.056	27.59		20.341	44.50		59.360	15.35		4.009	54.23	
Mittl. Ort	5.946	23.01		18.249	70.64		57.377	43.70		1.897	74.40	
sec $\delta$ , tg $\delta$	1.465	-1.070		1.056	+0.340		1.130	+0.526		1.000	+0.033	

\*) Bei Stern 517) und 516) lies April 21

Tag	518) $\beta$ Centauri		521) $\alpha$ Draconis		520) $\theta$ Centauri		522) $d$ Bootis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	13 <sup>h</sup> 58 <sup>m</sup>	-6° 1'	14 <sup>h</sup> 2 <sup>m</sup>	+64° 42'	14 <sup>h</sup> 2 <sup>m</sup>	-36° 1'	14 <sup>h</sup> 7 <sup>m</sup>	+25° 25'
Jan. I	45.23 <sup>58</sup>	34.98 <sup>78</sup>	26.89 <sup>59</sup>	37.97 <sup>205</sup>	27.985 <sup>392</sup>	5.04 <sup>140</sup>	8.488 <sup>345</sup>	31.11 <sup>235</sup>
II	45.81 <sup>58</sup>	35.76 <sup>127</sup>	27.48 <sup>61</sup>	35.92 <sup>143</sup>	28.377 <sup>393</sup>	6.44 <sup>168</sup>	8.833 <sup>351</sup>	28.76 <sup>200</sup>
2I	46.39 <sup>56</sup>	37.03 <sup>171</sup>	28.09 <sup>61</sup>	34.49 <sup>78</sup>	28.770 <sup>383</sup>	8.12 <sup>191</sup>	9.184 <sup>347</sup>	26.76 <sup>158</sup>
3I	46.95 <sup>53</sup>	38.74 <sup>210</sup>	28.70 <sup>60</sup>	33.71 <sup>10</sup>	29.153 <sup>364</sup>	10.03 <sup>208</sup>	9.531 <sup>332</sup>	25.18 <sup>111</sup>
Feb. 10	47.48 <sup>49</sup>	40.84 <sup>243</sup>	29.30 <sup>56</sup>	33.61 <sup>55</sup>	29.517 <sup>338</sup>	12.11 <sup>220</sup>	9.863 <sup>309</sup>	24.07 <sup>63</sup>
20	47.97 <sup>45</sup>	43.27 <sup>269</sup>	29.86 <sup>50</sup>	34.16 <sup>117</sup>	29.855 <sup>305</sup>	14.31 <sup>225</sup>	10.172 <sup>281</sup>	23.44 <sup>14</sup>
März 2	48.42 <sup>40</sup>	45.96 <sup>289</sup>	30.36 <sup>43</sup>	35.33 <sup>173</sup>	30.160 <sup>270</sup>	16.56 <sup>225</sup>	10.453 <sup>247</sup>	23.30 <sup>32</sup>
12	48.82 <sup>34</sup>	48.85 <sup>302</sup>	30.79 <sup>36</sup>	37.06 <sup>220</sup>	30.430 <sup>232</sup>	18.81 <sup>222</sup>	10.700 <sup>210</sup>	23.62 <sup>75</sup>
22	49.16 <sup>27</sup>	51.87 <sup>308</sup>	31.15 <sup>27</sup>	39.26 <sup>257</sup>	30.662 <sup>195</sup>	21.03 <sup>214</sup>	10.910 <sup>173</sup>	24.37 <sup>111</sup>
Apr. I	49.43 <sup>22</sup>	54.95 <sup>308</sup>	31.42 <sup>18</sup>	41.83 <sup>282</sup>	30.857 <sup>158</sup>	23.17 <sup>204</sup>	11.083 <sup>135</sup>	25.48 <sup>141</sup>
II	49.65 <sup>16</sup>	58.03 <sup>304</sup>	31.60 <sup>9</sup>	44.65 <sup>297</sup>	31.015 <sup>121</sup>	25.21 <sup>190</sup>	11.218 <sup>99</sup>	26.89 <sup>163</sup>
2I	49.81 <sup>9</sup>	61.07 <sup>292</sup>	31.69 <sup>1</sup>	47.62 <sup>299</sup>	31.136 <sup>86</sup>	27.11 <sup>175</sup>	11.317 <sup>64</sup>	28.52 <sup>177</sup>
30	49.90 <sup>4</sup>	63.99 <sup>276</sup>	31.70 <sup>7</sup>	50.61 <sup>289</sup>	31.222 <sup>52</sup>	28.86 <sup>157</sup>	11.381 <sup>31</sup>	30.29 <sup>184</sup>
Mai 10	49.94 <sup>2</sup>	66.75 <sup>254</sup>	31.63 <sup>15</sup>	53.50 <sup>271</sup>	31.274 <sup>18</sup>	30.43 <sup>139</sup>	11.412 <sup>0</sup>	32.13 <sup>183</sup>
20	49.92 <sup>8</sup>	69.29 <sup>227</sup>	31.48 <sup>22</sup>	56.21 <sup>243</sup>	31.292 <sup>14</sup>	31.82 <sup>117</sup>	11.412 <sup>27</sup>	33.96 <sup>174</sup>
30	49.84 <sup>13</sup>	71.56 <sup>197</sup>	31.26 <sup>27</sup>	58.64 <sup>208</sup>	31.278 <sup>44</sup>	32.99 <sup>94</sup>	11.385 <sup>54</sup>	35.70 <sup>160</sup>
Juni 9	49.71 <sup>18</sup>	73.53 <sup>161</sup>	30.99 <sup>32</sup>	60.72 <sup>166</sup>	31.234 <sup>73</sup>	33.93 <sup>71</sup>	11.331 <sup>77</sup>	37.30 <sup>142</sup>
19	49.53 <sup>22</sup>	75.14 <sup>123</sup>	30.67 <sup>36</sup>	62.38 <sup>121</sup>	31.161 <sup>100</sup>	34.64 <sup>45</sup>	11.254 <sup>98</sup>	38.72 <sup>119</sup>
29	49.31 <sup>26</sup>	76.37 <sup>80</sup>	30.31 <sup>39</sup>	63.59 <sup>70</sup>	31.051 <sup>123</sup>	35.09 <sup>19</sup>	11.156 <sup>115</sup>	39.91 <sup>92</sup>
Juli 9	49.05 <sup>29</sup>	77.17 <sup>37</sup>	29.92 <sup>41</sup>	64.29 <sup>19</sup>	30.938 <sup>142</sup>	35.28 <sup>7</sup>	11.041 <sup>130</sup>	40.83 <sup>63</sup>
19	48.76 <sup>31</sup>	77.54 <sup>8</sup>	29.51 <sup>42</sup>	64.48 <sup>34</sup>	30.796 <sup>157</sup>	35.21 <sup>34</sup>	10.911 <sup>140</sup>	41.46 <sup>32</sup>
29	48.45 <sup>32</sup>	77.46 <sup>53</sup>	29.09 <sup>41</sup>	64.14 <sup>85</sup>	30.639 <sup>164</sup>	34.87 <sup>59</sup>	10.771 <sup>146</sup>	41.78 <sup>0</sup>
Aug. 8	48.13 <sup>31</sup>	76.93 <sup>96</sup>	28.68 <sup>40</sup>	63.29 <sup>135</sup>	30.475 <sup>165</sup>	34.28 <sup>82</sup>	10.625 <sup>146</sup>	41.78 <sup>32</sup>
18	47.82 <sup>29</sup>	75.97 <sup>136</sup>	28.28 <sup>39</sup>	61.94 <sup>184</sup>	30.310 <sup>157</sup>	33.46 <sup>103</sup>	10.479 <sup>140</sup>	41.46 <sup>65</sup>
28	47.53 <sup>26</sup>	74.61 <sup>171</sup>	27.89 <sup>35</sup>	60.10 <sup>229</sup>	30.153 <sup>141</sup>	32.43 <sup>119</sup>	10.339 <sup>126</sup>	40.81 <sup>99</sup>
Sept. 7	47.27 <sup>22</sup>	72.90 <sup>200</sup>	27.54 <sup>29</sup>	57.81 <sup>271</sup>	30.012 <sup>114</sup>	31.24 <sup>131</sup>	10.213 <sup>107</sup>	39.82 <sup>132</sup>
17	47.05 <sup>16</sup>	70.90 <sup>221</sup>	27.25 <sup>24</sup>	55.10 <sup>307</sup>	29.898 <sup>79</sup>	29.93 <sup>136</sup>	10.106 <sup>80</sup>	38.50 <sup>163</sup>
27	46.89 <sup>8</sup>	68.69 <sup>233</sup>	27.01 <sup>18</sup>	52.03 <sup>338</sup>	29.819 <sup>35</sup>	28.57 <sup>134</sup>	10.026 <sup>45</sup>	36.87 <sup>193</sup>
Okt. 7	46.81 <sup>0</sup>	66.36 <sup>237</sup>	26.83 <sup>10</sup>	48.65 <sup>363</sup>	29.784 <sup>16</sup>	27.23 <sup>126</sup>	9.981 <sup>4</sup>	34.94 <sup>222</sup>
17	46.81 <sup>9</sup>	63.99 <sup>229</sup>	26.73 <sup>1</sup>	45.02 <sup>380</sup>	29.800 <sup>72</sup>	25.97 <sup>110</sup>	9.977 <sup>42</sup>	32.72 <sup>247</sup>
27	46.90 <sup>19</sup>	61.70 <sup>210</sup>	26.72 <sup>8</sup>	41.22 <sup>390</sup>	29.872 <sup>131</sup>	24.87 <sup>88</sup>	10.019 <sup>92</sup>	30.25 <sup>268</sup>
Nov. 6	47.09 <sup>27</sup>	59.60 <sup>183</sup>	26.80 <sup>18</sup>	37.32 <sup>390</sup>	30.003 <sup>191</sup>	23.99 <sup>59</sup>	10.111 <sup>144</sup>	27.57 <sup>285</sup>
16	47.36 <sup>36</sup>	57.77 <sup>148</sup>	26.98 <sup>27</sup>	33.42 <sup>380</sup>	30.194 <sup>246</sup>	23.40 <sup>26</sup>	10.255 <sup>194</sup>	24.72 <sup>294</sup>
26	47.72 <sup>43</sup>	56.29 <sup>104</sup>	27.25 <sup>36</sup>	29.62 <sup>360</sup>	30.440 <sup>297</sup>	23.14 <sup>10</sup>	10.449 <sup>241</sup>	21.78 <sup>297</sup>
Dez. 6	48.15 <sup>50</sup>	55.25 <sup>55</sup>	27.61 <sup>44</sup>	26.02 <sup>330</sup>	30.737 <sup>339</sup>	23.24 <sup>48</sup>	10.690 <sup>282</sup>	18.81 <sup>291</sup>
16	48.65 <sup>54</sup>	54.70 <sup>5</sup>	28.05 <sup>51</sup>	22.72 <sup>289</sup>	31.076 <sup>370</sup>	23.72 <sup>86</sup>	10.972 <sup>314</sup>	15.90 <sup>277</sup>
26	49.19 <sup>57</sup>	54.65 <sup>47</sup>	28.56 <sup>57</sup>	19.83 <sup>240</sup>	31.446 <sup>389</sup>	24.58 <sup>120</sup>	11.286 <sup>338</sup>	13.13 <sup>254</sup>
36	49.76	55.12	29.13	17.43	31.835	25.78	11.624	10.59
Mittl. Ort	47.78	53.51	27.96	53.28	29.761	17.61	9.700	38.14
sec $\delta$ , tg $\delta$	2.002	-1.734	2.341	+2.117	1.236	-0.727	1.107	+0.475

Tag	524) 4 Ursae min.		523) $\alpha$ Virginis		525) $\epsilon$ Virginis		526) $\alpha$ Bootis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	14 <sup>h</sup> 9 <sup>m</sup>	+77° 52'	14 <sup>h</sup> 9 <sup>m</sup>	-9° 56'	14 <sup>h</sup> 12 <sup>m</sup>	-5° 39'	14 <sup>h</sup> 12 <sup>m</sup>	+19° 32'
Jan. I	4.46 <sub>106</sub>	35.84 <sub>189</sub>	4.851 <sub>336</sub>	34.39 <sub>193</sub>	15.856 <sub>332</sub>	42.46 <sub>202</sub>	24.067 <sub>333</sub>	59.40 <sub>240</sub>
II	5.52 <sub>112</sub>	33.95 <sub>125</sub>	5.187 <sub>338</sub>	36.32 <sub>195</sub>	16.188 <sub>334</sub>	44.48 <sub>199</sub>	24.400 <sub>340</sub>	57.00 <sub>210</sub>
2I	6.64 <sub>114</sub>	32.70 <sub>59</sub>	5.525 <sub>331</sub>	38.27 <sub>189</sub>	16.522 <sub>329</sub>	46.47 <sub>189</sub>	24.740 <sub>335</sub>	54.90 <sub>174</sub>
3I	7.78 <sub>112</sub>	32.11 <sub>10</sub>	5.856 <sub>316</sub>	40.16 <sub>178</sub>	16.851 <sub>314</sub>	48.36 <sub>172</sub>	25.075 <sub>321</sub>	53.16 <sub>132</sub>
Feb. 10	8.90 <sub>106</sub>	32.21 <sub>76</sub>	6.172 <sub>294</sub>	41.94 <sub>162</sub>	17.165 <sub>293</sub>	50.08 <sub>153</sub>	25.396 <sub>301</sub>	51.84 <sub>88</sub>
20	9.96 <sub>96</sub>	32.97 <sub>137</sub>	6.466 <sub>267</sub>	43.56 <sub>143</sub>	17.458 <sub>267</sub>	51.61 <sub>130</sub>	25.697 <sub>273</sub>	50.96 <sub>44</sub>
März 2	10.92 <sub>83</sub>	34.34 <sub>193</sub>	6.733 <sub>237</sub>	44.99 <sub>122</sub>	17.725 <sub>237</sub>	52.91 <sub>104</sub>	25.970 <sub>242</sub>	50.52 <sub>0</sub>
12	11.75 <sub>68</sub>	36.27 <sub>239</sub>	6.970 <sub>206</sub>	46.21 <sub>99</sub>	17.962 <sub>206</sub>	53.95 <sub>79</sub>	26.212 <sub>208</sub>	50.52 <sub>41</sub>
22	12.43 <sub>51</sub>	38.66 <sub>273</sub>	7.176 <sub>174</sub>	47.20 <sub>76</sub>	18.168 <sub>175</sub>	54.74 <sub>54</sub>	26.420 <sub>172</sub>	50.93 <sub>76</sub>
Apr. I	12.94 <sub>32</sub>	41.39 <sub>297</sub>	7.350 <sub>142</sub>	47.96 <sub>55</sub>	18.343 <sub>143</sub>	55.28 <sub>31</sub>	26.592 <sub>137</sub>	51.69 <sub>106</sub>
11	13.26 <sub>13</sub>	44.36 <sub>308</sub>	7.492 <sub>112</sub>	48.51 <sub>35</sub>	18.486 <sub>112</sub>	55.59 <sub>10</sub>	26.729 <sub>103</sub>	52.75 <sub>128</sub>
21	13.39 <sub>5</sub>	47.44 <sub>307</sub>	7.604 <sub>82</sub>	48.86 <sub>18</sub>	18.598 <sub>84</sub>	55.69 <sub>6</sub>	26.832 <sub>70</sub>	54.03 <sub>144</sub>
30	13.34 <sub>22</sub>	50.51 <sub>296</sub>	7.686 <sub>54</sub>	49.04 <sub>4</sub>	18.682 <sub>56</sub>	55.63 <sub>21</sub>	26.902 <sub>39</sub>	55.47 <sub>153</sub>
Mai 10	13.12 <sub>39</sub>	53.47 <sub>273</sub>	7.740 <sub>28</sub>	49.08 <sub>9</sub>	18.738 <sub>29</sub>	55.42 <sub>31</sub>	26.941 <sub>10</sub>	57.00 <sub>154</sub>
20	12.73 <sub>53</sub>	56.20 <sub>243</sub>	7.768 <sub>2</sub>	48.99 <sub>20</sub>	18.767 <sub>4</sub>	55.11 <sub>40</sub>	26.951 <sub>17</sub>	58.54 <sub>150</sub>
30	12.20 <sub>66</sub>	58.63 <sub>204</sub>	7.770 <sub>22</sub>	48.79 <sub>28</sub>	18.771 <sub>21</sub>	54.71 <sub>46</sub>	26.934 <sub>42</sub>	60.04 <sub>140</sub>
Juni 9	11.54 <sub>77</sub>	60.67 <sub>159</sub>	7.748 <sub>45</sub>	48.51 <sub>34</sub>	18.750 <sub>43</sub>	54.25 <sub>49</sub>	26.892 <sub>66</sub>	61.44 <sub>126</sub>
19	10.77 <sub>85</sub>	62.26 <sub>110</sub>	7.703 <sub>66</sub>	48.17 <sub>40</sub>	18.707 <sub>64</sub>	53.76 <sub>52</sub>	26.826 <sub>87</sub>	62.70 <sub>108</sub>
29	9.92 <sub>91</sub>	63.36 <sub>58</sub>	7.637 <sub>85</sub>	47.77 <sub>44</sub>	18.643 <sub>84</sub>	53.24 <sub>51</sub>	26.739 <sub>105</sub>	63.78 <sub>85</sub>
Juli 9	9.01 <sub>95</sub>	63.94 <sub>3</sub>	7.552 <sub>101</sub>	47.33 <sub>46</sub>	18.559 <sub>99</sub>	52.73 <sub>49</sub>	26.634 <sub>120</sub>	64.63 <sub>62</sub>
19	8.06 <sub>97</sub>	63.97 <sub>50</sub>	7.451 <sub>113</sub>	46.87 <sub>48</sub>	18.460 <sub>113</sub>	52.24 <sub>47</sub>	26.514 <sub>132</sub>	65.25 <sub>35</sub>
29	7.09 <sub>96</sub>	63.47 <sub>103</sub>	7.338 <sub>122</sub>	46.39 <sub>49</sub>	18.347 <sub>120</sub>	51.77 <sub>43</sub>	26.382 <sub>138</sub>	65.60 <sub>8</sub>
Aug. 8	6.13 <sub>92</sub>	62.44 <sub>155</sub>	7.216 <sub>123</sub>	45.90 <sub>46</sub>	18.227 <sub>123</sub>	51.34 <sub>37</sub>	26.244 <sub>140</sub>	65.68 <sub>21</sub>
18	5.21 <sub>88</sub>	60.89 <sub>203</sub>	7.093 <sub>119</sub>	45.44 <sub>43</sub>	18.104 <sub>119</sub>	50.97 <sub>29</sub>	26.104 <sub>136</sub>	65.47 <sub>50</sub>
28	4.33 <sub>81</sub>	58.86 <sub>248</sub>	6.974 <sub>109</sub>	45.01 <sub>36</sub>	17.985 <sub>109</sub>	50.68 <sub>19</sub>	25.968 <sub>124</sub>	64.97 <sub>79</sub>
Sept. 7	3.52 <sub>70</sub>	56.38 <sub>288</sub>	6.865 <sub>89</sub>	44.65 <sub>26</sub>	17.876 <sub>91</sub>	50.49 <sub>6</sub>	25.844 <sub>105</sub>	64.18 <sub>109</sub>
17	2.82 <sub>59</sub>	53.50 <sub>324</sub>	6.776 <sub>62</sub>	44.39 <sub>14</sub>	17.785 <sub>64</sub>	50.43 <sub>9</sub>	25.739 <sub>80</sub>	63.09 <sub>139</sub>
27	2.23 <sub>46</sub>	50.26 <sub>352</sub>	6.714 <sub>29</sub>	44.25 <sub>2</sub>	17.721 <sub>32</sub>	50.52 <sub>27</sub>	25.659 <sub>46</sub>	61.70 <sub>167</sub>
Okt. 7	1.77 <sub>31</sub>	46.74 <sub>375</sub>	6.685 <sub>12</sub>	44.27 <sub>21</sub>	17.689 <sub>8</sub>	50.79 <sub>48</sub>	25.613 <sub>7</sub>	60.03 <sub>195</sub>
17	1.46 <sub>15</sub>	42.99 <sub>390</sub>	6.697 <sub>58</sub>	44.48 <sub>43</sub>	17.697 <sub>53</sub>	51.27 <sub>71</sub>	25.606 <sub>38</sub>	58.08 <sub>222</sub>
27	1.31 <sub>3</sub>	39.09 <sub>395</sub>	6.755 <sub>107</sub>	44.91 <sub>67</sub>	17.750 <sub>101</sub>	51.98 <sub>95</sub>	25.644 <sub>87</sub>	55.86 <sub>243</sub>
Nov. 6	1.34 <sub>22</sub>	35.14 <sub>392</sub>	6.862 <sub>156</sub>	45.58 <sub>93</sub>	17.851 <sub>151</sub>	52.93 <sub>119</sub>	25.731 <sub>137</sub>	53.43 <sub>262</sub>
16	1.56 <sub>40</sub>	31.22 <sub>378</sub>	7.018 <sub>204</sub>	46.51 <sub>118</sub>	18.002 <sub>197</sub>	54.12 <sub>143</sub>	25.868 <sub>186</sub>	50.81 <sub>275</sub>
26	1.96 <sub>58</sub>	27.44 <sub>355</sub>	7.222 <sub>247</sub>	47.69 <sub>142</sub>	18.199 <sub>241</sub>	55.55 <sub>164</sub>	26.054 <sub>232</sub>	48.06 <sub>282</sub>
Dez. 6	2.54 <sub>74</sub>	23.89 <sub>322</sub>	7.469 <sub>285</sub>	49.11 <sub>162</sub>	18.440 <sub>279</sub>	57.19 <sub>182</sub>	26.286 <sub>272</sub>	45.24 <sub>282</sub>
16	3.28 <sub>88</sub>	20.67 <sub>278</sub>	7.754 <sub>312</sub>	50.73 <sub>179</sub>	18.719 <sub>307</sub>	59.01 <sub>194</sub>	26.558 <sub>304</sub>	42.42 <sub>272</sub>
26	4.16 <sub>100</sub>	17.89 <sub>225</sub>	8.066 <sub>332</sub>	52.52 <sub>190</sub>	19.026 <sub>327</sub>	60.95 <sub>202</sub>	26.862 <sub>326</sub>	39.70 <sub>254</sub>
36	5.16	15.64	8.398	54.42	19.353	62.97	27.188	37.16
Mittl. Ort	5.75	52.20	6.315	38.55	17.298	45.11	25.338	64.79
sec $\delta$ , tg $\delta$	4.763	+4.657	1.015	-0.175	1.005	-0.099	1.061	+0.355

Tag	527) $\lambda$ Bootis		531) $\theta$ Bootis		534) $\rho$ Bootis		535) $\gamma$ Bootis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$14^{\text{h}} 13^{\text{m}}$	$+46^{\circ} 24'$	$14^{\text{h}} 22^{\text{m}}$	$+52^{\circ} 10'$	$14^{\text{h}} 28^{\text{m}}$	$+30^{\circ} 40'$	$14^{\text{h}} 29^{\text{m}}$	$+38^{\circ} 36'$
Jan. I	39.976 <sup>406</sup>	36.80 <sup>236</sup>	45.572 <sup>433</sup>	28.43 <sup>243</sup>	44.913 <sup>345</sup>	47.52 <sup>248</sup>	11.889 <sup>365</sup>	54.34 <sup>251</sup>
II	40.382 <sup>418</sup>	34.44 <sup>184</sup>	46.005 <sup>452</sup>	26.00 <sup>188</sup>	45.258 <sup>357</sup>	45.04 <sup>210</sup>	12.254 <sup>379</sup>	51.83 <sup>206</sup>
2I	40.800 <sup>419</sup>	32.60 <sup>127</sup>	46.457 <sup>456</sup>	24.12 <sup>128</sup>	45.615 <sup>357</sup>	42.94 <sup>164</sup>	12.633 <sup>381</sup>	49.77 <sup>155</sup>
3I	41.219 <sup>406</sup>	31.33 <sup>67</sup>	46.913 <sup>445</sup>	22.84 <sup>66</sup>	45.972 <sup>347</sup>	41.30 <sup>113</sup>	13.014 <sup>372</sup>	48.22 <sup>98</sup>
Feb. IO	41.625 <sup>382</sup>	30.66 <sup>6</sup>	47.358 <sup>422</sup>	22.18 <sup>1</sup>	46.319 <sup>329</sup>	40.17 <sup>61</sup>	13.386 <sup>352</sup>	47.24 <sup>40</sup>
20	42.007 <sup>347</sup>	30.60 <sup>55</sup>	47.780 <sup>388</sup>	22.17 <sup>62</sup>	46.648 <sup>303</sup>	39.56 <sup>8</sup>	13.738 <sup>325</sup>	46.84 <sup>17</sup>
März 2	42.354 <sup>305</sup>	31.15 <sup>110</sup>	48.168 <sup>344</sup>	22.79 <sup>119</sup>	46.951 <sup>271</sup>	39.48 <sup>43</sup>	14.063 <sup>291</sup>	47.01 <sup>71</sup>
12	42.659 <sup>259</sup>	32.25 <sup>158</sup>	48.512 <sup>292</sup>	23.98 <sup>170</sup>	47.222 <sup>235</sup>	39.91 <sup>90</sup>	14.354 <sup>252</sup>	47.72 <sup>122</sup>
22	42.918 <sup>209</sup>	33.83 <sup>199</sup>	48.804 <sup>237</sup>	25.68 <sup>213</sup>	47.457 <sup>198</sup>	40.81 <sup>131</sup>	14.606 <sup>209</sup>	48.94 <sup>163</sup>
Apr. I	43.127 <sup>157</sup>	35.82 <sup>231</sup>	49.041 <sup>179</sup>	27.81 <sup>245</sup>	47.655 <sup>160</sup>	42.12 <sup>164</sup>	14.815 <sup>166</sup>	50.57 <sup>197</sup>
II	43.284 <sup>105</sup>	38.13 <sup>251</sup>	49.220 <sup>120</sup>	30.26 <sup>266</sup>	47.815 <sup>121</sup>	43.76 <sup>188</sup>	14.981 <sup>123</sup>	52.54 <sup>222</sup>
2I	43.389 <sup>50</sup>	40.64 <sup>261</sup>	49.340 <sup>63</sup>	32.92 <sup>277</sup>	47.936 <sup>83</sup>	45.64 <sup>205</sup>	15.104 <sup>81</sup>	54.76 <sup>237</sup>
30	43.445 <sup>16</sup>	43.25 <sup>261</sup>	49.403 <sup>9</sup>	35.69 <sup>277</sup>	48.019 <sup>48</sup>	47.69 <sup>213</sup>	15.185 <sup>40</sup>	57.13 <sup>243</sup>
Mai IO	43.455 <sup>35</sup>	45.86 <sup>253</sup>	49.412 <sup>43</sup>	38.46 <sup>267</sup>	48.067 <sup>14</sup>	49.82 <sup>211</sup>	15.225 <sup>1</sup>	59.56 <sup>239</sup>
20	43.420 <sup>75</sup>	48.39 <sup>234</sup>	49.369 <sup>90</sup>	41.13 <sup>249</sup>	48.081 <sup>19</sup>	51.93 <sup>204</sup>	15.226 <sup>35</sup>	61.95 <sup>227</sup>
30	43.345 <sup>111</sup>	50.73 <sup>210</sup>	49.279 <sup>133</sup>	43.62 <sup>222</sup>	48.062 <sup>49</sup>	53.97 <sup>188</sup>	15.191 <sup>69</sup>	64.22 <sup>207</sup>
Juni 9	43.234 <sup>143</sup>	52.83 <sup>177</sup>	49.146 <sup>171</sup>	45.84 <sup>188</sup>	48.013 <sup>76</sup>	55.85 <sup>167</sup>	15.122 <sup>99</sup>	66.29 <sup>182</sup>
19	43.091 <sup>171</sup>	54.60 <sup>141</sup>	48.975 <sup>203</sup>	47.72 <sup>149</sup>	47.937 <sup>101</sup>	57.52 <sup>141</sup>	15.023 <sup>127</sup>	68.11 <sup>151</sup>
29	42.920 <sup>192</sup>	56.01 <sup>101</sup>	48.772 <sup>230</sup>	49.21 <sup>106</sup>	47.836 <sup>123</sup>	58.93 <sup>112</sup>	14.896 <sup>150</sup>	69.62 <sup>116</sup>
Juli 9	42.728 <sup>210</sup>	57.02 <sup>57</sup>	48.542 <sup>251</sup>	50.27 <sup>61</sup>	47.713 <sup>142</sup>	60.05 <sup>79</sup>	14.746 <sup>169</sup>	70.78 <sup>78</sup>
19	42.518 <sup>221</sup>	57.59 <sup>13</sup>	48.291 <sup>265</sup>	50.88 <sup>13</sup>	47.571 <sup>155</sup>	60.84 <sup>44</sup>	14.577 <sup>183</sup>	71.56 <sup>38</sup>
29	42.297 <sup>226</sup>	57.72 <sup>33</sup>	48.026 <sup>272</sup>	51.01 <sup>36</sup>	47.416 <sup>165</sup>	61.28 <sup>8</sup>	14.394 <sup>193</sup>	71.94 <sup>3</sup>
Aug. 8	42.071 <sup>225</sup>	57.39 <sup>79</sup>	47.754 <sup>270</sup>	50.65 <sup>84</sup>	47.251 <sup>168</sup>	61.36 <sup>29</sup>	14.201 <sup>195</sup>	71.91 <sup>46</sup>
18	41.846 <sup>216</sup>	56.60 <sup>124</sup>	47.484 <sup>261</sup>	49.81 <sup>131</sup>	47.083 <sup>165</sup>	61.07 <sup>66</sup>	14.006 <sup>191</sup>	71.45 <sup>87</sup>
28	41.630 <sup>198</sup>	55.36 <sup>166</sup>	47.223 <sup>243</sup>	48.50 <sup>176</sup>	46.918 <sup>154</sup>	60.41 <sup>104</sup>	13.815 <sup>178</sup>	70.58 <sup>129</sup>
Sept. 7	41.432 <sup>172</sup>	53.70 <sup>207</sup>	46.980 <sup>216</sup>	46.74 <sup>219</sup>	46.764 <sup>136</sup>	59.37 <sup>140</sup>	13.637 <sup>159</sup>	69.29 <sup>169</sup>
17	41.260 <sup>139</sup>	51.63 <sup>246</sup>	46.764 <sup>178</sup>	44.55 <sup>259</sup>	46.628 <sup>110</sup>	57.97 <sup>175</sup>	13.478 <sup>130</sup>	67.60 <sup>206</sup>
27	41.121 <sup>95</sup>	49.17 <sup>279</sup>	46.586 <sup>132</sup>	41.96 <sup>294</sup>	46.518 <sup>77</sup>	56.22 <sup>208</sup>	13.348 <sup>94</sup>	65.54 <sup>241</sup>
Okt. 7	41.026 <sup>46</sup>	46.38 <sup>308</sup>	46.454 <sup>78</sup>	39.02 <sup>324</sup>	46.441 <sup>35</sup>	54.14 <sup>239</sup>	13.254 <sup>50</sup>	63.13 <sup>272</sup>
17	40.980 <sup>11</sup>	43.30 <sup>333</sup>	46.376 <sup>16</sup>	35.78 <sup>349</sup>	46.406 <sup>12</sup>	51.75 <sup>266</sup>	13.204 <sup>1</sup>	60.41 <sup>299</sup>
27	40.991 <sup>72</sup>	39.97 <sup>349</sup>	46.360 <sup>51</sup>	32.29 <sup>365</sup>	46.418 <sup>63</sup>	49.09 <sup>289</sup>	13.205 <sup>56</sup>	57.42 <sup>321</sup>
Nov. 6	41.063 <sup>135</sup>	36.48 <sup>359</sup>	46.411 <sup>121</sup>	28.64 <sup>375</sup>	46.481 <sup>117</sup>	46.20 <sup>304</sup>	13.261 <sup>114</sup>	54.21 <sup>335</sup>
16	41.198 <sup>199</sup>	32.89 <sup>361</sup>	46.532 <sup>192</sup>	24.89 <sup>374</sup>	46.598 <sup>171</sup>	43.16 <sup>315</sup>	13.375 <sup>172</sup>	50.86 <sup>341</sup>
26	41.397 <sup>259</sup>	29.28 <sup>350</sup>	46.724 <sup>259</sup>	21.15 <sup>364</sup>	46.769 <sup>222</sup>	40.01 <sup>317</sup>	13.547 <sup>227</sup>	47.45 <sup>340</sup>
Dez. 6	41.656 <sup>312</sup>	25.78 <sup>332</sup>	46.983 <sup>321</sup>	17.51 <sup>344</sup>	46.991 <sup>267</sup>	36.84 <sup>311</sup>	13.774 <sup>278</sup>	44.05 <sup>328</sup>
16	41.968 <sup>357</sup>	22.46 <sup>304</sup>	47.304 <sup>373</sup>	14.07 <sup>314</sup>	47.258 <sup>305</sup>	33.73 <sup>294</sup>	14.052 <sup>319</sup>	40.77 <sup>306</sup>
26	42.325 <sup>391</sup>	19.42 <sup>265</sup>	47.677 <sup>414</sup>	10.93 <sup>272</sup>	47.563 <sup>335</sup>	30.79 <sup>268</sup>	14.371 <sup>351</sup>	37.71 <sup>275</sup>
36	42.716	16.77	48.091	8.21	47.898	28.11	14.722	34.96
Mittl. Ort sec $\delta$ , tg $\delta$	41.158 1.450	49.13 +1.051	46.820 1.631	41.85 +1.288	46.229 1.163	56.24 +0.593	13.188 1.280	65.01 +0.799

Tag	537) $\gamma$ Centauri		538) $\alpha$ Centauri <sup>1)</sup>		543) $\zeta$ Bootis med.		542) $\alpha$ Apodis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	14 <sup>h</sup> 30 <sup>m</sup>	-41° 50'	14 <sup>h</sup> 34 <sup>m</sup>	-60° 32'	14 <sup>h</sup> 37 <sup>m</sup>	+14° 1'	14 <sup>h</sup> 38 <sup>m</sup>	-78° 44'
Jan. 1	57.262 <sup>414</sup>	36.48 <sup>95</sup>	43.21 <sup>57</sup>	18.54 <sup>38</sup>	44.012 <sup>322</sup>	50.70 <sup>235</sup>	50.42 <sup>129</sup>	25.39 <sup>32</sup>
11	57.676 <sup>420</sup>	37.43 <sup>127</sup>	43.78 <sup>58</sup>	18.92 <sup>85</sup>	44.334 <sup>331</sup>	48.35 <sup>212</sup>	51.71 <sup>133</sup>	25.07 <sup>25</sup>
21	58.096 <sup>417</sup>	38.70 <sup>155</sup>	44.36 <sup>58</sup>	19.77 <sup>130</sup>	44.665 <sup>331</sup>	46.23 <sup>181</sup>	53.04 <sup>134</sup>	25.32 <sup>80</sup>
31	58.513 <sup>404</sup>	40.25 <sup>180</sup>	44.94 <sup>56</sup>	21.07 <sup>171</sup>	44.996 <sup>322</sup>	44.42 <sup>146</sup>	54.38 <sup>131</sup>	26.12 <sup>133</sup>
Feb. 10	58.917 <sup>381</sup>	42.05 <sup>198</sup>	45.50 <sup>52</sup>	22.78 <sup>205</sup>	45.318 <sup>306</sup>	42.96 <sup>106</sup>	55.69 <sup>126</sup>	27.45 <sup>181</sup>
20	59.298 <sup>352</sup>	44.03 <sup>212</sup>	46.02 <sup>48</sup>	24.83 <sup>235</sup>	45.624 <sup>283</sup>	41.90 <sup>65</sup>	56.95 <sup>119</sup>	29.26 <sup>224</sup>
März 2	59.650 <sup>319</sup>	46.15 <sup>219</sup>	46.50 <sup>44</sup>	27.18 <sup>257</sup>	45.907 <sup>256</sup>	41.25 <sup>24</sup>	58.14 <sup>108</sup>	31.50 <sup>262</sup>
12	59.969 <sup>283</sup>	48.34 <sup>223</sup>	46.94 <sup>38</sup>	29.75 <sup>275</sup>	46.163 <sup>226</sup>	41.01 <sup>16</sup>	59.22 <sup>95</sup>	34.12 <sup>292</sup>
22	60.252 <sup>246</sup>	50.57 <sup>222</sup>	47.32 <sup>33</sup>	32.50 <sup>285</sup>	46.389 <sup>195</sup>	41.17 <sup>51</sup>	60.17 <sup>82</sup>	37.04 <sup>316</sup>
Apr. 1	60.498 <sup>207</sup>	52.79 <sup>218</sup>	47.65 <sup>26</sup>	35.35 <sup>291</sup>	46.584 <sup>163</sup>	41.68 <sup>81</sup>	60.99 <sup>68</sup>	40.20 <sup>333</sup>
11	60.705 <sup>169</sup>	54.97 <sup>211</sup>	47.91 <sup>21</sup>	38.26 <sup>290</sup>	46.747 <sup>131</sup>	42.49 <sup>106</sup>	61.67 <sup>52</sup>	43.53 <sup>343</sup>
21	60.874 <sup>130</sup>	57.08 <sup>200</sup>	48.12 <sup>14</sup>	41.16 <sup>285</sup>	46.878 <sup>100</sup>	43.55 <sup>125</sup>	62.19 <sup>36</sup>	46.96 <sup>346</sup>
30*)	61.004 <sup>92</sup>	59.08 <sup>186</sup>	48.26 <sup>9</sup>	44.01 <sup>273</sup>	46.978 <sup>70</sup>	44.80 <sup>156</sup>	62.55 <sup>19</sup>	50.42 <sup>342</sup>
Mai 10	61.096 <sup>53</sup>	60.94 <sup>171</sup>	48.35 <sup>2</sup>	46.74 <sup>258</sup>	47.048 <sup>40</sup>	46.16 <sup>143</sup>	62.74 <sup>2</sup>	53.84 <sup>332</sup>
20	61.149 <sup>15</sup>	62.65 <sup>152</sup>	48.37 <sup>4</sup>	49.32 <sup>236</sup>	47.088 <sup>12</sup>	47.59 <sup>142</sup>	62.76 <sup>15</sup>	57.16 <sup>313</sup>
30	61.164 <sup>21</sup>	64.17 <sup>131</sup>	48.33 <sup>10</sup>	51.68 <sup>210</sup>	47.100 <sup>15</sup>	49.01 <sup>136</sup>	62.61 <sup>30</sup>	60.29 <sup>288</sup>
Juni 9	61.143 <sup>58</sup>	65.48 <sup>107</sup>	48.23 <sup>15</sup>	53.78 <sup>180</sup>	47.085 <sup>41</sup>	50.37 <sup>127</sup>	62.31 <sup>46</sup>	63.17 <sup>256</sup>
19	61.085 <sup>92</sup>	66.55 <sup>81</sup>	48.08 <sup>21</sup>	55.58 <sup>145</sup>	47.044 <sup>65</sup>	51.64 <sup>113</sup>	61.85 <sup>61</sup>	65.73 <sup>219</sup>
29	60.993 <sup>123</sup>	67.36 <sup>54</sup>	47.87 <sup>25</sup>	57.03 <sup>107</sup>	46.979 <sup>87</sup>	52.77 <sup>96</sup>	61.24 <sup>72</sup>	67.92 <sup>175</sup>
Juli 9	60.870 <sup>150</sup>	67.90 <sup>25</sup>	47.62 <sup>29</sup>	58.10 <sup>66</sup>	46.892 <sup>106</sup>	53.73 <sup>77</sup>	60.52 <sup>83</sup>	69.67 <sup>127</sup>
19	60.720 <sup>170</sup>	68.15 <sup>5</sup>	47.33 <sup>32</sup>	58.76 <sup>23</sup>	46.786 <sup>122</sup>	54.50 <sup>55</sup>	59.69 <sup>90</sup>	70.94 <sup>76</sup>
29	60.550 <sup>186</sup>	68.10 <sup>34</sup>	47.01 <sup>34</sup>	58.99 <sup>21</sup>	46.664 <sup>133</sup>	55.05 <sup>32</sup>	58.79 <sup>94</sup>	71.70 <sup>22</sup>
Aug. 8	60.364 <sup>192</sup>	67.76 <sup>64</sup>	46.67 <sup>34</sup>	58.78 <sup>65</sup>	46.531 <sup>139</sup>	55.37 <sup>7</sup>	57.85 <sup>95</sup>	71.92 <sup>33</sup>
18	60.172 <sup>189</sup>	67.12 <sup>90</sup>	46.33 <sup>33</sup>	58.13 <sup>105</sup>	46.392 <sup>139</sup>	55.44 <sup>18</sup>	56.90 <sup>94</sup>	71.59 <sup>86</sup>
28	59.983 <sup>176</sup>	66.22 <sup>114</sup>	46.00 <sup>31</sup>	57.08 <sup>144</sup>	46.253 <sup>131</sup>	55.26 <sup>44</sup>	55.96 <sup>88</sup>	70.73 <sup>138</sup>
Sept. 7	59.807 <sup>153</sup>	65.08 <sup>133</sup>	45.69 <sup>27</sup>	55.64 <sup>177</sup>	46.122 <sup>116</sup>	54.82 <sup>71</sup>	55.08 <sup>77</sup>	69.35 <sup>183</sup>
17	59.654 <sup>117</sup>	63.75 <sup>146</sup>	45.42 <sup>21</sup>	53.87 <sup>203</sup>	46.006 <sup>94</sup>	54.11 <sup>99</sup>	54.31 <sup>63</sup>	67.52 <sup>224</sup>
27	59.537 <sup>73</sup>	62.29 <sup>153</sup>	45.21 <sup>14</sup>	51.84 <sup>221</sup>	45.912 <sup>64</sup>	53.12 <sup>127</sup>	53.68 <sup>47</sup>	65.28 <sup>255</sup>
Okt. 7	59.464 <sup>20</sup>	60.76 <sup>152</sup>	45.07 <sup>6</sup>	49.63 <sup>231</sup>	45.848 <sup>26</sup>	51.85 <sup>154</sup>	53.21 <sup>27</sup>	62.73 <sup>277</sup>
17	59.444 <sup>39</sup>	59.24 <sup>144</sup>	45.01 <sup>2</sup>	47.32 <sup>230</sup>	45.822 <sup>18</sup>	50.31 <sup>179</sup>	52.94 <sup>6</sup>	59.96 <sup>286</sup>
27	59.483 <sup>104</sup>	57.80 <sup>128</sup>	45.03 <sup>12</sup>	45.02 <sup>220</sup>	45.840 <sup>64</sup>	48.52 <sup>204</sup>	52.88 <sup>17</sup>	57.10 <sup>286</sup>
Nov. 6	59.587 <sup>170</sup>	56.52 <sup>105</sup>	45.15 <sup>22</sup>	42.82 <sup>199</sup>	45.904 <sup>115</sup>	46.48 <sup>226</sup>	53.05 <sup>39</sup>	54.24 <sup>273</sup>
16	59.757 <sup>230</sup>	55.47 <sup>76</sup>	45.37 <sup>31</sup>	40.83 <sup>170</sup>	46.019 <sup>164</sup>	44.22 <sup>242</sup>	53.44 <sup>61</sup>	51.51 <sup>249</sup>
26	59.989 <sup>290</sup>	54.71 <sup>42</sup>	45.68 <sup>39</sup>	39.13 <sup>133</sup>	46.183 <sup>211</sup>	41.80 <sup>254</sup>	54.05 <sup>82</sup>	49.02 <sup>215</sup>
Dez. 6	60.279 <sup>339</sup>	54.29 <sup>5</sup>	46.07 <sup>46</sup>	37.80 <sup>89</sup>	46.394 <sup>252</sup>	39.26 <sup>259</sup>	54.87 <sup>99</sup>	46.87 <sup>171</sup>
16	60.618 <sup>379</sup>	54.24 <sup>34</sup>	46.53 <sup>52</sup>	36.91 <sup>42</sup>	46.646 <sup>287</sup>	36.67 <sup>255</sup>	55.86 <sup>113</sup>	45.16 <sup>121</sup>
26	60.997 <sup>406</sup>	54.58 <sup>71</sup>	47.05 <sup>55</sup>	36.49 <sup>7</sup>	46.933 <sup>312</sup>	34.12 <sup>245</sup>	56.99 <sup>125</sup>	43.95 <sup>68</sup>
36	61.403	55.29	47.60	36.56	47.245	31.67	58.24	43.27
Mittl. Ort	59.385	49.12	46.14	35.09	45.448	54.91	57.09	43.90
sec $\delta$ , tg $\delta$	1.342	-0.896	2.034	-1.771	1.031	+0.250	5.124	-5.025

\*) Bei Stern 538), 543) und 542) lies Mai I

1) Ort des hellen Sterns; die jährliche Parallaxe (0.75) ist bereits berücksichtigt.

Tag	545) $\mu$ Virginis		547) $\iota$ Virginis		548) $\alpha$ Librae		549) Grb 2164	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	14 <sup>h</sup> 39 <sup>m</sup>	—5° 21'	14 <sup>h</sup> 42 <sup>m</sup>	+2° 11'	14 <sup>h</sup> 46 <sup>m</sup>	—15° 44'	14 <sup>h</sup> 49 <sup>m</sup>	+59° 34'
Jan. I	17.359 <sup>323</sup>	0.30 <sup>196</sup>	37.918 <sup>318</sup>	26.88 <sup>212</sup>	55.056 <sup>330</sup>	47.51 <sup>163</sup>	36.602 <sup>468</sup>	40.45 <sup>261</sup>
II	17.682 <sup>331</sup>	2.26 <sup>192</sup>	38.236 <sup>327</sup>	24.76 <sup>200</sup>	55.386 <sup>341</sup>	49.14 <sup>171</sup>	37.070 <sup>504</sup>	37.84 <sup>207</sup>
2I	18.013 <sup>330</sup>	4.18 <sup>182</sup>	38.563 <sup>326</sup>	22.76 <sup>183</sup>	55.727 <sup>341</sup>	50.85 <sup>172</sup>	37.574 <sup>520</sup>	35.77 <sup>145</sup>
3I	18.343 <sup>320</sup>	6.00 <sup>167</sup>	38.889 <sup>318</sup>	20.93 <sup>160</sup>	56.068 <sup>331</sup>	52.57 <sup>168</sup>	38.094 <sup>520</sup>	34.32 <sup>80</sup>
Feb. 10	18.663 <sup>304</sup>	7.67 <sup>147</sup>	39.207 <sup>302</sup>	19.33 <sup>132</sup>	56.399 <sup>316</sup>	54.25 <sup>160</sup>	38.614 <sup>505</sup>	33.52 <sup>13</sup>
20	18.967 <sup>282</sup>	9.14 <sup>123</sup>	39.509 <sup>281</sup>	18.01 <sup>101</sup>	56.715 <sup>294</sup>	55.85 <sup>147</sup>	39.119 <sup>473</sup>	33.39 <sup>53</sup>
März 2	19.249 <sup>256</sup>	10.37 <sup>98</sup>	39.790 <sup>256</sup>	17.00 <sup>69</sup>	57.009 <sup>269</sup>	57.32 <sup>132</sup>	39.592 <sup>429</sup>	33.92 <sup>115</sup>
12	19.505 <sup>228</sup>	11.35 <sup>73</sup>	40.046 <sup>228</sup>	16.31 <sup>38</sup>	57.278 <sup>241</sup>	58.64 <sup>114</sup>	40.021 <sup>374</sup>	35.07 <sup>171</sup>
22	19.733 <sup>198</sup>	12.08 <sup>47</sup>	40.274 <sup>198</sup>	15.93 <sup>8</sup>	57.519 <sup>213</sup>	59.78 <sup>96</sup>	40.395 <sup>312</sup>	36.78 <sup>218</sup>
Apr. I	19.931 <sup>169</sup>	12.55 <sup>24</sup>	40.472 <sup>168</sup>	15.85 <sup>19</sup>	57.732 <sup>183</sup>	60.74 <sup>78</sup>	40.707 <sup>245</sup>	38.96 <sup>254</sup>
II	20.100 <sup>139</sup>	12.79 <sup>3</sup>	40.640 <sup>139</sup>	16.04 <sup>41</sup>	57.915 <sup>153</sup>	61.52 <sup>62</sup>	40.952 <sup>174</sup>	41.50 <sup>281</sup>
2I	20.239 <sup>110</sup>	12.82 <sup>13</sup>	40.779 <sup>109</sup>	16.45 <sup>59</sup>	58.068 <sup>125</sup>	62.14 <sup>46</sup>	41.126 <sup>103</sup>	44.31 <sup>296</sup>
Mai I	20.349 <sup>82</sup>	12.69 <sup>28</sup>	40.888 <sup>81</sup>	17.04 <sup>73</sup>	58.193 <sup>95</sup>	62.60 <sup>32</sup>	41.229 <sup>34</sup>	47.27 <sup>299</sup>
10	20.431 <sup>55</sup>	12.41 <sup>38</sup>	40.969 <sup>53</sup>	17.77 <sup>82</sup>	58.288 <sup>65</sup>	62.92 <sup>20</sup>	41.263 <sup>33</sup>	50.26 <sup>293</sup>
20	20.486 <sup>27</sup>	12.03 <sup>46</sup>	41.022 <sup>25</sup>	18.59 <sup>87</sup>	58.353 <sup>37</sup>	63.12 <sup>9</sup>	41.230 <sup>97</sup>	53.19 <sup>276</sup>
30	20.513 <sup>0</sup>	11.57 <sup>51</sup>	41.047 <sup>1</sup>	19.46 <sup>87</sup>	58.390 <sup>9</sup>	63.21 <sup>0</sup>	41.133 <sup>155</sup>	55.95 <sup>250</sup>
Juni 9	20.513 <sup>26</sup>	11.06 <sup>53</sup>	41.046 <sup>27</sup>	20.33 <sup>86</sup>	58.399 <sup>19</sup>	63.21 <sup>8</sup>	40.978 <sup>208</sup>	58.45 <sup>218</sup>
19	20.487 <sup>50</sup>	10.53 <sup>54</sup>	41.019 <sup>52</sup>	21.19 <sup>80</sup>	58.380 <sup>47</sup>	63.13 <sup>16</sup>	40.770 <sup>254</sup>	60.63 <sup>178</sup>
29	20.437 <sup>73</sup>	9.99 <sup>53</sup>	40.967 <sup>75</sup>	21.99 <sup>73</sup>	58.333 <sup>72</sup>	62.97 <sup>23</sup>	40.516 <sup>293</sup>	62.41 <sup>135</sup>
Juli 9	20.364 <sup>93</sup>	9.46 <sup>50</sup>	40.892 <sup>95</sup>	22.72 <sup>64</sup>	58.261 <sup>94</sup>	62.74 <sup>29</sup>	40.223 <sup>324</sup>	63.76 <sup>87</sup>
19	20.271 <sup>110</sup>	8.96 <sup>46</sup>	40.797 <sup>112</sup>	23.36 <sup>52</sup>	58.167 <sup>113</sup>	62.45 <sup>35</sup>	39.899 <sup>347</sup>	64.63 <sup>38</sup>
29	20.161 <sup>123</sup>	8.50 <sup>41</sup>	40.685 <sup>124</sup>	23.88 <sup>40</sup>	58.054 <sup>128</sup>	62.10 <sup>40</sup>	39.552 <sup>362</sup>	65.01 <sup>13</sup>
Aug. 8	20.038 <sup>130</sup>	8.09 <sup>35</sup>	40.561 <sup>131</sup>	24.28 <sup>27</sup>	57.926 <sup>137</sup>	61.70 <sup>43</sup>	39.190 <sup>366</sup>	64.88 <sup>65</sup>
18	19.908 <sup>130</sup>	7.74 <sup>26</sup>	40.430 <sup>133</sup>	24.55 <sup>11</sup>	57.789 <sup>138</sup>	61.27 <sup>46</sup>	38.824 <sup>361</sup>	64.23 <sup>115</sup>
28	19.778 <sup>123</sup>	7.48 <sup>16</sup>	40.297 <sup>126</sup>	24.66 <sup>6</sup>	57.651 <sup>132</sup>	60.81 <sup>45</sup>	38.463 <sup>344</sup>	63.08 <sup>163</sup>
Sept. 7	19.655 <sup>109</sup>	7.32 <sup>4</sup>	40.171 <sup>112</sup>	24.60 <sup>24</sup>	57.519 <sup>118</sup>	60.36 <sup>42</sup>	38.119 <sup>316</sup>	61.45 <sup>210</sup>
17	19.546 <sup>86</sup>	7.28 <sup>10</sup>	40.059 <sup>99</sup>	24.36 <sup>44</sup>	57.401 <sup>95</sup>	59.94 <sup>36</sup>	37.803 <sup>277</sup>	59.35 <sup>252</sup>
27	19.460 <sup>55</sup>	7.38 <sup>27</sup>	39.969 <sup>61</sup>	23.92 <sup>65</sup>	57.306 <sup>63</sup>	59.58 <sup>26</sup>	37.526 <sup>227</sup>	56.83 <sup>292</sup>
Okt. 7	19.405 <sup>18</sup>	7.65 <sup>47</sup>	39.908 <sup>24</sup>	23.27 <sup>88</sup>	57.243 <sup>24</sup>	59.32 <sup>13</sup>	37.299 <sup>165</sup>	53.91 <sup>325</sup>
17	19.387 <sup>27</sup>	8.12 <sup>69</sup>	39.884 <sup>19</sup>	22.39 <sup>112</sup>	57.219 <sup>22</sup>	59.19 <sup>5</sup>	37.134 <sup>96</sup>	50.66 <sup>352</sup>
27	19.414 <sup>74</sup>	8.81 <sup>91</sup>	39.903 <sup>67</sup>	21.27 <sup>135</sup>	57.241 <sup>71</sup>	59.24 <sup>25</sup>	37.038 <sup>18</sup>	47.14 <sup>373</sup>
Nov. 6	19.488 <sup>124</sup>	9.72 <sup>115</sup>	39.970 <sup>116</sup>	19.92 <sup>158</sup>	57.312 <sup>123</sup>	59.49 <sup>48</sup>	37.020 <sup>65</sup>	43.41 <sup>384</sup>
16	19.612 <sup>173</sup>	10.87 <sup>137</sup>	40.086 <sup>164</sup>	18.34 <sup>179</sup>	57.435 <sup>175</sup>	59.97 <sup>72</sup>	37.085 <sup>150</sup>	39.57 <sup>387</sup>
26	19.785 <sup>219</sup>	12.24 <sup>157</sup>	40.250 <sup>211</sup>	16.55 <sup>196</sup>	57.610 <sup>222</sup>	60.69 <sup>96</sup>	37.235 <sup>233</sup>	35.70 <sup>379</sup>
Dez. 6	20.004 <sup>259</sup>	13.81 <sup>175</sup>	40.461 <sup>251</sup>	14.59 <sup>209</sup>	57.832 <sup>264</sup>	61.65 <sup>119</sup>	37.468 <sup>312</sup>	31.91 <sup>360</sup>
16	20.263 <sup>291</sup>	15.56 <sup>188</sup>	40.712 <sup>284</sup>	12.50 <sup>215</sup>	58.096 <sup>298</sup>	62.84 <sup>140</sup>	37.780 <sup>382</sup>	28.31 <sup>331</sup>
26	20.554 <sup>316</sup>	17.44 <sup>194</sup>	40.996 <sup>310</sup>	10.35 <sup>215</sup>	58.394 <sup>324</sup>	64.24 <sup>155</sup>	38.162 <sup>439</sup>	25.00 <sup>191</sup>
36	20.870	19.38	41.306	8.20	58.718	65.79	38.601	22.09
Mittl. Ort	18.943	1.94	39.456	27.66	56.791	52.02	38.120	54.85
sec $\delta$ , tg $\delta$	1.004	—0.094	1.001	+0.038	1.039	—0.282	1.975	+1.703

# Obere Kulmination Greenwich

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Tag	550) $\beta$ Ursae min.		551) Pi XIV, 221		552) $\beta$ Lupi		555) $\beta$ Bootis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	14 <sup>h</sup> 50 <sup>m</sup>	+74° 26'	14 <sup>h</sup> 52 <sup>m</sup>	+14° 43'	14 <sup>h</sup> 53 <sup>m</sup>	-42° 50'	14 <sup>h</sup> 59 <sup>m</sup>	+40° 39'
Jan. I	51.63 <sup>77</sup>	28.62 <sup>244</sup>	50.592 <sup>315</sup>	51.05 <sup>239</sup>	49.963 <sup>411</sup>	45.95 <sup>67</sup>	14.807 <sup>351</sup>	59.79 <sup>273</sup>
II	52.40 <sup>85</sup>	26.18 <sup>187</sup>	50.907 <sup>327</sup>	48.66 <sup>215</sup>	50.374 <sup>423</sup>	46.62 <sup>100</sup>	15.158 <sup>373</sup>	57.06 <sup>230</sup>
2I	53.25 <sup>88</sup>	24.31 <sup>122</sup>	51.234 <sup>330</sup>	46.51 <sup>185</sup>	50.797 <sup>425</sup>	47.62 <sup>129</sup>	15.531 <sup>382</sup>	54.76 <sup>178</sup>
3I	54.13 <sup>90</sup>	23.09 <sup>54</sup>	51.564 <sup>324</sup>	44.66 <sup>150</sup>	51.222 <sup>417</sup>	48.91 <sup>154</sup>	15.913 <sup>381</sup>	52.98 <sup>122</sup>
Feb. 10	55.03 <sup>88</sup>	22.55 <sup>14</sup>	51.888 <sup>310</sup>	43.16 <sup>109</sup>	51.639 <sup>399</sup>	50.45 <sup>175</sup>	16.294 <sup>368</sup>	51.76 <sup>62</sup>
20	55.91 <sup>83</sup>	22.69 <sup>80</sup>	52.198 <sup>290</sup>	42.07 <sup>67</sup>	52.038 <sup>374</sup>	52.20 <sup>190</sup>	16.662 <sup>347</sup>	51.14 <sup>2</sup>
März 2	56.74 <sup>75</sup>	23.49 <sup>142</sup>	52.488 <sup>265</sup>	41.40 <sup>25</sup>	52.412 <sup>346</sup>	54.10 <sup>201</sup>	17.009 <sup>318</sup>	51.12 <sup>56</sup>
12	57.49 <sup>65</sup>	24.91 <sup>196</sup>	52.753 <sup>238</sup>	41.15 <sup>15</sup>	52.758 <sup>312</sup>	56.11 <sup>208</sup>	17.327 <sup>283</sup>	51.68 <sup>110</sup>
22	58.14 <sup>53</sup>	26.87 <sup>241</sup>	52.991 <sup>207</sup>	41.30 <sup>53</sup>	53.070 <sup>277</sup>	58.19 <sup>210</sup>	17.610 <sup>244</sup>	52.78 <sup>157</sup>
Apr. I	58.67 <sup>40</sup>	29.28 <sup>276</sup>	53.198 <sup>177</sup>	41.83 <sup>85</sup>	53.347 <sup>240</sup>	60.29 <sup>209</sup>	17.854 <sup>203</sup>	54.35 <sup>195</sup>
II	59.07 <sup>26</sup>	32.04 <sup>299</sup>	53.375 <sup>146</sup>	42.68 <sup>111</sup>	53.587 <sup>203</sup>	62.38 <sup>205</sup>	18.057 <sup>159</sup>	56.30 <sup>226</sup>
2I	59.33 <sup>11</sup>	35.03 <sup>310</sup>	53.521 <sup>114</sup>	43.79 <sup>130</sup>	53.790 <sup>163</sup>	64.43 <sup>198</sup>	18.216 <sup>115</sup>	58.56 <sup>245</sup>
Mai I	59.44 <sup>2</sup>	38.13 <sup>309</sup>	53.635 <sup>83</sup>	45.09 <sup>143</sup>	53.953 <sup>124</sup>	66.41 <sup>188</sup>	18.331 <sup>73</sup>	61.01 <sup>256</sup>
10	59.42 <sup>16</sup>	41.22 <sup>299</sup>	53.718 <sup>54</sup>	46.52 <sup>150</sup>	54.077 <sup>85</sup>	68.29 <sup>175</sup>	18.404 <sup>30</sup>	63.57 <sup>256</sup>
20	59.26 <sup>28</sup>	44.21 <sup>277</sup>	53.772 <sup>24</sup>	48.02 <sup>151</sup>	54.162 <sup>44</sup>	70.04 <sup>161</sup>	18.434 <sup>10</sup>	66.13 <sup>248</sup>
30	58.98 <sup>40</sup>	46.98 <sup>248</sup>	53.796 <sup>5</sup>	49.53 <sup>145</sup>	54.206 <sup>4</sup>	71.65 <sup>142</sup>	18.424 <sup>48</sup>	68.61 <sup>231</sup>
Juni 9	58.58 <sup>50</sup>	49.46 <sup>211</sup>	53.791 <sup>32</sup>	50.98 <sup>136</sup>	54.210 <sup>36</sup>	73.07 <sup>121</sup>	18.376 <sup>84</sup>	70.92 <sup>209</sup>
19	58.08 <sup>59</sup>	51.57 <sup>167</sup>	53.759 <sup>58</sup>	52.34 <sup>122</sup>	54.174 <sup>73</sup>	74.28 <sup>98</sup>	18.292 <sup>117</sup>	73.01 <sup>179</sup>
29	57.49 <sup>66</sup>	53.24 <sup>120</sup>	53.701 <sup>82</sup>	53.56 <sup>104</sup>	54.101 <sup>109</sup>	75.26 <sup>73</sup>	18.175 <sup>146</sup>	74.80 <sup>144</sup>
Juli 9	56.83 <sup>72</sup>	54.44 <sup>69</sup>	53.619 <sup>103</sup>	54.60 <sup>84</sup>	53.992 <sup>141</sup>	75.99 <sup>44</sup>	18.029 <sup>172</sup>	76.24 <sup>107</sup>
19	56.11 <sup>75</sup>	55.13 <sup>17</sup>	53.516 <sup>122</sup>	55.44 <sup>63</sup>	53.851 <sup>168</sup>	76.43 <sup>16</sup>	17.857 <sup>193</sup>	77.31 <sup>66</sup>
29	55.36 <sup>77</sup>	55.30 <sup>36</sup>	53.394 <sup>135</sup>	56.07 <sup>38</sup>	53.683 <sup>188</sup>	76.59 <sup>14</sup>	17.664 <sup>207</sup>	77.97 <sup>23</sup>
Aug. 8	54.59 <sup>78</sup>	54.94 <sup>90</sup>	53.259 <sup>143</sup>	56.45 <sup>13</sup>	53.495 <sup>199</sup>	76.45 <sup>44</sup>	17.457 <sup>216</sup>	78.20 <sup>21</sup>
18	53.81 <sup>75</sup>	54.04 <sup>141</sup>	53.116 <sup>146</sup>	56.58 <sup>13</sup>	53.296 <sup>201</sup>	76.01 <sup>72</sup>	17.241 <sup>216</sup>	77.99 <sup>64</sup>
28	53.06 <sup>72</sup>	52.63 <sup>190</sup>	52.970 <sup>141</sup>	56.45 <sup>41</sup>	53.095 <sup>193</sup>	75.29 <sup>97</sup>	17.025 <sup>210</sup>	77.35 <sup>108</sup>
Sept. 7	52.34 <sup>66</sup>	50.73 <sup>236</sup>	52.829 <sup>127</sup>	56.04 <sup>68</sup>	52.902 <sup>173</sup>	74.32 <sup>119</sup>	16.815 <sup>194</sup>	76.27 <sup>151</sup>
17	51.68 <sup>59</sup>	48.37 <sup>278</sup>	52.702 <sup>107</sup>	55.36 <sup>97</sup>	52.729 <sup>142</sup>	73.13 <sup>136</sup>	16.621 <sup>169</sup>	74.76 <sup>192</sup>
27	51.09 <sup>50</sup>	45.59 <sup>315</sup>	52.595 <sup>78</sup>	54.39 <sup>124</sup>	52.587 <sup>100</sup>	71.77 <sup>147</sup>	16.452 <sup>135</sup>	72.84 <sup>229</sup>
Okt. 7	50.59 <sup>39</sup>	42.44 <sup>345</sup>	52.517 <sup>42</sup>	53.15 <sup>153</sup>	52.487 <sup>48</sup>	70.30 <sup>151</sup>	16.317 <sup>93</sup>	70.55 <sup>264</sup>
17	50.20 <sup>26</sup>	38.99 <sup>370</sup>	52.475 <sup>1</sup>	51.62 <sup>180</sup>	52.439 <sup>11</sup>	68.79 <sup>148</sup>	16.224 <sup>43</sup>	67.91 <sup>295</sup>
27	49.94 <sup>13</sup>	35.29 <sup>386</sup>	52.476 <sup>48</sup>	49.82 <sup>204</sup>	52.450 <sup>76</sup>	67.31 <sup>136</sup>	16.181 <sup>13</sup>	64.96 <sup>320</sup>
Nov. 6	49.81 <sup>12</sup>	31.43 <sup>394</sup>	52.524 <sup>99</sup>	47.78 <sup>226</sup>	52.526 <sup>143</sup>	65.95 <sup>118</sup>	16.194 <sup>71</sup>	61.76 <sup>338</sup>
16	49.83 <sup>18</sup>	27.49 <sup>391</sup>	52.623 <sup>149</sup>	45.52 <sup>244</sup>	52.669 <sup>208</sup>	64.77 <sup>93</sup>	16.265 <sup>132</sup>	58.38 <sup>349</sup>
26	50.01 <sup>32</sup>	23.58 <sup>379</sup>	52.772 <sup>196</sup>	43.08 <sup>256</sup>	52.877 <sup>269</sup>	63.84 <sup>62</sup>	16.397 <sup>191</sup>	54.89 <sup>350</sup>
Dez. 6	50.33 <sup>46</sup>	19.79 <sup>355</sup>	52.968 <sup>239</sup>	40.52 <sup>261</sup>	53.146 <sup>323</sup>	63.22 <sup>29</sup>	16.588 <sup>246</sup>	51.39 <sup>342</sup>
16	50.79 <sup>60</sup>	16.24 <sup>321</sup>	53.207 <sup>275</sup>	37.91 <sup>259</sup>	53.469 <sup>367</sup>	62.93 <sup>7</sup>	16.834 <sup>295</sup>	47.97 <sup>324</sup>
26	51.39 <sup>71</sup>	13.03 <sup>277</sup>	53.482 <sup>304</sup>	35.32 <sup>248</sup>	53.836 <sup>400</sup>	63.00 <sup>44</sup>	17.129 <sup>332</sup>	44.73 <sup>296</sup>
36	52.10	10.26	53.786	32.84	54.236	63.44	17.461	41.77
Mittl. Ort	53.59	44.38	52.102	55.74	52.282	57.43	16.293	70.92
sec $\delta$ , tg $\delta$	3.729	+3.593	1.034	+0.263	1.364	-0.928	1.318	+0.859

# Scheinbare Sternörter 1929

Tag	556) $\gamma$ Scorpii		557) $\psi$ Bootis		558) $\zeta$ Lupi		560) $\gamma$ Triang. austr.	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	14 <sup>h</sup> 59 <sup>m</sup>	-25° 0'	15 <sup>h</sup> 1 <sup>m</sup>	+27° 12'	15 <sup>h</sup> 7 <sup>m</sup>	-51° 49'	15 <sup>h</sup> 12 <sup>m</sup>	-68° 24'
Jan. I	52.618	8.4I	22.676	76.6I	7.514	36.63	10.96	53.71
II	52.962 <sup>344</sup>	9.65 <sup>124</sup>	22.997 <sup>321</sup>	74.00 <sup>261</sup>	7.977 <sup>463</sup>	36.81 <sup>18</sup>	11.67 <sup>71</sup>	53.24 <sup>47</sup>
2I	53.317 <sup>355</sup>	11.06 <sup>141</sup>	23.335 <sup>338</sup>	71.72 <sup>228</sup>	8.460 <sup>483</sup>	37.39 <sup>58</sup>	12.41 <sup>74</sup>	53.26 <sup>2</sup>
3I	53.675 <sup>358</sup>	12.59 <sup>153</sup>	23.679 <sup>344</sup>	69.85 <sup>187</sup>	8.949 <sup>489</sup>	38.34 <sup>95</sup>	13.17 <sup>76</sup>	53.77 <sup>51</sup>
Feb. 10	54.026 <sup>351</sup>	14.19 <sup>160</sup>	24.020 <sup>341</sup>	68.45 <sup>140</sup>	9.433 <sup>484</sup>	39.63 <sup>129</sup>	13.94 <sup>77</sup>	54.75 <sup>98</sup>
	337	161	329	90	468	159	74	140
20	54.363 <sup>317</sup>	15.80 <sup>159</sup>	24.349 <sup>309</sup>	67.55 <sup>38</sup>	9.901 <sup>443</sup>	41.22 <sup>183</sup>	14.68 <sup>71</sup>	56.15 <sup>180</sup>
März 2	54.680 <sup>292</sup>	17.39 <sup>152</sup>	24.658 <sup>285</sup>	67.17 <sup>14</sup>	10.344 <sup>413</sup>	43.05 <sup>203</sup>	15.39 <sup>66</sup>	57.95 <sup>214</sup>
12	54.972 <sup>266</sup>	18.91 <sup>144</sup>	24.943 <sup>255</sup>	67.31 <sup>62</sup>	10.757 <sup>378</sup>	45.08 <sup>219</sup>	16.05 <sup>61</sup>	60.09 <sup>242</sup>
22	55.238 <sup>236</sup>	20.35 <sup>133</sup>	25.198 <sup>223</sup>	67.93 <sup>105</sup>	11.135 <sup>338</sup>	47.27 <sup>229</sup>	16.66 <sup>54</sup>	62.51 <sup>266</sup>
Apr. I	55.474 <sup>207</sup>	21.68 <sup>121</sup>	25.421 <sup>189</sup>	68.98 <sup>142</sup>	11.473 <sup>296</sup>	49.56 <sup>236</sup>	17.20 <sup>47</sup>	65.17 <sup>283</sup>
II	55.681 <sup>177</sup>	22.89 <sup>109</sup>	25.610 <sup>154</sup>	70.40 <sup>171</sup>	11.769 <sup>251</sup>	51.92 <sup>238</sup>	17.67 <sup>40</sup>	68.00 <sup>294</sup>
2I	55.858 <sup>146</sup>	23.98 <sup>97</sup>	25.764 <sup>119</sup>	72.11 <sup>192</sup>	12.020 <sup>206</sup>	54.30 <sup>237</sup>	18.07 <sup>32</sup>	70.94 <sup>301</sup>
Mai I	56.004 <sup>115</sup>	24.95 <sup>85</sup>	25.883 <sup>84</sup>	74.03 <sup>205</sup>	12.226 <sup>159</sup>	56.67 <sup>231</sup>	18.39 <sup>23</sup>	73.95 <sup>300</sup>
10	56.119 <sup>84</sup>	25.80 <sup>73</sup>	25.967 <sup>50</sup>	76.08 <sup>209</sup>	12.385 <sup>109</sup>	58.98 <sup>221</sup>	18.62 <sup>15</sup>	76.95 <sup>295</sup>
20	56.203 <sup>52</sup>	26.53 <sup>61</sup>	26.017 <sup>17</sup>	78.17 <sup>206</sup>	12.494 <sup>60</sup>	61.19 <sup>207</sup>	18.77 <sup>6</sup>	79.90 <sup>282</sup>
30	56.255 <sup>20</sup>	27.14 <sup>49</sup>	26.034 <sup>16</sup>	80.23 <sup>196</sup>	12.554 <sup>10</sup>	63.26 <sup>190</sup>	18.83 <sup>3</sup>	82.72 <sup>265</sup>
Juni 9	56.275 <sup>11</sup>	27.63 <sup>36</sup>	26.018 <sup>46</sup>	82.19 <sup>179</sup>	12.564 <sup>40</sup>	65.16 <sup>168</sup>	18.80 <sup>12</sup>	85.37 <sup>241</sup>
19	56.264 <sup>43</sup>	27.99 <sup>24</sup>	25.972 <sup>75</sup>	83.98 <sup>158</sup>	12.524 <sup>87</sup>	66.84 <sup>143</sup>	18.68 <sup>20</sup>	87.78 <sup>211</sup>
29	56.221 <sup>71</sup>	28.23 <sup>11</sup>	25.897 <sup>102</sup>	85.56 <sup>132</sup>	12.437 <sup>133</sup>	68.27 <sup>114</sup>	18.48 <sup>28</sup>	89.89 <sup>176</sup>
Juli 9	56.150 <sup>97</sup>	28.34 <sup>2</sup>	25.795 <sup>125</sup>	86.88 <sup>102</sup>	12.304 <sup>174</sup>	69.41 <sup>82</sup>	18.20 <sup>35</sup>	91.65 <sup>136</sup>
19	56.053 <sup>120</sup>	28.32 <sup>15</sup>	25.670 <sup>145</sup>	87.90 <sup>71</sup>	12.130 <sup>207</sup>	70.23 <sup>47</sup>	17.85 <sup>40</sup>	93.01 <sup>92</sup>
29	55.933 <sup>138</sup>	28.17 <sup>29</sup>	25.525 <sup>160</sup>	88.61 <sup>37</sup>	11.923 <sup>233</sup>	70.70 <sup>11</sup>	17.45 <sup>45</sup>	93.93 <sup>45</sup>
Aug. 8	55.795 <sup>150</sup>	27.88 <sup>42</sup>	25.365 <sup>169</sup>	88.98 <sup>1</sup>	11.690 <sup>250</sup>	70.81 <sup>26</sup>	17.00 <sup>47</sup>	94.38 <sup>3</sup>
18	55.645 <sup>153</sup>	27.46 <sup>53</sup>	25.196 <sup>172</sup>	88.99 <sup>35</sup>	11.440 <sup>255</sup>	70.55 <sup>62</sup>	16.53 <sup>47</sup>	94.35 <sup>51</sup>
28	55.492 <sup>149</sup>	26.93 <sup>62</sup>	25.024 <sup>167</sup>	88.64 <sup>71</sup>	11.185 <sup>247</sup>	69.93 <sup>96</sup>	16.06 <sup>46</sup>	93.84 <sup>99</sup>
Sept. 7	55.343 <sup>135</sup>	26.31 <sup>68</sup>	24.857 <sup>154</sup>	87.93 <sup>107</sup>	10.938 <sup>226</sup>	68.97 <sup>126</sup>	15.60 <sup>43</sup>	92.85 <sup>142</sup>
17	55.208 <sup>111</sup>	25.63 <sup>70</sup>	24.703 <sup>133</sup>	86.86 <sup>142</sup>	10.712 <sup>191</sup>	67.71 <sup>152</sup>	15.17 <sup>36</sup>	91.43 <sup>181</sup>
27	55.097 <sup>80</sup>	24.93 <sup>68</sup>	24.570 <sup>104</sup>	85.44 <sup>177</sup>	10.521 <sup>144</sup>	66.19 <sup>172</sup>	14.81 <sup>29</sup>	89.62 <sup>213</sup>
Okt. 7	55.017 <sup>38</sup>	24.25 <sup>62</sup>	24.466 <sup>66</sup>	83.67 <sup>209</sup>	10.377 <sup>84</sup>	64.47 <sup>185</sup>	14.52 <sup>19</sup>	87.49 <sup>236</sup>
17	54.979 <sup>10</sup>	23.63 <sup>50</sup>	24.400 <sup>22</sup>	81.58 <sup>239</sup>	10.293 <sup>16</sup>	62.62 <sup>188</sup>	14.33 <sup>8</sup>	85.13 <sup>251</sup>
27	54.989 <sup>62</sup>	23.13 <sup>34</sup>	24.378 <sup>27</sup>	79.19 <sup>204</sup>	10.277 <sup>59</sup>	60.74 <sup>183</sup>	14.25 <sup>4</sup>	82.62 <sup>254</sup>
Nov. 6	55.051 <sup>117</sup>	22.79 <sup>13</sup>	24.405 <sup>80</sup>	76.55 <sup>285</sup>	10.336 <sup>138</sup>	58.91 <sup>170</sup>	14.29 <sup>17</sup>	80.08 <sup>246</sup>
16	55.168 <sup>172</sup>	22.66 <sup>11</sup>	24.485 <sup>134</sup>	73.70 <sup>300</sup>	10.474 <sup>215</sup>	57.21 <sup>148</sup>	14.46 <sup>29</sup>	77.62 <sup>230</sup>
26	55.340 <sup>223</sup>	22.77 <sup>37</sup>	24.619 <sup>186</sup>	70.70 <sup>308</sup>	10.689 <sup>287</sup>	55.73 <sup>120</sup>	14.75 <sup>41</sup>	75.32 <sup>202</sup>
Dez. 6	55.563 <sup>269</sup>	23.14 <sup>63</sup>	24.805 <sup>233</sup>	67.62 <sup>307</sup>	10.976 <sup>353</sup>	54.53 <sup>85</sup>	15.16 <sup>52</sup>	73.30 <sup>166</sup>
16	55.832 <sup>306</sup>	23.77 <sup>88</sup>	25.038 <sup>274</sup>	64.55 <sup>297</sup>	11.329 <sup>407</sup>	53.68 <sup>47</sup>	15.68 <sup>61</sup>	71.64 <sup>125</sup>
26	56.138 <sup>335</sup>	24.65 <sup>112</sup>	25.312 <sup>306</sup>	61.58 <sup>277</sup>	11.736 <sup>448</sup>	53.21 <sup>7</sup>	16.29 <sup>68</sup>	70.39 <sup>78</sup>
36	56.473	25.77	25.618	58.81	12.184	53.14	16.97	69.61
Mittl. Ort	54.557	14.95	24.183	84.71	10.293	49.12	15.30	68.50
sec $\delta$ , tg $\delta$	1.103	-0.466	1.125	+0.514	1.618	-1.272	2.719	-2.528



# Obere Kulmination Greenwich

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Tag	563) δ Bootis		564) β Librae		565) γ H. Ursae min.		566) φ <sup>1</sup> Lupi	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	15 <sup>h</sup> 12 <sup>m</sup>	+33° 34'	15 <sup>h</sup> 13 <sup>m</sup>	−9° 7'	15 <sup>h</sup> 13 <sup>m</sup>	+67° 36'	15 <sup>h</sup> 17 <sup>m</sup>	−36° 0'
Jan. I	36.864 <sup>324</sup>	33.97 <sup>275</sup>	9.217 <sup>312</sup>	18.05 <sup>172</sup>	47.04 <sup>54</sup>	42.92 <sup>278</sup>	15.353 <sup>369</sup>	10.11 <sup>69</sup>
II	37.188 <sup>345</sup>	31.22 <sup>238</sup>	9.529 <sup>326</sup>	19.77 <sup>173</sup>	47.58 <sup>60</sup>	40.14 <sup>225</sup>	15.722 <sup>385</sup>	10.80 <sup>95</sup>
2I	37.533 <sup>356</sup>	28.84 <sup>193</sup>	9.855 <sup>330</sup>	21.50 <sup>168</sup>	48.18 <sup>64</sup>	37.89 <sup>164</sup>	16.107 <sup>392</sup>	11.75 <sup>118</sup>
3I	37.889 <sup>356</sup>	26.91 <sup>141</sup>	10.185 <sup>326</sup>	23.18 <sup>157</sup>	48.82 <sup>66</sup>	36.25 <sup>98</sup>	16.499 <sup>388</sup>	12.93 <sup>136</sup>
Feb. 10	38.245 <sup>346</sup>	25.50 <sup>86</sup>	10.511 <sup>315</sup>	24.75 <sup>142</sup>	49.48 <sup>65</sup>	35.27 <sup>29</sup>	16.887 <sup>376</sup>	14.29 <sup>150</sup>
20	38.591 <sup>329</sup>	24.64 <sup>29</sup>	10.826 <sup>299</sup>	26.17 <sup>123</sup>	50.13 <sup>62</sup>	34.98 <sup>39</sup>	17.263 <sup>358</sup>	15.79 <sup>160</sup>
März 2	38.920 <sup>305</sup>	24.35 <sup>26</sup>	11.125 <sup>277</sup>	27.40 <sup>101</sup>	50.75 <sup>57</sup>	35.37 <sup>103</sup>	17.621 <sup>335</sup>	17.39 <sup>165</sup>
12	39.225 <sup>274</sup>	24.61 <sup>78</sup>	11.402 <sup>254</sup>	28.41 <sup>79</sup>	51.32 <sup>52</sup>	36.40 <sup>162</sup>	17.956 <sup>308</sup>	19.04 <sup>167</sup>
22	39.499 <sup>242</sup>	25.39 <sup>125</sup>	11.656 <sup>228</sup>	29.20 <sup>56</sup>	51.84 <sup>44</sup>	38.02 <sup>213</sup>	18.264 <sup>279</sup>	20.71 <sup>167</sup>
Apr. I	39.741 <sup>206</sup>	26.64 <sup>165</sup>	11.884 <sup>201</sup>	29.76 <sup>36</sup>	52.28 <sup>35</sup>	40.15 <sup>254</sup>	18.543 <sup>247</sup>	22.38 <sup>164</sup>
II	39.947 <sup>169</sup>	28.29 <sup>196</sup>	12.085 <sup>174</sup>	30.12 <sup>16</sup>	52.63 <sup>26</sup>	42.69 <sup>283</sup>	18.790 <sup>215</sup>	24.02 <sup>159</sup>
2I	40.116 <sup>131</sup>	30.25 <sup>219</sup>	12.259 <sup>146</sup>	30.28 <sup>0</sup>	52.89 <sup>16</sup>	45.52 <sup>303</sup>	19.005 <sup>181</sup>	25.61 <sup>152</sup>
Mai I	40.247 <sup>93</sup>	32.44 <sup>232</sup>	12.405 <sup>117</sup>	30.28 <sup>14</sup>	53.05 <sup>7</sup>	48.55 <sup>310</sup>	19.186 <sup>147</sup>	27.13 <sup>144</sup>
10*)	40.340 <sup>55</sup>	34.76 <sup>237</sup>	12.522 <sup>88</sup>	30.14 <sup>24</sup>	53.12 <sup>3</sup>	51.65 <sup>307</sup>	19.333 <sup>111</sup>	28.57 <sup>134</sup>
20	40.395 <sup>18</sup>	37.13 <sup>233</sup>	12.610 <sup>59</sup>	29.90 <sup>32</sup>	53.09 <sup>12</sup>	54.72 <sup>292</sup>	19.444 <sup>73</sup>	29.91 <sup>123</sup>
30	40.413 <sup>17</sup>	39.46 <sup>221</sup>	12.669 <sup>30</sup>	29.58 <sup>37</sup>	52.97 <sup>20</sup>	57.64 <sup>269</sup>	19.517 <sup>36</sup>	31.14 <sup>110</sup>
Juni 9	40.396 <sup>52</sup>	41.67 <sup>203</sup>	12.699 <sup>0</sup>	29.21 <sup>41</sup>	52.77 <sup>28</sup>	60.33 <sup>238</sup>	19.553 <sup>1</sup>	32.24 <sup>94</sup>
19	40.344 <sup>84</sup>	43.70 <sup>178</sup>	12.699 <sup>30</sup>	28.80 <sup>43</sup>	52.49 <sup>35</sup>	62.71 <sup>200</sup>	19.552 <sup>39</sup>	33.18 <sup>78</sup>
29	40.260 <sup>113</sup>	45.48 <sup>149</sup>	12.669 <sup>56</sup>	28.37 <sup>43</sup>	52.14 <sup>41</sup>	64.71 <sup>156</sup>	19.513 <sup>75</sup>	33.96 <sup>59</sup>
Juli 9	40.147 <sup>140</sup>	46.97 <sup>117</sup>	12.613 <sup>81</sup>	27.94 <sup>42</sup>	51.73 <sup>46</sup>	66.27 <sup>109</sup>	19.438 <sup>107</sup>	34.55 <sup>39</sup>
19	40.007 <sup>162</sup>	48.14 <sup>80</sup>	12.532 <sup>105</sup>	27.52 <sup>41</sup>	51.27 <sup>50</sup>	67.36 <sup>59</sup>	19.331 <sup>136</sup>	34.94 <sup>17</sup>
29	39.845 <sup>179</sup>	48.94 <sup>42</sup>	12.427 <sup>123</sup>	27.11 <sup>38</sup>	50.77 <sup>52</sup>	67.95 <sup>7</sup>	19.195 <sup>158</sup>	35.11 <sup>5</sup>
Aug. 8	39.666 <sup>189</sup>	49.36 <sup>2</sup>	12.304 <sup>135</sup>	26.73 <sup>35</sup>	50.25 <sup>53</sup>	68.02 <sup>47</sup>	19.037 <sup>175</sup>	35.06 <sup>28</sup>
18	39.477 <sup>194</sup>	49.38 <sup>38</sup>	12.169 <sup>141</sup>	26.38 <sup>31</sup>	49.72 <sup>53</sup>	67.55 <sup>98</sup>	18.862 <sup>182</sup>	34.78 <sup>49</sup>
28	39.283 <sup>191</sup>	49.00 <sup>79</sup>	12.028 <sup>140</sup>	26.07 <sup>24</sup>	49.19 <sup>52</sup>	66.57 <sup>149</sup>	18.680 <sup>179</sup>	34.29 <sup>70</sup>
Sept. 7	39.092 <sup>179</sup>	48.21 <sup>119</sup>	11.888 <sup>129</sup>	25.83 <sup>16</sup>	48.67 <sup>48</sup>	65.08 <sup>198</sup>	18.501 <sup>167</sup>	33.59 <sup>87</sup>
17	38.913 <sup>157</sup>	47.02 <sup>158</sup>	11.759 <sup>111</sup>	25.67 <sup>5</sup>	48.19 <sup>44</sup>	63.10 <sup>243</sup>	18.334 <sup>143</sup>	32.72 <sup>101</sup>
27	38.756 <sup>128</sup>	45.44 <sup>195</sup>	11.648 <sup>83</sup>	25.62 <sup>7</sup>	47.75 <sup>38</sup>	60.67 <sup>284</sup>	18.191 <sup>108</sup>	31.71 <sup>109</sup>
Okt. 7	38.628 <sup>90</sup>	43.49 <sup>230</sup>	11.565 <sup>48</sup>	25.69 <sup>23</sup>	47.37 <sup>31</sup>	57.83 <sup>321</sup>	18.083 <sup>64</sup>	30.62 <sup>112</sup>
17	38.538 <sup>45</sup>	41.19 <sup>261</sup>	11.517 <sup>5</sup>	25.92 <sup>41</sup>	47.06 <sup>22</sup>	54.62 <sup>351</sup>	18.019 <sup>12</sup>	29.50 <sup>109</sup>
27	38.493 <sup>6</sup>	38.58 <sup>288</sup>	11.512 <sup>42</sup>	26.33 <sup>61</sup>	46.84 <sup>12</sup>	51.11 <sup>374</sup>	18.007 <sup>45</sup>	28.41 <sup>99</sup>
Nov. 6	38.499 <sup>62</sup>	35.70 <sup>310</sup>	11.554 <sup>93</sup>	26.94 <sup>83</sup>	46.72 <sup>2</sup>	47.37 <sup>388</sup>	18.052 <sup>107</sup>	27.42 <sup>84</sup>
16	38.561 <sup>118</sup>	32.60 <sup>323</sup>	11.647 <sup>143</sup>	27.77 <sup>104</sup>	46.70 <sup>9</sup>	43.49 <sup>394</sup>	18.159 <sup>168</sup>	26.58 <sup>63</sup>
26	38.679 <sup>173</sup>	29.37 <sup>331</sup>	11.790 <sup>192</sup>	28.81 <sup>125</sup>	46.79 <sup>20</sup>	39.55 <sup>388</sup>	18.327 <sup>227</sup>	25.95 <sup>37</sup>
Dez. 6	38.852 <sup>225</sup>	26.06 <sup>328</sup>	11.982 <sup>236</sup>	30.06 <sup>144</sup>	46.99 <sup>31</sup>	35.67 <sup>373</sup>	18.554 <sup>278</sup>	25.58 <sup>8</sup>
16	39.077 <sup>270</sup>	22.78 <sup>315</sup>	12.218 <sup>272</sup>	31.50 <sup>158</sup>	47.30 <sup>41</sup>	31.94 <sup>345</sup>	18.832 <sup>323</sup>	25.50 <sup>21</sup>
26	39.347 <sup>307</sup>	19.63 <sup>293</sup>	12.490 <sup>301</sup>	33.08 <sup>168</sup>	47.71 <sup>50</sup>	28.49 <sup>307</sup>	19.155 <sup>356</sup>	25.71 <sup>50</sup>
36	39.654	16.70	12.791	34.76	48.21	25.42	19.511	26.21
Mittl. Ort	38.423	43.58	11.007	19.55	48.99	57.78	17.621	18.46
sec δ, tg δ	1.200	+0.664	1.013	−0.161	2.626	+2.428	1.236	−0.727

\*) Bei Stern 564), 565) und 566) lies Mai 11

Tag	569) $\gamma$ Ursae min.		568) $\mu$ Bootis		571) $\epsilon$ Draconis		572) $\beta$ Coron. bor.	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	15 <sup>h</sup> 20 <sup>m</sup>	+72° 4'	15 <sup>h</sup> 21 <sup>m</sup>	+37° 37'	15 <sup>h</sup> 23 <sup>m</sup>	+59° 12'	15 <sup>h</sup> 24 <sup>m</sup>	+29° 20'
Jan. 1	47.36 <sup>62</sup>	56.84 <sup>279</sup>	46.854 <sup>324</sup>	20.61 <sup>283</sup>	19.053 <sup>424</sup>	37.54 <sup>293</sup>	52.470 <sup>308</sup>	49.37 <sup>274</sup>
11	47.98 <sup>70</sup>	54.05 <sup>225</sup>	47.178 <sup>350</sup>	17.78 <sup>245</sup>	19.477 <sup>468</sup>	34.61 <sup>242</sup>	52.778 <sup>329</sup>	46.63 <sup>241</sup>
21	48.68 <sup>76</sup>	51.80 <sup>165</sup>	47.528 <sup>364</sup>	15.33 <sup>197</sup>	19.945 <sup>496</sup>	32.19 <sup>184</sup>	53.107 <sup>341</sup>	44.22 <sup>200</sup>
31	49.44 <sup>78</sup>	50.15 <sup>98</sup>	47.892 <sup>366</sup>	13.36 <sup>144</sup>	20.441 <sup>509</sup>	30.35 <sup>121</sup>	53.448 <sup>344</sup>	42.22 <sup>152</sup>
Feb. 10	50.22 <sup>78</sup>	49.17 <sup>30</sup>	48.258 <sup>359</sup>	11.92 <sup>86</sup>	20.950 <sup>505</sup>	29.14 <sup>54</sup>	53.792 <sup>336</sup>	40.70 <sup>100</sup>
20	51.00 <sup>76</sup>	48.87 <sup>38</sup>	48.617 <sup>344</sup>	11.06 <sup>27</sup>	21.455 <sup>486</sup>	28.60 <sup>13</sup>	54.128 <sup>322</sup>	39.70 <sup>46</sup>
März 2	51.76 <sup>70</sup>	49.25 <sup>103</sup>	48.961 <sup>320</sup>	10.79 <sup>31</sup>	21.941 <sup>453</sup>	28.73 <sup>79</sup>	54.450 <sup>300</sup>	39.24 <sup>7</sup>
12	52.46 <sup>63</sup>	50.28 <sup>162</sup>	49.281 <sup>291</sup>	11.10 <sup>86</sup>	22.394 <sup>409</sup>	29.52 <sup>138</sup>	54.750 <sup>274</sup>	39.31 <sup>59</sup>
22	53.09 <sup>54</sup>	51.90 <sup>214</sup>	49.572 <sup>257</sup>	11.96 <sup>135</sup>	22.803 <sup>356</sup>	30.90 <sup>192</sup>	55.024 <sup>245</sup>	39.90 <sup>105</sup>
Apr. 1	53.63 <sup>43</sup>	54.04 <sup>255</sup>	49.829 <sup>220</sup>	13.31 <sup>177</sup>	23.159 <sup>295</sup>	32.82 <sup>235</sup>	55.269 <sup>212</sup>	40.95 <sup>145</sup>
11	54.06 <sup>32</sup>	56.59 <sup>286</sup>	50.049 <sup>181</sup>	15.08 <sup>210</sup>	23.454 <sup>229</sup>	35.17 <sup>269</sup>	55.481 <sup>178</sup>	42.40 <sup>178</sup>
21	54.38 <sup>20</sup>	59.45 <sup>306</sup>	50.230 <sup>141</sup>	17.18 <sup>234</sup>	23.683 <sup>162</sup>	37.86 <sup>292</sup>	55.659 <sup>143</sup>	44.18 <sup>202</sup>
Mai 1	54.58 <sup>8</sup>	62.51 <sup>313</sup>	50.371 <sup>101</sup>	19.52 <sup>249</sup>	23.845 <sup>93</sup>	40.78 <sup>303</sup>	55.802 <sup>107</sup>	46.20 <sup>217</sup>
11	54.66 <sup>4</sup>	65.64 <sup>310</sup>	50.472 <sup>60</sup>	22.01 <sup>254</sup>	23.938 <sup>24</sup>	43.81 <sup>303</sup>	55.909 <sup>72</sup>	48.37 <sup>225</sup>
20	54.62 <sup>16</sup>	68.74 <sup>297</sup>	50.532 <sup>20</sup>	24.55 <sup>251</sup>	23.962 <sup>42</sup>	46.84 <sup>294</sup>	55.981 <sup>36</sup>	50.62 <sup>224</sup>
30	54.46 <sup>27</sup>	71.71 <sup>274</sup>	50.552 <sup>19</sup>	27.06 <sup>238</sup>	23.920 <sup>105</sup>	49.78 <sup>276</sup>	56.017 <sup>1</sup>	52.86 <sup>214</sup>
Juni 9	54.19 <sup>37</sup>	74.45 <sup>242</sup>	50.533 <sup>56</sup>	29.44 <sup>219</sup>	23.815 <sup>164</sup>	52.54 <sup>248</sup>	56.018 <sup>32</sup>	55.00 <sup>200</sup>
19	53.82 <sup>45</sup>	76.87 <sup>205</sup>	50.477 <sup>90</sup>	31.63 <sup>193</sup>	23.651 <sup>218</sup>	55.02 <sup>214</sup>	55.986 <sup>65</sup>	57.00 <sup>179</sup>
29	53.37 <sup>53</sup>	78.92 <sup>162</sup>	50.387 <sup>123</sup>	33.56 <sup>163</sup>	23.433 <sup>265</sup>	57.16 <sup>174</sup>	55.921 <sup>96</sup>	58.79 <sup>152</sup>
Juli 9	52.84 <sup>59</sup>	80.54 <sup>114</sup>	50.264 <sup>152</sup>	35.19 <sup>127</sup>	23.168 <sup>306</sup>	58.90 <sup>129</sup>	55.825 <sup>123</sup>	60.31 <sup>123</sup>
19	52.25 <sup>64</sup>	81.68 <sup>63</sup>	50.112 <sup>176</sup>	36.46 <sup>89</sup>	22.862 <sup>338</sup>	60.19 <sup>82</sup>	55.702 <sup>146</sup>	61.54 <sup>90</sup>
29	51.61 <sup>67</sup>	82.31 <sup>11</sup>	49.936 <sup>195</sup>	37.35 <sup>49</sup>	22.524 <sup>363</sup>	61.01 <sup>32</sup>	55.556 <sup>166</sup>	62.44 <sup>55</sup>
Aug. 8	50.94 <sup>68</sup>	82.42 <sup>41</sup>	49.741 <sup>208</sup>	37.84 <sup>7</sup>	22.161 <sup>377</sup>	61.33 <sup>19</sup>	55.390 <sup>179</sup>	62.99 <sup>18</sup>
18	50.26 <sup>69</sup>	82.01 <sup>94</sup>	49.533 <sup>213</sup>	37.91 <sup>36</sup>	21.784 <sup>381</sup>	61.14 <sup>70</sup>	55.211 <sup>186</sup>	63.17 <sup>20</sup>
28	49.57 <sup>67</sup>	81.07 <sup>146</sup>	49.320 <sup>211</sup>	37.55 <sup>79</sup>	21.403 <sup>373</sup>	60.44 <sup>121</sup>	55.025 <sup>184</sup>	62.97 <sup>59</sup>
Sept. 7	48.90 <sup>64</sup>	79.61 <sup>194</sup>	49.109 <sup>199</sup>	36.76 <sup>122</sup>	21.030 <sup>355</sup>	59.23 <sup>170</sup>	54.841 <sup>175</sup>	62.38 <sup>96</sup>
17	48.26 <sup>58</sup>	77.67 <sup>239</sup>	48.910 <sup>180</sup>	35.54 <sup>163</sup>	20.675 <sup>323</sup>	57.53 <sup>216</sup>	54.666 <sup>157</sup>	61.42 <sup>134</sup>
27	47.68 <sup>51</sup>	75.28 <sup>282</sup>	48.730 <sup>149</sup>	33.91 <sup>202</sup>	20.352 <sup>280</sup>	55.37 <sup>259</sup>	54.509 <sup>130</sup>	60.08 <sup>171</sup>
Okt. 7	47.17 <sup>42</sup>	72.46 <sup>317</sup>	48.581 <sup>111</sup>	31.89 <sup>239</sup>	20.072 <sup>225</sup>	52.78 <sup>298</sup>	54.379 <sup>94</sup>	58.37 <sup>205</sup>
17	46.75 <sup>32</sup>	69.29 <sup>348</sup>	48.470 <sup>65</sup>	29.50 <sup>271</sup>	19.847 <sup>160</sup>	49.80 <sup>330</sup>	54.285 <sup>51</sup>	56.32 <sup>237</sup>
27	46.43 <sup>20</sup>	65.81 <sup>372</sup>	48.405 <sup>13</sup>	26.79 <sup>299</sup>	19.687 <sup>85</sup>	46.50 <sup>357</sup>	54.234 <sup>3</sup>	53.95 <sup>265</sup>
Nov. 6	46.23 <sup>7</sup>	62.09 <sup>386</sup>	48.392 <sup>45</sup>	23.80 <sup>322</sup>	19.602 <sup>5</sup>	42.93 <sup>376</sup>	54.231 <sup>51</sup>	51.30 <sup>288</sup>
16	46.16 <sup>6</sup>	58.23 <sup>392</sup>	48.437 <sup>103</sup>	20.58 <sup>336</sup>	19.597 <sup>81</sup>	39.17 <sup>386</sup>	54.282 <sup>106</sup>	48.42 <sup>305</sup>
26	46.22 <sup>20</sup>	54.31 <sup>387</sup>	48.540 <sup>161</sup>	17.22 <sup>343</sup>	19.678 <sup>165</sup>	35.31 <sup>385</sup>	54.388 <sup>159</sup>	45.37 <sup>314</sup>
Dez. 6	46.42 <sup>33</sup>	50.44 <sup>372</sup>	48.701 <sup>216</sup>	13.79 <sup>339</sup>	19.843 <sup>247</sup>	31.46 <sup>374</sup>	54.547 <sup>209</sup>	42.23 <sup>316</sup>
16	46.75 <sup>45</sup>	46.72 <sup>345</sup>	48.917 <sup>265</sup>	10.40 <sup>326</sup>	20.090 <sup>323</sup>	27.72 <sup>352</sup>	54.756 <sup>254</sup>	39.07 <sup>307</sup>
26	47.20 <sup>56</sup>	43.27 <sup>307</sup>	49.182 <sup>306</sup>	7.14 <sup>303</sup>	20.413 <sup>389</sup>	24.20 <sup>318</sup>	55.010 <sup>290</sup>	36.00 <sup>289</sup>
36	47.76	40.20	49.488	4.11	20.802	21.02	55.300	33.11
Mittl. Ort	49.63	71.85	48.467	31.05	20.868	51.37	54.095	58.07
see $\bar{\delta}$ , tg $\bar{\delta}$	3.251	+3.094	1.263	+0.771	1.954	+1.678	1.147	+0.562

# Obere Kulmination Greenwich

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Tag	573) $\nu$ Bootis		575) $\gamma$ Lupi		577) $\gamma$ Librae		578) $\alpha$ Coron. bor.	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	15 <sup>h</sup> 28 <sup>m</sup>	+41° 4'	15 <sup>h</sup> 30 <sup>m</sup>	-40° 55'	15 <sup>h</sup> 31 <sup>m</sup>	-14° 33'	15 <sup>h</sup> 31 <sup>m</sup>	+26° 56'
Jan. 1	21.055 <sup>329</sup>	16.20 <sup>291</sup>	21.562 <sup>382</sup>	37.77 <sup>36</sup>	31.131 <sup>310</sup>	11.95 <sup>143</sup>	39.215 <sup>300</sup>	61.21 <sup>272</sup>
11	21.384 <sup>356</sup>	13.29 <sup>250</sup>	21.944 <sup>403</sup>	38.13 <sup>66</sup>	31.441 <sup>326</sup>	13.38 <sup>150</sup>	39.515 <sup>323</sup>	58.49 <sup>242</sup>
21	21.740 <sup>373</sup>	10.79 <sup>202</sup>	22.347 <sup>413</sup>	38.79 <sup>92</sup>	31.767 <sup>334</sup>	14.88 <sup>151</sup>	39.838 <sup>335</sup>	56.07 <sup>203</sup>
31	22.113 <sup>378</sup>	8.77 <sup>147</sup>	22.760 <sup>412</sup>	39.71 <sup>116</sup>	32.101 <sup>333</sup>	16.39 <sup>146</sup>	40.173 <sup>338</sup>	54.04 <sup>158</sup>
Feb. 10	22.491 <sup>373</sup>	7.30 <sup>87</sup>	23.172 <sup>402</sup>	40.87 <sup>134</sup>	32.434 <sup>325</sup>	17.85 <sup>137</sup>	40.511 <sup>332</sup>	52.46 <sup>108</sup>
20	22.864 <sup>358</sup>	6.43 <sup>26</sup>	23.574 <sup>387</sup>	42.21 <sup>150</sup>	32.759 <sup>311</sup>	19.22 <sup>124</sup>	40.843 <sup>319</sup>	51.38 <sup>55</sup>
März 2	23.222 <sup>336</sup>	6.17 <sup>34</sup>	23.961 <sup>365</sup>	43.71 <sup>162</sup>	33.070 <sup>293</sup>	20.46 <sup>108</sup>	41.162 <sup>299</sup>	50.83 <sup>3</sup>
12	23.558 <sup>306</sup>	6.51 <sup>92</sup>	24.326 <sup>338</sup>	45.33 <sup>169</sup>	33.363 <sup>272</sup>	21.54 <sup>91</sup>	41.461 <sup>275</sup>	50.80 <sup>47</sup>
22	23.864 <sup>272</sup>	7.43 <sup>143</sup>	24.664 <sup>309</sup>	47.02 <sup>173</sup>	33.635 <sup>247</sup>	22.45 <sup>73</sup>	41.736 <sup>247</sup>	51.27 <sup>94</sup>
Apr. 1	24.136 <sup>234</sup>	8.86 <sup>185</sup>	24.973 <sup>278</sup>	48.75 <sup>175</sup>	33.882 <sup>222</sup>	23.18 <sup>56</sup>	41.983 <sup>217</sup>	52.21 <sup>133</sup>
11	24.370 <sup>192</sup>	10.71 <sup>220</sup>	25.251 <sup>244</sup>	50.50 <sup>174</sup>	34.104 <sup>196</sup>	23.74 <sup>40</sup>	42.200 <sup>184</sup>	53.54 <sup>167</sup>
21	24.562 <sup>150</sup>	12.91 <sup>245</sup>	25.495 <sup>208</sup>	52.24 <sup>172</sup>	34.300 <sup>169</sup>	24.14 <sup>25</sup>	42.384 <sup>150</sup>	55.21 <sup>191</sup>
Mai 1	24.712 <sup>107</sup>	15.36 <sup>261</sup>	25.703 <sup>171</sup>	53.96 <sup>166</sup>	34.469 <sup>139</sup>	24.39 <sup>14</sup>	42.534 <sup>116</sup>	57.12 <sup>207</sup>
11	24.819 <sup>64</sup>	17.97 <sup>266</sup>	25.874 <sup>132</sup>	55.62 <sup>158</sup>	34.608 <sup>110</sup>	24.53 <sup>3</sup>	42.650 <sup>82</sup>	59.19 <sup>217</sup>
20	24.883 <sup>21</sup>	20.63 <sup>263</sup>	26.006 <sup>92</sup>	57.20 <sup>149</sup>	34.718 <sup>80</sup>	24.56 <sup>5</sup>	42.732 <sup>46</sup>	61.36 <sup>216</sup>
30	24.904 <sup>20</sup>	23.26 <sup>250</sup>	26.098 <sup>51</sup>	58.69 <sup>137</sup>	34.798 <sup>48</sup>	24.51 <sup>10</sup>	42.778 <sup>12</sup>	63.52 <sup>209</sup>
Juni 9	24.884 <sup>61</sup>	25.76 <sup>231</sup>	26.149 <sup>8</sup>	60.06 <sup>122</sup>	34.846 <sup>17</sup>	24.41 <sup>16</sup>	42.790 <sup>22</sup>	65.61 <sup>196</sup>
19	24.823 <sup>98</sup>	28.07 <sup>204</sup>	26.157 <sup>33</sup>	61.28 <sup>105</sup>	34.863 <sup>15</sup>	24.25 <sup>20</sup>	42.768 <sup>54</sup>	67.57 <sup>177</sup>
29	24.725 <sup>132</sup>	30.11 <sup>172</sup>	26.124 <sup>73</sup>	62.33 <sup>85</sup>	34.848 <sup>45</sup>	24.05 <sup>22</sup>	42.714 <sup>85</sup>	69.34 <sup>152</sup>
Juli 9	24.593 <sup>163</sup>	31.83 <sup>135</sup>	26.051 <sup>111</sup>	63.18 <sup>63</sup>	34.803 <sup>75</sup>	23.83 <sup>25</sup>	42.629 <sup>114</sup>	70.86 <sup>125</sup>
19	24.430 <sup>190</sup>	33.18 <sup>96</sup>	25.940 <sup>143</sup>	63.81 <sup>39</sup>	34.728 <sup>100</sup>	23.58 <sup>28</sup>	42.515 <sup>138</sup>	72.11 <sup>93</sup>
29	24.240 <sup>210</sup>	34.14 <sup>54</sup>	25.797 <sup>171</sup>	64.20 <sup>12</sup>	34.628 <sup>122</sup>	23.30 <sup>30</sup>	42.377 <sup>158</sup>	73.04 <sup>60</sup>
Aug. 8	24.030 <sup>225</sup>	34.68 <sup>9</sup>	25.626 <sup>190</sup>	64.32 <sup>14</sup>	34.506 <sup>137</sup>	23.00 <sup>32</sup>	42.219 <sup>172</sup>	73.64 <sup>25</sup>
18	23.805 <sup>231</sup>	34.77 <sup>35</sup>	25.436 <sup>200</sup>	64.18 <sup>40</sup>	34.369 <sup>147</sup>	22.68 <sup>32</sup>	42.047 <sup>180</sup>	73.89 <sup>12</sup>
28	23.574 <sup>229</sup>	34.42 <sup>80</sup>	25.236 <sup>200</sup>	63.78 <sup>65</sup>	34.222 <sup>148</sup>	22.36 <sup>31</sup>	41.867 <sup>181</sup>	73.77 <sup>48</sup>
Sept. 7	23.345 <sup>219</sup>	33.62 <sup>125</sup>	25.036 <sup>189</sup>	63.13 <sup>88</sup>	34.074 <sup>141</sup>	22.05 <sup>28</sup>	41.686 <sup>172</sup>	73.29 <sup>86</sup>
17	23.126 <sup>198</sup>	32.37 <sup>167</sup>	24.847 <sup>165</sup>	62.25 <sup>107</sup>	33.933 <sup>124</sup>	21.77 <sup>24</sup>	41.514 <sup>156</sup>	72.43 <sup>122</sup>
27	22.928 <sup>168</sup>	30.70 <sup>208</sup>	24.682 <sup>131</sup>	61.18 <sup>121</sup>	33.809 <sup>98</sup>	21.53 <sup>15</sup>	41.358 <sup>129</sup>	71.21 <sup>158</sup>
Okt. 7	22.760 <sup>130</sup>	28.62 <sup>246</sup>	24.551 <sup>85</sup>	59.97 <sup>135</sup>	33.711 <sup>62</sup>	21.38 <sup>9</sup>	41.229 <sup>96</sup>	69.63 <sup>192</sup>
17	22.630 <sup>82</sup>	26.16 <sup>280</sup>	24.466 <sup>31</sup>	58.67 <sup>132</sup>	33.649 <sup>21</sup>	21.33 <sup>9</sup>	41.133 <sup>53</sup>	67.71 <sup>224</sup>
27	22.548 <sup>28</sup>	23.36 <sup>309</sup>	24.435 <sup>30</sup>	57.35 <sup>126</sup>	33.628 <sup>27</sup>	21.42 <sup>25</sup>	41.080 <sup>6</sup>	65.47 <sup>252</sup>
Nov. 6	22.520 <sup>31</sup>	20.27 <sup>331</sup>	24.465 <sup>96</sup>	56.09 <sup>115</sup>	33.655 <sup>78</sup>	21.67 <sup>45</sup>	41.074 <sup>46</sup>	62.95 <sup>276</sup>
16	22.551 <sup>92</sup>	16.96 <sup>347</sup>	24.561 <sup>160</sup>	54.94 <sup>96</sup>	33.733 <sup>130</sup>	22.12 <sup>66</sup>	41.120 <sup>100</sup>	60.19 <sup>294</sup>
26	22.643 <sup>153</sup>	13.49 <sup>352</sup>	24.721 <sup>223</sup>	53.98 <sup>73</sup>	33.863 <sup>181</sup>	22.78 <sup>86</sup>	41.220 <sup>152</sup>	57.25 <sup>305</sup>
Dez. 6	22.796 <sup>211</sup>	9.97 <sup>349</sup>	24.944 <sup>280</sup>	53.25 <sup>45</sup>	34.044 <sup>226</sup>	23.64 <sup>105</sup>	41.372 <sup>203</sup>	54.20 <sup>308</sup>
16	23.007 <sup>262</sup>	6.48 <sup>335</sup>	25.224 <sup>329</sup>	52.80 <sup>15</sup>	34.270 <sup>266</sup>	24.69 <sup>123</sup>	41.575 <sup>247</sup>	51.12 <sup>301</sup>
26	23.269 <sup>307</sup>	3.13 <sup>311</sup>	25.553 <sup>368</sup>	52.65 <sup>16</sup>	34.536 <sup>297</sup>	25.92 <sup>137</sup>	41.822 <sup>283</sup>	48.11 <sup>286</sup>
36	23.576	0.02	25.921	52.81	34.833	27.29	42.105	45.25
Mittl. Ort	22.717	27.25	24.050	46.34	33.069	14.12	40.875	69.40
sec $\delta$ , tg $\delta$	1.326	+0.872	1.324	-0.867	1.033	-0.260	1.122	+0.508

Tag	582) $\alpha$ Serpentis		583) $\beta$ Serpentis		584) $\gamma$ Serpentis		585) $\mu$ Serpentis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	15 <sup>h</sup> 40 <sup>m</sup>	+6° 38'	15 <sup>h</sup> 42 <sup>m</sup>	+15° 38'	15 <sup>h</sup> 45 <sup>m</sup>	+18° 21'	15 <sup>h</sup> 45 <sup>m</sup>	-3° 12'
Jan. I	44.376 <sup>287</sup>	48.78 <sup>219</sup>	52.860 <sup>286</sup>	28.61 <sup>247</sup>	30.847 <sup>285</sup>	28.49 <sup>255</sup>	52.878 <sup>289</sup>	52.34 <sup>182</sup>
II	44.663 <sup>306</sup>	46.59 <sup>205</sup>	53.146 <sup>306</sup>	26.14 <sup>227</sup>	31.132 <sup>306</sup>	25.94 <sup>232</sup>	53.167 <sup>307</sup>	54.16 <sup>178</sup>
21	44.969 <sup>317</sup>	44.54 <sup>185</sup>	53.452 <sup>318</sup>	23.87 <sup>197</sup>	31.438 <sup>319</sup>	23.62 <sup>202</sup>	53.474 <sup>318</sup>	55.94 <sup>168</sup>
31	45.286 <sup>318</sup>	42.69 <sup>159</sup>	53.770 <sup>322</sup>	21.90 <sup>163</sup>	31.757 <sup>323</sup>	21.60 <sup>165</sup>	53.792 <sup>320</sup>	57.62 <sup>151</sup>
Feb. 10	45.604 <sup>313</sup>	41.10 <sup>127</sup>	54.092 <sup>317</sup>	20.27 <sup>123</sup>	32.080 <sup>319</sup>	19.95 <sup>122</sup>	54.112 <sup>315</sup>	59.13 <sup>130</sup>
20	45.917 <sup>301</sup>	39.83 <sup>93</sup>	54.409 <sup>306</sup>	19.04 <sup>79</sup>	32.399 <sup>309</sup>	18.73 <sup>76</sup>	54.427 <sup>303</sup>	60.43 <sup>105</sup>
März 2	46.218 <sup>285</sup>	38.90 <sup>56</sup>	54.715 <sup>289</sup>	18.25 <sup>35</sup>	32.708 <sup>292</sup>	17.97 <sup>30</sup>	54.730 <sup>289</sup>	61.48 <sup>79</sup>
12	46.503 <sup>264</sup>	38.34 <sup>19</sup>	55.004 <sup>269</sup>	17.90 <sup>8</sup>	33.000 <sup>273</sup>	17.67 <sup>16</sup>	55.019 <sup>269</sup>	62.27 <sup>50</sup>
22	46.767 <sup>242</sup>	38.15 <sup>15</sup>	55.273 <sup>245</sup>	17.98 <sup>49</sup>	33.273 <sup>248</sup>	17.83 <sup>58</sup>	55.288 <sup>247</sup>	62.77 <sup>23</sup>
Apr. I	47.009 <sup>216</sup>	38.30 <sup>46</sup>	55.518 <sup>219</sup>	18.47 <sup>85</sup>	33.521 <sup>221</sup>	18.41 <sup>96</sup>	55.535 <sup>224</sup>	63.00 <sup>2</sup>
11	47.225 <sup>190</sup>	38.76 <sup>73</sup>	55.737 <sup>191</sup>	19.32 <sup>116</sup>	33.742 <sup>193</sup>	19.37 <sup>128</sup>	55.759 <sup>198</sup>	62.98 <sup>24</sup>
21	47.415 <sup>163</sup>	39.49 <sup>94</sup>	55.928 <sup>162</sup>	20.48 <sup>139</sup>	33.935 <sup>164</sup>	20.65 <sup>153</sup>	55.957 <sup>172</sup>	62.74 <sup>42</sup>
Mai I	47.578 <sup>134</sup>	40.43 <sup>110</sup>	56.090 <sup>131</sup>	21.87 <sup>157</sup>	34.099 <sup>132</sup>	22.18 <sup>170</sup>	56.129 <sup>145</sup>	62.32 <sup>56</sup>
11	47.712 <sup>105</sup>	41.53 <sup>121</sup>	56.221 <sup>100</sup>	23.44 <sup>168</sup>	34.231 <sup>101</sup>	23.88 <sup>181</sup>	56.274 <sup>115</sup>	61.76 <sup>67</sup>
20	47.817 <sup>74</sup>	42.74 <sup>125</sup>	56.321 <sup>69</sup>	25.12 <sup>171</sup>	34.332 <sup>69</sup>	25.69 <sup>184</sup>	56.389 <sup>86</sup>	61.09 <sup>73</sup>
30	47.891 <sup>43</sup>	43.99 <sup>126</sup>	56.390 <sup>37</sup>	26.83 <sup>168</sup>	34.401 <sup>35</sup>	27.53 <sup>182</sup>	56.475 <sup>55</sup>	60.36 <sup>76</sup>
Juni 9	47.934 <sup>12</sup>	45.25 <sup>122</sup>	56.427 <sup>4</sup>	28.51 <sup>161</sup>	34.436 <sup>3</sup>	29.35 <sup>172</sup>	56.530 <sup>23</sup>	59.60 <sup>75</sup>
19	47.946 <sup>18</sup>	46.47 <sup>113</sup>	56.431 <sup>27</sup>	30.12 <sup>148</sup>	34.439 <sup>29</sup>	31.07 <sup>159</sup>	56.553 <sup>8</sup>	58.85 <sup>73</sup>
29	47.928 <sup>49</sup>	47.60 <sup>102</sup>	56.404 <sup>58</sup>	31.60 <sup>131</sup>	34.410 <sup>61</sup>	32.66 <sup>140</sup>	56.545 <sup>39</sup>	58.12 <sup>68</sup>
Juli 9	47.879 <sup>76</sup>	48.62 <sup>89</sup>	56.346 <sup>87</sup>	32.91 <sup>111</sup>	34.349 <sup>90</sup>	34.06 <sup>118</sup>	56.506 <sup>68</sup>	57.44 <sup>61</sup>
19	47.803 <sup>102</sup>	49.51 <sup>73</sup>	56.259 <sup>112</sup>	34.02 <sup>89</sup>	34.259 <sup>116</sup>	35.24 <sup>94</sup>	56.438 <sup>94</sup>	56.83 <sup>54</sup>
29	47.701 <sup>123</sup>	50.24 <sup>55</sup>	56.147 <sup>133</sup>	34.91 <sup>63</sup>	34.143 <sup>137</sup>	36.18 <sup>66</sup>	56.344 <sup>117</sup>	56.29 <sup>45</sup>
Aug. 8	47.578 <sup>139</sup>	50.79 <sup>37</sup>	56.014 <sup>150</sup>	35.54 <sup>37</sup>	34.006 <sup>155</sup>	36.84 <sup>38</sup>	56.227 <sup>134</sup>	55.84 <sup>35</sup>
18	47.439 <sup>149</sup>	51.16 <sup>17</sup>	55.864 <sup>160</sup>	35.91 <sup>9</sup>	33.851 <sup>165</sup>	37.22 <sup>8</sup>	56.093 <sup>146</sup>	55.49 <sup>24</sup>
28	47.290 <sup>152</sup>	51.33 <sup>5</sup>	55.704 <sup>162</sup>	36.00 <sup>20</sup>	33.686 <sup>167</sup>	37.30 <sup>23</sup>	55.947 <sup>149</sup>	55.25 <sup>12</sup>
Sept. 7	47.138 <sup>146</sup>	51.28 <sup>27</sup>	55.542 <sup>157</sup>	35.80 <sup>49</sup>	33.519 <sup>162</sup>	37.07 <sup>54</sup>	55.798 <sup>144</sup>	55.13 <sup>1</sup>
17	46.992 <sup>131</sup>	51.01 <sup>49</sup>	55.385 <sup>143</sup>	35.31 <sup>79</sup>	33.357 <sup>149</sup>	36.53 <sup>87</sup>	55.654 <sup>131</sup>	55.14 <sup>16</sup>
27	46.861 <sup>109</sup>	50.52 <sup>73</sup>	55.242 <sup>119</sup>	34.52 <sup>109</sup>	33.208 <sup>126</sup>	35.66 <sup>118</sup>	55.523 <sup>107</sup>	55.30 <sup>33</sup>
Okt. 7	46.752 <sup>77</sup>	49.79 <sup>98</sup>	55.123 <sup>88</sup>	33.43 <sup>138</sup>	33.082 <sup>93</sup>	34.48 <sup>149</sup>	55.416 <sup>76</sup>	55.63 <sup>50</sup>
17	46.675 <sup>38</sup>	48.81 <sup>123</sup>	55.035 <sup>48</sup>	32.05 <sup>167</sup>	32.989 <sup>55</sup>	32.99 <sup>178</sup>	55.340 <sup>37</sup>	56.13 <sup>70</sup>
27	46.637 <sup>7</sup>	47.58 <sup>147</sup>	54.987 <sup>4</sup>	30.38 <sup>193</sup>	32.934 <sup>10</sup>	31.21 <sup>206</sup>	55.303 <sup>8</sup>	56.83 <sup>90</sup>
Nov. 6	46.644 <sup>55</sup>	46.11 <sup>169</sup>	54.983 <sup>45</sup>	28.45 <sup>218</sup>	32.924 <sup>40</sup>	29.15 <sup>231</sup>	55.311 <sup>57</sup>	57.73 <sup>111</sup>
16	46.699 <sup>106</sup>	44.42 <sup>190</sup>	55.028 <sup>96</sup>	26.27 <sup>238</sup>	32.964 <sup>91</sup>	26.84 <sup>251</sup>	55.368 <sup>107</sup>	58.84 <sup>131</sup>
26	46.805 <sup>154</sup>	42.52 <sup>206</sup>	55.124 <sup>147</sup>	23.89 <sup>252</sup>	33.055 <sup>142</sup>	24.33 <sup>265</sup>	55.475 <sup>156</sup>	60.15 <sup>149</sup>
Dez. 6	46.959 <sup>200</sup>	40.46 <sup>218</sup>	55.271 <sup>194</sup>	21.37 <sup>261</sup>	33.197 <sup>190</sup>	21.68 <sup>273</sup>	55.631 <sup>202</sup>	61.64 <sup>165</sup>
16	47.159 <sup>240</sup>	38.28 <sup>224</sup>	55.465 <sup>235</sup>	18.76 <sup>262</sup>	33.387 <sup>232</sup>	18.95 <sup>273</sup>	55.833 <sup>242</sup>	63.29 <sup>175</sup>
26	47.399 <sup>273</sup>	36.04 <sup>222</sup>	55.700 <sup>270</sup>	16.14 <sup>255</sup>	33.619 <sup>268</sup>	16.22 <sup>264</sup>	56.075 <sup>275</sup>	65.04 <sup>181</sup>
36	47.672	33.82	55.970	13.59	33.887	13.58	56.350	66.85
Mittl. Ort	46.152	52.32	54.600	34.33	32.588	34.86	54.751	51.07
sec $\delta$ , tg $\delta$	1.007	+0.117	1.038	+0.280	1.054	+0.332	1.002	-0.056

# Obere Kulmination Greenwich

Tag	590) ζ Ursae min.		588) ε Serpentis		589) β Triang. austr.		593) ε Coron. bor.	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	15 <sup>h</sup> 46 <sup>m</sup>	+78° 0'	15 <sup>h</sup> 47 <sup>m</sup>	+4° 41'	15 <sup>h</sup> 48 <sup>m</sup>	-63° 12'	15 <sup>h</sup> 54 <sup>m</sup>	+27° 4'
Jan. I	29.85 <sub>78</sub>	34.88 <sub>294</sub>	14.687 <sub>284</sub>	21.72 <sub>212</sub>	48.18 <sub>57</sub>	37.34 <sub>75</sub>	37.054 <sub>282</sub>	48.41 <sub>279</sub>
II	30.63 <sub>91</sub>	31.94 <sub>244</sub>	14.971 <sub>303</sub>	19.60 <sub>200</sub>	48.75 <sub>60</sub>	36.59 <sub>32</sub>	37.336 <sub>309</sub>	45.62 <sub>251</sub>
2I	31.54 <sub>102</sub>	29.50 <sub>187</sub>	15.274 <sub>314</sub>	17.60 <sub>181</sub>	49.35 <sub>63</sub>	36.27 <sub>11</sub>	37.645 <sub>325</sub>	43.11 <sub>214</sub>
3I	32.56 <sub>108</sub>	27.63 <sub>123</sub>	15.588 <sub>318</sub>	15.79 <sub>158</sub>	49.98 <sub>64</sub>	36.38 <sub>53</sub>	37.970 <sub>333</sub>	40.97 <sub>170</sub>
Feb. 10	33.64 <sub>111</sub>	26.40 <sub>56</sub>	15.906 <sub>313</sub>	14.21 <sub>128</sub>	50.62 <sub>64</sub>	36.91 <sub>93</sub>	38.303 <sub>331</sub>	39.27 <sub>120</sub>
20	34.75 <sub>110</sub>	25.84 <sub>12</sub>	16.219 <sub>302</sub>	12.93 <sub>95</sub>	51.26 <sub>62</sub>	37.84 <sub>129</sub>	38.634 <sub>323</sub>	38.07 <sub>68</sub>
März 2	35.85 <sub>104</sub>	25.96 <sub>78</sub>	16.521 <sub>287</sub>	11.98 <sub>60</sub>	51.88 <sub>60</sub>	39.13 <sub>161</sub>	38.957 <sub>308</sub>	37.39 <sub>15</sub>
12	36.89 <sub>96</sub>	26.74 <sub>139</sub>	16.808 <sub>268</sub>	11.38 <sub>26</sub>	52.48 <sub>56</sub>	40.74 <sub>190</sub>	39.265 <sub>287</sub>	37.24 <sub>37</sub>
22	37.85 <sub>84</sub>	28.13 <sub>194</sub>	17.076 <sub>246</sub>	11.12 <sub>8</sub>	53.04 <sub>51</sub>	42.64 <sub>214</sub>	39.552 <sub>263</sub>	37.61 <sub>85</sub>
Apr. I	38.69 <sub>69</sub>	30.07 <sub>240</sub>	17.322 <sub>221</sub>	11.20 <sub>38</sub>	53.55 <sub>47</sub>	44.78 <sub>233</sub>	39.815 <sub>234</sub>	38.46 <sub>127</sub>
II	39.38 <sub>53</sub>	32.47 <sub>274</sub>	17.543 <sub>196</sub>	11.58 <sub>64</sub>	54.02 <sub>41</sub>	47.11 <sub>248</sub>	40.049 <sub>205</sub>	39.73 <sub>163</sub>
2I	39.91 <sub>36</sub>	35.21 <sub>299</sub>	17.739 <sub>170</sub>	12.22 <sub>85</sub>	54.43 <sub>35</sub>	49.59 <sub>260</sub>	40.254 <sub>172</sub>	41.36 <sub>191</sub>
Mai I	40.27 <sub>18</sub>	38.20 <sub>312</sub>	17.909 <sub>141</sub>	13.07 <sub>100</sub>	54.78 <sub>28</sub>	52.19 <sub>264</sub>	40.426 <sub>139</sub>	43.27 <sub>211</sub>
II	40.45 <sub>1</sub>	41.32 <sub>313</sub>	18.050 <sub>112</sub>	14.07 <sub>112</sub>	55.06 <sub>22</sub>	54.83 <sub>265</sub>	40.565 <sub>104</sub>	45.38 <sub>222</sub>
20*)	40.44 <sub>19</sub>	44.45 <sub>305</sub>	18.162 <sub>81</sub>	15.19 <sub>117</sub>	55.28 <sub>15</sub>	57.48 <sub>260</sub>	40.669 <sub>69</sub>	47.60 <sub>224</sub>
30	40.25 <sub>36</sub>	47.50 <sub>286</sub>	18.243 <sub>51</sub>	16.36 <sub>118</sub>	55.43 <sub>7</sub>	60.08 <sub>250</sub>	40.738 <sub>33</sub>	49.84 <sub>220</sub>
Juni 9	39.89 <sub>52</sub>	50.36 <sub>260</sub>	18.294 <sub>19</sub>	17.54 <sub>115</sub>	55.50 <sub>1</sub>	62.58 <sub>234</sub>	40.771 <sub>4</sub>	52.04 <sub>209</sub>
19	39.37 <sub>66</sub>	52.96 <sub>225</sub>	18.313 <sub>12</sub>	18.69 <sub>108</sub>	55.49 <sub>8</sub>	64.92 <sub>213</sub>	40.767 <sub>38</sub>	54.13 <sub>191</sub>
29	38.71 <sub>78</sub>	55.21 <sub>185</sub>	18.301 <sub>43</sub>	19.77 <sub>97</sub>	55.41 <sub>15</sub>	67.05 <sub>185</sub>	40.729 <sub>72</sub>	56.04 <sub>169</sub>
Juli 9	37.93 <sub>90</sub>	57.06 <sub>141</sub>	18.258 <sub>71</sub>	20.74 <sub>86</sub>	55.26 <sub>22</sub>	68.90 <sub>154</sub>	40.657 <sub>103</sub>	57.73 <sub>142</sub>
19	37.03 <sub>98</sub>	58.47 <sub>91</sub>	18.187 <sub>98</sub>	21.60 <sub>71</sub>	55.04 <sub>28</sub>	70.44 <sub>118</sub>	40.554 <sub>132</sub>	59.15 <sub>111</sub>
29	36.05 <sub>104</sub>	59.38 <sub>41</sub>	18.089 <sub>121</sub>	22.31 <sub>55</sub>	54.76 <sub>32</sub>	71.62 <sub>77</sub>	40.422 <sub>155</sub>	60.26 <sub>78</sub>
Aug. 8	35.01 <sub>108</sub>	59.79 <sub>11</sub>	17.968 <sub>137</sub>	22.86 <sub>38</sub>	54.44 <sub>36</sub>	72.39 <sub>34</sub>	40.267 <sub>174</sub>	61.04 <sub>43</sub>
18	33.93 <sub>109</sub>	59.68 <sub>63</sub>	17.831 <sub>148</sub>	23.24 <sub>20</sub>	54.08 <sub>38</sub>	72.73 <sub>10</sub>	40.093 <sub>185</sub>	61.47 <sub>6</sub>
28	32.84 <sub>108</sub>	59.05 <sub>115</sub>	17.683 <sub>153</sub>	23.44 <sub>1</sub>	53.70 <sub>38</sub>	72.63 <sub>55</sub>	39.908 <sub>189</sub>	61.53 <sub>31</sub>
Sept. 7	31.76 <sub>104</sub>	57.90 <sub>164</sub>	17.530 <sub>147</sub>	23.45 <sub>20</sub>	53.32 <sub>37</sub>	72.08 <sub>97</sub>	39.719 <sub>185</sub>	61.22 <sub>68</sub>
17	30.72 <sub>98</sub>	56.26 <sub>212</sub>	17.383 <sub>134</sub>	23.25 <sub>42</sub>	52.95 <sub>33</sub>	71.11 <sub>137</sub>	39.534 <sub>172</sub>	60.54 <sub>106</sub>
27	29.74 <sub>88</sub>	54.14 <sub>256</sub>	17.249 <sub>112</sub>	22.83 <sub>63</sub>	52.62 <sub>28</sub>	69.74 <sub>170</sub>	39.362 <sub>149</sub>	59.48 <sub>143</sub>
Okt. 7	28.86 <sub>77</sub>	51.58 <sub>293</sub>	17.137 <sub>80</sub>	22.20 <sub>87</sub>	52.34 <sub>20</sub>	68.04 <sub>199</sub>	39.213 <sub>117</sub>	58.05 <sub>179</sub>
17	28.09 <sub>63</sub>	48.65 <sub>327</sub>	17.057 <sub>43</sub>	21.33 <sub>111</sub>	52.14 <sub>12</sub>	66.05 <sub>217</sub>	39.096 <sub>78</sub>	56.26 <sub>212</sub>
27	27.46 <sub>47</sub>	45.38 <sub>355</sub>	17.014 <sub>2</sub>	20.22 <sub>134</sub>	52.02 <sub>3</sub>	63.88 <sub>227</sub>	39.018 <sub>31</sub>	54.14 <sub>242</sub>
Nov. 6	26.99 <sub>29</sub>	41.83 <sub>374</sub>	17.016 <sub>51</sub>	18.88 <sub>156</sub>	51.99 <sub>8</sub>	61.61 <sub>228</sub>	38.987 <sub>19</sub>	51.72 <sub>268</sub>
16	26.70 <sub>10</sub>	38.09 <sub>383</sub>	17.067 <sub>100</sub>	17.32 <sub>177</sub>	52.07 <sub>18</sub>	59.33 <sub>219</sub>	39.006 <sub>73</sub>	49.04 <sub>288</sub>
26	26.60 <sub>10</sub>	34.26 <sub>384</sub>	17.167 <sub>149</sub>	15.55 <sub>194</sub>	52.25 <sub>28</sub>	57.14 <sub>200</sub>	39.079 <sub>127</sub>	46.16 <sub>302</sub>
Dez. 6	26.70 <sub>30</sub>	30.42 <sub>374</sub>	17.316 <sub>196</sub>	13.61 <sub>206</sub>	52.53 <sub>38</sub>	55.14 <sub>173</sub>	39.206 <sub>177</sub>	43.14 <sub>307</sub>
16	27.00 <sub>49</sub>	26.68 <sub>352</sub>	17.512 <sub>235</sub>	11.55 <sub>214</sub>	52.91 <sub>46</sub>	53.41 <sub>140</sub>	39.383 <sub>225</sub>	40.07 <sub>304</sub>
26	27.49 <sub>68</sub>	23.16 <sub>318</sub>	17.747 <sub>269</sub>	9.41 <sub>213</sub>	53.37 <sub>54</sub>	52.01 <sub>101</sub>	39.608 <sub>263</sub>	37.03 <sub>291</sub>
36	28.17	19.98	18.016	7.28	53.91	51.00	39.871	34.12
Mittl. Ort	33.29	49.41	16.503	24.95	52.19	48.30	38.821	56.67
sec δ, tg δ	4.815	+4.710	1.003	+0.082	2.219	-1.981	1.123	+0.511

\*) Bei Stern 593) lies Mai 21

Tag	594) $\delta$ Scorpii		598) $\delta$ Draconis		597) $\beta$ Scorpii		603) $\delta$ Ophiuchi	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	15 <sup>h</sup> 56 <sup>m</sup>	-22° 25'	16 <sup>h</sup> 0 <sup>m</sup>	+58° 44'	16 <sup>h</sup> 1 <sup>m</sup>	-19° 36'	16 <sup>h</sup> 10 <sup>m</sup>	-3° 30'
Jan. I	5.713 <sup>308</sup>	13.24 <sup>96</sup>	31.268 <sup>365</sup>	63.08 <sup>320</sup>	16.149 <sup>320</sup>	43.21 <sup>105</sup>	35.396 <sup>273</sup>	48.29 <sup>174</sup>
II	6.021 <sup>330</sup>	14.20 <sup>108</sup>	31.633 <sup>419</sup>	59.88 <sup>276</sup>	16.449 <sup>321</sup>	44.26 <sup>116</sup>	35.669 <sup>295</sup>	50.03 <sup>170</sup>
21	6.351 <sup>342</sup>	15.28 <sup>117</sup>	32.052 <sup>459</sup>	57.12 <sup>222</sup>	16.770 <sup>334</sup>	45.42 <sup>121</sup>	35.964 <sup>309</sup>	51.73 <sup>161</sup>
31	6.693 <sup>345</sup>	16.45 <sup>121</sup>	32.511 <sup>483</sup>	54.90 <sup>163</sup>	17.104 <sup>339</sup>	46.63 <sup>122</sup>	36.273 <sup>316</sup>	53.34 <sup>145</sup>
Feb. 10	7.038 <sup>341</sup>	17.66 <sup>121</sup>	32.994 <sup>493</sup>	53.27 <sup>98</sup>	17.443 <sup>335</sup>	47.85 <sup>119</sup>	36.589 <sup>315</sup>	54.79 <sup>125</sup>
20	7.379 <sup>332</sup>	18.87 <sup>116</sup>	33.487 <sup>488</sup>	52.29 <sup>30</sup>	17.778 <sup>327</sup>	49.04 <sup>111</sup>	36.904 <sup>307</sup>	56.04 <sup>100</sup>
März 2	7.711 <sup>317</sup>	20.03 <sup>109</sup>	33.975 <sup>467</sup>	51.99 <sup>38</sup>	18.105 <sup>313</sup>	50.15 <sup>102</sup>	37.211 <sup>297</sup>	57.04 <sup>73</sup>
12	8.028 <sup>298</sup>	21.12 <sup>101</sup>	34.442 <sup>436</sup>	52.37 <sup>101</sup>	18.418 <sup>296</sup>	51.17 <sup>90</sup>	37.508 <sup>281</sup>	57.77 <sup>46</sup>
22	8.326 <sup>277</sup>	22.13 <sup>90</sup>	34.878 <sup>393</sup>	53.38 <sup>159</sup>	18.714 <sup>275</sup>	52.07 <sup>77</sup>	37.789 <sup>262</sup>	58.23 <sup>19</sup>
Apr. I	8.603 <sup>254</sup>	23.03 <sup>79</sup>	35.271 <sup>342</sup>	54.97 <sup>211</sup>	18.989 <sup>253</sup>	52.84 <sup>65</sup>	38.051 <sup>242</sup>	58.42 <sup>6</sup>
II	8.857 <sup>228</sup>	23.82 <sup>69</sup>	35.613 <sup>284</sup>	57.08 <sup>251</sup>	19.242 <sup>229</sup>	53.49 <sup>53</sup>	38.293 <sup>219</sup>	58.36 <sup>28</sup>
21	9.085 <sup>202</sup>	24.51 <sup>60</sup>	35.897 <sup>221</sup>	59.59 <sup>282</sup>	19.471 <sup>202</sup>	54.02 <sup>42</sup>	38.512 <sup>194</sup>	58.08 <sup>47</sup>
Mai I	9.287 <sup>172</sup>	25.11 <sup>51</sup>	36.118 <sup>154</sup>	62.41 <sup>302</sup>	19.673 <sup>174</sup>	54.44 <sup>33</sup>	38.706 <sup>167</sup>	57.61 <sup>61</sup>
II	9.459 <sup>142</sup>	25.62 <sup>44</sup>	36.272 <sup>87</sup>	65.43 <sup>311</sup>	19.847 <sup>144</sup>	54.77 <sup>25</sup>	38.873 <sup>139</sup>	57.00 <sup>71</sup>
21	9.601 <sup>109</sup>	26.06 <sup>37</sup>	36.359 <sup>19</sup>	68.54 <sup>309</sup>	19.991 <sup>113</sup>	55.02 <sup>19</sup>	39.012 <sup>109</sup>	56.29 <sup>78</sup>
31	9.710 <sup>75</sup>	26.43 <sup>31</sup>	36.378 <sup>47</sup>	71.63 <sup>298</sup>	20.104 <sup>79</sup>	55.21 <sup>13</sup>	39.121 <sup>77</sup>	55.51 <sup>80</sup>
Juni 9	9.785 <sup>40</sup>	26.74 <sup>25</sup>	36.331 <sup>111</sup>	74.61 <sup>279</sup>	20.183 <sup>44</sup>	55.34 <sup>9</sup>	39.198 <sup>45</sup>	54.71 <sup>80</sup>
19	9.825 <sup>5</sup>	26.99 <sup>19</sup>	36.220 <sup>172</sup>	77.40 <sup>250</sup>	20.227 <sup>9</sup>	55.43 <sup>5</sup>	39.243 <sup>11</sup>	53.91 <sup>76</sup>
29	9.830 <sup>30</sup>	27.18 <sup>12</sup>	36.048 <sup>226</sup>	79.90 <sup>215</sup>	20.236 <sup>26</sup>	55.48 <sup>1</sup>	39.254 <sup>22</sup>	53.15 <sup>71</sup>
Juli 9	9.800 <sup>64</sup>	27.30 <sup>6</sup>	35.822 <sup>277</sup>	82.05 <sup>176</sup>	20.210 <sup>59</sup>	55.49 <sup>4</sup>	39.232 <sup>54</sup>	52.44 <sup>64</sup>
19	9.736 <sup>96</sup>	27.36 <sup>2</sup>	35.545 <sup>318</sup>	83.81 <sup>131</sup>	20.151 <sup>90</sup>	55.45 <sup>9</sup>	39.178 <sup>85</sup>	51.80 <sup>56</sup>
29	9.640 <sup>121</sup>	27.34 <sup>9</sup>	35.227 <sup>353</sup>	85.12 <sup>83</sup>	20.061 <sup>118</sup>	55.36 <sup>14</sup>	39.093 <sup>110</sup>	51.24 <sup>46</sup>
Aug. 8	9.519 <sup>143</sup>	27.25 <sup>18</sup>	34.874 <sup>378</sup>	85.95 <sup>33</sup>	19.943 <sup>139</sup>	55.22 <sup>19</sup>	38.983 <sup>131</sup>	50.78 <sup>36</sup>
18	9.376 <sup>157</sup>	27.07 <sup>25</sup>	34.496 <sup>392</sup>	86.28 <sup>18</sup>	19.804 <sup>153</sup>	55.03 <sup>24</sup>	38.852 <sup>147</sup>	50.42 <sup>25</sup>
28	9.219 <sup>161</sup>	26.82 <sup>33</sup>	34.104 <sup>395</sup>	86.10 <sup>69</sup>	19.651 <sup>159</sup>	54.79 <sup>28</sup>	38.705 <sup>154</sup>	50.17 <sup>14</sup>
Sept. 7	9.058 <sup>158</sup>	26.49 <sup>38</sup>	33.709 <sup>386</sup>	85.41 <sup>120</sup>	19.492 <sup>157</sup>	54.51 <sup>32</sup>	38.551 <sup>152</sup>	50.03 <sup>0</sup>
17	8.900 <sup>144</sup>	26.11 <sup>41</sup>	33.323 <sup>365</sup>	84.21 <sup>169</sup>	19.335 <sup>143</sup>	54.19 <sup>32</sup>	38.399 <sup>142</sup>	50.03 <sup>14</sup>
27	8.756 <sup>120</sup>	25.70 <sup>42</sup>	32.958 <sup>330</sup>	82.52 <sup>216</sup>	19.192 <sup>121</sup>	53.87 <sup>30</sup>	38.257 <sup>123</sup>	50.17 <sup>29</sup>
Okt. 7	8.636 <sup>86</sup>	25.28 <sup>40</sup>	32.628 <sup>283</sup>	80.36 <sup>259</sup>	19.071 <sup>89</sup>	53.57 <sup>26</sup>	38.134 <sup>95</sup>	50.46 <sup>47</sup>
17	8.550 <sup>44</sup>	24.88 <sup>32</sup>	32.345 <sup>224</sup>	77.77 <sup>298</sup>	18.982 <sup>47</sup>	53.31 <sup>18</sup>	38.039 <sup>57</sup>	50.93 <sup>65</sup>
27	8.506 <sup>4</sup>	24.56 <sup>22</sup>	32.121 <sup>156</sup>	74.79 <sup>331</sup>	18.935 <sup>1</sup>	53.13 <sup>6</sup>	37.982 <sup>15</sup>	51.58 <sup>83</sup>
Nov. 6	8.510 <sup>58</sup>	24.34 <sup>9</sup>	31.965 <sup>79</sup>	71.48 <sup>357</sup>	18.934 <sup>51</sup>	53.07 <sup>9</sup>	37.967 <sup>34</sup>	52.41 <sup>103</sup>
16	8.568 <sup>112</sup>	24.25 <sup>10</sup>	31.886 <sup>4</sup>	67.91 <sup>375</sup>	18.985 <sup>104</sup>	53.16 <sup>25</sup>	38.001 <sup>83</sup>	53.44 <sup>123</sup>
26	8.680 <sup>165</sup>	24.35 <sup>29</sup>	31.890 <sup>90</sup>	64.16 <sup>383</sup>	19.089 <sup>157</sup>	53.41 <sup>44</sup>	38.084 <sup>133</sup>	54.67 <sup>140</sup>
Dez. 6	8.845 <sup>214</sup>	24.64 <sup>48</sup>	31.980 <sup>173</sup>	60.33 <sup>380</sup>	19.246 <sup>206</sup>	53.85 <sup>64</sup>	38.217 <sup>180</sup>	56.07 <sup>155</sup>
16	9.059 <sup>259</sup>	25.12 <sup>68</sup>	32.153 <sup>254</sup>	56.53 <sup>366</sup>	19.452 <sup>249</sup>	54.49 <sup>80</sup>	38.397 <sup>221</sup>	57.62 <sup>167</sup>
26	9.318 <sup>294</sup>	25.80 <sup>85</sup>	32.407 <sup>325</sup>	52.87 <sup>340</sup>	19.701 <sup>285</sup>	55.29 <sup>97</sup>	38.618 <sup>257</sup>	59.29 <sup>172</sup>
36	9.612	26.65	32.732	49.47	19.986	56.26	38.875	61.01
Mittl. Ort sec $\delta$ , tg $\delta$	7.875 1.082	16.05 -0.413	33.377 1.928	75.98 +1.648	18.284 1.062	45.11 -0.356	37.365 1.002	46.23 -0.061

# Obere Kulmination Greenwich

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Tag	606) 19 Ursae min.		604) γ <sup>2</sup> Normae		605) ε Ophiuchi		608) ζ Herculis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	16 <sup>h</sup> 12 <sup>m</sup>	+76° 2'	16 <sup>h</sup> 14 <sup>m</sup>	-49° 58'	16 <sup>h</sup> 14 <sup>m</sup>	-4° 31'	16 <sup>h</sup> 17 <sup>m</sup>	+46° 28'
Jan. I	45.91 <sup>59</sup>	71.68 <sup>318</sup>	27.935 <sup>398</sup>	52.21 <sup>49</sup>	31.742 <sup>271</sup>	16.91 <sup>168</sup>	34.352 <sup>292</sup>	42.73 <sup>323</sup>
II	46.50 <sup>73</sup>	68.50 <sup>273</sup>	28.333 <sup>434</sup>	51.72 <sup>17</sup>	32.013 <sup>294</sup>	18.59 <sup>165</sup>	34.644 <sup>333</sup>	39.50 <sup>286</sup>
2I	47.23 <sup>84</sup>	65.77 <sup>220</sup>	28.767 <sup>457</sup>	51.55 <sup>15</sup>	32.307 <sup>309</sup>	20.24 <sup>156</sup>	34.977 <sup>363</sup>	36.64 <sup>240</sup>
3I	48.07 <sup>91</sup>	63.57 <sup>160</sup>	29.224 <sup>468</sup>	51.70 <sup>44</sup>	32.616 <sup>316</sup>	21.80 <sup>142</sup>	35.340 <sup>384</sup>	34.24 <sup>187</sup>
Feb. 10	48.98 <sup>95</sup>	61.97 <sup>93</sup>	29.692 <sup>469</sup>	52.14 <sup>73</sup>	32.932 <sup>315</sup>	23.22 <sup>122</sup>	35.724 <sup>392</sup>	32.37 <sup>127</sup>
20	49.93 <sup>96</sup>	61.04 <sup>26</sup>	30.161 <sup>462</sup>	52.87 <sup>97</sup>	33.247 <sup>309</sup>	24.44 <sup>99</sup>	36.116 <sup>389</sup>	31.10 <sup>63</sup>
März 2	50.89 <sup>93</sup>	60.78 <sup>42</sup>	30.623 <sup>448</sup>	53.84 <sup>119</sup>	33.556 <sup>299</sup>	25.43 <sup>74</sup>	36.505 <sup>378</sup>	30.47 <sup>1</sup>
12	51.82 <sup>87</sup>	61.20 <sup>106</sup>	31.071 <sup>428</sup>	55.03 <sup>138</sup>	33.855 <sup>283</sup>	26.17 <sup>47</sup>	36.883 <sup>358</sup>	30.48 <sup>64</sup>
22	52.69 <sup>79</sup>	62.26 <sup>165</sup>	31.499 <sup>401</sup>	56.41 <sup>155</sup>	34.138 <sup>266</sup>	26.64 <sup>21</sup>	37.241 <sup>330</sup>	31.12 <sup>121</sup>
Apr. I	53.48 <sup>68</sup>	63.91 <sup>215</sup>	31.900 <sup>371</sup>	57.96 <sup>167</sup>	34.404 <sup>245</sup>	26.85 <sup>4</sup>	37.571 <sup>296</sup>	32.33 <sup>173</sup>
II	54.16 <sup>56</sup>	66.06 <sup>258</sup>	32.271 <sup>338</sup>	59.63 <sup>177</sup>	34.649 <sup>223</sup>	26.81 <sup>25</sup>	37.867 <sup>256</sup>	34.06 <sup>217</sup>
2I	54.72 <sup>41</sup>	68.64 <sup>288</sup>	32.609 <sup>299</sup>	61.40 <sup>184</sup>	34.872 <sup>198</sup>	26.56 <sup>43</sup>	38.123 <sup>214</sup>	36.23 <sup>251</sup>
Mai I	55.13 <sup>25</sup>	71.52 <sup>307</sup>	32.908 <sup>258</sup>	63.24 <sup>190</sup>	35.070 <sup>172</sup>	26.13 <sup>57</sup>	38.337 <sup>168</sup>	38.74 <sup>274</sup>
II	55.38 <sup>10</sup>	74.59 <sup>317</sup>	33.166 <sup>212</sup>	65.14 <sup>191</sup>	35.242 <sup>144</sup>	25.56 <sup>67</sup>	38.505 <sup>120</sup>	41.48 <sup>289</sup>
2I	55.48 <sup>5</sup>	77.76 <sup>316</sup>	33.378 <sup>164</sup>	67.05 <sup>189</sup>	35.386 <sup>113</sup>	24.89 <sup>74</sup>	38.625 <sup>70</sup>	44.37 <sup>293</sup>
30	55.43 <sup>21</sup>	80.92 <sup>303</sup>	33.542 <sup>112</sup>	68.94 <sup>184</sup>	35.499 <sup>82</sup>	24.15 <sup>76</sup>	38.695 <sup>22</sup>	47.30 <sup>288</sup>
Juni 9	55.22 <sup>35</sup>	83.95 <sup>282</sup>	33.654 <sup>59</sup>	70.78 <sup>174</sup>	35.581 <sup>49</sup>	23.39 <sup>76</sup>	38.717 <sup>28</sup>	50.18 <sup>273</sup>
19	54.87 <sup>48</sup>	86.77 <sup>254</sup>	33.713 <sup>5</sup>	72.52 <sup>161</sup>	35.630 <sup>15</sup>	22.63 <sup>73</sup>	38.689 <sup>76</sup>	52.91 <sup>252</sup>
29	54.39 <sup>61</sup>	89.31 <sup>218</sup>	33.718 <sup>49</sup>	74.13 <sup>144</sup>	35.645 <sup>19</sup>	21.90 <sup>68</sup>	38.613 <sup>121</sup>	55.43 <sup>233</sup>
Juli 9	53.78 <sup>71</sup>	91.49 <sup>178</sup>	33.669 <sup>101</sup>	75.57 <sup>123</sup>	35.626 <sup>51</sup>	21.22 <sup>61</sup>	38.492 <sup>162</sup>	57.66 <sup>189</sup>
19	53.07 <sup>80</sup>	93.27 <sup>131</sup>	33.568 <sup>148</sup>	76.80 <sup>97</sup>	35.575 <sup>82</sup>	20.61 <sup>54</sup>	38.330 <sup>201</sup>	59.55 <sup>150</sup>
29	52.27 <sup>87</sup>	94.58 <sup>83</sup>	33.420 <sup>189</sup>	77.77 <sup>68</sup>	35.493 <sup>108</sup>	20.07 <sup>45</sup>	38.129 <sup>232</sup>	61.05 <sup>107</sup>
Aug. 8	51.40 <sup>92</sup>	95.41 <sup>32</sup>	33.231 <sup>221</sup>	78.45 <sup>38</sup>	35.385 <sup>131</sup>	19.62 <sup>36</sup>	37.897 <sup>257</sup>	62.12 <sup>62</sup>
18	50.48 <sup>94</sup>	95.73 <sup>19</sup>	33.010 <sup>245</sup>	78.83 <sup>4</sup>	35.254 <sup>145</sup>	19.26 <sup>25</sup>	37.640 <sup>273</sup>	62.74 <sup>16</sup>
28	49.54 <sup>95</sup>	95.54 <sup>72</sup>	32.765 <sup>254</sup>	78.87 <sup>28</sup>	35.109 <sup>155</sup>	19.01 <sup>15</sup>	37.367 <sup>281</sup>	62.90 <sup>33</sup>
Sept. 7	48.59 <sup>94</sup>	94.82 <sup>123</sup>	32.511 <sup>251</sup>	78.59 <sup>62</sup>	34.954 <sup>153</sup>	18.86 <sup>3</sup>	37.086 <sup>280</sup>	62.57 <sup>81</sup>
17	47.65 <sup>90</sup>	93.59 <sup>173</sup>	32.260 <sup>235</sup>	77.97 <sup>92</sup>	34.801 <sup>144</sup>	18.83 <sup>11</sup>	36.806 <sup>266</sup>	61.76 <sup>129</sup>
27	46.75 <sup>83</sup>	91.86 <sup>219</sup>	32.025 <sup>203</sup>	77.05 <sup>119</sup>	34.657 <sup>124</sup>	18.94 <sup>24</sup>	36.540 <sup>243</sup>	60.47 <sup>174</sup>
Okt. 7	45.92 <sup>74</sup>	89.67 <sup>262</sup>	31.822 <sup>157</sup>	75.86 <sup>141</sup>	34.533 <sup>97</sup>	19.18 <sup>41</sup>	36.297 <sup>208</sup>	58.73 <sup>218</sup>
17	45.18 <sup>63</sup>	87.05 <sup>301</sup>	31.665 <sup>101</sup>	74.45 <sup>156</sup>	34.436 <sup>60</sup>	19.59 <sup>59</sup>	36.089 <sup>164</sup>	56.55 <sup>259</sup>
27	44.55 <sup>49</sup>	84.04 <sup>333</sup>	31.564 <sup>35</sup>	72.89 <sup>165</sup>	34.376 <sup>17</sup>	20.18 <sup>77</sup>	35.925 <sup>112</sup>	53.96 <sup>294</sup>
Nov. 6	44.06 <sup>35</sup>	80.71 <sup>359</sup>	31.529 <sup>38</sup>	71.24 <sup>165</sup>	34.359 <sup>30</sup>	20.95 <sup>96</sup>	35.813 <sup>51</sup>	51.02 <sup>323</sup>
16	43.71 <sup>18</sup>	77.12 <sup>375</sup>	31.567 <sup>114</sup>	69.59 <sup>159</sup>	34.389 <sup>81</sup>	21.91 <sup>115</sup>	35.762 <sup>13</sup>	47.79 <sup>346</sup>
26	43.53 <sup>1</sup>	73.37 <sup>383</sup>	31.681 <sup>189</sup>	68.00 <sup>144</sup>	34.470 <sup>130</sup>	23.06 <sup>132</sup>	35.775 <sup>79</sup>	44.33 <sup>359</sup>
Dez. 6	43.52 <sup>16</sup>	69.54 <sup>379</sup>	31.870 <sup>258</sup>	66.56 <sup>124</sup>	34.600 <sup>177</sup>	24.38 <sup>148</sup>	35.854 <sup>144</sup>	40.74 <sup>364</sup>
16	43.68 <sup>34</sup>	65.75 <sup>365</sup>	32.128 <sup>322</sup>	65.32 <sup>98</sup>	34.777 <sup>220</sup>	25.86 <sup>159</sup>	35.998 <sup>207</sup>	37.10 <sup>356</sup>
26	44.02 <sup>50</sup>	62.10 <sup>339</sup>	32.450 <sup>376</sup>	64.34 <sup>69</sup>	34.997 <sup>255</sup>	27.45 <sup>166</sup>	36.205 <sup>261</sup>	33.54 <sup>338</sup>
36	44.52	58.71	32.826	63.65	35.252	29.11	36.466	30.16
Mittl. Ort	49.44	85.21	31.046	59.00	33.735	14.93	36.335	53.84
sec δ, tg δ	4.150	+4.028	1.555	-1.191	1.003	-0.079	1.452	+1.053

Tag	609) $\gamma$ Herculis		611) $\gamma$ Apodis		615) $\eta$ Draconis		616) $\alpha$ Scorpii	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$16^h 18^m$	$+19^\circ 18'$	$16^h 22^m$	$-78^\circ 44'$	$16^h 22^m$	$+61^\circ 40'$	$16^h 25^m$	$-26^\circ 16'$
Jan. I	45.333 <sup>260</sup>	60.59 <sup>260</sup>	21.31 <sup>108</sup>	18.67 <sup>173</sup>	59.13 <sup>35</sup>	16.07 <sup>334</sup>	0.673 <sup>297</sup>	31.62 <sup>58</sup>
II	45.593 <sup>286</sup>	57.99 <sup>240</sup>	22.39 <sup>120</sup>	16.94 <sup>129</sup>	59.48 <sup>42</sup>	12.73 <sup>294</sup>	0.970 <sup>323</sup>	32.20 <sup>72</sup>
2I	45.879 <sup>304</sup>	55.59 <sup>211</sup>	23.59 <sup>130</sup>	15.65 <sup>81</sup>	59.90 <sup>46</sup>	9.79 <sup>244</sup>	1.293 <sup>340</sup>	32.92 <sup>84</sup>
3I	46.183 <sup>315</sup>	53.48 <sup>175</sup>	24.89 <sup>136</sup>	14.84 <sup>32</sup>	60.36 <sup>50</sup>	7.35 <sup>186</sup>	1.633 <sup>349</sup>	33.76 <sup>91</sup>
Feb. IO	46.498 <sup>318</sup>	51.73 <sup>133</sup>	26.25 <sup>139</sup>	14.52 <sup>16</sup>	60.86 <sup>53</sup>	5.49 <sup>122</sup>	1.982 <sup>351</sup>	34.67 <sup>94</sup>
20	46.816 <sup>313</sup>	50.40 <sup>87</sup>	27.64 <sup>138</sup>	14.68 <sup>64</sup>	61.39 <sup>52</sup>	4.27 <sup>54</sup>	2.333 <sup>345</sup>	35.61 <sup>94</sup>
März 2	47.129 <sup>303</sup>	49.53 <sup>39</sup>	29.02 <sup>136</sup>	15.32 <sup>109</sup>	61.91 <sup>51</sup>	3.73 <sup>15</sup>	2.678 <sup>336</sup>	36.55 <sup>92</sup>
12	47.432 <sup>288</sup>	49.14 <sup>8</sup>	30.38 <sup>131</sup>	16.41 <sup>151</sup>	62.42 <sup>49</sup>	3.88 <sup>80</sup>	3.014 <sup>322</sup>	37.47 <sup>88</sup>
22	47.720 <sup>268</sup>	49.22 <sup>54</sup>	31.69 <sup>123</sup>	17.92 <sup>189</sup>	62.91 <sup>45</sup>	4.68 <sup>141</sup>	3.336 <sup>304</sup>	38.35 <sup>82</sup>
Apr. I	47.988 <sup>246</sup>	49.76 <sup>94</sup>	32.92 <sup>112</sup>	19.81 <sup>223</sup>	63.36 <sup>40</sup>	6.09 <sup>196</sup>	3.640 <sup>283</sup>	39.17 <sup>76</sup>
II	48.234 <sup>221</sup>	50.70 <sup>129</sup>	34.04 <sup>101</sup>	22.04 <sup>251</sup>	63.76 <sup>33</sup>	8.05 <sup>240</sup>	3.923 <sup>261</sup>	39.93 <sup>70</sup>
2I	48.455 <sup>193</sup>	51.99 <sup>158</sup>	35.05 <sup>88</sup>	24.55 <sup>275</sup>	64.09 <sup>27</sup>	10.45 <sup>276</sup>	4.184 <sup>236</sup>	40.63 <sup>65</sup>
Mai I	48.648 <sup>164</sup>	53.57 <sup>178</sup>	35.93 <sup>72</sup>	27.30 <sup>293</sup>	64.36 <sup>20</sup>	13.21 <sup>301</sup>	4.420 <sup>207</sup>	41.28 <sup>60</sup>
II	48.812 <sup>132</sup>	55.35 <sup>193</sup>	36.65 <sup>56</sup>	30.23 <sup>305</sup>	64.56 <sup>13</sup>	16.22 <sup>314</sup>	4.627 <sup>176</sup>	41.88 <sup>55</sup>
2I	48.944 <sup>99</sup>	57.28 <sup>199</sup>	37.21 <sup>39</sup>	33.28 <sup>309</sup>	64.69 <sup>5</sup>	19.36 <sup>317</sup>	4.803 <sup>143</sup>	42.43 <sup>52</sup>
30	49.043 <sup>65</sup>	59.27 <sup>198</sup>	37.60 <sup>21</sup>	36.37 <sup>308</sup>	64.74 <sup>2</sup>	22.53 <sup>311</sup>	4.946 <sup>107</sup>	42.95 <sup>48</sup>
Juni 9	49.108 <sup>30</sup>	61.25 <sup>191</sup>	37.81 <sup>2</sup>	39.45 <sup>299</sup>	64.72 <sup>10</sup>	25.64 <sup>294</sup>	5.053 <sup>70</sup>	43.43 <sup>44</sup>
19	49.138 <sup>6</sup>	63.16 <sup>179</sup>	37.83 <sup>16</sup>	42.44 <sup>283</sup>	64.62 <sup>17</sup>	28.58 <sup>270</sup>	5.123 <sup>31</sup>	43.87 <sup>39</sup>
29	49.132 <sup>41</sup>	64.95 <sup>162</sup>	37.67 <sup>34</sup>	45.27 <sup>260</sup>	64.45 <sup>23</sup>	31.28 <sup>238</sup>	5.154 <sup>9</sup>	44.26 <sup>34</sup>
Juli 9	49.091 <sup>73</sup>	66.57 <sup>140</sup>	37.33 <sup>51</sup>	47.87 <sup>228</sup>	64.22 <sup>29</sup>	33.66 <sup>200</sup>	5.145 <sup>46</sup>	44.60 <sup>28</sup>
19	49.018 <sup>105</sup>	67.97 <sup>116</sup>	36.82 <sup>66</sup>	50.15 <sup>191</sup>	63.93 <sup>34</sup>	35.66 <sup>157</sup>	5.099 <sup>83</sup>	44.88 <sup>19</sup>
29	48.913 <sup>131</sup>	69.13 <sup>88</sup>	36.16 <sup>78</sup>	52.06 <sup>147</sup>	63.59 <sup>39</sup>	37.23 <sup>111</sup>	5.016 <sup>114</sup>	45.07 <sup>10</sup>
Aug. 8	48.782 <sup>154</sup>	70.01 <sup>59</sup>	35.38 <sup>88</sup>	53.53 <sup>99</sup>	63.20 <sup>42</sup>	38.34 <sup>62</sup>	4.902 <sup>141</sup>	45.17 <sup>1</sup>
18	48.628 <sup>169</sup>	70.60 <sup>28</sup>	34.50 <sup>94</sup>	54.52 <sup>48</sup>	62.78 <sup>44</sup>	38.96 <sup>10</sup>	4.761 <sup>161</sup>	45.18 <sup>11</sup>
28	48.459 <sup>177</sup>	70.88 <sup>3</sup>	33.56 <sup>98</sup>	55.00 <sup>7</sup>	62.34 <sup>45</sup>	39.06 <sup>42</sup>	4.600 <sup>171</sup>	45.07 <sup>21</sup>
Sept. 7	48.282 <sup>177</sup>	70.85 <sup>37</sup>	32.58 <sup>97</sup>	54.93 <sup>62</sup>	61.89 <sup>44</sup>	38.64 <sup>93</sup>	4.429 <sup>172</sup>	44.86 <sup>31</sup>
17	48.105 <sup>168</sup>	70.48 <sup>70</sup>	31.61 <sup>90</sup>	54.31 <sup>114</sup>	61.45 <sup>43</sup>	37.71 <sup>144</sup>	4.257 <sup>162</sup>	44.55 <sup>39</sup>
27	47.937 <sup>149</sup>	69.78 <sup>102</sup>	30.71 <sup>81</sup>	53.17 <sup>163</sup>	61.02 <sup>40</sup>	36.27 <sup>193</sup>	4.095 <sup>142</sup>	44.16 <sup>45</sup>
Okt. 7	47.788 <sup>122</sup>	68.76 <sup>135</sup>	29.90 <sup>68</sup>	51.54 <sup>205</sup>	60.62 <sup>35</sup>	34.34 <sup>239</sup>	3.953 <sup>111</sup>	43.71 <sup>48</sup>
17	47.666 <sup>86</sup>	67.41 <sup>166</sup>	29.22 <sup>50</sup>	49.49 <sup>241</sup>	60.27 <sup>29</sup>	31.95 <sup>280</sup>	3.842 <sup>72</sup>	43.23 <sup>48</sup>
27	47.580 <sup>44</sup>	65.75 <sup>196</sup>	28.72 <sup>31</sup>	47.08 <sup>267</sup>	59.98 <sup>23</sup>	29.15 <sup>317</sup>	3.770 <sup>23</sup>	42.75 <sup>42</sup>
Nov. 6	47.536 <sup>5</sup>	63.79 <sup>222</sup>	28.41 <sup>8</sup>	44.41 <sup>282</sup>	59.75 <sup>14</sup>	25.98 <sup>347</sup>	3.747 <sup>29</sup>	42.33 <sup>34</sup>
16	47.541 <sup>55</sup>	61.57 <sup>245</sup>	28.33 <sup>15</sup>	41.59 <sup>285</sup>	59.61 <sup>5</sup>	22.51 <sup>369</sup>	3.776 <sup>84</sup>	41.99 <sup>21</sup>
26	47.596 <sup>106</sup>	59.12 <sup>261</sup>	28.48 <sup>37</sup>	38.74 <sup>279</sup>	59.56 <sup>3</sup>	18.82 <sup>361</sup>	3.860 <sup>140</sup>	41.78 <sup>6</sup>
Dez. 6	47.702 <sup>156</sup>	56.51 <sup>272</sup>	28.85 <sup>60</sup>	35.95 <sup>262</sup>	59.59 <sup>13</sup>	15.01 <sup>383</sup>	4.000 <sup>192</sup>	41.72 <sup>12</sup>
16	47.858 <sup>201</sup>	53.79 <sup>274</sup>	29.45 <sup>81</sup>	33.33 <sup>234</sup>	59.72 <sup>22</sup>	11.18 <sup>374</sup>	4.192 <sup>239</sup>	41.84 <sup>30</sup>
26	48.059 <sup>240</sup>	51.05 <sup>267</sup>	30.26 <sup>98</sup>	30.99 <sup>199</sup>	59.94 <sup>30</sup>	7.44 <sup>352</sup>	4.431 <sup>279</sup>	42.14 <sup>47</sup>
36	48.299	48.38	31.24	29.00	60.24	3.92	4.710	42.61
Mittl. Ort	47.207	67.44	30.23	27.90	61.52	28.50	3.017	33.51
sec $\delta$ , tg $\delta$	1.060	+0.351	5.122	-5.023	2.108	+1.855	1.115	-0.494



# Obere Kulmination Greenwich

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Tag	618) $\beta$ Herculis		619) A Draconis		621) $\epsilon$ Herculis		622) $\zeta$ Ophiuchi	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	16 <sup>h</sup> 27 <sup>m</sup>	+21° 38'	16 <sup>h</sup> 28 <sup>m</sup>	+68° 54'	16 <sup>h</sup> 31 <sup>m</sup>	+42° 34'	16 <sup>h</sup> 33 <sup>m</sup>	-10° 25'
Jan. I	8.109 <sub>252</sub>	28.09 <sub>269</sub>	3.92 <sub>41</sub>	65.79 <sub>335</sub>	46.803 <sub>266</sub>	46.92 <sub>322</sub>	12.706 <sub>264</sub>	30.40 <sub>133</sub>
II	8.361 <sub>281</sub>	25.40 <sub>248</sub>	4.33 <sub>50</sub>	62.44 <sub>295</sub>	47.069 <sub>307</sub>	43.70 <sub>290</sub>	12.970 <sub>288</sub>	31.73 <sub>135</sub>
2I	8.642 <sub>302</sub>	22.92 <sub>218</sub>	4.83 <sub>57</sub>	59.49 <sub>244</sub>	47.376 <sub>338</sub>	40.80 <sub>249</sub>	13.258 <sub>307</sub>	33.08 <sub>131</sub>
3I	8.944 <sub>314</sub>	20.74 <sub>180</sub>	5.40 <sub>62</sub>	57.05 <sub>186</sub>	47.714 <sub>358</sub>	38.31 <sub>198</sub>	13.565 <sub>316</sub>	34.39 <sub>123</sub>
Feb. 10	9.258 <sub>319</sub>	18.94 <sub>136</sub>	6.02 <sub>65</sub>	55.19 <sub>121</sub>	48.072 <sub>369</sub>	36.33 <sub>140</sub>	13.881 <sub>319</sub>	35.62 <sub>110</sub>
20	9.577 <sub>316</sub>	17.58 <sub>89</sub>	6.67 <sub>67</sub>	53.98 <sub>53</sub>	48.441 <sub>370</sub>	34.93 <sub>80</sub>	14.200 <sub>316</sub>	36.72 <sub>93</sub>
März 2	9.893 <sub>307</sub>	16.69 <sub>39</sub>	7.34 <sub>66</sub>	53.45 <sub>15</sub>	48.811 <sub>362</sub>	34.13 <sub>17</sub>	14.516 <sub>307</sub>	37.65 <sub>74</sub>
12	10.200 <sub>293</sub>	16.30 <sub>10</sub>	8.00 <sub>62</sub>	53.60 <sub>82</sub>	49.173 <sub>346</sub>	33.96 <sub>45</sub>	14.823 <sub>296</sub>	38.39 <sub>54</sub>
22	10.493 <sub>275</sub>	16.40 <sub>57</sub>	8.62 <sub>57</sub>	54.42 <sub>143</sub>	49.519 <sub>323</sub>	34.41 <sub>103</sub>	15.119 <sub>280</sub>	38.93 <sub>32</sub>
Apr. I	10.768 <sub>253</sub>	16.97 <sub>99</sub>	9.19 <sub>51</sub>	55.85 <sub>198</sub>	49.842 <sub>294</sub>	35.44 <sub>155</sub>	15.399 <sub>263</sub>	39.25 <sub>12</sub>
II	11.021 <sub>228</sub>	17.96 <sub>137</sub>	9.70 <sub>42</sub>	57.83 <sub>243</sub>	50.136 <sub>261</sub>	36.99 <sub>200</sub>	15.662 <sub>242</sub>	39.37 <sub>4</sub>
2I	11.249 <sub>201</sub>	19.33 <sub>167</sub>	10.12 <sub>34</sub>	60.26 <sub>279</sub>	50.397 <sub>223</sub>	38.99 <sub>237</sub>	15.904 <sub>219</sub>	39.33 <sub>19</sub>
Mai I	11.450 <sub>171</sub>	21.00 <sub>189</sub>	10.46 <sub>24</sub>	63.05 <sub>304</sub>	50.620 <sub>182</sub>	41.36 <sub>262</sub>	16.123 <sub>194</sub>	39.14 <sub>31</sub>
II	11.621 <sub>139</sub>	22.89 <sub>204</sub>	10.70 <sub>14</sub>	66.09 <sub>318</sub>	50.802 <sub>138</sub>	43.98 <sub>280</sub>	16.317 <sub>166</sub>	38.83 <sub>40</sub>
2I	11.760 <sub>105</sub>	24.93 <sub>211</sub>	10.84 <sub>4</sub>	69.27 <sub>321</sub>	50.940 <sub>93</sub>	46.78 <sub>286</sub>	16.483 <sub>136</sub>	38.43 <sub>45</sub>
30*)	11.865 <sub>70</sub>	27.04 <sub>211</sub>	10.88 <sub>6</sub>	72.48 <sub>314</sub>	51.033 <sub>46</sub>	49.64 <sub>284</sub>	16.619 <sub>103</sub>	37.98 <sub>48</sub>
Juni 9	11.935 <sub>34</sub>	29.15 <sub>205</sub>	10.82 <sub>16</sub>	75.62 <sub>298</sub>	51.079 <sub>1</sub>	52.48 <sub>274</sub>	16.722 <sub>69</sub>	37.50 <sub>48</sub>
19	11.969 <sub>3</sub>	31.20 <sub>191</sub>	10.66 <sub>25</sub>	78.60 <sub>274</sub>	51.078 <sub>46</sub>	55.22 <sub>255</sub>	16.791 <sub>34</sub>	37.02 <sub>46</sub>
29	11.966 <sub>38</sub>	33.11 <sub>174</sub>	10.41 <sub>34</sub>	81.34 <sub>241</sub>	51.032 <sub>91</sub>	57.77 <sub>229</sub>	16.825 <sub>3</sub>	36.56 <sub>44</sub>
Juli 9	11.928 <sub>73</sub>	34.85 <sub>151</sub>	10.07 <sub>42</sub>	83.75 <sub>202</sub>	50.941 <sub>132</sub>	60.06 <sub>198</sub>	16.822 <sub>37</sub>	36.12 <sub>40</sub>
19	11.855 <sub>105</sub>	36.36 <sub>126</sub>	9.65 <sub>48</sub>	85.77 <sub>160</sub>	50.809 <sub>171</sub>	62.04 <sub>162</sub>	16.785 <sub>71</sub>	35.72 <sub>36</sub>
29	11.750 <sub>133</sub>	37.62 <sub>97</sub>	9.17 <sub>54</sub>	87.37 <sub>113</sub>	50.638 <sub>204</sub>	63.66 <sub>122</sub>	16.714 <sub>101</sub>	35.36 <sub>32</sub>
Aug. 8	11.617 <sub>157</sub>	38.59 <sub>66</sub>	8.63 <sub>58</sub>	88.50 <sub>63</sub>	50.434 <sub>230</sub>	64.88 <sub>79</sub>	16.613 <sub>126</sub>	35.04 <sub>26</sub>
18	11.460 <sub>174</sub>	39.25 <sub>33</sub>	8.05 <sub>61</sub>	89.13 <sub>12</sub>	50.204 <sub>250</sub>	65.67 <sub>34</sub>	16.487 <sub>145</sub>	34.78 <sub>22</sub>
28	11.286 <sub>183</sub>	39.58 <sub>0</sub>	7.44 <sub>62</sub>	89.25 <sub>41</sub>	49.954 <sub>260</sub>	66.01 <sub>12</sub>	16.342 <sub>157</sub>	34.56 <sub>17</sub>
Sept. 7	11.103 <sub>184</sub>	39.58 <sub>35</sub>	6.82 <sub>62</sub>	88.84 <sub>94</sub>	49.694 <sub>261</sub>	65.89 <sub>59</sub>	16.185 <sub>159</sub>	34.39 <sub>10</sub>
17	10.919 <sub>176</sub>	39.23 <sub>70</sub>	6.20 <sub>60</sub>	87.90 <sub>144</sub>	49.433 <sub>252</sub>	65.30 <sub>106</sub>	16.026 <sub>151</sub>	34.29 <sub>3</sub>
27	10.743 <sub>159</sub>	38.53 <sub>104</sub>	5.60 <sub>56</sub>	86.46 <sub>193</sub>	49.181 <sub>232</sub>	64.24 <sub>151</sub>	15.875 <sub>135</sub>	34.26 <sub>5</sub>
Okt. 7	10.584 <sub>133</sub>	37.49 <sub>138</sub>	5.04 <sub>50</sub>	84.53 <sub>240</sub>	48.949 <sub>202</sub>	62.73 <sub>195</sub>	15.740 <sub>109</sub>	34.31 <sub>16</sub>
17	10.451 <sub>97</sub>	36.11 <sub>172</sub>	4.54 <sub>42</sub>	82.13 <sub>281</sub>	48.747 <sub>162</sub>	60.78 <sub>236</sub>	15.631 <sub>73</sub>	34.47 <sub>28</sub>
27	10.354 <sub>55</sub>	34.39 <sub>202</sub>	4.12 <sub>34</sub>	79.32 <sub>318</sub>	48.585 <sub>113</sub>	58.42 <sub>272</sub>	15.558 <sub>31</sub>	34.75 <sub>43</sub>
Nov. 6	10.299 <sub>7</sub>	32.37 <sub>229</sub>	3.78 <sub>24</sub>	76.14 <sub>348</sub>	48.472 <sub>57</sub>	55.70 <sub>304</sub>	15.527 <sub>16</sub>	35.18 <sub>58</sub>
16	10.292 <sub>44</sub>	30.08 <sub>252</sub>	3.54 <sub>13</sub>	72.66 <sub>370</sub>	48.415 <sub>2</sub>	52.66 <sub>329</sub>	15.543 <sub>66</sub>	35.76 <sub>74</sub>
26	10.336 <sub>95</sub>	27.56 <sub>270</sub>	3.41 <sub>1</sub>	68.96 <sub>382</sub>	48.417 <sub>65</sub>	49.37 <sub>345</sub>	15.609 <sub>117</sub>	36.50 <sub>91</sub>
Dez. 6	10.431 <sub>145</sub>	24.86 <sub>281</sub>	3.40 <sub>11</sub>	65.14 <sub>384</sub>	48.482 <sub>127</sub>	45.92 <sub>353</sub>	15.726 <sub>166</sub>	37.41 <sub>106</sub>
16	10.576 <sub>192</sub>	22.05 <sub>282</sub>	3.51 <sub>23</sub>	61.30 <sub>375</sub>	48.609 <sub>185</sub>	42.39 <sub>350</sub>	15.892 <sub>209</sub>	38.47 <sub>119</sub>
26	10.768 <sub>233</sub>	19.23 <sub>277</sub>	3.74 <sub>34</sub>	57.55 <sub>352</sub>	48.794 <sub>238</sub>	38.89 <sub>336</sub>	16.101 <sub>246</sub>	39.66 <sub>128</sub>
36	11.001	16.46	4.08	54.03	49.032	35.53	16.347	40.94
Mittl. Ort	10.010	35.38	6.79	78.45	48.812	57.25	14.822	28.86
see $\delta$ , tg $\delta$	1.076	+0.397	2.781	+2.595	1.358	+0.919	1.017	-0.184

\*) Bei Stern 622) lies Mai 31

Tag	626) $\eta$ Herculis		625) $\alpha$ Triang. austr.		627) Grb 2377		628) $\epsilon$ Scorpii	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	16 <sup>h</sup> 40 <sup>m</sup>	+39° 3'	16 <sup>h</sup> 41 <sup>m</sup>	-68° 53'	16 <sup>h</sup> 43 <sup>m</sup>	+56° 54'	16 <sup>h</sup> 45 <sup>m</sup>	-34° 9'
Jan. I	25.666	13.39	2.42	53.27	54.541	17.95	30.994	55.35
II	25.918 <sup>252</sup>	10.20 <sup>319</sup>	3.02 <sup>60</sup>	51.68 <sup>159</sup>	54.830 <sup>289</sup>	14.52 <sup>343</sup>	31.294 <sup>300</sup>	55.38 <sup>3</sup>
2I	26.209 <sup>291</sup>	7.30 <sup>290</sup>	3.69 <sup>67</sup>	50.46 <sup>122</sup>	55.178 <sup>348</sup>	11.43 <sup>309</sup>	31.624 <sup>330</sup>	55.59 <sup>21</sup>
3I	26.530 <sup>321</sup>	4.80 <sup>250</sup>	4.42 <sup>73</sup>	49.65 <sup>81</sup>	55.575 <sup>397</sup>	8.79 <sup>264</sup>	31.977 <sup>353</sup>	55.96 <sup>37</sup>
Feb. 10	26.871 <sup>341</sup>	2.77 <sup>203</sup>	5.18 <sup>76</sup>	49.26 <sup>39</sup>	56.008 <sup>433</sup>	6.70 <sup>209</sup>	32.344 <sup>367</sup>	56.47 <sup>51</sup>
20	27.224 <sup>353</sup>	1.29 <sup>148</sup>	5.97 <sup>79</sup>	49.28 <sup>2</sup>	56.463 <sup>455</sup>	5.22 <sup>148</sup>	32.717 <sup>373</sup>	57.10 <sup>63</sup>
März 2	27.579 <sup>355</sup>	0.40 <sup>89</sup>	6.76 <sup>79</sup>	49.71 <sup>43</sup>	56.928 <sup>465</sup>	4.39 <sup>83</sup>	32.717 <sup>371</sup>	57.10 <sup>72</sup>
12	27.928 <sup>349</sup>	0.12 <sup>28</sup>	7.54 <sup>78</sup>	50.54 <sup>83</sup>	57.388 <sup>460</sup>	4.25 <sup>14</sup>	33.088 <sup>365</sup>	57.82 <sup>78</sup>
22	28.264 <sup>336</sup>	0.44 <sup>32</sup>	8.29 <sup>75</sup>	51.72 <sup>118</sup>	57.831 <sup>443</sup>	4.77 <sup>52</sup>	33.453 <sup>354</sup>	58.60 <sup>82</sup>
Apr. I	28.580 <sup>316</sup>	1.33 <sup>89</sup>	9.01 <sup>72</sup>	53.23 <sup>151</sup>	58.826 <sup>415</sup>	5.91 <sup>114</sup>	33.807 <sup>338</sup>	59.42 <sup>85</sup>
II	28.870 <sup>290</sup>	2.75 <sup>142</sup>	9.68 <sup>67</sup>	55.04 <sup>181</sup>	58.246 <sup>378</sup>	7.62 <sup>171</sup>	34.145 <sup>320</sup>	60.27 <sup>87</sup>
2I	29.131 <sup>261</sup>	4.62 <sup>187</sup>	10.30 <sup>62</sup>	57.12 <sup>208</sup>	58.624 <sup>331</sup>	9.82 <sup>220</sup>	34.465 <sup>297</sup>	61.14 <sup>88</sup>
Mai I	29.357 <sup>226</sup>	6.85 <sup>223</sup>	10.85 <sup>55</sup>	59.41 <sup>229</sup>	58.955 <sup>279</sup>	12.42 <sup>260</sup>	34.762 <sup>272</sup>	62.02 <sup>90</sup>
II	29.546 <sup>189</sup>	9.36 <sup>251</sup>	11.32 <sup>47</sup>	61.88 <sup>247</sup>	59.234 <sup>221</sup>	15.31 <sup>289</sup>	35.034 <sup>243</sup>	62.92 <sup>90</sup>
2I	29.694 <sup>148</sup>	12.06 <sup>270</sup>	11.71 <sup>39</sup>	64.47 <sup>259</sup>	59.455 <sup>160</sup>	18.39 <sup>308</sup>	35.277 <sup>211</sup>	63.82 <sup>91</sup>
3I	29.800 <sup>106</sup>	14.84 <sup>278</sup>	12.02 <sup>31</sup>	67.14 <sup>267</sup>	59.615 <sup>95</sup>	35.488 <sup>315</sup>	35.488 <sup>175</sup>	64.73 <sup>91</sup>
Jun. 9	29.800 <sup>63</sup>	14.84 <sup>277</sup>	12.02 <sup>21</sup>	67.14 <sup>268</sup>	59.710 <sup>29</sup>	21.54 <sup>315</sup>	35.663 <sup>135</sup>	65.64 <sup>90</sup>
19	29.863 <sup>18</sup>	17.61 <sup>269</sup>	12.23 <sup>10</sup>	69.82 <sup>263</sup>	59.739 <sup>35</sup>	24.69 <sup>303</sup>	35.798 <sup>94</sup>	66.54 <sup>87</sup>
29	29.881 <sup>27</sup>	20.30 <sup>252</sup>	12.33 <sup>1</sup>	72.45 <sup>252</sup>	59.704 <sup>98</sup>	27.72 <sup>284</sup>	35.892 <sup>51</sup>	67.41 <sup>82</sup>
Juli 9	29.854 <sup>71</sup>	22.82 <sup>229</sup>	12.34 <sup>9</sup>	74.97 <sup>234</sup>	59.606 <sup>159</sup>	30.56 <sup>256</sup>	35.943 <sup>6</sup>	68.23 <sup>77</sup>
19	29.783 <sup>111</sup>	25.11 <sup>200</sup>	12.25 <sup>19</sup>	77.31 <sup>210</sup>	59.447 <sup>215</sup>	33.12 <sup>223</sup>	35.949 <sup>38</sup>	69.00 <sup>68</sup>
Aug. 8	29.672 <sup>149</sup>	27.11 <sup>166</sup>	12.06 <sup>28</sup>	79.41 <sup>179</sup>	59.232 <sup>267</sup>	35.35 <sup>183</sup>	35.911 <sup>79</sup>	69.68 <sup>57</sup>
18	29.523 <sup>183</sup>	28.77 <sup>128</sup>	11.78 <sup>36</sup>	81.20 <sup>143</sup>	58.965 <sup>309</sup>	37.18 <sup>140</sup>	35.832 <sup>117</sup>	70.25 <sup>44</sup>
28	29.340 <sup>210</sup>	30.05 <sup>88</sup>	11.42 <sup>43</sup>	82.63 <sup>102</sup>	58.656 <sup>344</sup>	38.58 <sup>93</sup>	35.715 <sup>149</sup>	70.69 <sup>28</sup>
7	29.130 <sup>230</sup>	30.93 <sup>44</sup>	10.99 <sup>47</sup>	83.65 <sup>57</sup>	58.312 <sup>371</sup>	39.51 <sup>43</sup>	35.566 <sup>174</sup>	70.97 <sup>11</sup>
17	28.900 <sup>243</sup>	31.37 <sup>0</sup>	10.52 <sup>50</sup>	84.22 <sup>10</sup>	57.941 <sup>385</sup>	39.94 <sup>7</sup>	35.392 <sup>189</sup>	71.08 <sup>7</sup>
Sept. 7	28.657 <sup>245</sup>	31.37 <sup>46</sup>	10.02 <sup>50</sup>	84.32 <sup>39</sup>	57.556 <sup>387</sup>	39.87 <sup>59</sup>	35.203 <sup>194</sup>	71.01 <sup>25</sup>
17	28.412 <sup>239</sup>	30.91 <sup>91</sup>	9.52 <sup>48</sup>	83.93 <sup>86</sup>	57.169 <sup>378</sup>	39.28 <sup>110</sup>	35.009 <sup>187</sup>	70.76 <sup>41</sup>
27	28.173 <sup>221</sup>	30.00 <sup>135</sup>	9.04 <sup>43</sup>	83.07 <sup>131</sup>	56.791 <sup>356</sup>	38.18 <sup>159</sup>	34.822 <sup>169</sup>	70.35 <sup>57</sup>
Okt. 7	27.952 <sup>193</sup>	28.65 <sup>179</sup>	8.61 <sup>37</sup>	81.76 <sup>170</sup>	56.435 <sup>319</sup>	36.59 <sup>208</sup>	34.653 <sup>139</sup>	69.78 <sup>68</sup>
17	27.759 <sup>155</sup>	26.86 <sup>219</sup>	8.24 <sup>28</sup>	80.06 <sup>203</sup>	56.116 <sup>272</sup>	34.51 <sup>252</sup>	34.514 <sup>98</sup>	69.10 <sup>76</sup>
Nov. 6	27.604 <sup>110</sup>	24.67 <sup>256</sup>	7.96 <sup>18</sup>	78.03 <sup>229</sup>	55.844 <sup>212</sup>	31.99 <sup>291</sup>	34.416 <sup>49</sup>	68.34 <sup>80</sup>
16	27.494 <sup>57</sup>	22.11 <sup>288</sup>	7.78 <sup>5</sup>	75.74 <sup>244</sup>	55.632 <sup>144</sup>	29.08 <sup>326</sup>	34.367 <sup>6</sup>	67.54 <sup>77</sup>
26	27.437 <sup>1</sup>	19.23 <sup>315</sup>	7.73 <sup>8</sup>	73.30 <sup>250</sup>	55.488 <sup>68</sup>	25.82 <sup>352</sup>	34.373 <sup>64</sup>	66.77 <sup>71</sup>
Dez. 6	27.436 <sup>59</sup>	16.08 <sup>332</sup>	7.81 <sup>20</sup>	70.80 <sup>247</sup>	55.420 <sup>11</sup>	22.30 <sup>369</sup>	34.437 <sup>124</sup>	66.06 <sup>60</sup>
16	27.495 <sup>118</sup>	12.76 <sup>343</sup>	8.01 <sup>33</sup>	68.33 <sup>232</sup>	55.431 <sup>93</sup>	18.61 <sup>377</sup>	34.561 <sup>182</sup>	65.46 <sup>46</sup>
16	27.613 <sup>174</sup>	9.33 <sup>341</sup>	8.34 <sup>44</sup>	66.01 <sup>211</sup>	55.524 <sup>172</sup>	14.84 <sup>374</sup>	34.743 <sup>233</sup>	65.00 <sup>28</sup>
26	27.787 <sup>225</sup>	5.92 <sup>330</sup>	8.78 <sup>55</sup>	63.90 <sup>182</sup>	55.696 <sup>246</sup>	11.10 <sup>357</sup>	34.976 <sup>278</sup>	64.72 <sup>10</sup>
36	28.012	2.62	9.33	62.08	55.942	7.53	35.254	64.62
Mittl. Ort	27.680	23.11	7.72	59.85	56.898	29.30	33.595	57.19
sec $\delta$ , tg $\delta$	1.288	+0.811	2.778	-2.592	1.832	+1.534	1.209	-0.679

# Obere Kulmination Greenwich

Tag	629) 49 Herculis		630) ζ <sup>2</sup> Scorpii		631) ζ Arae		633) α Ophiuchi	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	16 <sup>h</sup> 48 <sup>m</sup>	+15° 5'	16 <sup>h</sup> 49 <sup>m</sup>	-42° 14'	16 <sup>h</sup> 52 <sup>m</sup>	-55° 52'	16 <sup>h</sup> 54 <sup>m</sup>	+9° 28'
Jan. 1	48.865	25.08	31.959	26.45	40.544	44.01	16.365	57.29
11	49.099 <sup>234</sup>	22.63 <sup>245</sup>	32.284 <sup>325</sup>	26.02 <sup>43</sup>	40.944 <sup>400</sup>	42.87 <sup>114</sup>	16.596 <sup>231</sup>	55.08 <sup>221</sup>
21	49.363 <sup>264</sup>	20.33 <sup>230</sup>	32.644 <sup>360</sup>	25.82 <sup>20</sup>	41.394 <sup>450</sup>	42.03 <sup>84</sup>	16.856 <sup>260</sup>	52.99 <sup>209</sup>
31	49.649 <sup>286</sup>	18.27 <sup>206</sup>	33.031 <sup>387</sup>	25.84 <sup>2</sup>	41.881 <sup>487</sup>	41.49 <sup>54</sup>	17.138 <sup>282</sup>	51.08 <sup>191</sup>
Feb. 10	49.949 <sup>300</sup>	16.51 <sup>176</sup>	33.435 <sup>404</sup>	26.07 <sup>23</sup>	42.392 <sup>511</sup>	41.28 <sup>21</sup>	17.434 <sup>296</sup>	49.44 <sup>164</sup>
20	50.256 <sup>307</sup>	15.12 <sup>139</sup>	33.846 <sup>411</sup>	26.49 <sup>42</sup>	42.916 <sup>524</sup>	41.38 <sup>10</sup>	17.737 <sup>303</sup>	48.11 <sup>133</sup>
März 2	50.564 <sup>308</sup>	14.15 <sup>97</sup>	34.258 <sup>412</sup>	27.08 <sup>59</sup>	43.444 <sup>528</sup>	41.77 <sup>39</sup>	18.041 <sup>304</sup>	47.15 <sup>96</sup>
12	50.868 <sup>304</sup>	13.63 <sup>52</sup>	34.664 <sup>406</sup>	27.82 <sup>74</sup>	43.967 <sup>523</sup>	42.45 <sup>68</sup>	18.342 <sup>301</sup>	46.58 <sup>57</sup>
22	51.162 <sup>294</sup>	13.55 <sup>8</sup>	35.058 <sup>394</sup>	28.69 <sup>87</sup>	44.476 <sup>509</sup>	43.38 <sup>93</sup>	18.634 <sup>292</sup>	46.41 <sup>17</sup>
Apr. 1	51.441 <sup>279</sup>	13.90 <sup>35</sup>	35.436 <sup>378</sup>	29.67 <sup>98</sup>	44.964 <sup>488</sup>	44.56 <sup>118</sup>	18.913 <sup>279</sup>	46.63 <sup>22</sup>
11	51.704 <sup>263</sup>	14.65 <sup>75</sup>	35.794 <sup>358</sup>	30.74 <sup>107</sup>	45.426 <sup>462</sup>	45.95 <sup>139</sup>	19.176 <sup>263</sup>	47.21 <sup>58</sup>
21	51.946 <sup>242</sup>	15.75 <sup>110</sup>	36.127 <sup>333</sup>	31.90 <sup>116</sup>	45.856 <sup>430</sup>	47.52 <sup>157</sup>	19.420 <sup>244</sup>	48.11 <sup>90</sup>
Mai 1	52.164 <sup>218</sup>	17.14 <sup>139</sup>	36.432 <sup>305</sup>	33.12 <sup>122</sup>	46.248 <sup>392</sup>	49.25 <sup>173</sup>	19.643 <sup>223</sup>	49.27 <sup>116</sup>
11	52.355 <sup>191</sup>	18.76 <sup>162</sup>	36.705 <sup>273</sup>	34.40 <sup>128</sup>	46.595 <sup>347</sup>	51.12 <sup>187</sup>	19.840 <sup>197</sup>	50.64 <sup>137</sup>
21	52.518 <sup>163</sup>	20.54 <sup>178</sup>	36.941 <sup>236</sup>	35.72 <sup>132</sup>	46.893 <sup>298</sup>	53.09 <sup>197</sup>	20.010 <sup>170</sup>	52.16 <sup>152</sup>
31	52.649 <sup>131</sup>	22.40 <sup>186</sup>	37.137 <sup>196</sup>	37.06 <sup>134</sup>	47.136 <sup>243</sup>	55.12 <sup>203</sup>	20.149 <sup>139</sup>	53.76 <sup>160</sup>
Juni 9	52.746 <sup>97</sup>	24.29 <sup>189</sup>	37.289 <sup>152</sup>	38.41 <sup>135</sup>	47.320 <sup>184</sup>	57.17 <sup>205</sup>	20.149 <sup>106</sup>	53.76 <sup>163</sup>
19	52.807 <sup>61</sup>	26.14 <sup>185</sup>	37.394 <sup>105</sup>	39.73 <sup>132</sup>	47.441 <sup>121</sup>	59.20 <sup>203</sup>	20.255 <sup>71</sup>	55.39 <sup>161</sup>
29	52.832 <sup>25</sup>	27.90 <sup>176</sup>	37.450 <sup>56</sup>	41.00 <sup>127</sup>	47.496 <sup>55</sup>	61.16 <sup>196</sup>	20.326 <sup>35</sup>	57.00 <sup>152</sup>
Juli 9	52.820 <sup>12</sup>	29.51 <sup>161</sup>	37.455 <sup>5</sup>	42.18 <sup>118</sup>	47.485 <sup>11</sup>	63.00 <sup>184</sup>	20.361 <sup>1</sup>	58.52 <sup>141</sup>
19	52.772 <sup>48</sup>	30.95 <sup>144</sup>	37.412 <sup>43</sup>	43.24 <sup>106</sup>	47.410 <sup>75</sup>	64.67 <sup>167</sup>	20.360 <sup>37</sup>	59.93 <sup>126</sup>
29	52.690 <sup>82</sup>	32.17 <sup>122</sup>	37.322 <sup>90</sup>	44.15 <sup>91</sup>	47.273 <sup>137</sup>	66.11 <sup>144</sup>	20.323 <sup>72</sup>	61.19 <sup>108</sup>
Aug. 8	52.577 <sup>113</sup>	33.15 <sup>98</sup>	37.322 <sup>133</sup>	44.15 <sup>71</sup>	47.273 <sup>192</sup>	66.11 <sup>116</sup>	20.251 <sup>104</sup>	62.27 <sup>88</sup>
18	52.577 <sup>138</sup>	33.15 <sup>73</sup>	37.189 <sup>169</sup>	44.86 <sup>50</sup>	47.081 <sup>239</sup>	67.27 <sup>85</sup>	20.147 <sup>130</sup>	63.15 <sup>66</sup>
28	52.439 <sup>159</sup>	33.88 <sup>45</sup>	37.020 <sup>196</sup>	45.36 <sup>27</sup>	46.842 <sup>274</sup>	68.12 <sup>51</sup>	20.017 <sup>151</sup>	63.81 <sup>43</sup>
31	52.280 <sup>173</sup>	34.33 <sup>16</sup>	36.824 <sup>215</sup>	45.63 <sup>0</sup>	46.568 <sup>298</sup>	68.63 <sup>13</sup>	19.866 <sup>165</sup>	64.24 <sup>19</sup>
Sept. 7	52.107 <sup>176</sup>	34.49 <sup>14</sup>	36.609 <sup>220</sup>	45.63 <sup>25</sup>	46.270 <sup>304</sup>	68.76 <sup>25</sup>	19.701 <sup>171</sup>	64.43 <sup>6</sup>
17	51.931 <sup>173</sup>	34.35 <sup>43</sup>	36.389 <sup>213</sup>	45.38 <sup>50</sup>	45.966 <sup>296</sup>	68.51 <sup>63</sup>	19.530 <sup>167</sup>	64.37 <sup>32</sup>
27	51.758 <sup>158</sup>	33.92 <sup>74</sup>	36.176 <sup>193</sup>	44.88 <sup>73</sup>	45.670 <sup>271</sup>	67.88 <sup>98</sup>	19.363 <sup>154</sup>	64.05 <sup>57</sup>
Okt. 7	51.600 <sup>135</sup>	33.18 <sup>105</sup>	35.983 <sup>161</sup>	44.15 <sup>92</sup>	45.399 <sup>228</sup>	66.90 <sup>130</sup>	19.209 <sup>132</sup>	63.48 <sup>84</sup>
17	51.465 <sup>104</sup>	32.13 <sup>134</sup>	35.822 <sup>116</sup>	43.23 <sup>107</sup>	45.171 <sup>173</sup>	65.60 <sup>155</sup>	19.077 <sup>101</sup>	62.64 <sup>110</sup>
27	51.361 <sup>65</sup>	30.79 <sup>163</sup>	35.706 <sup>63</sup>	42.16 <sup>117</sup>	44.998 <sup>104</sup>	64.05 <sup>176</sup>	18.976 <sup>62</sup>	61.54 <sup>136</sup>
Nov. 6	51.296 <sup>19</sup>	29.16 <sup>189</sup>	35.643 <sup>2</sup>	40.99 <sup>121</sup>	44.894 <sup>25</sup>	62.29 <sup>187</sup>	18.914 <sup>18</sup>	60.18 <sup>160</sup>
16	51.277 <sup>30</sup>	27.27 <sup>212</sup>	35.641 <sup>63</sup>	39.78 <sup>118</sup>	44.869 <sup>57</sup>	60.42 <sup>191</sup>	18.896 <sup>29</sup>	58.58 <sup>182</sup>
26	51.307 <sup>79</sup>	25.15 <sup>231</sup>	35.704 <sup>128</sup>	38.60 <sup>110</sup>	44.926 <sup>142</sup>	58.51 <sup>187</sup>	18.925 <sup>79</sup>	56.76 <sup>200</sup>
Dez. 6	51.386 <sup>128</sup>	22.84 <sup>245</sup>	35.832 <sup>192</sup>	37.50 <sup>96</sup>	45.068 <sup>225</sup>	56.64 <sup>175</sup>	19.004 <sup>127</sup>	54.76 <sup>214</sup>
16	51.514 <sup>174</sup>	20.39 <sup>251</sup>	36.024 <sup>251</sup>	36.54 <sup>79</sup>	45.293 <sup>301</sup>	54.89 <sup>156</sup>	19.131 <sup>172</sup>	52.62 <sup>222</sup>
26	51.688 <sup>214</sup>	17.88 <sup>248</sup>	36.275 <sup>301</sup>	35.75 <sup>57</sup>	45.594 <sup>368</sup>	53.33 <sup>133</sup>	19.303 <sup>211</sup>	50.40 <sup>223</sup>
36	51.902	15.40	36.576	35.18	45.962	52.00	19.514	48.17
Mittl. Ort	50.849	31.43	34.844	29.16	44.213	48.15	18.383	62.86
sec δ, tg δ	1.036	+0.270	1.351	-0.908	1.783	-1.476	1.014	+0.167

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Tag	634) ε Hercules		637) η Ophiuchi		639) ζ Draconis		640) α Hercules	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	16 <sup>h</sup> 57 <sup>m</sup>	+31° 1'	17 <sup>h</sup> 6 <sup>m</sup>	-15° 38'	17 <sup>h</sup> 8 <sup>m</sup>	+65° 47'	17 <sup>h</sup> 11 <sup>m</sup>	+14° 27'
Jan. I	32.323 <sup>227</sup>	39.17 <sup>301</sup>	15.969 <sup>244</sup>	20.85 <sup>90</sup>	31.67 <sup>28</sup>	56.37 <sup>355</sup>	22.495 <sup>215</sup>	65.46 <sup>240</sup>
II	32.550 <sup>264</sup>	36.16 <sup>279</sup>	16.213 <sup>274</sup>	21.75 <sup>94</sup>	31.95 <sup>37</sup>	52.82 <sup>325</sup>	22.710 <sup>246</sup>	63.06 <sup>227</sup>
2I	32.814 <sup>292</sup>	33.37 <sup>245</sup>	16.487 <sup>296</sup>	22.69 <sup>95</sup>	32.32 <sup>45</sup>	49.57 <sup>283</sup>	22.956 <sup>271</sup>	60.79 <sup>206</sup>
3I	33.106 <sup>313</sup>	30.92 <sup>205</sup>	16.783 <sup>311</sup>	23.64 <sup>91</sup>	32.77 <sup>51</sup>	46.74 <sup>231</sup>	23.227 <sup>289</sup>	58.73 <sup>177</sup>
Feb. 10	33.419 <sup>324</sup>	28.87 <sup>156</sup>	17.094 <sup>319</sup>	24.55 <sup>84</sup>	33.28 <sup>55</sup>	44.43 <sup>171</sup>	23.516 <sup>300</sup>	56.96 <sup>142</sup>
20	33.743 <sup>329</sup>	27.31 <sup>103</sup>	17.413 <sup>321</sup>	25.39 <sup>72</sup>	33.83 <sup>58</sup>	42.72 <sup>106</sup>	23.816 <sup>304</sup>	55.54 <sup>101</sup>
März 2	34.072 <sup>327</sup>	26.28 <sup>46</sup>	17.734 <sup>319</sup>	26.11 <sup>59</sup>	34.41 <sup>59</sup>	41.66 <sup>38</sup>	24.120 <sup>303</sup>	54.53 <sup>58</sup>
12	34.399 <sup>317</sup>	25.82 <sup>10</sup>	18.053 <sup>312</sup>	26.70 <sup>44</sup>	35.00 <sup>57</sup>	41.28 <sup>30</sup>	24.423 <sup>298</sup>	53.95 <sup>14</sup>
22	34.716 <sup>303</sup>	25.92 <sup>64</sup>	18.365 <sup>301</sup>	27.14 <sup>29</sup>	35.57 <sup>55</sup>	41.58 <sup>95</sup>	24.721 <sup>287</sup>	53.81 <sup>30</sup>
Apr. I	35.019 <sup>284</sup>	26.56 <sup>115</sup>	18.666 <sup>288</sup>	27.43 <sup>14</sup>	36.12 <sup>50</sup>	42.53 <sup>156</sup>	25.008 <sup>274</sup>	54.11 <sup>70</sup>
II	35.303 <sup>260</sup>	27.71 <sup>158</sup>	18.954 <sup>271</sup>	27.57 <sup>1</sup>	36.62 <sup>45</sup>	44.09 <sup>109</sup>	25.282 <sup>256</sup>	54.81 <sup>107</sup>
2I	35.563 <sup>232</sup>	29.29 <sup>196</sup>	19.225 <sup>252</sup>	27.58 <sup>10</sup>	37.07 <sup>38</sup>	46.18 <sup>252</sup>	25.538 <sup>235</sup>	55.88 <sup>136</sup>
Mai I	35.795 <sup>201</sup>	31.25 <sup>223</sup>	19.477 <sup>228</sup>	27.48 <sup>18</sup>	37.45 <sup>31</sup>	48.70 <sup>287</sup>	25.773 <sup>210</sup>	57.24 <sup>161</sup>
II	35.996 <sup>167</sup>	33.48 <sup>244</sup>	19.705 <sup>202</sup>	27.30 <sup>23</sup>	37.76 <sup>23</sup>	51.57 <sup>310</sup>	25.983 <sup>183</sup>	58.85 <sup>178</sup>
2I	36.163 <sup>129</sup>	35.92 <sup>255</sup>	19.907 <sup>172</sup>	27.07 <sup>26</sup>	37.99 <sup>13</sup>	54.67 <sup>324</sup>	26.166 <sup>152</sup>	60.63 <sup>189</sup>
3I	36.292 <sup>91</sup>	38.47 <sup>257</sup>	20.079 <sup>139</sup>	26.81 <sup>28</sup>	38.12 <sup>5</sup>	57.91 <sup>327</sup>	26.318 <sup>119</sup>	62.52 <sup>192</sup>
Juni 9	36.383 <sup>49</sup>	41.04 <sup>253</sup>	20.218 <sup>104</sup>	26.53 <sup>27</sup>	38.17 <sup>5</sup>	61.18 <sup>320</sup>	26.437 <sup>82</sup>	64.44 <sup>190</sup>
19	36.432 <sup>8</sup>	43.57 <sup>239</sup>	20.322 <sup>66</sup>	26.26 <sup>24</sup>	38.12 <sup>13</sup>	64.38 <sup>304</sup>	26.519 <sup>45</sup>	66.34 <sup>182</sup>
29	36.440 <sup>33</sup>	45.96 <sup>221</sup>	20.388 <sup>27</sup>	26.02 <sup>22</sup>	37.99 <sup>21</sup>	67.42 <sup>280</sup>	26.564 <sup>7</sup>	68.16 <sup>170</sup>
Juli 9	36.407 <sup>73</sup>	48.17 <sup>197</sup>	20.415 <sup>13</sup>	25.80 <sup>19</sup>	37.78 <sup>29</sup>	70.22 <sup>249</sup>	26.571 <sup>31</sup>	69.86 <sup>153</sup>
19	36.334 <sup>111</sup>	50.14 <sup>168</sup>	20.402 <sup>50</sup>	25.61 <sup>16</sup>	37.49 <sup>37</sup>	72.71 <sup>212</sup>	26.540 <sup>67</sup>	71.39 <sup>132</sup>
29	36.223 <sup>145</sup>	51.82 <sup>134</sup>	20.352 <sup>85</sup>	25.45 <sup>13</sup>	37.12 <sup>43</sup>	74.83 <sup>170</sup>	26.473 <sup>101</sup>	72.71 <sup>109</sup>
Aug. 8	36.078 <sup>173</sup>	53.16 <sup>99</sup>	20.267 <sup>116</sup>	25.32 <sup>12</sup>	36.69 <sup>47</sup>	76.53 <sup>123</sup>	26.372 <sup>130</sup>	73.80 <sup>83</sup>
18	35.905 <sup>196</sup>	54.15 <sup>61</sup>	20.151 <sup>141</sup>	25.20 <sup>11</sup>	36.22 <sup>52</sup>	77.76 <sup>75</sup>	26.242 <sup>154</sup>	74.63 <sup>57</sup>
28	35.709 <sup>211</sup>	54.76 <sup>20</sup>	20.010 <sup>157</sup>	25.09 <sup>9</sup>	35.70 <sup>54</sup>	78.51 <sup>24</sup>	26.088 <sup>170</sup>	75.20 <sup>29</sup>
Sept. 7	35.498 <sup>217</sup>	54.96 <sup>20</sup>	19.853 <sup>166</sup>	25.00 <sup>9</sup>	35.16 <sup>56</sup>	78.75 <sup>29</sup>	25.918 <sup>179</sup>	75.49 <sup>1</sup>
17	35.281 <sup>213</sup>	54.76 <sup>62</sup>	19.687 <sup>163</sup>	24.91 <sup>8</sup>	34.60 <sup>55</sup>	78.46 <sup>82</sup>	25.739 <sup>177</sup>	75.48 <sup>30</sup>
27	35.068 <sup>200</sup>	54.14 <sup>103</sup>	19.524 <sup>152</sup>	24.83 <sup>4</sup>	34.05 <sup>52</sup>	77.64 <sup>133</sup>	25.562 <sup>168</sup>	75.18 <sup>61</sup>
Okt. 7	34.868 <sup>176</sup>	53.11 <sup>143</sup>	19.372 <sup>129</sup>	24.79 <sup>0</sup>	33.53 <sup>49</sup>	76.31 <sup>183</sup>	25.394 <sup>147</sup>	74.57 <sup>90</sup>
17	34.692 <sup>144</sup>	51.68 <sup>182</sup>	19.243 <sup>98</sup>	24.79 <sup>7</sup>	33.04 <sup>43</sup>	74.48 <sup>231</sup>	25.247 <sup>118</sup>	73.67 <sup>121</sup>
27	34.548 <sup>103</sup>	49.86 <sup>218</sup>	19.145 <sup>57</sup>	24.86 <sup>14</sup>	32.61 <sup>37</sup>	72.17 <sup>274</sup>	25.129 <sup>82</sup>	72.46 <sup>149</sup>
Nov. 6	34.445 <sup>55</sup>	47.68 <sup>250</sup>	19.088 <sup>12</sup>	25.00 <sup>24</sup>	32.24 <sup>29</sup>	69.43 <sup>312</sup>	25.047 <sup>38</sup>	70.97 <sup>176</sup>
16	34.390 <sup>3</sup>	45.18 <sup>278</sup>	19.076 <sup>38</sup>	25.24 <sup>37</sup>	31.95 <sup>19</sup>	66.31 <sup>342</sup>	25.009 <sup>8</sup>	69.21 <sup>199</sup>
26	34.387 <sup>50</sup>	42.40 <sup>298</sup>	19.114 <sup>88</sup>	25.61 <sup>49</sup>	31.76 <sup>9</sup>	62.89 <sup>364</sup>	25.017 <sup>57</sup>	67.22 <sup>220</sup>
Dez. 6	34.437 <sup>104</sup>	39.42 <sup>311</sup>	19.202 <sup>139</sup>	26.10 <sup>62</sup>	31.67 <sup>1</sup>	59.25 <sup>377</sup>	25.074 <sup>106</sup>	65.02 <sup>234</sup>
16	34.541 <sup>156</sup>	36.31 <sup>315</sup>	19.341 <sup>184</sup>	26.72 <sup>74</sup>	31.68 <sup>12</sup>	55.48 <sup>378</sup>	25.180 <sup>152</sup>	62.68 <sup>243</sup>
26	34.697 <sup>203</sup>	33.16 <sup>307</sup>	19.525 <sup>225</sup>	27.46 <sup>83</sup>	31.80 <sup>22</sup>	51.70 <sup>367</sup>	25.332 <sup>193</sup>	60.25 <sup>242</sup>
36	34.900	30.09	19.750	28.29	32.02	48.03	25.525	57.83
Mittl. Ort	34.349	47.66	18.240	18.62	34.64	67.15	24.543	71.90
sec δ, tg δ	1.167	+0.602	1.038	-0.280	2.440	+2.225	1.033	+0.258

# Obere Kulmination Greenwich

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Tag	641) $\delta$ Herculis		643) $\pi$ Herculis		644) $\delta$ Ophiuchi		645) $\beta$ Arae	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	17 <sup>h</sup> 12 <sup>m</sup>	+24° 54'	17 <sup>h</sup> 12 <sup>m</sup>	+36° 52'	17 <sup>h</sup> 17 <sup>m</sup>	-24° 55'	17 <sup>h</sup> 19 <sup>m</sup>	-55° 27'
Jan. I	4.826 <sup>212</sup>	70.91 <sup>282</sup>	32.293 <sup>214</sup>	68.74 <sup>319</sup>	36.348 <sup>250</sup>	50.50 <sup>32</sup>	19.856 <sup>362</sup>	52.19 <sup>137</sup>
II	5.038 <sup>247</sup>	68.09 <sup>265</sup>	32.507 <sup>256</sup>	65.55 <sup>297</sup>	36.598 <sup>282</sup>	50.82 <sup>41</sup>	20.218 <sup>415</sup>	50.82 <sup>112</sup>
21	5.285 <sup>275</sup>	65.44 <sup>237</sup>	32.763 <sup>289</sup>	62.58 <sup>264</sup>	36.880 <sup>307</sup>	51.23 <sup>48</sup>	20.633 <sup>458</sup>	49.70 <sup>84</sup>
31	5.560 <sup>296</sup>	63.07 <sup>200</sup>	33.052 <sup>315</sup>	59.94 <sup>220</sup>	37.187 <sup>324</sup>	51.71 <sup>52</sup>	21.091 <sup>489</sup>	48.86 <sup>55</sup>
Feb. 10	5.856 <sup>308</sup>	61.07 <sup>158</sup>	33.367 <sup>332</sup>	57.74 <sup>170</sup>	37.511 <sup>335</sup>	52.23 <sup>53</sup>	21.580 <sup>509</sup>	48.31 <sup>27</sup>
20	6.164 <sup>314</sup>	59.49 <sup>109</sup>	33.699 <sup>341</sup>	56.04 <sup>113</sup>	37.846 <sup>340</sup>	52.76 <sup>52</sup>	22.089 <sup>519</sup>	48.04 <sup>2</sup>
März 2	6.478 <sup>315</sup>	58.40 <sup>57</sup>	34.040 <sup>341</sup>	54.91 <sup>55</sup>	38.186 <sup>339</sup>	53.28 <sup>49</sup>	22.608 <sup>521</sup>	48.06 <sup>30</sup>
12	6.793 <sup>309</sup>	57.83 <sup>5</sup>	34.381 <sup>336</sup>	54.36 <sup>6</sup>	38.525 <sup>333</sup>	53.77 <sup>44</sup>	23.129 <sup>515</sup>	48.36 <sup>55</sup>
22	7.102 <sup>298</sup>	57.78 <sup>46</sup>	34.717 <sup>324</sup>	54.42 <sup>64</sup>	38.858 <sup>325</sup>	54.21 <sup>38</sup>	23.644 <sup>501</sup>	48.91 <sup>81</sup>
Apr. I	7.400 <sup>282</sup>	58.24 <sup>94</sup>	35.041 <sup>304</sup>	55.06 <sup>117</sup>	39.183 <sup>312</sup>	54.59 <sup>33</sup>	24.145 <sup>481</sup>	49.72 <sup>103</sup>
II	7.682 <sup>262</sup>	59.18 <sup>136</sup>	35.345 <sup>281</sup>	56.23 <sup>166</sup>	39.495 <sup>296</sup>	54.92 <sup>28</sup>	24.626 <sup>454</sup>	50.75 <sup>124</sup>
21	7.944 <sup>239</sup>	60.54 <sup>173</sup>	35.626 <sup>253</sup>	57.89 <sup>207</sup>	39.791 <sup>277</sup>	55.20 <sup>25</sup>	25.080 <sup>422</sup>	51.99 <sup>144</sup>
Mai I	8.183 <sup>212</sup>	62.27 <sup>200</sup>	35.879 <sup>220</sup>	59.96 <sup>239</sup>	40.068 <sup>253</sup>	55.45 <sup>23</sup>	25.502 <sup>382</sup>	53.43 <sup>160</sup>
II	8.395 <sup>181</sup>	64.27 <sup>221</sup>	36.099 <sup>183</sup>	62.35 <sup>261</sup>	40.321 <sup>226</sup>	55.68 <sup>22</sup>	25.884 <sup>336</sup>	55.03 <sup>175</sup>
21	8.576 <sup>147</sup>	66.48 <sup>234</sup>	36.282 <sup>143</sup>	64.96 <sup>276</sup>	40.547 <sup>196</sup>	55.90 <sup>22</sup>	26.220 <sup>285</sup>	56.78 <sup>185</sup>
31	8.723 <sup>111</sup>	68.82 <sup>237</sup>	36.425 <sup>101</sup>	67.72 <sup>280</sup>	40.743 <sup>160</sup>	56.12 <sup>24</sup>	26.505 <sup>227</sup>	58.63 <sup>193</sup>
Juni 10	8.834 <sup>73</sup>	71.19 <sup>235</sup>	36.526 <sup>56</sup>	70.52 <sup>277</sup>	40.903 <sup>122</sup>	56.36 <sup>25</sup>	26.732 <sup>165</sup>	60.56 <sup>196</sup>
19	8.907 <sup>32</sup>	73.54 <sup>226</sup>	36.582 <sup>11</sup>	73.29 <sup>266</sup>	41.025 <sup>82</sup>	56.61 <sup>27</sup>	26.897 <sup>99</sup>	62.52 <sup>195</sup>
29	8.939 <sup>9</sup>	75.80 <sup>209</sup>	36.593 <sup>34</sup>	75.95 <sup>246</sup>	41.107 <sup>40</sup>	56.88 <sup>28</sup>	26.996 <sup>32</sup>	64.47 <sup>188</sup>
Juli 9	8.930 <sup>48</sup>	77.89 <sup>189</sup>	36.559 <sup>78</sup>	78.41 <sup>222</sup>	41.147 <sup>3</sup>	57.16 <sup>27</sup>	27.028 <sup>36</sup>	66.35 <sup>175</sup>
19	8.882 <sup>85</sup>	79.78 <sup>163</sup>	36.481 <sup>119</sup>	80.63 <sup>192</sup>	41.144 <sup>45</sup>	57.43 <sup>26</sup>	26.992 <sup>101</sup>	68.10 <sup>158</sup>
29	8.797 <sup>121</sup>	81.41 <sup>134</sup>	36.362 <sup>157</sup>	82.55 <sup>157</sup>	41.099 <sup>83</sup>	57.69 <sup>22</sup>	26.891 <sup>161</sup>	69.68 <sup>135</sup>
Aug. 8	8.676 <sup>151</sup>	82.75 <sup>103</sup>	36.205 <sup>190</sup>	84.12 <sup>119</sup>	41.016 <sup>118</sup>	57.91 <sup>17</sup>	26.730 <sup>213</sup>	71.03 <sup>107</sup>
18	8.525 <sup>175</sup>	83.78 <sup>68</sup>	36.015 <sup>215</sup>	85.31 <sup>78</sup>	40.898 <sup>145</sup>	58.08 <sup>11</sup>	26.517 <sup>256</sup>	72.10 <sup>76</sup>
28	8.350 <sup>191</sup>	84.46 <sup>32</sup>	35.800 <sup>233</sup>	86.09 <sup>35</sup>	40.753 <sup>165</sup>	58.19 <sup>3</sup>	26.261 <sup>286</sup>	72.86 <sup>41</sup>
Sept. 7	8.159 <sup>200</sup>	84.78 <sup>4</sup>	35.567 <sup>242</sup>	86.44 <sup>8</sup>	40.588 <sup>176</sup>	58.22 <sup>5</sup>	25.975 <sup>302</sup>	73.27 <sup>3</sup>
17	7.959 <sup>200</sup>	84.74 <sup>43</sup>	35.325 <sup>240</sup>	86.36 <sup>54</sup>	40.412 <sup>175</sup>	58.17 <sup>12</sup>	25.673 <sup>301</sup>	73.30 <sup>34</sup>
27	7.759 <sup>188</sup>	84.31 <sup>80</sup>	35.085 <sup>229</sup>	85.82 <sup>98</sup>	40.237 <sup>165</sup>	58.05 <sup>20</sup>	25.372 <sup>284</sup>	72.96 <sup>71</sup>
Okt. 7	7.571 <sup>168</sup>	83.51 <sup>117</sup>	34.856 <sup>207</sup>	84.84 <sup>142</sup>	40.072 <sup>143</sup>	57.85 <sup>26</sup>	25.088 <sup>249</sup>	72.25 <sup>106</sup>
17	7.403 <sup>139</sup>	82.34 <sup>154</sup>	34.649 <sup>176</sup>	83.42 <sup>185</sup>	39.929 <sup>110</sup>	57.59 <sup>28</sup>	24.839 <sup>201</sup>	71.19 <sup>135</sup>
27	7.264 <sup>101</sup>	80.80 <sup>188</sup>	34.473 <sup>135</sup>	81.57 <sup>224</sup>	39.819 <sup>70</sup>	57.31 <sup>29</sup>	24.638 <sup>138</sup>	69.84 <sup>159</sup>
Nov. 6	7.163 <sup>56</sup>	78.92 <sup>219</sup>	34.338 <sup>86</sup>	79.33 <sup>259</sup>	39.749 <sup>22</sup>	57.02 <sup>26</sup>	24.500 <sup>65</sup>	68.25 <sup>176</sup>
16	7.107 <sup>8</sup>	76.73 <sup>246</sup>	34.252 <sup>34</sup>	76.74 <sup>288</sup>	39.727 <sup>30</sup>	56.76 <sup>19</sup>	24.435 <sup>15</sup>	66.49 <sup>186</sup>
26	7.099 <sup>44</sup>	74.27 <sup>268</sup>	34.218 <sup>23</sup>	73.86 <sup>312</sup>	39.757 <sup>83</sup>	56.57 <sup>11</sup>	24.450 <sup>98</sup>	64.63 <sup>188</sup>
Dez. 6	7.143 <sup>94</sup>	71.59 <sup>283</sup>	34.241 <sup>79</sup>	70.74 <sup>327</sup>	39.840 <sup>136</sup>	56.46 <sup>0</sup>	24.548 <sup>180</sup>	62.75 <sup>182</sup>
16	7.237 <sup>144</sup>	68.76 <sup>290</sup>	34.320 <sup>135</sup>	67.47 <sup>332</sup>	39.976 <sup>185</sup>	56.46 <sup>12</sup>	24.728 <sup>257</sup>	60.93 <sup>170</sup>
26	7.381 <sup>188</sup>	65.86 <sup>287</sup>	34.455 <sup>186</sup>	64.15 <sup>327</sup>	40.161 <sup>229</sup>	56.58 <sup>23</sup>	24.985 <sup>327</sup>	59.23 <sup>152</sup>
36	7.569	62.99	34.641	60.88	40.390	56.81	25.312	57.71
Mittl. Ort	6.877	78.56	34.411	77.57	38.800	48.86	23.568	53.74
sec $\delta$ , tg $\delta$	1.103	+0.465	1.250	+0.750	1.103	-0.465	1.764	-1.453

Tag	648) $\delta$ Arae		651) $\alpha$ Arae		652) $\lambda$ Scorpii		653) $\beta$ Draconis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	17 <sup>h</sup> 24 <sup>m</sup>	-60° 37'	17 <sup>h</sup> 26 <sup>m</sup>	-49° 49'	17 <sup>h</sup> 28 <sup>m</sup>	-37° 3'	17 <sup>h</sup> 28 <sup>m</sup>	+52° 20'
Jan. 1	36.87 <sub>40</sub>	34.85 <sub>166</sub>	17.624 <sub>318</sub>	18.71 <sub>113</sub>	44.258 <sub>267</sub>	14.39 <sub>45</sub>	47.205 <sub>205</sub>	62.43 <sub>353</sub>
11	37.27 <sub>46</sub>	33.19 <sub>140</sub>	17.942 <sub>367</sub>	17.58 <sub>92</sub>	44.525 <sub>306</sub>	13.94 <sub>30</sub>	47.410 <sub>266</sub>	58.90 <sub>329</sub>
21	37.73 <sub>51</sub>	31.79 <sub>110</sub>	18.309 <sub>404</sub>	16.66 <sub>69</sub>	44.831 <sub>336</sub>	13.64 <sub>16</sub>	47.676 <sub>316</sub>	55.61 <sub>294</sub>
31	38.24 <sub>55</sub>	30.69 <sub>78</sub>	18.713 <sub>432</sub>	15.97 <sub>45</sub>	45.167 <sub>358</sub>	13.48 <sub>2</sub>	47.992 <sub>357</sub>	52.67 <sub>247</sub>
Feb. 10	38.79 <sub>57</sub>	29.91 <sub>46</sub>	19.145 <sub>451</sub>	15.52 <sub>22</sub>	45.525 <sub>372</sub>	13.46 <sub>10</sub>	48.349 <sub>388</sub>	50.20 <sub>192</sub>
20	39.36 <sub>59</sub>	29.45 <sub>14</sub>	19.596 <sub>461</sub>	15.30 <sub>2</sub>	45.897 <sub>380</sub>	13.56 <sub>21</sub>	48.737 <sub>408</sub>	48.28 <sub>131</sub>
März 2	39.95 <sub>60</sub>	29.31 <sub>18</sub>	20.057 <sub>463</sub>	15.32 <sub>24</sub>	46.277 <sub>381</sub>	13.77 <sub>31</sub>	49.145 <sub>417</sub>	46.97 <sub>66</sub>
12	40.55 <sub>59</sub>	29.49 <sub>49</sub>	20.520 <sub>459</sub>	15.56 <sub>45</sub>	46.658 <sub>379</sub>	14.08 <sub>38</sub>	49.562 <sub>414</sub>	46.31 <sub>0</sub>
22	41.14 <sub>57</sub>	29.98 <sub>78</sub>	20.979 <sub>448</sub>	16.01 <sub>64</sub>	47.037 <sub>370</sub>	14.46 <sub>46</sub>	49.976 <sub>402</sub>	46.31 <sub>65</sub>
Apr. 1	41.71 <sub>55</sub>	30.76 <sub>106</sub>	21.427 <sub>432</sub>	16.65 <sub>83</sub>	47.407 <sub>358</sub>	14.92 <sub>52</sub>	50.378 <sub>380</sub>	46.96 <sub>126</sub>
11	42.26 <sub>52</sub>	31.82 <sub>131</sub>	21.859 <sub>411</sub>	17.48 <sub>100</sub>	47.765 <sub>341</sub>	15.44 <sub>59</sub>	50.758 <sub>350</sub>	48.22 <sub>181</sub>
21	42.78 <sub>49</sub>	33.13 <sub>155</sub>	22.270 <sub>384</sub>	18.48 <sub>116</sub>	48.106 <sub>320</sub>	16.03 <sub>66</sub>	51.108 <sub>312</sub>	50.03 <sub>227</sub>
Mai 1	43.27 <sub>44</sub>	34.68 <sub>175</sub>	22.654 <sub>351</sub>	19.64 <sub>132</sub>	48.426 <sub>295</sub>	16.69 <sub>72</sub>	51.420 <sub>268</sub>	52.30 <sub>264</sub>
11	43.71 <sub>39</sub>	36.43 <sub>193</sub>	23.005 <sub>313</sub>	20.96 <sub>143</sub>	48.721 <sub>266</sub>	17.41 <sub>79</sub>	51.688 <sub>218</sub>	54.94 <sub>293</sub>
21	44.10 <sub>32</sub>	38.36 <sub>206</sub>	23.318 <sub>268</sub>	22.39 <sub>153</sub>	48.987 <sub>230</sub>	18.20 <sub>85</sub>	51.906 <sub>164</sub>	57.87 <sub>311</sub>
31	44.42 <sub>26</sub>	40.42 <sub>215</sub>	23.586 <sub>218</sub>	23.92 <sub>161</sub>	49.217 <sub>191</sub>	19.05 <sub>90</sub>	52.070 <sub>107</sub>	60.98 <sub>318</sub>
Juni 10	44.68 <sub>19</sub>	42.57 <sub>220</sub>	23.804 <sub>164</sub>	25.53 <sub>165</sub>	49.408 <sub>147</sub>	19.95 <sub>93</sub>	52.177 <sub>47</sub>	64.16 <sub>317</sub>
19	44.87 <sub>11</sub>	44.77 <sub>219</sub>	23.968 <sub>107</sub>	27.18 <sub>166</sub>	49.555 <sub>101</sub>	20.88 <sub>94</sub>	52.224 <sub>14</sub>	67.33 <sub>307</sub>
29	44.98 <sub>3</sub>	46.96 <sub>213</sub>	24.075 <sub>47</sub>	28.84 <sub>161</sub>	49.656 <sub>53</sub>	21.82 <sub>94</sub>	52.210 <sub>73</sub>	70.40 <sub>287</sub>
Juli 9	45.01 <sub>4</sub>	49.09 <sub>199</sub>	24.122 <sub>14</sub>	30.45 <sub>152</sub>	49.709 <sub>3</sub>	22.76 <sub>90</sub>	52.137 <sub>131</sub>	73.27 <sub>262</sub>
19	44.97 <sub>12</sub>	51.08 <sub>181</sub>	24.108 <sub>72</sub>	31.97 <sub>138</sub>	49.712 <sub>45</sub>	23.66 <sub>83</sub>	52.006 <sub>184</sub>	75.89 <sub>230</sub>
29	44.85 <sub>19</sub>	52.89 <sub>156</sub>	24.036 <sub>127</sub>	33.35 <sub>120</sub>	49.667 <sub>90</sub>	24.49 <sub>73</sub>	51.822 <sub>233</sub>	78.19 <sub>192</sub>
Aug. 8	44.66 <sub>25</sub>	54.45 <sub>127</sub>	23.909 <sub>174</sub>	34.55 <sub>98</sub>	49.577 <sub>130</sub>	25.22 <sub>59</sub>	51.589 <sub>274</sub>	80.11 <sub>149</sub>
18	44.41 <sub>30</sub>	55.72 <sub>91</sub>	23.735 <sub>215</sub>	35.53 <sub>70</sub>	49.447 <sub>164</sub>	25.81 <sub>44</sub>	51.315 <sub>309</sub>	81.60 <sub>105</sub>
28	44.11 <sub>34</sub>	56.63 <sub>52</sub>	23.520 <sub>243</sub>	36.23 <sub>40</sub>	49.283 <sub>189</sub>	26.25 <sub>25</sub>	51.006 <sub>333</sub>	82.65 <sub>56</sub>
Sept. 7	43.77 <sub>35</sub>	57.15 <sub>11</sub>	23.277 <sub>259</sub>	36.63 <sub>8</sub>	49.094 <sub>202</sub>	26.50 <sub>5</sub>	50.673 <sub>347</sub>	83.21 <sub>6</sub>
17	43.42 <sub>36</sub>	57.26 <sub>31</sub>	23.018 <sub>261</sub>	36.71 <sub>24</sub>	48.892 <sub>204</sub>	26.55 <sub>16</sub>	50.326 <sub>348</sub>	83.27 <sub>45</sub>
27	43.06 <sub>34</sub>	56.95 <sub>72</sub>	22.757 <sub>247</sub>	36.47 <sub>56</sub>	48.688 <sub>193</sub>	26.39 <sub>35</sub>	49.978 <sub>338</sub>	82.82 <sub>96</sub>
Okt. 7	42.72 <sub>30</sub>	56.23 <sub>111</sub>	22.510 <sub>219</sub>	35.91 <sub>86</sub>	48.495 <sub>171</sub>	26.04 <sub>53</sub>	49.640 <sub>315</sub>	81.86 <sub>145</sub>
17	42.42 <sub>25</sub>	55.12 <sub>145</sub>	22.291 <sub>176</sub>	35.05 <sub>112</sub>	48.324 <sub>137</sub>	25.51 <sub>68</sub>	49.325 <sub>280</sub>	80.41 <sub>194</sub>
27	42.17 <sub>18</sub>	53.67 <sub>174</sub>	22.115 <sub>122</sub>	33.93 <sub>133</sub>	48.187 <sub>92</sub>	24.83 <sub>80</sub>	49.045 <sub>234</sub>	78.47 <sub>239</sub>
Nov. 6	41.99 <sub>9</sub>	51.93 <sub>195</sub>	21.993 <sub>59</sub>	32.60 <sub>148</sub>	48.095 <sub>40</sub>	24.03 <sub>86</sub>	48.811 <sub>178</sub>	76.08 <sub>279</sub>
16	41.90 <sub>0</sub>	49.98 <sub>209</sub>	21.934 <sub>12</sub>	31.12 <sub>157</sub>	48.055 <sub>18</sub>	23.17 <sub>88</sub>	48.633 <sub>115</sub>	73.29 <sub>313</sub>
26	41.90 <sub>9</sub>	47.89 <sub>214</sub>	21.946 <sub>85</sub>	29.55 <sub>158</sub>	48.073 <sub>77</sub>	22.29 <sub>86</sub>	48.518 <sub>46</sub>	70.16 <sub>341</sub>
Dec. 6	41.99 <sub>18</sub>	45.75 <sub>210</sub>	22.031 <sub>157</sub>	27.97 <sub>153</sub>	48.150 <sub>137</sub>	21.43 <sub>79</sub>	48.472 <sub>26</sub>	66.75 <sub>358</sub>
16	42.17 <sub>27</sub>	43.65 <sub>199</sub>	22.188 <sub>226</sub>	26.44 <sub>143</sub>	48.287 <sub>192</sub>	20.64 <sub>68</sub>	48.498 <sub>97</sub>	63.17 <sub>364</sub>
26	42.44 <sub>36</sub>	41.66 <sub>182</sub>	22.414 <sub>288</sub>	25.01 <sub>126</sub>	48.479 <sub>243</sub>	19.96 <sub>56</sub>	48.595 <sub>166</sub>	59.53 <sub>360</sub>
36	42.80	39.84	22.702	23.75	48.722	19.40	48.761	55.93
Mittl. Ort	41.08	36.31	20.963	19.10	47.042	13.33	49.656	71.77
sec $\delta$ , tg $\delta$	2.039	-1.777	1.550	-1.184	1.253	-0.755	1.637	+1.296

# Obere Kulmination Greenwich

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Tag	656) α Ophiuchi		654) † Scorpii		658) ξ-Serpentis		664) ω Draconis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	17 <sup>h</sup> 31 <sup>m</sup>	+12° 36'	17 <sup>h</sup> 32 <sup>m</sup>	-42° 57'	17 <sup>h</sup> 33 <sup>m</sup>	-15° 21'	17 <sup>h</sup> 37 <sup>m</sup>	+68° 47'
Jan. I	36.163	31.00	9.804	17.26	28.853	23.04	18.40	17.99
II	36.360 <sup>197</sup>	28.71 <sup>229</sup>	10.087 <sup>283</sup>	16.45 <sup>81</sup>	29.073 <sup>220</sup>	23.82 <sup>78</sup>	18.63 <sup>23</sup>	14.36 <sup>363</sup>
21	36.590 <sup>230</sup>	26.52 <sup>219</sup>	10.412 <sup>325</sup>	15.82 <sup>63</sup>	29.325 <sup>252</sup>	24.64 <sup>82</sup>	18.96 <sup>33</sup>	10.98 <sup>338</sup>
31	36.847 <sup>257</sup>	24.52 <sup>200</sup>	10.771 <sup>359</sup>	15.36 <sup>46</sup>	29.603 <sup>278</sup>	25.45 <sup>81</sup>	19.39 <sup>43</sup>	7.95 <sup>303</sup>
Feb. 10	37.124 <sup>277</sup>	22.78 <sup>174</sup>	11.155 <sup>384</sup>	15.09 <sup>27</sup>	29.899 <sup>296</sup>	26.22 <sup>77</sup>	19.91 <sup>52</sup>	5.39 <sup>256</sup>
20	37.415 <sup>299</sup>	21.37 <sup>104</sup>	11.555 <sup>410</sup>	14.99 <sup>6</sup>	30.207 <sup>315</sup>	26.91 <sup>57</sup>	20.48 <sup>62</sup>	3.38 <sup>138</sup>
März 2	37.714 <sup>301</sup>	20.33 <sup>62</sup>	11.965 <sup>413</sup>	15.05 <sup>22</sup>	30.522 <sup>318</sup>	27.48 <sup>43</sup>	21.10 <sup>64</sup>	2.00 <sup>71</sup>
12	38.015 <sup>299</sup>	19.71 <sup>19</sup>	12.378 <sup>410</sup>	15.27 <sup>35</sup>	30.840 <sup>314</sup>	27.91 <sup>29</sup>	21.74 <sup>65</sup>	1.29 <sup>4</sup>
22	38.314 <sup>292</sup>	19.52 <sup>23</sup>	12.788 <sup>402</sup>	15.62 <sup>49</sup>	31.154 <sup>309</sup>	28.20 <sup>13</sup>	22.39 <sup>63</sup>	1.25 <sup>63</sup>
Apr. I	38.606 <sup>282</sup>	19.75 <sup>62</sup>	13.190 <sup>389</sup>	16.11 <sup>61</sup>	31.463 <sup>300</sup>	28.33 <sup>2</sup>	23.02 <sup>59</sup>	1.88 <sup>127</sup>
II	38.888 <sup>267</sup>	20.37 <sup>99</sup>	13.579 <sup>372</sup>	16.72 <sup>74</sup>	31.763 <sup>286</sup>	28.31 <sup>14</sup>	23.61 <sup>54</sup>	3.15 <sup>183</sup>
21	39.155 <sup>249</sup>	21.36 <sup>129</sup>	13.951 <sup>349</sup>	17.46 <sup>85</sup>	32.049 <sup>270</sup>	28.17 <sup>24</sup>	24.15 <sup>48</sup>	4.98 <sup>232</sup>
Mai I	39.404 <sup>226</sup>	22.65 <sup>153</sup>	14.300 <sup>321</sup>	18.31 <sup>95</sup>	32.319 <sup>249</sup>	27.93 <sup>32</sup>	24.63 <sup>39</sup>	7.30 <sup>272</sup>
II	39.630 <sup>201</sup>	24.18 <sup>172</sup>	14.621 <sup>289</sup>	19.26 <sup>106</sup>	32.568 <sup>225</sup>	27.61 <sup>37</sup>	25.02 <sup>30</sup>	10.02 <sup>302</sup>
21	39.831 <sup>172</sup>	25.90 <sup>184</sup>	14.910 <sup>250</sup>	20.32 <sup>114</sup>	32.793 <sup>197</sup>	27.24 <sup>39</sup>	25.32 <sup>21</sup>	13.04 <sup>322</sup>
31	40.003 <sup>139</sup>	27.74 <sup>188</sup>	15.160 <sup>208</sup>	21.46 <sup>121</sup>	32.990 <sup>164</sup>	26.85 <sup>39</sup>	25.53 <sup>11</sup>	16.26 <sup>331</sup>
Juni 10	40.142 <sup>103</sup>	29.62 <sup>187</sup>	15.368 <sup>160</sup>	22.67 <sup>126</sup>	33.154 <sup>129</sup>	26.46 <sup>36</sup>	25.64 <sup>0</sup>	19.57 <sup>331</sup>
19	40.245 <sup>66</sup>	31.49 <sup>181</sup>	15.528 <sup>110</sup>	23.93 <sup>127</sup>	33.283 <sup>91</sup>	26.10 <sup>32</sup>	25.64 <sup>10</sup>	22.88 <sup>321</sup>
29	40.311 <sup>26</sup>	33.30 <sup>169</sup>	15.638 <sup>56</sup>	25.20 <sup>126</sup>	33.374 <sup>50</sup>	25.78 <sup>27</sup>	25.54 <sup>20</sup>	26.09 <sup>303</sup>
Juli 9	40.337 <sup>13</sup>	34.99 <sup>154</sup>	15.694 <sup>3</sup>	26.46 <sup>120</sup>	33.424 <sup>10</sup>	25.51 <sup>22</sup>	25.34 <sup>29</sup>	29.12 <sup>277</sup>
19	40.324 <sup>51</sup>	36.53 <sup>135</sup>	15.697 <sup>50</sup>	27.66 <sup>111</sup>	33.434 <sup>31</sup>	25.29 <sup>17</sup>	25.05 <sup>39</sup>	31.89 <sup>245</sup>
29	40.273 <sup>87</sup>	37.88 <sup>113</sup>	15.647 <sup>100</sup>	28.77 <sup>97</sup>	33.403 <sup>69</sup>	25.12 <sup>13</sup>	24.66 <sup>46</sup>	34.34 <sup>207</sup>
Aug. 8	40.186 <sup>118</sup>	39.01 <sup>89</sup>	15.547 <sup>144</sup>	29.74 <sup>80</sup>	33.334 <sup>103</sup>	24.99 <sup>9</sup>	24.20 <sup>52</sup>	36.41 <sup>164</sup>
18	40.068 <sup>145</sup>	39.90 <sup>64</sup>	15.403 <sup>180</sup>	30.54 <sup>59</sup>	33.231 <sup>131</sup>	24.90 <sup>6</sup>	23.68 <sup>58</sup>	38.05 <sup>116</sup>
28	39.923 <sup>165</sup>	40.54 <sup>37</sup>	15.223 <sup>207</sup>	31.13 <sup>36</sup>	33.100 <sup>152</sup>	24.84 <sup>3</sup>	23.10 <sup>62</sup>	39.21 <sup>67</sup>
Sept. 7	39.758 <sup>175</sup>	40.91 <sup>10</sup>	15.016 <sup>223</sup>	31.49 <sup>11</sup>	32.948 <sup>166</sup>	24.81 <sup>2</sup>	22.48 <sup>64</sup>	39.88 <sup>16</sup>
17	39.583 <sup>178</sup>	41.01 <sup>19</sup>	14.793 <sup>226</sup>	31.60 <sup>16</sup>	32.782 <sup>168</sup>	24.79 <sup>0</sup>	21.84 <sup>65</sup>	40.04 <sup>37</sup>
27	39.405 <sup>171</sup>	40.82 <sup>47</sup>	14.567 <sup>215</sup>	31.44 <sup>42</sup>	32.614 <sup>160</sup>	24.79 <sup>2</sup>	21.19 <sup>63</sup>	39.67 <sup>90</sup>
Okt. 7	39.234 <sup>154</sup>	40.35 <sup>76</sup>	14.352 <sup>192</sup>	31.02 <sup>65</sup>	32.454 <sup>142</sup>	24.81 <sup>6</sup>	20.56 <sup>60</sup>	38.77 <sup>141</sup>
17	39.080 <sup>128</sup>	39.59 <sup>105</sup>	14.160 <sup>154</sup>	30.37 <sup>86</sup>	32.312 <sup>115</sup>	24.87 <sup>10</sup>	19.96 <sup>55</sup>	37.36 <sup>192</sup>
27	38.952 <sup>94</sup>	38.54 <sup>132</sup>	14.006 <sup>108</sup>	29.51 <sup>103</sup>	32.197 <sup>79</sup>	24.97 <sup>16</sup>	19.41 <sup>49</sup>	35.44 <sup>239</sup>
Nov. 6	38.858 <sup>53</sup>	37.22 <sup>159</sup>	13.808 <sup>51</sup>	28.48 <sup>114</sup>	32.118 <sup>35</sup>	25.13 <sup>25</sup>	18.92 <sup>40</sup>	33.05 <sup>281</sup>
16	38.805 <sup>7</sup>	35.63 <sup>183</sup>	13.847 <sup>11</sup>	27.34 <sup>120</sup>	32.083 <sup>12</sup>	25.38 <sup>35</sup>	18.52 <sup>30</sup>	30.24 <sup>317</sup>
26	38.798 <sup>40</sup>	33.80 <sup>203</sup>	13.858 <sup>75</sup>	26.14 <sup>121</sup>	32.095 <sup>62</sup>	25.73 <sup>45</sup>	18.22 <sup>20</sup>	27.07 <sup>345</sup>
Dez. 6	38.838 <sup>87</sup>	31.77 <sup>219</sup>	13.933 <sup>139</sup>	24.93 <sup>116</sup>	32.157 <sup>111</sup>	26.18 <sup>55</sup>	18.02 <sup>8</sup>	23.62 <sup>364</sup>
16	38.925 <sup>134</sup>	29.58 <sup>228</sup>	14.072 <sup>200</sup>	23.77 <sup>105</sup>	32.268 <sup>157</sup>	26.73 <sup>65</sup>	17.94 <sup>4</sup>	19.98 <sup>373</sup>
26	39.059 <sup>176</sup>	27.30 <sup>230</sup>	14.272 <sup>256</sup>	22.72 <sup>92</sup>	32.425 <sup>199</sup>	27.38 <sup>74</sup>	17.98 <sup>15</sup>	16.25 <sup>369</sup>
36	39.235	25.00	14.528	21.80	32.624	28.12	18.13	12.56
Mittl. Ort	38.259	37.40	12.812	16.50	31.168	19.42	21.86	27.37
sec δ, tg δ	1.025	+0.224	1.366	-0.931	1.037	-0.275	2.764	+2.577

Tag	663) $\epsilon$ Herculis		661) $\eta$ Pavonis		665) $\beta$ Ophiuchi		670) $\psi$ Draconis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	17 <sup>h</sup> 37 <sup>m</sup>	+46° 2'	17 <sup>h</sup> 38 <sup>m</sup>	-64° 41'	17 <sup>h</sup> 39 <sup>m</sup>	+4° 35'	17 <sup>h</sup> 43 <sup>m</sup>	+72° 10'
Jan. I	25.259 <sup>188</sup>	26.78 <sup>344</sup>	40.80 <sup>41</sup>	31.38 <sup>196</sup>	55.714 <sup>194</sup>	38.19 <sup>187</sup>	7.84 <sup>23</sup>	53.90 <sup>364</sup>
II	25.447 <sup>240</sup>	23.34 <sup>322</sup>	41.21 <sup>49</sup>	29.42 <sup>172</sup>	55.908 <sup>227</sup>	36.32 <sup>180</sup>	8.07 <sup>36</sup>	50.26 <sup>341</sup>
2I	25.687 <sup>285</sup>	20.12 <sup>290</sup>	41.70 <sup>56</sup>	27.70 <sup>142</sup>	56.135 <sup>253</sup>	34.52 <sup>167</sup>	8.43 <sup>47</sup>	46.85 <sup>306</sup>
3I	25.972 <sup>321</sup>	17.22 <sup>247</sup>	42.26 <sup>60</sup>	26.28 <sup>110</sup>	56.388 <sup>273</sup>	32.85 <sup>147</sup>	8.90 <sup>57</sup>	43.79 <sup>262</sup>
Feb. IO	26.293 <sup>348</sup>	14.75 <sup>196</sup>	42.86 <sup>64</sup>	25.18 <sup>77</sup>	56.661 <sup>287</sup>	31.38 <sup>121</sup>	9.47 <sup>66</sup>	41.17 <sup>207</sup>
20	26.641 <sup>367</sup>	12.79 <sup>138</sup>	43.50 <sup>66</sup>	24.41 <sup>42</sup>	56.948 <sup>295</sup>	30.17 <sup>90</sup>	10.13 <sup>71</sup>	39.10 <sup>146</sup>
März 2	27.008 <sup>375</sup>	11.41 <sup>74</sup>	44.16 <sup>68</sup>	23.99 <sup>6</sup>	57.243 <sup>298</sup>	29.27 <sup>56</sup>	10.84 <sup>74</sup>	37.64 <sup>79</sup>
12	27.383 <sup>375</sup>	10.67 <sup>10</sup>	44.84 <sup>67</sup>	23.93 <sup>27</sup>	57.541 <sup>298</sup>	28.71 <sup>21</sup>	11.58 <sup>75</sup>	36.85 <sup>12</sup>
22	27.758 <sup>367</sup>	10.57 <sup>52</sup>	45.51 <sup>66</sup>	24.20 <sup>60</sup>	57.839 <sup>293</sup>	28.50 <sup>14</sup>	12.33 <sup>74</sup>	36.73 <sup>55</sup>
Apr. I	28.125 <sup>350</sup>	11.09 <sup>113</sup>	46.17 <sup>64</sup>	24.80 <sup>92</sup>	58.132 <sup>284</sup>	28.64 <sup>47</sup>	13.07 <sup>69</sup>	37.28 <sup>118</sup>
II	28.475 <sup>326</sup>	12.22 <sup>166</sup>	46.81 <sup>61</sup>	25.72 <sup>122</sup>	58.416 <sup>271</sup>	29.11 <sup>77</sup>	13.76 <sup>63</sup>	38.46 <sup>175</sup>
2I	28.801 <sup>297</sup>	13.88 <sup>213</sup>	47.42 <sup>56</sup>	26.94 <sup>149</sup>	58.687 <sup>255</sup>	29.88 <sup>103</sup>	14.39 <sup>56</sup>	40.21 <sup>226</sup>
Mai I	29.098 <sup>260</sup>	16.01 <sup>251</sup>	47.98 <sup>52</sup>	28.43 <sup>174</sup>	58.942 <sup>236</sup>	30.91 <sup>124</sup>	14.95 <sup>46</sup>	42.47 <sup>266</sup>
II	29.358 <sup>218</sup>	18.52 <sup>280</sup>	48.50 <sup>46</sup>	30.17 <sup>196</sup>	59.178 <sup>211</sup>	32.15 <sup>138</sup>	15.41 <sup>35</sup>	45.13 <sup>297</sup>
2I	29.576 <sup>172</sup>	21.32 <sup>298</sup>	48.96 <sup>39</sup>	32.13 <sup>213</sup>	59.389 <sup>183</sup>	33.53 <sup>148</sup>	15.76 <sup>24</sup>	48.10 <sup>318</sup>
3I	29.748 <sup>123</sup>	24.30 <sup>308</sup>	49.35 <sup>32</sup>	34.26 <sup>216</sup>	59.572 <sup>152</sup>	35.01 <sup>152</sup>	16.00 <sup>12</sup>	51.28 <sup>328</sup>
Juni IO	29.871 <sup>71</sup>	27.38 <sup>309</sup>	49.67 <sup>23</sup>	36.52 <sup>234</sup>	59.724 <sup>118</sup>	36.53 <sup>150</sup>	16.12 <sup>1</sup>	54.56 <sup>330</sup>
19	29.942 <sup>17</sup>	30.47 <sup>300</sup>	49.90 <sup>15</sup>	38.86 <sup>236</sup>	59.842 <sup>80</sup>	38.03 <sup>145</sup>	16.11 <sup>13</sup>	57.86 <sup>321</sup>
29	29.959 <sup>36</sup>	33.47 <sup>283</sup>	50.05 <sup>5</sup>	41.22 <sup>232</sup>	59.922 <sup>41</sup>	39.48 <sup>136</sup>	15.98 <sup>24</sup>	61.07 <sup>304</sup>
Juli 9	29.923 <sup>88</sup>	36.30 <sup>259</sup>	50.10 <sup>4</sup>	43.54 <sup>221</sup>	59.963 <sup>3</sup>	40.84 <sup>123</sup>	15.74 <sup>35</sup>	64.11 <sup>280</sup>
19	29.835 <sup>137</sup>	38.89 <sup>230</sup>	50.06 <sup>12</sup>	45.75 <sup>203</sup>	59.966 <sup>36</sup>	42.07 <sup>107</sup>	15.39 <sup>46</sup>	66.91 <sup>247</sup>
29	29.698 <sup>183</sup>	41.19 <sup>195</sup>	49.94 <sup>20</sup>	47.78 <sup>179</sup>	59.930 <sup>73</sup>	43.14 <sup>91</sup>	14.93 <sup>56</sup>	69.38 <sup>211</sup>
Aug. 8	29.515 <sup>223</sup>	43.14 <sup>155</sup>	49.74 <sup>28</sup>	49.57 <sup>150</sup>	59.857 <sup>106</sup>	44.05 <sup>72</sup>	14.37 <sup>63</sup>	71.49 <sup>169</sup>
18	29.292 <sup>256</sup>	44.69 <sup>112</sup>	49.46 <sup>34</sup>	51.07 <sup>113</sup>	59.751 <sup>134</sup>	44.77 <sup>53</sup>	13.74 <sup>70</sup>	73.18 <sup>123</sup>
28	29.036 <sup>279</sup>	45.81 <sup>66</sup>	49.12 <sup>39</sup>	52.20 <sup>73</sup>	59.617 <sup>154</sup>	45.30 <sup>32</sup>	13.04 <sup>74</sup>	74.41 <sup>74</sup>
Sept. 7	28.757 <sup>294</sup>	46.47 <sup>18</sup>	48.73 <sup>41</sup>	52.93 <sup>30</sup>	59.463 <sup>167</sup>	45.62 <sup>12</sup>	12.30 <sup>77</sup>	75.15 <sup>22</sup>
17	28.463 <sup>298</sup>	46.65 <sup>31</sup>	48.32 <sup>42</sup>	53.23 <sup>16</sup>	59.296 <sup>170</sup>	45.74 <sup>10</sup>	11.53 <sup>78</sup>	75.37 <sup>30</sup>
27	28.165 <sup>289</sup>	46.34 <sup>80</sup>	47.90 <sup>41</sup>	53.07 <sup>61</sup>	59.126 <sup>164</sup>	45.64 <sup>31</sup>	10.75 <sup>76</sup>	75.07 <sup>82</sup>
Okt. 7	27.876 <sup>271</sup>	45.54 <sup>128</sup>	47.49 <sup>36</sup>	52.46 <sup>104</sup>	58.962 <sup>148</sup>	45.33 <sup>54</sup>	9.99 <sup>73</sup>	74.25 <sup>135</sup>
17	27.605 <sup>241</sup>	44.26 <sup>176</sup>	47.13 <sup>31</sup>	51.42 <sup>144</sup>	58.814 <sup>124</sup>	44.79 <sup>76</sup>	9.26 <sup>68</sup>	72.90 <sup>185</sup>
27	27.364 <sup>200</sup>	42.50 <sup>219</sup>	46.82 <sup>24</sup>	49.98 <sup>177</sup>	58.690 <sup>91</sup>	44.03 <sup>98</sup>	8.58 <sup>61</sup>	71.05 <sup>232</sup>
Nov. 6	27.164 <sup>150</sup>	40.31 <sup>261</sup>	46.58 <sup>15</sup>	48.21 <sup>204</sup>	58.599 <sup>50</sup>	43.05 <sup>119</sup>	7.97 <sup>51</sup>	68.73 <sup>275</sup>
16	27.014 <sup>95</sup>	37.70 <sup>295</sup>	46.43 <sup>4</sup>	46.17 <sup>223</sup>	58.549 <sup>7</sup>	41.86 <sup>139</sup>	7.46 <sup>40</sup>	65.98 <sup>312</sup>
26	26.919 <sup>33</sup>	34.75 <sup>323</sup>	46.39 <sup>6</sup>	43.94 <sup>232</sup>	58.542 <sup>40</sup>	40.47 <sup>157</sup>	7.06 <sup>27</sup>	62.86 <sup>342</sup>
Dez. 6	26.886 <sup>30</sup>	31.52 <sup>342</sup>	46.45 <sup>16</sup>	41.62 <sup>233</sup>	58.582 <sup>87</sup>	38.90 <sup>172</sup>	6.79 <sup>14</sup>	59.44 <sup>361</sup>
16	26.916 <sup>92</sup>	28.10 <sup>351</sup>	46.61 <sup>27</sup>	39.29 <sup>226</sup>	58.669 <sup>132</sup>	37.18 <sup>182</sup>	6.65 <sup>0</sup>	55.83 <sup>372</sup>
26	27.008 <sup>154</sup>	24.59 <sup>349</sup>	46.88 <sup>37</sup>	37.03 <sup>211</sup>	58.801 <sup>174</sup>	35.36 <sup>185</sup>	6.65 <sup>14</sup>	52.11 <sup>369</sup>
36	27.162	21.10	47.25	34.92	58.975	33.51	6.79	48.42
Mittl. Ort	27.591	35.50	45.56	31.70	57.854	43.96	11.80	62.98
sec $\delta$ , tg $\delta$	1.441	+1.037	2.339	-2.115	1.003	+0.080	3.268	+3.112



# Obere Kulmination Greenwich

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Tag	667) $\mu$ Herculis		671) $\xi$ Draconis		675) $\zeta$ Draconis		672) $\delta$ Herculis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	17 <sup>h</sup> 43 <sup>m</sup>	+27° 45'	17 <sup>h</sup> 52 <sup>m</sup>	+56° 52'	17 <sup>h</sup> 52 <sup>m</sup>	+76° 57'	17 <sup>h</sup> 53 <sup>m</sup>	+37° 15'
Jan. I	38.569 <sup>179</sup>	32.43 <sup>293</sup>	15.338 <sup>172</sup>	51.37 <sup>361</sup>	32.35 <sup>22</sup>	75.57 <sup>359</sup>	46.811 <sup>166</sup>	24.45 <sup>322</sup>
II	38.748 <sup>218</sup>	29.50 <sup>278</sup>	15.510 <sup>242</sup>	47.76 <sup>342</sup>	32.57 <sup>40</sup>	71.98 <sup>340</sup>	46.977 <sup>211</sup>	21.23 <sup>306</sup>
21	38.966 <sup>250</sup>	26.72 <sup>253</sup>	15.752 <sup>304</sup>	44.34 <sup>310</sup>	32.97 <sup>57</sup>	68.58 <sup>308</sup>	47.188 <sup>251</sup>	18.17 <sup>279</sup>
31	39.216 <sup>277</sup>	24.19 <sup>219</sup>	16.056 <sup>357</sup>	41.24 <sup>267</sup>	33.54 <sup>71</sup>	65.50 <sup>266</sup>	47.439 <sup>283</sup>	15.38 <sup>242</sup>
Feb. 10	39.493 <sup>296</sup>	22.00 <sup>176</sup>	16.413 <sup>400</sup>	38.57 <sup>215</sup>	34.25 <sup>84</sup>	62.84 <sup>213</sup>	47.722 <sup>308</sup>	12.96 <sup>196</sup>
20	39.789 <sup>308</sup>	20.24 <sup>128</sup>	16.813 <sup>430</sup>	36.42 <sup>156</sup>	35.09 <sup>92</sup>	60.71 <sup>153</sup>	48.030 <sup>326</sup>	11.00 <sup>143</sup>
März 2	40.097 <sup>315</sup>	18.96 <sup>75</sup>	17.243 <sup>448</sup>	34.86 <sup>91</sup>	36.01 <sup>97</sup>	59.18 <sup>89</sup>	48.356 <sup>335</sup>	9.57 <sup>85</sup>
12	40.412 <sup>315</sup>	18.21 <sup>21</sup>	17.691 <sup>453</sup>	33.95 <sup>23</sup>	36.98 <sup>99</sup>	58.29 <sup>22</sup>	48.691 <sup>339</sup>	8.72 <sup>25</sup>
22	40.727 <sup>310</sup>	18.00 <sup>33</sup>	18.144 <sup>447</sup>	33.72 <sup>43</sup>	37.97 <sup>98</sup>	58.07 <sup>44</sup>	49.030 <sup>335</sup>	8.47 <sup>35</sup>
Apr. I	41.037 <sup>299</sup>	18.33 <sup>84</sup>	18.591 <sup>430</sup>	34.15 <sup>106</sup>	38.95 <sup>92</sup>	58.51 <sup>107</sup>	49.365 <sup>325</sup>	8.82 <sup>91</sup>
II	41.336 <sup>284</sup>	19.17 <sup>130</sup>	19.021 <sup>401</sup>	35.21 <sup>164</sup>	39.87 <sup>85</sup>	59.58 <sup>165</sup>	49.690 <sup>308</sup>	9.73 <sup>143</sup>
21	41.620 <sup>264</sup>	20.47 <sup>171</sup>	19.422 <sup>363</sup>	36.85 <sup>215</sup>	40.72 <sup>75</sup>	61.23 <sup>217</sup>	49.998 <sup>286</sup>	11.16 <sup>189</sup>
Mai I	41.884 <sup>239</sup>	22.18 <sup>203</sup>	19.785 <sup>318</sup>	39.00 <sup>257</sup>	41.47 <sup>62</sup>	63.40 <sup>258</sup>	50.284 <sup>259</sup>	13.05 <sup>227</sup>
II	42.123 <sup>209</sup>	24.21 <sup>229</sup>	20.103 <sup>263</sup>	41.57 <sup>290</sup>	42.09 <sup>47</sup>	65.98 <sup>290</sup>	50.543 <sup>225</sup>	15.32 <sup>257</sup>
21	42.332 <sup>176</sup>	26.50 <sup>245</sup>	20.366 <sup>204</sup>	44.47 <sup>313</sup>	42.56 <sup>32</sup>	68.88 <sup>314</sup>	50.768 <sup>188</sup>	17.89 <sup>277</sup>
31	42.508 <sup>140</sup>	28.95 <sup>254</sup>	20.570 <sup>140</sup>	47.60 <sup>326</sup>	42.88 <sup>15</sup>	72.02 <sup>326</sup>	50.956 <sup>146</sup>	20.66 <sup>288</sup>
Juni 10	42.648 <sup>100</sup>	31.49 <sup>254</sup>	20.710 <sup>73</sup>	50.86 <sup>330</sup>	43.03 <sup>1</sup>	75.28 <sup>329</sup>	51.102 <sup>102</sup>	23.54 <sup>290</sup>
19*)	42.748 <sup>58</sup>	34.03 <sup>248</sup>	20.783 <sup>5</sup>	54.16 <sup>323</sup>	43.02 <sup>18</sup>	78.57 <sup>323</sup>	51.204 <sup>55</sup>	26.44 <sup>286</sup>
29	42.806 <sup>14</sup>	36.51 <sup>235</sup>	20.788 <sup>63</sup>	57.39 <sup>308</sup>	42.84 <sup>34</sup>	81.80 <sup>308</sup>	51.259 <sup>7</sup>	29.30 <sup>272</sup>
Juli 9	42.820 <sup>28</sup>	38.86 <sup>215</sup>	20.725 <sup>130</sup>	60.47 <sup>286</sup>	42.50 <sup>50</sup>	84.88 <sup>286</sup>	51.266 <sup>41</sup>	32.02 <sup>252</sup>
19	42.792 <sup>70</sup>	41.01 <sup>191</sup>	20.595 <sup>193</sup>	63.33 <sup>257</sup>	42.00 <sup>64</sup>	87.74 <sup>256</sup>	51.225 <sup>87</sup>	34.54 <sup>226</sup>
29	42.722 <sup>109</sup>	42.92 <sup>163</sup>	20.402 <sup>250</sup>	65.90 <sup>222</sup>	41.36 <sup>76</sup>	90.30 <sup>220</sup>	51.138 <sup>130</sup>	36.80 <sup>195</sup>
Aug. 8	42.613 <sup>143</sup>	44.55 <sup>131</sup>	20.152 <sup>301</sup>	68.12 <sup>181</sup>	40.60 <sup>87</sup>	92.50 <sup>180</sup>	51.008 <sup>168</sup>	38.75 <sup>160</sup>
18	42.470 <sup>173</sup>	45.86 <sup>95</sup>	19.851 <sup>343</sup>	69.93 <sup>136</sup>	39.73 <sup>96</sup>	94.30 <sup>136</sup>	50.840 <sup>201</sup>	40.35 <sup>121</sup>
28	42.297 <sup>195</sup>	46.81 <sup>59</sup>	19.508 <sup>374</sup>	71.29 <sup>89</sup>	38.77 <sup>103</sup>	95.66 <sup>89</sup>	50.639 <sup>227</sup>	41.56 <sup>79</sup>
Sept. 7	42.102 <sup>209</sup>	47.40 <sup>20</sup>	19.134 <sup>395</sup>	72.18 <sup>39</sup>	37.74 <sup>107</sup>	96.55 <sup>38</sup>	50.412 <sup>242</sup>	42.35 <sup>36</sup>
17	41.893 <sup>213</sup>	47.60 <sup>19</sup>	18.739 <sup>403</sup>	72.57 <sup>13</sup>	36.67 <sup>108</sup>	96.93 <sup>14</sup>	50.170 <sup>248</sup>	42.71 <sup>9</sup>
27	41.680 <sup>207</sup>	47.41 <sup>59</sup>	18.336 <sup>398</sup>	72.44 <sup>65</sup>	35.59 <sup>107</sup>	96.79 <sup>65</sup>	49.922 <sup>245</sup>	42.62 <sup>55</sup>
Okt. 7	41.473 <sup>192</sup>	46.82 <sup>99</sup>	17.938 <sup>379</sup>	71.79 <sup>117</sup>	34.52 <sup>104</sup>	96.14 <sup>117</sup>	49.677 <sup>230</sup>	42.07 <sup>100</sup>
17	41.281 <sup>166</sup>	45.83 <sup>138</sup>	17.559 <sup>347</sup>	70.62 <sup>167</sup>	33.48 <sup>97</sup>	94.97 <sup>168</sup>	49.447 <sup>205</sup>	41.07 <sup>144</sup>
27	41.115 <sup>133</sup>	44.45 <sup>176</sup>	17.212 <sup>302</sup>	68.95 <sup>216</sup>	32.51 <sup>88</sup>	93.29 <sup>216</sup>	49.242 <sup>171</sup>	39.63 <sup>187</sup>
Nov. 6	40.982 <sup>91</sup>	42.69 <sup>210</sup>	16.910 <sup>246</sup>	66.79 <sup>260</sup>	31.63 <sup>76</sup>	91.13 <sup>260</sup>	49.071 <sup>128</sup>	37.76 <sup>227</sup>
16	40.891 <sup>45</sup>	40.59 <sup>240</sup>	16.664 <sup>180</sup>	64.19 <sup>299</sup>	30.87 <sup>62</sup>	88.53 <sup>297</sup>	48.943 <sup>79</sup>	35.49 <sup>261</sup>
26	40.846 <sup>5</sup>	38.19 <sup>266</sup>	16.484 <sup>108</sup>	61.20 <sup>329</sup>	30.25 <sup>45</sup>	85.56 <sup>329</sup>	48.864 <sup>27</sup>	32.88 <sup>289</sup>
Dez. 6	40.851 <sup>56</sup>	35.53 <sup>284</sup>	16.376 <sup>31</sup>	57.91 <sup>352</sup>	29.80 <sup>28</sup>	82.27 <sup>352</sup>	48.837 <sup>29</sup>	29.99 <sup>311</sup>
16	40.907 <sup>106</sup>	32.69 <sup>295</sup>	16.345 <sup>48</sup>	54.39 <sup>365</sup>	29.52 <sup>9</sup>	78.75 <sup>363</sup>	48.866 <sup>84</sup>	26.88 <sup>323</sup>
26	41.013 <sup>153</sup>	29.74 <sup>295</sup>	16.393 <sup>125</sup>	50.74 <sup>365</sup>	29.43 <sup>10</sup>	75.12 <sup>363</sup>	48.950 <sup>136</sup>	23.65 <sup>325</sup>
36	41.166	26.79	16.518	47.09	29.53	71.49	49.086	20.40
Mittl. Ort	40.710	39.98	18.049	59.81	37.48	84.08	49.052	32.27
sec $\delta$ , tg $\delta$	1.130	+0.526	1.830	+1.533	4.436	+4.322	1.256	+0.761

\*) Bei Stern 671), 675) und 672) lies Juni 20

Tag	676) $\gamma$ Draconis		673) $\nu$ Ophiuchi		677) $\delta$ Ophiuchi		679) $\gamma$ Sagittarii	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	17 <sup>h</sup> 54 <sup>m</sup>	+51° 29'	17 <sup>h</sup> 55 <sup>m</sup>	-9° 45'	17 <sup>h</sup> 57 <sup>m</sup>	+2° 55'	18 <sup>h</sup> 1 <sup>m</sup>	-30° 25'
Jan. I	54.887 <sup>165</sup>	39.39 <sup>354</sup>	4.745 <sup>193</sup>	63.80 <sup>102</sup>	3.140 <sup>180</sup>	55.01 <sup>174</sup>	12.123 <sup>218</sup>	39.98 <sup>26</sup>
II	55.052 <sup>225</sup>	35.85 <sup>336</sup>	4.938 <sup>227</sup>	64.82 <sup>102</sup>	3.320 <sup>213</sup>	53.27 <sup>168</sup>	12.341 <sup>256</sup>	39.72 <sup>17</sup>
2I	55.277 <sup>279</sup>	32.49 <sup>307</sup>	5.165 <sup>254</sup>	65.84 <sup>97</sup>	3.533 <sup>241</sup>	51.59 <sup>156</sup>	12.597 <sup>288</sup>	39.55 <sup>10</sup>
3I	55.556 <sup>325</sup>	29.42 <sup>264</sup>	5.419 <sup>275</sup>	66.81 <sup>88</sup>	3.774 <sup>263</sup>	50.03 <sup>139</sup>	12.885 <sup>312</sup>	39.45 <sup>4</sup>
Feb. 10	55.881 <sup>361</sup>	26.78 <sup>214</sup>	5.694 <sup>290</sup>	67.69 <sup>75</sup>	4.037 <sup>279</sup>	48.64 <sup>114</sup>	13.197 <sup>330</sup>	39.41 <sup>0</sup>
20	56.242 <sup>386</sup>	24.64 <sup>156</sup>	5.984 <sup>301</sup>	68.44 <sup>58</sup>	4.316 <sup>290</sup>	47.50 <sup>86</sup>	13.527 <sup>343</sup>	39.41 <sup>3</sup>
März 2	56.628 <sup>402</sup>	23.08 <sup>93</sup>	6.285 <sup>306</sup>	69.02 <sup>38</sup>	4.606 <sup>296</sup>	46.64 <sup>53</sup>	13.870 <sup>350</sup>	39.44 <sup>4</sup>
12	57.030 <sup>408</sup>	22.15 <sup>27</sup>	6.591 <sup>307</sup>	69.40 <sup>18</sup>	4.902 <sup>298</sup>	46.11 <sup>20</sup>	14.220 <sup>352</sup>	39.48 <sup>6</sup>
22	57.438 <sup>403</sup>	21.88 <sup>39</sup>	6.898 <sup>305</sup>	69.58 <sup>4</sup>	5.200 <sup>296</sup>	45.91 <sup>13</sup>	14.572 <sup>351</sup>	39.54 <sup>7</sup>
Apr. I	57.841 <sup>389</sup>	22.27 <sup>100</sup>	7.203 <sup>299</sup>	69.54 <sup>24</sup>	5.496 <sup>289</sup>	46.04 <sup>46</sup>	14.923 <sup>345</sup>	39.61 <sup>7</sup>
II	58.230 <sup>365</sup>	23.27 <sup>158</sup>	7.502 <sup>289</sup>	69.30 <sup>41</sup>	5.785 <sup>280</sup>	46.50 <sup>74</sup>	15.268 <sup>335</sup>	39.68 <sup>10</sup>
2I	58.595 <sup>334</sup>	24.85 <sup>209</sup>	7.791 <sup>275</sup>	68.89 <sup>56</sup>	6.065 <sup>266</sup>	47.24 <sup>100</sup>	15.603 <sup>320</sup>	39.78 <sup>13</sup>
Mai I	58.929 <sup>296</sup>	26.94 <sup>250</sup>	8.066 <sup>257</sup>	68.33 <sup>67</sup>	6.331 <sup>248</sup>	48.24 <sup>120</sup>	15.923 <sup>301</sup>	39.91 <sup>17</sup>
II	59.225 <sup>250</sup>	29.44 <sup>283</sup>	8.323 <sup>235</sup>	67.66 <sup>74</sup>	6.579 <sup>225</sup>	49.44 <sup>134</sup>	16.224 <sup>277</sup>	40.08 <sup>23</sup>
2I	59.475 <sup>199</sup>	32.27 <sup>306</sup>	8.558 <sup>209</sup>	66.92 <sup>79</sup>	6.804 <sup>199</sup>	50.78 <sup>144</sup>	16.501 <sup>247</sup>	40.31 <sup>30</sup>
3I	59.674 <sup>144</sup>	35.33 <sup>319</sup>	8.767 <sup>179</sup>	66.13 <sup>78</sup>	7.003 <sup>169</sup>	52.22 <sup>147</sup>	16.748 <sup>213</sup>	40.61 <sup>36</sup>
Juni 10	59.818 <sup>86</sup>	38.52 <sup>323</sup>	8.946 <sup>144</sup>	65.35 <sup>76</sup>	7.172 <sup>135</sup>	53.69 <sup>147</sup>	16.961 <sup>174</sup>	40.97 <sup>43</sup>
20	59.904 <sup>26</sup>	41.75 <sup>317</sup>	9.090 <sup>106</sup>	64.59 <sup>70</sup>	7.307 <sup>97</sup>	55.16 <sup>142</sup>	17.135 <sup>131</sup>	41.40 <sup>50</sup>
29	59.930 <sup>35</sup>	44.92 <sup>303</sup>	9.196 <sup>66</sup>	63.89 <sup>63</sup>	7.404 <sup>58</sup>	56.58 <sup>132</sup>	17.266 <sup>85</sup>	41.90 <sup>54</sup>
Juli 9	59.895 <sup>93</sup>	47.95 <sup>282</sup>	9.262 <sup>26</sup>	63.26 <sup>55</sup>	7.462 <sup>18</sup>	57.90 <sup>121</sup>	17.351 <sup>38</sup>	42.44 <sup>57</sup>
19	59.802 <sup>150</sup>	50.77 <sup>253</sup>	9.288 <sup>16</sup>	62.71 <sup>45</sup>	7.480 <sup>22</sup>	59.11 <sup>106</sup>	17.389 <sup>10</sup>	43.01 <sup>58</sup>
29	59.652 <sup>203</sup>	53.30 <sup>219</sup>	9.272 <sup>55</sup>	62.26 <sup>36</sup>	7.458 <sup>61</sup>	60.17 <sup>89</sup>	17.379 <sup>55</sup>	43.59 <sup>56</sup>
Aug. 8	59.449 <sup>248</sup>	55.49 <sup>180</sup>	9.217 <sup>90</sup>	61.90 <sup>27</sup>	7.397 <sup>95</sup>	61.06 <sup>72</sup>	17.324 <sup>97</sup>	44.15 <sup>51</sup>
18	59.201 <sup>287</sup>	57.29 <sup>137</sup>	9.127 <sup>121</sup>	61.63 <sup>19</sup>	7.302 <sup>125</sup>	61.78 <sup>53</sup>	17.227 <sup>133</sup>	44.66 <sup>44</sup>
28	58.914 <sup>317</sup>	58.66 <sup>91</sup>	9.006 <sup>145</sup>	61.44 <sup>10</sup>	7.177 <sup>148</sup>	62.31 <sup>34</sup>	17.094 <sup>162</sup>	45.10 <sup>33</sup>
Sept. 7	58.597 <sup>336</sup>	59.57 <sup>41</sup>	8.861 <sup>160</sup>	61.34 <sup>2</sup>	7.029 <sup>164</sup>	62.65 <sup>15</sup>	16.932 <sup>180</sup>	45.43 <sup>22</sup>
17	58.261 <sup>344</sup>	59.98 <sup>9</sup>	8.701 <sup>167</sup>	61.32 <sup>5</sup>	6.865 <sup>169</sup>	62.80 <sup>5</sup>	16.752 <sup>189</sup>	45.65 <sup>8</sup>
27	57.917 <sup>340</sup>	59.89 <sup>60</sup>	8.534 <sup>163</sup>	61.37 <sup>13</sup>	6.696 <sup>166</sup>	62.75 <sup>25</sup>	16.563 <sup>185</sup>	45.73 <sup>6</sup>
Okt. 7	57.577 <sup>323</sup>	59.29 <sup>110</sup>	8.371 <sup>149</sup>	61.50 <sup>21</sup>	6.530 <sup>153</sup>	62.50 <sup>46</sup>	16.378 <sup>171</sup>	45.67 <sup>19</sup>
17	57.254 <sup>293</sup>	58.19 <sup>161</sup>	8.222 <sup>125</sup>	61.71 <sup>30</sup>	6.377 <sup>131</sup>	62.04 <sup>66</sup>	16.207 <sup>144</sup>	45.48 <sup>30</sup>
27	56.961 <sup>254</sup>	56.58 <sup>208</sup>	8.097 <sup>93</sup>	62.01 <sup>40</sup>	6.246 <sup>100</sup>	61.38 <sup>86</sup>	16.063 <sup>108</sup>	45.18 <sup>39</sup>
Nov. 6	56.707 <sup>204</sup>	54.50 <sup>252</sup>	8.004 <sup>53</sup>	62.41 <sup>50</sup>	6.146 <sup>62</sup>	60.52 <sup>107</sup>	15.955 <sup>64</sup>	44.79 <sup>46</sup>
16	56.503 <sup>146</sup>	51.98 <sup>289</sup>	7.951 <sup>9</sup>	62.91 <sup>62</sup>	6.084 <sup>19</sup>	59.45 <sup>126</sup>	15.891 <sup>13</sup>	44.33 <sup>48</sup>
26	56.357 <sup>81</sup>	49.09 <sup>321</sup>	7.942 <sup>38</sup>	63.53 <sup>73</sup>	6.065 <sup>26</sup>	58.19 <sup>143</sup>	15.878 <sup>40</sup>	43.85 <sup>48</sup>
Dez. 6	56.276 <sup>12</sup>	45.88 <sup>344</sup>	7.980 <sup>85</sup>	64.26 <sup>84</sup>	6.091 <sup>72</sup>	56.76 <sup>157</sup>	15.918 <sup>93</sup>	43.37 <sup>45</sup>
16	56.264 <sup>57</sup>	42.44 <sup>357</sup>	8.065 <sup>131</sup>	65.10 <sup>93</sup>	6.163 <sup>117</sup>	55.19 <sup>166</sup>	16.011 <sup>146</sup>	42.92 <sup>39</sup>
26	56.321 <sup>125</sup>	38.87 <sup>358</sup>	8.196 <sup>173</sup>	66.03 <sup>98</sup>	6.280 <sup>159</sup>	53.53 <sup>172</sup>	16.157 <sup>193</sup>	42.53 <sup>33</sup>
36	56.446	35.29	8.369	67.01	6.439	51.81	16.350	42.20
Mittl. Ort	57.412	47.61	7.016	58.74	5.312	60.98	14.748	35.99
sec $\delta$ , tg $\delta$	1.606	+1.257	1.015	-0.172	1.001	+0.051	1.160	-0.587

# Obere Kulmination Greenwich

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Tag	680) $\gamma$ Ophiuchi		681) $\alpha$ Herculis		682) $\mu$ Sagittarii		688) $\eta$ Serpentis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$18^h 3^m$	$+9^\circ 32'$	$18^h 4^m$	$+28^\circ 44'$	$18^h 9^m$	$-21^\circ 4'$	$18^h 17^m$	$-2^\circ 55'$
Jan. I	56.828 <sup>168</sup>	62.36 <sup>206</sup>	44.162 <sup>156</sup>	58.31 <sup>293</sup>	28.566 <sup>194</sup>	49.52 <sup>27</sup>	35.899 <sup>164</sup>	13.35 <sup>135</sup>
II	56.996 <sup>204</sup>	60.30 <sup>199</sup>	44.318 <sup>197</sup>	55.38 <sup>280</sup>	28.760 <sup>230</sup>	49.79 <sup>31</sup>	36.063 <sup>200</sup>	14.70 <sup>133</sup>
2I	57.200 <sup>232</sup>	58.31 <sup>184</sup>	44.515 <sup>233</sup>	52.58 <sup>257</sup>	28.990 <sup>260</sup>	50.10 <sup>32</sup>	36.263 <sup>228</sup>	16.03 <sup>124</sup>
3I	57.432 <sup>256</sup>	56.47 <sup>163</sup>	44.748 <sup>262</sup>	50.01 <sup>226</sup>	29.250 <sup>283</sup>	50.42 <sup>31</sup>	36.491 <sup>251</sup>	17.27 <sup>111</sup>
Feb. 10	57.688 <sup>273</sup>	54.84 <sup>133</sup>	45.010 <sup>285</sup>	47.75 <sup>185</sup>	29.533 <sup>301</sup>	50.73 <sup>26</sup>	36.742 <sup>270</sup>	18.38 <sup>91</sup>
20	57.961 <sup>286</sup>	53.51 <sup>100</sup>	45.295 <sup>301</sup>	45.90 <sup>137</sup>	29.834 <sup>314</sup>	50.99 <sup>20</sup>	37.012 <sup>284</sup>	19.29 <sup>69</sup>
März 2	58.247 <sup>294</sup>	52.51 <sup>62</sup>	45.596 <sup>311</sup>	44.53 <sup>85</sup>	30.148 <sup>322</sup>	51.19 <sup>13</sup>	37.296 <sup>293</sup>	19.98 <sup>43</sup>
12	58.541 <sup>297</sup>	51.89 <sup>22</sup>	45.907 <sup>316</sup>	43.68 <sup>31</sup>	30.470 <sup>326</sup>	51.32 <sup>4</sup>	37.589 <sup>297</sup>	20.41 <sup>14</sup>
22	58.838 <sup>296</sup>	51.67 <sup>18</sup>	46.223 <sup>316</sup>	43.37 <sup>24</sup>	30.796 <sup>325</sup>	51.36 <sup>6</sup>	37.886 <sup>299</sup>	20.55 <sup>13</sup>
Apr. I	59.134 <sup>291</sup>	51.85 <sup>56</sup>	46.539 <sup>309</sup>	43.61 <sup>77</sup>	31.121 <sup>321</sup>	51.30 <sup>15</sup>	38.185 <sup>296</sup>	20.42 <sup>39</sup>
II	59.425 <sup>281</sup>	52.41 <sup>90</sup>	46.848 <sup>297</sup>	44.38 <sup>125</sup>	31.442 <sup>314</sup>	51.15 <sup>21</sup>	38.481 <sup>290</sup>	20.03 <sup>64</sup>
2I	59.706 <sup>268</sup>	53.31 <sup>120</sup>	47.145 <sup>279</sup>	45.63 <sup>168</sup>	31.756 <sup>301</sup>	50.94 <sup>25</sup>	38.771 <sup>279</sup>	19.39 <sup>85</sup>
Mai I	59.974 <sup>250</sup>	54.51 <sup>146</sup>	47.424 <sup>257</sup>	47.31 <sup>204</sup>	32.057 <sup>284</sup>	50.69 <sup>28</sup>	39.050 <sup>264</sup>	18.54 <sup>101</sup>
II	60.224 <sup>227</sup>	55.97 <sup>164</sup>	47.681 <sup>229</sup>	49.35 <sup>231</sup>	32.341 <sup>263</sup>	50.41 <sup>28</sup>	39.314 <sup>244</sup>	17.53 <sup>113</sup>
2I	60.451 <sup>201</sup>	57.61 <sup>176</sup>	47.910 <sup>196</sup>	51.66 <sup>251</sup>	32.604 <sup>237</sup>	50.13 <sup>26</sup>	39.558 <sup>219</sup>	16.40 <sup>119</sup>
3I	60.652 <sup>170</sup>	59.37 <sup>182</sup>	48.106 <sup>161</sup>	54.17 <sup>262</sup>	32.841 <sup>205</sup>	49.87 <sup>21</sup>	39.777 <sup>190</sup>	15.21 <sup>122</sup>
Juni 10	60.822 <sup>135</sup>	61.19 <sup>184</sup>	48.267 <sup>121</sup>	56.79 <sup>266</sup>	33.046 <sup>170</sup>	49.66 <sup>16</sup>	39.967 <sup>157</sup>	13.99 <sup>120</sup>
20	60.957 <sup>97</sup>	63.03 <sup>178</sup>	48.388 <sup>79</sup>	59.45 <sup>261</sup>	33.216 <sup>130</sup>	49.50 <sup>8</sup>	40.124 <sup>120</sup>	12.79 <sup>115</sup>
29	61.054 <sup>58</sup>	64.81 <sup>168</sup>	48.467 <sup>34</sup>	62.06 <sup>250</sup>	33.346 <sup>87</sup>	49.42 <sup>1</sup>	40.244 <sup>80</sup>	11.64 <sup>106</sup>
Juli 9	61.112 <sup>17</sup>	66.49 <sup>155</sup>	48.501 <sup>11</sup>	64.56 <sup>233</sup>	33.433 <sup>44</sup>	49.41 <sup>4</sup>	40.324 <sup>39</sup>	10.58 <sup>95</sup>
19	61.129 <sup>24</sup>	68.04 <sup>138</sup>	48.490 <sup>54</sup>	66.89 <sup>211</sup>	33.477 <sup>1</sup>	49.45 <sup>9</sup>	40.363 <sup>3</sup>	9.63 <sup>82</sup>
29	61.105 <sup>62</sup>	69.42 <sup>118</sup>	48.436 <sup>96</sup>	69.00 <sup>182</sup>	33.476 <sup>44</sup>	49.54 <sup>14</sup>	40.360 <sup>42</sup>	8.81 <sup>68</sup>
Aug. 8	61.043 <sup>98</sup>	70.60 <sup>96</sup>	48.340 <sup>133</sup>	70.82 <sup>152</sup>	33.432 <sup>84</sup>	49.68 <sup>16</sup>	40.318 <sup>80</sup>	8.13 <sup>54</sup>
18	60.945 <sup>129</sup>	71.56 <sup>73</sup>	48.207 <sup>165</sup>	72.34 <sup>117</sup>	33.348 <sup>118</sup>	49.84 <sup>17</sup>	40.238 <sup>113</sup>	7.59 <sup>39</sup>
28	60.816 <sup>152</sup>	72.29 <sup>49</sup>	48.042 <sup>191</sup>	73.51 <sup>80</sup>	33.230 <sup>145</sup>	50.01 <sup>16</sup>	40.125 <sup>139</sup>	7.20 <sup>24</sup>
Sept. 7	60.664 <sup>168</sup>	72.78 <sup>24</sup>	47.851 <sup>208</sup>	74.31 <sup>42</sup>	33.085 <sup>164</sup>	50.17 <sup>13</sup>	39.986 <sup>157</sup>	6.96 <sup>10</sup>
17	60.496 <sup>176</sup>	73.02 <sup>2</sup>	47.643 <sup>216</sup>	74.73 <sup>2</sup>	32.921 <sup>174</sup>	50.30 <sup>10</sup>	39.829 <sup>167</sup>	6.86 <sup>4</sup>
27	60.320 <sup>174</sup>	73.00 <sup>28</sup>	47.427 <sup>214</sup>	74.75 <sup>39</sup>	32.747 <sup>172</sup>	50.40 <sup>5</sup>	39.662 <sup>167</sup>	6.90 <sup>19</sup>
Oktober 7	60.146 <sup>162</sup>	72.72 <sup>54</sup>	47.213 <sup>201</sup>	74.36 <sup>80</sup>	32.575 <sup>159</sup>	50.45 <sup>2</sup>	39.495 <sup>156</sup>	7.09 <sup>34</sup>
17	59.984 <sup>140</sup>	72.18 <sup>80</sup>	47.012 <sup>180</sup>	73.56 <sup>120</sup>	32.416 <sup>137</sup>	50.47 <sup>1</sup>	39.339 <sup>137</sup>	7.43 <sup>49</sup>
27	59.844 <sup>111</sup>	71.38 <sup>106</sup>	46.832 <sup>149</sup>	72.36 <sup>159</sup>	32.279 <sup>104</sup>	50.46 <sup>2</sup>	39.202 <sup>109</sup>	7.92 <sup>63</sup>
Nov. 6	59.733 <sup>74</sup>	70.32 <sup>131</sup>	46.683 <sup>110</sup>	70.77 <sup>195</sup>	32.175 <sup>64</sup>	50.44 <sup>2</sup>	39.093 <sup>73</sup>	8.55 <sup>79</sup>
16	59.659 <sup>33</sup>	69.01 <sup>154</sup>	46.573 <sup>66</sup>	68.82 <sup>228</sup>	32.111 <sup>19</sup>	50.42 <sup>1</sup>	39.020 <sup>32</sup>	9.34 <sup>94</sup>
26	59.627 <sup>13</sup>	67.47 <sup>173</sup>	46.507 <sup>18</sup>	66.54 <sup>255</sup>	32.092 <sup>39</sup>	50.43 <sup>5</sup>	38.988 <sup>12</sup>	10.28 <sup>107</sup>
Dez. 6	59.640 <sup>59</sup>	65.74 <sup>190</sup>	46.489 <sup>32</sup>	63.99 <sup>276</sup>	32.122 <sup>79</sup>	50.48 <sup>11</sup>	39.000 <sup>57</sup>	11.35 <sup>119</sup>
16	59.699 <sup>104</sup>	63.84 <sup>201</sup>	46.521 <sup>83</sup>	61.23 <sup>290</sup>	32.201 <sup>127</sup>	50.59 <sup>17</sup>	39.057 <sup>102</sup>	12.54 <sup>127</sup>
26	59.803 <sup>146</sup>	61.83 <sup>205</sup>	46.604 <sup>130</sup>	58.33 <sup>293</sup>	32.328 <sup>171</sup>	50.76 <sup>22</sup>	39.159 <sup>143</sup>	13.81 <sup>133</sup>
36	59.949	59.78	46.734	55.40	32.499	50.98	39.302	15.14
Mittl. Ort	58.982	68.81	46.349	65.56	31.001	44.48	38.124	7.17
sec $\delta$ , tg $\delta$	1.014	+0.168	1.141	+0.549	1.072	-0.385	1.001	-0.051

Tag	689) ε Sagittarii		690) 109 Herculis		691) α Telescopii		695) χ Draconis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	18 <sup>h</sup> 19 <sup>m</sup>	-34° 25'	18 <sup>h</sup> 20 <sup>m</sup>	+21° 43'	18 <sup>h</sup> 21 <sup>m</sup>	-46° 0'	18 <sup>h</sup> 22 <sup>m</sup>	+72° 41'
Jan. I	24.824 <sup>206</sup>	16.39 <sup>59</sup>	38.144 <sup>143</sup>	63.22 <sup>262</sup>	39.387 <sup>231</sup>	38.12 <sup>129</sup>	15.98 <sup>10</sup>	62.11 <sup>366</sup>
II	25.030 <sup>247</sup>	15.80 <sup>59</sup>	38.287 <sup>183</sup>	60.60 <sup>253</sup>	39.618 <sup>282</sup>	36.83 <sup>119</sup>	16.08 <sup>25</sup>	58.45 <sup>354</sup>
2I	25.277 <sup>282</sup>	15.28 <sup>45</sup>	38.470 <sup>216</sup>	58.07 <sup>235</sup>	39.900 <sup>324</sup>	35.64 <sup>107</sup>	16.33 <sup>37</sup>	54.91 <sup>330</sup>
3I	25.559 <sup>311</sup>	14.83 <sup>37</sup>	38.686 <sup>245</sup>	55.72 <sup>208</sup>	40.224 <sup>359</sup>	34.57 <sup>92</sup>	16.70 <sup>49</sup>	51.61 <sup>293</sup>
Feb. 10	25.870 <sup>332</sup>	14.46 <sup>32</sup>	38.931 <sup>268</sup>	53.64 <sup>172</sup>	40.583 <sup>386</sup>	33.65 <sup>76</sup>	17.19 <sup>60</sup>	48.68 <sup>246</sup>
20	26.202 <sup>349</sup>	14.14 <sup>25</sup>	39.199 <sup>284</sup>	51.92 <sup>130</sup>	40.969 <sup>406</sup>	32.89 <sup>60</sup>	17.79 <sup>67</sup>	46.22 <sup>191</sup>
März 2	26.551 <sup>359</sup>	13.89 <sup>20</sup>	39.483 <sup>297</sup>	50.62 <sup>84</sup>	41.375 <sup>420</sup>	32.29 <sup>44</sup>	18.46 <sup>73</sup>	44.31 <sup>128</sup>
12	26.910 <sup>366</sup>	13.69 <sup>16</sup>	39.780 <sup>304</sup>	49.78 <sup>35</sup>	41.795 <sup>428</sup>	31.85 <sup>28</sup>	19.19 <sup>76</sup>	43.03 <sup>62</sup>
22	27.276 <sup>367</sup>	13.53 <sup>10</sup>	40.084 <sup>305</sup>	49.43 <sup>15</sup>	42.223 <sup>430</sup>	31.57 <sup>10</sup>	19.95 <sup>77</sup>	42.41 <sup>5</sup>
Apr. I	27.643 <sup>364</sup>	13.43 <sup>5</sup>	40.389 <sup>303</sup>	49.58 <sup>64</sup>	42.653 <sup>427</sup>	31.47 <sup>6</sup>	20.72 <sup>75</sup>	42.46 <sup>70</sup>
11	28.007 <sup>356</sup>	13.38 <sup>2</sup>	40.692 <sup>294</sup>	50.22 <sup>108</sup>	43.080 <sup>417</sup>	31.53 <sup>24</sup>	21.47 <sup>70</sup>	43.16 <sup>132</sup>
21	28.363 <sup>344</sup>	13.40 <sup>9</sup>	40.986 <sup>281</sup>	51.30 <sup>147</sup>	43.497 <sup>403</sup>	31.77 <sup>41</sup>	22.17 <sup>65</sup>	44.48 <sup>188</sup>
Mai I	28.707 <sup>327</sup>	13.49 <sup>18</sup>	41.267 <sup>263</sup>	52.77 <sup>182</sup>	43.900 <sup>382</sup>	32.18 <sup>59</sup>	22.82 <sup>56</sup>	46.36 <sup>235</sup>
11	29.034 <sup>303</sup>	13.67 <sup>28</sup>	41.530 <sup>240</sup>	54.59 <sup>207</sup>	44.282 <sup>353</sup>	32.77 <sup>97</sup>	23.38 <sup>46</sup>	48.71 <sup>275</sup>
21	29.337 <sup>275</sup>	13.95 <sup>38</sup>	41.770 <sup>211</sup>	56.66 <sup>226</sup>	44.635 <sup>318</sup>	33.54 <sup>73</sup>	23.84 <sup>36</sup>	51.46 <sup>304</sup>
31	29.612 <sup>239</sup>	14.33 <sup>48</sup>	41.981 <sup>179</sup>	58.92 <sup>237</sup>	44.953 <sup>277</sup>	34.47 <sup>109</sup>	24.20 <sup>24</sup>	54.50 <sup>325</sup>
Juni 10	29.851 <sup>200</sup>	14.81 <sup>58</sup>	42.160 <sup>142</sup>	61.29 <sup>242</sup>	45.230 <sup>230</sup>	35.56 <sup>121</sup>	24.44 <sup>11</sup>	57.75 <sup>334</sup>
20	30.051 <sup>156</sup>	15.39 <sup>67</sup>	42.302 <sup>103</sup>	63.71 <sup>239</sup>	45.460 <sup>177</sup>	36.77 <sup>131</sup>	24.55 <sup>2</sup>	61.09 <sup>336</sup>
29	30.207 <sup>107</sup>	16.06 <sup>74</sup>	42.405 <sup>60</sup>	66.10 <sup>229</sup>	45.637 <sup>121</sup>	38.08 <sup>138</sup>	24.53 <sup>14</sup>	64.45 <sup>327</sup>
Juli 9	30.314 <sup>57</sup>	16.80 <sup>78</sup>	42.465 <sup>16</sup>	68.39 <sup>214</sup>	45.758 <sup>62</sup>	39.46 <sup>141</sup>	24.39 <sup>26</sup>	67.72 <sup>311</sup>
19	30.371 <sup>7</sup>	17.58 <sup>80</sup>	42.481 <sup>27</sup>	70.53 <sup>195</sup>	45.820 <sup>1</sup>	40.87 <sup>138</sup>	24.13 <sup>38</sup>	70.83 <sup>287</sup>
29	30.378 <sup>42</sup>	18.38 <sup>78</sup>	42.454 <sup>68</sup>	72.48 <sup>170</sup>	45.821 <sup>56</sup>	42.25 <sup>131</sup>	23.75 <sup>49</sup>	73.70 <sup>256</sup>
Aug. 8	30.336 <sup>89</sup>	19.16 <sup>73</sup>	42.386 <sup>106</sup>	74.18 <sup>143</sup>	45.765 <sup>110</sup>	43.56 <sup>119</sup>	23.26 <sup>58</sup>	76.26 <sup>221</sup>
18	30.247 <sup>129</sup>	19.89 <sup>64</sup>	42.280 <sup>139</sup>	75.61 <sup>113</sup>	45.655 <sup>158</sup>	44.75 <sup>102</sup>	22.68 <sup>67</sup>	78.47 <sup>179</sup>
28	30.118 <sup>161</sup>	20.53 <sup>52</sup>	42.141 <sup>166</sup>	76.74 <sup>81</sup>	45.497 <sup>196</sup>	45.77 <sup>81</sup>	22.01 <sup>72</sup>	80.26 <sup>133</sup>
Sept. 7	29.957 <sup>185</sup>	21.05 <sup>37</sup>	41.975 <sup>185</sup>	77.55 <sup>47</sup>	45.301 <sup>224</sup>	46.58 <sup>56</sup>	21.29 <sup>77</sup>	81.59 <sup>85</sup>
17	29.772 <sup>196</sup>	21.42 <sup>21</sup>	41.790 <sup>195</sup>	78.02 <sup>11</sup>	45.077 <sup>239</sup>	47.14 <sup>28</sup>	20.52 <sup>80</sup>	82.44 <sup>34</sup>
27	29.576 <sup>197</sup>	21.63 <sup>3</sup>	41.595 <sup>196</sup>	78.13 <sup>24</sup>	44.838 <sup>240</sup>	47.42 <sup>2</sup>	19.72 <sup>80</sup>	82.78 <sup>19</sup>
Okt. 7	29.379 <sup>185</sup>	21.66 <sup>15</sup>	41.399 <sup>187</sup>	77.89 <sup>60</sup>	44.598 <sup>227</sup>	47.40 <sup>31</sup>	18.92 <sup>79</sup>	82.59 <sup>73</sup>
17	29.194 <sup>161</sup>	21.51 <sup>32</sup>	41.212 <sup>167</sup>	77.29 <sup>96</sup>	44.371 <sup>200</sup>	47.09 <sup>59</sup>	18.13 <sup>75</sup>	81.86 <sup>126</sup>
27	29.033 <sup>128</sup>	21.19 <sup>46</sup>	41.045 <sup>141</sup>	76.33 <sup>131</sup>	44.171 <sup>161</sup>	46.50 <sup>84</sup>	17.38 <sup>70</sup>	80.60 <sup>177</sup>
Nov. 6	28.905 <sup>83</sup>	20.73 <sup>59</sup>	40.904 <sup>104</sup>	75.02 <sup>164</sup>	44.010 <sup>110</sup>	45.66 <sup>106</sup>	16.68 <sup>61</sup>	78.83 <sup>226</sup>
16	28.822 <sup>33</sup>	20.14 <sup>66</sup>	40.800 <sup>64</sup>	73.38 <sup>195</sup>	43.900 <sup>52</sup>	44.60 <sup>123</sup>	16.07 <sup>51</sup>	76.57 <sup>270</sup>
26	28.789 <sup>20</sup>	19.48 <sup>71</sup>	40.736 <sup>19</sup>	71.43 <sup>220</sup>	43.848 <sup>11</sup>	43.37 <sup>134</sup>	15.56 <sup>39</sup>	73.87 <sup>307</sup>
Dez. 6	28.809 <sup>75</sup>	18.77 <sup>72</sup>	40.717 <sup>28</sup>	69.23 <sup>241</sup>	43.859 <sup>75</sup>	42.03 <sup>140</sup>	15.17 <sup>27</sup>	70.80 <sup>336</sup>
16	28.884 <sup>129</sup>	18.05 <sup>70</sup>	40.745 <sup>75</sup>	66.82 <sup>255</sup>	43.934 <sup>139</sup>	40.63 <sup>140</sup>	14.90 <sup>13</sup>	67.44 <sup>357</sup>
26	29.013 <sup>180</sup>	17.35 <sup>64</sup>	40.820 <sup>119</sup>	64.27 <sup>260</sup>	44.073 <sup>200</sup>	39.23 <sup>136</sup>	14.77 <sup>1</sup>	63.87 <sup>365</sup>
36	29.193	16.71	40.939	61.67	44.273	37.87	14.78	60.22
Mittl. Ort sec δ, tg δ	27.554 1.212	11.33 -0.685	40.319 1.077	70.05 +0.399	42.544 1.440	33.32 -1.036	20.31 3.363	68.85 +3.211

Tag	694) $\beta$ Draconis			699) $\alpha$ Lyrae			698) $\zeta$ Pavonis			703) $\Pi$ Herculis				
	AR.	Dekl.		AR.	Dekl.		AR.	Dekl.		AR.	Dekl.			
1929	18 <sup>h</sup> 22 <sup>m</sup>	+58° 45'		18 <sup>h</sup> 34 <sup>m</sup>	+38° 42'		18 <sup>h</sup> 34 <sup>m</sup>	-71° 29'		18 <sup>h</sup> 42 <sup>m</sup>	+20° 28'			
Jan. I	49.529	25.86	363	29.721	53.21	321	38.73	36	30.35	263	34.145	121	31.11	251
II	49.644	22.23	350	29.837	50.00	312	39.09	49	33.72	250	34.266	161	28.60	244
2I	49.836	18.73	326	30.002	46.88	291	39.58	59	31.22	229	34.427	196	26.16	230
3I	50.099	15.47	290	30.210	43.97	261	40.17	68	28.93	202	34.623	225	23.86	205
Feb. 10	50.425	12.57	242	30.457	41.36	219	40.85	75	26.90	172	34.848	251	21.81	172
20	50.803	10.15	186	30.737	39.17	170	41.60	81	25.18	138	35.099	271	20.09	134
März 2	51.223	8.29	124	31.042	37.47	115	42.41	85	23.80	102	35.370	287	18.75	89
12	51.673	7.05	58	31.367	36.32	56	43.26	87	22.78	64	35.657	297	17.86	41
22	52.139	6.47	9	31.704	35.76	4	44.13	88	22.14	26	35.954	302	17.45	7
Apr. I	52.609	6.56	74	32.046	35.80	63	45.01	88	21.88	13	36.256	304	17.52	55
II	53.070	7.30	135	32.386	36.43	119	45.89	86	22.01	51	36.560	299	18.07	100
2I	53.511	8.65	190	32.718	37.62	169	46.75	83	22.52	89	36.859	290	19.07	140
Mai I	53.919	10.55	238	33.034	39.31	213	47.58	78	23.41	124	37.149	275	20.47	173
II	54.285	12.93	277	33.329	41.44	248	48.36	71	24.65	158	37.424	255	22.20	201
2I	54.600	15.70	306	33.594	43.92	276	49.07	63	26.23	187	37.679	229	24.21	222
3I	54.857	18.76	325	33.825	46.68	293	49.70	55	28.10	213	37.908	199	26.43	235
Juni 10	55.048	22.01	335	34.017	49.61	302	50.25	44	30.22	233	38.107	163	28.78	241
20	55.170	25.36	336	34.164	52.63	303	50.69	32	32.56	249	38.270	124	31.19	239
29*)	55.219	28.72	327	34.263	55.66	296	51.01	21	35.05	256	38.394	82	33.58	231
Juli 9	55.195	31.99	310	34.313	58.62	281	51.22	7	37.61	258	38.476	39	35.89	219
19	55.098	35.09	286	34.312	61.43	260	51.29	5	40.19	250	38.515	6	38.08	201
29	54.931	37.95	255	34.261	64.03	233	51.24	16	42.69	236	38.509	49	40.09	178
Aug. 8	54.699	40.50	219	34.162	66.36	201	51.08	29	45.05	212	38.460	88	41.87	152
18	54.408	42.69	177	34.018	68.37	165	50.79	39	47.17	182	38.372	124	43.39	124
28	54.067	44.46	132	33.836	70.02	124	50.40	47	48.99	145	38.248	154	44.63	93
Sept. 7	53.685	45.78	83	33.622	71.26	82	49.93	53	50.44	101	38.094	176	45.56	60
17	53.274	46.61	32	33.384	72.08	38	49.40	57	51.45	53	37.918	189	46.16	26
27	52.847	46.93	20	33.132	72.46	9	48.83	59	51.98	3	37.729	193	46.42	9
Okt. 7	52.416	46.73	73	32.877	72.37	55	48.24	57	52.01	48	37.536	188	46.33	43
17	51.997	46.00	127	32.629	71.82	102	47.67	52	51.53	98	37.348	173	45.90	79
27	51.603	44.73	177	32.399	70.80	147	47.15	45	50.55	145	37.175	149	45.11	113
Nov. 6	51.247	42.96	225	32.195	69.33	191	46.70	35	49.10	186	37.026	116	43.98	146
16	50.943	40.71	269	32.029	67.42	229	46.35	24	47.24	221	36.910	79	42.52	176
26	50.700	38.02	306	31.905	65.13	264	46.11	11	45.03	247	36.831	36	40.76	203
Dez. 6	50.527	34.96	335	31.831	62.49	291	46.00	2	42.56	264	36.795	9	38.73	225
16	50.432	31.61	354	31.810	59.58	310	46.02	16	39.92	271	36.804	53	36.48	240
26	50.416	28.07	361	31.842	56.48	319	46.18	30	37.21	271	36.857	97	34.08	248
36	50.483	24.46		31.927	53.29		46.48		34.50		36.954		31.60	
Mittl. Ort	52.440	32.75		32.058	59.78		44.82	31.09			36.333		37.72	
sec $\delta$ , tg $\delta$	1.928	+1.649		1.282	+0.802		3.150	-2.987			1.067		+0.373	

\*) Bei Stern 699), 698) und 703) lies Juni 30

Tag	704) $\lambda$ Pavonis		705) $\beta$ Lyrae		707) $\epsilon$ Draconis		706) $\sigma$ Sagittarii	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	18 <sup>h</sup> 45 <sup>m</sup>	-62° 16'	18 <sup>h</sup> 47 <sup>m</sup>	+33° 16'	18 <sup>h</sup> 50 <sup>m</sup>	+59° 17'	18 <sup>h</sup> 50 <sup>m</sup>	-26° 23'
Jan. I	34.20 <sup>26</sup>	23.00 <sup>228</sup>	25.221 <sup>104</sup>	39.19 <sup>301</sup>	6.287 <sup>64</sup>	58.69 <sup>359</sup>	49.284 <sup>158</sup>	18.92 <sup>23</sup>
II	34.46 <sup>34</sup>	20.72 <sup>219</sup>	25.325 <sup>150</sup>	36.18 <sup>295</sup>	6.351 <sup>142</sup>	55.10 <sup>354</sup>	49.442 <sup>198</sup>	18.69 <sup>22</sup>
21	34.80 <sup>40</sup>	18.53 <sup>203</sup>	25.475 <sup>191</sup>	33.23 <sup>277</sup>	6.493 <sup>217</sup>	51.56 <sup>335</sup>	49.640 <sup>232</sup>	18.47 <sup>21</sup>
31	35.20 <sup>47</sup>	16.50 <sup>184</sup>	25.666 <sup>228</sup>	30.46 <sup>249</sup>	6.710 <sup>286</sup>	48.21 <sup>305</sup>	49.872 <sup>261</sup>	18.25 <sup>23</sup>
Feb. 10	35.67 <sup>52</sup>	14.66 <sup>160</sup>	25.894 <sup>258</sup>	27.97 <sup>212</sup>	6.996 <sup>346</sup>	45.16 <sup>263</sup>	50.133 <sup>286</sup>	18.02 <sup>25</sup>
20	36.19 <sup>56</sup>	13.06 <sup>134</sup>	26.152 <sup>284</sup>	25.85 <sup>167</sup>	7.342 <sup>395</sup>	42.53 <sup>211</sup>	50.419 <sup>305</sup>	17.77 <sup>27</sup>
März 2	36.75 <sup>59</sup>	11.72 <sup>105</sup>	26.436 <sup>304</sup>	24.18 <sup>116</sup>	7.737 <sup>435</sup>	40.42 <sup>153</sup>	50.724 <sup>319</sup>	17.50 <sup>31</sup>
12	37.34 <sup>60</sup>	10.67 <sup>75</sup>	26.740 <sup>317</sup>	23.02 <sup>59</sup>	8.172 <sup>460</sup>	38.89 <sup>89</sup>	51.043 <sup>330</sup>	17.19 <sup>35</sup>
22	37.94 <sup>62</sup>	9.92 <sup>44</sup>	27.057 <sup>324</sup>	22.43 <sup>3</sup>	8.632 <sup>474</sup>	38.00 <sup>22</sup>	51.373 <sup>337</sup>	16.84 <sup>39</sup>
Apr. I	38.56 <sup>62</sup>	9.48 <sup>12</sup>	27.381 <sup>326</sup>	22.40 <sup>54</sup>	9.106 <sup>474</sup>	37.78 <sup>43</sup>	51.710 <sup>340</sup>	16.45 <sup>42</sup>
II	39.18 <sup>61</sup>	9.36 <sup>20</sup>	27.707 <sup>321</sup>	22.94 <sup>106</sup>	9.580 <sup>462</sup>	38.21 <sup>107</sup>	52.050 <sup>339</sup>	16.03 <sup>43</sup>
21	39.79 <sup>59</sup>	9.56 <sup>52</sup>	28.028 <sup>309</sup>	24.00 <sup>156</sup>	10.042 <sup>438</sup>	39.28 <sup>165</sup>	52.389 <sup>332</sup>	15.60 <sup>41</sup>
Mai I	40.38 <sup>57</sup>	10.08 <sup>84</sup>	28.337 <sup>292</sup>	25.56 <sup>198</sup>	10.480 <sup>401</sup>	40.93 <sup>216</sup>	52.721 <sup>320</sup>	15.19 <sup>38</sup>
II	40.95 <sup>52</sup>	10.02 <sup>114</sup>	28.629 <sup>268</sup>	27.54 <sup>232</sup>	10.881 <sup>356</sup>	43.09 <sup>261</sup>	53.041 <sup>303</sup>	14.81 <sup>32</sup>
21	41.47 <sup>47</sup>	12.06 <sup>141</sup>	28.897 <sup>238</sup>	29.86 <sup>259</sup>	11.237 <sup>301</sup>	45.70 <sup>294</sup>	53.344 <sup>281</sup>	14.49 <sup>24</sup>
31	41.94 <sup>42</sup>	13.47 <sup>166</sup>	29.135 <sup>203</sup>	32.45 <sup>278</sup>	11.538 <sup>238</sup>	48.64 <sup>320</sup>	53.625 <sup>251</sup>	14.25 <sup>15</sup>
Juni 10	42.36 <sup>35</sup>	15.13 <sup>187</sup>	29.338 <sup>163</sup>	35.23 <sup>287</sup>	11.776 <sup>169</sup>	51.84 <sup>336</sup>	53.876 <sup>216</sup>	14.10 <sup>4</sup>
20	42.71 <sup>27</sup>	17.00 <sup>203</sup>	29.501 <sup>119</sup>	38.10 <sup>289</sup>	11.945 <sup>97</sup>	55.20 <sup>341</sup>	54.092 <sup>177</sup>	14.06 <sup>8</sup>
30	42.98 <sup>19</sup>	19.03 <sup>215</sup>	29.620 <sup>72</sup>	40.99 <sup>283</sup>	12.042 <sup>21</sup>	58.61 <sup>338</sup>	54.269 <sup>133</sup>	14.14 <sup>18</sup>
Juli 9	43.17 <sup>11</sup>	21.18 <sup>219</sup>	29.692 <sup>23</sup>	43.82 <sup>271</sup>	12.063 <sup>53</sup>	61.99 <sup>328</sup>	54.402 <sup>86</sup>	14.32 <sup>28</sup>
19	43.28 <sup>1</sup>	23.37 <sup>216</sup>	29.715 <sup>4</sup>	46.53 <sup>251</sup>	12.010 <sup>128</sup>	65.27 <sup>308</sup>	54.488 <sup>39</sup>	14.60 <sup>37</sup>
29	43.29 <sup>8</sup>	25.53 <sup>208</sup>	29.691 <sup>71</sup>	49.04 <sup>226</sup>	11.882 <sup>197</sup>	68.35 <sup>282</sup>	54.527 <sup>10</sup>	14.97 <sup>42</sup>
Aug. 8	43.21 <sup>15</sup>	27.61 <sup>191</sup>	29.620 <sup>115</sup>	51.30 <sup>198</sup>	11.685 <sup>262</sup>	71.17 <sup>249</sup>	54.517 <sup>55</sup>	15.39 <sup>46</sup>
18	43.06 <sup>23</sup>	29.52 <sup>168</sup>	29.505 <sup>153</sup>	53.28 <sup>163</sup>	11.423 <sup>319</sup>	73.66 <sup>211</sup>	54.462 <sup>96</sup>	15.85 <sup>47</sup>
28	42.83 <sup>29</sup>	31.20 <sup>137</sup>	29.352 <sup>186</sup>	54.91 <sup>126</sup>	11.104 <sup>365</sup>	75.77 <sup>169</sup>	54.366 <sup>130</sup>	16.32 <sup>44</sup>
Sept. 7	42.54 <sup>34</sup>	32.57 <sup>102</sup>	29.166 <sup>210</sup>	56.17 <sup>87</sup>	10.739 <sup>402</sup>	77.46 <sup>122</sup>	54.236 <sup>157</sup>	16.76 <sup>39</sup>
17	42.20 <sup>37</sup>	33.59 <sup>62</sup>	28.956 <sup>225</sup>	57.04 <sup>46</sup>	10.337 <sup>426</sup>	78.68 <sup>72</sup>	54.079 <sup>174</sup>	17.15 <sup>31</sup>
27	41.83 <sup>38</sup>	34.21 <sup>18</sup>	28.731 <sup>231</sup>	57.50 <sup>2</sup>	9.911 <sup>436</sup>	79.40 <sup>21</sup>	53.905 <sup>181</sup>	17.46 <sup>22</sup>
Okt. 7	41.45 <sup>38</sup>	34.39 <sup>26</sup>	28.500 <sup>226</sup>	57.52 <sup>41</sup>	9.475 <sup>433</sup>	79.61 <sup>33</sup>	53.724 <sup>174</sup>	17.68 <sup>12</sup>
17	41.07 <sup>34</sup>	34.13 <sup>70</sup>	28.274 <sup>212</sup>	57.11 <sup>85</sup>	9.042 <sup>416</sup>	79.28 <sup>87</sup>	53.550 <sup>159</sup>	17.80 <sup>2</sup>
27	40.73 <sup>29</sup>	33.43 <sup>112</sup>	28.062 <sup>187</sup>	56.26 <sup>128</sup>	8.626 <sup>384</sup>	78.41 <sup>140</sup>	53.391 <sup>132</sup>	17.82 <sup>7</sup>
Nov. 6	40.44 <sup>23</sup>	32.31 <sup>149</sup>	27.875 <sup>154</sup>	54.98 <sup>170</sup>	8.242 <sup>339</sup>	77.01 <sup>191</sup>	53.259 <sup>97</sup>	17.75 <sup>15</sup>
16	40.21 <sup>16</sup>	30.82 <sup>180</sup>	27.721 <sup>115</sup>	53.28 <sup>207</sup>	7.903 <sup>284</sup>	75.10 <sup>238</sup>	53.162 <sup>55</sup>	17.60 <sup>21</sup>
26	40.05 <sup>7</sup>	29.02 <sup>205</sup>	27.606 <sup>70</sup>	51.21 <sup>240</sup>	7.619 <sup>219</sup>	72.72 <sup>280</sup>	53.107 <sup>9</sup>	17.39 <sup>25</sup>
Dez. 6	39.98 <sup>3</sup>	26.97 <sup>222</sup>	27.536 <sup>22</sup>	48.81 <sup>268</sup>	7.400 <sup>145</sup>	69.92 <sup>314</sup>	53.098 <sup>40</sup>	17.14 <sup>27</sup>
16	40.01 <sup>11</sup>	24.75 <sup>232</sup>	27.514 <sup>28</sup>	46.13 <sup>287</sup>	7.255 <sup>68</sup>	66.78 <sup>340</sup>	53.138 <sup>88</sup>	16.87 <sup>26</sup>
26	40.12 <sup>21</sup>	22.43 <sup>233</sup>	27.542 <sup>77</sup>	43.26 <sup>297</sup>	7.187 <sup>14</sup>	63.38 <sup>353</sup>	53.226 <sup>134</sup>	16.61 <sup>27</sup>
36	40.33	20.10	27.619	40.29	7.201	59.85	53.360	16.34
Mittl. Ort	38.55	16.41	27.500	45.44	9.301	64.06	51.798	11.64
sec $\delta$ , tg $\delta$	2.149	-1.902	1.196	+0.656	1.959	+1.684	1.116	-0.496

Tag	709) $\delta$ Serpentis pr.		708) $\lambda$ Telescopii		711) $R$ Lyrae		713) $\gamma$ Lyrae	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	18 <sup>h</sup> 52 <sup>m</sup>	+4° 6'	18 <sup>h</sup> 52 <sup>m</sup>	-53° 1'	18 <sup>h</sup> 53 <sup>m</sup>	+43° 50'	18 <sup>h</sup> 56 <sup>m</sup>	+32° 35'
Jan. I	39.198 <sup>125</sup>	28.47 <sup>162</sup>	43.641 <sup>207</sup>	66.83 <sup>184</sup>	8.047 <sup>86</sup>	60.22 <sup>332</sup>	14.950 <sup>96</sup>	22.04 <sup>296</sup>
II	39.323 <sup>162</sup>	26.85 <sup>159</sup>	43.848 <sup>268</sup>	64.99 <sup>177</sup>	8.133 <sup>139</sup>	56.90 <sup>326</sup>	15.046 <sup>140</sup>	19.08 <sup>291</sup>
21	39.485 <sup>193</sup>	25.26 <sup>149</sup>	44.116 <sup>322</sup>	63.22 <sup>167</sup>	8.272 <sup>189</sup>	53.64 <sup>308</sup>	15.186 <sup>181</sup>	16.17 <sup>275</sup>
31	39.678 <sup>221</sup>	23.77 <sup>132</sup>	44.438 <sup>367</sup>	61.55 <sup>154</sup>	8.461 <sup>235</sup>	50.56 <sup>280</sup>	15.367 <sup>218</sup>	13.42 <sup>249</sup>
Feb. 10	39.899 <sup>244</sup>	22.45 <sup>109</sup>	44.805 <sup>406</sup>	60.01 <sup>137</sup>	8.696 <sup>274</sup>	47.76 <sup>241</sup>	15.585 <sup>250</sup>	10.93 <sup>214</sup>
20	40.143 <sup>263</sup>	21.36 <sup>82</sup>	45.211 <sup>437</sup>	58.64 <sup>118</sup>	8.970 <sup>306</sup>	45.35 <sup>192</sup>	15.835 <sup>276</sup>	8.79 <sup>169</sup>
März 2	40.406 <sup>277</sup>	20.54 <sup>50</sup>	45.648 <sup>460</sup>	57.46 <sup>98</sup>	9.276 <sup>332</sup>	43.43 <sup>137</sup>	16.111 <sup>297</sup>	7.10 <sup>118</sup>
12	40.683 <sup>288</sup>	20.04 <sup>16</sup>	46.108 <sup>477</sup>	56.48 <sup>76</sup>	9.608 <sup>349</sup>	42.06 <sup>76</sup>	16.408 <sup>313</sup>	5.92 <sup>64</sup>
22	40.971 <sup>295</sup>	19.88 <sup>19</sup>	46.585 <sup>486</sup>	55.72 <sup>53</sup>	9.957 <sup>360</sup>	41.30 <sup>15</sup>	16.721 <sup>321</sup>	5.28 <sup>8</sup>
Apr. I	41.266 <sup>298</sup>	20.07 <sup>52</sup>	47.071 <sup>490</sup>	55.19 <sup>29</sup>	10.317 <sup>362</sup>	41.15 <sup>47</sup>	17.042 <sup>325</sup>	5.20 <sup>48</sup>
II	41.564 <sup>296</sup>	20.59 <sup>83</sup>	47.561 <sup>486</sup>	54.90 <sup>4</sup>	10.679 <sup>356</sup>	41.62 <sup>106</sup>	17.367 <sup>322</sup>	5.68 <sup>101</sup>
21	41.860 <sup>290</sup>	21.42 <sup>111</sup>	48.047 <sup>476</sup>	54.86 <sup>21</sup>	11.035 <sup>343</sup>	42.68 <sup>160</sup>	17.689 <sup>312</sup>	6.69 <sup>150</sup>
Mai I	42.150 <sup>279</sup>	22.53 <sup>134</sup>	48.523 <sup>456</sup>	55.07 <sup>47</sup>	11.378 <sup>321</sup>	44.28 <sup>207</sup>	18.001 <sup>296</sup>	8.19 <sup>193</sup>
II	42.429 <sup>263</sup>	23.87 <sup>151</sup>	48.979 <sup>429</sup>	55.54 <sup>72</sup>	11.699 <sup>292</sup>	46.35 <sup>248</sup>	18.297 <sup>274</sup>	10.12 <sup>228</sup>
21	42.692 <sup>241</sup>	25.38 <sup>162</sup>	49.408 <sup>394</sup>	56.26 <sup>96</sup>	11.991 <sup>257</sup>	48.83 <sup>279</sup>	18.571 <sup>245</sup>	12.40 <sup>256</sup>
31	42.933 <sup>215</sup>	27.00 <sup>170</sup>	49.802 <sup>350</sup>	57.22 <sup>118</sup>	12.248 <sup>215</sup>	51.62 <sup>301</sup>	18.816 <sup>211</sup>	14.96 <sup>275</sup>
Juni 10	43.148 <sup>182</sup>	28.70 <sup>169</sup>	50.152 <sup>298</sup>	58.40 <sup>138</sup>	12.463 <sup>167</sup>	54.63 <sup>315</sup>	19.027 <sup>172</sup>	17.71 <sup>285</sup>
20	43.330 <sup>147</sup>	30.39 <sup>166</sup>	50.450 <sup>240</sup>	59.78 <sup>155</sup>	12.630 <sup>117</sup>	57.78 <sup>319</sup>	19.199 <sup>129</sup>	20.56 <sup>289</sup>
30	43.477 <sup>107</sup>	32.05 <sup>157</sup>	50.690 <sup>175</sup>	61.33 <sup>168</sup>	12.747 <sup>63</sup>	60.97 <sup>315</sup>	19.328 <sup>82</sup>	23.45 <sup>284</sup>
Juli 9	43.584 <sup>65</sup>	33.62 <sup>145</sup>	50.865 <sup>107</sup>	63.01 <sup>174</sup>	12.810 <sup>8</sup>	64.12 <sup>303</sup>	19.410 <sup>35</sup>	26.29 <sup>272</sup>
19	43.649 <sup>22</sup>	35.07 <sup>130</sup>	50.972 <sup>38</sup>	64.75 <sup>176</sup>	12.818 <sup>46</sup>	67.15 <sup>285</sup>	19.445 <sup>14</sup>	29.01 <sup>254</sup>
29	43.671 <sup>20</sup>	36.37 <sup>113</sup>	51.010 <sup>32</sup>	66.51 <sup>172</sup>	12.772 <sup>100</sup>	70.00 <sup>259</sup>	19.431 <sup>61</sup>	31.55 <sup>231</sup>
Aug. 8	43.651 <sup>59</sup>	37.50 <sup>94</sup>	50.978 <sup>98</sup>	68.23 <sup>162</sup>	12.672 <sup>149</sup>	72.59 <sup>229</sup>	19.370 <sup>105</sup>	33.86 <sup>201</sup>
18	43.592 <sup>96</sup>	38.44 <sup>74</sup>	50.880 <sup>158</sup>	69.85 <sup>145</sup>	12.523 <sup>192</sup>	74.88 <sup>192</sup>	19.265 <sup>145</sup>	35.87 <sup>169</sup>
28	43.496 <sup>126</sup>	39.18 <sup>53</sup>	50.722 <sup>208</sup>	71.30 <sup>122</sup>	12.331 <sup>229</sup>	76.80 <sup>153</sup>	19.120 <sup>178</sup>	37.56 <sup>133</sup>
Sept. 7	43.370 <sup>149</sup>	39.71 <sup>32</sup>	50.514 <sup>247</sup>	72.52 <sup>94</sup>	12.102 <sup>257</sup>	78.33 <sup>109</sup>	18.942 <sup>204</sup>	38.89 <sup>94</sup>
17	43.221 <sup>164</sup>	40.03 <sup>11</sup>	50.267 <sup>274</sup>	73.46 <sup>62</sup>	11.845 <sup>275</sup>	79.42 <sup>63</sup>	18.738 <sup>220</sup>	39.83 <sup>54</sup>
27	43.057 <sup>169</sup>	40.14 <sup>10</sup>	49.993 <sup>283</sup>	74.08 <sup>27</sup>	11.570 <sup>283</sup>	80.05 <sup>15</sup>	18.518 <sup>227</sup>	40.37 <sup>11</sup>
Okt. 7	42.888 <sup>165</sup>	40.04 <sup>30</sup>	49.710 <sup>278</sup>	74.35 <sup>10</sup>	11.287 <sup>279</sup>	80.20 <sup>33</sup>	18.291 <sup>224</sup>	40.48 <sup>33</sup>
17	42.723 <sup>151</sup>	39.74 <sup>52</sup>	49.432 <sup>257</sup>	74.25 <sup>46</sup>	11.008 <sup>265</sup>	79.87 <sup>83</sup>	18.067 <sup>211</sup>	40.15 <sup>76</sup>
27	42.572 <sup>128</sup>	39.22 <sup>72</sup>	49.175 <sup>220</sup>	73.79 <sup>81</sup>	10.743 <sup>241</sup>	79.04 <sup>132</sup>	17.856 <sup>189</sup>	39.39 <sup>119</sup>
Nov. 6	42.444 <sup>98</sup>	38.50 <sup>93</sup>	48.955 <sup>170</sup>	72.98 <sup>119</sup>	10.502 <sup>206</sup>	77.72 <sup>178</sup>	17.667 <sup>157</sup>	38.20 <sup>160</sup>
16	42.346 <sup>62</sup>	37.57 <sup>112</sup>	48.785 <sup>111</sup>	71.86 <sup>139</sup>	10.296 <sup>163</sup>	75.94 <sup>222</sup>	17.510 <sup>119</sup>	36.60 <sup>198</sup>
26	42.284 <sup>22</sup>	36.45 <sup>118</sup>	48.674 <sup>43</sup>	70.47 <sup>161</sup>	10.133 <sup>114</sup>	73.72 <sup>259</sup>	17.391 <sup>76</sup>	34.62 <sup>231</sup>
Dez. 6	42.262 <sup>20</sup>	35.17 <sup>143</sup>	48.631 <sup>28</sup>	68.86 <sup>176</sup>	10.019 <sup>61</sup>	71.13 <sup>291</sup>	17.315 <sup>29</sup>	32.31 <sup>260</sup>
16	42.282 <sup>63</sup>	33.74 <sup>154</sup>	48.659 <sup>91</sup>	67.10 <sup>184</sup>	9.958 <sup>4</sup>	68.22 <sup>314</sup>	17.286 <sup>20</sup>	29.71 <sup>280</sup>
26	42.345 <sup>104</sup>	32.20 <sup>159</sup>	48.758 <sup>163</sup>	65.26 <sup>187</sup>	9.954 <sup>52</sup>	65.08 <sup>326</sup>	17.306 <sup>68</sup>	26.91 <sup>292</sup>
36	42.449	30.61	48.927	63.39	10.006	61.82	17.374	23.99
Mittl. Ort	41.389	35.39	47.140	59.44	10.501	65.95	17.228	28.06
sec $\delta$ , tg $\delta$	1.003	+0.072	1.663	-1.329	1.387	+0.961	1.187	+0.639

Tag	716) ζ Aquilae		717) λ Aquilae		718) α Coron. austr.		720) π Sagittarii	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	19 <sup>h</sup> 2 <sup>m</sup>	+13° 45'	19 <sup>h</sup> 2 <sup>m</sup>	-4° 59'	19 <sup>h</sup> 4 <sup>m</sup>	-38° 0'	19 <sup>h</sup> 5 <sup>m</sup>	-21° 8'
Jan. I	6.607 <sub>108</sub>	17.24 <sub>211</sub>	26.638 <sub>124</sub>	32.63 <sub>106</sub>	35.808 <sub>158</sub>	68.86 <sub>101</sub>	30.125 <sub>137</sub>	24.73 <sub>4</sub>
II	6.715 <sub>145</sub>	15.13 <sub>208</sub>	26.762 <sub>160</sub>	33.69 <sub>104</sub>	35.966 <sub>205</sub>	67.85 <sub>99</sub>	30.262 <sub>175</sub>	24.77 <sub>3</sub>
2I	6.860 <sub>179</sub>	13.05 <sub>196</sub>	26.922 <sub>192</sub>	34.73 <sub>96</sub>	36.171 <sub>245</sub>	66.86 <sub>97</sub>	30.437 <sub>209</sub>	24.80 <sub>1</sub>
3I	7.039 <sub>209</sub>	11.09 <sub>176</sub>	27.114 <sub>219</sub>	35.69 <sub>84</sub>	36.416 <sub>280</sub>	65.89 <sub>92</sub>	30.646 <sub>238</sub>	24.81 <sub>4</sub>
Feb. 10	7.248 <sub>235</sub>	9.33 <sub>148</sub>	27.333 <sub>243</sub>	36.53 <sub>67</sub>	36.696 <sub>309</sub>	64.97 <sub>87</sub>	30.884 <sub>263</sub>	24.77 <sub>10</sub>
20	7.483 <sub>256</sub>	7.85 <sub>115</sub>	27.576 <sub>262</sub>	37.20 <sub>46</sub>	37.005 <sub>334</sub>	64.10 <sub>82</sub>	31.147 <sub>282</sub>	24.67 <sub>18</sub>
März 2	7.739 <sub>273</sub>	6.70 <sub>76</sub>	27.838 <sub>278</sub>	37.66 <sub>23</sub>	37.339 <sub>353</sub>	63.28 <sub>75</sub>	31.429 <sub>299</sub>	24.49 <sub>28</sub>
12	8.012 <sub>286</sub>	5.94 <sub>35</sub>	28.116 <sub>289</sub>	37.89 <sub>3</sub>	37.692 <sub>367</sub>	62.53 <sub>68</sub>	31.728 <sub>313</sub>	24.21 <sub>38</sub>
22	8.298 <sub>295</sub>	5.59 <sub>8</sub>	28.405 <sub>298</sub>	37.86 <sub>29</sub>	38.059 <sub>378</sub>	61.85 <sub>60</sub>	32.041 <sub>321</sub>	23.83 <sub>46</sub>
Apr. I	8.593 <sub>299</sub>	5.67 <sub>51</sub>	28.703 <sub>303</sub>	37.57 <sub>53</sub>	38.437 <sub>383</sub>	61.25 <sub>51</sub>	32.362 <sub>326</sub>	23.37 <sub>55</sub>
II	8.892 <sub>299</sub>	6.18 <sub>91</sub>	29.006 <sub>303</sub>	37.04 <sub>76</sub>	38.820 <sub>384</sub>	60.74 <sub>40</sub>	32.688 <sub>327</sub>	22.82 <sub>61</sub>
2I	9.191 <sub>293</sub>	7.09 <sub>126</sub>	29.309 <sub>298</sub>	36.28 <sub>95</sub>	39.204 <sub>378</sub>	60.34 <sub>27</sub>	33.015 <sub>324</sub>	22.21 <sub>65</sub>
Mai I	9.484 <sub>283</sub>	8.35 <sub>157</sub>	29.607 <sub>289</sub>	35.33 <sub>111</sub>	39.582 <sub>368</sub>	60.07 <sub>13</sub>	33.339 <sub>315</sub>	21.56 <sub>66</sub>
II	9.767 <sub>266</sub>	9.92 <sub>182</sub>	29.896 <sub>275</sub>	34.22 <sub>121</sub>	39.950 <sub>350</sub>	59.94 <sub>3</sub>	33.654 <sub>300</sub>	20.90 <sub>63</sub>
2I	10.033 <sub>244</sub>	11.74 <sub>200</sub>	30.171 <sub>255</sub>	33.01 <sub>128</sub>	40.300 <sub>325</sub>	59.97 <sub>19</sub>	33.954 <sub>280</sub>	20.27 <sub>58</sub>
3I	10.277 <sub>217</sub>	13.74 <sub>211</sub>	30.426 <sub>229</sub>	31.73 <sub>129</sub>	40.625 <sub>293</sub>	60.16 <sub>36</sub>	34.234 <sub>253</sub>	19.69 <sub>50</sub>
Juni 10	10.494 <sub>185</sub>	15.85 <sub>217</sub>	30.655 <sub>199</sub>	30.44 <sub>126</sub>	40.918 <sub>256</sub>	60.52 <sub>53</sub>	34.487 <sub>221</sub>	19.19 <sub>41</sub>
20	10.679 <sub>147</sub>	18.02 <sub>215</sub>	30.854 <sub>163</sub>	29.18 <sub>120</sub>	41.174 <sub>211</sub>	61.05 <sub>68</sub>	34.708 <sub>184</sub>	18.78 <sub>30</sub>
30	10.826 <sub>107</sub>	20.17 <sub>208</sub>	31.017 <sub>124</sub>	27.98 <sub>110</sub>	41.385 <sub>163</sub>	61.73 <sub>82</sub>	34.892 <sub>142</sub>	18.48 <sub>17</sub>
Juli 9	10.933 <sub>64</sub>	22.25 <sub>197</sub>	31.141 <sub>81</sub>	26.88 <sub>99</sub>	41.548 <sub>110</sub>	62.55 <sub>92</sub>	35.034 <sub>97</sub>	18.31 <sub>6</sub>
19	10.997 <sub>21</sub>	24.22 <sub>180</sub>	31.222 <sub>38</sub>	25.89 <sub>84</sub>	41.658 <sub>55</sub>	63.47 <sub>100</sub>	35.131 <sub>50</sub>	18.25 <sub>5</sub>
29	11.018 <sub>22</sub>	26.02 <sub>161</sub>	31.260 <sub>5</sub>	25.05 <sub>70</sub>	41.713 <sub>50</sub>	64.47 <sub>104</sub>	35.181 <sub>4</sub>	18.30 <sub>15</sub>
Aug. 8	10.996 <sub>63</sub>	27.63 <sub>137</sub>	31.255 <sub>46</sub>	24.35 <sub>55</sub>	41.713 <sub>52</sub>	65.51 <sub>103</sub>	35.185 <sub>41</sub>	18.45 <sub>23</sub>
18	10.933 <sub>100</sub>	29.00 <sub>113</sub>	31.209 <sub>84</sub>	23.80 <sub>40</sub>	41.661 <sub>100</sub>	66.54 <sub>97</sub>	35.144 <sub>82</sub>	18.68 <sub>27</sub>
28	10.833 <sub>132</sub>	30.13 <sub>87</sub>	31.125 <sub>116</sub>	23.40 <sub>25</sub>	41.561 <sub>141</sub>	67.51 <sub>87</sub>	35.062 <sub>117</sub>	18.95 <sub>31</sub>
Sept. 7	10.701 <sub>156</sub>	31.00 <sub>58</sub>	31.009 <sub>140</sub>	23.15 <sub>12</sub>	41.420 <sub>174</sub>	68.38 <sub>73</sub>	34.945 <sub>145</sub>	19.26 <sub>31</sub>
17	10.545 <sub>172</sub>	31.58 <sub>30</sub>	30.869 <sub>157</sub>	23.03 <sub>2</sub>	41.246 <sub>196</sub>	69.11 <sub>55</sub>	34.800 <sub>163</sub>	19.57 <sub>30</sub>
27	10.373 <sub>180</sub>	31.88 <sub>0</sub>	30.712 <sub>165</sub>	23.05 <sub>14</sub>	41.050 <sub>206</sub>	69.66 <sub>35</sub>	34.637 <sub>171</sub>	19.87 <sub>26</sub>
Okt. 7	10.193 <sub>177</sub>	31.88 <sub>29</sub>	30.547 <sub>161</sub>	23.19 <sub>26</sub>	40.844 <sub>203</sub>	70.01 <sub>13</sub>	34.466 <sub>169</sub>	20.13 <sub>21</sub>
17	10.016 <sub>164</sub>	31.59 <sub>59</sub>	30.386 <sub>149</sub>	23.45 <sub>39</sub>	40.641 <sub>188</sub>	70.14 <sub>10</sub>	34.297 <sub>156</sub>	20.34 <sub>17</sub>
27	9.852 <sub>143</sub>	31.00 <sub>88</sub>	30.237 <sub>127</sub>	23.84 <sub>50</sub>	40.453 <sub>162</sub>	70.04 <sub>32</sub>	34.141 <sub>133</sub>	20.51 <sub>11</sub>
Nov. 6	9.709 <sub>115</sub>	30.12 <sub>116</sub>	30.110 <sub>97</sub>	24.34 <sub>62</sub>	40.291 <sub>125</sub>	69.72 <sub>51</sub>	34.008 <sub>101</sub>	20.63 <sub>7</sub>
16	9.594 <sub>80</sub>	28.96 <sub>142</sub>	30.013 <sub>62</sub>	24.96 <sub>73</sub>	40.166 <sub>89</sub>	69.21 <sub>69</sub>	33.907 <sub>63</sub>	20.70 <sub>5</sub>
26	9.514 <sub>41</sub>	27.54 <sub>165</sub>	29.951 <sub>23</sub>	25.69 <sub>83</sub>	40.086 <sub>29</sub>	68.52 <sub>83</sub>	33.844 <sub>21</sub>	20.75 <sub>3</sub>
Dez. 6	9.473 <sub>1</sub>	25.89 <sub>186</sub>	29.928 <sub>20</sub>	26.52 <sub>93</sub>	40.057 <sub>24</sub>	67.69 <sub>93</sub>	33.823 <sub>24</sub>	20.78 <sub>3</sub>
16	9.474 <sub>43</sub>	24.03 <sub>200</sub>	29.948 <sub>62</sub>	27.45 <sub>100</sub>	40.081 <sub>78</sub>	66.76 <sub>99</sub>	33.847 <sub>70</sub>	20.81 <sub>2</sub>
26	9.517 <sub>85</sub>	22.03 <sub>207</sub>	30.010 <sub>102</sub>	28.45 <sub>103</sub>	40.159 <sub>131</sub>	65.77 <sub>102</sub>	33.917 <sub>114</sub>	20.83 <sub>2</sub>
36	9.602	19.96	30.112	29.48	40.290	64.75	34.031	20.85
Mittl. Ort	8.784	23.90	28.872	25.26	38.589	60.55	32.531	16.73
sec δ, tg δ	1.030	+0.245	1.004	-0.087	1.269	-0.782	1.072	-0.387



Tag	723) ♀ Draconis		724) ♀ Lyrae		725) ♀ Aquilae		726) ♀ Cygni	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	19 <sup>h</sup> 12 <sup>m</sup>	+67° 31'	19 <sup>h</sup> 13 <sup>m</sup>	+37° 59'	19 <sup>h</sup> 14 <sup>m</sup>	+11° 27'	19 <sup>h</sup> 15 <sup>m</sup>	+53° 13'
Jan. I	28.87	68.01	51.826	77.51	26.849	51.36	25.011	68.16
II	28.85	64.45	51.894	74.43	26.947	49.41	25.046	64.73
2I	28.94	60.88	52.010	71.36	27.082	47.48	25.147	61.29
3I	29.13	57.43	52.171	68.42	27.250	45.66	25.312	57.98
Feb. 10	29.43	54.22	52.375	65.73	27.449	44.03	25.537	54.91
20	29.81	51.37	52.616	63.38	27.674	42.65	25.814	52.21
März 2	30.27	49.00	52.888	61.46	27.921	41.58	26.138	49.98
12	30.79	47.19	53.187	60.06	28.187	40.87	26.500	48.29
22	31.37	45.99	53.506	59.22	28.468	40.56	26.891	47.20
Apr. I	31.97	45.45	53.839	58.96	28.759	40.66	27.301	46.76
II	32.57	45.57	54.179	59.29	29.057	41.16	27.718	46.96
2I	33.17	46.35	54.519	60.19	29.357	42.04	28.134	47.80
Mai I	33.75	47.73	54.851	61.62	29.654	43.27	28.537	49.22
II	34.28	49.67	55.168	63.52	29.941	44.79	28.918	51.17
2I	34.75	52.09	55.464	65.81	30.215	46.54	29.266	53.59
3I	35.15	54.90	55.731	68.43	30.468	48.47	29.573	56.38
Juni 10	35.48	58.02	55.963	71.29	30.695	50.52	29.831	59.46
20	35.71	61.36	56.153	74.29	30.891	52.61	30.034	62.73
30	35.84	64.81	56.298	77.36	31.052	54.69	30.177	66.11
Juli 10	35.88	68.29	56.394	80.42	31.173	56.70	30.255	69.50
19	35.82	71.71	56.439	83.39	31.251	58.60	30.268	72.82
29	35.66	75.00	56.432	86.20	31.285	60.34	30.215	76.00
Aug. 8	35.40	78.07	56.375	88.78	31.276	61.90	30.099	78.95
18	35.06	80.86	56.270	91.09	31.226	63.25	29.924	81.62
28	34.64	83.30	56.121	93.07	31.137	64.35	29.695	83.94
Sept. 7	34.15	85.34	55.935	94.69	31.015	65.20	29.419	85.87
17	33.61	86.94	55.720	95.91	30.868	65.79	29.107	87.36
27	33.04	88.06	55.484	96.70	30.703	66.11	28.769	88.38
Okt. 7	32.44	88.66	55.237	97.04	30.530	66.16	28.416	88.91
17	31.83	88.73	54.990	96.92	30.356	65.93	28.060	88.91
27	31.23	88.24	54.753	96.33	30.193	65.42	27.714	88.38
Nov. 6	30.67	87.21	54.536	95.28	30.049	64.65	27.390	87.33
16	30.15	85.64	54.347	93.78	29.932	63.62	27.100	85.76
26	29.70	83.55	54.195	91.86	29.847	62.33	26.853	83.71
Dez. 6	29.32	81.00	54.086	89.56	29.800	60.83	26.658	81.22
16	29.03	78.06	54.024	86.94	29.793	59.14	26.523	78.35
26	28.84	74.81	54.012	84.08	29.828	57.31	26.451	75.19
36	28.75	71.35	54.050	81.06	29.904	55.40	26.445	71.84
Mittl. Ort	32.61	71.71	54.183	82.69	29.020	58.11	27.766	72.40
sec δ, tg δ	2.617	+2.419	1.269	+0.781	1.020	+0.203	1.671	+1.338

Tag	729) $\tau$ Draconis		728) $\alpha$ Sagittarii		730) $\delta$ Aquilae		732) $\beta$ Cygni	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	19 <sup>h</sup> 16 <sup>m</sup>	+73° 13'	19 <sup>h</sup> 18 <sup>m</sup>	-40° 45'	19 <sup>h</sup> 21 <sup>m</sup>	+2° 58'	19 <sup>h</sup> 27 <sup>m</sup>	+27° 48'
Jan. I	51.07	23.88	55.333	13.36	52.941	11.60	49.221	28.63
II	50.98 <sup>9</sup> / <sub>6</sub>	20.35 <sup>353</sup>	55.477 <sup>144</sup>	12.15 <sup>121</sup>	53.039 <sup>98</sup>	10.13 <sup>147</sup>	49.287 <sup>66</sup>	25.96 <sup>267</sup>
21	51.04 <sup>21</sup>	16.80 <sup>355</sup>	55.669 <sup>192</sup>	10.92 <sup>123</sup>	53.174 <sup>135</sup>	8.70 <sup>143</sup>	49.395 <sup>108</sup>	23.30 <sup>266</sup>
31	51.25 <sup>34</sup>	13.34 <sup>346</sup>	55.905 <sup>236</sup>	9.71 <sup>121</sup>	53.342 <sup>168</sup>	7.36 <sup>134</sup>	49.543 <sup>148</sup>	20.74 <sup>256</sup>
Feb. 10	51.59 <sup>46</sup>	10.10 <sup>324</sup>	56.179 <sup>274</sup>	8.54 <sup>117</sup>	53.539 <sup>197</sup>	6.17 <sup>119</sup>	49.727 <sup>184</sup>	18.39 <sup>235</sup>
20	52.05 <sup>57</sup>	7.22 <sup>244</sup>	56.485 <sup>333</sup>	7.42 <sup>105</sup>	53.761 <sup>245</sup>	5.18 <sup>73</sup>	49.944 <sup>245</sup>	16.34 <sup>167</sup>
März 2	52.62 <sup>66</sup>	4.78 <sup>189</sup>	56.818 <sup>356</sup>	6.37 <sup>98</sup>	54.006 <sup>263</sup>	4.45 <sup>43</sup>	50.189 <sup>270</sup>	14.67 <sup>122</sup>
12	53.28 <sup>73</sup>	2.89 <sup>128</sup>	57.174 <sup>373</sup>	5.39 <sup>89</sup>	54.269 <sup>278</sup>	4.02 <sup>10</sup>	50.459 <sup>290</sup>	13.45 <sup>72</sup>
22	54.01 <sup>76</sup>	1.61 <sup>63</sup>	57.547 <sup>387</sup>	4.50 <sup>79</sup>	54.547 <sup>290</sup>	3.92 <sup>22</sup>	50.749 <sup>304</sup>	12.73 <sup>20</sup>
Apr. I	54.77 <sup>78</sup>	0.98 <sup>2</sup>	57.934 <sup>396</sup>	3.71 <sup>66</sup>	54.837 <sup>297</sup>	4.14 <sup>55</sup>	51.053 <sup>313</sup>	12.53 <sup>33</sup>
II	55.55 <sup>77</sup>	1.00 <sup>68</sup>	58.330 <sup>398</sup>	3.05 <sup>53</sup>	55.134 <sup>301</sup>	4.69 <sup>86</sup>	51.366 <sup>317</sup>	12.86 <sup>84</sup>
21	56.32 <sup>73</sup>	1.68 <sup>129</sup>	58.728 <sup>396</sup>	2.52 <sup>38</sup>	55.435 <sup>299</sup>	5.55 <sup>113</sup>	51.683 <sup>314</sup>	13.70 <sup>131</sup>
Mai I	57.05 <sup>67</sup>	2.97 <sup>185</sup>	59.124 <sup>386</sup>	2.14 <sup>20</sup>	55.734 <sup>292</sup>	6.68 <sup>135</sup>	51.997 <sup>305</sup>	15.01 <sup>173</sup>
II	57.72 <sup>60</sup>	4.82 <sup>233</sup>	59.510 <sup>371</sup>	1.94 <sup>1</sup>	56.026 <sup>281</sup>	8.03 <sup>153</sup>	52.302 <sup>289</sup>	16.74 <sup>210</sup>
21	58.32 <sup>51</sup>	7.15 <sup>275</sup>	59.881 <sup>347</sup>	1.93 <sup>18</sup>	56.307 <sup>262</sup>	9.56 <sup>165</sup>	52.591 <sup>267</sup>	18.84 <sup>237</sup>
31	58.83 <sup>39</sup>	9.90 <sup>306</sup>	60.228 <sup>316</sup>	2.11 <sup>38</sup>	56.569 <sup>237</sup>	11.21 <sup>171</sup>	52.858 <sup>238</sup>	21.21 <sup>259</sup>
Juni 10	59.22 <sup>28</sup>	12.96 <sup>329</sup>	60.544 <sup>278</sup>	2.49 <sup>57</sup>	56.806 <sup>208</sup>	12.92 <sup>173</sup>	53.096 <sup>203</sup>	23.80 <sup>272</sup>
20	59.50 <sup>15</sup>	16.25 <sup>343</sup>	60.822 <sup>234</sup>	3.06 <sup>76</sup>	57.014 <sup>174</sup>	14.65 <sup>169</sup>	53.299 <sup>164</sup>	26.52 <sup>277</sup>
30	59.65 <sup>2</sup>	19.68 <sup>347</sup>	61.056 <sup>184</sup>	3.82 <sup>92</sup>	57.188 <sup>135</sup>	16.34 <sup>160</sup>	53.463 <sup>121</sup>	29.29 <sup>275</sup>
Juli 10	59.67 <sup>11</sup>	23.15 <sup>343</sup>	61.240 <sup>129</sup>	4.74 <sup>105</sup>	57.323 <sup>93</sup>	17.94 <sup>148</sup>	53.584 <sup>74</sup>	32.04 <sup>267</sup>
19	59.56 <sup>24</sup>	26.58 <sup>331</sup>	61.369 <sup>72</sup>	5.79 <sup>114</sup>	57.416 <sup>49</sup>	19.42 <sup>134</sup>	53.658 <sup>27</sup>	34.71 <sup>252</sup>
29	59.32 <sup>36</sup>	29.89 <sup>311</sup>	61.441 <sup>15</sup>	6.93 <sup>119</sup>	57.465 <sup>6</sup>	20.76 <sup>117</sup>	53.685 <sup>20</sup>	37.23 <sup>232</sup>
Aug. 8	58.96 <sup>48</sup>	33.00 <sup>284</sup>	61.456 <sup>40</sup>	8.12 <sup>119</sup>	57.471 <sup>35</sup>	21.93 <sup>98</sup>	53.665 <sup>65</sup>	39.55 <sup>207</sup>
18	58.48 <sup>57</sup>	35.84 <sup>251</sup>	61.416 <sup>92</sup>	9.31 <sup>114</sup>	57.436 <sup>75</sup>	22.91 <sup>78</sup>	53.600 <sup>106</sup>	41.62 <sup>178</sup>
28	57.91 <sup>66</sup>	38.35 <sup>213</sup>	61.324 <sup>137</sup>	10.45 <sup>104</sup>	57.361 <sup>108</sup>	23.69 <sup>58</sup>	53.494 <sup>143</sup>	43.40 <sup>146</sup>
Sept. 7	57.25 <sup>74</sup>	40.48 <sup>170</sup>	61.187 <sup>174</sup>	11.49 <sup>89</sup>	57.253 <sup>134</sup>	24.27 <sup>38</sup>	53.351 <sup>171</sup>	44.86 <sup>111</sup>
17	56.51 <sup>78</sup>	42.18 <sup>122</sup>	61.013 <sup>199</sup>	12.38 <sup>70</sup>	57.119 <sup>154</sup>	24.65 <sup>17</sup>	53.180 <sup>193</sup>	45.97 <sup>74</sup>
27	55.73 <sup>82</sup>	43.40 <sup>71</sup>	60.814 <sup>213</sup>	13.08 <sup>47</sup>	56.965 <sup>163</sup>	24.82 <sup>3</sup>	52.987 <sup>205</sup>	46.71 <sup>35</sup>
Okt. 7	54.91 <sup>83</sup>	44.11 <sup>18</sup>	60.601 <sup>214</sup>	13.55 <sup>24</sup>	56.802 <sup>164</sup>	24.79 <sup>23</sup>	52.782 <sup>206</sup>	47.06 <sup>5</sup>
17	54.08 <sup>82</sup>	44.29 <sup>36</sup>	60.387 <sup>201</sup>	13.79 <sup>3</sup>	56.638 <sup>155</sup>	24.56 <sup>42</sup>	52.576 <sup>199</sup>	47.01 <sup>45</sup>
27	53.26 <sup>78</sup>	43.93 <sup>92</sup>	60.186 <sup>177</sup>	13.76 <sup>29</sup>	56.483 <sup>137</sup>	24.14 <sup>61</sup>	52.377 <sup>183</sup>	46.56 <sup>85</sup>
Nov. 6	52.48 <sup>73</sup>	43.01 <sup>146</sup>	60.009 <sup>142</sup>	13.47 <sup>53</sup>	56.346 <sup>111</sup>	23.53 <sup>80</sup>	52.194 <sup>157</sup>	45.71 <sup>125</sup>
16	51.75 <sup>65</sup>	41.55 <sup>198</sup>	59.867 <sup>98</sup>	12.94 <sup>73</sup>	56.235 <sup>78</sup>	22.73 <sup>97</sup>	52.037 <sup>125</sup>	44.46 <sup>161</sup>
26	51.10 <sup>55</sup>	39.57 <sup>245</sup>	59.769 <sup>48</sup>	12.21 <sup>92</sup>	56.157 <sup>42</sup>	21.76 <sup>113</sup>	51.912 <sup>88</sup>	42.85 <sup>195</sup>
Dez. 6	50.55 <sup>44</sup>	37.12 <sup>286</sup>	59.721 <sup>6</sup>	11.29 <sup>105</sup>	56.115 <sup>3</sup>	20.63 <sup>127</sup>	51.824 <sup>46</sup>	40.90 <sup>223</sup>
16	50.11 <sup>31</sup>	34.26 <sup>319</sup>	59.727 <sup>61</sup>	10.24 <sup>116</sup>	56.112 <sup>37</sup>	19.36 <sup>137</sup>	51.778 <sup>3</sup>	38.67 <sup>246</sup>
26	49.80 <sup>18</sup>	31.07 <sup>342</sup>	59.788 <sup>115</sup>	9.08 <sup>122</sup>	56.149 <sup>78</sup>	17.99 <sup>143</sup>	51.775 <sup>41</sup>	36.21 <sup>260</sup>
36	49.62	27.65	59.903	7.86	56.227	16.56	51.816	33.61
Mittl. Ort	55.73	27.04	58.167	3.95	55.118	18.92	51.452	34.07
sec $\delta$ , tg $\delta$	3.465	+3.317	1.320	-0.862	1.001	+0.052	1.131	+0.527

# Obere Kulmination Greenwich

Tag	733) $\epsilon$ Cygni		736) $h$ Sagittarii		738) $\eta$ Cygni		742) $\delta$ Cygni	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	19 <sup>h</sup> 27 <sup>m</sup>	+51° 34'	19 <sup>h</sup> 32 <sup>m</sup>	-25° 2'	19 <sup>h</sup> 34 <sup>m</sup>	+50° 2'	19 <sup>h</sup> 42 <sup>m</sup>	+44° 56'
Jan. I	52.289 <sub>20</sub>	36.30 <sub>336</sub>	20.882 <sub>112</sub>	39.90 <sub>28</sub>	29.589 <sub>15</sub>	77.58 <sub>330</sub>	42.878 <sub>18</sub>	80.21 <sub>316</sub>
II	52.309 <sub>83</sub>	32.94 <sub>339</sub>	20.994 <sub>152</sub>	39.62 <sub>32</sub>	29.604 <sub>75</sub>	74.28 <sub>334</sub>	42.896 <sub>71</sub>	77.05 <sub>320</sub>
2I	52.392 <sub>145</sub>	29.55 <sub>329</sub>	21.146 <sub>188</sub>	39.30 <sub>36</sub>	29.679 <sub>135</sub>	70.94 <sub>325</sub>	42.967 <sub>124</sub>	73.85 <sub>314</sub>
3I	52.537 <sub>202</sub>	26.26 <sub>306</sub>	21.334 <sub>219</sub>	38.94 <sub>41</sub>	29.814 <sub>190</sub>	67.69 <sub>305</sub>	43.091 <sub>175</sub>	70.71 <sub>294</sub>
Feb. 10	52.739 <sub>255</sub>	23.20 <sub>274</sub>	21.553 <sub>247</sub>	38.53 <sub>46</sub>	30.004 <sub>242</sub>	64.64 <sub>273</sub>	43.266 <sub>220</sub>	67.77 <sub>264</sub>
20	52.994 <sub>302</sub>	20.46 <sub>229</sub>	21.800 <sub>272</sub>	38.07 <sub>53</sub>	30.246 <sub>287</sub>	61.91 <sub>230</sub>	43.486 <sub>262</sub>	65.13 <sub>223</sub>
März 2	53.296 <sub>341</sub>	18.17 <sub>176</sub>	22.072 <sub>292</sub>	37.54 <sub>60</sub>	30.533 <sub>327</sub>	59.61 <sub>179</sub>	43.748 <sub>298</sub>	62.90 <sub>175</sub>
12	53.637 <sub>371</sub>	16.41 <sub>118</sub>	22.364 <sub>309</sub>	36.94 <sub>66</sub>	30.860 <sub>357</sub>	57.82 <sub>120</sub>	44.046 <sub>327</sub>	61.15 <sub>118</sub>
22	54.008 <sub>393</sub>	15.23 <sub>55</sub>	22.673 <sub>323</sub>	36.28 <sub>72</sub>	31.217 <sub>380</sub>	56.62 <sub>59</sub>	44.373 <sub>350</sub>	59.97 <sub>59</sub>
April 1	54.401 <sub>404</sub>	14.68 <sub>9</sub>	22.996 <sub>333</sub>	35.56 <sub>77</sub>	31.597 <sub>393</sub>	56.03 <sub>5</sub>	44.723 <sub>364</sub>	59.38 <sub>3</sub>
II	54.805 <sub>406</sub>	14.77 <sub>72</sub>	23.329 <sub>338</sub>	34.79 <sub>78</sub>	31.990 <sub>397</sub>	56.08 <sub>67</sub>	45.087 <sub>370</sub>	59.41 <sub>63</sub>
21	55.211 <sub>398</sub>	15.49 <sub>132</sub>	23.667 <sub>339</sub>	34.01 <sub>78</sub>	32.387 <sub>391</sub>	56.75 <sub>126</sub>	45.457 <sub>367</sub>	60.04 <sub>120</sub>
Mai I	55.609 <sub>379</sub>	16.81 <sub>185</sub>	24.006 <sub>334</sub>	33.23 <sub>75</sub>	32.778 <sub>375</sub>	58.01 <sub>180</sub>	45.824 <sub>356</sub>	61.24 <sub>173</sub>
II	55.988 <sub>351</sub>	18.66 <sub>232</sub>	24.340 <sub>323</sub>	32.48 <sub>69</sub>	33.153 <sub>349</sub>	59.81 <sub>227</sub>	46.180 <sub>335</sub>	62.97 <sub>220</sub>
21	56.339 <sub>315</sub>	20.98 <sub>271</sub>	24.663 <sub>306</sub>	31.79 <sub>59</sub>	33.502 <sub>316</sub>	62.08 <sub>267</sub>	46.515 <sub>307</sub>	65.17 <sub>258</sub>
31	56.654 <sub>270</sub>	23.69 <sub>302</sub>	24.969 <sub>281</sub>	31.20 <sub>48</sub>	33.818 <sub>274</sub>	64.75 <sub>298</sub>	46.822 <sub>271</sub>	67.75 <sub>289</sub>
Juni 10	56.924 <sub>218</sub>	26.71 <sub>323</sub>	25.250 <sub>251</sub>	30.72 <sub>34</sub>	34.092 <sub>224</sub>	67.73 <sub>321</sub>	47.093 <sub>228</sub>	70.64 <sub>311</sub>
20	57.142 <sub>160</sub>	29.94 <sub>336</sub>	25.501 <sub>214</sub>	30.38 <sub>20</sub>	34.316 <sub>169</sub>	70.94 <sub>333</sub>	47.321 <sub>179</sub>	73.75 <sub>324</sub>
30	57.302 <sub>100</sub>	33.30 <sub>339</sub>	25.715 <sub>172</sub>	30.18 <sub>5</sub>	34.485 <sub>111</sub>	74.27 <sub>338</sub>	47.500 <sub>126</sub>	76.99 <sub>328</sub>
Juli 10	57.402 <sub>36</sub>	36.69 <sub>334</sub>	25.887 <sub>127</sub>	30.13 <sub>10</sub>	34.596 <sub>50</sub>	77.65 <sub>334</sub>	47.626 <sub>70</sub>	80.27 <sub>325</sub>
19	57.438 <sub>27</sub>	40.03 <sub>322</sub>	26.014 <sub>79</sub>	30.23 <sub>23</sub>	34.646 <sub>13</sub>	80.99 <sub>323</sub>	47.696 <sub>12</sub>	83.52 <sub>314</sub>
29	57.411 <sub>90</sub>	43.25 <sub>301</sub>	26.093 <sub>30</sub>	30.46 <sub>34</sub>	34.633 <sub>74</sub>	84.22 <sub>303</sub>	47.708 <sub>44</sub>	86.66 <sub>296</sub>
Aug. 8	57.321 <sub>149</sub>	46.26 <sub>274</sub>	26.123 <sub>18</sub>	30.80 <sub>44</sub>	34.559 <sub>132</sub>	87.25 <sub>277</sub>	47.664 <sub>98</sub>	89.62 <sub>271</sub>
18	57.172 <sub>202</sub>	49.00 <sub>243</sub>	26.105 <sub>63</sub>	31.24 <sub>49</sub>	34.427 <sub>185</sub>	90.02 <sub>246</sub>	47.566 <sub>149</sub>	92.33 <sub>242</sub>
28	56.970 <sub>250</sub>	51.43 <sub>204</sub>	26.042 <sub>102</sub>	31.73 <sub>52</sub>	34.242 <sub>232</sub>	92.48 <sub>209</sub>	47.417 <sub>192</sub>	94.75 <sub>206</sub>
Sept. 7	56.720 <sub>287</sub>	53.47 <sub>162</sub>	25.940 <sub>134</sub>	32.25 <sub>51</sub>	34.010 <sub>269</sub>	94.57 <sub>167</sub>	47.225 <sub>229</sub>	96.81 <sub>166</sub>
17	56.433 <sub>315</sub>	55.09 <sub>116</sub>	25.806 <sub>157</sub>	32.76 <sub>47</sub>	33.741 <sub>298</sub>	96.24 <sub>123</sub>	46.996 <sub>257</sub>	98.47 <sub>122</sub>
27	56.118 <sub>333</sub>	56.25 <sub>68</sub>	25.649 <sub>171</sub>	33.23 <sub>41</sub>	33.443 <sub>316</sub>	97.47 <sub>74</sub>	46.739 <sub>274</sub>	99.69 <sub>77</sub>
Okt. 7	55.785 <sub>337</sub>	56.93 <sub>16</sub>	25.478 <sub>173</sub>	33.64 <sub>32</sub>	33.127 <sub>322</sub>	98.21 <sub>25</sub>	46.465 <sub>282</sub>	100.46 <sub>28</sub>
17	55.448 <sub>330</sub>	57.09 <sub>36</sub>	25.305 <sub>165</sub>	33.96 <sub>23</sub>	32.805 <sub>317</sub>	98.46 <sub>28</sub>	46.183 <sub>277</sub>	100.74 <sub>21</sub>
27	55.118 <sub>312</sub>	56.73 <sub>89</sub>	25.140 <sub>147</sub>	34.19 <sub>12</sub>	32.488 <sub>300</sub>	98.18 <sub>80</sub>	45.906 <sub>263</sub>	100.53 <sub>72</sub>
Nov. 6	54.806 <sub>282</sub>	55.84 <sub>141</sub>	24.993 <sub>119</sub>	34.31 <sub>3</sub>	32.188 <sub>273</sub>	97.38 <sub>132</sub>	45.643 <sub>239</sub>	99.81 <sub>122</sub>
16	54.524 <sub>243</sub>	54.43 <sub>189</sub>	24.874 <sub>84</sub>	34.34 <sub>6</sub>	31.915 <sub>236</sub>	96.06 <sub>181</sub>	45.404 <sub>206</sub>	98.59 <sub>168</sub>
26	54.281 <sub>195</sub>	52.54 <sub>235</sub>	24.790 <sub>44</sub>	34.28 <sub>13</sub>	31.679 <sub>190</sub>	94.25 <sub>226</sub>	45.198 <sub>165</sub>	96.91 <sub>213</sub>
Dez. 6	54.086 <sub>140</sub>	50.19 <sub>274</sub>	24.746 <sub>0</sub>	34.15 <sub>19</sub>	31.489 <sub>138</sub>	91.99 <sub>265</sub>	45.033 <sub>118</sub>	94.78 <sub>251</sub>
16	53.946 <sub>81</sub>	47.45 <sub>304</sub>	24.746 <sub>45</sub>	33.96 <sub>25</sub>	31.351 <sub>81</sub>	89.34 <sub>297</sub>	44.915 <sub>68</sub>	92.27 <sub>283</sub>
26	53.865 <sub>18</sub>	44.41 <sub>325</sub>	24.791 <sub>88</sub>	33.71 <sub>28</sub>	31.270 <sub>22</sub>	86.37 <sub>319</sub>	44.847 <sub>14</sub>	89.44 <sub>304</sub>
36	53.847	41.16	24.879	33.43	31.248	83.18	44.833	86.40
Mittl. Ort	54.986	39.97	23.300	30.36	32.234	81.01	45.372	83.65
sec $\delta$ , tg $\delta$	1.609	+1.261	1.104	-0.467	1.558	+1.194	1.413	+0.998

Tag	741) $\gamma$ Aquilae		743) $\delta$ Sagittae		745) $\nu$ Aquilae <sup>1)</sup>		747) $\epsilon$ Draconis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	19 <sup>h</sup> 42 <sup>m</sup>	+10° 26'	19 <sup>h</sup> 44 <sup>m</sup>	+18° 21'	19 <sup>h</sup> 47 <sup>m</sup>	+8° 40'	19 <sup>h</sup> 48 <sup>m</sup>	+70° 4'
Jan. I	50.903	13.93	11.143	22.91	17.000	39.55	21.23	72.22
II	50.974	12.13	11.204	20.72	17.072	37.88	21.09	68.83
21	51.081	10.34	11.303	18.53	17.181	36.22	21.07	65.33
31	51.223	8.64	11.439	16.43	17.323	34.65	21.18	61.84
Feb. 10	51.396	7.10	11.608	14.50	17.496	33.23	21.40	58.50
20	51.597	5.79	11.807	12.81	17.697	32.03	21.73	55.44
März 2	51.824	4.76	12.033	11.46	17.924	31.11	22.16	52.76
12	52.073	4.08	12.284	10.50	18.172	30.53	22.68	50.58
22	52.341	3.78	12.554	9.96	18.440	30.30	23.26	48.96
Apr. I	52.624	3.86	12.841	9.88	18.723	30.45	23.90	47.97
11	52.918	4.34	13.140	10.25	19.017	30.98	24.56	47.63
21	53.219	5.19	13.445	11.06	19.318	31.87	25.23	47.95
Mai I	53.521	6.39	13.751	12.28	19.621	33.08	25.89	48.89
11	53.819	7.88	14.053	13.87	19.921	34.58	26.52	50.43
21	54.106	9.61	14.343	15.76	20.210	36.29	27.10	52.50
31	54.378	11.53	14.615	17.89	20.484	38.19	27.61	55.04
Juni 10	54.626	13.56	14.864	20.19	20.735	40.19	28.04	57.95
20	54.846	15.66	15.082	22.59	20.958	42.24	28.37	61.15
30	55.032	17.76	15.266	25.03	21.147	44.28	28.60	64.56
Juli 10	55.180	19.80	15.409	27.44	21.298	46.25	28.72	68.08
19	55.285	21.74	15.509	29.76	21.408	48.12	28.74	71.62
29	55.347	23.54	15.564	31.94	21.474	49.84	28.64	75.10
Aug. 8	55.365	25.15	15.574	33.94	21.496	51.38	28.43	78.45
18	55.339	26.56	15.540	35.72	21.475	52.72	28.12	81.58
28	55.273	27.74	15.465	37.24	21.413	53.83	27.72	84.43
Sept. 7	55.172	28.67	15.354	38.49	21.316	54.70	27.23	86.94
17	55.041	29.35	15.213	39.44	21.189	55.33	26.67	89.05
27	54.889	29.77	15.050	40.08	21.041	55.71	26.06	90.72
Okt. 7	54.724	29.93	14.873	40.39	20.879	55.85	25.41	91.90
17	54.555	29.83	14.692	40.37	20.714	55.73	24.74	92.55
27	54.391	29.46	14.516	40.03	20.553	55.37	24.06	92.66
Nov. 6	54.241	28.83	14.353	39.36	20.407	54.77	23.40	92.21
16	54.114	27.96	14.213	38.37	20.283	53.94	22.78	91.19
26	54.016	26.84	14.101	37.07	20.187	52.89	22.20	89.63
Dec. 6	53.951	25.51	14.023	35.50	20.124	51.64	21.70	87.55
16	53.923	24.00	13.983	33.68	20.098	50.22	21.29	85.00
26	53.934	22.34	13.981	31.68	20.111	48.67	20.97	82.06
36	53.984	20.59	14.020	29.56	20.162	47.04	20.76	78.83
Mittl. Ort sec $\delta$ , tg $\delta$	53.046 1.017	20.73 +0.184	13.303 1.054	28.89 +0.332	19.140 1.012	46.65 +0.153	25.35 2.936	73.43 +2.761

<sup>1)</sup> Die jährliche Parallaxe (0.23) ist bereits berücksichtigt.

Tag	749) β Aquilae		748) ε Pavonis		750) ♄ Cygni		751) ♂ Sagittarii	
	AR.	Dekl.	AR	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	19 <sup>h</sup> 51 <sup>m</sup>	+6° 13'	19 <sup>h</sup> 52 <sup>m</sup>	-73° 5'	19 <sup>h</sup> 53 <sup>m</sup>	+52° 14'	19 <sup>h</sup> 55 <sup>m</sup>	-35° 28'
Jan. I	47.404 <sup>66</sup>	34.46 <sup>155</sup>	18.63 <sup>13</sup>	74.10 <sup>294</sup>	44.961 <sup>21</sup>	56.97 <sup>325</sup>	4.497 <sup>93</sup>	22.86 <sup>98</sup>
II	47.470 <sup>103</sup>	32.91 <sup>154</sup>	18.76 <sup>26</sup>	71.16 <sup>299</sup>	44.940 <sup>42</sup>	53.72 <sup>333</sup>	4.590 <sup>138</sup>	21.88 <sup>105</sup>
2I	47.573 <sup>136</sup>	31.37 <sup>146</sup>	19.02 <sup>39</sup>	68.17 <sup>296</sup>	44.982 <sup>104</sup>	50.39 <sup>330</sup>	4.728 <sup>179</sup>	20.83 <sup>109</sup>
3I	47.709 <sup>167</sup>	29.91 <sup>131</sup>	19.41 <sup>51</sup>	65.21 <sup>285</sup>	45.086 <sup>164</sup>	47.09 <sup>314</sup>	4.907 <sup>216</sup>	19.74 <sup>113</sup>
Feb. 10	47.876 <sup>195</sup>	28.60 <sup>111</sup>	19.92 <sup>62</sup>	62.36 <sup>268</sup>	45.250 <sup>221</sup>	43.95 <sup>285</sup>	5.123 <sup>249</sup>	18.61 <sup>115</sup>
20	48.071 <sup>221</sup>	27.49 <sup>84</sup>	20.54 <sup>70</sup>	59.68 <sup>246</sup>	45.471 <sup>273</sup>	41.10 <sup>246</sup>	5.372 <sup>280</sup>	17.46 <sup>116</sup>
März 2	48.292 <sup>243</sup>	26.65 <sup>54</sup>	21.24 <sup>78</sup>	57.22 <sup>217</sup>	45.744 <sup>318</sup>	38.64 <sup>198</sup>	5.652 <sup>305</sup>	16.30 <sup>116</sup>
12	48.535 <sup>263</sup>	26.11 <sup>19</sup>	22.02 <sup>85</sup>	55.05 <sup>185</sup>	46.062 <sup>356</sup>	36.66 <sup>142</sup>	5.957 <sup>328</sup>	15.14 <sup>113</sup>
22	48.798 <sup>279</sup>	25.92 <sup>16</sup>	22.87 <sup>90</sup>	53.20 <sup>150</sup>	46.418 <sup>384</sup>	35.24 <sup>82</sup>	6.285 <sup>346</sup>	14.01 <sup>110</sup>
Apr. I	49.077 <sup>292</sup>	26.08 <sup>52</sup>	23.77 <sup>92</sup>	51.70 <sup>112</sup>	46.802 <sup>403</sup>	34.42 <sup>17</sup>	6.631 <sup>361</sup>	12.91 <sup>105</sup>
II	49.369 <sup>300</sup>	26.60 <sup>86</sup>	24.69 <sup>94</sup>	50.58 <sup>70</sup>	47.205 <sup>412</sup>	34.25 <sup>45</sup>	6.992 <sup>371</sup>	11.86 <sup>96</sup>
2I	49.669 <sup>303</sup>	27.46 <sup>116</sup>	25.63 <sup>94</sup>	49.88 <sup>29</sup>	47.617 <sup>411</sup>	34.70 <sup>106</sup>	7.363 <sup>375</sup>	10.90 <sup>85</sup>
Mai I	49.972 <sup>300</sup>	28.62 <sup>142</sup>	26.57 <sup>93</sup>	49.59 <sup>14</sup>	48.028 <sup>399</sup>	35.76 <sup>162</sup>	7.738 <sup>374</sup>	10.05 <sup>71</sup>
II	50.272 <sup>292</sup>	30.04 <sup>164</sup>	27.50 <sup>89</sup>	49.73 <sup>56</sup>	48.427 <sup>376</sup>	37.38 <sup>212</sup>	8.112 <sup>365</sup>	9.34 <sup>55</sup>
2I	50.564 <sup>278</sup>	31.68 <sup>179</sup>	28.39 <sup>83</sup>	50.29 <sup>98</sup>	48.803 <sup>345</sup>	39.50 <sup>255</sup>	8.477 <sup>349</sup>	8.79 <sup>37</sup>
3I	50.842 <sup>256</sup>	33.47 <sup>188</sup>	29.22 <sup>76</sup>	51.27 <sup>137</sup>	49.148 <sup>303</sup>	42.05 <sup>290</sup>	8.826 <sup>326</sup>	8.42 <sup>17</sup>
Juni 10	51.098 <sup>229</sup>	35.35 <sup>193</sup>	29.98 <sup>67</sup>	52.64 <sup>172</sup>	49.451 <sup>254</sup>	44.95 <sup>317</sup>	9.152 <sup>294</sup>	8.25 <sup>3</sup>
20	51.327 <sup>196</sup>	37.28 <sup>191</sup>	30.65 <sup>57</sup>	54.36 <sup>204</sup>	49.705 <sup>198</sup>	48.12 <sup>334</sup>	9.446 <sup>257</sup>	8.28 <sup>25</sup>
30	51.523 <sup>159</sup>	39.19 <sup>185</sup>	31.22 <sup>45</sup>	56.40 <sup>229</sup>	49.903 <sup>138</sup>	51.46 <sup>341</sup>	9.703 <sup>212</sup>	8.53 <sup>45</sup>
Juli 10	51.682 <sup>117</sup>	41.04 <sup>174</sup>	31.67 <sup>31</sup>	58.69 <sup>249</sup>	50.041 <sup>75</sup>	54.87 <sup>343</sup>	9.915 <sup>163</sup>	8.98 <sup>63</sup>
20	51.799 <sup>74</sup>	42.78 <sup>159</sup>	31.98 <sup>18</sup>	61.18 <sup>260</sup>	50.116 <sup>9</sup>	58.30 <sup>334</sup>	10.078 <sup>110</sup>	9.61 <sup>79</sup>
29	51.873 <sup>30</sup>	44.37 <sup>141</sup>	32.16 <sup>4</sup>	63.78 <sup>263</sup>	50.125 <sup>55</sup>	61.64 <sup>319</sup>	10.188 <sup>56</sup>	10.40 <sup>91</sup>
Aug. 8	51.903 <sup>14</sup>	45.78 <sup>122</sup>	32.20 <sup>10</sup>	66.41 <sup>257</sup>	50.070 <sup>117</sup>	64.83 <sup>296</sup>	10.244 <sup>2</sup>	11.31 <sup>99</sup>
18	51.889 <sup>54</sup>	47.00 <sup>101</sup>	32.10 <sup>24</sup>	68.98 <sup>242</sup>	49.953 <sup>174</sup>	67.79 <sup>267</sup>	10.246 <sup>50</sup>	12.30 <sup>102</sup>
28	51.835 <sup>91</sup>	48.01 <sup>78</sup>	31.86 <sup>36</sup>	71.40 <sup>219</sup>	49.779 <sup>226</sup>	70.46 <sup>232</sup>	10.196 <sup>96</sup>	13.32 <sup>101</sup>
Sept. 7	51.744 <sup>121</sup>	48.79 <sup>55</sup>	31.50 <sup>47</sup>	73.59 <sup>186</sup>	49.553 <sup>268</sup>	72.78 <sup>194</sup>	10.100 <sup>135</sup>	14.33 <sup>94</sup>
17	51.623 <sup>144</sup>	49.34 <sup>33</sup>	31.03 <sup>55</sup>	75.45 <sup>146</sup>	49.285 <sup>302</sup>	74.72 <sup>149</sup>	9.965 <sup>166</sup>	15.27 <sup>84</sup>
27	51.479 <sup>157</sup>	49.67 <sup>10</sup>	30.48 <sup>60</sup>	76.91 <sup>99</sup>	48.983 <sup>324</sup>	76.21 <sup>101</sup>	9.799 <sup>184</sup>	16.11 <sup>68</sup>
Okt. 7	51.322 <sup>163</sup>	49.77 <sup>13</sup>	29.88 <sup>63</sup>	77.90 <sup>48</sup>	48.659 <sup>336</sup>	77.22 <sup>52</sup>	9.615 <sup>193</sup>	16.79 <sup>49</sup>
17	51.159 <sup>159</sup>	49.64 <sup>35</sup>	29.25 <sup>64</sup>	78.38 <sup>5</sup>	48.323 <sup>335</sup>	77.74 <sup>0</sup>	9.422 <sup>189</sup>	17.28 <sup>29</sup>
27	51.000 <sup>146</sup>	49.29 <sup>57</sup>	28.61 <sup>60</sup>	78.33 <sup>60</sup>	47.988 <sup>323</sup>	77.74 <sup>54</sup>	9.233 <sup>174</sup>	17.57 <sup>7</sup>
Nov. 6	50.854 <sup>125</sup>	48.72 <sup>79</sup>	28.01 <sup>54</sup>	77.73 <sup>113</sup>	47.665 <sup>300</sup>	77.20 <sup>107</sup>	9.059 <sup>148</sup>	17.64 <sup>14</sup>
16	50.729 <sup>98</sup>	47.93 <sup>98</sup>	27.47 <sup>45</sup>	76.60 <sup>161</sup>	47.365 <sup>267</sup>	76.13 <sup>159</sup>	8.911 <sup>114</sup>	17.50 <sup>35</sup>
26	50.631 <sup>65</sup>	46.95 <sup>116</sup>	27.02 <sup>35</sup>	74.99 <sup>205</sup>	47.098 <sup>224</sup>	74.54 <sup>206</sup>	8.797 <sup>72</sup>	17.15 <sup>54</sup>
Dez. 6	50.566 <sup>30</sup>	45.79 <sup>132</sup>	26.67 <sup>23</sup>	72.94 <sup>241</sup>	46.874 <sup>174</sup>	72.48 <sup>249</sup>	8.725 <sup>28</sup>	16.61 <sup>70</sup>
16	50.536 <sup>8</sup>	44.47 <sup>143</sup>	26.44 <sup>9</sup>	70.53 <sup>269</sup>	46.700 <sup>118</sup>	69.99 <sup>284</sup>	8.697 <sup>20</sup>	15.91 <sup>84</sup>
26	50.544 <sup>46</sup>	43.04 <sup>152</sup>	26.35 <sup>5</sup>	67.84 <sup>288</sup>	46.582 <sup>58</sup>	67.15 <sup>311</sup>	8.717 <sup>67</sup>	15.07 <sup>95</sup>
36	50.590	41.52	26.40	64.96	46.524	64.04	8.784	14.12
Mittl. Ort	49.534	41.72	24.55	61.07	47.678	59.21	7.057	11.29
sec δ, tg δ	1.006	+0.109	3.440	-3.291	1.633	+1.291	1.228	-0.712

Tag	752) $\gamma$ Sagittae		754) $\delta$ Pavonis		756) $\theta$ Aquilae		759) $\alpha$ Cephei	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	19 <sup>h</sup> 55 <sup>m</sup>	+19° 17'	20 <sup>h</sup> 1 <sup>m</sup>	-66° 21'	20 <sup>h</sup> 7 <sup>m</sup>	-1° 1'	20 <sup>h</sup> 11 <sup>m</sup>	+77° 29'
Jan. I	33.798 <sup>49</sup>	47.90 <sup>219</sup>	42.23 <sup>10</sup>	68.76 <sup>263</sup>	36.411 <sup>58</sup>	68.01 <sup>109</sup>	12.74 <sup>38</sup>	54.95 <sup>319</sup>
II	33.847 <sup>87</sup>	45.71 <sup>220</sup>	42.33 <sup>20</sup>	66.13 <sup>270</sup>	36.469 <sup>93</sup>	69.10 <sup>105</sup>	12.36 <sup>19</sup>	51.76 <sup>338</sup>
2I	33.934 <sup>123</sup>	43.51 <sup>212</sup>	42.53 <sup>29</sup>	63.43 <sup>271</sup>	36.562 <sup>126</sup>	70.15 <sup>98</sup>	12.17 <sup>0</sup>	48.38 <sup>344</sup>
3I	34.057 <sup>157</sup>	41.39 <sup>197</sup>	42.82 <sup>37</sup>	60.72 <sup>266</sup>	36.688 <sup>157</sup>	71.13 <sup>85</sup>	12.17 <sup>19</sup>	44.94 <sup>338</sup>
Feb. 10	34.214 <sup>189</sup>	39.42 <sup>172</sup>	43.19 <sup>45</sup>	58.06 <sup>253</sup>	36.845 <sup>185</sup>	71.98 <sup>67</sup>	12.36 <sup>37</sup>	41.56 <sup>318</sup>
20	34.403 <sup>217</sup>	37.70 <sup>140</sup>	43.64 <sup>51</sup>	55.53 <sup>236</sup>	37.030 <sup>212</sup>	72.65 <sup>45</sup>	12.73 <sup>55</sup>	38.38 <sup>286</sup>
März 2	34.620 <sup>243</sup>	36.30 <sup>103</sup>	44.15 <sup>57</sup>	53.17 <sup>213</sup>	37.242 <sup>235</sup>	73.10 <sup>20</sup>	13.28 <sup>70</sup>	35.52 <sup>244</sup>
12	34.863 <sup>266</sup>	35.27 <sup>59</sup>	44.72 <sup>62</sup>	51.04 <sup>187</sup>	37.477 <sup>256</sup>	73.30 <sup>8</sup>	13.98 <sup>82</sup>	33.08 <sup>191</sup>
22	35.129 <sup>283</sup>	34.68 <sup>14</sup>	45.34 <sup>66</sup>	49.17 <sup>156</sup>	37.733 <sup>275</sup>	73.22 <sup>38</sup>	14.80 <sup>92</sup>	31.17 <sup>133</sup>
Apr. I	35.412 <sup>297</sup>	34.54 <sup>33</sup>	46.00 <sup>68</sup>	47.61 <sup>124</sup>	38.008 <sup>289</sup>	72.84 <sup>67</sup>	15.72 <sup>98</sup>	29.84 <sup>71</sup>
II	35.709 <sup>306</sup>	34.87 <sup>77</sup>	46.68 <sup>70</sup>	46.37 <sup>88</sup>	38.297 <sup>300</sup>	72.17 <sup>93</sup>	16.70 <sup>101</sup>	29.13 <sup>6</sup>
2I	36.015 <sup>309</sup>	35.64 <sup>119</sup>	47.38 <sup>71</sup>	45.49 <sup>50</sup>	38.597 <sup>306</sup>	71.24 <sup>117</sup>	17.71 <sup>100</sup>	29.07 <sup>58</sup>
Mai I	36.324 <sup>305</sup>	36.83 <sup>157</sup>	48.09 <sup>70</sup>	44.99 <sup>11</sup>	38.903 <sup>307</sup>	70.07 <sup>137</sup>	18.71 <sup>96</sup>	29.65 <sup>118</sup>
II	36.629 <sup>296</sup>	38.40 <sup>188</sup>	48.79 <sup>68</sup>	44.88 <sup>28</sup>	39.210 <sup>301</sup>	68.70 <sup>152</sup>	19.67 <sup>90</sup>	30.83 <sup>174</sup>
2I	36.925 <sup>280</sup>	40.28 <sup>214</sup>	49.47 <sup>64</sup>	45.16 <sup>67</sup>	39.511 <sup>289</sup>	67.18 <sup>161</sup>	20.57 <sup>79</sup>	32.57 <sup>224</sup>
3I	37.205 <sup>257</sup>	42.42 <sup>232</sup>	50.11 <sup>60</sup>	45.83 <sup>105</sup>	39.800 <sup>270</sup>	65.57 <sup>168</sup>	21.36 <sup>68</sup>	34.81 <sup>267</sup>
Juni 10	37.462 <sup>228</sup>	44.74 <sup>244</sup>	50.71 <sup>53</sup>	46.88 <sup>141</sup>	40.070 <sup>245</sup>	63.89 <sup>168</sup>	22.04 <sup>54</sup>	37.48 <sup>301</sup>
20	37.690 <sup>193</sup>	47.18 <sup>249</sup>	51.24 <sup>46</sup>	48.29 <sup>172</sup>	40.315 <sup>215</sup>	62.21 <sup>162</sup>	22.58 <sup>39</sup>	40.49 <sup>327</sup>
30	37.883 <sup>154</sup>	49.67 <sup>247</sup>	51.70 <sup>38</sup>	50.01 <sup>200</sup>	40.530 <sup>178</sup>	60.59 <sup>153</sup>	22.97 <sup>22</sup>	43.76 <sup>345</sup>
Juli 10	38.037 <sup>111</sup>	52.14 <sup>240</sup>	52.08 <sup>28</sup>	52.01 <sup>220</sup>	40.708 <sup>138</sup>	59.06 <sup>141</sup>	23.19 <sup>5</sup>	47.21 <sup>354</sup>
20	38.148 <sup>65</sup>	54.54 <sup>227</sup>	52.36 <sup>18</sup>	54.21 <sup>235</sup>	40.846 <sup>94</sup>	57.65 <sup>126</sup>	23.24 <sup>11</sup>	50.75 <sup>354</sup>
29	38.213 <sup>20</sup>	56.81 <sup>209</sup>	52.54 <sup>7</sup>	56.56 <sup>242</sup>	40.940 <sup>50</sup>	56.39 <sup>108</sup>	23.13 <sup>29</sup>	54.29 <sup>347</sup>
Aug. 8	38.233 <sup>25</sup>	58.90 <sup>187</sup>	52.61 <sup>3</sup>	58.98 <sup>241</sup>	40.990 <sup>6</sup>	55.31 <sup>90</sup>	22.84 <sup>45</sup>	57.76 <sup>332</sup>
18	38.208 <sup>66</sup>	60.77 <sup>162</sup>	52.58 <sup>13</sup>	61.39 <sup>231</sup>	40.996 <sup>36</sup>	54.41 <sup>71</sup>	22.39 <sup>59</sup>	61.08 <sup>310</sup>
28	38.142 <sup>104</sup>	62.39 <sup>134</sup>	52.45 <sup>23</sup>	63.70 <sup>213</sup>	40.960 <sup>74</sup>	53.70 <sup>51</sup>	21.80 <sup>73</sup>	64.18 <sup>280</sup>
Sept. 7	38.038 <sup>136</sup>	63.73 <sup>105</sup>	52.22 <sup>30</sup>	65.83 <sup>185</sup>	40.886 <sup>106</sup>	53.19 <sup>33</sup>	21.07 <sup>85</sup>	66.98 <sup>246</sup>
17	37.902 <sup>159</sup>	64.78 <sup>73</sup>	51.92 <sup>37</sup>	67.68 <sup>152</sup>	40.780 <sup>131</sup>	52.86 <sup>15</sup>	20.22 <sup>95</sup>	69.44 <sup>205</sup>
27	37.743 <sup>174</sup>	65.51 <sup>41</sup>	51.55 <sup>41</sup>	69.20 <sup>110</sup>	40.649 <sup>148</sup>	52.71 <sup>1</sup>	19.27 <sup>102</sup>	71.49 <sup>160</sup>
Okt. 7	37.569 <sup>180</sup>	65.92 <sup>7</sup>	51.14 <sup>43</sup>	70.30 <sup>64</sup>	40.501 <sup>155</sup>	52.72 <sup>18</sup>	18.25 <sup>107</sup>	73.09 <sup>110</sup>
17	37.389 <sup>178</sup>	65.99 <sup>26</sup>	50.71 <sup>44</sup>	70.94 <sup>17</sup>	40.346 <sup>153</sup>	52.90 <sup>33</sup>	17.18 <sup>110</sup>	74.19 <sup>57</sup>
27	37.211 <sup>165</sup>	65.73 <sup>60</sup>	50.27 <sup>42</sup>	71.11 <sup>34</sup>	40.193 <sup>143</sup>	53.23 <sup>48</sup>	16.08 <sup>110</sup>	74.76 <sup>2</sup>
Nov. 6	37.046 <sup>146</sup>	65.13 <sup>93</sup>	49.85 <sup>37</sup>	70.77 <sup>83</sup>	40.050 <sup>124</sup>	53.71 <sup>61</sup>	14.98 <sup>106</sup>	74.78 <sup>56</sup>
16	36.900 <sup>119</sup>	64.20 <sup>124</sup>	49.48 <sup>31</sup>	69.94 <sup>31</sup>	39.926 <sup>99</sup>	54.32 <sup>73</sup>	13.92 <sup>100</sup>	74.22 <sup>113</sup>
26	36.781 <sup>86</sup>	62.96 <sup>153</sup>	49.17 <sup>24</sup>	68.64 <sup>171</sup>	39.827 <sup>69</sup>	55.05 <sup>85</sup>	12.92 <sup>91</sup>	73.09 <sup>167</sup>
Dez. 6	36.695 <sup>51</sup>	61.43 <sup>178</sup>	48.93 <sup>15</sup>	66.93 <sup>206</sup>	39.758 <sup>34</sup>	55.90 <sup>95</sup>	12.01 <sup>79</sup>	71.42 <sup>219</sup>
16	36.644 <sup>12</sup>	59.65 <sup>197</sup>	48.78 <sup>5</sup>	64.87 <sup>235</sup>	39.724 <sup>1</sup>	56.85 <sup>102</sup>	11.22 <sup>66</sup>	69.23 <sup>262</sup>
26	36.632 <sup>27</sup>	57.68 <sup>212</sup>	48.73 <sup>4</sup>	62.52 <sup>256</sup>	39.725 <sup>38</sup>	57.87 <sup>105</sup>	10.56 <sup>48</sup>	66.61 <sup>299</sup>
36	36.659	55.56	48.77	59.96	39.763	58.92	10.08	63.62
Mittl. Ort	35.947	53.61	46.65	55.00	38.525	59.74	18.70	54.15
sec $\delta$ , tg $\delta$	1.060	+0.350	2.494	-2.285	1.000	-0.018	4.620	+4.510

# Obere Kulmination Greenwich

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Tag	757) $\alpha^1$ Cygni sq.		760) 24 Vulpeculae		761) $\alpha^2$ Capricorni		765) $\gamma$ Cygni	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	20 <sup>h</sup> 11 <sup>m</sup>	+46° 31'	20 <sup>h</sup> 13 <sup>m</sup>	+24° 26'	20 <sup>h</sup> 14 <sup>m</sup>	--12° 45'	20 <sup>h</sup> 19 <sup>m</sup>	+40° 1'
Jan. I	21.241 <sup>25</sup>	28.79 <sup>304</sup>	42.633 <sup>24</sup>	60.21 <sup>233</sup>	4.851 <sup>60</sup>	67.76 <sup>38</sup>	38.428 <sup>15</sup>	40.59 <sup>283</sup>
II	21.216 <sup>30</sup>	25.75 <sup>315</sup>	42.657 <sup>62</sup>	57.88 <sup>238</sup>	4.911 <sup>96</sup>	68.14 <sup>32</sup>	38.413 <sup>33</sup>	37.76 <sup>293</sup>
21	21.246 <sup>83</sup>	22.60 <sup>314</sup>	42.719 <sup>101</sup>	55.50 <sup>233</sup>	5.007 <sup>130</sup>	68.46 <sup>23</sup>	38.446 <sup>79</sup>	34.83 <sup>293</sup>
31	21.329 <sup>136</sup>	19.46 <sup>301</sup>	42.820 <sup>137</sup>	53.17 <sup>219</sup>	5.137 <sup>161</sup>	68.69 <sup>13</sup>	38.525 <sup>126</sup>	31.90 <sup>281</sup>
Feb. 10	21.465 <sup>187</sup>	16.45 <sup>276</sup>	42.957 <sup>171</sup>	50.98 <sup>196</sup>	5.298 <sup>190</sup>	68.82 <sup>0</sup>	38.651 <sup>170</sup>	29.09 <sup>258</sup>
20	21.652 <sup>233</sup>	13.69 <sup>241</sup>	43.128 <sup>203</sup>	49.02 <sup>164</sup>	5.488 <sup>216</sup>	68.82 <sup>17</sup>	38.821 <sup>212</sup>	26.51 <sup>225</sup>
März 2	21.885 <sup>276</sup>	11.28 <sup>196</sup>	43.331 <sup>233</sup>	47.38 <sup>125</sup>	5.704 <sup>241</sup>	68.65 <sup>35</sup>	39.033 <sup>250</sup>	24.26 <sup>182</sup>
12	22.161 <sup>312</sup>	9.32 <sup>144</sup>	43.564 <sup>259</sup>	46.13 <sup>81</sup>	5.945 <sup>263</sup>	68.30 <sup>53</sup>	39.283 <sup>283</sup>	22.44 <sup>132</sup>
22	22.473 <sup>341</sup>	7.88 <sup>86</sup>	43.823 <sup>281</sup>	45.32 <sup>34</sup>	6.208 <sup>282</sup>	67.77 <sup>72</sup>	39.566 <sup>311</sup>	21.12 <sup>77</sup>
Apr. I	22.814 <sup>363</sup>	7.02 <sup>25</sup>	44.104 <sup>298</sup>	44.98 <sup>16</sup>	6.490 <sup>297</sup>	67.05 <sup>89</sup>	39.877 <sup>332</sup>	20.35 <sup>20</sup>
II	23.177 <sup>377</sup>	6.77 <sup>36</sup>	44.402 <sup>310</sup>	45.14 <sup>65</sup>	6.787 <sup>310</sup>	66.16 <sup>104</sup>	40.209 <sup>347</sup>	20.15 <sup>38</sup>
21	23.554 <sup>380</sup>	7.13 <sup>94</sup>	44.712 <sup>316</sup>	45.79 <sup>110</sup>	7.097 <sup>317</sup>	65.12 <sup>117</sup>	40.556 <sup>353</sup>	20.53 <sup>94</sup>
Mai I	23.934 <sup>375</sup>	8.07 <sup>150</sup>	45.028 <sup>316</sup>	46.89 <sup>152</sup>	7.414 <sup>319</sup>	63.95 <sup>126</sup>	40.909 <sup>352</sup>	21.47 <sup>147</sup>
II	24.309 <sup>360</sup>	9.57 <sup>199</sup>	45.344 <sup>308</sup>	48.41 <sup>190</sup>	7.733 <sup>315</sup>	62.69 <sup>130</sup>	41.261 <sup>341</sup>	22.94 <sup>193</sup>
21	24.669 <sup>336</sup>	11.56 <sup>242</sup>	45.652 <sup>293</sup>	50.31 <sup>220</sup>	8.048 <sup>304</sup>	61.39 <sup>129</sup>	41.602 <sup>322</sup>	24.87 <sup>235</sup>
31	25.005 <sup>303</sup>	13.98 <sup>278</sup>	45.945 <sup>271</sup>	52.51 <sup>243</sup>	8.352 <sup>286</sup>	60.10 <sup>126</sup>	41.924 <sup>296</sup>	27.22 <sup>267</sup>
Juni 10	25.308 <sup>264</sup>	16.76 <sup>304</sup>	46.216 <sup>243</sup>	54.94 <sup>259</sup>	8.638 <sup>262</sup>	58.84 <sup>118</sup>	42.220 <sup>261</sup>	29.89 <sup>293</sup>
20	25.572 <sup>216</sup>	19.80 <sup>323</sup>	46.459 <sup>209</sup>	57.53 <sup>269</sup>	8.900 <sup>232</sup>	57.66 <sup>106</sup>	42.481 <sup>219</sup>	32.82 <sup>310</sup>
30	25.788 <sup>163</sup>	23.03 <sup>333</sup>	46.668 <sup>169</sup>	60.22 <sup>270</sup>	9.132 <sup>195</sup>	56.60 <sup>93</sup>	42.700 <sup>173</sup>	35.92 <sup>318</sup>
Juli 10	25.951 <sup>107</sup>	26.36 <sup>335</sup>	46.837 <sup>125</sup>	62.92 <sup>266</sup>	9.327 <sup>154</sup>	55.67 <sup>76</sup>	42.873 <sup>122</sup>	39.10 <sup>320</sup>
20	26.058 <sup>48</sup>	29.71 <sup>328</sup>	46.962 <sup>79</sup>	65.58 <sup>255</sup>	9.481 <sup>110</sup>	54.91 <sup>60</sup>	42.995 <sup>68</sup>	42.30 <sup>314</sup>
29	26.106 <sup>10</sup>	32.99 <sup>315</sup>	47.041 <sup>31</sup>	68.13 <sup>239</sup>	9.591 <sup>64</sup>	54.31 <sup>42</sup>	43.063 <sup>15</sup>	45.44 <sup>300</sup>
Aug. 8	26.096 <sup>68</sup>	36.14 <sup>295</sup>	47.072 <sup>14</sup>	70.52 <sup>218</sup>	9.655 <sup>18</sup>	53.89 <sup>26</sup>	43.078 <sup>38</sup>	48.44 <sup>280</sup>
18	26.028 <sup>122</sup>	39.09 <sup>268</sup>	47.058 <sup>59</sup>	72.70 <sup>193</sup>	9.673 <sup>26</sup>	53.63 <sup>11</sup>	43.040 <sup>88</sup>	51.24 <sup>255</sup>
28	25.906 <sup>170</sup>	41.77 <sup>236</sup>	46.999 <sup>98</sup>	74.63 <sup>164</sup>	9.647 <sup>66</sup>	53.52 <sup>3</sup>	42.952 <sup>133</sup>	53.79 <sup>224</sup>
Sept. 7	25.736 <sup>211</sup>	44.13 <sup>199</sup>	46.901 <sup>132</sup>	76.27 <sup>134</sup>	9.581 <sup>100</sup>	53.55 <sup>14</sup>	42.819 <sup>173</sup>	56.03 <sup>190</sup>
17	25.525 <sup>245</sup>	46.12 <sup>158</sup>	46.769 <sup>159</sup>	77.61 <sup>100</sup>	9.481 <sup>127</sup>	53.69 <sup>24</sup>	42.646 <sup>204</sup>	57.93 <sup>150</sup>
27	25.280 <sup>268</sup>	47.70 <sup>113</sup>	46.610 <sup>177</sup>	78.61 <sup>65</sup>	9.354 <sup>145</sup>	53.93 <sup>31</sup>	42.442 <sup>226</sup>	59.43 <sup>108</sup>
Okt. 7	25.012 <sup>281</sup>	48.83 <sup>66</sup>	46.433 <sup>186</sup>	79.26 <sup>28</sup>	9.209 <sup>154</sup>	54.24 <sup>35</sup>	42.216 <sup>239</sup>	60.51 <sup>63</sup>
17	24.731 <sup>283</sup>	49.49 <sup>15</sup>	46.247 <sup>187</sup>	79.54 <sup>9</sup>	9.055 <sup>153</sup>	54.59 <sup>39</sup>	41.977 <sup>242</sup>	61.14 <sup>17</sup>
27	24.448 <sup>276</sup>	49.64 <sup>35</sup>	46.060 <sup>178</sup>	79.45 <sup>46</sup>	8.902 <sup>144</sup>	54.98 <sup>41</sup>	41.735 <sup>236</sup>	61.31 <sup>31</sup>
Nov. 6	24.172 <sup>257</sup>	49.29 <sup>86</sup>	45.882 <sup>162</sup>	78.99 <sup>83</sup>	8.758 <sup>125</sup>	55.39 <sup>41</sup>	41.499 <sup>220</sup>	61.00 <sup>79</sup>
16	23.915 <sup>231</sup>	48.43 <sup>136</sup>	45.720 <sup>138</sup>	78.16 <sup>119</sup>	8.633 <sup>100</sup>	55.80 <sup>43</sup>	41.279 <sup>196</sup>	60.21 <sup>125</sup>
26	23.684 <sup>195</sup>	47.07 <sup>183</sup>	45.582 <sup>108</sup>	76.97 <sup>153</sup>	8.533 <sup>68</sup>	56.23 <sup>42</sup>	41.083 <sup>165</sup>	58.96 <sup>169</sup>
Dez. 6	23.489 <sup>154</sup>	45.24 <sup>226</sup>	45.474 <sup>74</sup>	75.44 <sup>182</sup>	8.465 <sup>34</sup>	56.65 <sup>42</sup>	40.918 <sup>127</sup>	57.27 <sup>210</sup>
16	23.335 <sup>106</sup>	42.98 <sup>262</sup>	45.400 <sup>37</sup>	73.62 <sup>205</sup>	8.431 <sup>2</sup>	57.07 <sup>40</sup>	40.791 <sup>86</sup>	55.17 <sup>243</sup>
26	23.229 <sup>55</sup>	40.36 <sup>289</sup>	45.363 <sup>1</sup>	71.57 <sup>223</sup>	8.433 <sup>40</sup>	57.47 <sup>38</sup>	40.705 <sup>42</sup>	52.74 <sup>269</sup>
36	23.174	37.47	45.364	69.34	8.473	57.85	40.663	50.05
Mittl. Ort	23.751	30.70	44.786	64.89	7.012	57.78	40.773	42.93
sec $\delta$ , tg $\delta$	1.453	+1.055	1.098	+0.455	1.025	-0.227	1.306	+0.840

Tag	764) $\alpha$ Pavonis		767) $\eta$ Cephei		768) $\epsilon$ Delphini		770) $\gamma$ Draconis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	20 <sup>h</sup> 19 <sup>m</sup>	-56° 57'	20 <sup>h</sup> 28 <sup>m</sup>	+62° 44'	20 <sup>h</sup> 29 <sup>m</sup>	+11° 3'	20 <sup>h</sup> 32 <sup>m</sup>	+74° 42'
Jan. I	59.211 <sup>63</sup>	65.54 <sup>220</sup>	20.35 <sup>15</sup>	78.96 <sup>312</sup>	47.201 <sup>26</sup>	32.57 <sup>165</sup>	22.92 <sup>35</sup>	43.81 <sup>306</sup>
II	59.274 <sup>129</sup>	63.34 <sup>232</sup>	20.20 <sup>6</sup>	75.84 <sup>332</sup>	47.227 <sup>61</sup>	30.92 <sup>167</sup>	22.57 <sup>21</sup>	40.75 <sup>330</sup>
21	59.403 <sup>194</sup>	61.02 <sup>239</sup>	20.14 <sup>3</sup>	72.52 <sup>339</sup>	47.288 <sup>95</sup>	29.25 <sup>161</sup>	22.36 <sup>6</sup>	37.45 <sup>342</sup>
31	59.597 <sup>254</sup>	58.63 <sup>240</sup>	20.17 <sup>11</sup>	69.13 <sup>333</sup>	47.383 <sup>127</sup>	27.64 <sup>168</sup>	22.30 <sup>10</sup>	34.03 <sup>339</sup>
Feb. 10	59.851 <sup>309</sup>	56.23 <sup>235</sup>	20.28 <sup>19</sup>	65.80 <sup>315</sup>	47.510 <sup>158</sup>	26.16 <sup>129</sup>	22.40 <sup>25</sup>	30.64 <sup>325</sup>
20	60.160 <sup>359</sup>	53.88 <sup>227</sup>	20.47 <sup>27</sup>	62.65 <sup>284</sup>	47.668 <sup>187</sup>	24.87 <sup>103</sup>	22.65 <sup>39</sup>	27.39 <sup>298</sup>
März 2	60.519 <sup>404</sup>	51.61 <sup>213</sup>	20.74 <sup>35</sup>	59.81 <sup>242</sup>	47.855 <sup>215</sup>	23.84 <sup>71</sup>	23.04 <sup>53</sup>	24.41 <sup>259</sup>
12	60.923 <sup>443</sup>	49.48 <sup>195</sup>	21.09 <sup>40</sup>	57.39 <sup>191</sup>	48.070 <sup>240</sup>	23.13 <sup>36</sup>	23.57 <sup>64</sup>	21.82 <sup>211</sup>
22	61.366 <sup>475</sup>	47.53 <sup>174</sup>	21.49 <sup>46</sup>	55.48 <sup>133</sup>	48.310 <sup>263</sup>	22.77 <sup>3</sup>	24.21 <sup>73</sup>	19.71 <sup>154</sup>
Apr. I	61.841 <sup>501</sup>	45.79 <sup>150</sup>	21.95 <sup>49</sup>	54.15 <sup>71</sup>	48.573 <sup>281</sup>	22.80 <sup>41</sup>	24.94 <sup>79</sup>	18.17 <sup>94</sup>
II	62.342 <sup>520</sup>	44.29 <sup>122</sup>	22.44 <sup>52</sup>	53.44 <sup>7</sup>	48.854 <sup>295</sup>	23.21 <sup>79</sup>	25.73 <sup>84</sup>	17.23 <sup>29</sup>
21	62.862 <sup>531</sup>	43.07 <sup>91</sup>	22.96 <sup>52</sup>	53.37 <sup>57</sup>	49.149 <sup>305</sup>	24.00 <sup>115</sup>	26.57 <sup>84</sup>	16.94 <sup>35</sup>
Mai I	63.393 <sup>532</sup>	42.16 <sup>59</sup>	23.48 <sup>52</sup>	53.94 <sup>118</sup>	49.454 <sup>308</sup>	25.15 <sup>146</sup>	27.41 <sup>83</sup>	17.29 <sup>96</sup>
II	63.925 <sup>523</sup>	41.57 <sup>24</sup>	24.00 <sup>50</sup>	55.12 <sup>175</sup>	49.762 <sup>304</sup>	26.61 <sup>173</sup>	28.24 <sup>79</sup>	18.25 <sup>155</sup>
21	64.448 <sup>505</sup>	41.33 <sup>11</sup>	24.50 <sup>46</sup>	56.87 <sup>225</sup>	50.066 <sup>295</sup>	28.34 <sup>194</sup>	29.03 <sup>72</sup>	19.80 <sup>208</sup>
31	64.953 <sup>474</sup>	41.44 <sup>46</sup>	24.96 <sup>41</sup>	59.12 <sup>268</sup>	50.361 <sup>278</sup>	30.28 <sup>209</sup>	29.75 <sup>63</sup>	21.88 <sup>253</sup>
Juni 10	65.427 <sup>433</sup>	41.90 <sup>81</sup>	25.37 <sup>35</sup>	61.80 <sup>303</sup>	50.639 <sup>255</sup>	32.37 <sup>217</sup>	30.38 <sup>53</sup>	24.41 <sup>291</sup>
20	65.860 <sup>381</sup>	42.71 <sup>113</sup>	25.72 <sup>28</sup>	64.83 <sup>330</sup>	50.894 <sup>224</sup>	34.54 <sup>221</sup>	30.91 <sup>41</sup>	27.32 <sup>322</sup>
30	66.241 <sup>321</sup>	43.84 <sup>142</sup>	26.00 <sup>21</sup>	68.13 <sup>349</sup>	51.118 <sup>189</sup>	36.75 <sup>218</sup>	31.32 <sup>28</sup>	30.54 <sup>344</sup>
Juli 10	66.562 <sup>251</sup>	45.26 <sup>166</sup>	26.21 <sup>13</sup>	71.62 <sup>357</sup>	51.307 <sup>149</sup>	38.93 <sup>209</sup>	31.60 <sup>14</sup>	33.98 <sup>356</sup>
20	66.813 <sup>177</sup>	46.92 <sup>186</sup>	26.34 <sup>4</sup>	75.19 <sup>359</sup>	51.456 <sup>106</sup>	41.02 <sup>197</sup>	31.74 <sup>0</sup>	37.54 <sup>361</sup>
29 <sup>*)</sup>	66.990 <sup>99</sup>	48.78 <sup>199</sup>	26.38 <sup>4</sup>	78.78 <sup>351</sup>	51.562 <sup>61</sup>	42.99 <sup>180</sup>	31.74 <sup>14</sup>	41.15 <sup>358</sup>
Aug. 8	67.089 <sup>20</sup>	50.77 <sup>204</sup>	26.34 <sup>12</sup>	82.29 <sup>337</sup>	51.623 <sup>17</sup>	44.79 <sup>160</sup>	31.60 <sup>28</sup>	44.73 <sup>346</sup>
18	67.109 <sup>58</sup>	52.81 <sup>203</sup>	26.22 <sup>21</sup>	85.66 <sup>315</sup>	51.640 <sup>26</sup>	46.39 <sup>138</sup>	31.32 <sup>40</sup>	48.19 <sup>328</sup>
28	67.051 <sup>128</sup>	54.84 <sup>193</sup>	26.01 <sup>27</sup>	88.81 <sup>285</sup>	51.614 <sup>66</sup>	47.77 <sup>115</sup>	30.92 <sup>51</sup>	51.47 <sup>302</sup>
Sept. 7	66.923 <sup>192</sup>	56.77 <sup>176</sup>	25.74 <sup>33</sup>	91.66 <sup>251</sup>	51.548 <sup>99</sup>	48.92 <sup>89</sup>	30.41 <sup>62</sup>	54.49 <sup>270</sup>
17	66.731 <sup>243</sup>	58.53 <sup>150</sup>	25.41 <sup>38</sup>	94.17 <sup>210</sup>	51.449 <sup>127</sup>	49.81 <sup>63</sup>	29.79 <sup>72</sup>	57.19 <sup>231</sup>
27	66.488 <sup>281</sup>	60.03 <sup>119</sup>	25.03 <sup>43</sup>	96.27 <sup>165</sup>	51.322 <sup>147</sup>	50.44 <sup>37</sup>	29.07 <sup>79</sup>	59.50 <sup>188</sup>
Okt. 7	66.207 <sup>302</sup>	61.22 <sup>82</sup>	24.60 <sup>45</sup>	97.92 <sup>116</sup>	51.175 <sup>157</sup>	50.81 <sup>11</sup>	28.28 <sup>83</sup>	61.38 <sup>140</sup>
17	65.905 <sup>308</sup>	62.04 <sup>41</sup>	24.15 <sup>47</sup>	99.08 <sup>63</sup>	51.018 <sup>159</sup>	50.92 <sup>16</sup>	27.45 <sup>86</sup>	62.78 <sup>87</sup>
27	65.597 <sup>297</sup>	62.45 <sup>1</sup>	23.68 <sup>46</sup>	99.71 <sup>7</sup>	50.859 <sup>153</sup>	50.76 <sup>41</sup>	26.59 <sup>88</sup>	63.65 <sup>31</sup>
Nov. 6	65.300 <sup>269</sup>	62.44 <sup>45</sup>	23.22 <sup>45</sup>	99.78 <sup>50</sup>	50.706 <sup>139</sup>	50.35 <sup>67</sup>	25.71 <sup>86</sup>	63.96 <sup>26</sup>
16	65.031 <sup>229</sup>	61.99 <sup>87</sup>	22.77 <sup>42</sup>	99.28 <sup>106</sup>	50.567 <sup>118</sup>	49.68 <sup>91</sup>	24.85 <sup>81</sup>	63.70 <sup>85</sup>
26	64.802 <sup>176</sup>	61.12 <sup>125</sup>	22.35 <sup>38</sup>	98.22 <sup>160</sup>	50.449 <sup>91</sup>	48.77 <sup>112</sup>	24.04 <sup>76</sup>	62.85 <sup>141</sup>
Dez. 6	64.626 <sup>115</sup>	59.87 <sup>159</sup>	21.97 <sup>32</sup>	96.62 <sup>211</sup>	50.358 <sup>61</sup>	47.65 <sup>132</sup>	23.28 <sup>67</sup>	61.44 <sup>195</sup>
16	64.511 <sup>49</sup>	58.28 <sup>189</sup>	21.65 <sup>26</sup>	94.51 <sup>256</sup>	50.297 <sup>28</sup>	46.33 <sup>148</sup>	22.61 <sup>57</sup>	59.49 <sup>243</sup>
26	64.462 <sup>21</sup>	56.39 <sup>211</sup>	21.39 <sup>20</sup>	91.95 <sup>292</sup>	50.269 <sup>6</sup>	44.85 <sup>159</sup>	22.04 <sup>44</sup>	57.06 <sup>283</sup>
36	64.483	54.28	21.19	89.03	50.275	43.26	21.60	54.23
Mittl. Ort sec $\delta$ , tg $\delta$	62.530 1.834	50.69 -1.538	23.61 2.184	78.16 +1.942	49.257 1.019	39.06 +0.196	27.92 3.792	41.72 +3.658

\*) Bei Stern 768) und 770) lies Juli 30



# Obere Kulmination Greenwich

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Tag	769) α Indi		771) β Delphini		773) υ Capricorni		774) α Delphini	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	20 <sup>h</sup> 32 <sup>m</sup>	-47° 32'	20 <sup>h</sup> 34 <sup>m</sup>	+14° 20'	20 <sup>h</sup> 35 <sup>m</sup>	-18° 23'	20 <sup>h</sup> 36 <sup>m</sup>	+15° 39'
Jan. 1	32.016 <sup>46</sup>	40.80 <sup>170</sup>	11.115 <sup>18</sup>	43.67 <sup>179</sup>	58.486 <sup>41</sup>	34.72 <sup>0</sup>	18.359 <sup>14</sup>	32.20 <sup>184</sup>
11	32.062 <sup>99</sup>	39.10 <sup>184</sup>	11.133 <sup>53</sup>	41.88 <sup>182</sup>	58.527 <sup>78</sup>	34.72 <sup>8</sup>	18.373 <sup>50</sup>	30.36 <sup>187</sup>
21	32.161 <sup>150</sup>	37.26 <sup>194</sup>	11.186 <sup>88</sup>	40.06 <sup>177</sup>	58.605 <sup>111</sup>	34.64 <sup>18</sup>	18.423 <sup>84</sup>	28.49 <sup>184</sup>
31	32.311 <sup>197</sup>	35.32 <sup>200</sup>	11.274 <sup>121</sup>	38.29 <sup>165</sup>	58.716 <sup>144</sup>	34.46 <sup>30</sup>	18.507 <sup>118</sup>	26.65 <sup>172</sup>
Feb. 10	32.508 <sup>241</sup>	33.32 <sup>201</sup>	11.395 <sup>153</sup>	36.64 <sup>146</sup>	58.860 <sup>175</sup>	34.16 <sup>42</sup>	18.625 <sup>151</sup>	24.93 <sup>152</sup>
20	32.749 <sup>283</sup>	31.31 <sup>200</sup>	11.548 <sup>183</sup>	35.18 <sup>119</sup>	59.035 <sup>203</sup>	33.74 <sup>56</sup>	18.776 <sup>181</sup>	23.41 <sup>125</sup>
März 2	33.032 <sup>319</sup>	29.31 <sup>194</sup>	11.731 <sup>212</sup>	33.99 <sup>86</sup>	59.238 <sup>231</sup>	33.18 <sup>71</sup>	18.957 <sup>210</sup>	22.16 <sup>92</sup>
12	33.351 <sup>353</sup>	27.37 <sup>185</sup>	11.943 <sup>238</sup>	33.13 <sup>49</sup>	59.469 <sup>255</sup>	32.47 <sup>86</sup>	19.167 <sup>237</sup>	21.24 <sup>54</sup>
22	33.704 <sup>382</sup>	25.52 <sup>174</sup>	12.181 <sup>261</sup>	32.64 <sup>9</sup>	59.724 <sup>278</sup>	31.61 <sup>99</sup>	19.404 <sup>261</sup>	20.70 <sup>14</sup>
April 1	34.086 <sup>406</sup>	23.78 <sup>157</sup>	12.442 <sup>281</sup>	32.55 <sup>32</sup>	60.002 <sup>297</sup>	30.62 <sup>112</sup>	19.665 <sup>281</sup>	20.56 <sup>28</sup>
11	34.492 <sup>426</sup>	22.21 <sup>139</sup>	12.723 <sup>296</sup>	32.87 <sup>73</sup>	60.299 <sup>313</sup>	29.50 <sup>121</sup>	19.946 <sup>296</sup>	20.84 <sup>71</sup>
21	34.918 <sup>438</sup>	20.82 <sup>117</sup>	13.019 <sup>307</sup>	33.60 <sup>111</sup>	60.612 <sup>324</sup>	28.29 <sup>129</sup>	20.242 <sup>307</sup>	21.55 <sup>110</sup>
Mai 1	35.356 <sup>443</sup>	19.65 <sup>91</sup>	13.326 <sup>310</sup>	34.71 <sup>146</sup>	60.936 <sup>329</sup>	27.00 <sup>131</sup>	20.549 <sup>311</sup>	22.65 <sup>145</sup>
11	35.799 <sup>440</sup>	18.74 <sup>64</sup>	13.636 <sup>307</sup>	36.17 <sup>175</sup>	61.265 <sup>329</sup>	25.69 <sup>131</sup>	20.860 <sup>309</sup>	24.10 <sup>176</sup>
21	36.239 <sup>428</sup>	18.10 <sup>35</sup>	13.943 <sup>297</sup>	37.92 <sup>200</sup>	61.594 <sup>321</sup>	24.38 <sup>125</sup>	21.169 <sup>298</sup>	25.86 <sup>201</sup>
31	36.667 <sup>406</sup>	17.75 <sup>4</sup>	14.240 <sup>281</sup>	39.92 <sup>217</sup>	61.915 <sup>307</sup>	23.13 <sup>116</sup>	21.467 <sup>282</sup>	27.87 <sup>220</sup>
Juni 10	37.073 <sup>376</sup>	17.71 <sup>28</sup>	14.521 <sup>257</sup>	42.09 <sup>229</sup>	62.222 <sup>284</sup>	21.97 <sup>104</sup>	21.749 <sup>259</sup>	30.07 <sup>233</sup>
20	37.449 <sup>336</sup>	17.99 <sup>58</sup>	14.778 <sup>227</sup>	44.38 <sup>233</sup>	62.506 <sup>256</sup>	20.93 <sup>89</sup>	22.008 <sup>229</sup>	32.40 <sup>239</sup>
30	37.785 <sup>288</sup>	18.57 <sup>86</sup>	15.005 <sup>192</sup>	46.71 <sup>233</sup>	62.762 <sup>220</sup>	20.04 <sup>71</sup>	22.237 <sup>192</sup>	34.79 <sup>238</sup>
Juli 10	38.073 <sup>233</sup>	19.43 <sup>112</sup>	15.197 <sup>151</sup>	49.04 <sup>226</sup>	62.982 <sup>180</sup>	19.33 <sup>52</sup>	22.429 <sup>153</sup>	37.17 <sup>233</sup>
20	38.306 <sup>172</sup>	20.55 <sup>135</sup>	15.348 <sup>108</sup>	51.30 <sup>214</sup>	63.162 <sup>135</sup>	18.81 <sup>33</sup>	22.582 <sup>109</sup>	39.50 <sup>221</sup>
30	38.478 <sup>108</sup>	21.90 <sup>151</sup>	15.456 <sup>63</sup>	53.44 <sup>198</sup>	63.297 <sup>89</sup>	18.48 <sup>14</sup>	22.691 <sup>63</sup>	41.71 <sup>205</sup>
Aug. 8	38.586 <sup>43</sup>	23.41 <sup>162</sup>	15.519 <sup>18</sup>	55.42 <sup>179</sup>	63.386 <sup>41</sup>	18.34 <sup>3</sup>	22.754 <sup>19</sup>	43.76 <sup>186</sup>
18	38.629 <sup>21</sup>	25.03 <sup>167</sup>	15.537 <sup>25</sup>	57.21 <sup>156</sup>	63.427 <sup>6</sup>	18.37 <sup>18</sup>	22.773 <sup>25</sup>	45.62 <sup>164</sup>
28	38.608 <sup>80</sup>	26.70 <sup>164</sup>	15.512 <sup>65</sup>	58.77 <sup>131</sup>	63.421 <sup>48</sup>	18.55 <sup>31</sup>	22.748 <sup>65</sup>	47.26 <sup>138</sup>
Sept. 7	38.528 <sup>134</sup>	28.34 <sup>154</sup>	15.447 <sup>100</sup>	60.08 <sup>105</sup>	63.373 <sup>86</sup>	18.86 <sup>41</sup>	22.683 <sup>99</sup>	48.64 <sup>111</sup>
17	38.394 <sup>177</sup>	29.88 <sup>139</sup>	15.347 <sup>128</sup>	61.13 <sup>77</sup>	63.287 <sup>116</sup>	19.27 <sup>47</sup>	22.584 <sup>128</sup>	49.75 <sup>83</sup>
27	38.217 <sup>210</sup>	31.27 <sup>116</sup>	15.219 <sup>148</sup>	61.90 <sup>49</sup>	63.171 <sup>138</sup>	19.74 <sup>50</sup>	22.456 <sup>149</sup>	50.58 <sup>54</sup>
Okt. 7	38.007 <sup>229</sup>	32.43 <sup>89</sup>	15.071 <sup>159</sup>	62.39 <sup>20</sup>	63.033 <sup>151</sup>	20.24 <sup>51</sup>	22.307 <sup>161</sup>	51.12 <sup>24</sup>
17	37.778 <sup>235</sup>	33.32 <sup>57</sup>	14.912 <sup>163</sup>	62.59 <sup>9</sup>	62.882 <sup>155</sup>	20.75 <sup>48</sup>	22.146 <sup>164</sup>	51.36 <sup>5</sup>
27	37.543 <sup>228</sup>	33.89 <sup>22</sup>	14.749 <sup>157</sup>	62.50 <sup>38</sup>	62.727 <sup>149</sup>	21.23 <sup>43</sup>	21.982 <sup>159</sup>	51.31 <sup>36</sup>
Nov. 6	37.315 <sup>209</sup>	34.11 <sup>14</sup>	14.592 <sup>144</sup>	62.12 <sup>66</sup>	62.578 <sup>133</sup>	21.66 <sup>38</sup>	21.823 <sup>146</sup>	50.95 <sup>65</sup>
16	37.106 <sup>178</sup>	33.97 <sup>48</sup>	14.448 <sup>123</sup>	61.46 <sup>93</sup>	62.445 <sup>111</sup>	22.04 <sup>32</sup>	21.677 <sup>126</sup>	50.30 <sup>93</sup>
26	36.928 <sup>137</sup>	33.49 <sup>82</sup>	14.325 <sup>98</sup>	60.53 <sup>118</sup>	62.334 <sup>83</sup>	22.36 <sup>25</sup>	21.551 <sup>102</sup>	49.37 <sup>119</sup>
Dez. 6	36.791 <sup>90</sup>	32.67 <sup>112</sup>	14.227 <sup>68</sup>	59.35 <sup>140</sup>	62.251 <sup>50</sup>	22.61 <sup>17</sup>	21.449 <sup>71</sup>	48.18 <sup>143</sup>
16	36.701 <sup>38</sup>	31.55 <sup>138</sup>	14.159 <sup>36</sup>	57.95 <sup>158</sup>	62.201 <sup>15</sup>	22.78 <sup>11</sup>	21.378 <sup>39</sup>	46.75 <sup>162</sup>
26	36.663 <sup>14</sup>	30.17 <sup>161</sup>	14.123 <sup>1</sup>	56.37 <sup>171</sup>	62.186 <sup>22</sup>	22.89 <sup>3</sup>	21.339 <sup>5</sup>	45.13 <sup>176</sup>
36	36.677	28.56	14.122	54.66	62.208	22.92	21.334	43.37
Mittl. Ort sec δ, εg δ	34.761 1.481	25.79 -1.093	13.169 1.032	49.56 +0.256	60.622 1.054	23.28 -0.332	20.413 1.039	37.84 +0.280

# Scheinbare Sternörter 1929

Tag	775) β Pavonis		777) α Cygni		780) ε Cygni		781) ε A(Quarii	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	20 <sup>h</sup> 38 <sup>m</sup>	−66° 27'	20 <sup>h</sup> 38 <sup>m</sup>	+45° 1'	20 <sup>h</sup> 43 <sup>m</sup>	+33° 41'	20 <sup>h</sup> 43 <sup>m</sup>	−9° 45'
Jan. I	30.90 <sub>0</sub>	53.18 <sub>262</sub>	58.234 <sub>53</sub>	32.24 <sub>283</sub>	18.080 <sub>23</sub>	70.09 <sub>249</sub>	47.988 <sub>30</sub>	34.34 <sub>50</sub>
II	30.90 <sub>10</sub>	50.56 <sub>280</sub>	58.181 <sub>4</sub>	29.41 <sub>298</sub>	18.057 <sub>17</sub>	67.60 <sub>261</sub>	48.018 <sub>64</sub>	34.84 <sub>43</sub>
21	31.00 <sub>19</sub>	47.76 <sub>289</sub>	58.177 <sub>48</sub>	26.43 <sub>303</sub>	18.074 <sub>60</sub>	64.99 <sub>263</sub>	48.082 <sub>97</sub>	35.27 <sub>33</sub>
31	31.19 <sub>27</sub>	44.87 <sub>291</sub>	58.225 <sub>99</sub>	23.40 <sub>295</sub>	18.134 <sub>101</sub>	62.36 <sub>254</sub>	48.179 <sub>128</sub>	35.60 <sub>21</sub>
Feb. 10	31.46 <sub>36</sub>	41.96 <sub>286</sub>	58.324 <sub>149</sub>	20.45 <sub>277</sub>	18.235 <sub>141</sub>	59.82 <sub>235</sub>	48.307 <sub>158</sub>	35.81 <sub>7</sub>
20	31.82 <sub>43</sub>	39.10 <sub>275</sub>	58.473 <sub>197</sub>	17.68 <sub>246</sub>	18.376 <sub>180</sub>	57.47 <sub>206</sub>	48.465 <sub>186</sub>	35.88 <sub>12</sub>
März 2	32.25 <sub>49</sub>	36.35 <sub>259</sub>	58.670 <sub>241</sub>	15.22 <sub>206</sub>	18.556 <sub>217</sub>	55.41 <sub>169</sub>	48.651 <sub>214</sub>	35.76 <sub>32</sub>
12	32.74 <sub>55</sub>	33.76 <sub>237</sub>	58.911 <sub>282</sub>	13.16 <sub>159</sub>	18.773 <sub>251</sub>	53.72 <sub>123</sub>	48.865 <sub>239</sub>	35.44 <sub>53</sub>
22	33.29 <sub>61</sub>	31.39 <sub>211</sub>	59.193 <sub>316</sub>	11.57 <sub>104</sub>	19.024 <sub>280</sub>	52.49 <sub>74</sub>	49.104 <sub>262</sub>	34.91 <sub>74</sub>
Apr. I	33.90 <sub>64</sub>	29.28 <sub>180</sub>	59.509 <sub>344</sub>	10.53 <sub>46</sub>	19.304 <sub>305</sub>	51.75 <sub>21</sub>	49.366 <sub>282</sub>	34.17 <sub>95</sub>
II	34.54 <sub>67</sub>	27.48 <sub>146</sub>	59.853 <sub>363</sub>	10.07 <sub>13</sub>	19.609 <sub>323</sub>	51.54 <sub>33</sub>	49.648 <sub>298</sub>	33.22 <sub>114</sub>
21	35.21 <sub>69</sub>	26.02 <sub>109</sub>	60.216 <sub>374</sub>	10.20 <sub>72</sub>	19.932 <sub>335</sub>	51.87 <sub>86</sub>	49.946 <sub>311</sub>	32.08 <sub>129</sub>
Mai I	35.90 <sub>70</sub>	24.93 <sub>69</sub>	60.590 <sub>376</sub>	10.92 <sub>127</sub>	20.267 <sub>339</sub>	52.73 <sub>135</sub>	50.257 <sub>317</sub>	30.79 <sub>142</sub>
II	36.60 <sub>69</sub>	24.24 <sub>27</sub>	60.966 <sub>368</sub>	12.19 <sub>178</sub>	20.606 <sub>334</sub>	54.08 <sub>180</sub>	50.574 <sub>317</sub>	29.37 <sub>149</sub>
21	37.29 <sub>67</sub>	23.97 <sub>15</sub>	61.334 <sub>351</sub>	13.97 <sub>224</sub>	20.940 <sub>323</sub>	55.88 <sub>219</sub>	50.891 <sub>311</sub>	27.88 <sub>151</sub>
31	37.96 <sub>63</sub>	24.12 <sub>57</sub>	61.685 <sub>324</sub>	16.21 <sub>262</sub>	21.263 <sub>302</sub>	58.07 <sub>250</sub>	51.202 <sub>298</sub>	26.37 <sub>150</sub>
Juni 10	38.59 <sub>58</sub>	24.69 <sub>97</sub>	62.009 <sub>289</sub>	18.83 <sub>291</sub>	21.565 <sub>275</sub>	60.57 <sub>276</sub>	51.500 <sub>278</sub>	24.87 <sub>144</sub>
20	39.17 <sub>52</sub>	25.66 <sub>135</sub>	62.298 <sub>247</sub>	21.74 <sub>314</sub>	21.840 <sub>239</sub>	63.33 <sub>292</sub>	51.778 <sub>250</sub>	23.43 <sub>133</sub>
30	39.69 <sub>44</sub>	27.01 <sub>169</sub>	62.545 <sub>198</sub>	24.88 <sub>328</sub>	22.079 <sub>199</sub>	66.25 <sub>303</sub>	52.028 <sub>216</sub>	22.10 <sub>120</sub>
Juli 10	40.13 <sub>35</sub>	28.70 <sub>198</sub>	62.743 <sub>145</sub>	28.16 <sub>333</sub>	22.278 <sub>153</sub>	69.28 <sub>304</sub>	52.244 <sub>177</sub>	20.90 <sub>105</sub>
20	40.48 <sub>26</sub>	30.68 <sub>221</sub>	62.888 <sub>89</sub>	31.49 <sub>332</sub>	22.431 <sub>104</sub>	72.32 <sub>299</sub>	52.421 <sub>135</sub>	19.85 <sub>86</sub>
30	40.74 <sub>15</sub>	32.89 <sub>236</sub>	62.977 <sub>31</sub>	34.81 <sub>322</sub>	22.535 <sub>54</sub>	75.31 <sub>287</sub>	52.556 <sub>90</sub>	18.99 <sub>67</sub>
Aug. 8	40.89 <sub>4</sub>	35.25 <sub>243</sub>	63.008 <sub>25</sub>	38.03 <sub>306</sub>	22.589 <sub>3</sub>	78.18 <sub>271</sub>	52.646 <sub>44</sub>	18.32 <sub>48</sub>
18	40.93 <sub>6</sub>	37.68 <sub>243</sub>	62.983 <sub>80</sub>	41.09 <sub>282</sub>	22.592 <sub>44</sub>	80.89 <sub>247</sub>	52.690 <sub>0</sub>	17.84 <sub>30</sub>
28	40.87 <sub>16</sub>	40.11 <sub>231</sub>	62.903 <sub>131</sub>	43.91 <sub>255</sub>	22.548 <sub>89</sub>	83.36 <sub>220</sub>	52.690 <sub>42</sub>	17.54 <sub>13</sub>
Sept. 7	40.71 <sub>25</sub>	42.42 <sub>212</sub>	62.772 <sub>174</sub>	46.46 <sub>221</sub>	22.459 <sub>128</sub>	85.56 <sub>188</sub>	52.648 <sub>78</sub>	17.41 <sub>3</sub>
17	40.46 <sub>32</sub>	44.54 <sub>184</sub>	62.598 <sub>210</sub>	48.67 <sub>183</sub>	22.331 <sub>160</sub>	87.44 <sub>152</sub>	52.570 <sub>108</sub>	17.44 <sub>14</sub>
27	40.14 <sub>38</sub>	46.38 <sub>148</sub>	62.388 <sub>238</sub>	50.50 <sub>140</sub>	22.171 <sub>184</sub>	88.96 <sub>115</sub>	52.462 <sub>130</sub>	17.58 <sub>25</sub>
Okt. 7	39.76 <sub>43</sub>	47.86 <sub>105</sub>	62.150 <sub>255</sub>	51.90 <sub>95</sub>	21.987 <sub>200</sub>	90.11 <sub>74</sub>	52.332 <sub>143</sub>	17.83 <sub>34</sub>
17	39.33 <sub>44</sub>	48.91 <sub>57</sub>	61.895 <sub>265</sub>	52.85 <sub>47</sub>	21.787 <sub>207</sub>	90.85 <sub>32</sub>	52.189 <sub>147</sub>	18.17 <sub>41</sub>
27	38.89 <sub>44</sub>	49.48 <sub>7</sub>	61.630 <sub>262</sub>	53.32 <sub>2</sub>	21.580 <sub>204</sub>	91.17 <sub>12</sub>	52.042 <sub>143</sub>	18.58 <sub>45</sub>
Nov. 6	38.45 <sub>41</sub>	49.55 <sub>44</sub>	61.368 <sub>250</sub>	53.30 <sub>53</sub>	21.376 <sub>193</sub>	91.05 <sub>55</sub>	51.899 <sub>130</sub>	19.03 <sub>49</sub>
16	38.04 <sub>36</sub>	49.11 <sub>95</sub>	61.118 <sub>230</sub>	52.77 <sub>104</sub>	21.183 <sub>174</sub>	90.50 <sub>99</sub>	51.769 <sub>110</sub>	19.52 <sub>52</sub>
26	37.68 <sub>30</sub>	48.16 <sub>142</sub>	60.888 <sub>201</sub>	51.73 <sub>151</sub>	21.009 <sub>149</sub>	89.51 <sub>139</sub>	51.659 <sub>84</sub>	20.04 <sub>53</sub>
Dez. 6	37.38 <sub>23</sub>	46.74 <sub>184</sub>	60.687 <sub>167</sub>	50.22 <sub>196</sub>	20.860 <sub>118</sub>	88.12 <sub>177</sub>	51.575 <sub>54</sub>	20.57 <sub>53</sub>
16	37.15 <sub>14</sub>	44.90 <sub>221</sub>	60.520 <sub>126</sub>	48.26 <sub>234</sub>	20.742 <sub>84</sub>	86.35 <sub>209</sub>	51.521 <sub>23</sub>	21.10 <sub>52</sub>
26	37.01 <sub>5</sub>	42.69 <sub>251</sub>	60.394 <sub>80</sub>	45.92 <sub>265</sub>	20.658 <sub>45</sub>	84.26 <sub>235</sub>	51.498 <sub>12</sub>	21.62 <sub>50</sub>
36	36.96	40.18	60.314	43.27	20.613	81.91	51.510	22.12
Mittl. Ort	34.93	36.39	60.655	33.00	20.273	72.44	50.035	24.14
sec δ, tg δ	2.504	−2.295	1.415	+1.001	1.202	+0.667	1.015	−0.172

# Obere Kulmination Greenwich

Tag	783) $\eta$ Cephei		784) $\lambda$ Cygni		785) $\beta$ Indi		786) $\zeta$ Vulpeculae	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$20^{\text{h}} 43^{\text{m}}$	$+61^{\circ} 33'$	$20^{\text{h}} 44^{\text{m}}$	$+36^{\circ} 13'$	$20^{\text{h}} 49^{\text{m}}$	$-58^{\circ} 43'$	$20^{\text{h}} 51^{\text{m}}$	$+27^{\circ} 46'$
Jan. I	47.77 <sup>16</sup>	46.81 <sup>297</sup>	36.296 <sup>32</sup>	42.76 <sup>257</sup>	13.168 <sup>4</sup>	41.39 <sup>224</sup>	29.901 <sup>19</sup>	69.11 <sup>225</sup>
II	47.61 <sup>8</sup>	43.84 <sup>321</sup>	36.264 <sup>11</sup>	40.19 <sup>270</sup>	13.172 <sup>74</sup>	39.15 <sup>243</sup>	29.882 <sup>18</sup>	66.86 <sup>236</sup>
2I	47.53 <sup>0</sup>	40.63 <sup>331</sup>	36.275 <sup>54</sup>	37.49 <sup>273</sup>	13.246 <sup>141</sup>	36.72 <sup>256</sup>	29.900 <sup>57</sup>	64.50 <sup>237</sup>
3I	47.53 <sup>8</sup>	37.32 <sup>329</sup>	36.329 <sup>97</sup>	34.76 <sup>265</sup>	13.387 <sup>206</sup>	34.16 <sup>263</sup>	29.957 <sup>94</sup>	62.13 <sup>228</sup>
Feb. IO	47.61 <sup>16</sup>	34.03 <sup>313</sup>	36.426 <sup>139</sup>	32.11 <sup>246</sup>	13.593 <sup>266</sup>	31.53 <sup>263</sup>	30.051 <sup>132</sup>	59.85 <sup>210</sup>
20	47.77 <sup>24</sup>	30.90 <sup>287</sup>	36.565 <sup>180</sup>	29.65 <sup>217</sup>	13.859 <sup>323</sup>	28.90 <sup>258</sup>	30.183 <sup>168</sup>	57.75 <sup>183</sup>
März 2	48.01 <sup>31</sup>	28.03 <sup>248</sup>	36.745 <sup>218</sup>	27.48 <sup>179</sup>	14.182 <sup>374</sup>	26.32 <sup>248</sup>	30.351 <sup>203</sup>	55.92 <sup>148</sup>
I2	48.32 <sup>37</sup>	25.55 <sup>199</sup>	36.963 <sup>254</sup>	25.69 <sup>134</sup>	14.556 <sup>421</sup>	23.84 <sup>232</sup>	30.554 <sup>235</sup>	54.44 <sup>106</sup>
22	48.69 <sup>42</sup>	23.56 <sup>144</sup>	37.217 <sup>284</sup>	24.35 <sup>83</sup>	14.977 <sup>462</sup>	21.52 <sup>214</sup>	30.789 <sup>263</sup>	53.38 <sup>59</sup>
Apr. I	49.11 <sup>47</sup>	22.12 <sup>83</sup>	37.501 <sup>310</sup>	23.52 <sup>29</sup>	15.439 <sup>496</sup>	19.38 <sup>189</sup>	31.052 <sup>288</sup>	52.79 <sup>10</sup>
II	49.58 <sup>50</sup>	21.29 <sup>20</sup>	37.811 <sup>329</sup>	23.23 <sup>26</sup>	15.935 <sup>524</sup>	17.49 <sup>162</sup>	31.340 <sup>307</sup>	52.69 <sup>40</sup>
2I	50.08 <sup>51</sup>	21.09 <sup>43</sup>	38.140 <sup>341</sup>	23.49 <sup>80</sup>	16.459 <sup>543</sup>	15.87 <sup>130</sup>	31.647 <sup>321</sup>	53.09 <sup>88</sup>
Mai I	50.59 <sup>50</sup>	21.52 <sup>105</sup>	38.481 <sup>345</sup>	24.29 <sup>132</sup>	17.002 <sup>553</sup>	14.57 <sup>96</sup>	31.968 <sup>326</sup>	53.97 <sup>134</sup>
II	51.09 <sup>49</sup>	22.57 <sup>162</sup>	38.826 <sup>340</sup>	25.61 <sup>178</sup>	17.555 <sup>551</sup>	13.61 <sup>60</sup>	32.294 <sup>325</sup>	55.31 <sup>175</sup>
2I	51.58 <sup>47</sup>	24.19 <sup>214</sup>	39.166 <sup>328</sup>	27.39 <sup>218</sup>	18.106 <sup>540</sup>	13.01 <sup>22</sup>	32.619 <sup>316</sup>	57.06 <sup>211</sup>
3I	52.05 <sup>42</sup>	26.33 <sup>260</sup>	39.494 <sup>307</sup>	29.57 <sup>252</sup>	18.646 <sup>515</sup>	12.79 <sup>18</sup>	32.935 <sup>298</sup>	59.17 <sup>239</sup>
Juni IO	52.47 <sup>37</sup>	28.93 <sup>296</sup>	39.801 <sup>278</sup>	32.09 <sup>278</sup>	19.161 <sup>480</sup>	12.97 <sup>56</sup>	33.233 <sup>274</sup>	61.56 <sup>262</sup>
20	52.84 <sup>30</sup>	31.89 <sup>326</sup>	40.079 <sup>242</sup>	34.87 <sup>297</sup>	19.641 <sup>432</sup>	13.53 <sup>92</sup>	33.507 <sup>243</sup>	64.18 <sup>276</sup>
30	53.14 <sup>23</sup>	35.15 <sup>347</sup>	40.321 <sup>200</sup>	37.84 <sup>308</sup>	20.073 <sup>374</sup>	14.45 <sup>127</sup>	33.750 <sup>204</sup>	66.94 <sup>283</sup>
Juli IO	53.37 <sup>16</sup>	38.62 <sup>359</sup>	40.521 <sup>153</sup>	40.92 <sup>311</sup>	20.447 <sup>306</sup>	15.72 <sup>158</sup>	33.954 <sup>162</sup>	69.77 <sup>284</sup>
20	53.53 <sup>8</sup>	42.21 <sup>362</sup>	40.674 <sup>103</sup>	44.03 <sup>307</sup>	20.753 <sup>231</sup>	17.30 <sup>183</sup>	34.116 <sup>117</sup>	72.61 <sup>277</sup>
30	53.61 <sup>0</sup>	45.83 <sup>358</sup>	40.777 <sup>52</sup>	47.10 <sup>296</sup>	20.984 <sup>150</sup>	19.13 <sup>201</sup>	34.233 <sup>69</sup>	75.38 <sup>266</sup>
Aug. 8	53.61 <sup>8</sup>	49.41 <sup>346</sup>	40.829 <sup>0</sup>	50.06 <sup>279</sup>	21.134 <sup>68</sup>	21.14 <sup>214</sup>	34.302 <sup>20</sup>	78.04 <sup>248</sup>
I8	53.53 <sup>16</sup>	52.87 <sup>327</sup>	40.829 <sup>49</sup>	52.85 <sup>257</sup>	21.202 <sup>15</sup>	23.28 <sup>217</sup>	34.322 <sup>26</sup>	80.52 <sup>226</sup>
28	53.37 <sup>23</sup>	56.14 <sup>300</sup>	40.780 <sup>95</sup>	55.42 <sup>229</sup>	21.187 <sup>93</sup>	25.45 <sup>213</sup>	34.296 <sup>68</sup>	82.78 <sup>200</sup>
Sept. 7	53.14 <sup>29</sup>	59.14 <sup>267</sup>	40.685 <sup>134</sup>	57.71 <sup>197</sup>	21.094 <sup>164</sup>	27.58 <sup>200</sup>	34.228 <sup>107</sup>	84.78 <sup>170</sup>
17	52.85 <sup>35</sup>	61.81 <sup>229</sup>	40.551 <sup>168</sup>	59.68 <sup>161</sup>	20.930 <sup>225</sup>	29.58 <sup>178</sup>	34.121 <sup>139</sup>	86.48 <sup>137</sup>
27	52.50 <sup>39</sup>	64.10 <sup>186</sup>	40.383 <sup>193</sup>	61.29 <sup>123</sup>	20.705 <sup>272</sup>	31.36 <sup>149</sup>	33.982 <sup>162</sup>	87.85 <sup>102</sup>
Okt. 7	52.11 <sup>41</sup>	65.96 <sup>137</sup>	40.190 <sup>210</sup>	62.52 <sup>80</sup>	20.433 <sup>305</sup>	32.85 <sup>114</sup>	33.820 <sup>178</sup>	88.87 <sup>65</sup>
17	51.70 <sup>43</sup>	67.33 <sup>85</sup>	39.980 <sup>216</sup>	63.32 <sup>37</sup>	20.128 <sup>320</sup>	33.99 <sup>73</sup>	33.642 <sup>186</sup>	89.52 <sup>26</sup>
27	51.27 <sup>44</sup>	68.18 <sup>31</sup>	39.764 <sup>215</sup>	63.69 <sup>8</sup>	19.808 <sup>319</sup>	34.72 <sup>29</sup>	33.456 <sup>184</sup>	89.78 <sup>13</sup>
Nov. 6	50.83 <sup>43</sup>	68.49 <sup>26</sup>	39.549 <sup>203</sup>	63.61 <sup>53</sup>	19.489 <sup>301</sup>	35.01 <sup>18</sup>	33.272 <sup>173</sup>	89.65 <sup>52</sup>
16	50.40 <sup>40</sup>	68.23 <sup>83</sup>	39.346 <sup>186</sup>	63.08 <sup>99</sup>	19.188 <sup>269</sup>	34.83 <sup>63</sup>	33.099 <sup>157</sup>	89.13 <sup>90</sup>
26	50.00 <sup>37</sup>	67.40 <sup>138</sup>	39.160 <sup>160</sup>	62.09 <sup>141</sup>	18.919 <sup>223</sup>	34.20 <sup>106</sup>	32.942 <sup>134</sup>	88.23 <sup>128</sup>
Dez. 6	49.63 <sup>32</sup>	66.02 <sup>190</sup>	39.000 <sup>129</sup>	60.68 <sup>180</sup>	18.696 <sup>167</sup>	33.14 <sup>147</sup>	32.808 <sup>106</sup>	86.95 <sup>161</sup>
16	49.31 <sup>27</sup>	64.12 <sup>237</sup>	38.871 <sup>94</sup>	58.88 <sup>214</sup>	18.529 <sup>104</sup>	31.67 <sup>182</sup>	32.702 <sup>74</sup>	85.34 <sup>189</sup>
26	49.04 <sup>20</sup>	61.75 <sup>276</sup>	38.777 <sup>55</sup>	56.74 <sup>242</sup>	18.425 <sup>36</sup>	29.85 <sup>211</sup>	32.628 <sup>39</sup>	83.45 <sup>213</sup>
36	48.84	58.99	38.722	54.32	18.389	27.74	32.589	81.32
Mittl. Ort sec $\delta$ , tg $\delta$	50.91 2.100	45.18 +1.847	38.524 1.240	44.63 +0.733	16.356 1.926	24.29 -1.646	32.002 1.130	72.23 +0.527

Tag	788) v Cygni		790) ζ Microscopii		793) 6I Cygni pr. <sup>1)</sup>		794) v Aquarii	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	20 <sup>h</sup> 54 <sup>m</sup>	+40° 53'	20 <sup>h</sup> 58 <sup>m</sup>	-38° 54'	21 <sup>h</sup> 3 <sup>m</sup>	+38° 23'	21 <sup>h</sup> 5 <sup>m</sup>	-11° 39'
Jan. 1	29.228	34.01	23.701	51.48	40.526	56.99	41.750	47.43
11	29.172	31.38	23.717	50.30	40.483	54.57	41.761	47.79
21	29.161	28.59	23.777	48.94	40.481	51.99	41.805	48.06
31	29.196	25.74	23.880	47.44	40.523	49.34	41.881	48.22
Feb. 10	29.277	22.94	24.023	45.82	40.609	46.75	41.988	48.25
20	29.405	20.30	24.204	44.12	40.739	44.31	42.126	48.13
März 2	29.578	17.93	24.422	42.35	40.912	42.13	42.293	47.83
12	29.794	15.94	24.675	40.55	41.127	40.32	42.489	47.34
22	30.049	14.39	24.961	38.75	41.381	38.93	42.713	46.64
Apr. 1	30.340	13.36	25.276	36.97	41.669	38.04	42.962	45.75
11	30.659	12.88	25.617	35.26	41.986	37.70	43.235	44.66
21	31.000	12.96	25.980	33.64	42.326	37.91	43.528	43.41
Mai 1	31.355	13.61	26.360	32.16	42.682	38.67	43.836	42.01
11	31.716	14.81	26.750	30.84	43.044	39.95	44.155	40.51
21	32.074	16.50	27.144	29.73	43.406	41.71	44.478	38.95
31	32.420	18.63	27.532	28.86	43.757	43.91	44.797	37.37
Juni 10	32.745	21.13	27.907	28.25	44.088	46.47	45.106	35.84
20	33.039	23.94	28.259	27.92	44.393	49.33	45.398	34.38
30	33.296	26.97	28.581	27.88	44.662	52.39	45.665	33.03
Juli 10	33.510	30.14	28.863	28.13	44.890	55.60	45.901	31.84
20	33.675	33.37	29.100	28.65	45.071	58.87	46.099	30.82
30	33.788	36.60	29.286	29.43	45.202	62.12	46.256	30.00
Aug. 8	33.846	39.75	29.416	30.42	45.280	65.29	46.368	29.38
18	33.850	42.74	29.488	31.59	45.305	68.31	46.434	28.97
28	33.802	45.53	29.504	32.89	45.280	71.12	46.455	28.75
Sept. 7	33.705	48.05	29.467	34.24	45.207	73.67	46.433	28.70
17	33.565	50.26	29.380	35.59	45.092	75.92	46.373	28.81
27	33.389	52.10	29.253	36.89	44.942	77.81	46.280	29.05
Okt. 7	33.185	53.55	29.093	38.06	44.763	79.31	46.163	29.39
17	32.962	54.57	28.911	39.05	44.565	80.40	46.028	29.81
27	32.729	55.14	28.720	39.82	44.357	81.06	45.886	30.27
Nov. 6	32.495	55.23	28.530	40.34	44.147	81.26	45.745	30.76
16	32.269	54.84	28.352	40.57	43.944	80.99	45.613	31.27
26	32.060	53.97	28.195	40.52	43.757	80.26	45.497	31.77
Dez. 6	31.874	52.64	28.069	40.18	43.592	79.09	45.403	32.25
16	31.719	50.88	27.978	39.57	43.455	77.50	45.336	32.71
26	31.600	48.74	27.927	38.71	43.352	75.55	45.299	33.13
36	31.520	46.29	27.919	37.63	43.286	73.30	45.293	33.50
Mittl. Ort	31.517	34.70	26.034	36.00	42.755	57.94	43.724	36.48
sec δ, tg δ	1.323	+0.866	1.285	-0.807	1.276	+0.793	1.021	-0.206

<sup>1)</sup> Die jährliche Parallaxe (0.30) ist bereits berücksichtigt.

Tag	795) Br 2777		797) ζ Cygni		800) α Equulei		803) α Cephei	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	21 <sup>h</sup> 6 <sup>m</sup>	+77° 49'	21 <sup>h</sup> 9 <sup>m</sup>	+29° 55'	21 <sup>h</sup> 12 <sup>m</sup>	+4° 56'	21 <sup>h</sup> 16 <sup>m</sup>	+62° 16'
Jan. 1	51.29	84.54	52.730	63.35	14.593	64.62	50.09	67.19
11	50.68	81.83	52.690	61.13	14.588	63.42	49.87	64.48
21	50.24	78.78	52.686	58.78	14.614	62.22	49.73	61.47
31	49.99	75.51	52.720	56.39	14.672	61.08	49.66	58.28
Feb. 10	49.94	72.16	52.792	54.05	14.761	60.05	49.67	55.02
20	50.08	68.85	52.903	51.86	14.880	59.18	49.76	51.82
März 2	50.41	65.72	53.053	49.91	15.030	58.53	49.94	48.81
12	50.92	62.87	53.239	47.30	15.211	58.14	50.19	46.12
22	51.59	60.44	53.461	47.10	15.420	58.06	50.52	43.84
Apr. 1	52.40	58.50	53.715	46.35	15.656	58.29	50.92	42.07
11	53.32	57.12	53.997	46.08	15.916	58.86	51.37	40.86
21	54.31	56.36	54.302	46.33	16.197	59.75	51.85	40.26
Mai 1	55.34	56.22	54.624	47.08	16.495	60.93	52.36	40.29
11	56.38	56.71	54.955	48.29	16.803	62.39	52.89	40.94
21	57.39	57.80	55.288	49.94	17.115	64.06	53.41	42.17
31	58.34	59.46	55.614	51.97	17.425	65.92	53.91	43.96
Juni 10	59.20	61.62	55.926	54.32	17.724	67.88	54.38	46.24
20	59.94	64.24	56.215	56.92	18.006	69.91	54.80	48.95
30	60.56	67.22	56.474	59.69	18.264	71.94	55.16	52.01
Juli 10	61.03	70.50	56.697	62.58	18.491	73.92	55.46	55.34
20	61.33	73.98	56.878	65.49	18.681	75.81	55.69	58.85
30	61.47	77.60	57.014	68.37	18.831	77.57	55.84	62.47
Aug. 8*	61.44	81.27	57.101	71.16	18.937	79.15	55.90	66.12
18	61.24	84.91	57.139	73.79	18.999	80.54	55.88	69.71
28	60.87	88.43	57.130	76.22	19.018	81.73	55.79	73.16
Sept. 7	60.35	91.78	57.077	78.41	18.995	82.69	55.62	76.41
17	59.69	94.87	56.984	80.30	18.935	83.42	55.38	79.39
27	58.90	97.64	56.856	81.87	18.843	83.93	55.08	82.03
Okt. 7	58.01	100.03	56.702	83.09	18.727	84.22	54.74	84.28
17	57.03	101.97	56.529	83.95	18.595	84.30	54.35	86.08
27	55.99	103.43	56.345	84.41	18.454	84.17	53.93	87.38
Nov. 6	54.91	104.34	56.160	84.47	18.312	83.85	53.50	88.15
16	53.83	104.68	55.981	84.12	18.178	83.34	53.07	88.37
26	52.76	104.43	55.815	83.37	18.057	82.66	52.65	88.01
Dec. 6	51.74	103.59	55.669	82.24	17.956	81.83	52.26	87.07
16	50.80	102.17	55.547	80.74	17.878	80.86	51.90	85.58
26	49.97	100.20	55.455	78.93	17.828	79.78	51.58	83.58
36	49.27	97.78	55.396	76.86	17.807	78.63	51.32	81.14
Mittl. Ort sec δ, tg δ	57.12 4.747	79.90 +4.640	54.803 1.154	65.47 +0.576	16.513 1.004	72.07 +0.087	53.16 2.150	63.47 +1.903

\*) Bei Stern 797), 800) und 803) lies Aug. 9

Tag	804) $\iota$ Pegasi		805) $\gamma$ Pavonis		806) $\zeta$ Capricorni		809) $\beta$ Cephei	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	$21^{\text{h}} 18^{\text{m}}$	$+19^{\circ} 29'$	$21^{\text{h}} 20^{\text{m}}$	$-65^{\circ} 41'$	$21^{\text{h}} 22^{\text{m}}$	$-22^{\circ} 43'$	$21^{\text{h}} 27^{\text{m}}$	$+70^{\circ} 14'$
Jan. I	46.188 <sub>28</sub>	55.30 <sub>179</sub>	32.26 <sub>9</sub>	39.71 <sub>247</sub>	35.044 <sub>3</sub>	25.15 <sub>27</sub>	41.24 <sub>37</sub>	60.98 <sub>258</sub>
II	46.160 <sub>4</sub>	53.51 <sub>188</sub>	32.17 <sub>0</sub>	37.24 <sub>274</sub>	35.041 <sub>31</sub>	24.88 <sub>41</sub>	40.87 <sub>27</sub>	58.40 <sub>294</sub>
2I	46.164 <sub>38</sub>	51.63 <sub>189</sub>	32.17 <sub>7</sub>	34.50 <sub>293</sub>	35.072 <sub>64</sub>	24.47 <sub>55</sub>	40.60 <sub>17</sub>	55.46 <sub>318</sub>
3I	46.202 <sub>71</sub>	49.74 <sub>182</sub>	32.24 <sub>16</sub>	31.57 <sub>305</sub>	35.136 <sub>97</sub>	23.92 <sub>71</sub>	40.43 <sub>6</sub>	52.28 <sub>329</sub>
Feb. 10	46.273 <sub>106</sub>	47.92 <sub>167</sub>	32.40 <sub>24</sub>	28.52 <sub>309</sub>	35.233 <sub>129</sub>	23.21 <sub>85</sub>	40.37 <sub>6</sub>	48.99 <sub>329</sub>
20	46.379 <sub>140</sub>	46.25 <sub>143</sub>	32.64 <sub>32</sub>	25.43 <sub>307</sub>	35.362 <sub>162</sub>	22.36 <sub>101</sub>	40.43 <sub>18</sub>	45.70 <sub>314</sub>
März 2	46.519 <sub>174</sub>	44.82 <sub>113</sub>	32.96 <sub>39</sub>	22.36 <sub>299</sub>	35.524 <sub>192</sub>	21.35 <sub>115</sub>	40.61 <sub>30</sub>	42.56 <sub>288</sub>
12	46.693 <sub>206</sub>	43.69 <sub>77</sub>	33.35 <sub>46</sub>	19.37 <sub>283</sub>	35.716 <sub>223</sub>	20.20 <sub>128</sub>	40.91 <sub>40</sub>	39.68 <sub>250</sub>
22	46.899 <sub>236</sub>	42.92 <sub>37</sub>	33.81 <sub>51</sub>	16.54 <sub>263</sub>	35.939 <sub>252</sub>	18.92 <sub>141</sub>	41.31 <sub>49</sub>	37.18 <sub>203</sub>
Apr. I	47.135 <sub>263</sub>	42.55 <sub>5</sub>	34.32 <sub>56</sub>	13.91 <sub>238</sub>	36.191 <sub>278</sub>	17.51 <sub>150</sub>	41.80 <sub>57</sub>	35.15 <sub>148</sub>
II	47.398 <sub>286</sub>	42.60 <sub>49</sub>	34.88 <sub>61</sub>	11.53 <sub>206</sub>	36.469 <sub>301</sub>	16.01 <sub>157</sub>	42.37 <sub>63</sub>	33.67 <sub>88</sub>
2I	47.684 <sub>304</sub>	43.09 <sub>91</sub>	35.49 <sub>64</sub>	9.47 <sub>172</sub>	36.770 <sub>320</sub>	14.44 <sub>161</sub>	43.00 <sub>67</sub>	32.79 <sub>26</sub>
Mai I	47.988 <sub>315</sub>	44.00 <sub>131</sub>	36.13 <sub>66</sub>	7.75 <sub>133</sub>	37.090 <sub>334</sub>	12.83 <sub>160</sub>	43.67 <sub>68</sub>	32.53 <sub>36</sub>
II	48.303 <sub>319</sub>	45.31 <sub>167</sub>	36.79 <sub>67</sub>	6.42 <sub>92</sub>	37.424 <sub>341</sub>	11.23 <sub>155</sub>	44.35 <sub>68</sub>	32.89 <sub>98</sub>
2I	48.622 <sub>316</sub>	46.98 <sub>196</sub>	37.46 <sub>67</sub>	5.50 <sub>48</sub>	37.765 <sub>341</sub>	9.68 <sub>146</sub>	45.03 <sub>66</sub>	33.87 <sub>155</sub>
3I	48.938 <sub>305</sub>	48.94 <sub>221</sub>	38.13 <sub>65</sub>	5.02 <sub>3</sub>	38.106 <sub>334</sub>	8.22 <sub>132</sub>	45.69 <sub>61</sub>	35.42 <sub>208</sub>
Juni 10	49.243 <sub>287</sub>	51.15 <sub>239</sub>	38.78 <sub>61</sub>	4.99 <sub>41</sub>	38.440 <sub>318</sub>	6.90 <sub>116</sub>	46.30 <sub>55</sub>	37.50 <sub>254</sub>
20	49.530 <sub>261</sub>	53.54 <sub>251</sub>	39.39 <sub>56</sub>	5.40 <sub>85</sub>	38.758 <sub>294</sub>	5.74 <sub>95</sub>	46.85 <sub>48</sub>	40.04 <sub>293</sub>
30	49.791 <sub>228</sub>	56.05 <sub>255</sub>	39.95 <sub>50</sub>	6.25 <sub>125</sub>	39.052 <sub>264</sub>	4.79 <sub>73</sub>	47.33 <sub>39</sub>	42.97 <sub>324</sub>
Juli 10	50.019 <sub>191</sub>	58.60 <sub>254</sub>	40.45 <sub>42</sub>	7.50 <sub>162</sub>	39.316 <sub>226</sub>	4.06 <sub>49</sub>	47.72 <sub>29</sub>	46.21 <sub>348</sub>
20	50.210 <sub>148</sub>	61.14 <sub>248</sub>	40.87 <sub>33</sub>	9.12 <sub>194</sub>	39.542 <sub>184</sub>	3.57 <sub>25</sub>	48.01 <sub>19</sub>	49.69 <sub>363</sub>
30	50.358 <sub>104</sub>	63.62 <sub>235</sub>	41.20 <sub>24</sub>	11.06 <sub>219</sub>	39.726 <sub>138</sub>	3.32 <sub>1</sub>	48.20 <sub>8</sub>	53.32 <sub>371</sub>
Aug. 9	50.462 <sub>59</sub>	65.97 <sub>218</sub>	41.44 <sub>14</sub>	13.25 <sub>236</sub>	39.864 <sub>89</sub>	3.31 <sub>21</sub>	48.28 <sub>2</sub>	57.03 <sub>369</sub>
18	50.521 <sub>13</sub>	68.15 <sub>198</sub>	41.58 <sub>3</sub>	15.61 <sub>245</sub>	39.953 <sub>41</sub>	3.52 <sub>39</sub>	48.26 <sub>13</sub>	60.72 <sub>360</sub>
28	50.534 <sub>30</sub>	70.13 <sub>174</sub>	41.61 <sub>7</sub>	18.06 <sub>245</sub>	39.994 <sub>6</sub>	3.91 <sub>56</sub>	48.13 <sub>24</sub>	64.32 <sub>344</sub>
Sept. 7	50.504 <sub>67</sub>	71.87 <sub>147</sub>	41.54 <sub>16</sub>	20.51 <sub>235</sub>	39.988 <sub>48</sub>	4.47 <sub>67</sub>	47.89 <sub>33</sub>	67.76 <sub>321</sub>
17	50.437 <sub>301</sub>	73.34 <sub>119</sub>	41.38 <sub>24</sub>	22.86 <sub>214</sub>	39.940 <sub>85</sub>	5.14 <sub>75</sub>	47.56 <sub>41</sub>	70.97 <sub>290</sub>
27	50.336 <sub>126</sub>	74.53 <sub>89</sub>	41.14 <sub>32</sub>	25.00 <sub>186</sub>	39.855 <sub>113</sub>	5.89 <sub>78</sub>	47.15 <sub>48</sub>	73.87 <sub>252</sub>
Okt. 7	50.210 <sub>145</sub>	75.42 <sub>58</sub>	40.82 <sub>37</sub>	26.86 <sub>149</sub>	39.742 <sub>135</sub>	6.67 <sub>77</sub>	46.67 <sub>54</sub>	76.39 <sub>211</sub>
17	50.065 <sub>155</sub>	76.00 <sub>26</sub>	40.45 <sub>41</sub>	28.35 <sub>106</sub>	39.607 <sub>146</sub>	7.44 <sub>71</sub>	46.13 <sub>58</sub>	78.50 <sub>161</sub>
27	49.910 <sub>158</sub>	76.26 <sub>6</sub>	40.04 <sub>42</sub>	29.41 <sub>57</sub>	39.461 <sub>149</sub>	8.15 <sub>63</sub>	45.55 <sub>62</sub>	80.11 <sub>109</sub>
Nov. 6	49.752 <sub>150</sub>	76.20 <sub>38</sub>	39.62 <sub>41</sub>	29.98 <sub>6</sub>	39.312 <sub>142</sub>	8.78 <sub>51</sub>	44.93 <sub>63</sub>	81.20 <sub>52</sub>
16	49.600 <sub>142</sub>	75.82 <sub>69</sub>	39.21 <sub>38</sub>	30.04 <sub>47</sub>	39.170 <sub>129</sub>	9.29 <sub>39</sub>	44.30 <sub>62</sub>	81.72 <sub>6</sub>
26	49.460 <sub>123</sub>	75.13 <sub>99</sub>	38.83 <sub>35</sub>	29.57 <sub>99</sub>	39.041 <sub>107</sub>	9.68 <sub>25</sub>	43.68 <sub>60</sub>	81.66 <sub>66</sub>
Dez. 6	49.337 <sub>99</sub>	74.14 <sub>126</sub>	38.48 <sub>29</sub>	28.58 <sub>147</sub>	38.934 <sub>82</sub>	9.93 <sub>10</sub>	43.08 <sub>55</sub>	81.00 <sub>125</sub>
16	49.238 <sub>74</sub>	72.88 <sub>149</sub>	38.19 <sub>21</sub>	27.11 <sub>191</sub>	38.852 <sub>53</sub>	10.03 <sub>5</sub>	42.53 <sub>50</sub>	79.75 <sub>180</sub>
26	49.164 <sub>44</sub>	71.39 <sub>168</sub>	37.98 <sub>14</sub>	25.20 <sub>229</sub>	38.799 <sub>20</sub>	9.98 <sub>20</sub>	42.03 <sub>42</sub>	77.95 <sub>228</sub>
36	49.120	69.71	37.84	22.91	38.779	9.78	41.61	75.67
Mittl. Ort	48.140	59.40	35.66	20.02	37.014	11.56	45.09	55.66
sec $\delta$ , tg $\delta$	1.061	+0.354	2.429	-2.214	1.084	-0.419	2.959	+2.785

Tag	808) $\beta$ Aquarii		810) $\nu$ Octantis		811) $\gamma$ Cygni		815) $\epsilon$ Pegasi	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	21 <sup>h</sup> 27 <sup>m</sup>	-5° 52'	21 <sup>h</sup> 33 <sup>m</sup>	-77° 42'	21 <sup>h</sup> 34 <sup>m</sup>	+40° 5'	21 <sup>h</sup> 40 <sup>m</sup>	+9° 32'
Jan. I	47.485	73.75	33.40	46.38	3.935	38.79	40.094	49.03
II	47.475	74.37	33.07	43.55	3.844	36.49	40.063	47.73
21	47.495	74.93	32.91	40.42	3.791	33.96	40.060	46.40
31	47.545	75.40	32.91	37.08	3.779	31.30	40.086	45.09
Feb. 10	47.625	75.73	33.08	33.61	3.812	28.63	40.143	43.87
20	47.736	75.91	33.42	30.10	3.890	26.05	40.231	42.79
März 2	47.877	75.89	33.91	26.65	4.014	23.66	40.351	41.92
12	48.048	75.65	34.54	23.31	4.184	21.8	40.504	41.31
22	48.248	75.17	35.31	20.16	4.398	19.88	40.689	41.01
Apr. I	48.477	74.45	36.20	17.28	4.652	18.63	40.904	41.05
II	48.732	73.48	37.19	14.71	4.943	17.90	41.148	41.43
21	49.009	72.29	38.27	12.51	5.264	17.70	41.418	42.17
Mai I	49.306	70.90	39.41	10.73	5.607	18.06	41.708	43.25
II	49.616	69.35	40.59	9.39	5.966	18.95	42.013	44.64
21	49.933	67.67	41.79	8.53	6.330	20.34	42.327	46.30
31	50.251	65.92	42.99	8.18	6.690	22.20	42.642	48.18
Juni 10	50.562	64.15	44.16	8.32	7.037	24.46	42.951	50.23
20	50.858	62.41	45.26	8.97	7.361	27.06	43.246	52.40
30	51.132	60.75	46.28	10.09	7.655	29.92	43.520	54.61
Juli 10	51.378	59.20	47.18	11.66	7.911	32.98	43.766	56.82
20	51.589	57.80	47.95	13.64	8.122	36.16	43.978	58.97
30	51.760	56.59	48.56	15.95	8.285	39.38	44.151	61.01
Aug. 9	51.888	55.57	49.00	18.53	8.396	42.57	44.282	62.91
18	51.972	54.77	49.25	21.28	8.453	45.66	44.369	64.62
28	52.011	54.17	49.31	24.12	8.459	48.59	44.412	66.13
Sept. 7	52.008	53.78	49.17	26.93	8.414	51.31	44.413	67.41
17	51.966	53.58	48.85	29.62	8.323	53.75	44.375	68.46
27	51.890	53.56	48.37	32.08	8.192	55.88	44.304	69.26
Okt. 7	51.788	53.69	47.74	34.20	8.029	57.65	44.205	69.82
17	51.667	53.95	46.99	35.91	7.840	59.03	44.085	70.13
27	51.534	54.32	46.16	37.11	7.634	59.98	43.953	70.20
Nov. 6	51.399	54.78	45.28	37.75	7.420	60.48	43.816	70.05
16	51.269	55.30	44.39	37.81	7.206	60.52	43.681	69.67
26	51.150	55.88	43.54	37.27	6.999	60.08	43.554	69.07
Dez. 6	51.049	56.49	42.75	36.14	6.808	59.18	43.442	68.28
16	50.971	57.13	42.06	34.45	6.638	57.83	43.348	67.32
26	50.918	57.77	41.49	32.26	6.494	56.08	43.277	66.20
36	50.892	58.39	41.06	29.64	6.383	53.98	43.231	64.98
Mittl. Ort	49.350	63.80	38.81	25.28	6.084	37.91	41.919	55.15
sec $\delta$ , tg $\delta$	1.005	-0.103	4.697	-4.589	1.307	+0.842	1.014	+0.168

Tag	819) $\delta$ Capricorni		821) $\pi^2$ Cygni		822) $\gamma$ Gruis		823) $\iota 6$ Pegasi	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	21 <sup>h</sup> 43 <sup>m</sup>	-16° 26'	21 <sup>h</sup> 44 <sup>m</sup>	+48° 58'	21 <sup>h</sup> 49 <sup>m</sup>	-37° 41'	21 <sup>h</sup> 49 <sup>m</sup>	+25° 35'
Jan. I	5.636	73.76	7.783	52.44	36.111	76.22	47.927	23.57
II	5.616	73.84	7.640	50.08	36.071	75.22	47.864	21.75
21	5.626	73.79	7.542	47.44	36.069	73.97	47.830	19.78
31	5.666	73.60	7.492	44.60	36.104	72.51	47.829	17.73
Feb. 10	5.737	73.25	7.495	41.69	36.177	70.85	47.862	15.71
20	5.839	72.73	7.553	38.82	36.288	69.03	47.931	13.79
März 2	5.972	72.04	7.666	36.11	36.438	67.08	48.038	12.05
12	6.137	71.17	7.835	33.68	36.625	65.02	48.182	10.60
22	6.333	70.12	8.058	31.61	36.850	62.91	48.363	9.48
Apr. I	6.560	68.88	8.331	30.00	37.110	60.77	48.580	8.76
11	6.815	67.49	8.647	28.90	37.404	58.64	48.830	8.48
21	7.095	65.97	9.000	28.37	37.728	56.56	49.109	8.65
Mai I	7.396	64.35	9.381	28.41	38.078	54.58	49.411	9.28
11	7.715	62.66	9.780	29.03	38.449	52.74	49.730	10.35
21	8.044	60.96	10.186	30.20	38.832	51.10	50.059	11.84
31	8.376	59.29	10.588	31.89	39.221	49.68	50.389	13.69
Juni 10	8.703	57.69	10.976	34.04	39.606	48.53	50.712	15.84
20	9.019	56.21	11.339	36.59	39.979	47.68	51.020	18.25
30	9.315	54.90	11.668	39.47	40.330	47.15	51.306	20.84
Juli 10	9.583	53.78	11.953	42.61	40.650	46.95	51.562	23.54
20	9.818	52.87	12.190	45.92	40.932	47.08	51.781	26.30
30	10.013	52.19	12.371	49.33	41.168	47.53	51.959	29.04
Aug. 9	10.164	51.75	12.493	52.77	41.353	48.27	52.092	31.70
18*)	10.270	51.55	12.556	56.15	41.484	49.27	52.179	34.24
28	10.329	51.56	12.560	59.41	41.560	50.48	52.220	36.61
Sept. 7	10.343	51.77	12.507	62.48	41.581	51.84	52.217	38.75
17	10.316	52.14	12.402	65.31	41.550	53.30	52.172	40.64
27	10.253	52.65	12.249	67.83	41.473	54.77	52.091	42.25
Okt. 7	10.159	53.24	12.057	69.99	41.358	56.20	51.980	43.56
17	10.043	53.89	11.834	71.74	41.212	57.51	51.846	44.53
27	9.912	54.55	11.588	73.05	41.046	58.65	51.696	45.16
Nov. 6	9.776	55.19	11.328	73.87	40.871	59.56	51.538	45.43
16	9.643	55.79	11.064	74.19	40.695	60.21	51.379	45.34
26	9.520	56.33	10.804	73.99	40.530	60.56	51.225	44.90
Dez. 6	9.412	56.78	10.556	73.27	40.382	60.61	51.084	44.11
16	9.325	57.14	10.330	72.05	40.259	60.34	50.959	42.98
26	9.262	57.39	10.131	70.35	40.165	59.77	50.856	41.56
36	9.227	57.52	9.967	68.24	40.106	58.92	50.778	39.89
Mittl. Ort	7.462	61.13	10.109	49.35	38.086	58.80	49.817	25.44
sec $\delta$ , tg $\delta$	1.043	-0.295	1.524	+1.150	1.264	-0.773	1.109	+0.479

\*) Bei Stern 822) und 823) lies Aug. 19



Tag	827) $\alpha$ Aquarii		828) $\iota$ Aquarii		830) $\gamma$ Cephei		829) $\alpha$ Gruis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	22 <sup>h</sup> 2 <sup>m</sup>	—0° 39'	22 <sup>h</sup> 2 <sup>m</sup>	—14° 12'	22 <sup>h</sup> 2 <sup>m</sup>	+62° 25'	22 <sup>h</sup> 3 <sup>m</sup>	—47° 18'
Jan. I	6.558 <sup>38</sup>	64.39 <sup>80</sup>	34.567 <sup>36</sup>	65.65 <sup>18</sup>	48.10 <sup>28</sup>	86.17 <sup>223</sup>	43.964 <sup>76</sup>	40.86 <sup>140</sup>
II	6.520 <sup>13</sup>	65.19 <sup>76</sup>	34.531 <sup>9</sup>	65.83 <sup>6</sup>	47.82 <sup>23</sup>	83.94 <sup>262</sup>	43.888 <sup>34</sup>	39.46 <sup>171</sup>
2I	6.507 <sup>14</sup>	65.95 <sup>69</sup>	34.522 <sup>20</sup>	65.89 <sup>9</sup>	47.59 <sup>15</sup>	81.32 <sup>291</sup>	43.854 <sup>10</sup>	37.75 <sup>197</sup>
3I	6.521 <sup>42</sup>	66.64 <sup>57</sup>	34.542 <sup>49</sup>	65.80 <sup>24</sup>	47.44 <sup>8</sup>	78.41 <sup>308</sup>	43.864 <sup>55</sup>	35.78 <sup>220</sup>
Feb. 10	6.563 <sup>72</sup>	67.21 <sup>42</sup>	34.591 <sup>79</sup>	65.56 <sup>42</sup>	47.36 <sup>0</sup>	75.33 <sup>314</sup>	43.919 <sup>100</sup>	33.58 <sup>236</sup>
20	6.635 <sup>103</sup>	67.63 <sup>23</sup>	34.670 <sup>111</sup>	65.14 <sup>62</sup>	47.36 <sup>8</sup>	72.19 <sup>306</sup>	44.019 <sup>146</sup>	31.22 <sup>249</sup>
März 2	6.738 <sup>136</sup>	67.86 <sup>0</sup>	34.781 <sup>142</sup>	64.52 <sup>81</sup>	47.44 <sup>17</sup>	69.13 <sup>286</sup>	44.165 <sup>191</sup>	28.73 <sup>257</sup>
12	6.874 <sup>168</sup>	67.86 <sup>27</sup>	34.923 <sup>175</sup>	63.71 <sup>101</sup>	47.61 <sup>25</sup>	66.27 <sup>255</sup>	44.356 <sup>235</sup>	26.16 <sup>259</sup>
22	7.042 <sup>199</sup>	67.59 <sup>53</sup>	35.098 <sup>207</sup>	62.70 <sup>120</sup>	47.86 <sup>33</sup>	63.72 <sup>213</sup>	44.591 <sup>277</sup>	23.57 <sup>258</sup>
Apr. I	7.241 <sup>229</sup>	67.06 <sup>81</sup>	35.305 <sup>237</sup>	61.50 <sup>138</sup>	48.19 <sup>39</sup>	61.59 <sup>164</sup>	44.868 <sup>318</sup>	20.99 <sup>250</sup>
11	7.470 <sup>257</sup>	66.25 <sup>109</sup>	35.542 <sup>265</sup>	60.12 <sup>154</sup>	48.58 <sup>45</sup>	59.95 <sup>108</sup>	45.186 <sup>354</sup>	18.49 <sup>237</sup>
21	7.727 <sup>281</sup>	65.16 <sup>133</sup>	35.807 <sup>290</sup>	58.58 <sup>167</sup>	49.03 <sup>49</sup>	58.87 <sup>49</sup>	45.540 <sup>386</sup>	16.12 <sup>220</sup>
Mai I	8.008 <sup>299</sup>	63.83 <sup>155</sup>	36.097 <sup>309</sup>	56.91 <sup>176</sup>	49.52 <sup>52</sup>	58.38 <sup>13</sup>	45.926 <sup>412</sup>	13.92 <sup>198</sup>
11	8.307 <sup>313</sup>	62.28 <sup>173</sup>	36.406 <sup>322</sup>	55.15 <sup>181</sup>	50.04 <sup>53</sup>	58.51 <sup>72</sup>	46.338 <sup>430</sup>	11.94 <sup>172</sup>
21	8.620 <sup>317</sup>	60.55 <sup>186</sup>	36.728 <sup>329</sup>	53.34 <sup>180</sup>	50.57 <sup>53</sup>	59.23 <sup>129</sup>	46.768 <sup>438</sup>	10.22 <sup>140</sup>
31	8.937 <sup>316</sup>	58.69 <sup>194</sup>	37.057 <sup>328</sup>	51.54 <sup>174</sup>	51.10 <sup>51</sup>	60.52 <sup>182</sup>	47.206 <sup>437</sup>	8.82 <sup>105</sup>
Juni 10	9.253 <sup>306</sup>	56.75 <sup>197</sup>	37.385 <sup>319</sup>	49.80 <sup>164</sup>	51.61 <sup>48</sup>	62.34 <sup>231</sup>	47.643 <sup>425</sup>	7.77 <sup>68</sup>
20	9.559 <sup>289</sup>	54.78 <sup>193</sup>	37.704 <sup>301</sup>	48.16 <sup>150</sup>	52.09 <sup>44</sup>	64.65 <sup>273</sup>	48.068 <sup>404</sup>	7.09 <sup>29</sup>
30	9.848 <sup>265</sup>	52.85 <sup>186</sup>	38.005 <sup>277</sup>	46.66 <sup>132</sup>	52.53 <sup>38</sup>	67.38 <sup>307</sup>	48.472 <sup>373</sup>	6.80 <sup>10</sup>
Juli 10	10.113 <sup>233</sup>	50.99 <sup>174</sup>	38.282 <sup>246</sup>	45.34 <sup>111</sup>	52.91 <sup>32</sup>	70.45 <sup>334</sup>	48.845 <sup>331</sup>	6.90 <sup>49</sup>
20	10.346 <sup>197</sup>	49.25 <sup>158</sup>	38.528 <sup>208</sup>	44.23 <sup>88</sup>	53.23 <sup>24</sup>	73.79 <sup>353</sup>	49.176 <sup>281</sup>	7.39 <sup>85</sup>
30	10.543 <sup>156</sup>	47.67 <sup>139</sup>	38.736 <sup>167</sup>	43.35 <sup>64</sup>	53.47 <sup>17</sup>	77.32 <sup>364</sup>	49.457 <sup>224</sup>	8.24 <sup>118</sup>
Aug. 9	10.699 <sup>113</sup>	46.28 <sup>119</sup>	38.903 <sup>123</sup>	42.71 <sup>39</sup>	53.64 <sup>8</sup>	80.96 <sup>367</sup>	49.681 <sup>163</sup>	9.42 <sup>146</sup>
19	10.812 <sup>70</sup>	45.09 <sup>97</sup>	39.026 <sup>77</sup>	42.32 <sup>16</sup>	53.72 <sup>1</sup>	84.63 <sup>363</sup>	49.844 <sup>100</sup>	10.88 <sup>169</sup>
28	10.882 <sup>27</sup>	44.12 <sup>74</sup>	39.103 <sup>32</sup>	42.16 <sup>6</sup>	53.73 <sup>7</sup>	88.26 <sup>351</sup>	49.944 <sup>37</sup>	12.57 <sup>184</sup>
Sept. 7	10.909 <sup>12</sup>	43.38 <sup>52</sup>	39.135 <sup>9</sup>	42.22 <sup>25</sup>	53.66 <sup>14</sup>	91.77 <sup>331</sup>	49.981 <sup>25</sup>	14.41 <sup>191</sup>
17	10.897 <sup>48</sup>	42.86 <sup>32</sup>	39.126 <sup>47</sup>	42.47 <sup>40</sup>	53.52 <sup>21</sup>	95.08 <sup>305</sup>	49.956 <sup>80</sup>	16.32 <sup>191</sup>
27	10.849 <sup>77</sup>	42.54 <sup>12</sup>	39.079 <sup>78</sup>	42.87 <sup>52</sup>	53.31 <sup>27</sup>	98.13 <sup>273</sup>	49.876 <sup>129</sup>	18.23 <sup>182</sup>
Okt. 7	10.772 <sup>100</sup>	42.42 <sup>6</sup>	39.001 <sup>102</sup>	43.39 <sup>60</sup>	53.04 <sup>32</sup>	100.86 <sup>233</sup>	49.747 <sup>167</sup>	20.05 <sup>165</sup>
17	10.672 <sup>116</sup>	42.48 <sup>22</sup>	38.899 <sup>119</sup>	43.99 <sup>65</sup>	52.72 <sup>36</sup>	103.19 <sup>189</sup>	49.580 <sup>195</sup>	21.70 <sup>141</sup>
27	10.556 <sup>124</sup>	42.70 <sup>35</sup>	38.780 <sup>128</sup>	44.64 <sup>65</sup>	52.36 <sup>39</sup>	105.08 <sup>140</sup>	49.385 <sup>211</sup>	23.11 <sup>110</sup>
Nov. 6	10.432 <sup>125</sup>	43.05 <sup>47</sup>	38.652 <sup>129</sup>	45.29 <sup>64</sup>	51.97 <sup>40</sup>	106.48 <sup>87</sup>	49.174 <sup>216</sup>	24.21 <sup>74</sup>
16	10.307 <sup>120</sup>	43.52 <sup>58</sup>	38.523 <sup>123</sup>	45.93 <sup>53</sup>	51.57 <sup>41</sup>	107.35 <sup>29</sup>	48.958 <sup>209</sup>	24.95 <sup>36</sup>
26	10.187 <sup>108</sup>	44.10 <sup>65</sup>	38.400 <sup>110</sup>	46.52 <sup>59</sup>	51.16 <sup>41</sup>	107.64 <sup>28</sup>	48.749 <sup>193</sup>	25.31 <sup>4</sup>
Dez. 6	10.079 <sup>93</sup>	44.75 <sup>72</sup>	38.290 <sup>94</sup>	47.05 <sup>44</sup>	50.75 <sup>38</sup>	107.36 <sup>86</sup>	48.556 <sup>168</sup>	25.27 <sup>45</sup>
16	9.986 <sup>74</sup>	45.47 <sup>77</sup>	38.196 <sup>73</sup>	47.49 <sup>35</sup>	50.37 <sup>35</sup>	106.50 <sup>141</sup>	48.388 <sup>137</sup>	24.82 <sup>84</sup>
26	9.912 <sup>51</sup>	46.24 <sup>78</sup>	38.123 <sup>49</sup>	47.84 <sup>23</sup>	50.02 <sup>32</sup>	105.09 <sup>192</sup>	48.251 <sup>99</sup>	23.98 <sup>121</sup>
36	9.861	47.02	38.074	48.07	49.70	103.17	48.152	22.77
Mittl. Ort	8.270	55.73	36.285	53.34	50.95	79.80	45.994	21.21
sec $\delta$ , tg $\delta$	1.000	—0.012	1.032	—0.253	2.161	+1.916	1.475	—1.084

Tag	834) $\eta$ Pegasi		835) $\pi$ Pegasi		836) $\zeta$ Cephei		837) $\alpha$ Cephei	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	22 <sup>h</sup> 6 <sup>m</sup>	+5° 50'	22 <sup>h</sup> 6 <sup>m</sup>	+32° 49'	22 <sup>h</sup> 8 <sup>m</sup>	+57° 50'	22 <sup>h</sup> 8 <sup>m</sup>	+71° 59'
Jan. I	35.400 <sup>46</sup>	45.55 <sup>105</sup>	48.018 <sup>94</sup>	45.70 <sup>189</sup>	20.731 <sup>236</sup>	68.73 <sup>217</sup>	22.97 <sup>50</sup>	36.37 <sup>211</sup>
II	35.354 <sup>21</sup>	44.50 <sup>107</sup>	47.924 <sup>64</sup>	43.81 <sup>210</sup>	20.495 <sup>186</sup>	66.56 <sup>255</sup>	22.47 <sup>41</sup>	34.26 <sup>255</sup>
21	35.333 <sup>6</sup>	43.43 <sup>103</sup>	47.860 <sup>31</sup>	41.71 <sup>224</sup>	20.309 <sup>128</sup>	64.01 <sup>282</sup>	22.06 <sup>30</sup>	31.71 <sup>289</sup>
31	35.339 <sup>34</sup>	42.40 <sup>94</sup>	47.829 <sup>6</sup>	39.47 <sup>228</sup>	20.181 <sup>65</sup>	61.19 <sup>299</sup>	21.76 <sup>19</sup>	28.82 <sup>313</sup>
Feb. 10	35.373 <sup>64</sup>	41.46 <sup>81</sup>	47.835 <sup>45</sup>	37.19 <sup>222</sup>	20.116 <sup>3</sup>	58.20 <sup>304</sup>	21.57 <sup>6</sup>	25.69 <sup>322</sup>
20	35.437 <sup>97</sup>	40.65 <sup>61</sup>	47.880 <sup>86</sup>	34.97 <sup>207</sup>	20.119 <sup>76</sup>	55.16 <sup>297</sup>	21.51 <sup>7</sup>	22.47 <sup>320</sup>
März 2	35.534 <sup>129</sup>	40.04 <sup>37</sup>	47.966 <sup>128</sup>	32.90 <sup>183</sup>	20.195 <sup>148</sup>	52.19 <sup>276</sup>	21.58 <sup>20</sup>	19.27 <sup>306</sup>
12	35.663 <sup>162</sup>	39.67 <sup>10</sup>	48.094 <sup>169</sup>	31.07 <sup>149</sup>	20.343 <sup>219</sup>	49.43 <sup>245</sup>	21.78 <sup>32</sup>	16.22 <sup>279</sup>
22	35.825 <sup>195</sup>	39.57 <sup>21</sup>	48.263 <sup>210</sup>	29.58 <sup>110</sup>	20.562 <sup>285</sup>	46.98 <sup>204</sup>	22.10 <sup>44</sup>	13.46 <sup>231</sup>
April 1	36.020 <sup>226</sup>	39.78 <sup>53</sup>	48.473 <sup>248</sup>	28.48 <sup>65</sup>	20.847 <sup>344</sup>	44.94 <sup>155</sup>	22.54 <sup>55</sup>	11.07 <sup>195</sup>
II	36.246 <sup>255</sup>	40.31 <sup>85</sup>	48.721 <sup>282</sup>	27.83 <sup>17</sup>	21.191 <sup>395</sup>	43.39 <sup>101</sup>	23.09 <sup>63</sup>	9.16 <sup>136</sup>
21	36.501 <sup>279</sup>	41.16 <sup>115</sup>	49.003 <sup>310</sup>	27.66 <sup>32</sup>	21.586 <sup>435</sup>	42.38 <sup>43</sup>	23.72 <sup>68</sup>	7.80 <sup>77</sup>
Mai 1	36.780 <sup>298</sup>	42.31 <sup>143</sup>	49.313 <sup>330</sup>	27.98 <sup>81</sup>	22.021 <sup>462</sup>	41.95 <sup>16</sup>	24.40 <sup>73</sup>	7.03 <sup>17</sup>
11	37.078 <sup>312</sup>	43.74 <sup>167</sup>	49.643 <sup>343</sup>	28.79 <sup>127</sup>	22.483 <sup>477</sup>	42.11 <sup>76</sup>	25.13 <sup>74</sup>	6.86 <sup>44</sup>
21	37.390 <sup>317</sup>	45.41 <sup>187</sup>	49.986 <sup>347</sup>	30.06 <sup>169</sup>	22.960 <sup>478</sup>	42.87 <sup>131</sup>	25.87 <sup>74</sup>	7.30 <sup>105</sup>
31	37.707 <sup>316</sup>	47.28 <sup>201</sup>	50.333 <sup>342</sup>	31.75 <sup>207</sup>	23.438 <sup>465</sup>	44.18 <sup>184</sup>	26.61 <sup>72</sup>	8.35 <sup>160</sup>
Juni 10	38.023 <sup>306</sup>	49.29 <sup>209</sup>	50.675 <sup>328</sup>	33.82 <sup>239</sup>	23.903 <sup>440</sup>	46.02 <sup>230</sup>	27.33 <sup>66</sup>	9.95 <sup>212</sup>
20	38.329 <sup>290</sup>	51.38 <sup>213</sup>	51.003 <sup>306</sup>	36.21 <sup>263</sup>	24.343 <sup>403</sup>	48.32 <sup>271</sup>	27.99 <sup>60</sup>	12.07 <sup>257</sup>
30	38.619 <sup>265</sup>	53.51 <sup>210</sup>	51.309 <sup>276</sup>	38.84 <sup>282</sup>	24.746 <sup>355</sup>	51.03 <sup>304</sup>	28.59 <sup>52</sup>	14.64 <sup>297</sup>
Juli 10	38.884 <sup>233</sup>	55.61 <sup>203</sup>	51.585 <sup>239</sup>	41.66 <sup>293</sup>	25.101 <sup>300</sup>	54.07 <sup>329</sup>	29.11 <sup>43</sup>	17.61 <sup>327</sup>
20	39.117 <sup>197</sup>	57.64 <sup>191</sup>	51.824 <sup>198</sup>	44.59 <sup>298</sup>	25.401 <sup>237</sup>	57.36 <sup>348</sup>	29.54 <sup>33</sup>	20.88 <sup>352</sup>
30	39.314 <sup>158</sup>	59.55 <sup>175</sup>	52.022 <sup>151</sup>	47.57 <sup>295</sup>	25.638 <sup>169</sup>	60.84 <sup>358</sup>	29.87 <sup>21</sup>	24.40 <sup>367</sup>
Aug. 9	39.472 <sup>115</sup>	61.30 <sup>156</sup>	52.173 <sup>104</sup>	50.52 <sup>287</sup>	25.807 <sup>100</sup>	64.42 <sup>360</sup>	30.08 <sup>10</sup>	28.07 <sup>375</sup>
19	39.587 <sup>71</sup>	62.86 <sup>135</sup>	52.277 <sup>55</sup>	53.39 <sup>273</sup>	25.907 <sup>29</sup>	68.02 <sup>355</sup>	30.18 <sup>2</sup>	31.82 <sup>375</sup>
28	39.658 <sup>29</sup>	64.21 <sup>113</sup>	52.332 <sup>8</sup>	56.12 <sup>254</sup>	25.936 <sup>39</sup>	71.57 <sup>342</sup>	30.16 <sup>12</sup>	35.57 <sup>367</sup>
Sept. 7	39.687 <sup>10</sup>	65.34 <sup>90</sup>	52.340 <sup>36</sup>	58.66 <sup>230</sup>	25.897 <sup>104</sup>	74.99 <sup>323</sup>	30.04 <sup>23</sup>	39.24 <sup>352</sup>
17	39.677 <sup>46</sup>	66.24 <sup>67</sup>	52.304 <sup>75</sup>	60.06 <sup>202</sup>	25.793 <sup>162</sup>	78.22 <sup>297</sup>	29.81 <sup>34</sup>	42.76 <sup>329</sup>
27	39.631 <sup>76</sup>	66.91 <sup>44</sup>	52.229 <sup>109</sup>	62.98 <sup>171</sup>	25.631 <sup>215</sup>	81.19 <sup>265</sup>	29.47 <sup>42</sup>	46.05 <sup>299</sup>
Okt. 7	39.555 <sup>99</sup>	67.35 <sup>23</sup>	52.120 <sup>136</sup>	64.69 <sup>137</sup>	25.416 <sup>259</sup>	83.84 <sup>226</sup>	29.05 <sup>50</sup>	49.04 <sup>262</sup>
17	39.456 <sup>114</sup>	67.58 <sup>2</sup>	51.984 <sup>156</sup>	66.06 <sup>99</sup>	25.157 <sup>294</sup>	86.10 <sup>183</sup>	28.55 <sup>56</sup>	51.66 <sup>219</sup>
27	39.342 <sup>124</sup>	67.60 <sup>18</sup>	51.828 <sup>168</sup>	67.05 <sup>60</sup>	24.863 <sup>320</sup>	87.93 <sup>134</sup>	27.99 <sup>61</sup>	53.85 <sup>170</sup>
Nov. 6	39.218 <sup>126</sup>	67.42 <sup>36</sup>	51.660 <sup>173</sup>	67.65 <sup>20</sup>	24.543 <sup>334</sup>	89.27 <sup>83</sup>	27.38 <sup>65</sup>	55.55 <sup>116</sup>
16	39.092 <sup>122</sup>	67.06 <sup>53</sup>	51.487 <sup>172</sup>	67.85 <sup>21</sup>	24.209 <sup>339</sup>	90.10 <sup>28</sup>	26.73 <sup>67</sup>	56.71 <sup>59</sup>
26	38.970 <sup>111</sup>	66.53 <sup>68</sup>	51.315 <sup>163</sup>	67.64 <sup>62</sup>	23.870 <sup>335</sup>	90.38 <sup>29</sup>	26.06 <sup>66</sup>	57.30 <sup>2</sup>
Dez. 6	38.859 <sup>98</sup>	65.85 <sup>82</sup>	51.152 <sup>150</sup>	67.02 <sup>101</sup>	23.535 <sup>319</sup>	90.09 <sup>85</sup>	25.40 <sup>64</sup>	57.28 <sup>63</sup>
16	38.761 <sup>79</sup>	65.03 <sup>93</sup>	51.002 <sup>132</sup>	66.01 <sup>138</sup>	23.216 <sup>293</sup>	89.24 <sup>138</sup>	24.76 <sup>61</sup>	56.65 <sup>122</sup>
26	38.682 <sup>58</sup>	64.10 <sup>99</sup>	50.870 <sup>107</sup>	64.63 <sup>170</sup>	22.923 <sup>259</sup>	87.86 <sup>187</sup>	24.15 <sup>54</sup>	55.43 <sup>177</sup>
36	38.624	63.11	50.763	62.93	22.664	85.99	23.61	53.66
Mittl. Ort	37.104	52.36	49.922	45.21	23.282	62.81	26.78	28.42
sec $\delta$ , tg $\delta$	1.005	+0.102	1.190	+0.645	1.879	+1.591	3.235	+3.076

# Obere Kulmination Greenwich

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Tag	840) ♀ Aquarii		841) α Tucanae		842) γ Aquarii		844) 3 Lacertae	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	22 <sup>h</sup> 13 <sup>m</sup>	−8° 8'	22 <sup>h</sup> 13 <sup>m</sup>	−60° 36'	22 <sup>h</sup> 17 <sup>m</sup>	−1° 44'	22 <sup>h</sup> 20 <sup>m</sup>	+51° 52'
Jan. I	3.660	25.61	36.85	73.66	57.744	53.74	43.623	27.41
II	3.616	26.07	36.70	71.73	57.695	54.46	43.428	25.39
21	3.597	26.44	36.60	69.44	57.670	55.13	43.273	23.01
31	3.605	26.69	36.56	66.84	57.670	55.73	43.163	20.36
Feb. 10	3.641	26.79	36.59	64.01	57.697	56.21	43.105	17.54
20	3.706	26.73	36.69	61.00	57.754	56.53	43.104	14.68
März 2	3.802	26.48	36.85	57.89	57.842	56.66	43.162	11.88
12	3.930	26.01	37.07	54.74	57.963	56.56	43.282	9.27
22	4.091	25.31	37.35	51.63	58.116	56.22	43.464	6.96
Apr. I	4.284	24.38	37.69	48.61	58.302	55.61	43.704	5.03
11	4.508	23.22	38.09	45.74	58.520	54.73	43.998	3.57
21	4.762	21.85	38.54	43.08	58.767	53.59	44.338	2.63
Mai I	5.041	20.30	39.04	40.69	59.041	52.21	44.718	2.25
11	5.340	18.60	39.57	38.63	59.336	50.63	45.126	2.44
21	5.655	16.79	40.12	36.93	59.646	48.87	45.550	3.19
31	5.977	14.92	40.68	35.65	59.964	46.98	45.981	4.48
Juni 10	6.300	13.04	41.25	34.79	60.283	45.03	46.405	6.27
20	6.615	11.21	41.80	34.39	60.595	43.06	46.811	8.51
30	6.915	9.47	42.33	34.46	60.892	41.12	47.189	11.14
Juli 10	7.191	7.87	42.82	34.98	61.167	39.27	47.528	14.08
20	7.438	6.43	43.26	35.95	61.412	37.54	47.821	17.27
30	7.649	5.20	43.63	37.32	61.623	35.97	48.060	20.63
Aug. 9	7.820	4.19	43.93	39.06	61.794	34.60	48.242	24.08
19	7.949	3.42	44.15	41.08	61.923	33.44	48.363	27.55
28	8.033	2.88	44.28	43.33	62.009	32.51	48.423	30.97
Sept. 7	8.074	2.56	44.33	45.72	62.052	31.81	48.422	34.27
17	8.074	2.45	44.30	48.15	62.055	31.33	48.365	37.38
27	8.038	2.54	44.18	50.52	62.022	31.06	48.255	40.24
Okt. 7	7.970	2.78	43.99	52.75	61.958	30.98	48.098	42.78
17	7.877	3.15	43.75	54.72	61.870	31.08	47.902	44.96
27	7.767	3.62	43.46	56.36	61.764	31.33	47.675	46.73
Nov. 6	7.647	4.16	43.15	57.60	61.647	31.70	47.424	48.05
16	7.525	4.74	42.82	58.37	61.527	32.18	47.159	48.86
26	7.406	5.35	42.49	58.65	61.409	32.75	46.888	49.16
Dez. 6	7.297	5.95	42.18	58.41	61.299	33.39	46.619	48.93
16	7.202	6.53	41.90	57.67	61.203	34.07	46.361	48.17
26	7.125	7.07	41.66	56.43	61.123	34.78	46.121	46.90
36	7.069	7.55	41.47	54.74	61.063	35.49	45.910	45.16
Mittl. Ort	5.315	14.89	39.18	51.72	59.378	44.84	45.867	22.01
sec δ, tg δ	1.010	−0.143	2.038	−1.776	1.000	−0.030	1.620	+1.274

Tag	848) 7 Lacertae		850) 7 Aquarii		852) 10 Lacertae		855) 5 Pegasi	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	22 <sup>h</sup> 28 <sup>m</sup>	+49° 54'	22 <sup>h</sup> 31 <sup>m</sup>	—0° 28'	22 <sup>h</sup> 36 <sup>m</sup>	+38° 40'	22 <sup>h</sup> 37 <sup>m</sup>	+10° 27'
Jan. 1	19.624 <sup>187</sup>	66.47 <sup>193</sup>	40.939 <sup>58</sup>	70.94 <sup>75</sup>	2.485 <sup>134</sup>	51.94 <sup>174</sup>	53.638 <sup>70</sup>	31.66 <sup>110</sup>
11	19.437 <sup>151</sup>	64.54 <sup>229</sup>	40.881 <sup>36</sup>	71.69 <sup>71</sup>	2.351 <sup>107</sup>	50.20 <sup>204</sup>	53.568 <sup>50</sup>	30.56 <sup>116</sup>
21	19.286 <sup>108</sup>	62.25 <sup>255</sup>	40.845 <sup>13</sup>	72.40 <sup>64</sup>	2.244 <sup>74</sup>	48.16 <sup>224</sup>	53.518 <sup>26</sup>	29.40 <sup>116</sup>
31	19.178 <sup>61</sup>	59.70 <sup>272</sup>	40.832 <sup>14</sup>	73.04 <sup>52</sup>	2.170 <sup>38</sup>	45.92 <sup>236</sup>	53.492 <sup>1</sup>	28.24 <sup>111</sup>
Feb. 10	19.117 <sup>7</sup>	56.98 <sup>278</sup>	40.846 <sup>42</sup>	73.56 <sup>38</sup>	2.132 <sup>4</sup>	43.56 <sup>237</sup>	53.493 <sup>30</sup>	27.13 <sup>100</sup>
20	19.110 <sup>49</sup>	54.20 <sup>272</sup>	40.888 <sup>73</sup>	73.94 <sup>18</sup>	2.136 <sup>48</sup>	41.19 <sup>229</sup>	53.523 <sup>62</sup>	26.13 <sup>84</sup>
März 2	19.159 <sup>108</sup>	51.48 <sup>255</sup>	40.961 <sup>106</sup>	74.12 <sup>4</sup>	2.184 <sup>94</sup>	38.90 <sup>211</sup>	53.585 <sup>96</sup>	25.29 <sup>61</sup>
12	19.267 <sup>167</sup>	48.93 <sup>226</sup>	41.067 <sup>139</sup>	74.08 <sup>28</sup>	2.278 <sup>143</sup>	36.79 <sup>182</sup>	53.681 <sup>132</sup>	24.68 <sup>35</sup>
22	19.434 <sup>225</sup>	46.67 <sup>189</sup>	41.206 <sup>174</sup>	73.80 <sup>55</sup>	2.421 <sup>190</sup>	34.97 <sup>146</sup>	53.813 <sup>167</sup>	24.33 <sup>4</sup>
Apr. 1	19.659 <sup>277</sup>	44.78 <sup>144</sup>	41.380 <sup>207</sup>	73.25 <sup>83</sup>	2.611 <sup>234</sup>	33.51 <sup>104</sup>	53.980 <sup>202</sup>	24.29 <sup>28</sup>
11	19.936 <sup>324</sup>	43.34 <sup>93</sup>	41.587 <sup>238</sup>	72.42 <sup>110</sup>	2.845 <sup>275</sup>	32.47 <sup>57</sup>	54.182 <sup>236</sup>	24.57 <sup>63</sup>
21	20.260 <sup>363</sup>	42.41 <sup>38</sup>	41.825 <sup>266</sup>	71.32 <sup>135</sup>	3.120 <sup>310</sup>	31.90 <sup>7</sup>	54.418 <sup>264</sup>	25.20 <sup>96</sup>
Mai 1	20.623 <sup>392</sup>	42.03 <sup>17</sup>	42.091 <sup>289</sup>	69.97 <sup>157</sup>	3.430 <sup>338</sup>	31.83 <sup>44</sup>	54.682 <sup>289</sup>	26.16 <sup>128</sup>
11	21.015 <sup>411</sup>	42.20 <sup>73</sup>	42.380 <sup>307</sup>	68.40 <sup>175</sup>	3.768 <sup>357</sup>	32.27 <sup>93</sup>	54.971 <sup>307</sup>	27.44 <sup>156</sup>
21	21.426 <sup>419</sup>	42.93 <sup>126</sup>	42.687 <sup>317</sup>	66.65 <sup>189</sup>	4.125 <sup>366</sup>	33.20 <sup>140</sup>	55.278 <sup>318</sup>	29.00 <sup>181</sup>
31	21.845 <sup>416</sup>	44.19 <sup>175</sup>	43.004 <sup>320</sup>	64.76 <sup>198</sup>	4.491 <sup>366</sup>	34.60 <sup>183</sup>	55.596 <sup>321</sup>	30.81 <sup>200</sup>
Juni 10	22.261 <sup>400</sup>	45.94 <sup>219</sup>	43.324 <sup>314</sup>	62.78 <sup>202</sup>	4.857 <sup>357</sup>	36.43 <sup>220</sup>	55.917 <sup>316</sup>	32.81 <sup>214</sup>
20	22.661 <sup>375</sup>	48.13 <sup>258</sup>	43.638 <sup>302</sup>	60.76 <sup>199</sup>	5.214 <sup>338</sup>	38.63 <sup>252</sup>	56.233 <sup>303</sup>	34.95 <sup>222</sup>
30	23.036 <sup>339</sup>	50.71 <sup>290</sup>	43.940 <sup>282</sup>	58.77 <sup>192</sup>	5.552 <sup>311</sup>	41.15 <sup>278</sup>	56.536 <sup>282</sup>	37.17 <sup>225</sup>
Juli 10	23.375 <sup>296</sup>	53.61 <sup>313</sup>	44.222 <sup>253</sup>	56.85 <sup>181</sup>	5.863 <sup>275</sup>	43.93 <sup>295</sup>	56.818 <sup>255</sup>	39.42 <sup>222</sup>
20	23.671 <sup>246</sup>	56.74 <sup>332</sup>	44.475 <sup>221</sup>	55.04 <sup>166</sup>	6.138 <sup>234</sup>	46.88 <sup>307</sup>	57.073 <sup>222</sup>	41.64 <sup>214</sup>
30	23.917 <sup>191</sup>	60.06 <sup>340</sup>	44.696 <sup>182</sup>	53.38 <sup>146</sup>	6.372 <sup>189</sup>	49.95 <sup>311</sup>	57.295 <sup>185</sup>	43.78 <sup>202</sup>
Aug. 9	24.108 <sup>133</sup>	63.46 <sup>342</sup>	44.878 <sup>142</sup>	51.92 <sup>125</sup>	6.561 <sup>139</sup>	53.06 <sup>309</sup>	57.478 <sup>143</sup>	45.80 <sup>185</sup>
19	24.241 <sup>74</sup>	66.88 <sup>339</sup>	45.020 <sup>98</sup>	50.67 <sup>103</sup>	6.700 <sup>89</sup>	56.15 <sup>301</sup>	57.621 <sup>100</sup>	47.65 <sup>167</sup>
29	24.315 <sup>16</sup>	70.27 <sup>326</sup>	45.118 <sup>56</sup>	49.64 <sup>80</sup>	6.789 <sup>40</sup>	59.16 <sup>286</sup>	57.721 <sup>58</sup>	49.32 <sup>145</sup>
Sept. 7	24.331 <sup>39</sup>	73.53 <sup>308</sup>	45.174 <sup>16</sup>	48.84 <sup>57</sup>	6.829 <sup>7</sup>	62.02 <sup>267</sup>	57.779 <sup>18</sup>	50.77 <sup>122</sup>
17	24.292 <sup>90</sup>	76.61 <sup>283</sup>	45.190 <sup>21</sup>	48.27 <sup>35</sup>	6.822 <sup>51</sup>	64.69 <sup>242</sup>	57.797 <sup>19</sup>	51.99 <sup>98</sup>
27	24.202 <sup>135</sup>	79.44 <sup>254</sup>	45.169 <sup>52</sup>	47.92 <sup>15</sup>	6.771 <sup>89</sup>	67.11 <sup>213</sup>	57.778 <sup>51</sup>	52.97 <sup>73</sup>
Okt. 7	24.067 <sup>174</sup>	81.98 <sup>218</sup>	45.117 <sup>78</sup>	47.77 <sup>4</sup>	6.682 <sup>122</sup>	69.24 <sup>180</sup>	57.727 <sup>77</sup>	53.70 <sup>50</sup>
17	23.893 <sup>206</sup>	84.16 <sup>179</sup>	45.039 <sup>98</sup>	47.81 <sup>19</sup>	6.560 <sup>147</sup>	71.04 <sup>143</sup>	57.650 <sup>97</sup>	54.20 <sup>27</sup>
27	23.687 <sup>228</sup>	85.95 <sup>133</sup>	44.941 <sup>110</sup>	48.00 <sup>34</sup>	6.413 <sup>166</sup>	72.47 <sup>103</sup>	57.553 <sup>111</sup>	54.47 <sup>4</sup>
Nov. 6	23.459 <sup>244</sup>	87.28 <sup>86</sup>	44.831 <sup>116</sup>	48.34 <sup>45</sup>	6.247 <sup>179</sup>	73.50 <sup>61</sup>	57.442 <sup>118</sup>	54.51 <sup>19</sup>
16	23.215 <sup>251</sup>	88.14 <sup>35</sup>	44.715 <sup>115</sup>	48.79 <sup>56</sup>	6.068 <sup>184</sup>	74.11 <sup>18</sup>	57.324 <sup>120</sup>	54.32 <sup>39</sup>
26	22.964 <sup>251</sup>	88.49 <sup>17</sup>	44.600 <sup>110</sup>	49.35 <sup>63</sup>	5.884 <sup>184</sup>	74.29 <sup>27</sup>	57.204 <sup>116</sup>	53.93 <sup>58</sup>
Dez. 6	22.713 <sup>242</sup>	88.32 <sup>68</sup>	44.490 <sup>100</sup>	49.98 <sup>69</sup>	5.700 <sup>176</sup>	74.02 <sup>71</sup>	57.088 <sup>108</sup>	53.35 <sup>75</sup>
16	22.471 <sup>226</sup>	87.64 <sup>118</sup>	44.390 <sup>86</sup>	50.67 <sup>72</sup>	5.524 <sup>163</sup>	73.31 <sup>113</sup>	56.980 <sup>96</sup>	52.60 <sup>91</sup>
26	22.245 <sup>201</sup>	86.46 <sup>165</sup>	44.304 <sup>68</sup>	51.39 <sup>74</sup>	5.361 <sup>145</sup>	72.18 <sup>152</sup>	56.884 <sup>79</sup>	51.69 <sup>102</sup>
36	22.044	84.81	44.236	52.13	5.216	70.66	56.805	50.67
Mittl. Ort	21.767	61.11	42.508	62.51	4.341	48.91	55.215	36.67
sec δ, tg δ	1.553	+1.188	1.000	—0.008	1.281	+0.801	1.017	+0.185

# Obere Kulmination Greenwich

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Tag	856) β Gruis		857) γ Pegasi		859) λ Pegasi		860) ε Gruis	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	22 <sup>h</sup> 38 <sup>m</sup>	−47° 15'	22 <sup>h</sup> 39 <sup>m</sup>	+29° 50'	22 <sup>h</sup> 43 <sup>m</sup>	+23° 11'	22 <sup>h</sup> 44 <sup>m</sup>	−51° 41'
Jan. 1	24.35 <sup>0</sup> <sub>116</sub>	44.73 <sup>120</sup>	38.565 <sup>107</sup>	58.40 <sup>158</sup>	4.910 <sup>92</sup>	28.49 <sup>141</sup>	14.726 <sup>142</sup>	48.50 <sup>134</sup>
11	24.234 <sup>80</sup>	43.53 <sup>156</sup>	38.458 <sup>83</sup>	56.82 <sup>179</sup>	4.818 <sup>72</sup>	27.08 <sup>158</sup>	14.584 <sup>103</sup>	47.16 <sup>172</sup>
21	24.154 <sup>40</sup>	41.97 <sup>188</sup>	38.375 <sup>56</sup>	55.03 <sup>195</sup>	4.746 <sup>46</sup>	25.50 <sup>169</sup>	14.481 <sup>61</sup>	45.44 <sup>207</sup>
31	24.114 <sup>1</sup>	40.09 <sup>216</sup>	38.319 <sup>24</sup>	53.08 <sup>201</sup>	4.700 <sup>18</sup>	23.81 <sup>171</sup>	14.420 <sup>15</sup>	43.37 <sup>237</sup>
Feb. 10	24.115 <sup>44</sup>	37.93 <sup>239</sup>	38.295 <sup>11</sup>	51.07 <sup>199</sup>	4.682 <sup>15</sup>	22.10 <sup>167</sup>	14.405 <sup>33</sup>	41.00 <sup>260</sup>
20	24.159 <sup>89</sup>	35.54 <sup>257</sup>	38.306 <sup>50</sup>	49.08 <sup>189</sup>	4.697 <sup>50</sup>	20.43 <sup>154</sup>	14.438 <sup>83</sup>	38.40 <sup>279</sup>
März 2	24.248 <sup>136</sup>	32.97 <sup>270</sup>	38.356 <sup>91</sup>	47.19 <sup>169</sup>	4.747 <sup>88</sup>	18.89 <sup>133</sup>	14.521 <sup>133</sup>	35.61 <sup>291</sup>
12	24.384 <sup>182</sup>	30.27 <sup>278</sup>	38.447 <sup>133</sup>	45.50 <sup>140</sup>	4.835 <sup>128</sup>	17.56 <sup>107</sup>	14.654 <sup>185</sup>	32.70 <sup>298</sup>
22	24.566 <sup>229</sup>	27.49 <sup>280</sup>	38.580 <sup>175</sup>	44.10 <sup>107</sup>	4.963 <sup>167</sup>	16.49 <sup>73</sup>	14.839 <sup>236</sup>	29.72 <sup>299</sup>
Apr. 1	24.795 <sup>273</sup>	24.69 <sup>277</sup>	38.755 <sup>216</sup>	43.03 <sup>66</sup>	5.130 <sup>205</sup>	15.76 <sup>35</sup>	15.075 <sup>284</sup>	26.73 <sup>293</sup>
11	25.068 <sup>316</sup>	21.92 <sup>269</sup>	38.971 <sup>253</sup>	42.37 <sup>22</sup>	5.335 <sup>241</sup>	15.41 <sup>5</sup>	15.359 <sup>331</sup>	23.80 <sup>282</sup>
21	25.384 <sup>354</sup>	19.23 <sup>254</sup>	39.224 <sup>286</sup>	42.15 <sup>23</sup>	5.576 <sup>273</sup>	15.46 <sup>46</sup>	15.690 <sup>374</sup>	20.98 <sup>265</sup>
Mai 1	25.738 <sup>386</sup>	16.69 <sup>234</sup>	39.510 <sup>312</sup>	42.38 <sup>68</sup>	5.849 <sup>300</sup>	15.92 <sup>88</sup>	16.064 <sup>409</sup>	18.33 <sup>242</sup>
11	26.124 <sup>412</sup>	14.35 <sup>209</sup>	39.822 <sup>332</sup>	43.06 <sup>112</sup>	6.149 <sup>318</sup>	16.80 <sup>127</sup>	16.473 <sup>438</sup>	15.91 <sup>213</sup>
21	26.536 <sup>428</sup>	12.26 <sup>179</sup>	40.154 <sup>342</sup>	44.18 <sup>154</sup>	6.467 <sup>330</sup>	18.07 <sup>162</sup>	16.911 <sup>457</sup>	13.78 <sup>180</sup>
31	26.964 <sup>436</sup>	10.47 <sup>145</sup>	40.406 <sup>343</sup>	45.72 <sup>189</sup>	6.797 <sup>333</sup>	19.69 <sup>193</sup>	17.368 <sup>467</sup>	11.98 <sup>143</sup>
Juni 10	27.400 <sup>432</sup>	9.02 <sup>106</sup>	40.839 <sup>337</sup>	47.61 <sup>221</sup>	7.130 <sup>327</sup>	21.62 <sup>219</sup>	17.835 <sup>464</sup>	10.55 <sup>102</sup>
20	27.832 <sup>419</sup>	7.96 <sup>66</sup>	41.176 <sup>321</sup>	49.82 <sup>245</sup>	7.457 <sup>313</sup>	23.81 <sup>238</sup>	18.299 <sup>451</sup>	9.53 <sup>58</sup>
30	28.251 <sup>394</sup>	7.30 <sup>24</sup>	41.497 <sup>297</sup>	52.27 <sup>265</sup>	7.770 <sup>292</sup>	26.19 <sup>253</sup>	18.750 <sup>426</sup>	8.95 <sup>14</sup>
Juli 10	28.645 <sup>359</sup>	7.06 <sup>18</sup>	41.794 <sup>266</sup>	54.92 <sup>277</sup>	8.062 <sup>263</sup>	28.72 <sup>260</sup>	19.176 <sup>391</sup>	8.81 <sup>31</sup>
20	29.004 <sup>316</sup>	7.24 <sup>59</sup>	42.060 <sup>228</sup>	57.69 <sup>282</sup>	8.325 <sup>228</sup>	31.32 <sup>261</sup>	19.567 <sup>344</sup>	9.12 <sup>74</sup>
30	29.320 <sup>264</sup>	7.83 <sup>97</sup>	42.288 <sup>187</sup>	60.51 <sup>282</sup>	8.553 <sup>188</sup>	33.93 <sup>257</sup>	19.911 <sup>290</sup>	9.86 <sup>114</sup>
Aug. 9	29.584 <sup>207</sup>	8.80 <sup>131</sup>	42.475 <sup>143</sup>	63.33 <sup>276</sup>	8.741 <sup>146</sup>	36.50 <sup>247</sup>	20.201 <sup>228</sup>	11.00 <sup>150</sup>
19	29.791 <sup>146</sup>	10.11 <sup>160</sup>	42.618 <sup>96</sup>	66.09 <sup>264</sup>	8.887 <sup>101</sup>	38.97 <sup>234</sup>	20.429 <sup>162</sup>	12.50 <sup>179</sup>
29	29.937 <sup>82</sup>	11.71 <sup>182</sup>	42.714 <sup>50</sup>	68.73 <sup>248</sup>	8.988 <sup>58</sup>	41.31 <sup>215</sup>	20.591 <sup>94</sup>	14.29 <sup>201</sup>
Sept. 7	30.019 <sup>22</sup>	13.53 <sup>197</sup>	42.764 <sup>7</sup>	71.21 <sup>227</sup>	9.046 <sup>16</sup>	43.46 <sup>193</sup>	20.685 <sup>27</sup>	16.30 <sup>216</sup>
17	30.041 <sup>37</sup>	15.50 <sup>202</sup>	42.771 <sup>33</sup>	73.48 <sup>201</sup>	9.062 <sup>22</sup>	45.39 <sup>169</sup>	20.712 <sup>37</sup>	18.46 <sup>221</sup>
27	30.004 <sup>90</sup>	17.52 <sup>200</sup>	42.738 <sup>68</sup>	75.49 <sup>174</sup>	9.040 <sup>56</sup>	47.08 <sup>142</sup>	20.675 <sup>96</sup>	20.67 <sup>217</sup>
Okt. 7	29.914 <sup>133</sup>	19.52 <sup>189</sup>	42.670 <sup>98</sup>	77.23 <sup>143</sup>	8.984 <sup>84</sup>	48.50 <sup>113</sup>	20.579 <sup>146</sup>	22.84 <sup>204</sup>
17	29.781 <sup>168</sup>	21.41 <sup>168</sup>	42.572 <sup>121</sup>	78.66 <sup>110</sup>	8.900 <sup>107</sup>	49.63 <sup>83</sup>	20.433 <sup>185</sup>	24.88 <sup>181</sup>
27	29.613 <sup>193</sup>	23.09 <sup>142</sup>	42.451 <sup>138</sup>	79.76 <sup>74</sup>	8.793 <sup>122</sup>	50.46 <sup>52</sup>	20.248 <sup>215</sup>	26.69 <sup>151</sup>
Nov. 6	29.420 <sup>206</sup>	24.51 <sup>108</sup>	42.313 <sup>148</sup>	80.50 <sup>38</sup>	8.671 <sup>132</sup>	50.98 <sup>20</sup>	20.033 <sup>232</sup>	28.20 <sup>115</sup>
16	29.214 <sup>209</sup>	25.59 <sup>70</sup>	42.165 <sup>153</sup>	80.88 <sup>0</sup>	8.539 <sup>136</sup>	51.18 <sup>12</sup>	19.801 <sup>237</sup>	29.35 <sup>73</sup>
26	29.005 <sup>202</sup>	26.29 <sup>29</sup>	42.012 <sup>151</sup>	80.88 <sup>37</sup>	8.403 <sup>134</sup>	51.06 <sup>43</sup>	19.564 <sup>232</sup>	30.08 <sup>28</sup>
Dez. 6	28.803 <sup>186</sup>	26.58 <sup>14</sup>	41.861 <sup>144</sup>	80.51 <sup>74</sup>	8.269 <sup>128</sup>	50.63 <sup>74</sup>	19.332 <sup>218</sup>	30.36 <sup>18</sup>
16	28.617 <sup>164</sup>	26.44 <sup>56</sup>	41.717 <sup>133</sup>	79.77 <sup>108</sup>	8.141 <sup>117</sup>	49.89 <sup>102</sup>	19.114 <sup>193</sup>	30.18 <sup>65</sup>
26	28.453 <sup>135</sup>	25.88 <sup>98</sup>	41.584 <sup>116</sup>	78.69 <sup>139</sup>	8.024 <sup>101</sup>	48.87 <sup>126</sup>	18.921 <sup>163</sup>	29.53 <sup>109</sup>
36	28.318	24.90	41.468	77.30	7.923	47.61	18.758	28.44
Mittl. Ort	26.054	24.05	40.282	57.61	6.546	29.53	16.437	26.89
sec δ, tg δ	1.473	−1.082	1.153	+0.574	1.088	+0.428	1.613	−1.266

Tag	863) $\epsilon$ Cephei		864) $\lambda$ Aquarii		865) $\rho$ Indi		866) $\delta$ Aquarii	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	22 <sup>b</sup> 47 <sup>m</sup>	+65° 49'	22 <sup>b</sup> 48 <sup>m</sup>	-7° 57'	22 <sup>b</sup> 49 <sup>m</sup>	-70° 26'	22 <sup>b</sup> 50 <sup>m</sup>	-16° 11'
Jan. I	6.06	45.19	53.225	38.93	42.36	97.05	51.593	68.82
II	5.67	43.50	53.158	39.38	41.99	95.06	51.523	68.96
2I	5.33	41.33	53.111	39.73	41.71	92.61	51.474	68.93
3I	5.05	38.77	53.087	39.95	41.51	89.78	51.448	68.72
Feb. IO	4.86	35.92	53.087	40.02	41.40	86.64	51.448	68.31
20	4.75	32.90	53.115	39.91	41.39	83.28	51.476	67.70
März 2	4.73	29.83	53.173	39.60	41.47	79.76	51.535	66.88
12	4.81	26.83	53.264	39.08	41.65	76.18	51.627	65.85
22	4.99	24.03	53.389	38.32	41.93	72.61	51.753	64.61
Apr. I	5.27	21.55	53.549	37.33	42.30	69.13	51.915	63.17
II	5.63	19.47	53.743	36.11	42.76	65.80	52.113	61.55
2I	6.07	17.88	53.971	34.68	43.30	62.70	52.344	59.77
Mai I	6.57	16.83	54.229	33.06	43.91	59.89	52.607	57.87
II	7.12	16.36	54.513	31.27	44.58	57.43	52.896	55.88
2I	7.70	16.48	54.817	29.37	45.30	55.38	53.207	53.85
3I	8.29	17.19	55.135	27.41	46.06	53.77	53.533	51.84
Juni IO	8.88	18.46	55.459	25.42	46.83	52.65	53.865	49.89
20	9.46	20.26	55.781	23.47	47.60	52.04	54.196	48.06
30	10.00	22.54	56.094	21.61	48.35	51.96	54.518	46.38
Juli IO	10.49	25.23	56.388	19.88	49.06	52.39	54.823	44.91
20	10.92	28.28	56.658	18.32	49.71	53.33	55.102	43.68
30	11.28	31.61	56.896	16.97	50.29	54.75	55.350	42.71
Aug. 9	11.56	35.14	57.097	15.85	50.77	56.58	55.560	42.01
19	11.76	38.80	57.258	14.98	51.15	58.78	55.729	41.60
29	11.87	42.51	57.377	14.36	51.41	61.27	55.854	41.47
Sept. 7	11.89	46.19	57.453	13.98	51.55	63.94	55.935	41.59
17	11.83	49.77	57.487	13.84	51.56	66.71	55.973	41.93
27	11.70	53.18	57.484	13.91	51.45	69.46	55.971	42.46
Okt. 7	11.49	56.34	57.447	14.15	51.23	72.09	55.934	43.15
17	11.21	59.19	57.382	14.54	50.92	74.48	55.867	43.94
27	10.88	61.66	57.295	15.05	50.52	76.53	55.776	44.78
Nov. 6	10.50	63.68	57.192	15.63	50.06	78.15	55.670	45.62
16	10.08	65.21	57.081	16.26	49.55	79.28	55.554	46.44
26	9.64	66.19	56.968	16.92	49.03	79.86	55.435	47.19
Dez. 6	9.19	66.60	56.858	17.56	48.50	79.86	55.319	47.84
16	8.73	66.41	56.756	18.17	48.00	79.27	55.211	48.36
26	8.29	65.63	56.665	18.72	47.54	78.11	55.116	48.74
36	7.88	64.29	56.589	19.21	47.14	76.40	55.037	48.97
Mittl. Ort	8.83	36.00	54.690	28.33	44.61	72.90	53.041	55.72
sec $\delta$ , tg $\delta$	2.442	+2.228	1.010	-0.140	2.989	-2.817	1.041	-0.291

# Obere Kulmination Greenwich

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Tag	867) $\alpha$ Pisc. austr.		869) $\sigma$ Andromedae		870) $\beta$ Pegasi		871) $\alpha$ Pegasi	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	22 <sup>h</sup> 53 <sup>m</sup>	-29° 59'	22 <sup>h</sup> 58 <sup>m</sup>	+41° 56'	23 <sup>h</sup> 0 <sup>m</sup>	+27° 41'	23 <sup>h</sup> 1 <sup>m</sup>	+14° 49'
Jan. 1	42.391	73.04	37.221	42.88	18.181	51.03	11.863	19.11
11	42.306	72.65	37.060	41.32	18.069	49.65	11.774	18.00
21	42.245	71.98	36.923	39.42	17.977	48.05	11.704	16.78
31	42.210	71.04	36.816	37.26	17.908	46.30	11.654	15.51
Feb. 10	42.205	69.84	36.745	34.93	17.868	44.48	11.630	14.25
20	42.231	68.41	36.716	32.52	17.860	42.66	11.634	13.07
März 2	42.292	66.76	36.733	30.15	17.889	40.93	11.670	12.02
12	42.389	64.92	36.799	27.91	17.958	39.37	11.741	11.17
22	42.523	62.91	36.917	25.91	18.069	38.06	11.849	10.57
Apr. 1	42.696	60.76	37.086	24.22	18.222	37.07	11.996	10.27
11	42.907	58.52	37.305	22.93	18.417	36.44	12.180	10.31
21	43.155	56.21	37.570	22.09	18.651	36.23	12.400	10.69
Mai 1	43.436	53.90	37.876	21.74	18.921	36.44	12.654	11.43
11	43.748	51.63	38.215	21.90	19.220	37.08	12.935	12.51
21	44.083	49.45	38.578	22.56	19.541	38.14	13.238	13.91
31	44.434	47.41	38.956	23.71	19.878	39.59	13.556	15.60
Juni 10	44.795	45.56	39.339	25.31	20.220	41.39	13.881	17.53
20	45.155	43.96	39.716	27.32	20.559	43.50	14.204	19.64
30	45.506	42.64	40.078	29.69	20.887	45.85	14.518	21.89
Juli 10	45.839	41.63	40.415	32.35	21.194	48.39	14.814	24.21
20	46.146	40.96	40.720	35.24	21.474	51.05	15.085	26.56
30	46.420	40.64	40.985	38.29	21.721	53.77	15.325	28.86
Aug. 9	46.653	40.66	41.204	41.43	21.928	56.49	15.528	31.08
19	46.841	41.01	41.375	44.60	22.093	59.15	15.693	33.17
29	46.982	41.66	41.495	47.73	22.214	61.71	15.815	35.09
Sept. 7	47.073	42.57	41.565	50.75	22.290	64.11	15.896	36.81
17	47.116	43.70	41.585	53.61	22.323	66.31	15.936	38.31
27	47.113	44.99	41.559	56.26	22.317	68.29	15.939	39.58
Okt. 7	47.070	46.36	41.492	58.64	22.275	70.00	15.908	40.60
17	46.993	47.75	41.388	60.72	22.202	71.42	15.848	41.37
27	46.888	49.09	41.254	62.45	22.104	72.54	15.766	41.88
Nov. 6	46.763	50.33	41.095	63.78	21.986	73.33	15.666	42.15
16	46.627	51.40	40.919	64.70	21.856	73.78	15.555	42.17
26	46.487	52.26	40.732	65.17	21.718	73.88	15.438	41.95
Dec. 6	46.350	52.87	40.540	65.19	21.577	73.64	15.321	41.51
16	46.221	53.21	40.350	64.75	21.439	73.06	15.207	40.85
26	46.106	53.27	40.167	63.86	21.309	72.15	15.100	39.99
36	46.010	53.04	39.998	62.55	21.190	70.95	15.006	38.97
Mittl. Ort	43.840	56.05	39.015	38.16	19.773	50.23	13.348	22.29
sec $\delta$ , tg $\delta$	1.155	-0.577	1.344	+0.899	1.129	+0.525	1.034	+0.265

Tag	872) ♃ Gruis		874) π Cephei		873) ε <sup>2</sup> Aquarii		875) Br 3077	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	23 <sup>h</sup> 2 <sup>m</sup>	-43° 53'	23 <sup>h</sup> 5 <sup>m</sup>	+74° 59'	23 <sup>h</sup> 5 <sup>m</sup>	-21° 33'	23 <sup>h</sup> 9 <sup>m</sup>	+56° 46'
Jan. I	51.667 <sup>128</sup>	96.48 <sup>89</sup>	34.36 <sup>71</sup>	83.91 <sup>134</sup>	38.438 <sup>82</sup>	43.95 <sup>3</sup>	49.281 <sup>267</sup>	42.40 <sup>146</sup>
II	51.539 <sup>98</sup>	95.59 <sup>128</sup>	33.65 <sup>64</sup>	82.57 <sup>188</sup>	38.356 <sup>64</sup>	43.92 <sup>25</sup>	49.014 <sup>236</sup>	40.94 <sup>191</sup>
2I	51.441 <sup>66</sup>	94.31 <sup>161</sup>	33.01 <sup>54</sup>	80.69 <sup>234</sup>	38.292 <sup>41</sup>	43.67 <sup>48</sup>	48.778 <sup>196</sup>	39.03 <sup>228</sup>
3I	51.375 <sup>31</sup>	92.70 <sup>193</sup>	32.47 <sup>43</sup>	78.35 <sup>273</sup>	38.251 <sup>15</sup>	43.19 <sup>71</sup>	48.582 <sup>145</sup>	36.75 <sup>257</sup>
Feb. 10	51.344 <sup>8</sup>	90.77 <sup>220</sup>	32.04 <sup>28</sup>	75.62 <sup>297</sup>	38.236 <sup>13</sup>	42.48 <sup>94</sup>	48.437 <sup>87</sup>	34.18 <sup>274</sup>
20	51.352 <sup>49</sup>	88.57 <sup>242</sup>	31.76 <sup>13</sup>	72.65 <sup>312</sup>	38.249 <sup>43</sup>	41.54 <sup>116</sup>	48.350 <sup>22</sup>	31.44 <sup>281</sup>
März 2	51.401 <sup>93</sup>	86.15 <sup>259</sup>	31.63 <sup>2</sup>	69.53 <sup>313</sup>	38.292 <sup>78</sup>	40.38 <sup>138</sup>	48.328 <sup>49</sup>	28.63 <sup>275</sup>
12	51.494 <sup>138</sup>	83.56 <sup>272</sup>	31.65 <sup>18</sup>	66.40 <sup>301</sup>	38.370 <sup>113</sup>	39.00 <sup>158</sup>	48.377 <sup>121</sup>	25.88 <sup>258</sup>
22	51.632 <sup>184</sup>	80.84 <sup>280</sup>	31.83 <sup>33</sup>	63.39 <sup>277</sup>	38.483 <sup>151</sup>	37.42 <sup>176</sup>	48.498 <sup>194</sup>	23.30 <sup>230</sup>
Apr. I	51.816 <sup>228</sup>	78.04 <sup>282</sup>	32.16 <sup>48</sup>	60.62 <sup>242</sup>	38.634 <sup>188</sup>	35.66 <sup>192</sup>	48.692 <sup>262</sup>	21.00 <sup>193</sup>
II	52.044 <sup>272</sup>	75.22 <sup>278</sup>	32.64 <sup>60</sup>	58.20 <sup>198</sup>	38.822 <sup>224</sup>	33.74 <sup>204</sup>	48.954 <sup>326</sup>	19.07 <sup>148</sup>
2I	52.316 <sup>313</sup>	72.44 <sup>269</sup>	33.24 <sup>71</sup>	56.22 <sup>147</sup>	39.046 <sup>258</sup>	31.70 <sup>213</sup>	49.280 <sup>382</sup>	17.59 <sup>97</sup>
Mai I	52.629 <sup>348</sup>	69.75 <sup>254</sup>	33.95 <sup>79</sup>	54.75 <sup>92</sup>	39.304 <sup>288</sup>	29.57 <sup>218</sup>	49.662 <sup>426</sup>	16.62 <sup>43</sup>
II	52.977 <sup>377</sup>	67.21 <sup>233</sup>	34.74 <sup>86</sup>	53.83 <sup>33</sup>	39.592 <sup>312</sup>	27.39 <sup>217</sup>	50.088 <sup>459</sup>	16.19 <sup>12</sup>
2I	53.354 <sup>398</sup>	64.88 <sup>207</sup>	35.60 <sup>88</sup>	53.50 <sup>26</sup>	39.904 <sup>330</sup>	25.22 <sup>210</sup>	50.547 <sup>479</sup>	16.31 <sup>68</sup>
3I	53.752 <sup>411</sup>	62.81 <sup>176</sup>	36.48 <sup>88</sup>	53.76 <sup>85</sup>	40.234 <sup>339</sup>	23.12 <sup>200</sup>	51.026 <sup>486</sup>	16.99 <sup>122</sup>
Juni 10	54.163 <sup>413</sup>	61.05 <sup>140</sup>	37.36 <sup>86</sup>	54.61 <sup>141</sup>	40.573 <sup>341</sup>	21.12 <sup>183</sup>	51.512 <sup>480</sup>	18.21 <sup>172</sup>
20	54.576 <sup>406</sup>	59.65 <sup>102</sup>	38.22 <sup>82</sup>	56.02 <sup>194</sup>	40.914 <sup>334</sup>	19.29 <sup>163</sup>	51.992 <sup>460</sup>	19.93 <sup>217</sup>
30	54.982 <sup>387</sup>	58.63 <sup>60</sup>	39.04 <sup>75</sup>	57.96 <sup>240</sup>	41.248 <sup>319</sup>	17.66 <sup>137</sup>	52.452 <sup>430</sup>	22.10 <sup>257</sup>
Juli 10	55.369 <sup>359</sup>	58.03 <sup>18</sup>	39.79 <sup>67</sup>	60.36 <sup>282</sup>	41.567 <sup>296</sup>	16.29 <sup>110</sup>	52.882 <sup>389</sup>	24.67 <sup>291</sup>
20	55.728 <sup>322</sup>	57.85 <sup>24</sup>	40.46 <sup>57</sup>	63.18 <sup>316</sup>	41.863 <sup>265</sup>	15.19 <sup>79</sup>	53.271 <sup>340</sup>	27.58 <sup>317</sup>
30	56.050 <sup>276</sup>	58.09 <sup>65</sup>	41.03 <sup>45</sup>	66.34 <sup>344</sup>	42.128 <sup>229</sup>	14.40 <sup>47</sup>	53.611 <sup>282</sup>	30.75 <sup>336</sup>
Aug. 9	56.326 <sup>226</sup>	58.74 <sup>103</sup>	41.48 <sup>33</sup>	69.78 <sup>364</sup>	42.357 <sup>188</sup>	13.93 <sup>17</sup>	53.893 <sup>221</sup>	34.11 <sup>349</sup>
19	56.552 <sup>160</sup>	59.77 <sup>136</sup>	41.81 <sup>20</sup>	73.42 <sup>376</sup>	42.545 <sup>144</sup>	13.76 <sup>14</sup>	54.114 <sup>158</sup>	37.60 <sup>354</sup>
29	56.721 <sup>111</sup>	61.13 <sup>162</sup>	42.01 <sup>8</sup>	77.18 <sup>381</sup>	42.689 <sup>98</sup>	13.90 <sup>41</sup>	54.272 <sup>92</sup>	41.14 <sup>352</sup>
Sept. 7*)	56.832 <sup>54</sup>	62.75 <sup>182</sup>	42.09 <sup>5</sup>	80.99 <sup>379</sup>	42.787 <sup>54</sup>	14.31 <sup>65</sup>	54.364 <sup>28</sup>	44.66 <sup>342</sup>
17	56.886 <sup>2</sup>	64.57 <sup>195</sup>	42.04 <sup>18</sup>	84.78 <sup>367</sup>	42.841 <sup>12</sup>	14.96 <sup>84</sup>	54.392 <sup>32</sup>	48.08 <sup>326</sup>
27	56.884 <sup>53</sup>	66.52 <sup>198</sup>	41.86 <sup>30</sup>	88.45 <sup>349</sup>	42.853 <sup>26</sup>	15.80 <sup>98</sup>	54.360 <sup>90</sup>	51.34 <sup>304</sup>
Okt. 7	56.831 <sup>97</sup>	68.50 <sup>193</sup>	41.56 <sup>41</sup>	91.94 <sup>322</sup>	42.827 <sup>58</sup>	16.78 <sup>106</sup>	54.270 <sup>140</sup>	54.38 <sup>274</sup>
17	56.734 <sup>134</sup>	70.43 <sup>180</sup>	41.15 <sup>51</sup>	95.16 <sup>289</sup>	42.769 <sup>84</sup>	17.84 <sup>109</sup>	54.130 <sup>186</sup>	57.12 <sup>240</sup>
27	56.600 <sup>161</sup>	72.23 <sup>157</sup>	40.64 <sup>59</sup>	98.05 <sup>249</sup>	42.685 <sup>104</sup>	18.93 <sup>107</sup>	53.944 <sup>223</sup>	59.52 <sup>198</sup>
Nov. 6	56.439 <sup>179</sup>	73.80 <sup>129</sup>	40.05 <sup>67</sup>	100.54 <sup>200</sup>	42.581 <sup>116</sup>	20.00 <sup>98</sup>	53.721 <sup>254</sup>	61.50 <sup>153</sup>
16	56.260 <sup>188</sup>	75.09 <sup>95</sup>	39.38 <sup>73</sup>	102.54 <sup>147</sup>	42.465 <sup>122</sup>	20.98 <sup>86</sup>	53.467 <sup>276</sup>	63.03 <sup>103</sup>
26	56.072 <sup>187</sup>	76.04 <sup>97</sup>	38.65 <sup>76</sup>	104.01 <sup>90</sup>	42.343 <sup>121</sup>	21.84 <sup>71</sup>	53.191 <sup>290</sup>	64.06 <sup>50</sup>
Dez. 6	55.885 <sup>178</sup>	76.61 <sup>17</sup>	37.89 <sup>78</sup>	104.91 <sup>28</sup>	42.222 <sup>116</sup>	22.55 <sup>52</sup>	52.901 <sup>295</sup>	64.56 <sup>5</sup>
16	55.707 <sup>163</sup>	76.78 <sup>25</sup>	37.11 <sup>77</sup>	105.19 <sup>34</sup>	42.106 <sup>106</sup>	23.07 <sup>31</sup>	52.606 <sup>290</sup>	64.51 <sup>60</sup>
26	55.544 <sup>142</sup>	76.53 <sup>66</sup>	36.34 <sup>73</sup>	104.85 <sup>95</sup>	42.000 <sup>91</sup>	23.38 <sup>10</sup>	52.316 <sup>277</sup>	63.91 <sup>113</sup>
36	55.402	75.87	35.61	103.90	41.909	23.48	52.039	62.78
Mittl. Ort	53.106	76.04	38.05	72.62	39.794	29.26	51.390	33.79
sec δ, tg δ	1.388	-0.962	3.865	+3.733	1.075	-0.395	1.825	+1.527

\*) Bei Stern 875) lies Sept. 8



# Obere Kulmination Greenwich

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Tag	877) $\gamma$ Tucanae		879) $\gamma$ Sculptoris		880) $\tau$ Pegasi		882) 4 Cassiopeiae	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	23 <sup>h</sup> 13 <sup>m</sup>	-58° 37'	23 <sup>h</sup> 14 <sup>m</sup>	-32° 54'	23 <sup>h</sup> 17 <sup>m</sup>	+23° 20'	23 <sup>h</sup> 21 <sup>m</sup>	+61° 53'
Jan. I	16.250 <sup>226</sup>	54.32 <sup>136</sup>	58.343 <sup>106</sup>	86.72 <sup>39</sup>	5.737 <sup>109</sup>	64.80 <sup>120</sup>	38.28 <sup>34</sup>	44.09 <sup>128</sup>
II	16.024 <sup>186</sup>	52.96 <sup>182</sup>	58.237 <sup>85</sup>	86.33 <sup>72</sup>	5.628 <sup>94</sup>	63.60 <sup>138</sup>	37.94 <sup>32</sup>	42.81 <sup>178</sup>
2I	15.838 <sup>140</sup>	51.14 <sup>222</sup>	58.152 <sup>60</sup>	85.61 <sup>103</sup>	5.534 <sup>74</sup>	62.22 <sup>151</sup>	37.62 <sup>27</sup>	41.03 <sup>221</sup>
3I	15.698 <sup>89</sup>	48.92 <sup>258</sup>	58.092 <sup>32</sup>	84.58 <sup>132</sup>	5.460 <sup>49</sup>	60.71 <sup>157</sup>	37.35 <sup>21</sup>	38.82 <sup>254</sup>
Feb. 10	15.609 <sup>33</sup>	46.34 <sup>286</sup>	58.060 <sup>1</sup>	83.26 <sup>159</sup>	5.411 <sup>20</sup>	59.14 <sup>156</sup>	37.14 <sup>14</sup>	36.28 <sup>277</sup>
20	15.576 <sup>25</sup>	43.48 <sup>309</sup>	58.059 <sup>34</sup>	81.67 <sup>182</sup>	5.391 <sup>14</sup>	57.58 <sup>148</sup>	37.00 <sup>7</sup>	33.51 <sup>288</sup>
März 2	15.601 <sup>86</sup>	40.39 <sup>325</sup>	58.093 <sup>70</sup>	79.85 <sup>204</sup>	5.405 <sup>52</sup>	56.10 <sup>131</sup>	36.93 <sup>1</sup>	30.63 <sup>288</sup>
12	15.687 <sup>148</sup>	37.14 <sup>333</sup>	58.163 <sup>109</sup>	77.81 <sup>222</sup>	5.457 <sup>91</sup>	54.79 <sup>109</sup>	36.94 <sup>10</sup>	27.75 <sup>276</sup>
22	15.835 <sup>211</sup>	33.81 <sup>335</sup>	58.272 <sup>151</sup>	75.59 <sup>235</sup>	5.548 <sup>134</sup>	53.70 <sup>79</sup>	37.04 <sup>18</sup>	24.99 <sup>251</sup>
Apr. I	16.046 <sup>272</sup>	30.46 <sup>330</sup>	58.423 <sup>191</sup>	73.24 <sup>246</sup>	5.682 <sup>175</sup>	52.91 <sup>45</sup>	37.22 <sup>27</sup>	22.48 <sup>217</sup>
11	16.318 <sup>331</sup>	27.16 <sup>318</sup>	58.614 <sup>231</sup>	70.78 <sup>251</sup>	5.857 <sup>215</sup>	52.46 <sup>7</sup>	37.49 <sup>34</sup>	20.31 <sup>175</sup>
21	16.649 <sup>386</sup>	23.98 <sup>299</sup>	58.845 <sup>269</sup>	68.27 <sup>252</sup>	6.072 <sup>252</sup>	52.39 <sup>32</sup>	37.83 <sup>41</sup>	18.56 <sup>126</sup>
Mai I	17.035 <sup>434</sup>	20.99 <sup>274</sup>	59.114 <sup>302</sup>	65.75 <sup>246</sup>	6.324 <sup>282</sup>	52.71 <sup>71</sup>	38.24 <sup>46</sup>	17.30 <sup>72</sup>
11	17.469 <sup>475</sup>	18.25 <sup>243</sup>	59.416 <sup>330</sup>	63.29 <sup>236</sup>	6.606 <sup>308</sup>	53.42 <sup>109</sup>	38.70 <sup>50</sup>	16.58 <sup>16</sup>
21	17.944 <sup>505</sup>	15.82 <sup>207</sup>	59.746 <sup>351</sup>	60.93 <sup>220</sup>	6.914 <sup>326</sup>	54.51 <sup>146</sup>	39.20 <sup>53</sup>	16.42 <sup>41</sup>
31	18.449 <sup>524</sup>	13.75 <sup>166</sup>	60.097 <sup>364</sup>	58.73 <sup>198</sup>	7.240 <sup>335</sup>	55.97 <sup>176</sup>	39.73 <sup>54</sup>	16.83 <sup>96</sup>
Juni 10	18.973 <sup>531</sup>	12.09 <sup>120</sup>	60.461 <sup>368</sup>	56.75 <sup>172</sup>	7.575 <sup>335</sup>	57.73 <sup>204</sup>	40.27 <sup>54</sup>	17.79 <sup>148</sup>
20	19.504 <sup>524</sup>	10.89 <sup>72</sup>	60.829 <sup>363</sup>	55.03 <sup>142</sup>	7.910 <sup>327</sup>	59.77 <sup>226</sup>	40.81 <sup>52</sup>	19.27 <sup>198</sup>
30	20.028 <sup>504</sup>	10.17 <sup>23</sup>	61.192 <sup>349</sup>	53.61 <sup>107</sup>	8.237 <sup>310</sup>	62.03 <sup>241</sup>	41.33 <sup>49</sup>	21.25 <sup>241</sup>
Juli 10	20.532 <sup>471</sup>	9.94 <sup>27</sup>	61.541 <sup>326</sup>	52.54 <sup>71</sup>	8.547 <sup>287</sup>	64.44 <sup>251</sup>	41.82 <sup>44</sup>	23.66 <sup>278</sup>
20	21.003 <sup>425</sup>	10.21 <sup>75</sup>	61.867 <sup>294</sup>	51.83 <sup>34</sup>	8.834 <sup>256</sup>	66.95 <sup>255</sup>	42.26 <sup>38</sup>	26.44 <sup>310</sup>
30	21.428 <sup>368</sup>	10.96 <sup>121</sup>	62.161 <sup>256</sup>	51.49 <sup>5</sup>	9.090 <sup>220</sup>	69.50 <sup>254</sup>	42.64 <sup>33</sup>	29.54 <sup>334</sup>
Aug. 9	21.796 <sup>302</sup>	12.17 <sup>161</sup>	62.417 <sup>213</sup>	51.54 <sup>41</sup>	9.310 <sup>181</sup>	72.04 <sup>246</sup>	42.97 <sup>26</sup>	32.88 <sup>350</sup>
19	22.098 <sup>229</sup>	13.78 <sup>196</sup>	62.630 <sup>165</sup>	51.95 <sup>74</sup>	9.491 <sup>139</sup>	74.50 <sup>235</sup>	43.23 <sup>19</sup>	36.38 <sup>360</sup>
29	22.327 <sup>151</sup>	15.74 <sup>224</sup>	62.795 <sup>116</sup>	52.69 <sup>103</sup>	9.630 <sup>96</sup>	76.85 <sup>219</sup>	43.42 <sup>11</sup>	39.98 <sup>362</sup>
Sept. 8	22.478 <sup>71</sup>	17.98 <sup>243</sup>	62.911 <sup>66</sup>	53.72 <sup>128</sup>	9.726 <sup>55</sup>	79.04 <sup>199</sup>	43.53 <sup>4</sup>	43.60 <sup>357</sup>
17	22.549 <sup>6</sup>	20.41 <sup>251</sup>	62.977 <sup>19</sup>	55.00 <sup>145</sup>	9.781 <sup>15</sup>	81.03 <sup>177</sup>	43.57 <sup>3</sup>	47.17 <sup>344</sup>
27	22.543 <sup>80</sup>	22.92 <sup>249</sup>	62.996 <sup>25</sup>	56.45 <sup>156</sup>	9.796 <sup>20</sup>	82.80 <sup>153</sup>	43.54 <sup>9</sup>	50.61 <sup>325</sup>
Ok. 7	22.463 <sup>146</sup>	25.41 <sup>238</sup>	62.971 <sup>63</sup>	58.01 <sup>159</sup>	9.776 <sup>51</sup>	84.33 <sup>126</sup>	43.45 <sup>16</sup>	53.86 <sup>298</sup>
17	22.317 <sup>201</sup>	27.79 <sup>216</sup>	62.908 <sup>93</sup>	59.60 <sup>154</sup>	9.725 <sup>77</sup>	85.59 <sup>97</sup>	43.29 <sup>22</sup>	56.84 <sup>266</sup>
27	22.116 <sup>245</sup>	29.95 <sup>184</sup>	62.815 <sup>118</sup>	61.14 <sup>143</sup>	9.648 <sup>97</sup>	86.56 <sup>68</sup>	43.07 <sup>26</sup>	59.50 <sup>226</sup>
Nov. 6	21.871 <sup>277</sup>	31.79 <sup>146</sup>	62.697 <sup>134</sup>	62.57 <sup>126</sup>	9.551 <sup>112</sup>	87.24 <sup>39</sup>	42.81 <sup>30</sup>	61.76 <sup>182</sup>
16	21.594 <sup>295</sup>	33.25 <sup>100</sup>	62.563 <sup>143</sup>	63.83 <sup>102</sup>	9.439 <sup>122</sup>	87.63 <sup>9</sup>	42.51 <sup>33</sup>	63.58 <sup>131</sup>
26	21.299 <sup>300</sup>	34.25 <sup>50</sup>	62.420 <sup>145</sup>	64.85 <sup>75</sup>	9.317 <sup>126</sup>	87.72 <sup>22</sup>	42.18 <sup>35</sup>	64.89 <sup>77</sup>
Dez. 6	20.999 <sup>294</sup>	34.75 <sup>3</sup>	62.275 <sup>141</sup>	65.60 <sup>44</sup>	9.191 <sup>127</sup>	87.50 <sup>52</sup>	41.83 <sup>37</sup>	65.66 <sup>21</sup>
16	20.705 <sup>275</sup>	34.72 <sup>55</sup>	62.134 <sup>130</sup>	66.04 <sup>12</sup>	9.064 <sup>123</sup>	86.98 <sup>79</sup>	41.46 <sup>37</sup>	65.87 <sup>37</sup>
26	20.430 <sup>247</sup>	34.17 <sup>107</sup>	62.004 <sup>116</sup>	66.16 <sup>21</sup>	8.941 <sup>115</sup>	86.19 <sup>105</sup>	41.09 <sup>36</sup>	65.50 <sup>93</sup>
36	20.183	33.10	61.888	65.95	8.826	85.14	40.73	64.57
Mittl. Ort	17.717	31.03	59.640	68.83	7.203	64.87	40.52	34.01
sec $\delta$ , tg $\delta$	1.921	-1.640	1.191	-0.647	1.089	+0.432	2.123	+1.872

Tag	884) $\alpha$ Piscium		885) $\gamma$ Pegasi		891) $\epsilon$ Andromedae		892) $\epsilon$ Piscium	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	23 <sup>h</sup> 23 <sup>m</sup>	+0° 51'	23 <sup>h</sup> 25 <sup>m</sup>	+12° 21'	23 <sup>h</sup> 34 <sup>m</sup>	+42° 52'	23 <sup>h</sup> 36 <sup>m</sup>	+5° 14'
Jan. I	16.256 <sup>86</sup>	52.65 <sup>71</sup>	32.384 <sup>96</sup>	63.40 <sup>96</sup>	37.304 <sup>181</sup>	35.43 <sup>121</sup>	16.592 <sup>93</sup>	22.71 <sup>79</sup>
II	16.170 <sup>72</sup>	51.94 <sup>67</sup>	32.288 <sup>82</sup>	62.44 <sup>104</sup>	37.123 <sup>165</sup>	34.22 <sup>158</sup>	16.499 <sup>81</sup>	21.92 <sup>80</sup>
21	16.098 <sup>55</sup>	51.27 <sup>60</sup>	32.206 <sup>65</sup>	61.40 <sup>107</sup>	36.958 <sup>142</sup>	32.64 <sup>189</sup>	16.418 <sup>66</sup>	21.12 <sup>77</sup>
31	16.043 <sup>33</sup>	50.67 <sup>51</sup>	32.141 <sup>45</sup>	60.33 <sup>106</sup>	36.816 <sup>111</sup>	30.75 <sup>211</sup>	16.352 <sup>46</sup>	20.35 <sup>71</sup>
Feb. 10	16.010 <sup>9</sup>	50.16 <sup>37</sup>	32.098 <sup>17</sup>	59.27 <sup>98</sup>	36.705 <sup>74</sup>	28.64 <sup>225</sup>	16.306 <sup>22</sup>	19.64 <sup>59</sup>
20	16.001 <sup>20</sup>	49.79 <sup>19</sup>	32.081 <sup>12</sup>	58.29 <sup>86</sup>	36.631 <sup>30</sup>	26.39 <sup>229</sup>	16.284 <sup>6</sup>	19.05 <sup>45</sup>
März 2	16.021 <sup>53</sup>	49.60 <sup>1</sup>	32.093 <sup>47</sup>	57.43 <sup>68</sup>	36.601 <sup>20</sup>	24.10 <sup>223</sup>	16.290 <sup>39</sup>	18.60 <sup>25</sup>
12	16.074 <sup>87</sup>	49.61 <sup>25</sup>	32.140 <sup>84</sup>	56.75 <sup>45</sup>	36.621 <sup>72</sup>	21.87 <sup>207</sup>	16.329 <sup>74</sup>	18.35 <sup>2</sup>
22	16.161 <sup>125</sup>	49.86 <sup>51</sup>	32.224 <sup>122</sup>	56.30 <sup>17</sup>	36.693 <sup>126</sup>	19.80 <sup>181</sup>	16.403 <sup>112</sup>	18.33 <sup>24</sup>
Apr. I	16.286 <sup>162</sup>	50.37 <sup>77</sup>	32.346 <sup>161</sup>	56.13 <sup>14</sup>	36.819 <sup>181</sup>	17.99 <sup>149</sup>	16.515 <sup>150</sup>	18.57 <sup>51</sup>
II	16.448 <sup>198</sup>	51.14 <sup>104</sup>	32.507 <sup>200</sup>	56.27 <sup>46</sup>	37.000 <sup>233</sup>	16.50 <sup>108</sup>	16.665 <sup>189</sup>	19.08 <sup>81</sup>
21	16.646 <sup>233</sup>	52.18 <sup>131</sup>	32.707 <sup>236</sup>	56.73 <sup>78</sup>	37.233 <sup>280</sup>	15.42 <sup>64</sup>	16.854 <sup>225</sup>	19.89 <sup>109</sup>
Mai I	16.879 <sup>264</sup>	53.49 <sup>154</sup>	32.943 <sup>266</sup>	57.51 <sup>111</sup>	37.513 <sup>320</sup>	14.78 <sup>16</sup>	17.079 <sup>257</sup>	20.98 <sup>135</sup>
II	17.143 <sup>288</sup>	55.03 <sup>173</sup>	33.209 <sup>292</sup>	58.62 <sup>141</sup>	37.833 <sup>353</sup>	14.62 <sup>33</sup>	17.336 <sup>284</sup>	22.33 <sup>159</sup>
21	17.431 <sup>307</sup>	56.76 <sup>190</sup>	33.501 <sup>311</sup>	60.03 <sup>167</sup>	38.186 <sup>376</sup>	14.95 <sup>81</sup>	17.620 <sup>304</sup>	23.92 <sup>179</sup>
31	17.738 <sup>319</sup>	58.66 <sup>201</sup>	33.812 <sup>322</sup>	61.70 <sup>189</sup>	38.562 <sup>389</sup>	15.76 <sup>127</sup>	17.924 <sup>318</sup>	25.71 <sup>195</sup>
Juni 10	18.057 <sup>321</sup>	60.67 <sup>207</sup>	34.134 <sup>325</sup>	63.59 <sup>206</sup>	38.951 <sup>391</sup>	17.03 <sup>170</sup>	18.242 <sup>323</sup>	27.66 <sup>206</sup>
20	18.378 <sup>317</sup>	62.74 <sup>208</sup>	34.459 <sup>319</sup>	65.65 <sup>218</sup>	39.342 <sup>384</sup>	18.73 <sup>208</sup>	18.565 <sup>319</sup>	29.72 <sup>211</sup>
30	18.695 <sup>304</sup>	64.82 <sup>203</sup>	34.778 <sup>306</sup>	67.83 <sup>224</sup>	39.726 <sup>365</sup>	20.81 <sup>240</sup>	18.884 <sup>308</sup>	31.83 <sup>211</sup>
Juli 10	18.999 <sup>283</sup>	66.85 <sup>194</sup>	35.084 <sup>284</sup>	70.07 <sup>225</sup>	40.091 <sup>339</sup>	23.21 <sup>268</sup>	19.192 <sup>290</sup>	33.94 <sup>205</sup>
20	19.282 <sup>256</sup>	68.79 <sup>179</sup>	35.368 <sup>257</sup>	72.32 <sup>221</sup>	40.430 <sup>304</sup>	25.89 <sup>287</sup>	19.482 <sup>264</sup>	35.99 <sup>195</sup>
30	19.538 <sup>224</sup>	70.58 <sup>162</sup>	35.625 <sup>224</sup>	74.53 <sup>211</sup>	40.734 <sup>264</sup>	28.76 <sup>302</sup>	19.746 <sup>232</sup>	37.94 <sup>181</sup>
Aug. 9	19.762 <sup>186</sup>	72.20 <sup>141</sup>	35.849 <sup>187</sup>	76.64 <sup>197</sup>	40.998 <sup>219</sup>	31.78 <sup>310</sup>	19.978 <sup>197</sup>	39.75 <sup>163</sup>
19	19.948 <sup>147</sup>	73.61 <sup>118</sup>	36.036 <sup>147</sup>	78.61 <sup>181</sup>	41.217 <sup>171</sup>	34.88 <sup>310</sup>	20.175 <sup>159</sup>	41.38 <sup>142</sup>
29	20.095 <sup>107</sup>	74.79 <sup>94</sup>	36.183 <sup>106</sup>	80.42 <sup>160</sup>	41.388 <sup>121</sup>	37.98 <sup>305</sup>	20.334 <sup>119</sup>	42.80 <sup>120</sup>
Sept. 8	20.202 <sup>67</sup>	75.73 <sup>70</sup>	36.289 <sup>67</sup>	82.02 <sup>139</sup>	41.509 <sup>73</sup>	41.03 <sup>294</sup>	20.453 <sup>80</sup>	44.00 <sup>96</sup>
17	20.269 <sup>29</sup>	76.43 <sup>46</sup>	36.356 <sup>29</sup>	83.41 <sup>116</sup>	41.582 <sup>25</sup>	43.97 <sup>278</sup>	20.533 <sup>42</sup>	44.96 <sup>73</sup>
27	20.298 <sup>5</sup>	76.89 <sup>25</sup>	36.385 <sup>5</sup>	84.57 <sup>92</sup>	41.607 <sup>18</sup>	46.75 <sup>256</sup>	20.575 <sup>8</sup>	45.69 <sup>50</sup>
Okt. 7	20.293 <sup>35</sup>	77.14 <sup>5</sup>	36.380 <sup>36</sup>	85.49 <sup>69</sup>	41.589 <sup>58</sup>	49.31 <sup>230</sup>	20.583 <sup>23</sup>	46.19 <sup>28</sup>
17	20.258 <sup>59</sup>	77.19 <sup>13</sup>	36.344 <sup>60</sup>	86.18 <sup>45</sup>	41.531 <sup>94</sup>	51.61 <sup>199</sup>	20.560 <sup>48</sup>	46.47 <sup>9</sup>
27	20.199 <sup>78</sup>	77.06 <sup>28</sup>	36.284 <sup>80</sup>	86.63 <sup>23</sup>	41.437 <sup>123</sup>	53.60 <sup>164</sup>	20.512 <sup>69</sup>	46.56 <sup>10</sup>
Nov. 6	20.121 <sup>92</sup>	76.78 <sup>41</sup>	36.204 <sup>95</sup>	86.86 <sup>0</sup>	41.314 <sup>148</sup>	55.24 <sup>125</sup>	20.443 <sup>84</sup>	46.46 <sup>25</sup>
16	20.029 <sup>101</sup>	76.37 <sup>52</sup>	36.109 <sup>104</sup>	86.86 <sup>20</sup>	41.166 <sup>166</sup>	56.49 <sup>83</sup>	20.359 <sup>95</sup>	46.21 <sup>40</sup>
26	19.928 <sup>104</sup>	75.85 <sup>59</sup>	36.005 <sup>109</sup>	86.66 <sup>39</sup>	41.000 <sup>180</sup>	57.32 <sup>40</sup>	20.264 <sup>101</sup>	45.81 <sup>52</sup>
Dez. 6	19.824 <sup>103</sup>	75.26 <sup>65</sup>	35.896 <sup>110</sup>	86.27 <sup>58</sup>	40.820 <sup>187</sup>	57.72 <sup>6</sup>	20.163 <sup>103</sup>	45.29 <sup>62</sup>
16	19.721 <sup>99</sup>	74.61 <sup>68</sup>	35.786 <sup>107</sup>	85.69 <sup>74</sup>	40.633 <sup>189</sup>	57.66 <sup>51</sup>	20.060 <sup>102</sup>	44.67 <sup>70</sup>
26	19.622 <sup>91</sup>	73.93 <sup>69</sup>	35.679 <sup>99</sup>	84.95 <sup>87</sup>	40.444 <sup>184</sup>	57.15 <sup>93</sup>	19.958 <sup>96</sup>	43.97 <sup>76</sup>
36	19.531	73.24	35.580	84.08	40.260	56.22	19.862	43.21
Mittl. Ort	17.554	60.03	33.727	66.86	38.904	29.18	17.838	28.39
sec $\delta$ , $\epsilon$ $\delta$	1.000	+0.015	1.024	+0.219	1.364	+0.928	1.004	+0.092

# Obere Kulmination Greenwich

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Tag	893) $\gamma$ Cephei		894) $\omega^2$ Aquarii		895) $41$ H. Cephei		896) Lac. $\delta$ Sculptoris	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	23 <sup>h</sup> 36 <sup>m</sup>	+77° 13'	23 <sup>h</sup> 39 <sup>m</sup>	-14° 55'	23 <sup>h</sup> 44 <sup>m</sup>	+67° 24'	23 <sup>h</sup> 45 <sup>m</sup>	-28° 31'
Jan. I	21.47 <sup>89</sup>	82.69 <sup>86</sup>	1.356 <sup>95</sup>	87.85 <sup>29</sup>	27.85 <sup>46</sup>	56.04 <sup>92</sup>	12.742 <sup>115</sup>	39.61 <sup>8</sup>
II	20.58 <sup>83</sup>	81.83 <sup>145</sup>	1.261 <sup>82</sup>	88.14 <sup>9</sup>	27.39 <sup>43</sup>	55.12 <sup>147</sup>	12.627 <sup>100</sup>	39.53 <sup>39</sup>
2I	19.75 <sup>73</sup>	80.38 <sup>198</sup>	1.179 <sup>66</sup>	88.23 <sup>10</sup>	26.96 <sup>39</sup>	53.65 <sup>195</sup>	12.527 <sup>82</sup>	39.14 <sup>71</sup>
3I	19.02 <sup>61</sup>	78.40 <sup>242</sup>	1.113 <sup>45</sup>	88.13 <sup>31</sup>	26.57 <sup>33</sup>	51.70 <sup>237</sup>	12.445 <sup>60</sup>	38.43 <sup>100</sup>
Feb. 10	18.41 <sup>46</sup>	75.98 <sup>277</sup>	1.068 <sup>21</sup>	87.82 <sup>55</sup>	26.24 <sup>25</sup>	49.33 <sup>267</sup>	12.385 <sup>34</sup>	37.43 <sup>129</sup>
20	17.95 <sup>30</sup>	73.21 <sup>299</sup>	1.047 <sup>7</sup>	87.27 <sup>77</sup>	25.99 <sup>15</sup>	46.66 <sup>287</sup>	12.351 <sup>2</sup>	36.14 <sup>155</sup>
März 2	17.65 <sup>11</sup>	70.22 <sup>309</sup>	1.054 <sup>39</sup>	86.50 <sup>100</sup>	25.84 <sup>5</sup>	43.79 <sup>294</sup>	12.349 <sup>32</sup>	34.59 <sup>180</sup>
12	17.54 <sup>7</sup>	67.13 <sup>306</sup>	1.093 <sup>74</sup>	85.50 <sup>123</sup>	25.79 <sup>5</sup>	40.85 <sup>289</sup>	12.381 <sup>69</sup>	32.79 <sup>202</sup>
22	17.61 <sup>26</sup>	64.07 <sup>291</sup>	1.167 <sup>111</sup>	84.27 <sup>145</sup>	25.84 <sup>16</sup>	37.96 <sup>273</sup>	12.450 <sup>110</sup>	30.77 <sup>220</sup>
Apr. I	17.87 <sup>43</sup>	61.16 <sup>264</sup>	1.278 <sup>150</sup>	82.82 <sup>165</sup>	26.00 <sup>26</sup>	35.23 <sup>245</sup>	12.560 <sup>152</sup>	28.57 <sup>235</sup>
II	18.30 <sup>60</sup>	58.52 <sup>227</sup>	1.428 <sup>189</sup>	81.17 <sup>184</sup>	26.26 <sup>36</sup>	32.78 <sup>208</sup>	12.712 <sup>193</sup>	26.22 <sup>246</sup>
2I	18.90 <sup>74</sup>	56.25 <sup>181</sup>	1.617 <sup>225</sup>	79.33 <sup>199</sup>	26.62 <sup>44</sup>	30.70 <sup>163</sup>	12.905 <sup>232</sup>	23.76 <sup>252</sup>
Mai I	19.64 <sup>85</sup>	54.44 <sup>133</sup>	1.842 <sup>258</sup>	77.34 <sup>210</sup>	27.06 <sup>52</sup>	29.07 <sup>113</sup>	13.137 <sup>269</sup>	21.24 <sup>253</sup>
II	20.49 <sup>95</sup>	53.11 <sup>76</sup>	2.100 <sup>287</sup>	75.24 <sup>217</sup>	27.58 <sup>58</sup>	27.94 <sup>58</sup>	13.406 <sup>300</sup>	18.71 <sup>248</sup>
2I	21.44 <sup>100</sup>	52.35 <sup>17</sup>	2.387 <sup>309</sup>	73.07 <sup>219</sup>	28.16 <sup>62</sup>	27.36 <sup>1</sup>	13.706 <sup>326</sup>	16.23 <sup>238</sup>
3I	22.44 <sup>103</sup>	52.18 <sup>41</sup>	2.696 <sup>323</sup>	70.88 <sup>215</sup>	28.78 <sup>64</sup>	27.35 <sup>55</sup>	14.032 <sup>343</sup>	13.85 <sup>222</sup>
Juni 10	23.47 <sup>103</sup>	52.59 <sup>98</sup>	3.019 <sup>331</sup>	68.73 <sup>205</sup>	29.42 <sup>64</sup>	27.90 <sup>110</sup>	14.375 <sup>353</sup>	11.63 <sup>200</sup>
20	24.50 <sup>99</sup>	53.57 <sup>153</sup>	3.350 <sup>330</sup>	66.68 <sup>191</sup>	30.06 <sup>63</sup>	29.00 <sup>162</sup>	14.728 <sup>354</sup>	9.63 <sup>173</sup>
30	25.49 <sup>93</sup>	55.10 <sup>203</sup>	3.680 <sup>319</sup>	64.77 <sup>172</sup>	30.69 <sup>60</sup>	30.62 <sup>210</sup>	15.082 <sup>345</sup>	7.90 <sup>143</sup>
Juli 10	26.42 <sup>86</sup>	57.13 <sup>249</sup>	3.999 <sup>302</sup>	63.05 <sup>149</sup>	31.29 <sup>55</sup>	32.72 <sup>253</sup>	15.427 <sup>328</sup>	6.47 <sup>108</sup>
20	27.28 <sup>76</sup>	59.62 <sup>289</sup>	4.301 <sup>277</sup>	61.56 <sup>123</sup>	31.84 <sup>50</sup>	35.25 <sup>289</sup>	15.755 <sup>302</sup>	5.39 <sup>71</sup>
30	28.04 <sup>64</sup>	62.51 <sup>322</sup>	4.578 <sup>245</sup>	60.33 <sup>93</sup>	32.34 <sup>43</sup>	38.14 <sup>320</sup>	16.057 <sup>270</sup>	4.68 <sup>34</sup>
Aug. 9	28.68 <sup>51</sup>	65.73 <sup>349</sup>	4.823 <sup>210</sup>	59.40 <sup>63</sup>	32.77 <sup>35</sup>	41.34 <sup>342</sup>	16.327 <sup>232</sup>	4.34 <sup>3</sup>
19	29.19 <sup>37</sup>	69.22 <sup>368</sup>	5.033 <sup>170</sup>	58.77 <sup>32</sup>	33.12 <sup>27</sup>	44.76 <sup>359</sup>	16.559 <sup>189</sup>	4.37 <sup>40</sup>
29	29.56 <sup>23</sup>	72.90 <sup>380</sup>	5.203 <sup>128</sup>	58.45 <sup>4</sup>	33.39 <sup>19</sup>	48.35 <sup>368</sup>	16.748 <sup>144</sup>	4.77 <sup>72</sup>
Sept. 8	29.79 <sup>8</sup>	76.70 <sup>384</sup>	5.331 <sup>86</sup>	58.41 <sup>24</sup>	33.58 <sup>10</sup>	52.03 <sup>369</sup>	16.892 <sup>97</sup>	5.49 <sup>101</sup>
17	29.87 <sup>7</sup>	80.54 <sup>379</sup>	5.417 <sup>46</sup>	58.65 <sup>47</sup>	33.68 <sup>1</sup>	55.72 <sup>363</sup>	16.989 <sup>53</sup>	6.50 <sup>124</sup>
27	29.80 <sup>21</sup>	84.33 <sup>369</sup>	5.463 <sup>9</sup>	59.12 <sup>67</sup>	33.69 <sup>7</sup>	59.35 <sup>350</sup>	17.042 <sup>11</sup>	7.74 <sup>140</sup>
Okt. 7	29.59 <sup>34</sup>	88.02 <sup>349</sup>	5.472 <sup>23</sup>	59.79 <sup>81</sup>	33.62 <sup>15</sup>	62.85 <sup>328</sup>	17.053 <sup>27</sup>	9.14 <sup>150</sup>
17	29.25 <sup>48</sup>	91.51 <sup>321</sup>	5.449 <sup>52</sup>	60.60 <sup>91</sup>	33.47 <sup>22</sup>	66.13 <sup>301</sup>	17.026 <sup>60</sup>	10.64 <sup>152</sup>
27	28.77 <sup>60</sup>	94.72 <sup>286</sup>	5.397 <sup>74</sup>	61.51 <sup>96</sup>	33.25 <sup>29</sup>	69.14 <sup>265</sup>	16.966 <sup>86</sup>	12.16 <sup>148</sup>
Nov. 6	28.17 <sup>70</sup>	97.58 <sup>243</sup>	5.323 <sup>90</sup>	62.47 <sup>95</sup>	32.96 <sup>34</sup>	71.79 <sup>223</sup>	16.880 <sup>107</sup>	13.64 <sup>136</sup>
16	27.47 <sup>78</sup>	100.01 <sup>194</sup>	5.233 <sup>102</sup>	63.42 <sup>90</sup>	32.62 <sup>39</sup>	74.02 <sup>175</sup>	16.773 <sup>121</sup>	15.00 <sup>118</sup>
26	26.69 <sup>86</sup>	101.95 <sup>139</sup>	5.131 <sup>108</sup>	64.32 <sup>81</sup>	32.23 <sup>43</sup>	75.77 <sup>121</sup>	16.652 <sup>128</sup>	16.18 <sup>96</sup>
Dez. 6	25.83 <sup>90</sup>	103.34 <sup>79</sup>	5.023 <sup>109</sup>	65.13 <sup>70</sup>	31.80 <sup>47</sup>	76.98 <sup>65</sup>	16.524 <sup>130</sup>	17.14 <sup>69</sup>
16	24.93 <sup>92</sup>	104.13 <sup>17</sup>	4.914 <sup>105</sup>	65.83 <sup>55</sup>	31.33 <sup>47</sup>	77.63 <sup>5</sup>	16.394 <sup>128</sup>	17.83 <sup>41</sup>
26	24.01 <sup>90</sup>	104.30 <sup>47</sup>	4.809 <sup>99</sup>	66.38 <sup>38</sup>	30.86 <sup>47</sup>	77.68 <sup>54</sup>	16.266 <sup>120</sup>	18.24 <sup>9</sup>
36	23.11	103.83	4.710	66.76	30.39	77.14	16.146	18.33
Mittl. Ort	25.11	69.82	2.505	75.40	30.19	44.13	13.811	23.01
sec $\frac{1}{2}$ , tg $\delta$	4.526	+4.414	1.035	-0.267	2.604	+2.404	1.138	-0.543

Tag	898) $\varphi$ Pegasi		902) $\omega$ Piscium		903) $\varepsilon$ Tucanae	
	AR.	Dekl.	AR.	Dekl.	AR.	Dekl.
1929	23 <sup>h</sup> 48 <sup>m</sup>	+18° 43'	23 <sup>h</sup> 55 <sup>m</sup>	+6° 28'	23 <sup>h</sup> 56 <sup>m</sup>	-65° 57'
Jan. I	51.123	32.23	38.696	7.91	13.42	104.61
II	51.011 <sub>112</sub>	31.28 <sub>95</sub>	38.595 <sub>101</sub>	7.15 <sub>76</sub>	13.04 <sub>38</sub>	103.48 <sub>113</sub>
2I	50.908 <sub>103</sub>	30.19 <sub>109</sub>	38.503 <sub>92</sub>	6.37 <sub>78</sub>	12.70 <sub>34</sub>	101.81 <sub>167</sub>
3I	50.819 <sub>89</sub>	28.99 <sub>120</sub>	38.423 <sub>80</sub>	5.61 <sub>76</sub>	12.41 <sub>29</sub>	99.65 <sub>216</sub>
Feb. 10	50.750 <sub>69</sub>	27.75 <sub>124</sub>	38.361 <sub>62</sub>	4.90 <sub>71</sub>	12.17 <sub>24</sub>	97.06 <sub>259</sub>
	44 <sub>123</sub>		40 <sub>40</sub>	61 <sub>61</sub>	17 <sub>17</sub>	295 <sub>295</sub>
20	50.706	26.52	38.321	4.29	12.00	94.11
März 2	50.692 <sub>14</sub>	25.37 <sub>115</sub>	38.308 <sub>13</sub>	3.81 <sub>48</sub>	11.90 <sub>10</sub>	90.86 <sub>325</sub>
12	50.712 <sub>20</sub>	24.35 <sub>102</sub>	38.326 <sub>18</sub>	3.52 <sub>29</sub>	11.87 <sub>3</sub>	87.40 <sub>346</sub>
22	50.770 <sub>58</sub>	23.54 <sub>81</sub>	38.379 <sub>53</sub>	3.44 <sub>8</sub>	11.93 <sub>6</sub>	83.79 <sub>361</sub>
Apr. I	50.870 <sub>100</sub>	22.98 <sub>56</sub>	38.471 <sub>92</sub>	3.61 <sub>17</sub>	12.07 <sub>14</sub>	80.12 <sub>367</sub>
	142 <sub>142</sub>	26 <sub>26</sub>	132 <sub>132</sub>	44 <sub>44</sub>	22 <sub>22</sub>	365 <sub>365</sub>
11	51.012	22.72	38.603	4.05	12.29	76.47
21	51.196 <sub>184</sub>	22.80 <sub>8</sub>	38.775 <sub>172</sub>	4.78 <sub>73</sub>	12.59 <sub>30</sub>	72.91 <sub>356</sub>
Mai I	51.418 <sub>222</sub>	23.22 <sub>42</sub>	38.985 <sub>210</sub>	5.80 <sub>102</sub>	12.96 <sub>37</sub>	69.51 <sub>340</sub>
11	51.676 <sub>258</sub>	23.99 <sub>77</sub>	39.230 <sub>245</sub>	7.08 <sub>128</sub>	13.41 <sub>45</sub>	66.35 <sub>316</sub>
21	51.964 <sub>288</sub>	25.10 <sub>111</sub>	39.504 <sub>274</sub>	8.61 <sub>153</sub>	13.92 <sub>51</sub>	63.50 <sub>285</sub>
	310 <sub>142</sub>		298 <sub>298</sub>	175 <sub>175</sub>	57 <sub>57</sub>	248 <sub>248</sub>
31	52.274	26.52	39.802	10.36	14.49	61.02
Juni 10	52.599 <sub>325</sub>	28.23 <sub>171</sub>	40.115 <sub>313</sub>	12.27 <sub>191</sub>	15.09 <sub>60</sub>	58.96 <sub>206</sub>
20	52.930 <sub>331</sub>	30.17 <sub>194</sub>	40.437 <sub>322</sub>	14.31 <sub>204</sub>	15.72 <sub>63</sub>	57.37 <sub>159</sub>
30	53.260 <sub>330</sub>	32.29 <sub>212</sub>	40.759 <sub>322</sub>	16.42 <sub>211</sub>	16.35 <sub>63</sub>	56.30 <sub>107</sub>
Juli 10	53.578 <sub>318</sub>	34.54 <sub>225</sub>	41.073 <sub>314</sub>	18.54 <sub>212</sub>	16.98 <sub>63</sub>	55.77 <sub>53</sub>
	301 <sub>233</sub>		298 <sub>298</sub>	209 <sub>209</sub>	61 <sub>61</sub>	1 <sub>1</sub>
20	53.879	36.87	41.371	20.63	17.59	55.78
30	54.154 <sub>275</sub>	39.22 <sub>235</sub>	41.646 <sub>275</sub>	22.62 <sub>199</sub>	18.15 <sub>56</sub>	56.33 <sub>55</sub>
Aug. 9	54.398 <sub>244</sub>	41.54 <sub>232</sub>	41.891 <sub>245</sub>	24.49 <sub>187</sub>	18.66 <sub>51</sub>	57.40 <sub>107</sub>
19	54.607 <sub>209</sub>	43.77 <sub>223</sub>	42.104 <sub>213</sub>	26.20 <sub>171</sub>	19.10 <sub>44</sub>	58.95 <sub>155</sub>
29	54.778 <sub>171</sub>	45.87 <sub>210</sub>	42.280 <sub>176</sub>	27.70 <sub>150</sub>	19.45 <sub>35</sub>	60.93 <sub>198</sub>
	130 <sub>195</sub>		137 <sub>137</sub>	128 <sub>128</sub>	27 <sub>27</sub>	233 <sub>233</sub>
Sept. 8	54.908	47.82	42.417	28.98	19.72	63.26
18	54.999 <sub>91</sub>	49.58 <sub>176</sub>	42.516 <sub>99</sub>	30.04 <sub>106</sub>	19.89 <sub>17</sub>	65.86 <sub>260</sub>
27	55.051 <sub>52</sub>	51.12 <sub>154</sub>	42.577 <sub>61</sub>	30.86 <sub>82</sub>	19.96 <sub>7</sub>	68.62 <sub>276</sub>
Okt. 7	55.069 <sub>18</sub>	52.44 <sub>132</sub>	42.604 <sub>27</sub>	31.45 <sub>59</sub>	19.93 <sub>3</sub>	71.44 <sub>282</sub>
17	55.054 <sub>15</sub>	53.51 <sub>107</sub>	42.600 <sub>4</sub>	31.82 <sub>37</sub>	19.81 <sub>12</sub>	74.19 <sub>275</sub>
	43 <sub>83</sub>		32 <sub>32</sub>	17 <sub>17</sub>	20 <sub>20</sub>	258 <sub>258</sub>
27	55.011	54.34	42.568	31.99	19.61	76.77
Nov. 6	54.946 <sub>65</sub>	54.92 <sub>58</sub>	42.514 <sub>54</sub>	31.97 <sub>2</sub>	19.33 <sub>28</sub>	79.07 <sub>230</sub>
16	54.862 <sub>84</sub>	55.25 <sub>33</sub>	42.442 <sub>72</sub>	31.79 <sub>18</sub>	19.00 <sub>33</sub>	80.99 <sub>192</sub>
26	54.764 <sub>98</sub>	55.32 <sub>7</sub>	42.356 <sub>86</sub>	31.45 <sub>34</sub>	18.62 <sub>38</sub>	82.45 <sub>146</sub>
Dez. 6	54.656 <sub>108</sub>	55.15 <sub>17</sub>	42.261 <sub>95</sub>	30.99 <sub>46</sub>	18.21 <sub>41</sub>	83.38 <sub>93</sub>
	114 <sub>40</sub>		101 <sub>101</sub>	56 <sub>56</sub>	42 <sub>42</sub>	37 <sub>37</sub>
16	54.542	54.75	42.160	30.43	17.79	83.75
26	54.427 <sub>115</sub>	54.12 <sub>63</sub>	42.057 <sub>103</sub>	29.77 <sub>66</sub>	17.38 <sub>41</sub>	83.54 <sub>21</sub>
36	54.314 <sub>113</sub>	53.30 <sub>82</sub>	41.956 <sub>101</sub>	29.06 <sub>71</sub>	16.98 <sub>40</sub>	82.74 <sub>80</sub>
Mittl. Ort	52.380	33.02	39.839	12.78	14.27	80.09
sec $\delta$ , tg $\delta$	1.056	+0.339	1.006	+0.113	2.456	-2.243

zur Ermittlung der kurzperiodischen Nutationsglieder

N.F.K.	<i>a</i>	<i>b</i>	<i>a'</i>	<i>b'</i>	N.F.K.	<i>a</i>	<i>b</i>	<i>a'</i>	<i>b'</i>
Nr.					Nr.				
10	+ 2.9	-0.145	+20.0	-0.071	474	+3.6	+0.170	-19.8	+0.143
11	+ 2.5	-0.303	+20.0	-0.096	486	+2.4	-0.145	-19.5	+0.228
24	+ 3.9	+0.238	+19.7	-0.178	499	+1.5	-0.200	-18.7	+0.360
51	+ 4.8	+0.196	+18.4	-0.394	524	-0.2	-0.262	-16.9	+0.534
55	+ 4.4	+0.148	+18.3	-0.411	542	+7.4	+0.258	-15.4	+0.639
70	+ 5.1	+0.180	+17.5	-0.490	550	-0.2	-0.176	-14.7	+0.678
76	+ 4.7	+0.128	+17.0	-0.533	560	+5.6	+0.113	-13.4	+0.744
87	+ 5.7	+0.167	+15.8	-0.613	565	+0.6	-0.107	-13.3	+0.748
90	- 1.4	-0.280	+15.7	-0.620	569	-0.1	-0.132	-12.8	+0.768
105	+ 7.9	+0.249	+14.4	-0.697	590	-2.2	-0.173	-11.0	+0.835
115	+ 7.5	+0.202	+13.5	-0.741	606	-1.7	-0.121	- 9.0	+0.893
138	+ 6.3	+0.110	+11.3	-0.826	611	+9.2	+0.138	- 8.3	+0.911
141	+ 0.7	-0.080	+11.3	-0.827	619	-0.1	-0.067	- 7.8	+0.921
146	- 1.0	-0.130	+10.9	-0.839	625	+6.3	+0.058	- 6.8	+0.941
173	+ 8.0	+0.091	+ 6.9	-0.939	639	+0.2	-0.033	- 4.5	+0.975
178	+ 6.0	+0.047	+ 6.3	-0.950	664	-0.4	-0.017	- 2.0	+0.995
191	+ 9.9	+0.074	+ 4.3	-0.977	670	-1.1	-0.015	- 1.5	+0.997
196	- 0.1	-0.032	+ 4.0	-0.980	675	-2.7	-0.009	- 0.6	+0.999
205	+ 8.0	+0.032	+ 2.6	-0.992	695	-1.2	+0.021	+ 2.0	+0.995
234	+ 6.6	-0.009	- 1.0	-0.999	698	+7.0	-0.030	+ 3.0	+0.988
248	+10.3	-0.054	- 3.0	-0.989	723	0.0	+0.050	+ 6.2	+0.950
281	0.0	+0.054	- 6.6	-0.944	729	-1.1	+0.073	+ 6.6	+0.944
284	+ 6.3	-0.061	- 7.1	-0.934	747	-0.2	+0.084	+ 9.1	+0.890
297	- 0.7	+0.091	- 8.7	-0.901	748	+7.0	-0.103	+ 9.4	+0.882
300	+ 7.2	-0.110	- 9.4	-0.883	754	+5.7	-0.077	+10.2	+0.862
310	+ 7.6	-0.144	-10.8	-0.842	759	-2.0	+0.163	+10.9	+0.840
318	- 1.7	+0.172	-11.7	-0.812	770	-0.8	+0.151	+12.4	+0.787
343	+ 1.0	+0.107	-14.3	-0.703	775	+5.4	-0.098	+12.8	+0.770
344	+ 5.3	-0.115	-14.4	-0.694	795	-1.2	+0.225	+14.6	+0.685
348	+ 0.7	+0.132	-14.9	-0.668	805	+5.0	-0.113	+15.4	+0.641
357	+ 5.3	-0.146	-15.8	-0.615	809	+0.8	+0.146	+15.8	+0.616
372	+ 5.4	-0.188	-17.0	-0.530	810	+6.7	-0.246	+16.1	+0.596
387	+ 4.3	-0.135	-18.1	-0.426	837	+1.2	+0.181	+17.7	+0.468
391	+ 1.2	+0.208	-18.3	-0.411	863	+2.1	+0.141	+19.0	+0.312
395	+ 5.2	-0.248	-18.5	-0.386	865	+4.2	-0.179	+19.1	+0.302
433	+ 3.6	-0.179	-19.8	-0.143	874	+1.9	+0.242	+19.5	+0.235
440	+ 3.4	-0.157	-20.0	-0.093	893	+2.5	+0.293	+19.9	+0.103
454	+ 2.8	-0.314	-20.0	+0.039	895	+2.9	+0.160	+20.0	+0.068
459	+ 3.5	+0.340	-20.0	+0.062	903	+3.1	-0.150	+20.0	+0.016
472	+ 2.6	-0.183	-19.9	+0.133					

Na) 43 Hev. Cephei 4<sup>m</sup>.52

Tag	Januar			Februar			März			April		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	+		in	+		in	+		in	+		in
	0 <sup>h</sup> 58 <sup>m</sup>	85° 52'	0.01 0.01	0 <sup>h</sup> 58 <sup>m</sup>	85° 52'	0.01 0.01	0 <sup>h</sup> 58 <sup>m</sup>	85° 52'	0.01 0.01	0 <sup>h</sup> 58 <sup>m</sup>	85° 52'	0.01 0.01
1	37.81	53.98	- 6 + 8	28.68	53.45	- 5 - 5	22.17	48.13	- 3 - 7	19.26	39.17	+ 8 - 3
2	37.51	54.06	- 8 + 4	28.40	53.33	- 1 - 7	22.00	47.87	+ 1 - 7	19.26	38.86	+ 9 0
3	37.21	54.13	- 8 0	28.13	53.21	+ 2 - 7	21.83	47.61	+ 4 - 7	19.26	38.56	+ 8 + 3
4	36.92	54.20	- 6 - 4	27.86	53.08	+ 6 - 6	21.66	47.35	+ 7 - 5	19.27	38.25	+ 5 + 5
5	36.62	54.26	- 4 - 6	27.59	52.94	+ 8 - 4	21.50	47.09	+ 9 - 2	19.28	37.95	+ 1 + 7
6	36.32	54.32	0 - 7	27.33	52.80	+ 9 - 1	21.35	46.82	+ 9 + 1	19.30	37.65	- 3 + 6
7	36.02	54.37	+ 4 - 7	27.07	52.65	+ 9 + 3	21.20	46.55	+ 7 + 4	19.33	37.34	- 7 + 5
8	35.73	54.41	+ 7 - 5	26.81	52.50	+ 6 + 5	21.06	46.28	+ 4 + 6	19.36	37.04	-10 + 1
9	35.43	54.44	+ 8 - 3	26.55	52.34	+ 2 + 7	20.92	46.00	0 + 7	19.40	36.74	-11 - 3
10	35.13	54.47	+ 9 0	26.29	52.17	- 2 + 7	20.79	45.72	- 5 + 6	19.44	36.44	-10 - 7
11	34.82	54.49	+ 8 + 3	26.04	52.00	- 6 + 5	20.66	45.44	- 9 + 4	19.49	36.14	- 6 -10
12	34.52	54.51	+ 5 + 6	25.79	51.83	-10 + 2	20.54	45.16	-11 0	19.54	35.84	- 1 -10
13	34.22	54.52	+ 1 + 7	25.54	51.65	-11 - 2	20.42	44.87	-11 - 5	19.60	35.55	+ 4 - 8
14	33.92	54.52	- 4 + 6	25.30	51.46	-10 - 7	20.31	44.58	- 8 - 8	19.66	35.26	+ 8 - 5
15	33.62	54.51	- 8 + 4	25.06	51.27	- 7 -10	20.20	44.29	- 4 -10	19.73	34.97	+11 0
16	33.32	54.50	-11 0	24.83	51.08	- 2 -11	20.10	44.00	+ 1 -10	19.81	34.68	+11 + 5
17	33.03	54.48	-11 - 5	24.60	50.88	+ 3 -10	20.00	43.70	+ 6 - 7	19.89	34.39	+ 8 + 9
18	32.73	54.46	- 9 - 9	24.38	50.67	+ 7 - 6	19.91	43.41	+ 9 - 3	19.98	34.10	+ 4 +11
19	32.43	54.43	- 5 -11	24.16	50.46	+10 - 2	19.83	43.11	+11 + 2	20.07	33.82	- 1 +11
20	32.14	54.39	0 -11	23.94	50.25	+10 + 4	19.75	42.81	+ 9 + 7	20.17	33.54	- 5 + 8
21	31.84	54.34	+ 5 - 9	23.72	50.03	+ 8 + 8	19.68	42.51	+ 6 +10	20.27	33.26	- 8 + 5
22	31.54	54.29	+ 9 - 5	23.51	49.81	+ 4 +10	19.61	42.20	+ 2 +11	20.38	32.98	- 9 + 1
23	31.25	54.23	+10 + 1	23.30	49.58	0 +11	19.55	41.90	- 3 +10	20.49	32.71	- 8 - 3
24	30.96	54.17	+10 + 6	23.10	49.35	- 4 + 9	19.50	41.59	- 7 + 7	20.61	32.44	- 5 - 6
25	30.67	54.10	+ 7 +10	22.91	49.11	- 7 + 6	19.45	41.29	- 8 + 4	20.74	32.17	- 2 - 7
26	30.38	54.03	+ 3 +11	22.72	48.87	- 9 + 2	19.40	40.99	- 9 - 1	20.87	31.91	+ 2 - 8
27	30.09	53.95	- 2 +11	22.53	48.63	- 8 - 2	19.36	40.68	- 7 - 4	21.00	31.64	+ 5 - 6
28	29.80	53.86	- 5 + 9	22.35	48.38	- 6 - 5	19.33	40.38	- 4 - 6	21.14	31.38	+ 8 - 4
29	29.52	53.77	- 8 + 5	22.17	48.13	- 3 - 7	19.30	40.08	0 - 7	21.28	31.12	+ 9 - 1
30	29.24	53.67	- 8 + 1				19.28	39.77	+ 3 - 7	21.43	30.87	+ 8 + 2
31	28.96	53.56	- 7 - 2				19.27	39.47	+ 6 - 6	21.58	30.62	+ 6 + 4
32	28.68	53.45	- 5 - 5				19.26	39.17	+ 8 - 3			

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+85° 52' 30"	13.902	+13.866	+85° 52' 50"	13.921	+13.885
40	13.911	+13.875	60	13.930	+13.894

$$\alpha_{1929.0} = 0^h 58^m 42^s.32$$

$$\delta_{1929.0} = +85^\circ 52' 38''.03$$

\*) Tag der doppelten unteren Kulmination: April 6

Na) 43 Hev. Cephei 4<sup>m</sup>.52

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder
	o <sup>h</sup> 58 <sup>m</sup>	85° 52'	o.o.   o.o.	o <sup>h</sup> 58 <sup>m</sup>	85° 52'	o.o.   o.o.	o <sup>h</sup> 58 <sup>m</sup>	85° 52'	o.o.   o.o.	o <sup>h</sup> 58 <sup>m</sup>	85° 52'	o.o.   o.o.
	+	in		+	in		+	in		+	in	
I	21.58	30.62	+ 6 + 4	28.37	24.96	- 8 + 3	37.18	24.17	- 11 - 8	46.33	28.48	+ 5 - 9
2	21.74	30.38	+ 3 + 6	28.64	24.85	- 11 - 1	37.49	24.23	- 8 - 11	46.60	28.70	+ 9 - 5
3	21.90	30.14	- 1 + 6	28.91	24.75	- 12 - 5	37.80	24.29	- 3 - 12	46.87	28.92	+ 11 + 1
4	22.07	29.90	- 6 + 5	29.19	24.66	- 10 - 9	38.10	24.36	+ 2 - 11	47.14	29.15	+ 9 + 6
5	22.25	29.66	- 9 + 2	29.46	24.57	- 6 - 11	38.41	24.44	+ 7 - 7	47.40	29.38	+ 6 + 10
6	22.42	29.43	- 11 - 2	29.74	24.48	0 - 11	38.72	24.52	+ 10 - 2	47.66	29.62	+ 2 + 11
7	22.60	29.20	- 11 - 6	30.02	24.40	+ 5 - 9	39.02	24.60	+ 11 + 4	47.92	29.86	- 3 + 11
8	22.79	28.98	- 8 - 9	30.30	24.33	+ 9 - 4	39.33	24.69	+ 8 + 8	48.18	30.10	- 7 + 8
9	22.98	28.76	- 3 - 11	30.59	24.26	+ 11 + 1	39.63	24.79	+ 5 + 11	48.44	30.35	- 9 + 4
10	23.17	28.54	+ 2 - 10	30.88	24.20	+ 10 + 6	39.93	24.89	0 + 12	48.69	30.60	- 8 0
11	23.37	28.33	+ 7 - 7	31.17	24.14	+ 8 + 10	40.24	25.00	- 4 + 10	48.94	30.86	- 6 - 3
12	23.57	28.12	+ 10 - 2	31.46	24.09	+ 4 + 12	40.54	25.12	- 8 + 7	49.18	31.12	- 3 - 6
13	23.78	27.92	+ 11 + 4	31.75	24.05	- 2 + 12	40.84	25.24	- 9 + 3	49.43	31.38	+ 1 - 7
14	23.99	27.72	+ 9 + 8	32.05	24.01	- 6 + 9	41.14	25.36	- 8 - 1	49.67	31.65	+ 5 - 6
15	24.21	27.53	+ 6 + 11	32.34	23.97	- 8 + 5	41.44	25.49	- 5 - 4	49.91	31.92	+ 7 - 4
16	24.43	27.34	+ 1 + 12	32.64	23.94	- 9 + 1	41.74	25.63	- 2 - 6	50.15	32.20	+ 9 - 1
17	24.65	27.15	- 4 + 10	32.93	23.92	- 7 - 3	42.04	25.77	+ 2 - 6	50.38	32.48	+ 9 + 2
18	24.87	26.97	- 7 + 7	33.23	23.90	- 4 - 6	42.33	25.91	+ 5 - 5	50.61	32.77	+ 8 + 4
19	25.10	26.79	- 8 + 3	33.53	23.88	- 1 - 7	42.63	26.06	+ 8 - 3	50.84	33.06	+ 5 + 7
20	25.33	26.62	- 8 - 1	33.83	23.88	+ 3 - 7	42.93	26.22	+ 9 0	51.07	33.35	+ 1 + 8
21	25.57	26.45	- 6 - 4	34.14	23.88	+ 6 - 5	43.22	26.38	+ 9 + 2	51.29	33.64	- 3 + 7
22	25.81	26.29	- 3 - 7	34.44	23.88	+ 9 - 3	43.51	26.55	+ 7 + 5	51.51	33.94	- 7 + 5
23	26.05	26.13	+ 1 - 7	34.74	23.89	+ 9 0	43.80	26.72	+ 4 + 7	51.72	34.25	- 10 + 1
24	26.30	25.98	+ 4 - 7	35.05	23.91	+ 8 + 3	44.09	26.89	- 1 + 7	51.94	34.55	- 11 - 4
25	26.55	25.83	+ 7 - 5	35.35	23.93	+ 6 + 5	44.37	27.07	- 5 + 6	52.15	34.86	- 10 - 8
26	26.80	25.69	+ 9 - 2	35.65	23.95	+ 2 + 7	44.66	27.26	- 9 + 3	52.35	35.17	- 7 - 11
27	27.05	25.56	+ 9 + 1	35.96	23.98	- 3 + 6	44.94	27.45	- 11 - 1	52.55	35.49	- 2 - 12
28	27.31	25.43	+ 7 + 4	36.26	24.02	- 7 + 4	45.22	27.65	- 11 - 6	52.75	35.81	+ 3 - 11
29	27.57	25.30	+ 4 + 6	36.57	24.06	- 10 + 1	45.50	27.85	- 9 - 10	52.94	36.13	+ 8 - 7
30	27.83	25.18	0 + 6	36.88	24.11	- 12 - 4	45.78	28.06	- 5 - 12	53.13	36.46	+ 10 - 2
31	28.10	25.07	- 4 + 6	37.18	24.17	- 11 - 8	46.06	28.27	0 - 12	53.32	36.79	+ 10 + 3
32	28.37	24.96	- 8 + 3				46.33	28.48	+ 5 - 9	53.51	37.12	+ 8 + 8

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+85° 52' 20"	13.893	+13.857	+85° 52' 30"	13.902	+13.866
30	13.902	+13.866	40	13.911	+13.875

$$\alpha_{1929.0} = \text{o}^{\text{h}} 58^{\text{m}} 42^{\text{s}}.32$$

$$\delta_{1929.0} = +85^{\circ} 52' 38''.03$$

Na) 43 Hev. Cephei 4<sup>m</sup>.52

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder
	0 <sup>h</sup> 58 <sup>m</sup>	85° 52'	+ 0.01 0.01	0 <sup>h</sup> 58 <sup>m</sup>	85° 52'	+ 0.01 0.01	0 <sup>h</sup> 58 <sup>m</sup>	85° 53'	+ 0.01 0.01	0 <sup>h</sup> 58 <sup>m</sup>	85° 53'	+ 0.01 0.01
			+			+			+			+
			in			in			in			in
			0.01 0.01			0.01 0.01			0.01 0.01			0.01 0.01
1	53.51	37.12	+ 8 + 8	57.23	48.05	- 4 + 9	56.85	0.28	- 4 - 6	52.31	9.89	+ 6 - 5
2	53.69	37.45	+ 3 + 10	57.29	48.44	- 8 + 6	56.76	0.64	0 - 7	52.09	10.15	+ 9 - 3
3	53.87	37.79	- 1 + 11	57.34	48.82	- 9 + 2	56.67	1.00	+ 4 - 6	51.87	10.40	+ 10 0
4	54.04	38.13	- 5 + 9	57.39	49.21	- 9 - 2	56.57	1.36	+ 7 - 5	51.65	10.65	+ 9 + 3
5	54.21	38.47	- 8 + 5	57.44	49.60	- 6 - 5	56.47	1.72	+ 9 - 2	51.43	10.89	+ 7 + 6
6	54.38	38.81	- 9 + 1	57.48	49.98	- 3 - 7	56.36	2.07	+ 9 + 1	51.20	11.13	+ 3 + 7
7	54.54	39.16	- 8 - 2	57.52	50.37	+ 1 - 7	56.25	2.42	+ 8 + 4	50.97	11.36	- 1 + 7
8	54.70	39.51	- 5 - 5	57.58	51.15	+ 8 - 4	56.14	2.77	+ 5 + 6	50.73	11.59	- 5 + 5
9	54.86	39.86	- 1 - 7	57.60	51.54	+ 9 - 1	56.02	3.12	+ 2 + 7	50.49	11.81	- 9 + 2
10	55.01	40.22	+ 3 - 6	57.62	51.93	+ 9 + 2	55.89	3.46	- 3 + 7	50.25	12.03	- 11 - 2
11	55.16	40.57	+ 6 - 5	57.63	52.31	+ 7 + 5	55.76	3.80	- 7 + 5	50.01	12.25	- 11 - 6
12	55.30	40.93	+ 9 - 2	57.64	52.70	+ 4 + 7	55.63	4.14	- 10 + 1	49.76	12.46	- 9 - 10
13	55.44	41.29	+ 9 + 1	57.64	53.09	0 + 7	55.50	4.48	- 11 - 3	49.51	12.66	- 5 - 12
14	55.57	41.65	+ 9 + 3	57.64	53.48	- 4 + 6	55.36	4.81	- 10 - 7	49.26	12.86	0 - 12
15	55.70	42.02	+ 7 + 6	57.64	53.86	- 8 + 4	55.21	5.14	- 7 - 10	49.01	13.05	+ 5 - 9
16	55.83	42.38	+ 3 + 8	57.63	54.25	- 11 0	55.06	5.46	- 3 - 12	48.75	13.24	+ 9 - 4
17	55.95	42.75	- 1 + 7	57.61	54.64	- 11 - 4	54.91	5.78	+ 3 - 11	48.49	13.42	+ 11 + 1
18	56.07	43.12	- 6 + 6	57.59	55.02	- 9 - 8	54.75	6.10	+ 7 - 7	48.22	13.59	+ 10 + 6
19	56.18	43.49	- 9 + 3	57.57	55.40	- 5 - 11	54.59	6.42	+ 10 - 2	47.95	13.76	+ 7 + 10
20	56.29	43.86	- 11 - 2	57.54	55.79	0 - 11	54.42	6.73	+ 11 + 4	47.68	13.92	+ 2 + 12
21	56.40	44.24	- 11 - 6	57.51	56.17	+ 5 - 9	54.25	7.04	+ 9 + 8	47.41	14.08	- 3 + 11
22	56.50	44.62	- 8 - 9	57.47	56.55	+ 9 - 5	54.07	7.34	+ 5 + 11	47.14	14.23	- 7 + 8
23	56.60	44.99	- 4 - 11	57.43	56.93	+ 11 0	53.89	7.64	0 + 12	46.87	14.38	- 9 + 4
24	56.69	45.37	+ 2 - 11	57.38	57.31	+ 10 + 5	53.71	7.94	- 5 + 10	46.59	14.52	- 9 0
25	56.78	45.75	+ 6 - 8	57.33	57.68	+ 7 + 9	53.52	8.23	- 8 + 6	46.31	14.65	- 7 - 4
26	56.87	46.13	+ 10 - 3	57.28	58.06	+ 3 + 11	53.33	8.52	- 9 + 2	46.03	14.78	- 3 - 6
27	56.95	46.51	+ 10 + 2	57.22	58.44	- 2 + 11	53.13	8.80	- 9 - 2	45.74	14.90	+ 1 - 7
28	57.03	46.89	+ 9 + 7	57.15	58.81	- 6 + 8	52.93	9.08	- 6 - 5	45.46	15.01	+ 5 - 6
29	57.10	47.28	+ 5 + 10	57.08	59.18	- 9 + 4	52.73	9.35	- 2 - 7	45.17	15.12	+ 8 - 4
30	57.17	47.66	0 + 11	57.01	59.55	- 9 0	52.52	9.62	+ 2 - 7	44.88	15.22	+ 9 - 1
31	57.23	48.05	- 4 + 9	56.93	59.91	- 7 - 4	52.31	9.89	+ 6 - 5	44.60	15.31	+ 10 + 2
32				56.85	60.28	- 4 - 6				44.31	15.40	+ 8 + 5

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+85° 52' 30"	13.902	+13.866	+85° 52' 50"	13.921	+13.885	+85° 53' 10"	13.939	+13.903
40	13.911	+13.875	53 0	13.930	+13.894	20	13.949	+13.913

$$\alpha_{1929,0} = 0^h 58^m 42^s.32$$

$$\delta_{1929,0} = +85^\circ 52' 38'' 03$$



## Obere Kulmination Greenwich

Nb)  $\alpha$  Ursae minoris 2<sup>m</sup>.12

Tag	Januar			Februar			März			April		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	1 <sup>h</sup> 35 <sup>m</sup>	88° 55'	0.01   0.01	1 <sup>h</sup> 35 <sup>m</sup>	88° 55'	0.01   0.01	1 <sup>h</sup> 34 <sup>m</sup>	88° 55'	0.01   0.01	1 <sup>h</sup> 34 <sup>m</sup>	88° 55'	0.01   0.01
		+	in		+	in		+	in		+	in
1	74.82	40.89	-22 + 9	39.18	42.20	-17 - 5	70.89	38.22	-11 - 6	54.23	29.89	+30 - 4
2	73.72	41.03	-29 + 5	38.04	42.14	- 6 - 7	70.07	38.00	+ 4 - 7	54.02	29.59	+33 - 2
3	72.62	41.16	-30 + 1	36.91	42.07	+ 7 - 7	69.26	37.78	+15 - 7	53.84	29.28	+29 + 2
4	71.52	41.29	-24 - 3	35.79	42.00	+20 - 7	68.47	37.55	+26 - 6	53.68	28.98	+20 + 5
5	70.40	41.41	-14 - 6	34.67	41.92	+29 - 5	67.70	37.32	+32 - 3	53.54	28.68	+ 6 + 7
6	69.27	41.52	- 1 - 7	33.56	41.83	+33 - 2	66.95	37.08	+33 0	53.42	28.38	-11 + 7
7	68.14	41.63	+12 - 8	32.45	41.74	+32 + 1	66.22	36.84	+27 + 3	53.33	28.07	-26 + 6
8	67.00	41.73	+23 - 7	31.36	41.64	+24 + 4	65.50	36.60	+16 + 6	53.25	27.77	-38 + 3
9	65.86	41.83	+31 - 4	30.27	41.53	+10 + 7	64.80	36.35	0 + 7	53.20	27.46	-42 - 1
10	64.72	41.92	+33 - 1	29.19	41.42	- 6 + 7	64.12	36.10	-16 + 7	53.17	27.16	-37 - 5
11	63.57	42.00	+29 + 2	28.12	41.30	-23 + 6	63.46	35.84	-31 + 5	53.16	26.86	-24 - 9
12	62.41	42.08	+19 + 5	27.06	41.18	-35 + 4	62.82	35.58	-40 + 1	53.18	26.55	- 5 -10
13	61.26	42.15	+ 4 + 7	26.01	41.05	-42 0	62.19	35.32	-41 - 3	53.21	26.25	+14 - 9
14	60.10	42.21	-13 + 7	24.97	40.91	-39 - 5	61.59	35.05	-32 - 7	53.27	25.94	+30 - 6
15	58.94	42.27	-29 + 5	23.94	40.77	-27 - 9	61.00	34.79	-17 -10	53.35	25.64	+40 - 1
16	57.77	42.32	-40 + 1	22.92	40.62	-10 -11	60.44	34.52	+ 2 -10	53.45	25.34	+39 + 4
17	56.60	42.36	-42 - 3	21.92	40.47	+ 9 -10	59.90	34.25	+21 - 8	53.57	25.03	+30 + 8
18	55.44	42.40	-35 - 7	20.92	40.31	+26 - 8	59.37	33.97	+34 - 5	53.72	24.73	+15 +11
19	54.27	42.43	-21 -10	19.94	40.14	+37 - 3	58.87	33.69	+39 0	53.88	24.44	- 2 +11
20	53.10	42.45	- 3 -11	18.97	39.97	+38 + 2	58.38	33.41	+36 + 5	54.07	24.14	-18 +10
21	51.93	42.46	+17 -10	18.01	39.79	+31 + 7	57.92	33.13	+24 + 9	54.28	23.84	-28 + 6
22	50.76	42.47	+31 - 6	17.07	39.61	+18 +10	57.48	32.84	+ 7 +11	54.51	23.55	-33 + 2
23	49.60	42.47	+38 - 1	16.14	39.43	+ 1 +11	57.05	32.56	- 9 +10	54.76	23.26	-29 - 2
24	48.43	42.47	+37 + 4	15.23	39.24	-15 +10	56.65	32.27	-23 + 8	55.03	22.97	-20 - 5
25	47.26	42.46	+27 + 9	14.33	39.04	-26 + 7	56.28	31.97	-30 + 5	55.32	22.68	- 8 - 7
26	46.09	42.44	+12 +11	13.45	38.84	-32 + 4	55.92	31.68	-32 + 1	55.63	22.39	+ 6 - 8
27	44.93	42.42	- 5 +11	12.58	38.64	-30 0	55.58	31.38	-26 - 3	55.96	22.11	+18 - 7
28	43.77	42.39	-19 +10	11.73	38.43	-21 - 4	55.27	31.08	-15 - 6	56.32	21.82	+27 - 5
29	42.62	42.35	-28 + 6	10.89	38.22	-11 - 6	54.98	30.79	- 3 - 7	56.69	21.54	+32 - 3
30	41.47	42.31	-31 + 2				54.71	30.49	+11 - 8	57.08	21.26	+31 0
31	40.32	42.26	-27 - 1				54.46	30.19	+23 - 7	57.49	20.98	+24 + 3
32	39.18	42.20	-17 - 5				54.23	29.89	+30 - 4			

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+88° 55' 20"	53.164	+53.155	+88° 55' 40"	53.440	+53.430
30	53.302	+53.292	50	53.578	+53.569

$$\alpha_{1929.0} = 1^h 36^m 20^s.24$$

$$\delta_{1929.0} = +88^\circ 55' 24''.36$$

\*) Tag der doppelten unteren Kulmination: April 16

N<sub>b</sub>)  $\alpha$  Ursae minoris 2<sup>m</sup>.12

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	$\angle$ Glieder	AR.	Dekl.	$\angle$ Glieder	AR	Dekl.	$\angle$ Glieder	AR.	Dekl.	$\angle$ Glieder
	1 <sup>h</sup> 34 <sup>m</sup>	88° 55'	<sup>0.01</sup>   <sup>0.01</sup>	1 <sup>h</sup> 35 <sup>m</sup>	88° 55'	<sup>0.01</sup>   <sup>0.01</sup>	1 <sup>h</sup> 35 <sup>m</sup>	88° 55'	<sup>0.01</sup>   <sup>0.01</sup>	1 <sup>h</sup> 36 <sup>m</sup>	88° 55'	<sup>0.01</sup>   <sup>0.01</sup>
1	57.49	20.98	+24 + 3	18.88	14.09	-31 + 4	50.57	11.61	-41 - 6	26.43	14.13	+18 - 10
2	57.92	20.71	+11 + 6	19.81	13.93	-40 + 1	51.72	11.61	-30 - 10	27.55	14.29	+32 - 6
3	58.37	20.44	- 4 + 7	20.74	13.78	-43 - 3	52.87	11.62	-13 - 12	28.66	14.46	+39 - 1
4	58.84	20.17	-21 + 6	21.69	13.63	-37 - 8	54.03	11.63	+ 8 - 11	29.77	14.64	+35 + 4
5	59.33	19.91	-34 + 3	22.65	13.49	-23 - 10	55.19	11.65	+25 - 8	30.87	14.82	+24 + 9
6	59.84	19.64	-42 0	23.62	13.35	- 4 - 11	56.35	11.67	+37 - 4	31.97	15.00	+ 8 + 11
7	60.36	19.38	-41 - 4	24.60	13.22	+16 - 9	57.52	11.70	+40 + 2	33.06	15.19	-10 + 11
8	60.91	19.12	-31 - 8	25.59	13.09	+32 - 6	58.68	11.73	+32 + 7	34.14	15.38	-23 + 9
9	61.47	18.87	-14 - 10	26.59	12.97	+40 0	59.85	11.77	+19 + 11	35.22	15.58	-32 + 6
10	62.05	18.62	+ 6 - 10	27.60	12.85	+39 + 5	61.02	11.81	+ 2 + 12	36.29	15.78	-31 + 1
11	62.65	18.37	+25 - 8	28.63	12.74	+29 + 9	62.19	11.86	-14 + 11	37.36	15.99	-24 - 2
12	63.27	18.13	+37 - 3	29.66	12.63	+13 + 12	63.36	11.92	-26 + 8	38.41	16.20	-13 - 5
13	63.90	17.89	+41 + 2	30.69	12.53	- 4 + 12	64.53	11.98	-31 + 4	39.46	16.41	+ 2 - 7
14	64.55	17.65	+36 + 7	31.74	12.43	-19 + 10	65.70	12.05	-29 0	40.50	16.63	+16 - 7
15	65.21	17.42	+23 + 10	32.80	12.34	-29 + 7	66.87	12.12	-20 - 4	41.54	16.86	+27 - 5
16	65.89	17.19	+ 6 + 12	33.86	12.25	-31 + 2	68.04	12.20	- 8 - 6	42.56	17.09	+34 - 3
17	66.59	16.96	-11 + 11	34.93	12.17	-27 - 2	69.20	12.28	+ 7 - 7	43.58	17.32	+34 0
18	67.31	16.74	-25 + 8	36.01	12.10	-16 - 5	70.37	12.37	+19 - 6	44.59	17.56	+30 + 3
19	68.04	16.52	-31 + 4	37.09	12.03	- 3 - 7	71.53	12.46	+29 - 5	45.59	17.80	+20 + 6
20	68.79	16.31	-31 0	38.18	11.96	+10 - 7	72.69	12.56	+34 - 2	46.58	18.05	+ 5 + 8
21	69.55	16.10	-24 - 4	39.28	11.90	+23 - 6	73.85	12.66	+33 + 1	47.57	18.30	-11 + 8
22	70.33	15.89	-13 - 6	40.38	11.85	+31 - 4	75.01	12.77	+27 + 4	48.54	18.55	-27 + 6
23	71.12	15.69	+ 1 - 8	41.49	11.80	+34 - 1	76.17	12.88	+15 + 6	49.50	18.81	-38 + 2
24	71.93	15.49	+15 - 8	42.61	11.76	+31 + 2	77.32	13.00	- 1 + 7	50.46	19.07	-42 - 2
25	72.75	15.30	+26 - 6	43.73	11.72	+22 + 5	78.47	13.13	-18 + 7	51.40	19.34	-38 - 6
26	73.59	15.11	+32 - 4	44.86	11.69	+ 8 + 6	79.62	13.26	-32 + 4	52.34	19.61	-26 - 10
27	74.44	14.93	+33 - 1	45.99	11.66	- 8 + 7	80.76	13.39	-41 0	53.26	19.88	- 8 - 12
28	75.30	14.75	+28 + 2	47.13	11.64	-25 + 5	81.90	13.53	-43 - 4	54.17	20.16	+11 - 11
29	76.17	14.58	+17 + 5	48.27	11.63	-37 + 2	83.04	13.67	-35 - 8	55.07	20.44	+28 - 8
30	77.06	14.41	+ 2 + 6	49.42	11.62	-44 - 2	84.18	13.82	-20 - 11	55.96	20.73	+37 - 3
31	77.97	14.25	-15 + 6	50.57	11.61	-41 - 6	85.31	13.97	- 1 - 12	56.84	21.02	+37 + 2
32	78.88	14.09	-31 + 4				86.43	14.13	+18 - 10	57.71	21.31	+29 + 7

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+88° 55' 10"	53.027	+53.018	+88° 55' 20"	53.164	+53.155
20	53.164	+53.155	30	53.302	+53.292

$$\alpha_{1929,0} = 1^{\text{h}} 36^{\text{m}} 20^{\text{s}}.24$$

$$\delta_{1929,0} = +88^{\circ} 55' 24''.36$$

# Scheinbare Sternörter 1929

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Obere Kulmination Greenwich

Nb)  $\alpha$  Ursae minoris 2<sup>m</sup>.12

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder
	$1^h 36^m$	$88^\circ 55'$	$\begin{matrix} + \\ \text{in} \\ \text{0.01} \end{matrix}$	$1^h 37^m$	$88^\circ 55'$	$\begin{matrix} + \\ \text{in} \\ \text{0.01} \end{matrix}$	$1^h 37^m$	$88^\circ 55'$	$\begin{matrix} + \\ \text{in} \\ \text{0.01} \end{matrix}$	$1^h 36^m$	$88^\circ 55'$	$\begin{matrix} + \\ \text{in} \\ \text{0.01} \end{matrix}$
1	57.71	21.31	+29 + 7	17.62	31.47	-14 +10	22.87	43.76	-16 - 6	70.66	54.28	+22 - 6
2	58.56	21.61	+14 +10	18.05	31.84	-27 + 8	22.73	44.15	- 1 - 7	69.97	54.58	+31 - 4
3	59.40	21.91	- 4 +11	18.47	32.22	-34 + 4	22.58	44.53	+13 - 7	69.27	54.88	+35 - 1
4	60.24	22.21	-19 +10	18.87	32.60	-32 0	22.40	44.90	+25 - 6	68.55	55.18	+33 + 2
5	61.06	22.52	-30 + 7	19.25	32.97	-23 - 4	22.21	45.28	+33 - 3	67.82	55.47	+25 + 5
6	61.86	22.83	-33 + 3	19.62	33.35	-11 - 6	22.00	45.66	+35 0	67.07	55.76	+13 + 6
7	62.66	23.14	-29 - 1	19.97	33.73	+ 5 - 7	21.76	46.03	+31 + 3	66.30	56.04	- 3 + 7
8	63.44	23.45	-18 - 5	20.31	34.11	+18 - 7	21.51	46.40	+21 + 5	65.52	56.32	-19 + 6
9	64.21	23.77	- 4 - 7	20.62	34.49	+29 - 5	21.25	46.77	+ 7 + 7	64.72	56.60	-33 + 4
10	64.96	24.09	+10 - 7	20.92	34.88	+34 - 2	20.96	47.14	-10 + 7	63.91	56.87	-42 0
11	65.71	24.42	+23 - 6	21.21	35.26	+34 + 1	20.65	47.51	-25 + 6	63.08	57.14	-44 - 5
12	66.44	24.75	+31 - 4	21.47	35.64	+28 + 4	20.33	47.87	-37 + 3	62.24	57.40	-35 - 9
13	67.16	25.08	+35 - 1	21.72	36.03	+17 + 6	19.98	48.23	-43 - 1	61.38	57.66	-19 -11
14	67.87	25.42	+32 + 2	21.95	36.41	+ 2 + 7	19.62	48.59	-40 - 5	60.51	57.91	- 1 -12
15	68.56	25.76	+25 + 5	22.16	36.80	-15 + 7	19.24	48.95	-29 - 9	59.62	58.15	+19 -10
16	69.24	26.10	+11 + 7	$\begin{matrix} 22.35 \\ 22.53 \end{matrix}$	$\begin{matrix} 37.18 \\ 37.57 \end{matrix}$	$\begin{matrix} -28 + 5 \\ -39 + 2 \end{matrix}$	18.84	49.30	-11 -11	58.72	58.39	+33 - 6
17	69.90	26.44	- 5 + 8	22.69	37.96	-41 - 2	18.42	49.66	+ 8 -11	57.80	58.62	+40 - 1
18	70.55	26.79	-21 + 7	22.83	38.35	-36 - 7	17.98	50.01	+26 - 8	56.88	58.85	+37 + 5
19	71.19	27.13	-33 + 4	22.95	38.73	-22 -10	17.52	50.35	+38 - 3	55.94	59.07	+26 + 9
20	71.81	27.48	-41 0	23.05	39.12	- 3 -11	17.05	50.70	+40 + 2	54.99	59.29	+ 9 +12
21	72.41	27.84	-40 - 4	23.14	39.51	+16 -10	16.56	51.04	+33 + 7	54.02	59.50	- 9 +12
22	73.00	28.19	-31 - 8	23.21	39.90	+32 - 6	16.05	51.38	+19 +11	53.04	59.71	-24 + 9
23	73.58	28.55	-15 -11	23.25	40.29	+40 - 2	15.52	51.72	+ 1 +12	52.06	59.91	-32 + 6
24	74.14	28.90	+ 4 -11	23.28	40.67	+38 + 4	14.97	52.05	-16 +11	51.06	60.11	-32 + 1
25	74.68	29.26	+23 - 9	23.30	41.06	+28 + 8	14.41	52.38	-29 + 8	50.05	60.30	-25 - 3
26	75.21	29.63	+35 - 5	23.29	41.45	+11 +11	13.83	52.71	-34 + 3	49.03	60.48	-12 - 6
27	75.72	29.99	+39 0	23.26	41.84	- 7 +12	13.23	53.03	-31 - 1	48.00	60.66	+ 3 - 7
28	76.22	30.36	+34 + 5	23.22	42.22	-23 + 9	12.61	53.35	-21 - 5	46.95	60.83	+17 - 7
29	76.70	30.72	+21 + 9	23.16	42.61	-32 + 6	11.98	53.66	- 7 - 7	45.90	61.00	+29 - 5
30	77.17	31.09	+ 3 +11	23.08	42.99	-34 + 1	11.33	53.97	+ 8 - 7	44.84	61.16	+35 - 2
31	77.62	31.47	-14 +10	22.98	43.38	-28 - 3	10.66	54.28	+22 - 6	43.77	61.32	+35 + 1
32				22.87	43.76	-16 - 6				42.69	61.47	+30 + 4

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+88° 55' 20"	53.164	+53.155	+88° 55' 40"	53.440	+53.430	+88° 56' 0"	53.718	+53.709
30	53.302	+53.292	50	53.578	+53.569	10	53.858	+53.849

$$\alpha_{1929.0} = 1^h 36^m 20^s.24$$

$$\delta_{1929.0} = +88^\circ 55' 24''.36$$

Ne) Grb 750 6<sup>m</sup>.70

Tag	Januar			Februar			März			April		
	AR.	Dekl.	⊙ Glieder	AR.	Dekl.	⊙ Glieder	AR.	Dekl.	⊙ Glieder	AR.	Dekl.	⊙ Glieder
	4 <sup>h</sup> 13 <sup>m</sup>	85° 22'	0.01 0.01	4 <sup>h</sup> 13 <sup>m</sup>	85° 22'	0.01 0.01	4 <sup>h</sup> 13 <sup>m</sup>	85° 22'	0.01 0.01	4 <sup>h</sup> 13 <sup>m</sup>	85° 22'	0.01 0.01
		+	in		+	in		+	in		+	in
1	42.33	13.00	+ 1 + 11	36.93	20.14	- 6 - 1	29.98	21.98	- 6 - 4	22.78	18.57	+ 3 - 9
2	42.22	13.29	- 3 + 9	36.70	20.29	- 5 - 5	29.72	21.96	- 4 - 7	22.59	18.37	+ 5 - 7
3	42.10	13.58	- 5 + 5	36.47	20.43	- 3 - 7	29.47	21.93	- 1 - 9	22.40	18.17	+ 7 - 3
4	41.98	13.87	- 6 + 2	36.24	20.56	0 - 9	29.21	21.89	+ 2 - 9	22.22	17.97	+ 7 + 1
5	41.85	14.15	- 6 - 2	36.00	20.69	+ 3 - 9	28.96	21.85	+ 4 - 8	22.04	17.77	+ 5 + 5
6	41.72	14.43	- 5 - 6	35.77	20.82	+ 5 - 7	28.71	21.80	+ 6 - 5	21.86	17.56	+ 2 + 8
7	41.59	14.71	- 2 - 8	35.53	20.94	+ 7 - 4	28.46	21.74	+ 7 - 2	21.69	17.35	- 2 + 9
8	41.45	14.98	+ 1 - 9	35.29	21.05	+ 7 0	28.21	21.68	+ 7 + 2	21.52	17.13	- 6 + 8
9	41.31	15.25	+ 3 - 9	35.05	21.16	+ 6 + 4	27.96	21.62	+ 4 + 6	21.36	16.91	- 9 + 6
10	41.16	15.52	+ 6 - 6	34.80	21.26	+ 3 + 7	27.71	21.55	+ 1 + 9	21.20	16.69	- 11 + 1
11	41.00	15.78	+ 7 - 3	34.56	21.35	- 1 + 9	27.46	21.47	- 3 + 9	21.04	16.46	- 10 - 3
12	40.84	16.04	+ 7 + 1	34.31	21.44	- 5 + 9	27.21	21.39	- 7 + 8	20.89	16.23	- 7 - 7
13	40.68	16.29	+ 5 + 5	34.06	21.52	- 9 + 6	26.97	21.30	- 10 + 4	20.74	15.99	- 2 - 10
14	40.52	16.54	+ 1 + 8	33.81	21.59	- 11 + 2	26.73	21.20	- 11 - 1	20.60	15.75	+ 3 - 10
15	40.35	16.78	- 3 + 9	33.56	21.66	- 11 - 3	26.49	21.10	- 9 - 5	20.46	15.51	+ 7 - 8
16	40.18	17.02	- 7 + 8	33.31	21.72	- 8 - 7	26.25	21.00	- 6 - 9	20.33	15.26	+ 10 - 3
17	40.00	17.25	- 10 + 5	33.06	21.78	- 4 - 10	26.02	20.89	- 1 - 10	20.20	15.02	+ 11 + 2
18	39.82	17.48	- 11 0	32.80	21.83	+ 1 - 11	25.78	20.77	+ 4 - 9	20.07	14.77	+ 9 + 6
19	39.64	17.70	- 10 - 5	32.55	21.88	+ 5 - 8	25.55	20.65	+ 8 - 6	19.95	14.52	+ 6 + 10
20	39.45	17.92	- 7 - 9	32.29	21.92	+ 9 - 5	25.32	20.52	+ 10 - 2	19.83	14.26	+ 2 + 11
21	39.26	18.13	- 2 - 11	32.03	21.95	+ 10 0	25.09	20.38	+ 10 + 3	19.72	14.00	- 2 + 10
22	39.06	18.34	+ 3 - 10	31.78	21.97	+ 9 + 5	24.87	20.24	+ 8 + 8	19.61	13.74	- 5 + 7
23	38.86	18.54	+ 7 - 7	31.52	21.99	+ 7 + 9	24.65	20.09	+ 4 + 10	19.50	13.48	- 7 + 3
24	38.65	18.74	+ 10 - 2	31.26	22.01	+ 3 + 11	24.43	19.94	0 + 11	19.40	13.21	- 7 - 1
25	38.45	18.93	+ 11 + 3	31.00	22.02	- 1 + 10	24.21	19.78	- 3 + 9	19.31	12.94	- 6 - 5
26	38.24	19.12	+ 9 + 7	30.75	22.02	- 4 + 8	24.00	19.62	- 6 + 6	19.22	12.67	- 4 - 7
27	38.03	19.30	+ 6 + 10	30.49	22.01	- 6 + 5	23.79	19.46	- 7 + 2	19.13	12.40	- 1 - 9
28	37.82	19.48	+ 2 + 11	30.24	22.00	- 7 0	23.58	19.29	- 7 - 2	19.05	12.13	+ 2 - 9
29	37.60	19.65	- 2 + 10	29.98	21.98	- 6 - 4	23.38	19.12	- 5 - 6	18.98	11.86	+ 5 - 8
30	37.38	19.82	- 5 + 7				23.18	18.94	- 2 - 8	18.91	11.58	+ 6 - 5
31	37.16	19.98	- 6 + 3				22.98	18.76	0 - 9	18.85	11.30	+ 7 - 1
32	36.93	20.14	- 6 - 1				22.78	18.57	+ 3 - 9			

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+85° 22' 10"	12.387	+12.346	+85° 22' 20"	12.394	+12.354
20	12.394	+12.354	30	12.402	+12.361

$$\alpha_{1929.0} = 4^h 13^m 35.33$$

$$\delta_{1929.0} = +85^\circ 21' 59''.51$$

# Scheinbare Sternörter 1929

173\*

Obere Kulmination Greenwich

Ne) Grb 75° 6<sup>m</sup>.70

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	+		in	+		in	+		in	+		in
	4 <sup>h</sup> 13 <sup>m</sup>	85° 22'	0.01 0.01	4 <sup>h</sup> 13 <sup>m</sup>	85° 21'	0.01 0.01	4 <sup>h</sup> 13 <sup>m</sup>	85° 21'	0.01 0.01	4 <sup>h</sup> 13 <sup>m</sup>	85° 21'	0.01 0.01
1	18.85	11.30	+ 7 - 1	19.29	62.45	- 4 + 9	23.96	55.22	-12 + 2	31.97	51.08	- 2 - 11
2	18.79	11.01	+ 5 + 3	19.38	62.17	- 8 + 7	24.17	55.03	-12 - 3	32.26	51.02	+ 3 - 10
3	18.73	10.73	+ 3 + 6	19.48	61.89	-11 + 4	24.39	54.84	-10 - 8	32.56	50.96	+ 7 - 7
4	18.68	10.45	- 1 + 8	19.59	61.62	-12 0	24.62	54.66	- 5 - 10	32.86	50.90	+10 - 2
5	18.64	10.16	- 5 + 9	19.69	61.35	-11 - 5	24.84	54.47	0 - 11	33.16	50.85	+10 + 3
6	18.60	9.88	- 9 + 7	19.80	61.08	- 7 - 9	25.07	54.29	+ 5 - 9	33.46	50.81	+ 8 + 8
7	18.56	9.60	-11 + 3	19.92	60.82	- 2 - 11	25.30	54.12	+ 9 - 5	33.76	50.78	+ 5 + 11
8	18.53	9.31	-11 - 2	20.04	60.56	+ 3 - 10	25.53	53.95	+11 + 1	34.06	50.75	+ 1 + 11
9	18.51	9.03	- 9 - 6	20.16	60.30	+ 8 - 7	25.77	53.78	+10 + 6	34.36	50.72	- 3 + 10
10	18.49	8.74	- 5 - 9	20.29	60.04	+11 - 2	26.01	53.62	+ 8 + 10	34.67	50.70	- 5 + 6
11	18.47	8.45	0 - 10	20.42	59.78	+11 + 3	26.26	53.46	+ 4 + 11	34.97	50.68	- 6 + 2
12	18.46	8.16	+ 5 - 9	20.56	59.52	+10 + 7	26.50	53.30	0 + 11	35.28	50.66	- 6 - 2
13	18.46	7.87	+ 9 - 5	20.70	59.27	+ 6 + 11	26.75	53.15	- 4 + 9	35.59	50.65	- 4 - 6
14	18.46	7.58	+11 0	20.85	59.02	+ 2 + 11	27.01	53.00	- 6 + 5	35.89	50.64	- 1 - 8
15	18.46	7.29	+11 + 5	21.00	58.77	- 2 + 10	27.26	52.86	- 6 0	36.20	50.64	+ 2 - 9
16	18.47	7.00	+ 8 + 8	21.15	58.53	- 5 + 7	27.52	52.72	- 5 - 4	36.52	50.64	+ 5 - 8
17	18.49	6.71	+ 4 + 11	21.31	58.29	- 6 + 3	27.78	52.59	- 3 - 7	36.83	50.65	+ 7 - 5
18	18.51	6.43	0 + 11	21.47	58.05	- 6 - 1	28.04	52.46	0 - 9	37.14	50.67	+ 8 - 2
19	18.53	6.14	- 3 + 9	21.64	57.81	- 5 - 5	28.31	52.33	+ 3 - 9	37.45	50.68	+ 7 + 2
20	18.56	5.85	- 6 + 5	21.81	57.58	- 2 - 8	28.58	52.21	+ 5 - 7	37.76	50.70	+ 5 + 5
21	18.59	5.56	- 7 + 1	21.99	57.35	+ 1 - 9	28.85	52.09	+ 7 - 5	38.08	50.73	+ 2 + 8
22	18.63	5.27	- 6 - 3	22.17	57.12	+ 3 - 9	29.12	51.98	+ 8 - 1	38.39	50.76	- 2 + 9
23	18.67	4.99	- 4 - 6	22.35	56.89	+ 6 - 7	29.40	51.87	+ 7 + 3	38.71	50.80	- 6 + 8
24	18.72	4.70	- 2 - 9	22.54	56.67	+ 7 - 4	29.68	51.77	+ 4 + 6	39.02	50.84	-10 + 5
25	18.78	4.42	+ 1 - 9	22.73	56.45	+ 7 0	29.96	51.67	0 + 9	39.33	50.88	-11 + 1
26	18.84	4.13	+ 4 - 8	22.93	56.24	+ 5 + 4	30.24	51.57	- 4 + 9	39.65	50.93	-11 - 4
27	18.90	3.85	+ 6 - 6	23.13	56.03	+ 2 + 7	30.52	51.48	- 8 + 7	39.96	50.98	- 9 - 8
28	18.97	3.57	+ 7 - 2	23.33	55.82	- 2 + 9	30.80	51.39	-11 + 4	40.28	51.04	- 4 - 11
29	19.04	3.29	+ 6 + 1	23.53	55.62	- 6 + 8	31.09	51.31	-12 - 1	40.60	51.10	+ 1 - 11
30	19.12	3.01	+ 4 + 5	23.74	55.42	-10 + 6	31.38	51.23	-11 - 6	40.91	51.17	+ 5 - 9
31	19.20	2.73	+ 1 + 8	23.96	55.22	-12 + 2	31.67	51.15	- 7 - 10	41.23	51.24	+ 9 - 4
32	19.29	2.45	- 4 + 9				31.97	51.08	- 2 - 11	41.54	51.32	+10 + 1

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+85° 21' 50"	12.372	+12.332	+85° 22' 10'	12.387	+12.346
22 0	12.379	+12.339	20	12.394	+12.354

$\alpha_{1929.0} = 4^h 13^m 35^s.33$        $\delta_{1929.0} = +85^\circ 21' 59''.51$

\*) Tag der doppelten unteren Kulmination: Mai 26

Ne) Grb 750 6<sup>m</sup>.70

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	4 <sup>h</sup> 13 <sup>m</sup>	85° 21'	0.01   0.01	4 <sup>h</sup> 13 <sup>m</sup>	85° 21'	0.01   0.01	4 <sup>h</sup> 13 <sup>m</sup>	85° 22'	0.01   0.01	4 <sup>h</sup> 14 <sup>m</sup>	85° 22'	0.01   0.01
		+	in		+	in		+	in		+	in
1	41.54	51.32	+10 + 1	50.57	55.72	+ 3 +11	57.93	3.93	- 7 + 2	1.68	14.36	0 - 9
2	41.85	51.41	+ 9 + 6	50.84	55.94	- 1 +11	58.11	4.24	- 7 - 2	1.72	14.71	+ 4 - 9
3	42.17	51.49	+ 6 +10	51.12	56.15	- 4 + 9	58.29	4.56	- 5 - 6	1.76	15.05	+ 6 - 7
4	42.48	51.58	+ 2 +11	51.39	56.37	- 7 + 5	58.47	4.87	- 2 - 8	1.80	15.40	+ 7 - 4
5	42.79	51.68	- 2 +10	51.66	56.59	- 7 0	58.64	5.19	+ 1 - 9	1.83	15.75	+ 8 0
6	43.11	51.78	- 5 + 7	51.93	56.82	- 6 - 4	58.81	5.51	+ 5 - 8	1.86	16.10	+ 6 + 3
7	43.42	51.88	- 6 + 4	52.20	57.05	- 3 - 7	58.98	5.84	+ 7 - 6	1.88	16.44	+ 4 + 6
8	43.73	51.99	- 6 - 1	52.46	57.29	0 - 9	59.14	6.16	+ 8 - 3	1.89	16.79	0 + 8
9	44.04	52.11	- 5 - 5	52.72	57.53	+ 3 - 9	59.30	6.49	+ 7 + 1	1.90	17.14	- 4 + 9
10	44.35	52.23	- 2 - 8	52.98	57.77	+ 5 - 7	59.45	6.82	+ 5 + 5	1.91	17.48	- 8 + 7
11	44.66	52.35	+ 1 - 9	53.24	58.01	+ 7 - 5	59.60	7.15	+ 2 + 8	1.91	17.82	-11 + 3
12	44.97	52.48	+ 4 - 8	53.49	58.26	+ 8 - 1	59.74	7.48	- 2 + 9	1.90	18.16	-12 - 1
13	45.28	52.61	+ 6 - 7	53.74	58.51	+ 7 + 2	59.88	7.82	- 6 + 8	1.89	18.50	-11 - 6
14	45.58	52.75	+ 8 - 4	53.99	58.77	+ 5 + 6	60.02	8.15	- 9 + 6	1.88	18.84	- 7 -10
15	45.89	52.89	+ 8 0	54.24	59.03	+ 1 + 8	60.15	8.48	-11 + 2	1.86	19.18	- 2 -11
16	46.19	53.03	+ 6 + 4	54.48	59.29	- 3 + 9	60.28	8.82	-11 - 3	1.83	19.51	+ 3 -10
17	46.49	53.18	+ 4 + 7	54.72	59.56	- 7 + 8	60.40	9.16	- 9 - 7	1.80	19.84	+ 8 - 7
18	46.79	53.33	0 + 9	54.96	59.83	-10 + 5	60.52	9.51	- 5 -10	1.77	20.18	+10 - 2
19	47.09	53.49	- 4 + 9	55.19	60.11	-11 0	60.64	9.85	0 -11	1.73	20.51	+11 + 3
20	47.39	53.65	- 8 + 7	55.42	60.38	-10 - 5	60.75	10.19	+ 6 - 9	1.68	20.83	+ 9 + 8
21	47.69	53.82	-11 + 3	55.65	60.66	- 7 - 9	60.85	10.54	+ 9 - 5	1.63	21.16	+ 5 +11
22	47.99	53.99	-11 - 2	55.87	60.95	- 3 -11	60.95	10.88	+11 0	1.58	21.49	+ 1 +12
23	48.28	54.17	- 9 - 6	56.09	61.23	+ 2 -10	61.05	11.22	+10 + 5	1.52	21.81	- 3 +10
24	48.57	54.35	- 6 -10	56.31	61.52	+ 7 - 8	61.14	11.57	+ 7 + 9	1.45	22.14	- 6 + 6
25	48.86	54.53	- 1 -11	56.52	61.81	+10 - 3	61.22 61.30	11.91 12.26	+ 3 +11 - 1 +11	1.38	22.46	- 6 + 2
26	49.15	54.72	+ 4 -10	56.73	62.10	+10 + 2	61.38	12.61	- 5 + 8	1.31	22.77	- 6 - 3
27	49.44	54.91	+ 8 - 6	56.94	62.40	+ 9 + 7	61.45	12.96	- 7 + 4	1.23	23.08	- 3 - 6
28	49.73	55.11	+10 - 1	57.15	62.70	+ 5 +10	61.51	13.31	- 7 0	1.14	23.39	0 - 8
29	50.01	55.31	+ 9 + 4	57.35	63.01	+ 1 +11	61.57	13.66	- 5 - 4	1.05	23.70	+ 3 - 9
30	50.29	55.51	+ 7 + 8	57.55	63.31	- 3 +10	61.63	14.01	- 3 - 7	0.96	24.01	+ 6 - 8
31	50.57	55.72	+ 3 +11	57.74	63.62	- 6 + 6	61.68	14.36	0 - 9	0.86	24.31	+ 7 - 5
32				57.93	63.93	- 7 + 2				0.75	24.61	+ 8 - 2

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+85° 21' 50"	12.372	+12.332	+85° 22' 10"	12.387	+12.346	+85° 22' 20"	12.394	+12.354
22 0	12.379	+12.339	20	12.394	+12.354	30	12.402	+12.361

$$\alpha_{1920,0} = 4^h 13^m 35^s.33$$

$$\delta_{1920,0} = +85^\circ 21' 59''.51$$

# Scheinbare Sternörter 1929

175\*

Obere Kulmination Greenwich

 Nd) 51 Hev. Cephei 5<sup>m</sup>.26

Tag	Januar			Februar			März			April		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	7 <sup>h</sup> 8 <sup>m</sup>	87° 9'	<sup>+</sup> <sub>0.01</sub> <sup>in</sup> <sub>0.01</sub>	7 <sup>h</sup> 8 <sup>m</sup>	87° 10'	<sup>+</sup> <sub>0.01</sub> <sup>in</sup> <sub>0.01</sub>	7 <sup>h</sup> 7 <sup>m</sup>	87° 10'	<sup>+</sup> <sub>0.01</sub> <sup>in</sup> <sub>0.01</sub>	7 <sup>h</sup> 7 <sup>m</sup>	87° 10'	<sup>+</sup> <sub>0.01</sub> <sup>in</sup> <sub>0.01</sub>
1	13.37	49.75	+15 + 5	14.02	0.04	- 8 + 3	67.60	7.38	-10 + 1	55.87	11.04	- 4 - 9
2	13.53	50.07	+10 + 8	13.90	0.35	-10 0	67.27	7.58	-11 - 3	55.46	11.06	+ 1 - 9
3	13.68	50.39	+ 4 + 9	13.77	0.65	-10 - 4	66.94	7.78	- 9 - 6	55.05	11.08	+ 5 - 7
4	13.82	50.71	- 2 + 8	13.62	0.95	- 8 - 7	66.60	7.97	- 6 - 8	54.64	11.09	+ 9 - 4
5	13.95	51.03	- 6 + 5	13.47	1.25	- 5 - 9	66.26	8.16	- 2 - 9	54.23	11.10	+10 0
6	14.07	51.36	-10 + 2	13.31	1.54	0 - 9	65.92	8.34	+ 3 - 9	53.82	11.10	+ 9 + 5
7	14.19	51.68	-11 - 2	13.14	1.83	+ 5 - 8	65.57	8.52	+ 7 - 6	53.42	11.09	+ 6 + 9
8	<sup>14.30</sup> <sub>14.39</sub>	<sup>50.00</sup> <sub>50.32</sub>	<sup>-10 - 5</sup> <sub>- 7 - 8</sub>	12.96	2.12	+ 9 - 5	65.22	8.69	+10 - 2	53.01	11.08	0 + 11
9	14.47	52.65	- 3 - 9	12.77	2.41	+11 - 1	64.87	8.85	+10 + 2	52.61	11.06	- 6 + 11
10	14.55	52.97	+ 2 - 9	12.58	2.70	+10 + 4	64.51	9.01	+ 9 + 7	52.21	11.04	-11 + 8
11	14.62	53.30	+ 6 - 7	12.38	2.98	+ 7 + 8	64.15	9.16	+ 4 + 10	51.80	11.00	-15 + 4
12	14.68	53.62	+ 9 - 3	12.17	3.26	+ 1 + 11	63.78	9.31	- 2 + 11	51.40	10.96	-15 - 1
13	14.73	53.95	+10 + 1	11.95	3.54	- 5 + 11	63.40	9.45	- 8 + 10	51.00	10.92	-11 - 6
14	14.77	54.28	+ 9 + 6	11.73	3.81	-11 + 9	63.02	9.59	-13 + 7	50.60	10.87	- 5 - 10
15	14.81	54.60	+ 4 + 9	11.50	4.08	-15 + 5	62.64	9.72	-15 + 2	50.20	10.81	+ 2 - 11
16	14.83	54.93	- 2 + 11	11.27	4.34	-16 0	62.26	9.84	-14 - 3	49.81	10.75	+ 9 - 9
17	14.85	55.26	- 8 + 11	11.03	4.60	-14 - 5	61.87	9.96	-10 - 8	49.42	10.69	+15 - 6
18	14.85	55.58	-14 + 7	10.78	4.85	- 8 - 9	61.49	10.07	- 3 - 10	49.03	10.62	+17 - 1
19	14.85	55.91	-17 + 3	10.52	5.10	- 1 - 11	61.10	10.18	+ 4 - 10	48.64	10.54	+16 + 3
20	14.84	56.23	-16 - 2	10.25	5.35	+ 7 - 10	60.71	10.28	+11 - 8	48.26	10.46	+12 + 7
21	14.82	56.56	-12 - 7	9.98	5.60	+13 - 6	60.32	10.38	+15 - 4	47.87	10.37	+ 6 + 9
22	14.79	56.88	- 5 - 10	9.70	5.84	+16 - 2	59.92	10.47	+16 + 1	47.49	10.27	0 + 9
23	14.75	57.21	+ 3 - 11	9.41	6.07	+16 + 2	59.51	10.55	+14 + 5	47.12	10.17	- 5 + 7
24	14.70	57.53	+10 - 9	9.12	6.30	+13 + 6	59.11	10.63	+10 + 8	46.75	10.07	- 9 + 4
25	14.64	57.85	+15 - 5	8.83	6.53	+ 8 + 9	58.71	10.70	+ 4 + 9	46.38	9.96	-11 0
26	14.57	58.17	+16 0	8.53	6.75	+ 2 + 9	58.30	10.77	- 2 + 9	46.01	9.84	-11 - 4
27	14.50	58.48	+15 + 4	8.22	6.96	- 3 + 8	57.90	10.83	- 7 + 6	45.65	9.72	- 9 - 7
28	14.42	58.80	+12 + 7	7.91	7.17	- 8 + 4	57.50	10.88	-10 + 2	45.30	9.60	- 5 - 9
29	14.33	59.11	+ 6 + 9	7.60	7.38	-10 + 1	57.09	10.93	-11 - 1	44.95	9.47	- 1 - 9
30	14.23	59.42	0 + 9				56.69	10.97	-10 - 5	44.60	9.33	+ 3 - 8
31	14.13	59.73	- 5 + 6				56.28	11.01	- 8 - 8	44.25	9.19	+ 7 - 5
32	14.02	60.04	- 8 + 3				55.87	11.04	- 4 - 9			

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+87° 9' 40"	20.191	+20.166	+87° 10' 0"	20.230	+20.206	+87° 10' 10"	20.250	+20.225
50	20.210	+20.186	10	20.250	+20.225	20	20.270	+20.245

$$\alpha_{1929.0} = 7^h 7^m 52^s.41$$

$$\delta_{1929.0} = +87^\circ 9' 46''.75$$

N*l*) 51 Hev. Cephei 5<sup>m</sup>.26

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder
	7 <sup>h</sup> 7 <sup>m</sup>	+ 87° 10'	0.01 0.01	7 <sup>h</sup> 7 <sup>m</sup>	+ 87° 9'	0.01 0.01	7 <sup>h</sup> 7 <sup>m</sup>	+ 87° 9'	0.01 0.01	7 <sup>h</sup> 7 <sup>m</sup>	+ 87° 9'	0.01 0.01
1	44.25	9.19	+ 7 - 5	36.21	62.58	+ 3 + 10	34.66	53.69	- 13 + 9	39.96	44.24	- 13 - 7
2	43.91	9.04	+ 9 - 1	36.05	62.31	- 3 + 11	34.72	53.37	- 17 + 6	40.24	43.95	- 5 - 10
3	43.57	8.89	+ 9 + 3	35.90	62.04	- 9 + 11	34.79	53.06	- 18 0	40.53	43.67	+ 3 - 10
4	43.24	8.73	+ 6 + 7	35.75	61.77	- 14 + 8	34.87	52.75	- 15 - 5	40.82	43.39	+ 10 - 8
5	42.91	8.56	+ 2 + 10	35.61	61.49	- 17 + 3	34.95	52.43	- 9 - 9	41.12	43.11	+ 15 - 4
6	42.59	8.40	- 4 + 11	35.48	61.21	- 16 - 2	35.04	52.12	- 1 - 11	41.42	42.84	+ 17 + 1
7	42.27	8.23	- 10 + 10	35.36	60.93	- 12 - 7	35.15	51.81	+ 7 - 10	41.73	42.56	+ 15 + 5
8	41.96	8.05	- 14 + 6	35.25	60.65	- 5 - 10	35.26	51.49	+ 14 - 7	42.05	42.29	+ 11 + 8
9	41.65	7.87	- 16 + 1	35.14	60.37	+ 3 - 11	35.37	51.18	+ 17 - 2	42.38	42.02	+ 5 + 9
10	41.35	7.69	- 14 - 4	35.04	60.08	+ 11 - 9	35.49	50.87	+ 17 + 2	42.71	41.75	- 1 + 8
11	41.05	7.50	- 8 - 9	34.95	59.79	+ 16 - 5	35.62	50.55	+ 14 + 6	43.04	41.49	- 6 + 5
12	40.76	7.30	- 1 - 11	34.86	59.50	+ 18 - 1	35.76	50.24	+ 9 + 9	43.38	41.23	- 9 + 2
13	40.48	7.10	+ 7 - 10	34.78	59.20	+ 17 + 4	35.91	49.93	+ 3 + 9	43.73	40.97	- 10 - 2
14	40.20	6.89	+ 13 - 8	34.71	58.90	+ 12 + 7	36.06	49.62	- 3 + 7	44.08	40.71	- 8 - 6
15	39.92	6.68	+ 17 - 3	34.65	58.61	+ 7 + 9	36.22	49.31	- 7 + 4	44.43	40.46	- 5 - 9
16	39.65	6.47	+ 18 + 1	34.59	58.31	+ 1 + 8	36.38	49.00	- 9 0	44.79	40.21	- 1 - 10
17	39.39	6.26	+ 15 + 6	34.54	58.01	- 5 + 6	36.55	48.69	- 10 - 4	45.16	39.96	+ 3 - 9
18	39.13	6.04	+ 9 + 8	34.50	57.71	- 9 + 3	36.73	48.39	- 8 - 7	45.53	39.71	+ 7 - 7
19	38.88	5.82	+ 3 + 9	34.47	57.41	- 10 - 1	36.91	48.08	- 4 - 9	45.91	39.47	+ 10 - 4
20	38.64	5.59	- 3 + 8	34.44	57.10	- 10 - 5	37.10	47.77	0 - 9	46.30	39.23	+ 11 + 1
21	38.40	5.36	- 7 + 5	34.43	56.79	- 7 - 8	37.30	47.47	+ 4 - 8	46.69	38.99	+ 10 + 5
22	38.17	5.12	- 10 + 2	34.42	56.49	- 3 - 9	37.51	47.17	+ 8 - 6	47.08	38.75	+ 6 + 9
23	37.94	4.88	- 11 - 2	34.41	56.18	+ 1 - 9	37.73	46.87	+ 10 - 2	47.48	38.52	0 + 11
24	37.72	4.63	- 9 - 6	34.42	55.87	+ 5 - 8	37.95	46.57	+ 10 + 2	47.88	38.29	- 7 + 11
25	37.51	4.39	- 6 - 8	34.43	55.56	+ 8 - 4	38.18	46.27	+ 8 + 7	48.29	38.07	- 13 + 9
26	37.31	4.14	- 2 - 9	34.45	55.25	+ 10 0	38.41	45.97	+ 3 + 10	48.70	37.85	- 17 + 4
27	37.11	3.89	+ 2 - 9	34.48	54.94	+ 9 + 4	38.65	45.68	- 4 + 11	49.11	37.63	- 17 - 1
28	36.92	3.64	+ 6 - 6	34.51	54.63	+ 5 + 8	38.90	45.39	- 10 + 11	49.53	37.42	- 15 - 6
29	36.73	3.38	+ 9 - 3	34.55	54.32	- 1 + 11	39.15	45.10	- 16 + 7	49.96	37.21	- 8 - 9
30	36.55	3.12	+ 9 + 2	34.60	54.00	- 7 + 11	39.41	44.81	- 18 + 2	50.39	37.00	- 1 - 11
31	36.38	2.85	+ 7 + 6	34.66	53.69	- 13 + 9	39.68	44.52	- 17 - 3	50.83	36.80	+ 7 - 9
32	36.21	2.58	+ 3 + 10				39.96	44.24	- 13 - 7	51.27	36.60	+ 13 - 6

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+87° 9' 30"	20.171	+20.146	+87° 9' 50"	20.210	+20.186	+87° 10' 0"	20.230	+20.206
40	20.191	+20.166	10 0	20.230	+20.206	10	20.250	+20.225

$$\alpha_{1929.0} = 7^h 7^m 52^s.41$$

$$\delta_{1929.0} = +87^\circ 9' 46''.75$$

\*) Tag der doppelten unteren Kulmination: Juli 9



# Scheinbare Sternörter 1929

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Obere Kulmination Greenwich

Nd) 51 Hev. Cephei 5<sup>m</sup>.26

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	7 <sup>h</sup> 7 <sup>m</sup>	+ 87° 9'	in 0.01   0.01	7 <sup>h</sup> 8 <sup>m</sup>	+ 87° 9'	in 0.01   0.01	7 <sup>h</sup> 8 <sup>m</sup>	+ 87° 9'	in 0.01   0.01	7 <sup>h</sup> 8 <sup>m</sup>	+ 87° 9'	in 0.01   0.01
1	51.27	36.60	+13 - 6	5.97	32.43	+13 + 6	22.36	32.47	- 7 + 6	36.30	36.99	- 10 - 4
2	51.71	36.40	+16 - 1	6.50	32.36	+ 8 + 9	22.88	32.55	-10 + 2	36.69	37.21	- 7 - 8
3	52.16	36.21	+15 + 4	7.02	32.30	+ 2 + 10	23.39	32.63	-10 - 2	37.08	37.44	- 3 - 10
4	52.61	36.02	+12 + 7	7.55	32.24	- 3 + 8	23.89	32.72	- 9 - 6	37.46	37.67	+ 1 - 10
5	53.06	35.83	+ 6 + 9	8.08	32.18	- 8 + 5	24.40	32.82	- 6 - 8	37.83	37.90	+ 5 - 8
6	53.52	35.65	0 + 9	8.60	32.13	-10 + 1	24.90	32.92	- 2 - 10	38.19	38.13	+ 9 - 5
7	53.98	35.47	- 5 + 7	9.13	32.08	-10 - 3	25.41	33.02	+ 3 - 9	38.55	38.38	+10 - 2
8	54.45	35.29	- 8 + 3	9.66	32.04	- 8 - 7	25.91	33.13	+ 7 - 7	38.91	38.63	+10 + 3
9	54.92	35.12	-10 - 1	10.20	32.00	- 4 - 9	26.41	33.25	+ 9 - 4	39.26	38.88	+ 7 + 7
10	55.39	34.96	- 9 - 5	10.73	31.96	0 - 10	26.90	33.37	+11 0	39.60	39.13	+ 2 + 10
11	55.87	34.80	- 7 - 8	11.27	31.93	+ 4 - 9	27.39	33.49	+ 9 + 5	39.94	39.39	- 4 + 11
12	56.35	34.64	- 3 - 9	11.80	31.91	+ 8 - 6	27.87	33.62	+ 6 + 8	40.27	39.65	-11 + 10
13	56.83	34.48	+ 2 - 9	12.33	31.89	+10 - 3	28.35	33.76	0 + 11	40.59	39.91	-16 + 7
14	57.32	34.33	+ 6 - 8	12.86	31.88	+11 + 2	28.83	33.90	- 6 + 11	40.90	40.17	-18 + 2
15	57.81	34.19	+ 9 - 5	13.40	31.87	+ 9 + 6	29.30	34.04	-12 + 9	41.20	40.44	-17 - 3
16	58.30	34.05	+11 - 1	13.93	31.87	+ 4 + 9	29.77	34.19	-16 + 5	41.50	40.71	-12 - 8
17	58.79	33.91	+11 + 3	14.46	31.87	- 1 + 11	30.24	34.35	-17 0	41.79	40.99	- 5 - 10
18	59.29	33.78	+ 8 + 8	15.00	31.87	- 8 + 10	30.70	34.51	-15 - 5	42.08	41.27	+ 3 - 11
19	59.79	33.65	+ 3 + 10	15.54	31.88	-13 + 8	31.16	34.67	- 9 - 9	42.36	41.56	+11 - 9
20	60.29	33.52	- 4 + 11	16.07	31.90	-16 + 3	31.62	34.84	- 1 - 11	42.63	41.84	+16 - 4
21	60.80	33.40	-10 + 10	16.60	31.92	-16 - 2	32.07	35.01	+ 7 - 10	42.89	42.13	+18 + 1
22	61.31	33.29	-15 + 6	17.13	31.94	-12 - 7	32.51	35.19	+13 - 7	43.14	42.42	+16 + 5
23	61.82	33.17	-17 + 1	17.66	31.97	- 6 - 10	32.95	35.37	+17 - 2	43.39	42.71	+11 + 9
24	62.33	33.06	-15 - 4	18.19	32.01	+ 2 - 11	33.39	35.56	+17 + 3	43.62	43.01	+ 5 + 10
25	62.84	32.96	-10 - 8	18.72	32.05	+ 9 - 9	33.82	35.75	+14 + 7	43.85	43.30	- 1 + 9
26	63.35	32.86	- 3 - 11	19.24	32.09	+14 - 5	34.24	35.94	+ 8 + 9	44.07	43.60	- 6 + 6
27	63.87	32.77	+ 4 - 10	19.76	32.14	+16 0	34.67	36.14	+ 1 + 10	44.28	43.90	- 9 + 1
28	64.39	32.68	+11 - 7	20.29	32.20	+15 + 5	35.09	36.35	- 4 + 8	44.49	44.21	-10 - 3
29	64.92	32.59	+15 - 3	20.81	32.26	+11 + 8	35.50	36.56	- 9 + 4	44.68	44.51	- 8 - 7
30	65.44	32.51	+16 + 2	21.33	32.32	+ 5 + 9	35.90	36.77	-10 0	44.87	44.82	- 4 - 9
31	65.97	32.43	+13 + 6	21.85	32.39	- 2 + 9	36.30	36.99	-10 - 4	45.05	45.13	0 - 10
32				22.36	32.47	- 7 + 6				45.22	45.44	+ 4 - 9

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+87° 9' 30"	20.171	+20.146	+87° 9' 40"	20.191	+20.166
40	20.191	+20.166	50	20.210	+20.186

$$\alpha_{1929,0} = 7^h 7^m 52^s.41$$

$$\delta_{1929,0} = +87^\circ 9' 46''.75$$

Ne) I Hev. Draconis 4<sup>m</sup>.58

Tag 77	Januar			Februar			März			April		
	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder
	9 <sup>h</sup> 27 <sup>m</sup>	+ 81° 38'	in 0.01   0.01	9 <sup>h</sup> 27 <sup>m</sup>	+ 81° 38'	in 0.01   0.01	9 <sup>h</sup> 27 <sup>m</sup>	+ 81° 38'	in 0.01   0.01	9 <sup>h</sup> 27 <sup>m</sup>	+ 81° 38'	in 0.01   0.01
1	12.62	26.13	+6 - 1	15.73	33.66	0 + 7	16.09	42.45	-3 + 4	13.91	50.38	-3 - 6
2	12.76	26.31	+5 + 3	15.78	33.96	-2 + 6	16.06	42.75	-4 + 2	13.80	50.58	-2 - 8
3	12.90	26.50	+3 + 6	15.83	34.25	-4 + 3	16.02	43.05	-5 - 2	13.69	50.77	0 - 8
4	13.03	26.69	+1 + 7	15.88	34.55	-4 0	15.98	43.34	-4 - 5	13.59	50.95	+2 - 6
5	13.16	26.89	-1 + 7	15.92	34.85	-4 - 3	15.94	43.63	-3 - 7	13.48	51.13	+4 - 3
6	13.29	27.09	-3 + 5	15.97	35.14	-3 - 6	15.90	43.92	-1 - 8	13.37	51.31	+4 + 1
7	13.42	27.30	-4 + 2	16.01	35.44	-2 - 8	15.85	44.21	+1 - 8	13.26	51.48	+4 + 5
8	13.54	27.51	-5 - 1	16.04	35.75	0 - 8	15.80	44.49	+3 - 5	13.15	51.64	+2 + 9
9	13.66	27.72	-4 - 4	16.08	36.05	+2 - 7	15.75	44.77	+4 - 2	13.04	51.80	0 + 11
10	13.78	27.94	-3 - 6	16.11	36.35	+4 - 4	15.70	45.05	+4 + 2	12.92	51.96	-2 + 11
11	13.90	28.16	-1 - 8	16.14	36.66	+4 0	15.64	45.33	+4 + 7	12.80	52.11	-4 + 8
12	14.02	28.39	+1 - 8	16.16 16.18	36.97 37.27	+4 + 4   +3 + 8	15.58	45.61	+2 + 10	12.69	52.25	-5 + 4
13	14.13	28.62	+2 - 6	16.20	37.58	+1 + 11	15.51	45.88	-1 + 11	12.57	52.39	-5 - 1
14	14.24	28.86	+4 - 3	16.21	37.89	-2 + 11	15.45	46.15	-3 + 10	12.45	52.53	-4 - 6
15	14.34	29.10	+4 + 2	16.23	38.20	-4 + 9	15.38	46.42	-5 + 7	12.33	52.66	-1 - 10
16	14.45	29.34	+3 + 6	16.24	38.50	-6 + 6	15.31	46.68	-6 + 2	12.21	52.78	+1 - 11
17	14.55	29.59	+2 + 10	16.24	38.81	-6 0	15.24	46.94	-5 - 3	12.09	52.90	+4 - 10
18	14.65	29.84	-1 + 12	16.25	39.11	-5 - 4	15.16	47.19	-3 - 7	11.97	53.02	+6 - 7
19	14.75	30.09	-3 + 11	16.25	39.42	-2 - 8	15.09	47.44	-1 - 10	11.84	53.13	+6 - 3
20	14.84	30.35	-5 + 8	16.25	39.73	+1 - 10	15.01	47.69	+2 - 11	11.72	53.23	+6 + 1
21	14.93	30.61	-6 + 4	16.24	40.03	+3 - 10	14.93	47.94	+4 - 9	11.59	53.33	+4 + 5
22	15.02	30.88	-6 - 2	16.23	40.34	+5 - 7	14.85	48.18	+6 - 5	11.47	53.42	+2 + 7
23	15.10	31.15	-4 - 6	16.22	40.65	+6 - 4	14.76	48.42	+6 - 1	11.34	53.51	0 + 8
24	15.18	31.42	-1 - 10	16.20	40.95	+6 + 1	14.67	48.66	+5 + 3	11.22	53.59	-2 + 6
25	15.26	31.69	+2 - 11	16.19	41.25	+5 + 4	14.58	48.89	+3 + 6	11.09	53.66	-4 + 4
26	15.33	31.97	+4 - 9	16.17	41.55	+2 + 7	14.49	49.11	+1 + 8	10.96	53.73	-5 + 1
27	15.41	32.24	+6 - 6	16.15	41.85	0 + 7	14.40	49.34	-1 + 7	10.83	53.79	-5 - 2
28	15.48	32.52	+6 - 2	16.12	42.15	-2 + 6	14.31	49.56	-3 + 6	10.71	53.85	-4 - 5
29	15.54	32.80	+6 + 2	16.09	42.45	-3 + 4	14.21	49.77	-4 + 3	10.58	53.90	-2 - 7
30	15.61	33.08	+4 + 5				14.11	49.98	-5 0	10.45	53.95	0 - 8
31	15.67	33.37	+2 + 7				14.01	50.18	-4 - 4	10.32	53.99	+1 - 7
32	15.73	33.66	0 + 7				13.91	50.38	-3 - 6			

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+81° 38' 20"	6.877	+6.804	+81° 38' 40"	6.882	+6.809	+81° 38' 50"	6.884	+6.811
30	6.879	+6.806	50	6.884	+6.811	60	6.886	+6.813

$$\alpha_{1929.0} = 9^h 27^m 6^s.56$$

$$\delta_{1929.0} = +81^\circ 38' 32''.89$$

# Scheinbare Sternörter 1929

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Obere Kulmination Greenwich

Ne) I Hev. Draconis 4<sup>m</sup>.58

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	+		in	+		in	+		in	+		in
	9 <sup>h</sup> 27 <sup>m</sup>	81° 38'	0.01   0.01	9 <sup>h</sup> 27 <sup>m</sup>	81° 38'	0.01   0.01	9 <sup>h</sup> 27 <sup>m</sup>	81° 38'	0.01   0.01	9 <sup>h</sup> 27 <sup>m</sup>	81° 38'	0.01   0.01
1	10.32	53.99	+1 - 7	6.52	52.45	+3 + 7	3.94	46.40	-3 + 12	3.13	37.00	-6 - 2
2	10.19	54.03	+3 - 4	6.41	52.32	+1 + 10	3.88	46.14	-5 + 11	3.14	36.66	-4 - 6
3	10.06	54.06	+4 0	6.30	52.18	-1 + 12	3.83	45.87	-6 + 7	3.15	36.32	-1 - 10
4	9.93	54.08	+4 + 4	6.20	52.03	-3 + 11	3.77	45.60	-6 + 1	3.16	35.99	+2 - 10
5	9.80	54.10	+3 + 8	6.09	51.88	-5 + 9	3.72	45.33	-5 - 4	3.17	35.65	+4 - 9
6	9.67	54.11	+1 + 11	5.98	51.73	-6 + 4	3.67	45.05	-3 - 9	3.19	35.31	+6 - 5
7	9.54	54.12	-2 + 12	5.88	51.57	-5 - 2	3.62	44.77	0 - 11	3.21	34.97	+6 - 1
8	9.42	54.12	-4 + 10	5.78	51.40	-4 - 7	3.57	44.49	+3 - 11	3.23	34.63	+5 + 3
9	9.29	54.11	-5 + 6	5.68	51.23	-1 - 10	3.53	44.21	+5 - 8	3.26	34.29	+4 + 6
10	9.16	54.10	-6 + 1	5.58	51.05	+2 - 12	3.49	43.92	+7 - 4	3.28	33.95	+1 + 7
11	9.03	54.08	-5 - 4	5.48	50.87	+4 - 10	3.45	43.63	+6 0	3.31	33.60	-1 + 6
12	8.90	54.06	-2 - 9	5.39	50.69	+6 - 7	3.41	43.33	+5 + 4	3.34	33.26	-3 + 4
13	8.77	54.03	+1 - 11	5.30	50.50	+7 - 3	3.38	43.03	+3 + 6	*3.38	32.92	-4 + 1
14	8.65	54.00	+3 - 11	5.21	50.31	+6 + 2	3.35	42.73	0 + 7	3.41	32.58	-4 - 2
15	8.52	53.96	+5 - 9	5.12	50.11	+4 + 5	3.32	42.43	-2 + 6	3.45	32.23	-4 - 5
16	8.40	53.92	+6 - 5	5.03	49.91	+2 + 7	3.29	42.13	-3 + 4	3.49	31.89	-3 - 7
17	8.27	53.87	+6 - 1	4.94	49.70	0 + 7	3.26	41.83	-4 0	3.53	31.54	0 - 9
18	8.15	53.81	+5 + 4	4.86	49.49	-2 + 5	3.23	41.52	-4 - 3	3.57	31.20	+1 - 8
19	8.03	53.75	+3 + 6	4.78	49.28	-4 + 3	3.21	41.21	-3 - 6	3.62	30.86	+3 - 7
20	7.91	53.68	+1 + 8	4.70	49.06	-4 - 1	3.19	40.89	-2 - 8	3.67	30.51	+4 - 3
21	7.79	53.61	-2 + 7	4.62	48.84	-4 - 4	3.17	40.57	0 - 8	3.72	30.17	+4 + 1
22	7.67	53.53	-3 + 5	4.54	48.61	-3 - 6	3.16	40.25	+2 - 8	3.78	29.82	+4 + 5
23	7.55	53.44	-4 + 2	4.47	48.38	-2 - 8	3.15	39.93	+3 - 5	3.83	29.48	+2 + 9
24	7.43	53.35	-5 - 1	4.40	48.14	0 - 8	3.14	39.61	+4 - 1	3.89	29.14	0 + 12
25	7.31	53.26	-4 - 4	4.33	47.90	+2 - 7	3.13	39.29	+4 + 3	3.95	28.80	-3 + 12
26	7.19	53.16	-3 - 7	4.26	47.66	+3 - 4	3.12	38.97	+3 + 7	4.01	28.45	-5 + 9
27	7.08	53.05	-1 - 8	4.19	47.42	+4 0	3.11	38.64	+1 + 11	4.07	28.11	-6 + 5
28	6.96	52.94	+1 - 7	4.12	47.17	+4 + 5	3.11	38.32	-1 + 12	4.14	27.77	-6 0
29	6.85	52.83	+2 - 5	4.06	46.92	+2 + 9	3.11	37.99	-4 + 12	4.21	27.43	-5 - 5
30	6.74	52.71	+4 - 2	4.00	46.66	0 + 12	3.11	37.66	-6 + 8	4.28	27.09	-2 - 8
31	6.63	52.58	+4 + 2	3.94	46.40	-3 + 12	3.12	37.33	-7 + 4	4.35	26.75	0 - 10
32	6.52	52.45	+3 + 7				3.13	37.00	-6 - 2	4.43	26.41	+3 - 9

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+81° 38' 20"	6.877	+6.804	+81° 38' 40"	6.882	+6.809	+81° 38' 50"	6.884	+6.811
30	6.879	+6.806	50	6.884	+6.811	60	6.886	+6.813

$$\alpha_{1929.0} = 9^h 27^m 6^s.56$$

$$\delta_{1929.0} = +81^\circ 38' 32''.89$$

\*) Tag der doppelten unteren Kulmination: Aug. 13

Ne) I Hev. Draconis 4<sup>m</sup>.58

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder
	9 <sup>h</sup> 27 <sup>m</sup>	+ 81° 38'	0.01   0.01	9 <sup>h</sup> 27 <sup>m</sup>	+ 81° 38'	0.01   0.01	9 <sup>h</sup> 27 <sup>m</sup>	+ 81° 38'	0.01   0.01	9 <sup>h</sup> 27 <sup>m</sup>	+ 81° 38'	0.01   0.01
1	4.43	26.41	+3 - 9	7.59	16.99	+6 + 1	12.39	10.05	-1 + 8	17.72	7.67	-4 0
2	4.51	26.07	+5 - 6	7.73	16.71	+5 + 4	12.56	9.89	-3 + 6	17.90	7.67	-4 - 4
3	4.59	25.73	+6 - 2	7.86	16.43	+3 + 7	12.73	9.74	-4 + 2	18.07	7.68	-3 - 7
4	4.67	25.40	+6 + 2	8.00	16.16	0 + 8	12.90	9.60	-4 - 1	18.25	7.70	-2 - 8
5	4.75	25.06	+4 + 5	8.14	15.89	-2 + 7	13.08	9.46	-4 - 5	18.42	7.73	0 - 9
6	4.83	24.73	+2 + 7	8.28	15.63	-3 + 4	13.25	9.32	-3 - 7	18.60	7.76	+2 - 8
7	4.92	24.40	0 + 7	8.42	15.37	-4 + 1	13.43	9.19	-1 - 9	18.77	7.79	+3 - 5
8	5.01	24.07	-2 + 6	8.56	15.11	-4 - 3	13.60	9.07	+1 - 8	18.95	7.83	+4 - 1
9	5.10	23.74	-4 + 3	8.71	14.86	-3 - 6	13.78	8.95	+2 - 7	19.12	7.88	+4 + 3
10	5.20	23.41	-4 - 1	8.86	14.61	-2 - 8	13.96	8.83	+4 - 3	19.29	7.93	+3 + 8
11	5.29	23.08	-4 - 4	9.00	14.36	0 - 9	14.14	8.72	+4 + 1	19.46	7.99	+1 + 11
12	5.39	22.76	-3 - 7	9.15	14.11	+2 - 8	14.31	8.62	+4 + 5	19.63	8.06	-1 + 12
13	5.49	22.43	-1 - 8	9.30	13.87	+3 - 6	14.49	8.52	+2 + 9	19.80	8.13	-4 + 11
14	5.59	22.11	0 - 9	9.45	13.63	+4 - 2	14.67	8.42	0 + 11	19.97	8.20	-6 + 8
15	5.70	21.79	+2 - 7	9.60	13.40	+4 + 2	14.85	8.33	-2 + 12	20.13	8.28	-6 + 4
16	5.80	21.48	+4 - 5	9.75	13.17	+3 + 6	15.03	8.25	-4 + 10	20.30	8.37	-6 - 2
17	5.91	21.16	+4 - 1	9.91	12.94	+2 + 10	15.21	8.17	-6 + 6	20.47	8.46	-4 - 7
18	6.02	20.84	+4 + 4	10.07	12.72	0 + 11	15.39	8.10	-6 + 1	20.63	8.56	-1 - 10
19	6.13	20.53	+3 + 7	10.23	12.50	-3 + 11	15.57	8.03	-5 - 4	20.79	8.67	+2 - 11
20	6.24	20.22	+1 + 10	10.39	12.28	-5 + 8	15.75	7.97	-3 - 9	20.95	8.78	+5 - 9
21	6.36	19.92	-1 + 12	10.55	12.07	-6 + 4	15.93	7.91	0 - 11	21.11	8.89	+6 - 6
22	6.47	19.61	-4 + 10	10.71	11.87	-6 - 1	16.11	7.86	+3 - 11	21.27	9.01	+7 - 1
23	6.59	19.31	-6 + 7	10.87	11.66	-4 - 6	16.29	7.82	+5 - 8	21.43	9.14	+6 + 3
24	6.71	19.01	-6 + 2	11.03	11.46	-2 - 10	16.47	7.78	+7 - 4	21.58	9.27	+4 + 6
25	6.83	18.71	-5 - 3	11.20	11.27	+1 - 11	16.65	7.75	+6 + 1	21.73	9.40	+1 + 7
26	6.95	18.42	-3 - 7	11.36	11.08	+4 - 9	16.83	7.72	+5 + 5	21.88	9.54	-1 + 7
27	7.08	18.13	-1 - 10	11.53	10.90	+6 - 6	17.01	7.70	+2 + 7	22.03	9.69	-3 + 4
28	7.21	17.84	+2 - 10	11.70	10.72	+6 - 2	17.19	7.68	-1 + 8	22.18	9.84	-4 + 1
29	7.33	17.55	+5 - 8	11.87	10.54	+5 + 3	17.36	7.67	-2 + 6	22.32	10.00	-4 - 2
30	7.46	17.27	+6 - 4	12.04	10.37	+4 + 6	17.54	7.67	-4 + 4	22.46	10.16	-3 - 6
31	7.59	16.99	+6 + 1	12.21	10.21	+1 + 8	17.72	7.67	-4 0	22.60	10.33	-2 - 8
32				12.39	10.05	-1 + 8				22.74	10.50	0 - 9

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+81° 38' 0"	6.873	+6.799	+81° 38' 20"	6.877	+6.804
10	6.875	+6.802	30	6.879	+6.806

$$\alpha_{1929.0} = 9^h 27^m 6^s.56$$

$$\delta_{1929.0} = +81^\circ 38' 32''.89$$

# Scheinbare Sternörter 1929

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Obere Kulmination Greenwich

Nf) 30 Hev. Camelopardalis 5<sup>m</sup>.34

Tag	Januar			Februar			März			April		
	AR.	Dekl.	◁ Glieder	AR.	Dekl.	◁ Glieder	AR.	Dekl.	◁ Glieder	AR.	Dekl.	◁ Glieder
	+ in		◁ ◁	+ in		◁ ◁	+ in		◁ ◁	+ in		◁ ◁
IC 22 <sup>h</sup> 22 <sup>m</sup>	82° 55'	0.01   0.01	IO 22 <sup>h</sup> 22 <sup>m</sup>	82° 55'	0.01   0.01	IO 22 <sup>h</sup> 22 <sup>m</sup>	82° 55'	0.01   0.01	IO 22 <sup>h</sup> 22 <sup>m</sup>	82° 55'	0.01   0.01	
1	41.09	6.14	+7 - 4	45.66	12.11	0 + 7	47.24	20.64	-3 + 6	45.76	29.60	-4 - 4
2	41.28	6.25	+6 0	45.76	12.37	-2 + 6	47.24	20.95	-5 + 3	45.67	29.85	-3 - 6
3	41.46	6.37	+4 + 4	45.86	12.64	-4 + 5	47.24	21.26	-5 0	45.57	30.09	-1 - 7
4	41.63	6.50	+2 + 6	45.96	12.91	-5 + 2	47.23	21.57	-5 - 3	45.47	30.33	+2 - 7
5	41.81	6.63	0 + 7	46.05	13.18	-5 - 1	47.22	21.88	-4 - 5	45.37	30.57	+4 - 5
6	41.98	6.77	-2 + 6	46.14	13.46	-5 - 4	47.21	22.19	-2 - 7	45.26	30.80	+5 - 1
7	42.15	6.91	-4 + 4	46.23	13.74	-3 - 6	47.20	22.50	0 - 7	45.15	31.02	+5 + 3
8	42.32	7.06	-5 + 1	46.31	14.02	-1 - 7	47.18	22.80	+3 - 6	45.04	31.24	+4 + 7
9	42.49	7.22	-5 - 2	46.39	14.30	+1 - 7	47.16	23.11	+4 - 3	44.93	31.46	+2 + 10
10	42.66	7.38	-4 - 5	46.47	14.58	+3 - 5	47.13	23.41	+5 0	44.82	31.68	-1 + 11
11	42.82	7.54	-2 - 7	46.54	14.87	+5 - 2	47.10	23.72	+5 + 4	44.71	31.89	-4 + 10
12	42.98	7.71	0 - 7	46.61	15.16	+5 + 2	47.07	24.02	+3 + 8	44.59	32.09	-6 + 6
13	43.14	7.88	+2 - 6	46.67	15.46	+4 + 6	47.03	24.32	+1 + 11	44.47	32.29	-6 + 1
14	43.30	8.06	+4 - 4	46.73	15.75	+2 + 10	46.99	24.62	-2 + 11	44.35	32.49	-5 - 4
15	43.45	8.25	+5 0	46.79	16.05	-1 + 11	46.95	24.92	-5 + 8	44.23	32.68	-3 - 8
16	43.60	8.44	+5 + 4	46.84	16.35	-4 + 10	46.90	25.21	-6 + 4	44.10	32.87	0 - 11
17	43.75	8.64	+3 + 8	46.89	16.65	-6 + 7	46.85	25.50	-6 - 1	43.98	33.05	+3 - 11
18	43.90	8.84	+1 + 11	46.94	16.96	-6 + 3	46.80	25.79	-5 - 5	43.85	33.23	+5 - 9
19	44.05	9.05	-2 + 12	46.99	17.26	-6 - 2	46.74	26.08	-2 - 9	43.72	33.40	+7 - 5
20	44.19	9.26	-5 + 10	47.03	17.56	-4 - 7	46.68	26.37	+1 - 11	43.59	33.57	+7 - 1
21	44.33	9.47	-6 + 6	47.07	17.87	-1 - 10	46.62	26.66	+4 - 10	43.46	33.73	+5 + 3
22	44.47	9.69	-6 + 1	47.10	18.17	+2 - 10	46.56	26.94	+6 - 7	43.32	33.89	+3 + 6
23	44.60	9.91	-5 - 4	47.13	18.48	+5 - 9	46.49	27.22	+7 - 3	43.18	34.04	+1 + 7
24	44.73	10.14	-3 - 8	47.16	18.79	+6 - 6	46.42	27.50	+6 + 1	43.05	34.19	-2 + 7
25	44.85	10.37	+1 - 11	47.18	19.10	+7 - 2	46.35	27.78	+4 + 4	42.91	34.33	-4 + 5
26	44.97	10.61	+4 - 11	{47.20 47.21	{19.40 19.71	{+6 + 2 +4 + 5	46.27	28.05	+2 + 6	42.77	34.46	-5 + 3
27	45.09	10.85	+6 - 9	47.22	20.02	+1 + 7	46.19	28.32	0 + 7	42.63	34.59	-5 0
28	45.21	11.10	+7 - 5	47.23	20.33	-1 + 7	46.11	28.58	-3 + 6	42.48	34.72	-5 - 3
29	45.33	11.35	+6 - 1	47.24	20.64	-3 + 6	46.03	28.84	-5 + 4	42.34	34.84	-3 - 6
30	45.44	11.60	+5 + 3				45.94	29.10	-5 + 1	42.20	34.95	-1 - 7
31	45.55	11.85	+3 + 6				45.85	29.35	-5 - 2	42.05	35.06	+1 - 7
32	45.66	12.11	0 + 7				45.76	29.60	-4 - 4			

$\delta$ +82° 55' 0"    sec $\delta$ 8.109    tg $\delta$ +8.048 10    8.113    +8.051	$\delta$ +82° 55' 20"    sec $\delta$ 8.116    tg $\delta$ +8.054 30    8.119    +8.057	$\delta$ +82° 55' 30"    sec $\delta$ 8.119    tg $\delta$ +8.057 40    8.122    +8.060
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$$\alpha_{1929.0} = 10^h 22^m 34^s.91$$

$$\delta_{1929.0} = +82^\circ 55' 16''.30$$

N<sub>7</sub>) 30 Nev. Camelopardalis 5<sup>m</sup>.34

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	◁ Glieder	AR.	Dekl.	◁ Glieder	AR.	Dekl.	◁ Glieder	AR.	Dekl.	◁ Glieder
	10 <sup>h</sup> 22 <sup>m</sup>	82° 55'	0.01   0.01	10 <sup>h</sup> 22 <sup>m</sup>	82° 55'	0.01   0.01	10 <sup>h</sup> 22 <sup>m</sup>	82° 55'	0.01   0.01	10 <sup>h</sup> 22 <sup>m</sup>	82° 55'	0.01   0.01
	+	in		+	in		+	in		+	in	
1	42.05	35.06	+1 - 7	37.39	35.63	+5 + 5	33.51	31.18	-1 +13	31.24	22.54	-7 + 1
2	41.91	35.17	+3 - 5	37.24	35.56	+3 + 9	33.41	30.96	-4 +12	31.20	22.21	-5 - 4
3	41.76	35.27	+4 - 2	37.09	35.48	+1 +12	33.31	30.73	-6 + 9	31.16	21.88	-2 - 8
4	41.61	35.36	+5 + 2	36.95	35.40	-2 +12	33.21	30.50	-7 + 4	31.13	21.55	+1 -10
5	41.46	35.45	+4 + 6	36.81	35.31	-5 +10	33.11	30.27	-6 - 2	31.10	21.22	+4 -10
6	41.31	35.53	+2 +10	36.66	35.21	-6 + 6	33.01	30.03	-4 - 7	31.08	20.88	+6 - 8
7	41.16	35.61	0 +12	36.52	35.11	-6 + 1	32.92	29.78	-1 -10	31.05	20.54	+7 - 4
8	41.01	35.68	-3 +11	36.38	35.01	-5 - 5	32.82	29.53	+2 -11	31.03	20.20	+7 0
9	40.86	35.74	-5 + 8	36.24	34.90	-2 - 9	32.73	29.28	+5 -10	31.01	19.86	+5 + 4
10	40.71	35.80	-6 + 3	36.10	34.78	+1 -12	32.64	29.03	+7 - 7	30.99	19.52	+2 + 6
11	40.56	35.85	-6 - 2	35.97	34.66	+4 -12	32.55	28.77	+7 - 3	30.98	19.17	0 + 6
12	40.41	35.90	-4 - 7	35.83	34.54	+6 - 9	32.47	28.50	+6 + 1	30.97	18.82	-2 + 5
13	40.26	35.94	-1 -10	35.69	34.41	+7 - 5	32.39	28.23	+4 + 5	30.96	18.47	-4 + 3
14	40.11	35.98	+2 -12	35.56	34.27	+7 - 1	32.31	27.96	+1 + 6	30.95	18.12	-5 0
15	39.95	36.01	+4 -11	35.43	34.13	+5 + 3	32.23	27.69	-1 + 6	30.95	17.77	-5 - 3
16	39.80	36.03	+6 - 7	35.30	33.98	+3 + 6	32.16	27.41	-3 + 5	30.95	17.41	-4 - 6
17	39.64	36.05	+7 - 3	35.17	33.83	0 + 7	32.08	27.13	-5 + 2	30.95	17.06	-2 - 8
18	39.49	36.06	+6 + 1	35.04	33.67	-2 + 6	32.01	26.84	-5 - 1	30.95	16.71	0 - 8
19	39.34	36.06	+4 + 5	34.92	33.51	-4 + 4	31.94	26.55	-5 - 4	30.96	16.35	+2 - 7
20	39.19	36.06	+2 + 7	34.79	33.34	-5 + 1	31.87	26.26	-3 - 6	30.97	15.99	+4 - 5
21	39.03	36.06	-1 + 7	34.66	33.17	-5 - 2	31.80	25.97	-1 - 8	30.98	15.63	+5 - 1
22	38.88	36.05	-3 + 6	34.54	32.99	-4 - 5	31.74	25.67	+1 - 8	30.99	15.27	+5 + 3
23	38.73	36.03	-5 + 4	34.42	32.81	-3 - 7	31.68	25.37	+3 - 6	31.01	14.91	+4 + 8
24	38.58	36.01	-5 + 1	34.30	32.62	-1 - 8	31.62	25.07	+4 - 3	31.03	14.54	+2 +11
25	38.43	35.98	-5 - 2	34.18	32.43	+1 - 7	31.56	24.76	+5 + 1	31.05	14.18	-1 +12
26	38.28	35.95	-4 - 5	34.07	32.23	+3 - 5	31.51	24.45	+4 + 6	31.07	13.82	-4 +11
27	38.13	35.91	-2 - 7	33.95	32.03	+5 - 1	31.46	24.14	+3 +10	31.10	13.46	-6 + 8
28	37.98	35.87	0 - 7	33.84	31.82	+5 + 3	31.41	23.82	0 +12	31.13	13.09	-7 + 3
29	37.83	35.82	+2 - 6	33.73	31.61	+4 + 8	31.36	23.50	-3 +12	31.16	12.73	-6 - 2
30	37.68	35.76	+4 - 3	33.62	31.40	+2 +11	31.32	23.18	-5 +10	31.19	12.36	-4 - 7
31	37.54	35.70	+5 + 1	33.51	31.18	-1 +13	31.28	22.86	-7 + 6	31.23	12.00	-1 - 9
32	37.39	35.63	+5 + 5				31.24	22.54	-7 + 1	31.27	11.63	+2 -10

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+82° 55' 10''	8.113	+8.051	+82° 55' 30''	8.119	+8.057
20	8.116	+8.054	40	8.122	+8.060

$$\alpha_{1929.0} = 10^{\text{h}} 22^{\text{m}} 34^{\text{s}}.91$$

$$\delta_{1929.0} = +82^{\circ} 55' 16''.30$$

\*) Tag der doppelten unteren Kulmination: Aug. 27

## Obere Kulmination Greenwich

Nf) 30 Hev. Camelopardalis 5<sup>m</sup>.34

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	◁ Glieder	AR.	Dekl.	◁ Glieder	AR.	Dekl.	◁ Glieder	AR.	Dekl.	◁ Glieder
	10 22 <sup>h</sup> 82° 55' <sup>m</sup>	<sup>s</sup> 0.01   <sup>s</sup> 0.01	in	10 22 <sup>h</sup> 82° 54' <sup>m</sup>	<sup>s</sup> 0.01   <sup>s</sup> 0.01	in	10 22 <sup>h</sup> 82° 54' <sup>m</sup>	<sup>s</sup> 0.01   <sup>s</sup> 0.01	in	10 22 <sup>h</sup> 82° 54' <sup>m</sup>	<sup>s</sup> 0.01   <sup>s</sup> 0.01	in
1	31.27	11.63	+2 -10	33.62	60.91	+7 -2	38.20	51.84	0 +7	44.03	46.97	-5 +2
2	31.31	11.27	+5 -8	33.74	60.57	+6 +2	38.38	51.61	-2 +6	44.23	46.89	-5 -2
3	31.35	10.90	+7 -5	33.86	60.24	+4 +5	38.56	51.38	-4 +4	44.44	46.82	-4 -5
4	31.40	10.53	+7 -1	33.98	59.91	+2 +7	38.74	51.15	-5 +1	44.64	46.76	-3 -7
5	31.45	10.17	+5 +3	34.11	59.58	-1 +7	38.92	50.93	-5 -3	44.85	46.70	-1 -8
6	31.50	9.80	+3 +6	34.23	59.25	-3 +5	39.11	50.71	-4 -5	45.05	46.65	+1 -8
7	31.56	9.43	+1 +7	34.36	58.92	-5 +2	39.29	50.50	-2 -7	45.26	46.60	+3 -6
8	31.62	9.07	-2 +6	34.49	58.60	-5 -1	39.47	50.29	0 -8	45.46	46.56	+4 -3
9	31.68	8.70	-4 +4	34.62	58.28	-5 -4	39.66	50.09	+2 -7	45.67	46.52	+5 +2
10	31.74	8.34	-5 +1	34.75	57.97	-3 -6	39.85	49.89	+4 -5	45.87	46.49	+4 +6
11	31.80	7.97	-5 -2	34.89	57.65	-1 -8	40.04	49.70	+5 -1	46.07	46.47	+2 +10
12	31.87	7.61	-4 -5	35.03	57.34	+1 -8	40.23	49.51	+5 +3	46.28	46.45	0 +12
13	31.94	7.25	-3 -7	35.17	57.03	+3 -7	40.42	49.33	+4 +7	46.48	46.44	-3 +12
14	32.01	6.88	-1 -8	35.31	56.73	+4 -4	40.62	49.15	+2 +10	46.68	46.44	-5 +10
15	32.09	6.52	+2 -8	35.46	56.43	+5 0	40.81	48.98	-1 +12	46.89	46.44	-7 +6
16	32.16	6.16	+4 -6	35.60	56.13	+5 +4	41.00	48.81	-4 +11	47.09	46.45	-7 +1
17	32.24	5.80	+5 -3	35.75	55.83	+3 +8	41.20	48.65	-6 +8	47.29	46.46	-5 -5
18	32.32	5.44	+5 +1	35.90	55.54	+1 +11	41.40	48.49	-7 +3	47.49	46.48	-2 -9
19	32.41	5.09	+5 +6	36.05	55.25	-2 +11	41.60	48.34	-6 -2	47.69	46.51	+1 -11
20	32.50	4.73	+3 +9	36.21	54.97	-4 +10	41.80	48.19	-4 -7	47.89	46.54	+4 -11
21	32.59	4.37	0 +11	36.36	54.69	-6 +6	42.00	48.05	-1 -10	48.09	46.58	+6 -8
22	32.68	4.02	-3 +11	36.52	54.41	-6 +1	42.20	47.92	+2 -11	48.29	46.63	+7 -4
23	32.77	3.67	-5 +9	36.68	54.14	-5 -4	42.40	47.79	+5 -10	48.48	46.68	+7 0
24	32.87	3.32	-7 +4	36.84	53.87	-3 -8	42.61	47.67	+7 -6	48.67	46.74	+5 +4
25	32.97	2.97	-7 -1	37.01	53.60	0 -10	42.81	47.55	+7 -2	48.87	46.80	+2 +6
26	33.07	2.62	-5 -5	37.17	53.34	+3 -10	43.01	47.44	+6 +3	49.06	46.87	0 +7
27	33.18	2.27	-2 -9	37.34	53.08	+6 -8	43.22	47.33	+4 +6	49.25	46.94	-3 +5
28	33.29	1.93	+1 -10	37.51	52.82	+7 -4	43.42	47.23	+1 +7	49.44	47.02	-4 +3
29	33.40	1.59	+4 -9	37.68	52.57	+6 0	43.62	47.14	-2 +7	49.63	47.11	-5 -1
30	33.51	1.25	+6 -6	37.85	52.32	+5 +4	43.82	47.05	-4 +5	49.82	47.20	-5 -4
31	33.62	0.91	+7 -2	38.03	52.08	+3 +7	44.03	46.97	-5 +2	50.00	47.30	-3 -7
32				38.20	51.84	0 +7				50.18	47.41	-2 -8

$\delta$	$\sec \delta$	$\operatorname{tg} \delta$	$\delta$	$\sec \delta$	$\operatorname{tg} \delta$	$\delta$	$\sec \delta$	$\operatorname{tg} \delta$
+82° 54' 40"	8.103	+8.041	+82° 55' 10"	8.109	+8.048	+82° 55' 20"	8.113	+8.051
50	8.106	+8.044	10	8.113	+8.051	20	8.116	+8.054

$$\alpha_{1929.0} = 10^{\text{h}} 22^{\text{m}} 34^{\text{s}}.91$$

$$\delta_{1929.0} = +82^{\circ} 55' 16''.30$$

Ng)  $\epsilon$  Ursae minoris  $4^m.40$ 

Tag	Januar			Februar			März			April		
	AR.	Dekl.	$\zeta$ Glieder	AR.	Dekl.	$\zeta$ Glieder	AR.	Dekl.	$\zeta$ Glieder	AR.	Dekl.	$\zeta$ Glieder
	16 <sup>h</sup> 53 <sup>m</sup>	82° 9'	+ in 0.01 0.01	16 <sup>h</sup> 53 <sup>m</sup>	82° 8'	+ in 0.01 0.01	16 <sup>h</sup> 53 <sup>m</sup>	82° 8'	+ in 0.01 0.01	16 <sup>h</sup> 53 <sup>m</sup>	82° 9'	+ in 0.01 0.01
1	4.17	12.77	-1 -10	7.17	63.68	+2 -2	11.40	59.83	+2 +1	16.21	1.49	-1 +9
2	4.23	12.42	0 -10	7.31	63.46	+2 +2	11.56	59.79	+2 +4	16.35	1.64	-2 +8
3	4.29	12.07	+2 -8	7.45	63.25	+1 +5	11.72	59.75	+1 +7	16.49	1.80	-2 +6
4	4.35	11.73	+2 -5	7.58	63.04	0 +8	11.88	59.72	0 +9	16.62	1.96	-2 +2
5	4.42	11.39	+2 0	7.72	62.84	0 +9	12.05	59.70	-1 +9	16.76	2.13	-2 -2
6	4.49	11.05	+2 +3	7.86	62.65	-1 +9	12.21	59.68	-2 +8	16.89	2.30	-1 -5
7	4.56	10.72	+1 +7	8.00	62.46	-2 +7	12.37	59.67	-2 +5	17.02	2.48	0 -9
8	4.63	10.39	0 +9	8.14	62.27	-2 +3	12.53	59.66	-2 +1	17.15	2.66	+1 -10
9	4.71	10.06	-1 +9	8.28	62.09	-2 -1	12.69	59.66	-2 -3	17.27	2.85	+3 -9
10	4.79	9.74	-2 +8	8.43	61.92	-1 -5	12.85	59.67	-1 -7	17.40	3.04	+4 -6
11	4.87	9.42	-2 +6	8.58	61.75	0 -8	13.01	59.69	0 -9	17.52	3.24	+4 -1
12	4.95	9.10	-2 +2	8.73	61.60	+1 -10	13.17	59.71	+2 -10	17.64	3.44	+3 +4
13	5.04	8.79	-2 -2	8.88	61.45	+3 -9	13.33	59.74	+3 -8	17.76	3.64	+2 +8
14	5.13	8.48	-1 -6	9.03	61.30	+4 -6	13.49	59.78	+4 -4	17.87	3.85	0 +10
15	5.23	8.18	+1 -9	9.18	61.16	+4 -2	13.65	59.82	+3 +1	17.99	4.07	-2 +10
16	5.32	7.88	+2 -9	9.33	61.03	+3 +3	13.81	59.87	+3 +6	18.10	4.29	-3 +7
17	5.42	7.58	+3 -8	9.49	60.90	+2 +8	13.97	59.93	+1 +9	18.21	4.51	-4 +3
18	5.52	7.29	+4 -4	9.65	60.77	0 +10	14.13	59.99	-1 +11	18.32	4.74	-4 -2
19	5.62	7.00	+4 +1	9.80	60.65	-1 +10	14.28	60.06	-2 +9	18.42	4.98	-3 -7
20	5.73	6.72	+3 +5	9.96	60.53	-3 +8	14.44	60.13	-3 +6	18.53	5.22	-1 -10
21	5.84	6.44	+2 +10	10.12	60.43	-3 +4	14.59	60.21	-4 +1	18.63	5.46	0 -11
22	5.95	6.16	0 +11	10.28	60.33	-3 -1	14.74	60.29	-3 -4	18.73	5.71	+1 -9
23	6.06	5.89	-2 +10	10.44	60.24	-3 -6	14.90	60.38	-2 -8	18.83	5.96	+2 -7
24	6.18	5.63	-3 +6	10.60	60.16	-2 -9	15.05	60.48	-1 -10	18.92	6.21	+2 -3
25	6.30	5.37	-4 +2	10.76	60.08	0 -11	15.20	60.59	+1 -10	19.01	6.47	+2 +2
26	6.42	5.11	-4 -3	10.92	60.01	+1 -10	15.35	60.70	+2 -8	19.10	6.73	+2 +5
27	6.54	4.86	-3 -7	11.08	59.94	+2 -7	15.50	60.82	+2 -5	19.19	6.99	+1 +8
28	6.66	4.62	-1 -10	11.24	59.88	+2 -3	15.64	60.94	+2 -1	19.27	7.26	0 +9
29	6.78	4.38	0 -10	11.40	59.83	+2 +1	15.79	61.07	+2 +3	19.35	7.53	-1 +9
30	6.91	4.14	+1 -9				15.93	61.20	+1 +6	19.43	7.80	-2 +7
31	7.04	3.91	+2 -6				16.07	61.34	0 +9	19.51	8.07	-3 +4
32	7.17	3.68	+2 -2				16.21	61.49	-1 +9			

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+82° 8' 50"	7.319	+7.250	+82° 9' 10"	7.324	+7.256
9 0	7.322	+7.253	20	7.327	+7.258

$$\alpha_{1929.0} = 16^h 53^m 10^s.77$$

$$\delta_{1929.0} = +82^\circ 9' 24''.55$$



# Scheinbare Sternörter 1929

185\*

Obere Kulmination Greenwich

(Ng) ε Ursae minoris 4<sup>m</sup>.40

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder
	16 <sup>h</sup> 53 <sup>m</sup>	82° 9'	<sup>+</sup> <sub>0.01 0.01</sub>	16 <sup>h</sup> 53 <sup>m</sup>	82° 9'	<sup>+</sup> <sub>0.01 0.01</sub>	16 <sup>h</sup> 53 <sup>m</sup>	82° 9'	<sup>+</sup> <sub>0.01 0.01</sub>	16 <sup>h</sup> 53 <sup>m</sup>	82° 9'	<sup>+</sup> <sub>0.01 0.01</sub>
			in			in			in			in
1	19.51	8.07	-3 + 4	20.57	17.49	+1 - 9	18.97	26.61	+4 - 1	15.17	33.01	-1 + 11
2	19.59	8.35	-2 0	20.56	17.80	+2 - 9	18.88	26.87	+4 + 3	15.02	33.15	-2 + 10
3	19.66	8.63	-1 - 4	20.55	18.12	+3 - 8	18.78	27.13	+2 + 8	14.87	33.28	-3 + 6
4	19.73	8.92	0 - 7	20.53	18.43	+4 - 4	18.69	27.38	+1 + 11	14.72	33.42	-3 + 1
5	19.79	9.20	+1 - 9	<sub>20.51</sub> <sub>20.49</sub>	<sup>18.74</sup> <sub>19.05</sub>	<sup>+1 + 1</sup> <sub>+3 + 5</sub>	18.59	27.63	-1 + 11	14.56	33.55	-3 - 4
6	19.86	9.49	+2 - 9	20.46	19.36	+2 + 9	18.49	27.88	-3 + 8	14.40	33.67	-2 - 8
7	19.92	9.78	+3 - 7	20.43	19.67	0 + 10	18.39	28.12	-4 + 4	14.25	33.79	-1 - 11
8	19.98	10.07	+4 - 3	20.40	19.98	-2 + 10	18.29	28.36	-4 - 1	14.09	33.90	0 - 11
9	20.04	10.37	+4 + 2	20.37	20.29	-3 + 6	18.18	28.60	-3 - 6	13.93	34.01	+1 - 9
10	20.09	10.66	+2 + 7	20.33	20.60	-4 + 2	18.07	28.83	-2 - 10	13.77	34.11	+2 - 5
11	20.14	10.96	+1 + 10	20.29	20.91	-4 - 3	17.96	29.06	0 - 11	13.61	34.21	+2 - 1
12	20.19	11.26	-1 + 10	20.25	21.21	-3 - 8	17.84	29.29	+1 - 10	13.44	34.31	+2 + 3
13	20.24	11.56	-3 + 8	20.21	21.51	-1 - 10	17.73	29.51	+2 - 7	13.27	34.40	+1 + 7
14	20.28	11.87	-4 + 5	20.16	21.81	0 - 11	17.61	29.73	+2 - 3	13.11	34.48	0 + 9
15	20.32	12.17	-4 0	20.11	22.11	+1 - 9	17.49	29.95	+2 + 1	12.94	34.56	-1 + 9
16	20.35	12.48	-3 - 5	20.06	22.41	+2 - 6	17.37	30.16	+1 + 5	12.77	34.64	-2 + 8
17	20.39	12.79	-2 - 9	20.01	22.71	+2 - 2	17.24	30.37	0 + 8	12.60	34.71	-3 + 5
18	20.42	13.10	-1 - 11	19.95	23.00	+2 + 2	17.12	30.58	-1 + 9	12.43	34.77	-3 + 2
19	20.45	13.41	+1 - 10	19.89	23.29	+1 + 6	16.99	30.78	-2 + 9	12.26	34.83	-2 - 2
20	20.48	13.72	+2 - 8	19.83	23.58	0 + 8	16.86	30.98	-2 + 7	12.08	34.89	-1 - 6
21	20.50	14.03	+2 - 4	19.76	23.87	-1 + 9	16.73	31.17	-3 + 5	11.91	34.94	0 - 9
22	20.52	14.35	+2 0	19.70	24.16	-2 + 9	16.60	31.36	-3 0	11.74	34.99	+2 - 10
23	20.54	14.66	+2 + 4	19.63	24.44	-2 + 6	16.46	31.54	-2 - 4	11.56	35.03	+3 - 8
24	20.55	14.98	+1 + 7	19.55	24.72	-3 + 3	16.33	31.72	-1 - 7	11.39	35.06	+4 - 5
25	20.56	15.29	0 + 9	19.48	25.00	-2 - 1	16.19	31.90	+1 - 9	11.22	35.09	+4 0
26	20.57	15.60	-1 + 9	19.40	25.27	-1 - 5	16.05	32.07	+2 - 9	11.04	35.12	+4 + 4
27	20.58	15.92	-2 + 8	19.32	25.54	0 - 8	15.91	32.24	+3 - 7	10.87	35.14	+2 + 9
28	20.58	16.23	-2 + 5	19.24	25.81	+1 - 9	15.77	32.40	+4 - 3	10.69	35.16	0 + 11
29	20.58	16.54	-2 + 2	19.15	26.08	+3 - 9	15.62	32.56	+4 + 1	10.51	35.17	-1 + 11
30	20.58	16.86	-2 - 2	19.06	26.35	+4 - 6	15.47	32.71	+3 + 6	10.34	35.18	-3 + 8
31	20.58	17.17	-1 - 6	18.97	26.61	+4 - 1	15.32	32.86	+1 + 10	10.16	35.18	-3 + 3
32	20.57	17.49	+1 - 9				15.17	33.01	-1 + 11	9.98	35.17	-3 - 2

$\delta$	$\sec \delta$	$\operatorname{tg} \delta$	$\delta$	$\sec \delta$	$\operatorname{tg} \delta$	$\delta$	$\sec \delta$	$\operatorname{tg} \delta$
+82° 9' 0"	7.322	+7.253	+82° 9' 20"	7.327	+7.258	+82° 9' 30"	7.329	+7.261
10	7.324	+7.256	30	7.329	+7.261	40	7.332	+7.264

$$\alpha_{1920.0} = 16^{\text{h}} 53^{\text{m}} 10^{\text{s}}.77$$

$$\delta_{1929.0} = +82^{\circ} 9' 24''.55$$

Ny)  $\varepsilon$  Ursae minoris 4<sup>m</sup>.40

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	◁ Glieder	AR.	Dekl.	◁ Glieder	AR.	Dekl.	◁ Glieder	AR.	Dekl.	◁ Glieder
	16 <sup>h</sup> 53 <sup>m</sup>	82° 9'	+ o.o o.o	16 <sup>h</sup> 53 <sup>m</sup>	82° 9'	+ o.o o.o	16 <sup>h</sup> 52 <sup>m</sup>	82° 9'	+ o.o o.o	16 <sup>h</sup> 52 <sup>m</sup>	82° 9'	+ o.o o.o
1	9.98	35.17	-3 -2	4.67	32.71	o -11	60.08	25.68	+2 -1	57.58	15.71	o +8
2	9.80	35.16	-2 -7	4.51	32.55	+1 -10	59.96	25.39	+2 +3	57.54	15.35	-1 +9
3	9.63	35.15	-1 -10	4.34	32.39	+2 -8	59.84	25.09	+1 +7	57.50	14.99	-2 +9
4	9.45	35.13	o -11	4.17	32.22	+2 -4	59.73	24.79	o +9	57.47	14.63	-2 +7
5	9.27	35.10	+1 -10	4.01	32.04	+2 +1	59.61	24.49	-1 +9	57.44	14.26	-3 +4
6	9.09	35.07	+2 -6	3.84	31.86	+1 +4	59.50	24.19	-2 +8	57.41	13.90	-2 o
7	8.91	35.04	+2 -2	3.68	31.68	+1 +8	59.39	23.88	-3 +6	57.39	13.53	-2 -4
8	8.73	35.00	+2 +2	3.52	31.49	o +9	59.28	23.57	-3 +2	57.37	13.16	o -7
9	8.55	34.95	+1 +6	3.36	31.30	-1 +9	59.18	23.26	-2 -2	57.35	12.79	+1 -9
10	8.37	34.90	o +8	3.20	31.10	-2 +7	59.08	22.94	-1 -6	57.34	12.42	+2 -9
11	8.19	34.85	-1 +9	3.04	30.90	-3 +5	58.98	22.62	o -8	57.33	12.06	+4 -7
12	8.01	34.79	-2 +9	2.89	30.69	-3 +1	58.89	22.30	+1 -9	57.32	11.69	+4 -3
13	7.83	34.72	-3 +6	2.73	30.48	-2 -3	58.79	21.97	+3 -9	57.31	11.32	+4 +2
14	7.65	34.65	-3 +3	2.57	30.27	-1 -7	58.70	21.64	+4 -6	57.31	10.95	+3 +6
15	7.48	34.58	-2 -1	2.42	30.05	o -9	58.61	21.31	+4 -2	57.31	10.59	+2 +10
16	7.30	34.50	-2 -5	2.27	29.83	+2 -10	58.53	20.98	+4 +3	57.31	10.22	o +11
17	7.12	34.41	o -8	2.12	29.60	+3 -8	58.45	20.64	+2 +8	57.32	9.85	-2 +10
18	6.94	34.32	+1 -10	1.97	29.37	+4 -4	58.37	20.30	+1 +10	57.33	9.48	-3 +6
19	6.77	34.23	+2 -9	1.82	29.13	+4 o	58.29	19.96	-1 +11	57.34	9.12	-4 +2
20	6.59	34.13	+3 -7	1.68	28.89	+3 +5	58.21	19.62	-3 +8	57.36	8.75	-3 -4
21	6.41	34.02	+4 -3	1.53	28.64	+2 +9	58.14	19.27	-4 +4	57.38	8.39	-2 -9
22	6.24	33.91	+4 +2	1.39	28.39	o +11	58.07	18.93	-4 -1	57.40	8.02	-1 -11
23	6.06	33.80	+3 +7	1.25	28.14	-2 +10	58.00	18.58	-3 -6	57.43	7.66	+1 -11
24	5.88	33.68	+1 +10	1.11	27.88	-3 +7	57.94	18.23	-2 -10	57.46	7.30	+2 -9
25	5.71	33.55	-1 +11	0.98	27.62	-4 +2	57.88	17.88	o -11	57.49	6.94	+2 -5
26	5.53	33.42	-2 +9	0.84	27.35	-3 -3	57.82	17.52	+1 -10	57.52	6.58	+2 o
27	5.36	33.29	-3 +5	0.71	27.08	-2 -8	57.77	17.16	+2 -7	57.56	6.22	+2 +4
28	5.19	33.15	-3 o	0.58	26.81	-1 -10	57.72	16.80	+2 -3	57.60	5.87	+1 +7
29	5.02	33.01	-3 -5	0.45	26.53	o -11	57.67	16.44	+2 +1	57.64	5.52	o +9
30	4.84	32.86	-2 -9	0.33	26.25	+2 -9	57.62	16.08	+1 +5	57.69	5.17	-2 +9
31	4.67	32.71	o -11	0.20	25.97	+2 -5	57.58	15.71	o +8	57.74	4.82	-2 +8
32				0.08	25.68	+2 -1				57.79	4.47	-3 +5

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+82° 9' 0''	7.322	+7.253	+82° 9' 20''	7.327	+7.258	+82° 9' 30''	7.329	+7.261
10	7.324	+7.256	30	7.329	+7.261	40	7.332	+7.264

$$\alpha_{1929.0} = 16^{\text{h}} 53^{\text{m}} 10^{\text{s}}.77$$

$$\delta_{1929.0} = +82^{\circ} 9' 24.''55$$

\*) Tag der doppelten unteren Kulmination: Dez. 4

Nh)  $\delta$  Ursae minoris 4<sup>m</sup>.44

Tag	Januar			Februar			März			April		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	17 <sup>h</sup> 54 <sup>m</sup>	86° 36'	0.01   0.01	17 <sup>h</sup> 54 <sup>m</sup>	86° 36'	0.01   0.01	17 <sup>h</sup> 55 <sup>m</sup>	86° 36'	0.01   0.01	17 <sup>h</sup> 55 <sup>m</sup>	86° 36'	0.01   0.01
		+	in		+	in		+	in		+	in
1	50.27	40.80	- 6 - 9	53.96	30.84	+ 6 - 4	2.01	25.10	+ 6 - 1	12.96	24.24	+ 1 + 9
2	50.29	40.45	- 2 - 10	54.19	30.57	+ 7 0	2.35	24.98	+ 6 + 3	13.31	24.31	- 1 + 9
3	50.31	40.10	+ 1 - 9	54.42	30.30	+ 6 + 4	2.69	24.87	+ 5 + 6	13.65	24.39	- 4 + 7
4	50.34	39.75	+ 4 - 6	54.65	30.03	+ 4 + 7	3.04	24.76	+ 3 + 9	13.99	24.48	- 4 + 4
5	50.38	39.40	+ 6 - 2	54.89	29.77	+ 2 + 9	3.39	24.66	0 + 9	14.33	24.57	- 6 0
6	50.42	39.05	+ 7 + 2	55.14	29.52	- 1 + 9	3.73	24.56	- 3 + 9	14.66	24.67	- 5 - 4
7	50.47	38.71	+ 6 + 5	55.39	29.27	- 4 + 8	4.08	24.47	- 5 + 6	15.00	24.77	- 3 - 8
8	50.52	38.37	+ 4 + 8	55.64	29.02	- 6 + 5	4.43	24.38	- 7 + 3	15.33	24.88	0 - 10
9	50.58	38.03	+ 1 + 9	55.90	28.78	- 7 + 1	4.78	24.30	- 7 - 2	15.65	24.99	+ 5 - 10
10	50.65	37.69	- 2 + 9	56.17	28.55	- 6 - 3	5.13	24.23	- 5 - 6	15.98	25.11	+ 8 - 8
11	50.73	37.35	- 5 + 7	56.45	28.32	- 4 - 7	5.48	24.16	- 2 - 9	16.30	25.24	+ 10 - 4
12	50.82	37.01	- 6 + 4	56.73	28.09	0 - 10	5.84	24.10	+ 2 - 11	16.62	25.37	+ 10 + 1
13	50.91	36.67	- 7 0	57.01	27.87	+ 4 - 10	6.20	24.04	+ 6 - 9	16.94	25.51	+ 7 + 6
14	51.01	36.34	- 5 - 5	57.29	27.65	+ 8 - 9	6.56	23.99	+ 9 - 6	17.26	25.65	+ 3 + 10
15	51.12	36.01	- 2 - 9	57.58	27.44	+ 10 - 4	6.92	23.95	+ 10 - 1	17.57	25.80	- 2 + 11
16	51.23	35.69	+ 2 - 10	57.87	27.24	+ 11 + 1	7.28	23.92	+ 9 + 3	17.87	25.96	- 6 + 9
17	51.35	35.36	+ 6 - 10	58.17	27.04	+ 9 + 5	7.64	23.90	+ 6 + 8	18.18	26.12	- 10 + 5
18	51.48	35.04	+ 9 - 7	58.47	26.85	+ 5 + 9	8.00	23.88	+ 2 + 10	18.48	26.28	- 11 + 1
19	51.61	34.72	+ 11 - 2	58.77	26.66	0 + 11	8.36	23.86	- 3 + 10	18.77	26.45	- 10 - 4
20	51.75	34.40	+ 11 + 3	59.08	26.48	- 4 + 9	8.71	23.85	- 7 + 8	19.06	26.62	- 7 - 8
21	51.90	34.09	+ 8 + 7	59.40	26.30	- 8 + 6	9.07	23.85	- 10 + 4	19.34	26.80	- 4 - 10
22	52.06	33.77	+ 3 + 10	59.72	26.13	- 10 + 2	9.43	23.85	- 10 - 1	19.62	26.98	0 - 10
23	52.22	33.46	- 2 + 10	60.04	25.97	- 10 - 3	9.79	23.86	- 9 - 6	19.90	27.17	+ 4 - 8
24	52.39	33.15	- 7 + 8	60.37	25.81	- 8 - 7	10.15	23.88	- 6 - 9	20.18	27.36	+ 6 - 4
25	52.57	32.85	- 10 + 4	60.69	25.65	- 5 - 10	10.51	23.91	- 2 - 10	20.45	27.56	+ 7 0
26	52.75	32.55	- 11 0	61.02	25.50	- 1 - 10	10.86	23.94	+ 2 - 9	20.71	27.77	+ 6 + 4
27	52.93	32.26	- 10 - 5	61.35	25.36	+ 3 - 8	11.21	23.97	+ 5 - 6	20.97	27.97	+ 5 + 7
28	53.12	31.97	- 7 - 8	61.68	25.23	+ 5 - 5	11.56	24.01	+ 6 - 2	21.23	28.18	+ 2 + 9
29	53.32	31.68	- 4 - 10	62.01	25.10	+ 6 - 1	11.91	24.06	+ 7 + 1	21.48	28.40	0 + 9
30	53.53	31.40	0 - 9				12.26	24.11	+ 6 + 5	21.72	28.62	- 3 + 8
31	53.74	31.12	+ 3 - 7				12.61	24.17	+ 4 + 8	21.96	28.84	- 5 + 6
32	53.96	30.84	+ 6 - 4				12.96	24.24	+ 1 + 9			

$\delta_j$	sec. $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+86° 36' 20"	16.889	+16.860	+86° 36' 40"	16.917	+16.887
30	16.903	+16.873	50	16.931	+16.901

$$\alpha_{1929.0} = 17^h 55^m 7.37$$

$$\delta_{1929.0} = +86^\circ 36' 49''.02$$

N $\delta$ )  $\delta$  Ursae minoris 4<sup>m</sup>.44

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	$\zeta$ Glieder	AR.	Dekl.	$\zeta$ Glieder	AR.	Dekl.	$\zeta$ Glieder	AR.	Dekl.	$\zeta$ Glieder
	17 <sup>h</sup> 55 <sup>m</sup>	86° 36'	<sup>+</sup> <sub>0.01 0.01</sub>	17 <sup>h</sup> 55 <sup>m</sup>	86° 36'	<sup>+</sup> <sub>0.01 0.01</sub>	17 <sup>h</sup> 55 <sup>m</sup>	86° 36'	<sup>+</sup> <sub>0.01 0.01</sub>	17 <sup>h</sup> 55 <sup>m</sup>	86° 36'	<sup>+</sup> <sub>0.01 0.01</sub>
1	21.96	28.84	- 5 + 6	26.62	37.33	- 1 - 9	25.25	46.96	+ 11 - 5	18.16	55.18	+ 3 + 11
2	22.20	29.07	- 6 + 2	26.67	37.64	+ 2 - 10	25.10	47.26	+ 12 + 1	17.85	55.40	- 2 + 11
3	22.43	29.30	- 6 - 4	26.72	37.95	+ 7 - 10	24.95	47.56	+ 10 + 5	17.53	55.61	- 6 + 8
4	22.65	29.53	- 4 - 7	26.76	38.26	+ 10 - 7	24.79	47.85	+ 6 + 9	17.21	55.82	- 10 + 4
5	22.87	29.77	0 - 10	26.79	38.58	+ 11 - 3	24.63	48.15	+ 1 + 11	16.89	56.03	- 11 - 1
6	23.09	30.02	+ 4 - 10	26.82	38.89	+ 11 + 2	24.46	48.44	- 4 + 10	16.57	56.23	- 9 - 6
7	23.30	30.26	+ 7 - 9	26.84	39.20	+ 8 + 7	24.29	48.73	- 9 + 6	16.24	56.43	- 6 - 9
8	23.50	30.51	+ 10 - 5	26.85	39.51	+ 3 + 10	24.11	49.01	- 11 + 2	15.90	56.62	- 3 - 10
9	23.70	30.76	+ 11 - 1	26.86	39.83	- 2 + 11	23.92	49.30	- 11 - 3	15.56	56.81	+ 1 - 9
10	23.89	31.02	+ 9 + 5	26.86	40.14	- 7 + 9	23.73	49.59	- 9 - 8	15.22	57.00	+ 4 - 6
11	24.07	31.28	+ 5 + 9	26.86	40.46	- 11 + 5	23.53	49.87	- 5 - 10	14.87	57.18	+ 6 - 2
12	24.25	31.55	0 + 11	26.85	40.77	- 12 0	23.32	50.15	- 1 - 10	14.52	57.36	+ 6 + 2
13	24.43	31.82	- 5 + 10	26.83	41.09	- 11 - 5	23.11	50.43	+ 2 - 8	14.16	57.54	+ 5 + 6
14	24.60	32.09	- 9 + 7	26.80	41.40	- 8 - 9	22.90	50.70	+ 5 - 5	13.80	57.71	+ 2 + 8
15	24.76	32.36	- 11 + 3	26.77	41.71	- 4 - 10	22.68	50.98	+ 6 - 1	13.44	57.88	0 + 10
16	24.92	32.64	- 11 - 2	26.73	42.03	0 - 9	22.45	51.25	+ 6 + 3	13.08	58.04	- 3 + 9
17	25.07	32.91	- 9 - 7	26.69	42.34	+ 4 - 7	22.22	51.51	+ 4 + 7	12.71	58.20	- 6 + 7
18	25.22	33.19	- 6 - 9	26.64	42.65	+ 6 - 3	21.99	51.78	+ 2 + 9	12.34	58.35	- 7 + 4
19	25.36	33.47	- 2 - 10	26.58	42.97	+ 6 + 1	21.75	52.04	- 1 + 10	11.96	58.50	- 7 0
20	25.49	33.75	+ 2 - 9	26.51	43.28	+ 5 + 5	21.50	52.30	- 4 + 8	11.58	58.65	- 6 - 5
21	25.62	34.04	+ 5 - 6	<sup>26.44</sup> <sub>26.36</sub>	<sup>43.59</sup> <sub>43.90</sub>	<sup>+ 4 + 8</sup> <sub>+ 1 + 9</sub>	21.25	52.56	- 6 + 6	11.19	58.79	- 3 - 8
22	25.74	34.33	+ 7 - 2	26.27	44.22	- 2 + 9	20.99	52.81	- 7 + 2	10.81	58.93	+ 1 - 10
23	25.86	34.63	+ 7 + 2	26.18	44.53	- 4 + 8	20.73	53.06	- 7 - 2	10.42	59.06	+ 5 - 10
24	25.97	34.92	+ 5 + 6	26.09	44.83	- 6 + 5	20.46	53.31	- 5 - 6	10.03	59.19	+ 9 - 8
25	26.07	35.22	+ 3 + 9	25.99	45.14	- 6 + 1	20.19	53.56	- 1 - 9	9.64	59.32	+ 11 - 4
26	26.17	35.52	0 + 9	25.88	45.45	- 5 - 4	19.91	53.80	+ 3 - 11	9.24	59.44	+ 11 + 1
27	26.26	35.81	- 2 + 9	25.77	45.75	- 3 - 8	19.63	54.04	+ 7 - 9	8.85	59.56	+ 9 + 6
28	26.35	36.11	- 5 + 7	25.65	46.06	+ 1 - 10	19.35	54.27	+ 11 - 6	8.45	59.67	+ 5 + 10
29	26.43	36.42	- 6 + 3	25.52	46.36	+ 5 - 10	19.06	54.50	+ 12 - 2	8.05	59.78	+ 1 + 11
30	26.50	36.72	- 6 - 1	25.39	46.66	+ 9 - 8	18.76	54.73	+ 11 + 4	7.64	59.88	- 4 + 9
31	26.56	37.02	- 4 - 5	25.25	46.96	+ 11 - 5	18.46	54.96	+ 8 + 8	7.23	59.98	- 8 + 6
32	26.62	37.33	- 1 - 9				18.16	55.18	+ 3 + 11	6.82	60.08	- 10 + 1

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+86° 36' 20"	16.889	+16.860	+86° 36' 40"	16.917	+16.887	+86° 36' 60"	16.945	+16.915
30	16.903	+16.873	50	16.931	+16.901	70	16.958	+16.929

$$\alpha_{1929.0} = 17^{\text{h}} 55^{\text{m}} 7^{\text{s}}.37$$

$$\delta_{1929.0} = +86^{\circ} 36' 49''.02$$

## Obere Kulmination Greenwich

N $\delta$ )  $\delta$  Ursae minoris 4<sup>m</sup>.44

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	17 <sup>h</sup> 54 <sup>m</sup>	86° 37'	<sup>o</sup> .01 <sup>o</sup> .01	17 <sup>h</sup> 54 <sup>m</sup>	86° 36'	<sup>o</sup> .01 <sup>o</sup> .01	17 <sup>h</sup> 54 <sup>m</sup>	86° 36'	<sup>o</sup> .01 <sup>o</sup> .01	17 <sup>h</sup> 54 <sup>m</sup>	86° 36'	<sup>o</sup> .01 <sup>o</sup> .01
		<sup>+</sup>	in		<sup>+</sup>	in		<sup>+</sup>	in		<sup>+</sup>	in
1	66.82	0.08	-10 + 1	53.97	60.64	- 5 -10	41.38	56.58	+ 6 - 3	32.58	48.68	+ 4 + 8
2	66.41	0.17	-10 - 4	53.54	60.58	- 1 -10	41.01	56.38	+ 7 + 1	32.37	48.37	+ 1 +10
3	66.00	0.25	- 7 - 8	53.11	60.52	+ 3 - 9	40.65	56.17	+ 5 + 5	32.17	48.06	- 2 +10
4	65.59	0.33	- 4 -10	52.68	60.45	+ 6 - 5	40.30	55.95	+ 3 + 8	31.98	47.74	- 4 + 8
5	65.17	0.41	0 -10	52.25	60.38	+ 7 - 1	39.95	55.73	0 +10	31.79	47.42	- 6 + 5
6	64.75	0.48	+ 4 - 8	51.83	60.30	+ 6 + 3	39.61	55.51	- 3 + 9	31.61	47.10	- 7 + 1
7	64.33	0.54	+ 6 - 4	51.40	60.22	+ 4 + 7	39.27	55.28	- 5 + 7	31.44	46.77	- 6 - 3
8	63.90	0.60	+ 6 0	50.97	60.13	+ 2 + 9	38.93	55.05	- 7 + 4	31.27	46.44	- 4 - 7
9	63.48	0.66	+ 5 + 4	50.55	60.04	- 1 +10	38.59	54.81	- 7 0	31.11	46.11	- 1 - 9
10	63.05	0.71	+ 3 + 8	50.12	59.94	- 4 + 9	38.26	54.57	- 6 - 4	30.96	45.77	+ 3 -10
11	62.62	0.76	+ 1 + 9	49.70	59.84	- 6 + 6	37.94	54.32	- 3 - 8	30.81	45.44	+ 7 - 9
12	62.19	0.80	- 2 + 9	49.28	59.74	- 7 + 3	37.62	54.07	0 -10	30.67	45.10	+11 - 6
13	61.77	0.83	- 5 + 8	48.86	59.63	- 7 - 1	37.31	53.82	+ 5 -10	30.53	44.77	+12 - 1
14	61.34	0.86	- 7 + 5	48.45	59.51	- 5 - 6	37.00	53.57	+ 8 - 8	30.40	44.43	+11 + 3
15	60.91	0.89	- 7 + 1	48.03	59.39	- 2 - 9	36.70	53.31	+11 - 4	30.28	44.09	+ 8 + 8
16	60.48	0.91	- 7 - 3	47.62	59.26	+ 2 -10	36.40	53.05	+11 0	30.17	43.75	+ 3 +11
17	60.05	0.93	- 4 - 7	47.21	59.13	+ 6 -10	36.10	52.78	+ 9 + 6	30.06	43.40	- 2 +11
18	59.61	0.94	- 1 -10	46.80	58.99	+ 9 - 7	35.81	52.51	+ 6 + 9	29.96	43.06	- 7 + 8
19	59.18	0.95	+ 3 -10	46.39	58.85	+11 - 3	35.53	52.23	0 +11	29.87	42.71	-10 + 4
20	58.74	0.95	+ 7 - 9	45.99	58.70	+10 + 2	35.25	51.95	- 5 +10	29.79	42.37	-11 - 1
21	58.31	0.95	+10 - 5	45.59	58.55	+ 8 + 7	34.98	51.67	- 9 + 7	29.71	42.02	-10 - 6
22	57.88	0.94	+11 - 1	45.19	58.39	+ 4 +10	34.72	51.38	-11 + 2	29.64	41.67	- 7 -10
23	57.44	0.93	+10 + 5	44.79	58.23	- 1 +11	34.46	51.10	-11 - 3	29.58	41.32	- 3 -11
24	57.01	0.91	+ 7 + 9	44.40	58.07	- 6 + 9	34.20	50.81	- 8 - 8	29.53	40.98	+ 1 - 9
25	56.58	0.88	+ 2 +11	44.01	57.90	- 9 + 5	33.95	50.52	- 5 -10	29.48	40.63	+ 5 - 6
26	56.14	0.85	- 3 +10	43.63	57.73	-10 0	33.71	50.22	0 -10	29.44	40.28	+ 6 - 2
27	55.71	0.82	- 7 + 7	43.25	57.55	- 9 - 5	33.47	49.92	+ 3 - 8	29.41	39.93	+ 6 + 2
28	55.27	0.78	-10 + 3	42.87	57.37	- 6 - 9	33.24	49.61	+ 6 - 5	29.38	39.58	+ 4 + 6
29	54.84	0.74	-10 - 2	42.49	57.18	- 2 -11	33.01	49.30	+ 7 0	29.36	39.22	+ 2 + 9
30	54.41	0.69	- 8 - 7	42.11	56.99	+ 1 -10	32.79	48.99	+ 6 + 4	29.35	38.87	- 1 +10
31	53.97	0.64	- 5 -10	41.74	56.79	+ 5 - 7	32.58	48.68	+ 4 + 8	29.35	38.53	- 4 + 9
32				41.38	56.58	+ 6 - 3				29.35	38.18	- 6 + 7

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+86° 36' 30"	16.903	+16.873	+86° 36' 40"	16.917	+16.887	+86° 37' 0"	16.945	+16.915
40	16.917	+16.887	50	16.931	+16.901	10	16.958	+16.929

$$\alpha_{1929.0} = 17^h 55^m 7.37$$

$$\delta_{1929.0} = +86^\circ 36' 49''.02$$

\*) Tag der doppelten unteren Kulmination: Dez. 20

Ni)  $\lambda$  Ursae minoris  $6^m.55$ 

Tag	Januar			Februar			März			April		
	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder
	18 <sup>h</sup> 46 <sup>m</sup>	+ 89° 1'	0.01 0.01	18 <sup>h</sup> 46 <sup>m</sup>	+ 89° 1'	0.01 0.01	18 <sup>h</sup> 47 <sup>m</sup>	+ 89° 1'	0.01 0.01	18 <sup>h</sup> 47 <sup>m</sup>	+ 89° 1'	0.01 0.01
1	56.76	55.23	-32 - 7	59.96	45.00	+18 - 5	21.78	37.92	+24 - 2	57.69	34.94	+13 + 9
2	56.48	54.89	-18 - 9	60.46	44.69	+25 - 1	22.81	37.74	+27 + 1	58.91	34.94	+ 2 + 9
3	56.23	54.56	- 2 - 9	60.99	44.39	+27 + 2	23.86	37.56	+25 + 5	60.13	34.95	- 9 + 8
4	56.00	54.22	+12 - 7	61.53	44.09	+23 + 6	24.92	37.39	+19 + 8	61.34	34.96	-19 + 5
5	55.80	53.89	+22 - 3	62.10	43.80	+15 + 8	25.98	37.22	+ 9 + 9	62.55	34.98	-25 + 1
6	55.62	53.55	+27 0	62.69	43.51	+ 5 + 9	27.06	37.06	- 3 + 9	63.76	35.01	-25 - 3
7	55.46	53.21	+26 + 4	63.30	43.22	- 7 + 9	28.15	36.90	-14 + 7	64.97	35.04	-19 - 7
8	55.33	52.87	+21 + 7	63.94	42.94	-18 + 6	29.26	36.75	-23 + 4	66.17	35.08	- 6 -10
9	55.23	52.54	+12 + 9	64.60	42.66	-26 + 2	30.37	36.61	-27 0	67.37	35.13	+ 9 -11
10	55.15	52.20	+ 1 + 9	65.29	42.38	-27 - 2	31.49	36.47	-25 - 5	68.56	35.18	+24 - 9
11	55.10	51.86	-11 + 8	65.99	42.11	-22 - 6	32.62	36.34	-16 - 9	69.74	35.24	+35 - 6
12	55.07	51.52	-20 + 5	66.71	41.84	-10 -10	33.76	36.21	- 2 -11	70.92	35.30	+39 - 1
13	55.07	51.19	-25 + 1	67.46	41.57	+ 6 -11	34.91	36.09	+14 -11	72.10	35.37	+34 + 5
14	55.10	50.85	-24 - 4	68.22	41.31	+22 -10	36.07	35.97	+29 - 8	73.26	35.44	+21 + 9
15	55.16	50.52	-16 - 8	69.00	41.05	+35 - 7	37.23	35.86	+38 - 4	74.42	35.52	+ 3 +11
16	55.24	50.18	- 2 -11	69.80	40.80	+41 - 2	38.40	35.76	+39 + 1	75.57	35.61	-16 +10
17	55.35	49.84	+15 -11	70.62	40.55	+39 + 3	39.58	35.66	+31 + 6	76.72	35.70	-33 + 7
18	55.48	49.51	+30 - 9	71.46	40.31	+28 + 8	40.77	35.57	+16 +10	77.85	35.80	-42 + 3
19	55.64	49.17	+41 - 5	72.32	40.07	+10 +10	41.96	35.48	- 3 +11	78.98	35.90	-42 - 2
20	55.82	48.84	+43 0	73.19	39.83	- 9 +10	43.15	35.40	-21 + 9	80.09	36.01	-35 - 6
21	56.03	48.51	+36 + 5	74.08	39.60	-27 + 8	44.35	35.33	-35 + 6	81.20	36.13	-22 - 9
22	56.26	48.18	+21 + 9	74.99	39.37	-38 + 4	45.55	35.26	-41 + 1	82.30	36.25	- 7 - 9
23	56.52	47.85	+ 2 +10	75.91	39.15	-41 - 1	46.76	35.20	-39 - 4	83.39	36.37	+ 8 - 8
24	56.80	47.53	-18 +10	76.85	38.93	-37 - 5	47.96	35.15	-30 - 7	84.47	36.50	+20 - 5
25	57.11	47.20	-34 + 6	77.81	38.72	-26 - 8	49.17	35.10	-16 - 9	85.54	36.64	+27 - 2
26	57.45	46.88	-42 + 2	78.78	38.51	-11 - 9	50.39	35.06	+ 1 - 9	86.59	36.78	+28 + 3
27	57.81	46.56	-42 - 3	79.77	38.31	+ 5 - 9	51.60	35.02	+13 - 7	87.64	36.92	+25 + 6
28	58.19	46.24	-35 - 6	80.77	38.11	+16 - 6	52.82	34.99	+23 - 4	88.67	37.07	+17 + 8
29	58.60	45.92	-22 - 9	81.78	37.92	+24 - 2	54.04	34.97	+28 0	89.69	37.23	+ 7 + 9
30	59.03	45.61	- 7 - 9				55.25	34.95	+27 + 4	90.69	37.39	- 5 + 9
31	59.48	45.30	+ 7 - 8				56.47	34.94	+22 + 7	91.68	37.56	-15 + 6
32	59.96	45.00	+18 - 5				57.69	34.94	+13 + 9			

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+89° 1' 30"	58.768	+58.759	+89° 1' 50"	59.104	+59.096
40	58.936	+58.927	60	59.274	+59.266

$$\alpha_{1929.0} = 18^h 48^m 0^s.36$$

$$\delta_{1929.0} = +89^\circ 1' 59''.93$$

\*) Tag der doppelten unteren Kulmination: Jan. 2

# Scheinbare Sternörter 1929

191\*

Obere Kulmination Greenwich

Ni)  $\lambda$  Ursae minoris  $6^m.55$

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder
	18 <sup>h</sup> 48 <sup>m</sup>	+ 89° 1'	0.01   0.01	18 <sup>h</sup> 48 <sup>m</sup>	+ 89° 1'	0.01   0.01	18 <sup>h</sup> 48 <sup>m</sup>	+ 89° 1'	0.01   0.01	18 <sup>h</sup> 48 <sup>m</sup>	+ 89° 2'	0.01   0.01
1	31.68	37.56	-15 + 6	54.27	44.82	-13 - 8	57.52	54.07	+27 - 10	39.58	3.74	+22 + 10
2	32.66	37.73	-22 + 3	54.69	45.10	0 - 11	57.28	54.39	+40 - 7	38.69	4.02	+ 2 + 11
3	33.62	37.91	-24 - 1	55.09	45.39	+16 - 11	57.03	54.70	+47 - 2	37.79	4.29	-18 + 9
4	34.57	38.09	-20 - 6	55.47	45.69	+31 - 9	56.75 56.45	55.02 55.34	+43 + 3 +31 + 8	36.87	4.56	-34 + 6
5	35.50	38.28	-10 - 9	55.83	45.98	+41 - 5	56.13	55.66	+12 + 10	35.93	4.82	-42 + 1
6	36.42	38.47	+ 5 - 11	56.17	46.28	+43 0	55.79	55.98	- 9 + 11	34.97	5.08	-41 - 4
7	37.33	38.67	+20 - 11	56.49	46.58	+36 + 5	55.42	56.29	-28 + 8	33.99	5.34	-33 - 8
8	38.22	38.87	+33 - 8	56.78	46.88	+20 + 9	55.04	56.61	-41 + 4	33.00	5.60	-19 - 10
9	39.09	39.08	+40 - 3	57.06	47.18	0 + 11	54.63	56.92	-45 - 1	31.99	5.86	- 4 - 9
10	39.95	39.29	+38 + 2	57.31	47.48	-20 + 10	54.20	57.23	-41 - 5	30.96	6.11	+10 - 7
11	40.79	39.50	+29 + 7	57.54	47.78	-36 + 7	53.76	57.55	-29 - 8	29.92	6.36	+20 - 3
12	41.62	39.72	+11 + 10	57.75	48.09	-45 + 2	53.29	57.86	-14 - 10	28.86	6.60	+24 + 1
13	42.43	39.94	-10 + 11	57.94	48.39	-45 - 3	52.79	58.16	+ 1 - 9	27.78	6.84	+23 + 5
14	43.22	40.17	-28 + 9	58.11	48.70	-37 - 7	52.28	58.47	+14 - 6	26.69	7.08	+16 + 8
15	43.99	40.40	-41 + 5	58.25	49.01	-23 - 9	51.75	58.78	+22 - 2	25.58	7.32	+ 7 + 10
16	44.75	40.63	-45 0	58.37	49.32	- 7 - 9	51.19	59.08	+24 + 2	24.46	7.55	- 4 + 10
17	45.49	40.87	-41 - 4	58.47	49.63	+ 8 - 7	50.62	59.39	+22 + 6	23.32	7.78	-15 + 8
18	46.21	41.11	-30 - 8	58.55	49.94	+19 - 4	50.02	59.69	+14 + 8	22.17	8.00	-24 + 5
19	46.92	41.35	-15 - 9	58.61	50.25	+25 0	49.40	59.99	+ 4 + 9	21.00	8.22	-28 + 1
20	47.60	41.60	+ 1 - 9	58.64	50.57	+26 + 3	48.76	60.29	- 8 + 9	19.82	8.44	-27 - 3
21	48.26	41.85	+15 - 7	58.65	50.89	+21 + 7	48.10	60.59	-18 + 7	18.63	8.65	-19 - 7
22	48.91	42.10	+24 - 3	58.63	51.21	+12 + 9	47.43	60.88	-25 + 4	17.42	8.86	- 6 - 10
23	49.53	42.36	+28 + 1	58.60	51.52	+ 1 + 10	46.73	61.18	-27 0	16.20	9.07	+11 - 11
24	50.14	42.62	+26 + 5	58.54	51.84	-12 + 8	46.01	61.47	-23 - 5	14.96	9.28	+27 - 10
25	50.72	42.88	+20 + 8	58.46	52.16	-19 + 6	45.27	61.76	-13 - 9	13.71	9.48	+40 - 6
26	51.29	43.15	+10 + 9	58.36	52.48	-24 + 2	44.51	62.05	+ 2 - 11	12.44	9.68	+45 - 1
27	51.84	43.42	- 1 + 9	58.23	52.80	-24 - 2	43.74	62.34	+19 - 11	11.17	9.87	+41 + 4
28	52.36	43.70	-12 + 8	58.09	53.11	-18 - 7	42.94	62.63	+35 - 9	9.88	10.06	+29 + 8
29	52.87	43.97	-20 + 4	57.92	53.43	- 6 - 10	42.13	62.91	+45 - 4	8.58	10.25	+11 + 11
30	53.35	44.25	-24 0	57.73	53.75	+10 - 11	41.30	63.19	+46 + 1	7.26	10.43	- 9 + 10
31	53.82	44.53	-22 - 4	57.52	54.07	+27 - 10	40.45	63.47	+38 + 6	5.94	10.61	-26 + 7
32	54.27	44.82	-13 - 8				39.58	63.74	+22 + 10	4.60	10.78	-38 + 3

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+89° 1' 30"	58.768	+58.759	+89° 1' 50"	59.104	+59.096	+89° 2' 10"	59.445	+59.437
40	58.936	+58.927	2 0	59.274	+59.266	20	59.617	+59.608

$\alpha_{1929.0} = 18^h 48^m 0^s.36$

$\delta_{1929.0} = +89^\circ 1' 59''.93$

N<sub>2</sub>)  $\lambda$  Ursae minoris 6<sup>m</sup>.55

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	18 <sup>h</sup> 47 <sup>m</sup>	+ 89° 2'	0.01   0.01	18 <sup>h</sup> 46 <sup>m</sup>	+ 89° 2'	0.01   0.01	18 <sup>h</sup> 45 <sup>m</sup>	+ 89° 2'	0.01   0.01	18 <sup>h</sup> 45 <sup>m</sup>	+ 89° 1'	0.01   0.01
1	64.60	10.78	-38 + 3	80.65	13.94	-27 - 9	93.46	12.60	+22 - 4	55.76	66.82	+22 + 6
2	63.26	10.95	-40 - 2	79.10	13.97	-12 - 11	92.02	12.47	+27 0	54.75	66.56	+14 + 9
3	61.90	11.11	-35 - 6	77.55	14.00	+ 4 - 9	90.59	12.34	+25 + 4	53.77	66.30	+ 1 + 10
4	60.54	11.27	-23 - 9	76.00	14.02	+18 - 6	89.17	12.21	+19 + 7	52.80	66.03	-10 + 9
5	59.16	11.43	- 7 - 10	74.46	14.04	+24 - 2	87.76	12.07	+ 9 + 9	51.86	65.76	-20 + 7
6	57.78	11.58	+ 7 - 8	72.91	14.05	+26 + 2	86.36	11.93	- 2 + 10	50.93	65.49	-26 + 3
7	56.38	11.73	+18 - 5	71.36	14.06	+23 + 6	84.97	11.78	-13 + 8	50.02	65.22	-26 - 1
8	54.97	11.87	+24 - 1	69.81	14.06	+15 + 8	83.59	11.63	-22 + 5	49.14	64.94	-21 - 5
9	53.55	12.01	+24 + 3	68.25	14.06	+ 4 + 10	82.22	11.47	-26 + 1	48.28	64.66	-11 - 9
10	52.13	12.15	+19 + 7	66.70	14.05	- 7 + 9	80.87	11.31	-26 - 3	47.44	64.37	+ 4 - 11
11	50.69	12.28	+11 + 9	65.16	14.04	-18 + 7	79.53	11.14	-19 - 7	46.62	64.08	+21 - 11
12	49.25	12.41	0 + 10	63.61	14.02	-25 + 4	78.20	10.97	- 6 - 10	45.82	63.79	+35 - 8
13	47.80	12.53	-12 + 9	62.06	14.00	-28 0	76.88	10.79	+ 9 - 11	45.05	63.49	+44 - 4
14	46.34	12.65	-21 + 6	60.51	13.97	-26 - 4	75.58	10.61	+25 - 10	44.30	63.19	+45 + 1
15	44.87	12.76	-27 + 3	58.97	13.94	-16 - 8	74.29	10.42	+37 - 7	43.57	62.89	+37 + 6
16	43.40	12.87	-28 - 2	57.43	13.90	- 3 - 11	73.01	10.23	+43 - 2	42.86	62.59	+21 + 10
17	41.92	12.97	-23 - 6	55.90	13.86	+13 - 11	71.75	10.03	+40 + 3	42.18	62.28	+ 1 + 11
18	40.43	13.07	-12 - 9	54.37	13.81	+28 - 9	70.50	9.83	+29 + 8	41.52	61.97	-20 + 10
19	38.94	13.16	+ 3 - 11	52.84	13.76	+39 - 5	69.27	9.62	+11 + 11	40.88	61.66	-36 + 6
20	37.44	13.25	+19 - 10	51.32	13.70	+42 0	68.05	9.41	- 9 + 11	40.27	61.35	-44 + 1
21	35.94	13.34	+33 - 8	49.80	13.64	+36 + 5	66.85	9.20	-28 + 8	39.68	61.03	-43 - 4
22	34.43	13.42	+42 - 3	48.28	13.57	+22 + 9	65.66	8.98	-40 + 4	39.11	60.71	-34 - 8
23	32.91	13.49	+42 + 2	46.76	13.50	+ 3 + 11	64.49	8.76	-44 - 1	38.57	60.39	-19 - 10
24	31.39	13.56	+33 + 7	45.26	13.42	-16 + 10	63.33	8.53	-39 - 6	38.05	60.07	- 3 - 9
25	29.87	13.63	+17 + 10	43.76	13.34	-32 + 7	62.20	8.30	-27 - 9	37.56	59.75	+12 - 7
26	28.34	13.69	- 2 + 11	42.26	13.25	-41 + 2	61.08	8.06	-11 - 10	37.10	59.42	+22 - 3
27	26.81	13.75	-21 + 9	40.78	13.15	-41 - 3	59.98	7.82	+ 5 - 9	36.66	59.09	+25 + 1
28	25.27	13.81	-34 + 5	39.30	13.05	-33 - 7	58.89	7.58	+18 - 6	36.24	58.76	+22 + 5
29	23.73	13.86	-40 0	37.83	12.94	-19 - 10	57.83	7.33	+25 - 2	35.85	58.43	+15 + 8
30	22.19	13.90	-37 - 6	36.36	12.83	- 2 - 10	56.78	7.08	+26 + 3	35.49	58.10	+ 4 + 10
31	20.65	13.94	-27 - 9	34.91	12.72	+12 - 8	55.76	6.82	+22 + 6	35.15	57.77	- 7 + 10
32				33.46	12.60	+22 - 4				34.84	57.44	-18 + 8

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+89° 1' 50"	59.104	+59.096	+89° 2' 10"	59.445	+59.437
60	59.274	+59.266	20	59.617	+59.608

$$\varrho_{1929.0} = 18^h 48^m 0^s.36$$

$$\delta_{1929.0} = +89^\circ 1' 59''.93$$



# Scheinbare Sternörter 1929

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Obere Kulmination Greenwich

 Nk) 76 Draconis 5<sup>m</sup>.69

Tag	Januar			Februar			März			April		
	AR.	Dekl.	α Glieder	AR.	Dekl.	α Glieder	AR.	Dekl.	α Glieder	AR.	Dekl.	α Glieder
	20 <sup>h</sup> 47 <sup>m</sup>	82° 16'	0.01   0.01	20 <sup>h</sup> 47 <sup>m</sup>	82° 15'	0.01   0.01	20 <sup>h</sup> 47 <sup>m</sup>	82° 15'	0.01   0.01	20 <sup>h</sup> 47 <sup>m</sup>	82° 15'	0.01   0.01
	+	in		+	in		+	in		+	in	
1	41.37	15.04	-4 - 3	39.49	65.44	0 - 6	40.35	56.39	+1 - 5	43.72	49.30	+3 + 6
2	41.27	14.77	-4 - 6	39.48	65.11	+2 - 4	40.42	56.10	+2 - 2	43.86	49.15	+3 + 8
3	41.17	14.50	-2 - 7	39.47	64.77	+3 - 1	40.49	55.81	+3 + 1	44.00	49.01	+1 + 8
4	41.07	14.22	-1 - 7	39.46	64.44	+3 + 3	40.57	55.52	+4 + 5	44.14	48.88	0 + 7
5	40.97	13.94	+1 - 6	39.46	64.10	+3 + 6	40.65	55.24	+3 + 7	44.29	48.75	-1 + 4
6	40.88	13.66	+2 - 3	39.46	63.77	+3 + 8	40.74	54.96	+2 + 8	44.43	48.63	-3 0
7	40.79	13.37	+3 0	39.47	63.43	+2 + 9	40.82	54.68	+1 + 8	44.58	48.51	-3 - 4
8	40.70	13.09	+4 + 4	39.48	63.10	0 + 8	40.91	54.41	-1 + 6	44.72	48.40	-3 - 8
9	40.62	12.80	+3 + 6	39.49	62.76	-1 + 5	41.00	54.14	-2 + 3	44.87	48.29	-2 -11
10	40.54	12.51	+3 + 8	39.50	62.43	-3 + 1	41.09	53.88	-3 - 1	45.02	48.19	-1 -11
11	40.46	12.21	+1 + 8	39.52	62.09	-3 - 3	41.19	53.62	-4 - 6	45.17	48.10	+1 - 9
12	40.38	11.91	0 + 7	39.54	61.76	-3 - 7	41.29	53.37	-3 - 9	45.32	48.01	+3 - 5
13	40.31	11.60	-2 + 4	39.56	61.43	-3 -11	41.39	53.12	-2 -11	45.48	47.93	+4 0
14	40.24	11.29	-3 0	39.59	61.10	-1 -12	41.50	52.87	0 -11	45.63	47.86	+4 + 5
15	40.18	10.98	-3 - 5	39.62	60.77	+1 -10	41.61	52.63	+2 - 8	45.78	47.79	+3 + 9
16	40.11	10.67	-3 - 9	39.65	60.45	+3 - 7	41.72	52.39	+3 - 3	45.94	47.73	+1 +11
17	40.05	10.35	-2 -12	39.69	60.12	+4 - 2	41.83	52.16	+4 + 2	46.09	47.68	0 +11
18	39.99	10.04	0 -12	39.73	59.80	+4 + 4	41.94	51.94	+4 + 7	46.24	47.63	-2 + 8
19	39.93	9.72	+2 - 9	39.77	59.48	+3 + 8	42.05	51.72	+3 +10	46.40	47.58	-4 + 4
20	39.88	9.40	+3 - 5	39.81	59.16	+2 +10	42.17	51.50	+1 +11	46.55	47.54	-4 - 1
21	39.83	9.08	+4 0	39.86	58.84	0 +10	42.29	51.29	-1 + 9	46.71	47.51	-4 - 5
22	39.79	8.75	+4 + 6	39.91	58.52	-2 + 8	42.41	51.08	-3 + 6	46.87	47.49	-3 - 7
23	39.75	8.42	+3 + 9	39.96	58.21	-3 + 4	42.53	50.88	-4 + 1	47.03	47.47	-2 - 8
24	39.71	8.09	+1 +11	40.02	57.90	-4 0	42.66	50.68	-4 - 3	47.18	47.46	0 - 7
25	39.67	7.76	-1 +10	40.08	57.59	-4 - 4	42.78	50.49	-4 - 6	47.34	47.46	+2 - 5
26	39.64	7.43	-3 + 7	40.14	57.28	-3 - 7	42.91	50.30	-3 - 8	47.50	47.46	+3 - 1
27	39.61	7.10	-4 + 3	40.21	56.98	-2 - 8	43.04	50.12	-1 - 8	47.66	47.46	+3 + 2
28	39.58	6.77	-4 - 2	40.28	56.68	0 - 7	43.17	49.94	+1 - 6	47.81	47.47	+3 + 5
29	39.55	6.44	-4 - 5	40.35	56.39	+1 - 5	43.31	49.77	+2 - 3	47.97	47.49	+3 + 7
30	39.53	6.11	-3 - 7				43.44	49.61	+3 0	48.12	47.52	+2 + 8
31	39.51	5.78	-1 - 8				43.58	49.45	+3 + 3	48.28	47.55	+1 + 8
32	39.49	5.44	0 - 6				43.72	49.30	+3 + 6			

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 15' 40"	7.426	+7.359	+82° 16' 0"	7.431	+7.364	+82° 16' 10"	7.434	+7.367
50	7.429	+7.361	10	7.434	+7.367	20	7.437	+7.369

$$\alpha_{1929.0} = 20^{\text{h}} 47^{\text{m}} 50^{\text{s}}.21$$

$$\delta_{1929.0} = +82^{\circ} 16' 11''.44$$

\*) Tag der doppelten unteren Kulmination: Feb. 2

Nk) 76 Draconis 5<sup>m</sup>.69

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	20 <sup>h</sup> 47 <sup>m</sup>	82° 15'	0.01 0.01	20 <sup>h</sup> 47 <sup>m</sup>	82° 15'	0.01 0.01	20 <sup>h</sup> 47 <sup>m</sup>	82° 15'	0.01 0.01	20 <sup>h</sup> 47 <sup>m</sup>	82° 16'	0.01 0.01
		+ in			+ in			+ in			+ in	
1	48.28	47.55	+1 + 8	52.80	51.44	-3 - 6	55.72	59.54	-1 -13	56.45	10.26	+4 + 1
2	48.44	47.59	-1 + 5	52.93	51.65	-3 -10	55.78	59.86	+1 -11	56.43	10.62	+4 + 6
3	48.59	47.63	-2 + 2	53.05	51.87	-2 -12	55.84	60.18	+3 - 8	56.41	10.98	+3 + 9
4	48.75	47.68	-3 - 3	53.17	52.09	0 -12	55.90	60.51	+4 - 2	56.39	11.33	+1 +11
5	48.90	47.74	-3 - 7	53.29	52.31	+2 - 9	55.95	60.84	+4 + 3	56.36	11.69	-1 + 9
6	49.06	47.80	-3 -10	53.41	52.54	+3 - 5	56.01	61.17	+4 + 8	56.33	12.05	-3 + 6
7	49.21	47.87	-1 -12	53.53	52.77	+4 0	56.06	61.50	+2 +11	56.30	12.41	-4 + 2
8	49.37	47.94	0 -11	53.65	53.01	+4 + 6	56.06	61.50	+2 +11	56.27	12.76	-4 - 3
9	49.52	48.02	+2 - 7	53.76	53.25	+3 +10	56.10	61.83	0 +11	56.23	13.12	-4 - 6
10	49.68	48.11	+3 - 2	53.87	53.50	+1 +11	56.15	62.16	-2 + 9	56.19	13.48	-3 - 8
11	49.83	48.20	+4 + 3	53.98	53.75	-1 +11	56.19	62.50	-3 + 5	56.15	13.83	-1 - 7
12	49.98	48.30	+4 + 8	54.09	54.01	-3 + 8	56.23	62.84	-4 0	56.11	14.19	+1 - 5
13	50.13	48.40	+2 +11	54.19	54.27	-4 + 3	56.27	63.18	-4 - 4	56.06	14.55	+2 - 2
14	50.28	48.51	0 +11	54.29	54.53	-4 - 1	56.30	63.53	-4 - 7	56.01	14.90	+3 + 1
15	50.43	48.63	-2 +10	54.39	54.80	-3 - 5	56.33	63.87	-2 - 8	55.96	15.25	+3 + 5
16	50.57	48.75	-3 + 6	54.49	55.07	-2 - 7	56.36	64.22	0 - 7	55.90	15.60	+3 + 8
17	50.72	48.87	-4 + 1	54.59	55.35	-1 - 8	56.39	64.57	+1 - 4	55.84	15.95	+2 + 9
18	50.87	49.00	-4 - 3	54.69	55.63	0 - 6	56.41	64.92	+2 - 1	55.78	16.30	+1 + 9
19	51.02	49.14	-4 - 6	54.78	55.63	0 - 6	56.43	65.27	+3 + 3	55.72	16.65	0 + 7
20	51.16	49.29	-2 - 8	54.87	55.91	+2 - 3	56.45	65.62	+3 + 6	55.66	17.00	-2 + 4
21	51.31	49.44	-1 - 8	54.87	56.19	+3 0	56.47	65.97	+3 + 8	55.59	17.35	-3 0
22	51.46	49.60	+1 - 5	54.96	56.48	+3 + 3	56.48	66.33	+2 + 9	55.52	17.69	-3 - 4
23	51.60	49.76	+2 - 3	55.04	56.77	+3 + 6	56.49	66.68	0 + 8	55.45	18.03	-3 - 8
24	51.74	49.93	+3 + 1	55.12	57.07	+3 + 8	56.51	67.04	-1 + 6	55.37	18.37	-2 -11
25	51.88	50.10	+3 + 4	55.20	57.37	+1 + 9	56.50	67.39	-2 + 3	55.30	18.71	-1 -12
26	52.01	50.27	+3 + 7	55.28	57.67	0 + 7	56.51	67.75	-3 - 2	55.22	19.05	+1 -10
27	52.15	50.45	+2 + 8	55.36	57.98	-1 + 5	56.51	68.11	-3 - 6	55.14	19.39	+3 - 6
28	52.28	50.64	+1 + 8	55.44	58.28	-3 + 1	56.51	68.47	-3 -10	55.05	19.72	+4 - 1
29	52.41	50.83	0 + 6	55.51	58.59	-3 - 4	56.50	68.82	-1 -12	54.96	20.05	+4 + 4
30	52.54	51.03	-2 + 3	55.58	58.90	-3 - 8	56.49	69.18	0 -12	54.87	20.38	+4 + 8
31	52.67	51.23	-3 - 1	55.65	59.22	-2 -11	56.48	69.54	+2 - 9	54.78	20.71	+2 +10
32	52.80	51.44	-3 - 6	55.72	59.54	-1 -13	56.47	69.90	+4 - 5	54.68	21.04	0 +10
							56.45	70.26	+4 + 1	54.59	21.36	-2 + 7

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+82° 15' 40"	7.426	+7.359	+82° 15' 60"	7.431	+7.364	+82° 16' 20"	7.437	+7.369
50	7.429	+7.361	70	7.434	+7.367	30	7.439	+7.372

$$\alpha_{1929.0} = 20^{\text{h}} 47^{\text{m}} 50^{\text{s}}.21$$

$$\delta_{1929.0} = +82^{\circ} 16' 11''.44$$

# Scheinbare Sternörter 1929

195\*

Obere Kulmination Greenwich

Nk) 76 Draconis 5<sup>m</sup>.69

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder
	20 <sup>h</sup> 47 <sup>m</sup>	82° 16'	0.01   0.01	20 <sup>h</sup> 47 <sup>m</sup>	82° 16'	0.01   0.01	20 <sup>h</sup> 47 <sup>m</sup>	82° 16'	0.01   0.01	20 <sup>h</sup> 47 <sup>m</sup>	82° 16'	0.01   0.01
		+	in		+	in		+	in		+	in
1	54.59	21.36	-2 + 7	50.80	29.64	-4 - 4	45.58	34.25	+1 - 6	40.35	33.71	+3 + 3
2	54.49	21.68	-4 + 3	50.64	29.86	-3 - 7	45.41	34.32	+2 - 3	40.19	33.60	+3 + 7
3	54.39	22.00	-4 - 1	50.49	30.08	-2 - 9	45.23	34.38	+3 + 1	40.03	33.49	+3 + 9
4	54.29	22.31	-4 - 5	50.33	30.29	0 - 8	45.05	34.43	+3 + 4	39.87	33.37	+2 + 9
5	54.18	22.62	-3 - 8	50.18	30.50	+1 - 5	44.87	34.48	+3 + 7	39.71	33.24	0 + 8
6	54.08	22.93	-2 - 8	50.02	30.70	+2 - 2	44.69	34.52	+2 + 9	39.55	33.11	-1 + 6
7	53.97	23.24	0 - 7	49.86	30.90	+3 + 2	44.51	34.56	+1 + 9	39.39	32.97	-2 + 2
8	53.86	23.55	+2 - 4	49.70	31.09	+3 + 6	44.33	34.59	0 + 7	39.24	32.83	-3 - 2
9	53.75	23.85	+3 0	49.54	31.28	+3 + 8	44.15	34.61	-2 + 5	39.08	32.68	-3 - 7
10	53.63	24.15	+3 + 4	49.38	31.47	+2 + 9	43.97	34.63	-3 0	38.93	32.53	-2 -10
11	53.52	24.45	+3 + 7	49.21	31.65	+1 + 9	43.80	34.65	-3 - 4	38.78	32.37	-1 -12
12	53.40	24.74	+2 + 9	49.05	31.82	-1 + 7	43.62	34.66	-3 - 8	38.63	32.21	0 -12
13	53.28	25.03	+1 + 9	48.88	31.99	-2 + 3	43.44	34.66	-2 -11	38.49	32.04	+2 - 9
14	53.16	25.31	0 + 8	48.72	32.16	-3 - 1	43.26	34.66	-1 -12	38.34	31.86	+4 - 5
15	53.03	25.59	-1 + 6	48.55	32.32	-3 - 5	43.09	34.65	+1 -11	38.20	31.68	+4 + 1
16	52.91	25.87	-3 + 2	48.38	32.47	-3 - 9	42.91	34.63	+3 - 7	38.06	31.50	+4 + 6
17	52.78	26.15	-3 - 3	48.21	32.62	-2 -11	42.73	34.61	+4 - 2	37.92	31.31	+3 +10
18	52.65	26.42	-3 - 7	48.04	32.76	0 -11	42.56	34.58	+4 + 3	37.78	31.11	+1 +11
19	52.52	26.69	-3 -10	47.86	32.90	+2 - 9	42.38	34.55	+4 + 8	37.65	30.91	-1 +10
20	52.39	26.96	-1 -12	47.69	33.04	+3 - 5	42.20	34.51	+2 +11	37.52	30.70	-3 + 6
21	52.25	27.22	0 -11	47.52	33.17	+4 0	42.03	34.47	0 +11	37.39	30.49	-4 + 2
22	52.11	27.48	+2 - 8	47.34	33.29	+4 + 5	41.86	34.42	-2 + 9	37.26	30.28	-5 - 3
23	51.97	27.73	+4 - 3	47.17	33.41	+3 + 9	41.69	34.36	-3 + 5	37.13	30.06	-4 - 6
24	51.83	27.98	+4 + 2	47.00	33.53	+1 +11	41.52	34.30	-4 0	37.00	29.83	-3 - 8
25	51.69	28.23	+4 + 7	46.82	33.64	-1 +10	41.35	34.23	-4 - 5	36.88	29.60	-1 - 8
26	51.55	28.48	+3 +10	46.65	33.74	-2 + 7	41.18	34.16	-3 - 8	36.76	29.37	+1 - 5
27	51.40	28.72	+1 +10	46.47	33.84	-4 + 2	41.01	34.08	-2 - 9	36.64	29.13	+2 - 2
28	51.25	28.96	-1 + 9	46.29	33.93	-4 - 2	40.85	34.00	0 - 7	36.53	28.89	+3 + 2
29	51.10	29.19	-3 + 5	46.12	34.02	-4 - 6	40.68	33.91	+1 - 4	36.42	28.64	+3 + 6
30	50.95	29.42	-4 + 1	45.94	34.10	-3 - 8	40.51	33.81	+3 - 1	36.31	28.39	+3 + 8
31	50.80	29.64	-4 - 4	45.76	34.18	-1 - 8	40.35	33.71	+3 + 3	36.20	28.13	+2 + 9
32				45.58	34.25	+1 - 6				36.10	27.87	+1 + 9

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
+82° 16' 20"	7.437	+7.369	+82° 16' 30"	7.439	+7.372
30	7.439	+7.372	40	7.442	+7.375

$$\alpha_{1929.0} = 20^h 47^m 50^s.21$$

$$\delta_{1929.0} = +82^\circ 16' 11''.44$$

Sa) Octantis 4 G. 5<sup>m</sup>.63

Tag	Januar			Februar			März			April		
	AR.	Dekl.	◊ Glieder	AR.	Dekl.	◊ Glieder	AR.	Dekl.	◊ Glieder	AR.	Dekl.	◊ Glieder
	in			in			in			in		
	1 <sup>h</sup> 41 <sup>m</sup>	85° 8'	◊.◊   ◊.◊	1 <sup>h</sup> 41 <sup>m</sup>	85° 7'	◊.◊   ◊.◊	1 <sup>h</sup> 41 <sup>m</sup>	85° 7'	◊.◊   ◊.◊	1 <sup>h</sup> 41 <sup>m</sup>	85° 7'	◊.◊   ◊.◊
1	26.82	6.46	+6 + 9	18.79	63.94	+3 - 5	12.62	57.19	+1 - 6	8.45	46.46	-7 - 5
2	26.57	6.46	+7 + 5	18.54	63.77	0 - 7	12.43	56.89	-2 - 8	8.38	46.08	-7 - 2
3	26.31	6.46	+6 + 1	18.30	63.59	-3 - 8	12.25	56.58	-4 - 8	8.31	45.70	-5 + 1
4	26.05	6.46	+4 - 3	18.05	63.40	-5 - 7	12.07	56.27	-6 - 6	8.24	45.32	-3 + 5
5	25.79	6.45	+2 - 6	17.81	63.21	-6 - 5	11.90	55.96	-7 - 3	8.17	44.93	0 + 7
6	25.53	6.44	-1 - 7	17.57	63.02	-7 - 2	11.73	55.64	-6 0	8.11	44.55	+3 + 7
7	25.27	6.42	-4 - 8	17.33	62.82	-6 + 1	11.56	55.32	-5 + 3	8.05	44.17	+6 + 6
8	25.00	6.40	-6 - 7	17.09	62.61	-4 + 4	11.39	55.00	-2 + 6	8.00	43.78	+8 + 3
9	24.74	6.37	-7 - 4	16.86	62.40	-1 + 6	11.23	54.67	+1 + 7	7.95	43.40	+8 - 1
10	24.48	6.33	-7 - 1	16.63	62.18	+2 + 7	11.07	54.34	+4 + 7	7.90	43.01	+6 - 5
11	24.22	6.28	-5 + 2	16.40	61.96	+5 + 6	10.92	54.00	+7 + 5	7.86	42.62	+3 - 9
12	23.95	6.23	-3 + 5	16.17	61.73	+8 + 4	10.77	53.66	+8 + 2	7.82	42.24	0 - 10
13	23.69	6.17	0 + 7	15.94	61.50	+8 0	10.62	53.32	+8 - 3	7.78	41.85	-4 - 9
14	23.42	6.11	+4 + 7	15.72	61.26	+7 - 5	10.47	52.98	+5 - 7	7.75	41.47	-7 - 6
15	23.16	6.04	+6 + 5	15.49	61.02	+4 - 9	10.33	52.63	+2 - 10	7.72	41.08	-7 - 2
16	22.90	5.97	+8 + 2	15.27	60.77	0 - 11	10.19	52.28	-2 - 10	7.70	40.69	-7 + 4
17	22.64	5.89	+8 - 3	15.05	60.52	-3 - 10	10.05	51.93	-5 - 9	7.68	40.31	-5 + 8
18	22.37	5.80	+6 - 7	14.83	60.27	-6 - 8	9.92	51.58	-7 - 5	7.67	39.92	-1 + 11
19	22.11	5.71	+3 - 10	14.62	60.01	-7 - 3	9.79	51.23	-8 0	7.66	39.54	+2 + 11
20	21.85	5.61	-1 - 11	14.41	59.75	-7 + 2	9.67	50.88	-6 + 5	7.66	39.15	+5 + 10
21	21.59	5.50	-5 - 10	14.20	59.48	-5 + 6	9.55	50.52	-3 + 9	7.66	38.76	+7 + 7
22	21.33	5.39	-7 - 6	13.99	59.21	-2 + 10	9.43	50.16	0 + 11	7.66	38.38	+7 + 3
23	21.07	5.27	-8 - 1	13.79	58.93	+1 + 11	9.32	49.80	+3 + 11	7.67	37.99	+6 - 1
24	20.81	5.15	-7 + 4	13.59	58.65	+4 + 10	9.21	49.43	+6 + 9	7.68	37.60	+3 - 5
25	20.56	5.02	-4 + 8	13.39	58.37	+6 + 8	9.10	49.07	+7 + 5	7.70	37.22	0 - 7
26	20.30	4.88	-1 + 11	13.19	58.08	+7 + 4	9.00	48.70	+7 + 1	7.72	36.84	-2 - 8
27	20.05	4.74	+3 + 11	13.00	57.79	+6 0	8.90	48.33	+5 - 3	7.74	36.46	-5 - 7
28	19.79	4.59	+5 + 10	12.81	57.49	+4 - 4	8.80	47.96	+2 - 6	7.76	36.08	-6 - 6
29	19.54	4.44	+6 + 6	12.62	57.19	+1 - 6	8.71	47.59	-1 - 7	7.79	35.70	-7 - 3
30	19.29	4.28	+6 + 2				8.62	47.21	-3 - 8	7.82	35.32	-6 0
31	19.04	4.11	+5 - 1				8.53	46.83	-6 - 7	7.86	34.94	-4 + 3
32	18.79	3.94	+3 - 5				8.45	46.46	-7 - 5			

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-85° 7' 30"	11.767	-11.725	-85° 7' 50"	11.781	-11.738	-85° 8' 0"	11.787	-11.745
40	11.774	-11.731	60	11.787	-11.745	10	11.794	-11.752

$$\alpha_{1929.0} = 1^{\text{h}} 41^{\text{m}} 18^{\text{s}}.51 \quad \delta_{1929.0} = -85^{\circ} 7' 43'' .60$$

\*) Tag der doppelten unteren Kulmination: April 17

Sa) Octantis 4 G. 5<sup>m</sup>.63

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	◁ Glieder	AR.	Dekl.	◁ Glieder	AR.	Dekl.	◁ Glieder	AR.	Dekl.	◁ Glieder
	in			in			in			in		
	1 <sup>h</sup> 41 <sup>m</sup>	85° 7'	o.o o.o	1 <sup>h</sup> 41 <sup>m</sup>	85° 7'	o.o o.o	1 <sup>h</sup> 41 <sup>m</sup>	85° 7'	o.o o.o	1 <sup>h</sup> 41 <sup>m</sup>	85° 7'	o.o o.o
1	7.86	34.94	-4 + 3	10.93	24.22	+7 + 5	16.84	17.06	+7 - 6	24.48	14.61	-5 - 10
2	7.90	34.56	-1 + 6	11.09	23.92	+8 + 1	17.07	16.90	+4 - 10	24.73	14.62	-7 - 6
3	7.95	34.18	+2 + 7	11.25	23.62	+8 - 3	17.31	16.74	+1 - 12	24.98	14.64	-8 - 1
4	8.00	33.81	+5 + 6	11.41	23.33	+6 - 7	17.54	16.59	-3 - 11	25.23	14.67	-6 + 4
5	8.06	33.44	+7 + 4	11.58	23.04	+3 - 10	17.78	16.44	-6 - 9	25.47	14.70	-3 + 9
6	8.12	33.07	+8 0	11.75	22.75	-1 - 11	18.01	16.30	-8 - 4	25.72	14.74	0 + 11
7	8.18	32.70	+7 - 4	11.92	22.47	-5 - 10	18.25	16.16	-7 + 2	25.97	14.78	+4 + 11
8	8.24	32.33	+5 - 8	12.10	22.19	-7 - 6	18.49	16.03	-5 + 7	26.21	14.83	+6 + 9
9	8.31	31.96	+1 - 10	12.28	21.92	-8 - 1	18.73	15.90	-2 + 11	26.46	14.88	+7 + 6
10	8.38	31.60	-3 - 10	12.46	21.65	-7 + 5	18.97	15.78	+2 + 12	26.70	14.94	+6 + 2
11	8.46	31.23	-6 - 8	12.64	21.39	-4 + 9	19.22	15.67	+5 + 11	26.94	15.01	+4 - 2
12	8.54	30.87	-8 - 4	12.83	21.13	-1 + 12	19.46	15.56	+6 + 8	27.18	15.08	+2 - 5
13	8.62	30.51	-8 + 2	13.02	20.87	+3 + 12	19.70	15.46	+7 + 4	27.42	15.16	-1 - 7
14	8.71	30.16	-6 + 7	13.21	20.62	+5 + 10	19.95	15.36	+6 0	27.66	15.24	-4 - 7
15	8.80	29.81	-3 + 10	13.41	20.37	+7 + 7	20.20	15.27	+3 - 3	27.89	15.33	-6 - 6
16	8.90	29.46	+1 + 12	13.61	20.13	+6 + 2	20.45	15.18	+1 - 6	28.12	15.43	-7 - 3
17	9.00	29.11	+4 + 11	13.81	19.89	+5 - 1	20.70	15.10	-2 - 7	28.35	15.53	-7 0
18	9.10	28.76	+6 + 9	14.01	19.66	+2 - 5	20.95	15.03	-5 - 7	28.58	15.64	-5 + 3
19	9.21	28.42	+7 + 5	14.21	19.43	0 - 7	21.20	14.96	-7 - 5	28.81	15.75	-3 + 6
20	9.32	28.08	+6 0	14.42	19.20	-3 - 7	21.45	14.90	-7 - 2	29.04	15.87	0 + 7
21	9.43	27.74	+4 - 3	14.63	18.98	-6 - 6	21.70	14.84	-7 + 1	29.26	16.00	+3 + 8
22	9.55	27.41	+2 - 6	14.84	18.77	-7 - 4	21.95	14.79	-5 + 4	29.48	16.13	+6 + 6
23	9.67	27.08	-1 - 8	15.05	18.56	-7 - 2	22.21	14.75	-2 + 6	29.70	16.26	+8 + 3
24	9.80	26.75	-4 - 8	15.27	18.35	-6 + 2	22.46	14.71	+1 + 7	29.92	16.40	+8 - 2
25	9.93	26.42	-6 - 6	15.49	18.15	-4 + 4	22.71	14.67	+4 + 7	30.13	16.55	+7 - 6
26	10.06	26.10	-7 - 4	15.71	17.96	-1 + 6	22.96	14.64	+7 + 5	30.35	16.70	+3 - 10
27	10.20	25.78	-7 - 1	15.93	17.77	+3 + 7	23.22	14.62	+8 + 1	30.56	16.85	0 - 12
28	10.34	25.46	-5 + 2	16.15	17.58	+6 + 6	23.47	14.61	+8 - 4	30.77	17.01	-4 - 11
29	10.48	25.14	-2 + 5	16.38	17.40	+8 + 3	23.72	14.60	+6 - 8	30.98	17.18	-7 - 8
30	10.63	24.83	+1 + 6	16.61	17.23	+8 - 1	23.98	14.60	+2 - 11	31.18	17.35	-8 - 4
31	10.78	24.52	+4 + 6	16.84	17.06	+7 - 6	24.23	14.60	-2 - 12	31.38	17.52	-7 + 2
32	10.93	24.22	+7 + 5				24.48	14.61	-5 - 10	31.57	17.70	-5 + 7

δ	sec δ	tg δ	δ	sec δ	tg δ
-85° 7' 10"	11.754	-11.711	-85° 7' 30"	11.767	-11.725
20	11.761	-11.718	40	11.774	-11.731

$$\alpha_{1929.0} = 1^h 41^m 18^s.51$$

$$\delta_{1929.0} = -85^\circ 7' 43''.60$$

Sa) Octantis 4 G. 5<sup>m</sup>.63

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder
	1 <sup>h</sup> 41 <sup>m</sup>	85° 7'	in 0.01 0.01	1 <sup>h</sup> 41 <sup>m</sup>	85° 7'	in 0.01 0.01	1 <sup>h</sup> 41 <sup>m</sup>	85° 7'	in 0.01 0.01	1 <sup>h</sup> 41 <sup>m</sup>	85° 7'	in 0.01 0.01
1	31.57	17.70	-5 + 7	35.82	25.07	+4 + 10	35.96	34.89	+2 - 6	31.85	42.56	-5 - 6
2	31.76	17.89	-1 + 10	35.90	25.37	+7 + 8	35.89	35.19	-1 - 7	31.65	42.75	-7 - 4
3	31.95	18.08	+2 + 11	35.98	25.66	+7 + 4	35.81	35.48	-4 - 7	31.45	42.94	-7 - 2
4	32.14	18.28	+5 + 10	36.05	25.96	+6 0	35.73	35.78	-6 - 6	31.25	43.12	-6 + 1
5	32.33	18.48	+7 + 7	36.11	26.26	+4 - 4	35.64	36.07	-7 - 4	31.04	43.30	-4 + 4
6	32.51	18.69	+7 + 3	36.17	26.56	+1 - 6	35.55	36.36	-7 - 1	30.83	43.47	-1 + 6
7	32.69	18.90	+5 - 1	36.23	26.86	-2 - 7	35.45	36.65	-6 + 2	30.62	43.64	+2 + 7
8	32.87	19.11	+3 - 4	36.28	27.16	-5 - 7	35.35	36.93	-3 + 5	30.40	43.80	+5 + 6
9	33.04	19.33	0 - 6	36.33	27.47	-6 - 5	35.24	37.21	0 + 7	30.18	43.95	+7 + 4
10	33.21	19.55	-3 - 7	36.37	27.78	-7 - 2	35.13	37.49	+3 + 7	29.96	44.10	+8 0
11	33.37	19.78	-5 - 6	36.41	28.08	-7 + 1	35.01	37.77	+6 + 6	29.74	44.25	+8 - 4
12	33.53	20.01	-7 - 4	36.44	28.39	-5 + 4	34.89	38.04	+8 + 3	29.52	44.39	+6 - 8
13	33.69	20.25	-7 - 1	36.47	28.70	-2 + 6	34.77	38.32	+8 - 1	29.29	44.52	+2 - 11
14	33.84	20.49	-6 + 2	36.49	29.01	+1 + 7	34.64	38.59	+7 - 6	29.06	44.65	-2 - 12
15	33.99	20.73	-4 + 5	36.50	29.32	+4 + 7	34.51	38.86	+4 - 9	28.82	44.78	-5 - 10
16	34.14	20.98	-1 + 7	36.51	29.63	+7 + 5	34.37	39.12	0 - 11	28.59	44.90	-7 - 6
17	34.28	21.23	+2 + 8	$\begin{matrix} 36.52 & 29.95 & +8 + 2 \\ 36.52 & 30.26 & +8 - 2 \end{matrix}$		34.23	39.38	-3 - 11	28.35	45.01	-8 - 1	
18	34.42	21.49	+5 + 7	36.52	30.57	+6 - 7	34.08	39.64	-6 - 8	28.11	45.12	-7 + 5
19	34.55	21.75	+7 + 4	36.51	30.89	+3 - 10	33.93	39.89	-8 - 4	27.87	45.22	-4 + 9
20	34.68	22.01	+8 0	36.50	31.20	-1 - 11	33.78	40.14	-8 + 2	27.63	45.31	0 + 12
21	34.81	22.27	+7 - 4	36.48	31.51	-5 - 10	33.62	40.38	-5 + 7	27.38	45.40	+4 + 12
22	34.93	22.54	+5 - 8	36.46	31.82	-7 - 7	33.46	40.62	-2 + 10	27.14	45.48	+6 + 10
23	35.05	22.81	+1 - 11	36.43	32.13	-8 - 2	33.30	40.85	+2 + 12	26.89	45.56	+7 + 6
24	35.16	23.08	-3 - 11	36.40	32.44	-7 + 3	33.13	41.08	+5 + 11	26.64	45.63	+7 + 1
25	35.27	23.36	-6 - 9	36.36	32.75	-4 + 8	32.96	41.30	+7 + 8	26.39	45.69	+5 - 2
26	35.37	23.64	-8 - 5	36.32	33.06	0 + 11	32.78	41.52	+7 + 4	26.14	45.75	+1 - 6
27	35.47	23.92	-8 + 1	36.27	33.37	+3 + 11	32.60	41.74	+6 - 1	25.88	45.80	-2 - 7
28	35.57	24.20	-6 + 5	36.22	33.68	+6 + 9	32.42	41.95	+3 - 4	25.63	45.84	-4 - 7
29	35.66	24.49	-3 + 9	36.16	33.98	+7 + 6	32.23	42.16	0 - 7	25.37	45.88	-6 - 5
30	35.74	24.78	+1 + 11	36.10	34.29	+7 + 1	32.04	42.36	-3 - 7	25.11	45.91	-7 - 2
31	35.82	25.07	+4 + 10	36.03	34.59	+5 - 3	31.85	42.56	-5 - 6	24.86	45.94	-7 + 1
32				35.96	34.89	+2 - 6				24.60	45.96	-5 + 4

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-85° 7' 10"	11.754	-11.711	-85° 7' 30"	11.767	-11.725	-85° 7' 40"	11.774	-11.731
20	11.761	-11.718	40	11.774	-11.731	50	11.781	-11.738

$$\alpha_{1929,0} = 1^{\text{h}} 41^{\text{m}} 18^{\text{s}}.51$$

$$\delta_{1929,0} = -85^{\circ} 7' 43''.60$$

# Scheinbare Sternörter 1929

199\*

Obere Kulmination Greenwich

Sb)  $\xi$  Mensae 5<sup>m</sup>.85

Tag	Januar			Februar			März			April		
	AR.	Dekl.	$\zeta$ Glieder	AR.	Dekl.	$\zeta$ Glieder	AR.	Dekl.	$\zeta$ Glieder	AR.	Dekl.	$\zeta$ Glieder
	5 <sup>h</sup> 7 <sup>m</sup>	82° 34'	— in 0.01   0.01	5 <sup>h</sup> 6 <sup>m</sup>	82° 34'	— in 0.01   0.01	5 <sup>h</sup> 6 <sup>m</sup>	82° 34'	— in 0.01   0.01	5 <sup>h</sup> 6 <sup>m</sup>	82° 34'	— in 0.01   0.01
1	5.40	10.19	-1 +10	61.16	17.18	+2 0	55.97	19.43	+2 -2	50.03	17.09	-1 -9
2	5.30	10.48	+1 +9	60.99	17.33	+2 -4	55.77	19.43	+2 -6	49.85	16.93	-2 -8
3	5.20	10.76	+2 +7	60.82	17.48	+1 -7	55.58	19.43	+1 -8	49.67	16.77	-3 -5
4	5.10	11.04	+2 +3	60.64	17.62	0 -9	55.38	19.42	0 -9	49.49	16.60	-3 -1
5	4.99	11.31	+2 -1	60.47	17.75	-1 -9	55.18	19.41	-2 -9	49.31	16.43	-2 +3
6	4.88	11.58	+2 -5	60.29	17.88	-2 -8	54.99	19.39	-2 -7	49.14	16.25	-1 +7
7	4.77	11.85	+1 -8	60.11	18.01	-3 -6	54.79	19.36	-3 -3	48.97	16.07	+1 +9
8	4.65	12.11	0 -9	59.94	18.13	-3 -2	54.60	19.33	-3 +1	48.80	15.89	+2 +10
9	4.53	12.37	-1 -9	59.76	18.24	-2 +3	54.40	19.30	-2 +5	48.63	15.70	+3 +8
10	4.41	12.63	-2 -7	59.58	18.35	-1 +7	54.21	19.26	0 +8	48.46	15.51	+4 +4
11	4.29	12.88	-3 -4	59.40	18.46	0 +9	54.01	19.21	+1 +10	48.29	15.32	+4 -1
12	4.16	13.13	-3 0	59.21	18.56	+2 +10	53.82	19.16	+3 +9	48.13	15.12	+3 -6
13	4.03	13.38	-2 +4	59.03	18.65	+3 +8	53.62	19.11	+4 +6	47.97	14.92	+1 -9
14	3.90	13.62	-1 +8	58.84	18.74	+4 +4	53.43	19.05	+4 +2	47.81	14.71	-1 -10
15	3.76	13.86	+1 +10	58.65	18.82	+4 0	53.24	18.98	+4 -3	47.65	14.50	-3 -9
16	3.62	14.09	+3 +9	58.47	18.90	+3 -5	53.05	18.91	+2 -7	47.49	14.28	-4 -6
17	3.48	14.32	+4 +7	58.28	18.97	+2 -9	52.85	18.84	0 -10	47.33	14.06	-4 -1
18	3.34	14.54	+4 +3	58.09	19.04	0 -11	52.66	18.76	-1 -10	47.18	13.83	-4 +4
19	3.20	14.75	+4 -2	57.90	19.10	-2 -10	52.47	18.67	-3 -8	47.02	13.60	-3 +8
20	3.06	14.97	+3 -7	57.71	19.16	-3 -7	52.27	18.58	-4 -4	46.87	13.37	-1 +10
21	2.91	15.18	+1 -10	57.52	19.21	-4 -2	52.08	18.48	-4 +1	46.72	13.14	0 +10
22	2.76	15.39	-1 -10	57.32	19.26	-4 +3	51.89	18.38	-3 +6	46.57	12.90	+2 +8
23	2.61	15.59	-3 -9	57.13	19.30	-3 +7	51.70	18.27	-2 +9	46.43	12.66	+3 +5
24	2.46	15.79	-4 -5	56.93	19.33	-1 +10	51.51	18.16	0 +10	46.29	12.41	+3 +1
25	2.30	15.98	-4 0	56.74	19.36	0 +10	51.32	18.04	+1 +9	46.15	12.16	+2 -3
26	2.14	16.17	-3 +5	56.55	19.38	+1 +9	51.13	17.92	+2 +7	46.01	11.91	+1 -7
27	1.98	16.35	-2 +9	56.35	19.40	+2 +6	50.94	17.80	+3 +3	45.87	11.65	0 -9
28	1.82	16.53	-1 +10	56.16	19.42	+2 +2	50.76	17.67	+3 -1	45.74	11.39	-1 -9
29	1.66	16.70	0 +10	55.97	19.43	+2 -2	50.58	17.53	+2 -5	45.60	11.13	-2 -9
30	1.50	16.87	+1 +8				50.39	17.39	+1 -8	45.47	10.86	-2 -6
31	1.33	17.03	+2 +4				50.21	17.24	0 -9	45.34	10.59	-2 -2
32	1.16	17.18	+2 0				50.03	17.09	-1 -9			

$\delta$	sec $\delta$	tg $\delta$
-82° 34' 10"	7.732	-7.668
20	7.735	-7.670

$\alpha_{1929.0} = 5^h 6^m 53^s.35$

$\delta_{1929.0} = -82^\circ 34' 4''.94$

Sb)  $\xi$  Mensae 5<sup>m</sup>.85

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	Gl. Glieder	AR.	Dekl.	Gl. Glieder	AR.	Dekl.	Gl. Glieder	AR.	Dekl.	Gl. Glieder
	5 <sup>h</sup> 6 <sup>m</sup>	82° 34'	in 0.01   0.01	5 <sup>h</sup> 6 <sup>m</sup>	82° 33'	in 0.01   0.01	5 <sup>h</sup> 6 <sup>m</sup>	82° 33'	in 0.01   0.01	5 <sup>h</sup> 6 <sup>m</sup>	82° 33'	in 0.01   0.01
1	45.34	10.59	-2 -2	42.58	60.93	+1 +10	42.48	50.69	+5 +4	44.96	41.66	+1 -11
2	45.21	10.32	-2 +2	42.54	60.59	+3 +9	42.52	50.36	+5 0	45.08	41.42	-1 -11
3	45.09	10.04	-1 +6	42.50	60.25	+4 +7	42.56	50.03	+4 -5	45.20	41.19	-3 -9
4	44.97	9.76	0 +9	42.46	59.90	+4 +3	42.61	49.70	+2 -9	45.32	40.97	-4 -4
5	44.85	9.48	+2 +10	42.42	59.56	+4 -2	42.66	49.38	0 -11	45.44	40.75	-4 +1
6	44.73	9.19	+3 +9	42.39	59.22	+3 -7	42.71	49.06	-2 -10	45.57	40.53	-3 +6
7	44.61	8.90	+4 +6	42.36	58.87	+1 -10	42.77	48.74	-3 -7	45.70	40.31	-2 +10
8	44.50	8.61	+4 +1	42.33	58.53	-1 -11	42.82	48.42	-4 -2	45.83	40.10	0 +11
9	44.39	8.31	+3 -4	42.30	58.19	-3 -9	42.88	48.11	-4 +3	45.96	39.90	+1 +10
10	44.28	8.01	+2 -8	42.28	57.84	-4 -5	42.94	47.79	-3 +8	46.09	39.70	+2 +7
11	44.18	7.71	0 -10	42.26	57.50	-4 0	43.01	47.48	-2 +10	46.23	39.50	+2 +3
12	44.08	7.41	-2 -10	42.24	57.15	-4 +5	43.08	47.17	0 +11	46.37	39.31	+2 -1
13	43.98	7.11	-3 -7	42.23	56.80	-3 +9	43.15	46.87	+1 +9	46.51	39.13	+1 -5
14	43.88	6.80	-4 -3	42.22	56.46	-1 +11	43.22	46.57	+2 +6	46.65	38.95	0 -8
15	43.78	6.49	-4 +2	42.21	56.11	0 +10	43.30	46.27	+2 +1	46.79	38.78	-1 -9
16	43.69	6.18	-3 +7	42.21	55.77	+1 +8	43.38	45.97	+2 -3	46.94	38.61	-2 -9
17	43.60	5.86	-2 +10	42.21	55.43	+2 +4	43.46	45.67	+1 -6	47.08	38.44	-2 -7
18	43.52	5.54	0 +11	42.21	55.08	+2 0	43.54	45.38	0 -8	47.22	38.28	-3 -4
19	43.43	5.22	+1 +9	42.21	54.74	+2 -4	43.62	45.09	-1 -9	47.37	38.13	-3 0
20	43.35	4.90	+2 +6	42.22	54.40	+1 -7	43.71	44.80	-2 -9	47.52	37.98	-2 +4
21	43.27	4.58	+2 +2	42.23	54.05	0 -9	43.80	44.52	-3 -6	47.67	37.84	-1 +8
22	43.19	4.26	+2 -2	42.24	53.71	-1 -9	43.90	44.24	-3 -3	47.82	37.70	+1 +10
23	43.12	3.93	+2 -6	42.25	53.37	-2 -8	44.00	43.97	-2 +1	47.97	37.57	+2 +10
24	43.05	3.60	+1 -8	42.27	53.03	-3 -5	44.10	43.70	-1 +5	48.12	37.45	+3 +8
25	42.98	3.27	0 -9	42.29	52.69	-3 -1	44.20	43.43	0 +8	48.28	37.33	+4 +4
26	42.92	2.94	-1 -9	42.32	52.36	-2 +3	44.30	43.17	+2 +10	48.43	37.22	+4 -1
27	42.86	2.61	-2 -7	42.35	52.02	-1 +6	44.41	42.91	+3 +9	48.59	37.11	+3 -6
28	42.80	2.27	-2 -4	42.38	51.69	+1 +9	44.51	42.65	+4 +6	48.74	37.01	+2 -10
29	42.74	1.94	-2 0	42.41	51.35	+2 +10	44.62	42.40	+5 +2	48.90	36.91	0 -11
30	42.68	1.61	-1 +4	42.44	51.02	+4 +8	44.73	42.15	+4 -4	49.06	36.82	-2 -10
31	42.63	1.27	0 +8	42.48	50.69	+5 +4	44.84	41.90	+3 -8	49.22	36.74	-3 -6
32	42.58	0.93	+1 +10				44.96	41.66	+1 -11	49.38	36.66	-4 -1

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-82° 33' 30"	7.721	-7.656	-82° 33' 50"	7.727	-7.662	-82° 34' 0"	7.730	-7.665
40	7.724	-7.659	60	7.730	-7.665	10	7.732	-7.668

$$\alpha_{1929.0} = 5^{\text{h}} 6^{\text{m}} 53^{\text{s}}.35$$

$$\delta_{1929.0} = -82^{\circ} 34' 4''.94$$

\*) Tag der doppelten unteren Kulmination: Juni 8



## Obere Kulmination Greenwich

86)  $\xi$  Mensae 5<sup>m</sup>.85

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	$\alpha$ Glieder	AR.	Dekl.	$\alpha$ Glieder	AR.	Dekl.	$\alpha$ Glieder	AR.	Dekl.	$\alpha$ Glieder
	5 <sup>h</sup> 6 <sup>m</sup>	82° 33'	<sup>o</sup> <sub>o</sub>   <sup>o</sup> <sub>o</sub>	5 <sup>h</sup> 6 <sup>m</sup>	82° 33'	<sup>o</sup> <sub>o</sub>   <sup>o</sup> <sub>o</sub>	5 <sup>h</sup> 6 <sup>m</sup>	82° 33'	<sup>o</sup> <sub>o</sub>   <sup>o</sup> <sub>o</sub>	5 <sup>h</sup> 6 <sup>m</sup>	82° 33'	<sup>o</sup> <sub>o</sub>   <sup>o</sup> <sub>o</sub>
1	49.38	36.66	-4 - 1	54.23	37.22	-1 + 10	58.25	43.31	+3 + 4	59.80	52.66	+1 - 7
2	49.54	36.59	-3 + 4	54.39	37.33	0 + 11	58.34	43.58	+3 - 1	59.80	52.99	0 - 9
3	49.71	36.53	-2 + 8	54.54	37.45	+1 + 9	58.43	43.86	+2 - 5	59.80	53.33	-1 - 9
4	49.87	36.47	-1 + 10	54.69	37.58	+2 + 6	58.52	44.14	+1 - 8	59.80	53.67	-2 - 8
5	50.03	36.42	+1 + 10	54.84	37.71	+3 + 2	58.61	44.42	0 - 9	59.79	54.00	-3 - 6
6	50.19	36.37	+2 + 8	54.99	37.85	+2 - 2	58.70	44.71	-2 - 9	59.78	54.34	-3 - 2
7	50.36	36.33	+2 + 5	55.14	37.99	+1 - 6	58.78	45.00	-3 - 7	59.77	54.68	-2 + 2
8	50.52	36.29	+2 0	55.29	38.14	0 - 8	58.86	45.29	-3 - 4	<sup>59.75</sup> <sub>59.73</sub>	<sup>55.01</sup> <sub>55.35</sub>	<sup>-1 + 6</sup> <sub>0 + 8</sub>
9	50.69	36.26	+2 - 4	55.43	38.30	-1 - 9	58.93	45.59	-3 - 1	59.71	55.69	+2 + 9
10	50.85	36.24	+1 - 7	55.58	38.46	-2 - 9	59.00	45.89	-2 + 4	59.68	56.02	+3 + 9
11	51.02	36.23	0 - 9	55.72	38.63	-3 - 6	59.07	46.19	-1 + 7	59.65	56.35	+4 + 6
12	51.18	36.22	-1 - 9	55.86	38.80	-3 - 3	59.13	46.49	0 + 9	59.62	56.68	+5 + 1
13	51.35	36.22	-2 - 8	56.00	38.98	-3 + 1	59.19	46.80	+2 + 10	59.58	57.01	+4 - 3
14	51.51	36.22	-3 - 5	56.14	39.16	-2 + 5	59.25	47.11	+3 + 8	59.54	57.34	+3 - 8
15	51.67	36.23	-3 - 2	56.27	39.35	-1 + 8	59.31	47.42	+4 + 4	59.50	57.67	+1 - 11
16	51.84	36.24	-2 + 3	56.41	39.54	+1 + 10	59.37	47.74	+4 0	59.45	58.00	-1 - 11
17	52.00	36.26	-1 + 6	56.54	39.74	+3 + 9	59.42	48.06	+3 - 5	59.40	58.33	-3 - 9
18	52.16	36.29	0 + 9	56.67	39.95	+4 + 7	59.47	48.38	+2 - 9	59.34	58.65	-4 - 4
19	52.33	36.32	+2 + 10	56.80	40.16	+4 + 3	59.51	48.70	0 - 11	59.28	58.97	-4 + 1
20	52.49	36.36	+3 + 9	56.92	40.37	+4 - 2	59.55	49.02	-2 - 10	59.22	59.29	-3 + 6
21	52.66	36.41	+4 + 5	57.04	40.59	+3 - 7	59.59	49.35	-3 - 7	59.16	59.61	-2 + 10
22	52.82	36.46	+4 + 1	57.16	40.82	+1 - 10	59.63	49.68	-4 - 2	59.09	59.92	-1 + 11
23	52.98	36.52	+3 - 4	57.28	41.05	-1 - 11	59.66	50.00	-4 + 3	59.02	60.24	+1 + 10
24	53.14	36.59	+2 - 8	57.40	41.28	-2 - 9	59.69	50.33	-3 + 8	58.95	60.55	+2 + 7
25	53.30	36.66	0 - 11	57.52	41.52	-4 - 5	59.72	50.66	-1 + 10	58.87	60.86	+2 + 3
26	53.46	36.74	-1 - 11	57.63	41.76	-4 0	59.74	50.99	0 + 11	58.79	61.17	+2 - 2
27	53.61	36.82	-3 - 8	57.74	42.01	-3 + 5	59.76	51.32	+1 + 9	58.71	61.48	+1 - 6
28	53.77	36.91	-4 - 3	57.85	42.26	-2 + 9	59.77	51.65	+2 + 6	58.63	61.78	0 - 8
29	53.93	37.01	-4 + 2	57.95	42.52	0 + 11	59.78	51.99	+3 + 1	58.54	62.08	-1 - 10
30	54.08	37.11	-3 + 7	58.05	42.78	+1 + 10	59.79	52.32	+2 - 3	58.45	62.38	-2 - 9
31	54.23	37.22	-1 + 10	58.15	43.04	+2 + 8	59.80	52.66	+1 - 7	58.36	62.67	-3 - 7
32				58.25	43.31	+3 + 4				58.26	62.96	-3 - 4

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-82° 33' 30"	7.721	-7.656	-82° 33' 50"	7.727	-7.662	-82° 33' 60"	7.730	-7.665
40	7.724	-7.659	60	7.730	-7.665	70	7.732	-7.668

$$\alpha_{1929.0} = 5^h 6^m 53^s.35$$

$$\delta_{1929.0} = -82^\circ 34' 4''.94$$

Se)  $\zeta$  Octantis 5<sup>m</sup>.38

Tag	Januar			Februar			März			April		
	AR.	Dekl.	α Glieder	AR.	Dekl.	α Glieder	AR.	Dekl.	α Glieder	AR.	Dekl.	α Glieder
	9 <sup>h</sup> 7 <sup>m</sup>	—	in	9 <sup>h</sup> 7 <sup>m</sup>	—	in	9 <sup>h</sup> 7 <sup>m</sup>	—	in	9 <sup>h</sup> 7 <sup>m</sup>	—	in
	85° 22'	0.01	0.01	85° 22'	0.01	0.01	85° 22'	0.01	0.01	85° 23'	0.01	0.01
1	33.14	33.42	-8 0	34.64	44.62	-1 + 7	31.91	55.26	+3 + 4	25.45	4.36	+6 - 7
2	33.26	33.75	-7 + 3	34.61	45.00	+2 + 5	31.75	55.60	+5 + 1	25.20	4.59	+4 - 8
3	33.38	34.08	-6 + 6	34.57	45.38	+4 + 3	31.59	55.94	+6 - 3	24.94	4.82	+1 - 8
4	33.49	34.42	-3 + 7	34.53	45.76	+6 0	31.42	56.28	+6 - 5	24.68	5.04	-2 - 6
5	33.59	34.76	0 + 7	34.49	46.13	+6 - 3	31.25	56.61	+5 - 7	24.42	5.26	-4 - 3
6	33.69	35.10	+3 + 5	34.44	46.51	+6 - 6	31.08	56.94	+3 - 8	24.16	5.48	-6 + 2
7	33.79	35.44	+5 + 2	34.38	46.89	+4 - 8	30.90	57.27	0 - 7	23.90	5.69	-6 + 6
8	33.88	35.78	+6 - 1	34.33	47.27	+2 - 8	30.72	57.59	-3 - 5	23.64	5.90	-5 + 10
9	33.97	36.13	+6 - 4	34.26	47.64	-1 - 7	30.54	57.91	-5 - 1	23.37	6.10	-3 + 11
10	34.05	36.48	+5 - 7	34.19	48.02	-4 - 4	30.35	58.23	-6 + 3	23.10	6.30	+1 + 11
11	34.13	36.84	+3 - 8	34.12	48.39	-6 0	30.16	58.55	-6 + 7	22.83	6.49	+4 + 8
12	34.20	37.19	+1 - 8	34.04	48.77	-7 + 5	29.96	58.86	-4 + 10	22.56	6.68	+6 + 3
13	34.27	37.55	-2 - 6	33.96	49.14	-5 + 9	29.76	59.17	-1 + 11	22.28	6.87	+7 - 2
14	34.34	37.91	-4 - 2	33.87	49.51	-3 + 11	29.56	59.48	+2 + 10	22.01	7.05	+6 - 7
15	34.40	38.27	-6 + 2	33.78	49.88	0 + 11	29.36	59.78	+5 + 6	21.73	7.22	+4 - 10
16	34.45	38.64	-6 + 7	33.68	50.25	+3 + 9	29.15	60.08	+7 + 1	21.46	7.39	+1 - 11
17	34.50	39.00	-4 + 10	33.58	50.62	+6 + 5	28.94	60.38	+7 - 4	21.18	7.55	-3 - 10
18	34.54	39.37	-2 + 12	33.48	50.99	+8 0	28.73	60.67	+6 - 8	20.90	7.71	-6 - 6
19	34.58	39.74	+2 + 11	33.37	51.35	+7 - 5	28.51	60.96	+3 - 10	20.62	7.86	-8 - 2
20	34.61	40.11	+5 + 8	33.26	51.72	+5 - 9	28.29	61.24	-1 - 11	20.34	8.01	-8 + 2
21	34.64	40.48	+7 + 3	33.14	52.08	+2 - 10	28.07	61.52	-4 - 8	20.06	8.15	-6 + 6
22	34.66	40.85	+8 - 2	33.02	52.44	-2 - 10	27.85	61.80	-7 - 4	19.78	8.29	-4 + 8
23	34.68	41.22	+7 - 7	32.89	52.80	-5 - 7	27.62	62.07	-8 0	19.49	8.42	-1 + 8
24	34.70	41.60	+4 - 10	32.76	53.16	-7 - 3	27.39	62.34	-7 + 4	19.21	8.55	+2 + 6
25	34.71	41.97	0 - 12	32.63	53.51	-8 + 1	27.16	62.60	-6 + 7	18.92	8.67	+4 + 4
26	34.71	42.35	-4 - 9	32.49	53.87	-7 + 5	26.92	62.86	-3 + 8	18.64	8.79	+6 0
27	34.71	42.72	-6 - 6	32.35	54.22	-5 + 7	26.68	63.12	0 + 7	18.35	8.90	+7 - 3
28	34.71	43.10	-8 - 2	32.21	54.57	-2 + 7	26.44	63.38	+3 + 5	18.06	9.01	+6 - 6
29	34.70	43.48	-8 + 3	32.06	54.92	+1 + 6	26.20	63.63	+5 + 3	17.77	9.11	+4 - 8
30	34.68	43.86	-6 + 6	31.91	55.26	+3 + 4	25.95	63.88	+6 - 1	17.48	9.21	+2 - 8
31	34.66	44.24	-4 + 7				25.70	64.12	+6 - 4	17.19	9.30	0 - 7
32	34.64	44.62	-1 + 7				25.45	64.36	+6 - 7			

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-85° 22' 30"	12.402	-12.361	-85° 22' 50"	12.417	-12.376	-85° 23' 0"	12.424	-12.384
40	12.409	-12.369	60	12.424	-12.384	10	12.432	-12.391

$$\alpha_{1929.0} = 9^h 7^m 20^s.08$$

$$\delta_{1929.0} = -85^\circ 22' 52''.73$$

Se)  $\zeta$  Octantis  $5^m.38$ 

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	Gl.ieder	Alt.	Dekl.	Gl.ieder	AR.	Dekl.	Gl.ieder	AR.	Dekl.	Gl.ieder
	$9^h 7^m$	$85^\circ 23'$	$\begin{matrix} \text{in} \\ \text{0.01}   \text{0.01} \end{matrix}$	$9^h 7^m$	$85^\circ 23'$	$\begin{matrix} \text{in} \\ \text{0.01}   \text{0.01} \end{matrix}$	$9^h 6^m$	$85^\circ 22'$	$\begin{matrix} \text{in} \\ \text{0.01}   \text{0.01} \end{matrix}$	$9^h 6^m$	$85^\circ 22'$	$\begin{matrix} \text{in} \\ \text{0.01}   \text{0.01} \end{matrix}$
1	17.19	9.30	0 - 7	8.36	9.53	-6 + 7	61.31	65.09	+1 +12	57.21	56.87	+8 - 3
2	16.90	9.39	-3 - 4	8.09	9.45	-4 +11	61.12	64.87	+4 +10	57.15	56.57	+7 - 7
3	16.61	9.47	-5 0	7.82	9.37	-2 +12	60.93	64.65	+7 + 6	57.09	56.27	+4 -10
4	16.32	9.55	-6 + 4	7.56	9.28	+2 +11	60.75	64.42	+8 0	57.03	55.97	0 -10
5	16.03	9.62	-5 + 8	7.29	9.19	+5 + 8	60.57	64.19	+8 - 5	56.98	55.66	-4 - 8
6	15.74	9.69	-3 +11	7.03	9.09	+7 + 3	60.39	63.96	+5 - 9	56.94	55.35	-7 - 5
7	15.45	9.75	0 +12	6.77	8.99	+8 - 2	60.22	63.72	+2 -11	56.90	55.05	-8 0
8	15.16	9.80	+3 +10	6.51	8.88	+6 - 7	60.05	63.48	-2 -10	56.86	54.74	-8 + 4
9	14.87	9.85	+6 + 6	6.26	8.77	+3 -11	59.88	63.24	-5 - 8	56.83	54.43	-6 + 6
10	14.58	9.90	+7 0	6.00	8.65	0 -11	59.72	62.99	-8 - 3	56.80	54.12	-3 + 7
11	14.29	9.94	+7 - 5	5.75	8.53	-4 -10	59.56	62.74	-8 + 1	56.78	53.81	0 + 6
12	14.00	9.97	+5 - 9	5.50	8.40	-7 - 6	59.40	62.49	-7 + 5	56.76	53.50	+3 + 4
13	13.71	10.00	+2 -11	5.26	8.27	-8 - 2	59.25	62.23	-5 + 7	56.75	53.18	+5 + 1
14	13.42	10.02	-2 -11	5.02	8.13	-8 + 3	59.10	61.97	-2 + 7	56.74	52.87	+6 - 3
15	13.13	10.04	-5 - 8	4.78	7.99	-7 + 6	58.96	61.71	+1 + 6	56.74	52.56	+6 - 6
16	12.84	10.05	-7 - 4	4.54	7.84	-4 + 7	58.82	61.45	+4 + 3	56.74	52.25	+5 - 8
17	12.55	10.06	-8 0	4.30	7.69	-1 + 7	58.69	61.18	+6 0	56.75	51.94	+3 - 9
18	12.27	10.06	-7 + 4	4.07	7.53	+2 + 5	58.56	60.91	+6 - 3	56.76	51.63	0 - 8
19	11.98	10.06	-5 + 7	3.84	7.37	+5 + 2	58.44	60.64	+6 - 6	56.78	51.32	-2 - 6
20	11.69	10.05	-3 + 8	3.61	7.20	+6 - 1	58.32	60.36	+4 - 8	56.80	51.01	-5 - 3
21	11.40	10.03	0 + 7	3.39	7.03	+6 - 4	58.20	60.08	+2 - 9	56.82	50.70	-6 + 1
22	11.12	10.01	+3 + 4	3.17	6.86	+6 - 7	58.09	59.80	-1 - 8	56.85	50.39	-6 + 6
23	10.84	9.99	+5 + 1	2.95	6.68	+4 - 8	57.98	59.52	-3 - 5	56.89	50.08	-5 +10
24	10.56	9.96	+6 - 2	2.73	6.49	+1 - 8	57.88	59.23	-5 - 1	56.93	49.77	-2 +12
25	10.28	9.92	+6 - 5	2.52	6.30	-1 - 6	57.78	58.94	-6 + 4	56.98	49.47	+1 +12
26	10.00	9.88	+5 - 7	2.31	6.11	-4 - 3	57.68	58.65	-6 + 8	57.03	49.17	+5 + 9
27	9.73	9.84	+3 - 8	2.10	5.92	-5 + 1	57.59	58.36	-4 +11	57.09	48.86	+7 + 5
28	9.45	9.79	0 - 7	1.90	5.72	-6 + 6	57.50	58.07	-1 +12	57.15	48.56	+8 0
29	9.17	9.73	-2 - 5	1.70	5.51	-5 +10	57.42	57.77	+3 +11	57.22	48.26	+7 - 5
30	8.90	9.67	-4 - 1	1.50	5.30	-3 +12	57.34	57.47	+6 + 8	57.29	47.96	+5 - 9
31	8.63	9.60	-6 + 3	1.31	5.09	+1 +12	57.27	57.17	+8 + 3	57.37	47.66	+1 -10
32	8.36	9.53	-6 + 7				57.21	56.87	+8 - 3	57.45	47.37	-2 - 9

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
$-85^\circ 22' 40''$	12.409	-12.369	$-85^\circ 23' 0''$	12.424	-12.384	$-85^\circ 23' 10''$	12.432	-12.391
50	12.417	-12.376	10	12.432	-12.391	20	12.439	-12.399

$$\alpha_{1929.0} = 9^h 7^m 20^s.08$$

$$\delta_{1929.0} = -85^\circ 22' 52''.73$$

\*) Tag der doppelten unteren Kulmination: Aug. 8

Sc)  $\zeta$  Octantis 5<sup>m</sup>.38

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	9 <sup>h</sup> 6 <sup>m</sup>	85° 22'	0.01   0.01	9 <sup>h</sup> 7 <sup>m</sup>	85° 22'	0.01   0.01	9 <sup>h</sup> 7 <sup>m</sup>	85° 22'	0.01   0.01	9 <sup>h</sup> 7 <sup>m</sup>	85° 22'	0.01   0.01
1	57.45	47.37	-2 - 9	1.84	39.85	-8 + 1	9.35	36.64	0 + 8	17.09	39.33	+6 - 1
2	57.53	47.07	-5 - 6	2.05	39.66	-7 + 5	9.62	36.63	+3 + 5	17.32	39.52	+6 - 4
3	57.62	46.78	-8 - 1	2.26	39.48	-5 + 8	9.88	36.63	+5 + 2	17.55	39.71	+6 - 7
4	57.71	46.49	-8 + 3	2.47	39.30	-2 + 8	10.15	36.64	+6 - 2	17.78	39.91	+4 - 9
5	57.81	46.20	-7 + 6	2.69	39.13	+1 + 7	10.41	36.66	+6 - 5	18.01	40.11	+2 - 9
6	57.91	45.91	-4 + 8	2.91	38.96	+3 + 4	10.68	36.68	+5 - 8	18.23	40.32	-1 - 7
7	58.02	45.63	-1 + 7	3.13	38.80	+5 0	10.95	36.71	+3 - 9	18.45	40.54	-3 - 4
8	58.13	45.35	+2 + 5	3.35	38.64	+6 - 3	11.21	36.74	+1 - 8	18.67	40.76	-5 0
9	58.25	45.07	+4 + 2	3.58	38.49	+6 - 6	11.48	36.78	-2 - 6	18.88	40.98	-6 + 4
10	58.37	44.80	+6 - 1	3.81	38.34	+4 - 8	11.74	36.83	-4 - 3	19.09	41.21	-5 + 8
11	58.49	44.53	+6 - 5	4.04	38.20	+2 - 9	12.01	36.89	-6 + 1	19.30	41.45	-4 + 11
12	58.62	44.26	+5 - 7	4.27	38.07	0 - 8	12.27	36.95	-6 + 5	19.51	41.69	-1 + 12
13	58.75	43.99	+4 - 9	4.51	37.94	-3 - 5	12.54	37.02	-5 + 9	19.71	41.94	+3 + 11
14	58.89	43.73	+1 - 9	4.75	37.82	-5 - 2	12.80	37.09	-3 + 12	19.91	42.19	+6 + 8
15	59.03	43.47	-1 - 7	4.99	37.70	-6 + 3	13.07	37.17	0 + 12	20.10	42.45	+8 + 3
16	59.18	43.21	-4 - 4	5.23	37.59	-6 + 7	13.33	37.26	+4 + 10	20.29	42.71	+8 - 3
17	59.33	42.96	-6 0	5.48	37.48	-4 + 10	13.60	37.36	+7 + 5	20.48	42.98	+7 - 8
18	59.49	42.71	-6 + 4	5.72	37.38	-2 + 12	13.86	37.46	+8 0	20.67	43.25	+4 - 10
19	59.65	42.46	-6 + 8	5.97	37.29	+2 + 11	14.11	37.57	+7 - 5	20.85	43.53	0 - 11
20	59.81	42.22	-4 + 11	6.23	37.20	+5 + 8	14.37	37.68	+5 - 9	21.02	43.81	-4 - 9
21	59.98	41.98	0 + 12	6.48	37.12	+7 + 3	14.63	37.80	+2 - 11	21.19	44.09	-7 - 5
22	60.15	41.75	+3 + 10	6.73	37.05	+8 - 2	14.88	37.92	-2 - 10	21.36	44.38	-8 0
23	60.32	41.52	+6 + 6	6.99	36.98	+7 - 7	15.13	38.05	-5 - 7	21.53	44.67	-8 + 4
24	60.50	41.30	+8 + 1	7.25	36.92	+4 - 10	15.39	38.19	-8 - 3	21.69	44.97	-6 + 7
25	60.68	41.08	+8 - 4	7.50	36.86	0 - 11	15.64	38.33	-8 + 2	21.84	45.27	-3 + 8
26	60.86	40.86	+6 - 8	7.76	36.81	-3 - 9	15.88	38.48	-7 + 6	21.99	45.58	0 + 7
27	61.05	40.65	+3 - 10	8.03	36.76	-6 - 5	16.13	38.64	-5 + 8	22.14	45.89	+3 + 4
28	61.24	40.44	-1 - 10	8.29	36.72	-8 - 1	16.37	38.80	-2 + 8	22.28	46.20	+5 0
29	61.44	40.24	-4 - 7	8.56	36.69	-8 + 4	16.61	38.97	+1 + 6	22.42	46.52	+6 - 3
30	61.64	40.04	-7 - 3	8.82	36.67	-6 + 7	16.85	39.15	+4 + 3	22.56	46.84	+6 - 6
31	61.84	39.85	-8 + 1	9.09	36.65	-3 + 8	17.09	39.33	+6 - 1	22.69	47.16	+4 - 9
32				9.35	36.64	0 + 8				22.81	47.49	+2 - 9

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-85° 22' 30"	12.402	-12.361	-85° 22' 40"	12.409	-12.369
40	12.409	-12.369	50	12.417	-12.376

$$\alpha_{1929.0} = 9^{\text{h}} 7^{\text{m}} 20^{\text{s}}.08$$

$$\delta_{1929.0} = -85^{\circ} 22' 52''.73$$

*Sd*) Octantis 5<sup>m</sup>.38

Tag	Januar			Februar			März			April		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	12 <sup>h</sup> 47 <sup>m</sup>	84° 43'	0.01 0.01	12 <sup>h</sup> 47 <sup>m</sup>	84° 43'	0.01 0.01	12 <sup>h</sup> 47 <sup>m</sup>	84° 44'	0.01 0.01	12 <sup>h</sup> 47 <sup>m</sup>	84° 44'	0.01 0.01
1	14.42	52.97	-4 -9	21.81	58.48	-5 +4	26.65	7.26	-3 +6	29.03	19.01	+6 +4
2	14.67	53.06	-6 -5	22.02	58.74	-2 +6	26.78	7.62	-1 +7	29.05	19.40	+7 +1
3	14.92	53.16	-6 -1	22.23	59.01	0 +7	26.91	7.98	+2 +7	29.07	19.78	+7 -2
4	15.18	53.26	-6 +2	22.43	59.28	+3 +6	27.03	8.34	+5 +5	29.08 <sup>20.17</sup>	20.17 <sup>20.55</sup>	+5 -4 +3 -6
5	15.44	53.37	-4 +5	22.63	59.55	+5 +5	27.15	8.71	+6 +3	29.10	20.94	-1 -7
6	15.69	53.49	-1 +7	22.83	59.83	+7 +2	27.26	9.07	+7 0	29.10	21.32	-4 -5
7	15.94	53.61	+1 +7	23.03	60.11	+7 -1	27.37	9.44	+6 -3	29.10	21.71	-7 -2
8	16.19	53.74	+4 +6	23.23	60.40	+6 -4	27.48	9.81	+4 -6	29.09	22.09	-8 +1
9	16.44	53.87	+6 +4	23.42	60.69	+4 -6	27.59	10.18	+2 -7	29.08	22.48	-8 +5
10	16.69	54.01	+7 +1	23.61	60.99	0 -7	27.69	10.55	-2 -7	29.07	22.86	-6 +9
11	16.94	54.15	+7 -2	23.80	61.29	-3 -6	27.79	10.93	-5 -5	29.06	23.24	-3 +10
12	17.19	54.30	+5 -5	23.98	61.59	-6 -3	27.88	11.31	-8 -1	29.04	23.62	+1 +9
13	17.43	54.46	+2 -6	24.16	61.90	-8 0	27.97	11.68	-9 +3	29.02	24.00	+5 +6
14	17.67	54.63	-1 -7	24.34	62.21	-9 +5	28.06	12.06	-8 +7	28.99	24.37	+8 +2
15	17.92	54.80	-5 -5	24.52	62.53	-7 +9	28.14	12.44	-5 +10	28.96	24.74	+8 -3
16	18.16	54.97	-7 -1	24.69	62.85	-4 +11	28.22	12.82	-1 +10	28.93	25.12	+7 -8
17	18.40	55.15	-9 +3	24.86	63.17	0 +11	28.30	13.21	+3 +9	28.89	25.49	+5 -10
18	18.64	55.34	-8 +7	25.03	63.49	+4 +8	28.37	13.59	+6 +5	28.85	25.86	+1 -11
19	18.88	55.53	-6 +10	25.19	63.82	+7 +4	28.44	13.97	+8 0	28.81	26.23	-2 -10
20	19.11	55.72	-2 +11	25.35	64.15	+8 -1	28.51	14.36	+8 -4	28.76	26.60	-5 -7
21	19.35	55.92	+2 +10	25.51	64.48	+7 -6	28.57	14.74	+6 -8	28.71	26.97	-7 -3
22	19.58	56.13	+5 +6	25.66	64.82	+5 -9	28.63	15.13	+3 -11	28.66	27.33	-7 +1
23	19.81	56.34	+7 +1	25.81	65.16	+2 -11	28.69	15.52	0 -11	28.61	27.69	-5 +4
24	20.04	56.56	+8 -4	25.96	65.50	-2 -10	28.74	15.91	-4 -9	28.55	28.05	-3 +7
25	20.27	56.78	+7 -8	26.11	65.85	-5 -7	28.79	16.29	-6 -5	28.49	28.40	0 +7
26	20.49	57.01	+4 -11	26.25	66.20	-6 -4	28.83	16.68	-7 -1	28.42	28.76	+3 +7
27	20.72	57.24	0 -11	26.39	66.55	-7 0	28.87	17.07	-6 +3	28.35	29.11	+5 +5
28	20.94	57.48	-3 -10	26.52	66.90	-6 +3	28.91	17.46	-4 +5	28.28	29.46	+6 +2
29	21.16	57.72	-5 -7	26.65	67.26	-3 +6	28.95	17.85	-2 +7	28.20	29.81	+7 -1
30	21.38	57.97	-6 -3				28.98	18.23	+1 +7	28.12	30.16	+6 -3
31	21.59	58.22	-6 +1				29.01	18.62	+4 +6	28.04	30.50	+4 -5
32	21.81	58.48	-5 +4				29.03	19.01	+6 +4			

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-84° 43' 50"	10.889	-10.843	-84° 44' 10"	10.900	-10.854	-84° 44' 30"	10.911	-10.866
60	10.894	-10.848	20	10.906	-10.860	40	10.917	-10.871

$$\alpha_{1929.0} = 12^{\text{h}} 47^{\text{m}} 19^{\text{s}}.77$$

$$\delta_{1929.0} = -84^{\circ} 44' 17''.69$$

Sd)  $\iota$  Octantis 5<sup>m</sup>.38

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder
	12 <sup>h</sup> 47 <sup>m</sup>	—	in	12 <sup>h</sup> 47 <sup>m</sup>	—	in	12 <sup>h</sup> 47 <sup>m</sup>	—	in	12 <sup>h</sup> 47 <sup>m</sup>	—	in
	84° 44'	♁.01	♁.01	84° 44'	♁.01	♁.01	84° 44'	♁.01	♁.01	84° 44'	♁.01	♁.01
1	28.04	30.50	+4 - 5	24.04	39.44	-8 - 1	18.18	43.98	-7 + 10	11.55	43.46	+6 + 7
2	27.95	30.84	+1 - 6	23.86	39.66	-9 + 3	17.97	44.05	-4 + 12	11.35	43.35	+8 + 2
3	27.86	31.18	-3 - 6	23.69	39.88	-8 + 7	17.75	44.11	0 + 11	11.15	43.24	+8 - 4
4	27.77	31.51	-6 - 3	23.52	40.10	-6 + 10	17.54	44.17	+4 + 9	10.95	43.12	+6 - 8
5	27.67	31.84	-8 0	23.34	40.31	-3 + 11	17.32	44.22	+7 + 4	10.75	43.00	+3 - 11
6	27.58	32.17	-9 + 4	23.16	40.52	+2 + 10	17.11	44.27	+8 - 1	10.55	42.87	0 - 11
7	27.48	32.49	-8 + 8	22.99	40.72	+5 + 6	16.89	44.31	+8 - 6	10.36	42.74	-4 - 9
8	27.38	32.81	-5 + 10	22.81	40.92	+8 + 1	16.68	44.34	+5 - 10	10.17	42.60	-6 - 6
9	27.27	33.13	-1 + 10	22.62	41.11	+8 - 4	16.46	44.37	+2 - 12	9.98	42.46	-7 - 2
10	27.16	33.45	+3 + 8	22.44	41.30	+7 - 9	16.24	44.39	-2 - 11	9.79	42.31	-6 + 2
11	27.05	33.76	+7 + 4	22.25	41.48	+4 - 11	16.02	44.41	-5 - 8	9.61	42.16	-4 + 5
12	26.93	34.07	+8 - 1	22.06	41.65	+1 - 12	15.81	44.42	-6 - 4	9.42	42.00	-1 + 6
13	26.81	34.37	+8 - 6	21.87	41.82	-3 - 10	15.59	44.43	-7 0	9.24	41.84	+2 + 6
14	26.69	34.67	+6 - 10	21.67	41.99	-5 - 7	15.37	44.43	-5 + 3	9.06	41.67	+5 + 5
15	26.56	34.97	+3 - 12	21.48	42.15	-7 - 3	15.15	44.42	-3 + 5	8.88	41.50	+6 + 2
16	26.44	35.27	-1 - 11	21.28	42.30	-6 + 1	14.94	44.41	0 + 6	8.71	41.32	+7 - 1
17	26.31	35.56	-4 - 9	21.08	42.45	-5 + 4	14.72	44.39	+3 + 6	8.53	41.14	+7 - 4
18	26.18	35.85	-6 - 5	20.88	42.60	-2 + 6	14.51	44.37	+5 + 4	8.36	40.95	+5 - 6
19	26.04	36.13	-7 - 1	20.68	42.74	+1 + 7	14.29	44.34	+7 + 2	8.19	40.76	+3 - 7
20	25.90	36.41	-6 + 3	20.48	42.87	+4 + 6	14.07	44.31	+7 - 1	8.02	40.57	-1 - 7
21	25.76	36.69	-4 + 6	20.27	43.00	+6 + 4	13.86	44.27	+6 - 4	7.86	40.37	-4 - 5
22	25.62	36.96	-1 + 7	20.07	43.12	+7 + 1	13.64	44.22	+4 - 6	7.70	40.16	-7 - 2
23	25.47	37.23	+2 + 7	19.87	43.24	+7 - 2	13.43	44.17	+1 - 7	7.54	39.95	-9 + 2
24	25.32	37.49	+5 + 5	19.66	43.35	+6 - 4	13.22	44.11	-2 - 6	7.38	39.74	-9 + 6
25	25.17	37.75	+6 + 3	19.45	43.46	+3 - 6	13.00	44.05	-5 - 4	7.23	39.53	-7 + 10
26	25.01	38.00	+7 0	19.24	43.56	0 - 6	12.79	43.98	-8 0	7.08	39.31	-3 + 12
27	24.85	38.25	+6 - 3	19.03	43.65	-4 - 5	12.58	43.91	-9 + 4	6.93	39.08	+1 + 11
28	24.69	38.50	+5 - 5	18.82	43.74	-7 - 2	12.37	43.83	-8 + 8	6.79	38.85	+4 + 9
29	24.53	38.74	+2 - 6	18.61	43.83	-9 + 2	12.17	43.74	-6 + 11	6.65	38.62	+7 + 4
30	24.37	38.98	-1 - 6	18.40	43.91	-9 + 6	11.96	43.65	-2 + 12	6.52	38.38	+8 - 1
31	24.21	39.21	-5 - 4	18.18	43.98	-7 + 10	11.75	43.56	+2 + 11	6.39	38.14	+7 - 6
32	24.04	39.44	-8 - 1				11.55	43.46	+6 + 7	6.26	37.90	+4 - 9

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-84° 44' 30"	10.911	-10.866	-84° 44' 40"	10.917	-10.871
40	10.917	-10.871	50	10.923	-10.877

$$\alpha_{1929.0} = 12^{\text{h}} 47^{\text{m}} 19^{\text{s}}.77$$

$$\delta_{1929.0} = -84^{\circ} 44' 17''.69$$

Sd) Octantis 5<sup>m</sup>.38

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	α Glieder	AR.	Dekl.	α Glieder	AR.	Dekl.	α Glieder	AR.	Dekl.	α Glieder
	in			in			in			in		
	12 <sup>h</sup> 47 <sup>m</sup>	84° 44'	0.01   0.01	12 <sup>h</sup> 47 <sup>m</sup>	84° 44'	0.01   0.01	12 <sup>h</sup> 47 <sup>m</sup>	84° 44'	0.01   0.01	12 <sup>h</sup> 47 <sup>m</sup>	84° 44'	0.01   0.01
1	6.26	37.90	+4 -9	4.13	29.41	-5 -8	6.05	20.48	-4 +5	11.56	14.88	+3 +6
2	6.13	37.65	+1 -10	4.12	29.11	-7 -4	6.18	20.23	-2 +7	11.79	14.77	+6 +4
3	6.01	37.40	-3 -9	4.12	28.81	-7 0	6.31	19.98	+1 +7	12.02	14.67	+7 +1
4	5.89	37.15	-5 -7	4.12	28.50	-6 +4	6.45	19.74	+4 +5	12.25	14.58	+7 -2
5	5.77	36.89	-7 -3	4.13	28.20	-3 +6	6.60	19.50	+6 +3	12.48	14.49	+6 -5
6	5.65	36.63	-7 +1	4.14	27.89	0 +7	6.75	19.26	+7 0	12.72	14.41	+4 -6
7	5.54	36.37	-5 +4	4.16	27.59	+3 +6	6.90	19.03	+7 -3	12.96	14.34	+1 -7
8	5.43	36.11	-2 +6	4.18	27.28	+5 +4	7.06	18.80	+5 -5	13.20	14.27	-2 -6
9	5.33	35.84	+1 +6	4.21	26.98	+7 +2	7.22	18.58	+3 -7	13.45	14.21	-6 -3
10	5.23	35.57	+4 +5	4.24	26.68	+7 -1	7.38	18.36	0 -7	13.69	14.15	-8 0
11	5.14	35.29	+6 +3	4.28	26.38	+7 -4	7.55	18.14	-4 -5	13.94	14.10	-9 +4
12	5.05	35.01	+7 +1	4.32	26.08	+5 -6	7.72	17.93	-7 -2	14.18	14.06	-8 +8
13	4.96	34.73	+7 -2	4.36	25.78	+2 -7	7.89	17.72	-8 +2	14.43	14.02	-6 +11
14	4.88	34.45	+6 -5	4.41	25.49	-2 -7	8.07	17.52	-9 +6	14.68	13.99	-2 +12
15	4.80	34.17	+4 -7	4.46	25.19	-5 -5	8.25	17.32	-7 +9	14.93	13.96	+2 +10
16	4.73	33.88	0 -7	4.52	24.89	-7 -1	8.44	17.13	-4 +11	15.18	13.94	+6 +7
17	4.66	33.59	-3 -6	4.58	24.60	-9 +3	8.63	16.94	0 +11	15.44	13.93	+8 +1
18	4.59	33.30	-6 -4	4.65	24.31	-8 +7	8.82	16.76	+4 +8	15.69	13.92	+8 -4
19	4.53	33.01	-8 0	4.72	24.02	-6 +10	9.01	16.58	+7 +4	15.95	13.92	+7 -9
20	4.47	32.71	-9 +4	4.80	23.74	-2 +11	9.21	16.41	+8 -1	16.20	13.93	+3 -11
21	4.42	32.42	-7 +8	4.88	23.45	+2 +10	9.41	16.24	+8 -6	16.46	13.95	0 -12
22	4.37	32.12	-5 +11	4.96	23.17	+5 +7	9.61	16.08	+5 -10	16.72	13.97	-4 -10
23	4.33	31.83	-1 +11	5.05	22.89	+8 +2	9.82	15.92	+2 -11	16.97	13.99	-6 -6
24	4.29	31.53	+3 +9	5.14	22.61	+8 -3	10.03	15.77	-2 -11	17.23	14.02	-7 -2
25	4.25	31.23	+6 +5	5.24	22.34	+7 -7	10.24	15.63	-5 -8	17.48	14.06	-6 +2
26	4.22	30.93	+8 0	5.34	22.06	+4 -10	10.45	15.49	-7 -4	17.74	14.10	-4 +5
27	4.19	30.63	+8 -5	5.45	21.79	0 -11	10.67	15.36	-7 0	18.00	14.15	-1 +6
28	4.17	30.33	+6 -8	5.56	21.52	-3 -9	10.89	15.23	-6 +4	18.26	14.21	+2 +6
29	4.15	30.02	+2 -10	5.67	21.26	-6 -6	11.11	15.11	-3 +6	18.51	14.27	+5 +4
30	4.14	29.72	-1 -10	5.79	21.00	-7 -2	11.33	14.99	0 +7	18.77	14.34	+7 +2
31	4.13	29.41	-5 -8	5.92	20.74	-7 +2	11.56	14.88	+3 +6	19.03	14.42	+7 -1
32				6.05	20.48	-4 +5				19.29	14.50	+7 -4

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-84° 44' 10"	10.900	-10.854	-84° 44' 30"	10.911	-10.866
20	10.906	-10.860	40	10.917	-10.871

$$\alpha_{1929.0} = 12^h 47^m 19.77$$

$$\delta_{1929.0} = -84^\circ 44' 17''.69$$

\*) Tag der doppelten unteren Kulmination: Okt. 3

Se) Octantis 20 G. 6<sup>m</sup>.52

Tag	Januar			Februar			März			April		
	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder
	14 <sup>h</sup> 50 <sup>m</sup>	—	in	14 <sup>h</sup> 51 <sup>m</sup>	—	in	14 <sup>h</sup> 51 <sup>m</sup>	—	in	14 <sup>h</sup> 51 <sup>m</sup>	—	in
	87° 51'	0.01 0.01		87° 51'	0.01 0.01		87° 51'	0.01 0.01		87° 51'	0.01 0.01	
1	57.31	31.12	- 2 - 11	17.23	30.71	- 13 + 1	35.07	34.91	- 11 + 4	50.65	43.47	+ 10 + 8
2	57.90	31.01	- 9 - 9	17.90	30.79	- 9 + 5	35.66	35.13	- 6 + 6	51.04	43.79	+ 14 + 6
3	58.50	30.92	- 13 - 5	18.56	30.87	- 4 + 7	36.24	35.35	0 + 8	51.43	44.12	+ 15 + 3
4	59.10	30.83	- 14 - 1	19.22	30.96	+ 2 + 8	36.82	35.58	+ 6 + 8	51.81	44.46	+ 14 - 1
5	59.71	30.75	- 12 + 3	19.88	31.06	+ 8 + 8	37.40	35.81	+ 11 + 7	52.18	44.79	+ 10 - 4
6	60.33	30.67	- 8 + 6	20.54	31.16	+ 13 + 6	37.97	36.05	+ 15 + 5	52.55	45.12	+ 3 - 7
7	60.95	30.60	- 2 + 8	21.20	31.26	+ 15 + 3	38.53	36.29	+ 15 + 1	52.91	45.46	- 4 - 8
8	61.57	30.53	+ 4 + 8	21.86	31.37	+ 15 0	39.09	36.54	+ 13 - 2	53.26	45.80	- 13 - 7
9	62.19	30.47	+ 10 + 7	22.51	31.49	+ 12 - 4	39.64	36.79	+ 8 - 6	53.60	46.13	- 19 - 4
10	62.82	30.42	+ 14 + 5	23.17	31.61	+ 6 - 7	40.19	37.04	+ 1 - 8	53.93	46.47	- 22 0
11	63.46	30.37	+ 15 + 2	23.82	31.74	- 1 - 8	40.73	37.30	- 8 - 8	54.26	46.82	- 19 + 4
12	64.10	30.33	+ 14 - 1	24.47	31.87	- 11 - 7	41.27	37.56	- 15 - 6	54.57	47.17	- 13 + 8
13	64.74	30.29	+ 10 - 5	25.12	32.01	- 18 - 5	41.80	37.82	- 20 - 3	54.88	47.51	- 4 + 10
14	65.38	30.26	+ 2 - 7	25.77	32.16	- 22 - 1	42.32	38.09	- 21 + 2	55.18	47.86	+ 6 + 9
15	66.02	30.24	- 7 - 8	26.41	32.31	- 21 + 4	42.84	38.36	- 17 + 6	55.47	48.21	+ 15 + 7
16	66.67	30.22	- 15 - 6	27.05	32.46	- 15 + 8	43.35	38.64	- 10 + 9	55.75	48.56	+ 20 + 2
17	67.32	30.20	- 21 - 3	27.69	32.62	- 7 + 10	43.86	38.92	0 + 10	56.02	48.91	+ 21 - 3
18	67.97	30.19	- 23 + 1	28.32	32.79	+ 3 + 10	44.36	39.20	+ 8 + 9	56.29	49.27	+ 17 - 7
19	68.63	30.19	- 20 + 6	28.95	32.96	+ 12 + 8	44.85	39.48	+ 17 + 5	56.55	49.62	+ 10 - 10
20	69.29	30.20	- 13 + 9	29.58	33.13	+ 18 + 4	45.34	39.77	+ 20 + 1	56.80	49.97	+ 2 - 11
21	69.95	30.21	- 3 + 11	30.21	33.31	+ 20 - 1	45.82	40.06	+ 19 - 4	57.04	50.33	- 6 - 10
22	70.61	30.23	+ 7 + 10	30.83	33.49	+ 17 - 6	46.30	40.36	+ 14 - 8	57.27	50.69	- 12 - 7
23	71.27	30.25	+ 15 + 6	31.45	33.68	+ 11 - 9	46.77	40.66	+ 6 - 11	57.49	51.05	- 15 - 3
24	71.93	30.28	+ 20 + 2	32.06	33.88	+ 3 - 11	47.23	40.96	- 2 - 10	57.70	51.41	- 14 + 1
25	72.59	30.31	+ 20 - 4	32.67	34.08	- 5 - 10	47.68	41.26	- 9 - 9	57.91	51.77	- 11 + 5
26	73.26	30.35	+ 16 - 8	33.28	34.28	- 11 - 8	48.12	41.57	- 14 - 5	58.10	52.13	- 5 + 7
27	73.92	30.39	+ 9 - 11	33.88	34.48	- 14 - 4	48.56	41.88	- 15 - 1	58.29	52.49	+ 1 + 8
28	74.58	30.44	+ 1 - 11	34.48	34.69	- 14 0	48.99	42.19	- 13 + 3	58.46	52.85	+ 7 + 8
29	75.25	30.50	- 6 - 10	35.07	34.91	- 11 + 4	49.42	42.51	- 9 + 6	58.63	53.21	+ 12 + 7
30	75.91	30.56	- 12 - 7				49.84	42.83	- 3 + 8	58.79	53.57	+ 15 + 4
31	76.57	30.63	- 14 - 3				50.25	43.15	+ 4 + 8	58.94	53.93	+ 15 0
32	77.23	30.71	- 13 + 1				50.65	43.47	+ 10 + 8			

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-87° 51' 30"	26.759	-26.740	-87° 51' 50"	26.829	-26.810
40	26.794	-26.775	60	26.864	-26.845

$$\alpha_{1929.0} = 14^{\text{h}} 51^{\text{m}} 30^{\text{s}}.56$$

$$\delta_{1929.0} = -87^{\circ} 51' 49''.23$$



Se) Octantis 20 G. 6<sup>m</sup>.52

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	α Glieder	AR.	Dekl.	α Glieder	AR.	Dekl.	α Glieder	AR.	Dekl.	α Glieder
	in			in			in			in		
	<sup>h</sup> 14 51 <sup>m</sup>	<sup>°</sup> 87° 51'	<sup>°</sup> 0.01   0.01	<sup>h</sup> 14 51 <sup>m</sup>	<sup>°</sup> 87° 52'	<sup>°</sup> 0.01   0.01	<sup>h</sup> 14 51 <sup>m</sup>	<sup>°</sup> 87° 52'	<sup>°</sup> 0.01   0.01	<sup>h</sup> 14 51 <sup>m</sup>	<sup>°</sup> 87° 52'	<sup>°</sup> 0.01   0.01
1	58.94	53.93	+15 0	58.89	5.17	-16 - 6	50.69	13.63	-23 + 5	30.13	18.26	+ 7 + 10
2	59.08	54.29	+12 - 3	58.74	5.50	-21 - 2	50.30	13.85	-17 + 9	35.60	18.32	+15 + 7
3	59.21	54.65	+ 6 - 6	58.58	5.82	-23 + 2	49.90	14.07	- 9 + 11	35.07	18.38	+19 + 2
4	59.33	55.01	- 2 - 7	58.41	6.14	-20 + 6	49.49	14.28	+ 2 + 11	34.54	18.43	+19 - 4
5	{ 59.45 59.55	{ 55.38 55.74	{ -10 - 7 -18 - 5	58.23	6.46	-13 + 9	49.08	14.49	+11 + 9	34.01	18.48	+14 - 8
6	59.65	56.10	-22 - 1	58.04	6.78	- 3 + 11	48.67	14.70	+18 + 4	33.47	18.52	+ 7 - 11
7	59.73	56.46	-22 + 3	57.84	7.09	+ 7 + 9	48.25	14.90	+20 - 1	32.93	18.55	- 2 - 11
8	59.81	56.82	-17 + 7	57.64	7.40	+16 + 6	47.82	15.10	+18 - 6	32.39	18.58	- 9 - 9
9	59.88	57.18	- 8 + 10	57.42	7.71	+21 + 1	47.39	15.29	+11 - 10	31.85	18.60	-13 - 6
10	59.94	57.54	+ 2 + 10	57.20	8.02	+21 - 4	46.95	15.48	+ 4 - 12	31.31	18.62	-14 - 2
11	59.99	57.90	+11 + 8	56.97	8.32	+17 - 8	46.51	15.66	- 4 - 11	30.77	18.63	-11 + 2
12	60.03	58.26	+19 + 4	56.73	8.62	+10 - 11	46.06	15.84	-10 - 8	30.23	18.63	- 6 + 5
13	60.06	58.62	+22 - 1	56.48	8.92	+ 1 - 12	45.60	16.01	-14 - 5	29.69	18.63	0 + 7
14	60.08	58.98	+20 - 6	56.23	9.21	- 7 - 10	45.14	16.18	-13 0	29.15	18.62	+ 7 + 8
15	60.09	59.33	+14 - 10	55.97	9.50	-12 - 7	44.68	16.34	-10 + 3	28.61	18.61	+12 + 7
16	60.09	59.69	+ 6 - 12	55.70	9.79	-14 - 3	44.21	16.50	- 5 + 6	28.07	18.59	+16 + 4
17	60.08	60.04	- 3 - 11	55.42	10.07	-13 + 1	43.73	16.65	+ 2 + 8	27.53	18.57	+17 + 1
18	60.07	60.40	-10 - 9	55.13	10.35	- 9 + 5	43.25	16.79	+ 8 + 8	26.99	18.54	+15 - 2
19	60.05	60.75	-14 - 5	54.83	10.62	- 3 + 7	42.77	16.93	+13 + 6	26.45	18.50	+10 - 5
20	60.02	61.10	-14 - 1	54.52	10.89	+ 4 + 8	42.28	17.07	+16 + 3	25.91	18.46	+ 3 - 8
21	59.98	61.45	-12 + 3	54.21	11.16	+10 + 8	41.79	17.20	+16 0	25.38	18.41	- 5 - 8
22	59.92	61.80	- 7 + 6	53.89	11.42	+14 + 6	41.29	17.33	+13 - 3	24.85	18.36	-13 - 7
23	59.86	62.14	0 + 8	53.56	11.68	+16 + 2	40.79	17.45	+ 8 - 6	24.32	18.30	-19 - 4
24	59.79	62.49	+ 6 + 8	53.23	11.94	+15 - 1	40.28	17.56	0 - 8	23.79	18.24	-22 0
25	59.71	62.83	+11 + 7	52.89	12.19	+11 - 4	39.77	17.67	- 9 - 7	23.26	18.17	-21 + 5
26	59.62	63.17	+14 + 5	52.54	12.44	+ 4 - 6	39.26	17.77	-17 - 5	22.73	18.09	-15 + 9
27	59.52	63.51	+15 + 2	52.18	12.69	- 4 - 7	38.75	17.87	-22 - 2	22.21	18.01	- 6 + 11
28	59.41	63.84	+13 - 2	51.82	12.93	-13 - 7	38.23	17.96	-23 + 3	21.69	17.92	+ 4 + 11
29	59.30	64.18	+ 8 - 5	51.45	13.17	-20 - 4	37.71	18.04	-20 + 7	21.17	17.83	+12 + 8
30	59.17	64.51	+ 1 - 7	51.07	13.40	-23 0	37.19	18.12	-13 + 11	20.66	17.73	+18 + 4
31	59.04	64.84	- 7 - 7	50.69	13.63	-23 + 5	36.66	18.19	- 3 + 12	20.15	17.63	+19 - 1
32	58.89	65.17	-16 - 6				36.13	18.26	+ 7 + 10	19.64	17.52	+16 - 6

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-87° 51' 50"	26.829	-26.810	-87° 52' 10"	26.899	-26.880
60	26.864	-26.845	20	26.934	-26.915

$$\alpha_{1929.0} = 14^h 51^m 30^s.56$$

$$\delta_{1929.0} = -87^\circ 51' 49''.23$$

Se) Octantis 20 G. 6<sup>m</sup>.52

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	in			in			in			in		
	h m	° ' "	o.oi   o.oi	h m	° ' "	o.oi   o.oi	h m	° ' "	o.oi   o.oi	h m	° ' "	o.oi   o.oi
1	19.64	17.52	+16 - 6	7.08	11.88	- 5 - 11	2.47	62.93	-14 + 2	8.29	54.28	+ 3 + 8
2	19.14	17.40	+ 9 - 10	6.77	11.63	-11 - 8	2.50	62.62	- 8 + 6	8.65	54.03	+10 + 8
3	18.64	17.28	+ 1 - 11	6.48	11.37	-15 - 4	2.54	62.31	- 2 + 8	9.03	53.78	+15 + 6
4	18.15	17.15	- 7 - 10	6.20	11.11	-15 0	2.59	62.01	+ 5 + 8	9.41	53.54	+17 + 3
5	17.66	17.02	-12 - 7	5.92	10.85	-11 + 4	2.66	61.70	+11 + 7	9.80	53.30	+17 0
6	17.18	16.88	-15 - 3	5.65	10.58	- 6 + 6	2.73	61.39	+15 + 5	10.20	53.07	+13 - 4
7	16.70	16.74	-13 + 1	5.39	10.31	+ 1 + 8	2.82	61.09	+17 + 2	10.61	52.84	+ 7 - 6
8	16.22	16.59	- 9 + 5	5.15	10.04	+ 8 + 8	2.92	60.78	+15 - 2	11.03	52.61	- 1 - 7
9	15.75	16.44	- 3 + 7	4.91	9.77	+13 + 6	3.03	60.48	+11 - 5	11.46	52.39	-10 - 7
10	15.29	16.28	+ 4 + 8	4.68	9.49	+16 + 4	3.15	60.18	+ 4 - 7	11.90	52.17	-17 - 5
11	14.83	16.12	+10 + 7	4.47	9.21	+17 0	3.28	59.88	- 5 - 8	12.35	51.96	-22 - 1
12	14.38	15.95	+15 + 5	4.27	8.93	+14 - 3	3.43	59.58	-13 - 7	12.80	51.75	-23 + 3
13	13.93	15.78	+17 + 2	4.08	8.64	+ 9 - 6	3.58	59.28	-19 - 4	13.26	51.54	-20 + 7
14	13.49	15.60	+16 - 1	3.90	8.35	+ 1 - 8	3.75	58.98	-23 0	13.73	51.34	-12 + 10
15	13.05	15.41	+13 - 4	3.72	8.06	- 7 - 8	3.93	58.69	-22 + 4	14.21	51.14	- 2 + 11
16	12.62	15.22	+ 7 - 7	3.56	7.77	-15 - 6	4.12	58.39	-16 + 8	14.70	50.95	+ 8 + 10
17	12.20	15.03	- 2 - 8	3.41	7.47	-20 - 3	4.33	58.10	- 8 + 11	15.20	50.76	+16 + 6
18	11.78	14.83	-10 - 8	3.27	7.17	-22 + 1	4.54	57.81	+ 3 + 11	15.71	50.58	+20 + 1
19	11.37	14.63	-17 - 5	3.14	6.88	-20 + 6	4.76	57.52	+12 + 8	16.22	50.40	+20 - 4
20	10.97	14.42	-21 - 1	3.02	6.58	-13 + 9	5.00	57.23	+18 + 4	16.74	50.23	+16 - 9
21	10.58	14.21	-22 + 3	2.91	6.28	- 3 + 11	5.24	56.95	+21 - 1	17.26	50.06	+ 7 - 11
22	10.20	14.00	-17 + 7	2.81	5.98	+ 7 + 10	5.50	56.67	+18 - 6	17.79	49.90	- 1 - 12
23	9.82	13.78	-10 + 10	2.73	5.68	+15 + 7	5.77	56.39	+12 - 10	18.33	49.74	- 8 - 10
24	9.45	13.56	0 + 11	2.65	5.37	+20 + 2	6.04	56.12	+ 3 - 12	18.88	49.59	-14 - 6
25	9.09	13.33	+10 + 9	2.59	5.07	+19 - 3	6.33	55.85	- 5 - 11	19.43	49.45	-15 - 2
26	8.73	13.10	+17 + 6	2.54	4.77	+16 - 7	6.63	55.58	-12 - 8	19.99	49.31	-12 + 3
27	8.38	12.86	+20 + 1	2.50	4.46	+ 8 - 10	6.94	55.31	-15 - 4	20.56	49.17	- 6 + 6
28	8.04	12.62	+18 - 5	2.48	4.15	- 1 - 11	7.26	55.05	-14 0	21.13	49.04	+ 1 + 7
29	7.71	12.38	+12 - 9	2.46	3.85	- 9 - 9	7.60	54.79	-10 + 4	21.71	48.92	+ 8 + 8
30	7.39	12.13	+ 4 - 11	2.45	3.54	-14 - 6	7.94	54.53	- 4 + 7	22.29	48.80	+14 + 6
31	7.08	11.88	- 5 - 11	2.45	3.24	-16 - 2	8.29	54.28	+ 3 + 8	22.88	48.69	+17 + 4
32				2.47	2.93	-14 + 2				23.47	48.59	+18 0

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-87° 51' 40"	26.794	-26.775	-87° 51' 50"	26.829	-26.810	-87° 52' 10"	26.899	-26.880
50	26.829	-26.810	60	26.864	-26.845	20	26.934	-26.915

$$\alpha_{1929.0} = 14^{\text{h}} 51^{\text{m}} 30^{\text{s}}.56$$

$$\delta_{1929.0} = -87^{\circ} 51' 49''.23$$

\*) Tag der doppelten unteren Kulmination: Nov. 4

# Scheinbare Sternörter 1929

211\*

Obere Kulmination Greenwich

Sj) Octantis 26 G. 6<sup>m</sup>.13

Tag	Januar			Februar			März			April		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	16 <sup>h</sup> 33 <sup>m</sup>	86° 14'	in o.oi   o.oi	16 <sup>h</sup> 33 <sup>m</sup>	86° 14'	in o.oi   o.oi	16 <sup>h</sup> 33 <sup>m</sup>	86° 14'	in o.oi   o.oi	16 <sup>h</sup> 34 <sup>m</sup>	86° 14'	in o.oi   o.oi
1	37.67	19.90	+ 4 - 11	47.82	14.91	- 8 - 2	58.91	14.51	- 8 + 1	10.76	18.53	+ 1 + 9
2	37.94	19.67	0 - 10	48.20	14.83	- 7 + 2	59.31	14.57	- 7 + 5	11.11	18.73	+ 5 + 8
3	38.21	19.45	- 4 - 8	48.59	14.75	- 5 + 6	59.71	14.64	- 4 + 8	11.46	18.93	+ 7 + 6
4	38.49	19.23	- 7 - 4	48.97	14.68	- 3 + 8	60.11	14.71	0 + 9	11.80	19.14	+ 8 + 2
5	38.77	19.02	- 8 0	49.35	14.61	+ 1 + 9	60.51	14.79	+ 3 + 9	12.14	19.35	+ 7 - 2
6	39.05	18.81	- 7 + 4	49.74	14.54	+ 4 + 8	60.91	14.87	+ 6 + 7	12.48	19.56	+ 5 - 6
7	39.34	18.60	- 5 + 7	50.13	14.48	+ 7 + 6	61.31	14.95	+ 8 + 4	12.81	19.78	+ 1 - 9
8	39.63	18.40	- 2 + 9	50.51	14.43	+ 8 + 3	61.71	15.04	+ 8 0	13.14	20.00	- 4 - 9
9	39.93	18.20	+ 2 + 9	50.90	14.38	+ 8 - 1	62.10	15.13	+ 7 - 4	13.47	20.22	- 9 - 8
10	40.23	18.00	+ 5 + 8	51.30	14.34	+ 6 - 5	62.49	15.23	+ 4 - 7	13.79	20.45	- 12 - 5
11	40.54	17.81	+ 7 + 5	51.69	14.30	+ 2 - 8	62.89	15.33	- 1 - 9	14.11	20.68	- 13 0
12	40.85	17.63	+ 8 + 2	52.09	14.27	- 3 - 9	63.28	15.44	- 6 - 9	14.43	20.91	- 11 + 5
13	41.17	17.45	+ 7 - 2	52.49	14.24	- 8 - 8	63.67	15.55	- 10 - 7	14.74	21.15	- 8 + 8
14	41.49	17.28	+ 4 - 6	52.88	14.22	- 12 - 5	64.06	15.67	- 12 - 3	15.05	21.39	- 1 + 10
15	41.81	17.11	0 - 9	53.28	14.20	- 13 - 1	64.45	15.79	- 11 + 2	15.36	21.63	+ 5 + 9
16	42.14	16.94	- 5 - 9	53.68	14.19	- 12 + 4	64.84	15.92	- 10 + 6	15.66	21.88	+ 10 + 6
17	42.47	16.78	- 10 - 7	54.08	14.18	- 9 + 8	65.22	16.05	- 5 + 10	15.96	22.13	+ 13 + 2
18	42.80	16.62	- 13 - 3	54.48	14.18	- 3 + 10	65.61	16.19	+ 1 + 10	16.26	22.38	+ 13 - 3
19	43.14	16.46	- 13 + 1	54.88	14.19	+ 3 + 10	65.99	16.33	+ 7 + 9	16.55	22.64	+ 10 - 7
20	43.48	16.31	- 11 + 6	55.29	14.20	+ 8 + 7	66.37	16.47	+ 11 + 5	16.84	22.90	+ 6 - 10
21	43.83	16.16	- 7 + 10	55.69	14.21	+ 11 + 3	66.75	16.62	+ 13 0	17.12	23.17	+ 1 - 10
22	44.18	16.02	- 1 + 11	56.09	14.23	+ 12 - 2	67.12	16.77	+ 11 - 5	17.40	23.43	- 3 - 9
23	44.53	15.89	+ 5 + 9	56.50	14.26	+ 10 - 6	67.49	16.93	+ 8 - 9	17.68	23.70	- 7 - 6
24	44.89	15.76	+ 10 + 6	56.90	14.29	+ 7 - 10	67.86	17.09	+ 4 - 10	17.95	23.97	- 8 - 2
25	45.25	15.64	+ 13 + 1	57.30	14.32	+ 2 - 11	68.23	17.25	- 1 - 10	18.22	24.24	- 8 + 2
26	45.61	15.52	+ 12 - 4	57.70	14.36	- 2 - 9	68.60	17.42	- 5 - 8	18.48	24.52	- 6 + 6
27	45.97	15.40	+ 10 - 8	58.11	14.41	- 6 - 7	68.96	17.60	- 8 - 5	18.74	24.80	- 3 + 8
28	46.33	15.29	+ 6 - 10	58.51	14.46	- 8 - 3	69.33	17.78	- 8 0	18.99	25.08	0 + 9
29	46.70	15.19	+ 1 - 10	58.91	14.51	- 8 + 1	69.69	17.96	- 7 + 4	19.24	25.36	+ 3 + 9
30	47.07	15.09	- 3 - 9				70.05	18.14	- 5 + 7	19.49	25.65	+ 6 + 7
31	47.45	15.00	- 7 - 6				70.41	18.33	- 2 + 9	19.73	25.94	+ 8 + 4
32	47.82	14.91	- 8 - 2				70.76	18.53	+ 1 + 9			

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-86° 14' 10"	15.233	-15.201	-86° 14' 20"	15.245	-15.212
20	15.245	-15.212	30	15.256	-15.223

$$\alpha_{1929.0} = 16^h 34^m 3^s.12$$

$$\delta_{1929.0} = -86^\circ 14' 28''.33$$

S/) Octantis 26 G. 6<sup>m</sup>.13

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	⊙ Glieder	AR.	Dekl.	⊙ Glieder	AR.	Dekl.	⊙ Glieder	AR.	Dekl.	⊙ Glieder
	16 <sup>h</sup> 34 <sup>m</sup>	86° 14'	in ⊙.01 ⊙.01	16 <sup>h</sup> 34 <sup>m</sup>	86° 14'	in ⊙.01 ⊙.01	16 <sup>h</sup> 34 <sup>m</sup>	86° 14'	in ⊙.01 ⊙.01	16 <sup>h</sup> 34 <sup>m</sup>	86° 14'	in ⊙.01 ⊙.01
1	19.73	25.94	+ 8 + 4	24.86	36.04	- 6 - 9	24.61	45.57	-15 0	19.41	53.18	- 1 + 11
2	19.97	26.23	+ 8 0	24.93	36.37	-11 - 7	24.51	45.86	-14 + 4	19.17	53.36	+ 5 + 9
3	20.20	26.53	+ 6 - 4	25.00	36.70	-13 - 3	24.41	46.15	-10 + 8	18.93	53.54	+10 + 6
4	20.42	26.82	+ 2 - 7	25.06	37.03	-14 + 1	24.31	46.44	- 4 + 11	18.69	53.72	+12 0
5	20.64	27.12	- 2 - 9	25.11	37.35	-11 + 6	24.20	46.73	+ 2 + 11	18.44	53.89	+12 - 5
6	20.86	27.42	- 7 - 9	25.16	37.68	- 7 + 9	24.08	47.01	+ 8 + 8	18.19	54.05	+ 9 - 9
7	21.08	27.72	-11 - 6	25.21	38.00	0 + 10	23.96	47.29	+12 + 3	17.94	54.21	+ 4 - 11
8	21.29	28.03	-13 - 2	25.25	38.33	+ 6 + 9	23.84	47.57	+13 - 2	17.68	54.36	0 - 11
9	21.49	28.33	-12 + 3	25.28	38.67	+11 + 6	23.71	47.84	+12 - 7	17.42	54.51	- 4 - 8
10	21.69	28.64	- 9 + 7	25.31	39.00	+13 + 1	23.57	48.11	+ 8 - 10	17.16	54.65	- 7 - 5
11	21.89	28.95	- 3 + 10	25.33	39.32	+13 - 4	23.43	48.38	+ 3 - 11	16.89	54.79	- 7 0
12	22.08	29.26	+ 3 + 10	25.35	39.65	+11 - 8	23.29	48.65	- 2 - 10	16.62	54.92	- 6 + 4
13	22.26	29.58	+ 9 + 8	25.36	39.97	+ 6 - 11	23.14	48.91	- 5 - 7	16.35	55.05	- 3 + 7
14	22.44	29.89	+12 + 4	25.37	40.29	+ 1 - 11	22.98	49.17	- 7 - 3	16.08	55.17	0 + 9
15	22.62	30.20	+14 - 1	25.37	40.62	- 3 - 9	22.82	49.43	- 7 + 1	15.81	55.29	+ 3 + 9
16	22.79	30.52	+12 - 6	25.36	40.94	- 7 - 5	22.66	49.68	- 5 + 5	15.53	55.40	+ 7 + 7
17	22.95	30.84	+ 9 - 9	25.35	41.26	- 8 - 1	22.49	49.93	- 2 + 8	15.25	55.51	+ 9 + 5
18	23.11	31.16	+ 4 - 11	25.33	41.58	- 7 + 3	22.31	50.17	+ 1 + 9	14.96	55.61	+ 9 + 1
19	23.27	31.48	- 1 - 10	25.31	41.89	- 5 + 6	22.13	50.41	+ 4 + 9	14.68	55.71	+ 8 - 3
20	23.42	31.80	- 5 - 7	25.28	42.21	- 2 + 8	21.95	50.65	+ 7 + 7	14.39	55.80	+ 5 - 6
21	23.56	32.12	- 8 - 4	25.25	42.52	+ 2 + 9	21.76	50.88	+ 9 + 4	14.10	55.89	+ 1 - 9
22	23.70	32.45	- 8 + 1	25.21	42.83	+ 5 + 8	21.57	51.11	+ 9 0	13.81	55.97	- 4 - 9
23	23.83	32.77	- 7 + 4	25.17	43.14	+ 7 + 6	21.37	51.34	+ 7 - 4	13.51	56.04	- 9 - 8
24	23.95	33.10	- 4 + 7	25.12	43.45	+ 8 + 2	21.17	51.56	+ 3 - 7	13.22	56.11	-13 - 4
25	24.07	33.43	- 1 + 9	25.06	43.76	+ 8 - 2	20.96	51.78	- 1 - 9	12.92	56.17	-14 0
26	24.19	33.75	+ 3 + 9	25.00	44.07	+ 5 - 5	20.75	51.99	- 7 - 9	12.62	56.23	-13 + 5
27	24.30	34.08	+ 6 + 8	24.93	44.37	+ 1 - 8	20.54	52.20	-11 - 7	12.32	56.28	- 9 + 9
28	24.40	34.41	+ 8 + 5	24.86	44.67	- 4 - 9	20.32	52.40	-14 - 3	12.02	56.32	- 3 + 11
29	24.50	34.73	+ 8 + 1	24.78	44.97	- 9 - 8	20.10	52.60	-14 + 2	11.72	56.36	+ 3 + 10
30	24.60	35.06	+ 7 - 3	24.70	45.27	-13 - 5	19.87	52.80	-12 + 7	11.42	56.39	+ 8 + 7
31	<sup>24.69</sup> 24.78	<sup>35.38</sup> 35.71	<sup>+ 4 - 6</sup> <sup>- 1 - 9</sup>	24.61	45.57	-15 0	19.64	52.99	- 7 + 10	11.11	56.42	+11 + 3
32	24.86	36.04	- 6 - 9				19.41	53.18	- 1 + 11	10.81	56.44	+12 - 2

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
-86° 14' 20"	15.245	-15.212	-86° 14' 40"	15.267	-15.234	-86° 14' 50"	15.278	-15.246
30	15.256	-15.223	50	15.278	-15.246	60	15.290	-15.257

$$\alpha_{1929,0} = 16^{\text{h}} 34^{\text{m}} 3^{\text{s}}.12$$

$$\delta_{1929,0} = -86^{\circ} 14' 28''.33$$

Sf) Octantis 26 G. 6<sup>m</sup>.13

Tag	September			Oktober			November			Dezember		
	Alt.	Dekl.	α Glieder	Alt.	Dekl.	α Glieder	Alt.	Dekl.	α Glieder	Alt.	Dekl.	α Glieder
	16 <sup>h</sup> 34 <sup>m</sup>	86° 14'	in 0.01   0.01	16 <sup>h</sup> 33 <sup>m</sup>	86° 14'	in 0.01   0.01	16 <sup>h</sup> 33 <sup>m</sup>	86° 14'	in 0.01   0.01	16 <sup>h</sup> 33 <sup>m</sup>	86° 14'	in 0.01   0.01
1	10.81	56.44	+12 - 2	62.00	54.43	+ 2 - 11	55.78	47.58	- 8 - 1	55.03	38.55	- 2 + 8
2	10.51	56.46	+10 - 7	61.74	54.27	- 2 - 10	55.66	47.30	- 7 + 3	55.11	38.25	+ 2 + 9
3	10.21	56.47	+ 6 - 10	61.48	54.11	- 6 - 7	55.55	47.02	- 4 + 7	55.20	37.94	+ 5 + 9
4	9.90	56.47	+ 1 - 11	61.22	53.95	- 8 - 3	55.44	46.74	- 1 + 9	55.29	37.64	+ 8 + 6
5	9.60	56.47	- 3 - 9	60.97	53.78	- 8 + 1	55.34	46.45	+ 3 + 9	55.39	37.34	+ 9 + 3
6	9.29	56.46	- 7 - 6	60.72	53.61	- 6 + 5	55.25	46.16	+ 6 + 8	55.50	37.04	+ 9 - 1
7	8.99	56.45	- 8 - 2	60.47	53.43	- 3 + 8	55.16	45.87	+ 8 + 5	55.61	36.74	+ 6 - 4
8	8.69	56.43	- 7 + 2	60.23	53.24	+ 1 + 9	55.08	45.58	+ 9 + 2	55.73	36.44	+ 3 - 7
9	8.39	56.41	- 5 + 6	59.99	53.05	+ 4 + 9	55.01	45.28	+ 8 - 2	55.85	36.14	- 2 - 9
10	8.08	56.38	- 1 + 8	59.76	52.85	+ 7 + 7	54.94	44.99	+ 5 - 6	55.98	35.85	- 7 - 8
11	7.78	56.34	+ 2 + 9	59.53	52.65	+ 9 + 4	54.88	44.69	+ 1 - 8	56.12	35.56	- 11 - 6
12	7.48	56.30	+ 6 + 8	59.30	52.45	+ 9 0	54.82	44.39	- 4 - 9	56.27	35.27	- 14 - 2
13	7.18	56.25	+ 8 + 6	59.08	52.24	+ 7 - 4	54.77	44.09	- 9 - 8	56.42	34.98	- 14 + 3
14	6.87	56.20	+ 9 + 2	58.86	52.03	+ 4 - 7	54.73	43.79	- 12 - 5	56.58	34.69	- 12 + 7
15	6.57	56.14	+ 9 - 1	58.64	51.82	0 - 9	54.70	43.48	- 14 - 1	56.74	34.40	- 7 + 10
16	6.27	56.08	+ 7 - 5	58.43	51.60	- 5 - 9	54.67	43.17	- 13 + 4	56.91	34.12	0 + 11
17	5.97	56.01	+ 3 - 8	58.22	51.38	- 10 - 7	54.65	42.86	- 9 + 8	57.09	33.84	+ 6 + 9
18	5.67	55.93	- 2 - 9	58.02	51.15	- 13 - 3	54.63	42.55	- 3 + 11	57.27	33.56	+ 11 + 6
19	5.38	55.85	- 7 - 9	57.83	50.92	- 13 + 1	54.62	42.25	+ 3 + 11	57.46	33.29	+ 13 0
20	5.09	55.76	- 11 - 6	57.64	50.68	- 11 + 6	54.62	41.94	+ 8 + 8	57.65	33.02	+ 12 - 5
21	4.80	55.67	- 13 - 2	57.45	50.44	- 7 + 9	54.63	41.63	+ 12 + 3	57.85	32.75	+ 9 - 9
22	4.51	55.57	- 13 + 3	57.27	50.20	- 1 + 11	54.64	41.32	+ 13 - 2	58.06	32.48	+ 5 - 11
23	4.22	55.47	- 10 + 7	57.10	49.95	+ 5 + 10	54.66	41.01	+ 11 - 7	58.27	32.21	0 - 11
24	3.93	55.36	- 5 + 10	56.93	49.70	+ 10 + 7	54.68	40.71	+ 7 - 10	58.49	31.95	- 5 - 8
25	3.65	55.24	+ 1 + 11	56.76	49.45	+ 12 + 2	54.71	40.40	+ 2 - 11	58.71	31.69	- 7 - 5
26	3.37	55.12	+ 6 + 9	56.60	49.19	+ 12 - 4	54.75	40.09	- 3 - 10	58.94	31.44	- 8 0
27	3.09	54.99	+ 10 + 5	56.45	48.93	+ 9 - 8	54.79	39.78	- 7 - 7	59.17	31.19	- 6 + 4
28	2.81	54.86	+ 12 0	56.30	48.67	+ 4 - 10	54.84	39.47	- 8 - 3	59.41	30.94	- 3 + 7
29	2.54	54.72	+ 11 - 5	56.16	48.40	0 - 11	54.90	39.16	- 8 + 2	59.66	30.70	+ 1 + 9
30	2.27	54.58	+ 7 - 9	56.03	48.13	- 5 - 9	54.96	38.86	- 5 + 6	59.91	30.46	+ 4 + 9
31	2.00	54.43	+ 2 - 11	55.90	47.86	- 8 - 5	55.03	38.55	- 2 + 8	60.16	30.22	+ 7 + 7
32				55.78	47.58	- 8 - 1				60.42	29.99	+ 9 + 4

δ	sec δ	tg δ	δ	sec δ	tg δ
-86° 14' 30'	15.256	-15.223	-86° 14' 50''	15.278	-15.246
40	15.267	-15.234	60	15.290	-15.257

$$\alpha_{1929.0} = 16^{\text{h}} 34^{\text{m}} 3^{\text{s}}.12$$

$$\delta_{1929.0} = -86^{\circ} 14' 28''.33$$

\*) Tag der doppelten unteren Kulmination: Nov. 30

Scheinbare Sternörter 1929  
Obere Kulmination GreenwichSg)  $\chi$  Octantis 5<sup>m</sup>.22

Tag	Januar			Februar			März			April		
	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder
	18 <sup>h</sup> 12 <sup>m</sup>	—	in	18 <sup>h</sup> 12 <sup>m</sup>	—	in	18 <sup>h</sup> 13 <sup>m</sup>	—	in	18 <sup>h</sup> 13 <sup>m</sup>	—	in
	87° 39'	0.01 0.01		87° 39'	0.01 0.01		87° 39'	0.01 0.01		87° 39'	0.01 0.01	
1	37.98	45.55	+13 - 9	49.08	36.90	-10 - 4	4.78	32.05	-12 - 1	24.69	30.91	- 4 + 9
2	38.21	45.23	+ 6 -10	49.57	36.67	-12 0	5.40	31.94	-12 + 2	25.33	30.95	+ 1 + 9
3	38.44	44.92	- 1 - 9	50.07	36.45	-12 + 4	6.02	31.84	-10 + 6	25.97	31.00	+ 6 + 8
4	38.68	44.62	- 7 - 6	50.57	36.23	- 9 + 7	6.65	31.74	- 7 + 8	26.61	31.05	+10 + 5
5	38.93	44.31	-11 - 3	51.07	36.01	- 5 + 9	7.28	31.64	- 2 + 9	27.25	31.10	+12 0
6	39.19	44.00	-12 + 1	51.58	35.79	0 + 9	7.91	31.55	+ 4 + 9	27.88	31.16	+11 - 4
7	39.46	43.70	-11 + 5	52.10	35.58	+ 6 + 8	8.54	31.47	+ 9 + 7	28.52	31.22	+ 7 - 8
8	39.74	43.40	- 8 + 8	52.62	35.38	+10 + 6	9.18	31.39	+12 + 3	29.15	31.29	0 -10
9	40.03	43.09	- 3 + 9	53.15	35.18	+12 + 1	9.81	31.31	+12 - 1	29.78	31.36	- 7 -11
10	40.33	42.79	+ 2 + 9	53.69	34.98	+12 - 3	10.45	31.24	+10 - 5	30.41	31.44	-14 - 8
11	40.64	42.50	+ 7 + 7	54.23	34.79	+ 8 - 7	11.09	31.18	+ 4 - 9	31.03	31.52	-18 - 4
12	40.96	42.21	+11 + 4	54.77	34.60	+ 2 -10	11.73	31.12	- 2 -11	31.66	31.61	-18 + 1
13	41.29	41.92	+12 0	55.32	34.41	- 6 -11	12.37	31.06	-10 -10	32.28	31.70	-15 + 6
14	41.63	41.63	+10 - 4	55.88	34.23	-13 - 9	13.02	31.01	-16 - 7	32.90	31.80	- 8 + 9
15	41.97	41.34	+ 5 - 8	56.44	34.05	-18 - 5	13.66	30.96	-19 - 2	33.51	31.90	+ 2 +11
16	42.32	41.05	- 2 -10	57.01	33.88	-19 0	14.31	30.92	-18 + 3	34.12	32.00	+10 +10
17	42.68	40.77	-10 -10	57.58	33.71	-17 + 5	14.96	30.88	-13 + 7	34.73	32.11	+17 + 6
18	43.05	40.49	-16 - 8	58.16	33.55	-11 + 9	15.60	30.85	- 5 +10	35.33	32.22	+20 + 1
19	43.43	40.21	-20 - 3	58.74	33.39	- 2 +10	16.25	30.82	+ 4 +10	35.93	32.34	+20 - 3
20	43.82	39.94	-20 + 2	59.33	33.24	+ 7 +10	16.90	30.80	+12 + 8	36.53	32.46	+15 - 7
21	44.21	39.67	-15 + 7	59.92	33.09	+14 + 7	17.55	30.78	+17 + 4	37.12	32.59	+ 8 - 9
22	44.62	39.40	- 7 +10	60.51	32.94	+18 + 2	18.21	30.77	+19 - 1	37.71	32.72	+ 1 -10
23	45.03	39.14	+ 2 +10	61.11	32.80	+19 - 2	18.86	30.76	+17 - 5	38.30	32.85	- 6 - 8
24	45.45	38.88	+11 + 9	61.71	32.67	+16 - 7	19.51	30.75	+12 - 8	38.88	32.99	-11 - 5
25	45.88	38.62	+17 + 5	62.32	32.54	+10 - 9	20.16	30.75	+ 5 -10	39.45	33.14	-13 - 1
26	46.31	38.36	+20 0	62.93	32.41	+ 3 -10	20.81	30.76	- 2 - 9	40.02	33.29	-12 + 3
27	46.75	38.11	+19 - 4	63.54	32.28	- 4 - 8	21.45	30.77	- 8 - 7	40.59	33.44	-10 + 7
28	47.20	37.86	+14 - 8	64.16	32.16	- 9 - 5	22.10	30.79	-12 - 3	41.16	33.59	- 6 + 9
29	47.66	37.62	+ 8 - 9	64.78	32.05	-12 - 1	22.75	30.81	-13 + 1	41.72	33.75	0 + 9
30	48.13	37.38	+ 1 - 9				23.40	30.84	-12 + 5	42.27	33.92	+ 5 + 9
31	48.60	37.14	- 5 - 7				24.04	30.87	- 8 + 8	42.82	34.09	+ 9 + 6
32	49.08	36.90	-10 - 4				24.69	30.91	- 4 + 9			

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-87° 39' 30"	24.475	-24.454	-87° 39' 40"	24.504	-24.483
40	24.504	-24.483	50	24.533	-24.513

$$\alpha_{1929.0} = 18^{\text{h}} 13^{\text{m}} 20^{\text{s}}.60$$

$$\delta_{1929.0} = -87^{\circ} 39' 43''.13$$

## Obere Kulmination Greenwich

Sg)  $\gamma$  Octantis 5<sup>m</sup>.22

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder
	18 <sup>h</sup> 13 <sup>m</sup>	87° 39'	—	18 <sup>h</sup> 13 <sup>m</sup>	87° 39'	—	18 <sup>h</sup> 14 <sup>m</sup>	87° 39'	—	18 <sup>h</sup> 13 <sup>m</sup>	87° 39'	—
			in			in			in			in
			o.oI o.oI			o.oI o.oI			o.oI o.oI			o.oI o.oI
1	42.82	34.09	+ 9 + 6	56.89	41.08	+ 4 - 9	3.45	50.33	-20 - 5	61.13	59.60	- 8 +10
2	43.36	34.26	+11 + 2	57.24	41.36	- 3 -10	3.51	50.65	-22 0	60.91	59.87	+ 2 +11
3	43.90	34.44	+11 - 2	57.57	41.63	-11 -10	3.56	50.96	-19 + 5	60.68	60.14	+11 + 9
4	44.44	34.62	+ 9 - 6	57.89	41.91	-17 - 8	3.60	51.27	-12 + 9	60.45	60.40	+17 + 5
5	44.97	34.81	+ 2 -10	58.20	42.19	-20 - 3	3.64	51.59	- 3 +11	60.21	60.66	+20 - 1
6	45.49	35.00	- 5 -11	58.51	42.47	-20 + 2	3.67	51.90	+ 7 +10	59.96	60.92	+18 - 5
7	46.01	35.19	-12 -10	58.81	42.76	-15 + 6	3.69	52.21	+15 + 7	59.69	61.18	+13 - 9
8	46.52	35.38	-17 - 6	59.10	43.04	- 7 +10	3.70	52.52	+20 + 2	59.42	61.43	+ 6 -10
9	47.03	35.58	-19 - 1	59.38	43.33	+ 3 +11	3.70	52.83	+21 - 2	59.14	61.68	- 1 - 9
10	47.53	35.78	-17 + 4	59.66	43.62	+12 + 9	3.69	53.14	+17 - 7	58.86	61.92	- 6 - 6
11	48.03	35.99	-11 + 8	59.93	43.92	+19 + 6	3.67	53.45	+11 - 9	58.57	62.16	-10 - 3
12	48.52	36.20	- 2 +11	60.19	44.21	+22 + 1	3.64	53.76	+ 4 -10	58.27	62.40	-11 + 2
13	49.00	36.41	+ 7 +10	60.44	44.51	+20 - 4	3.60	54.06	- 3 - 8	57.96	62.63	- 9 + 6
14	49.48	36.63	+15 + 8	60.68	44.81	+15 - 8	3.55	54.37	- 8 - 5	57.64	62.86	- 5 + 8
15	49.95	36.85	+20 + 4	60.91	45.11	+ 8 -10	3.50	54.67	-11 - 1	57.32	63.09	0 +10
16	50.42	37.08	+21 - 1	61.13	45.41	+ 1 -10	3.44	54.98	-10 + 3	56.99	63.31	+ 5 + 9
17	50.88	37.31	+18 - 6	61.34	45.71	- 5 - 7	3.37	55.28	- 8 + 7	56.65	63.53	+ 9 + 7
18	51.33	37.54	+12 - 9	61.55	46.01	-10 - 4	3.28	55.58	- 4 + 9	56.31	63.75	+12 + 4
19	51.77	37.77	+ 4 -10	61.74	46.32	-12 0	3.18	55.88	+ 1 +10	55.96	63.96	+13 0
20	52.21	38.01	- 3 - 9	61.93	46.62	-11 + 4	3.07	56.18	+ 6 + 9	55.60	64.17	+11 - 4
21	52.64	38.25	- 9 - 6	62.11	46.93	- 8 + 7	2.96	56.48	+10 + 6	55.23	64.37	+ 7 - 8
22	53.06	38.49	-12 - 2	62.27	47.24	- 3 + 9	2.84	56.77	+12 + 3	54.86	64.56	0 -10
23	53.48	38.74	-12 + 2	62.43	47.54	+ 2 + 9	2.71	57.06	+12 - 1	54.48	64.75	- 8 -10
24	53.89	38.99	-11 + 5	62.58	47.85	+ 7 + 8	2.57	57.35	+ 9 - 6	54.10	64.94	-15 - 9
25	54.29	39.24	- 7 + 8	62.72 62.85	48.16 48.47	+10 +5 +12 +1	2.42	57.64	+ 3 - 9	53.71	65.13	-20 - 4
26	54.68	39.50	- 2 + 9	62.97	48.78	+10 - 3	2.26	57.93	- 4 -11	53.32	65.31	-21 + 1
27	55.07	39.75	+ 3 + 9	63.08	49.09	+ 7 - 7	2.09	58.22	-12 -10	52.92	65.48	-18 + 6
28	55.45	40.01	+ 8 + 7	63.19	49.40	0 -10	1.92	58.50	-19 - 7	52.51	65.65	-11 + 9
29	55.82	40.27	+11 + 4	63.28	49.71	- 7 -11	1.74	58.78	-22 - 3	52.09	65.81	- 2 +11
30	56.18	40.54	+11 0	63.37	50.02	-14 - 9	1.54	59.06	-21 + 3	51.67	65.97	+ 7 +10
31	56.54	40.81	+ 9 - 5	63.45	50.33	-20 - 5	1.34	59.33	-16 + 7	51.24	66.13	+14 + 6
32	56.89	41.08	+ 4 - 9				1.13	59.60	- 8 +10	50.81	66.28	+18 + 1

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-87° 39' 30"	24.475	-24.454	-87° 39' 50"	24.533	-24.513	-87° 39' 60"	24.562	-24.542
40	24.504	-24.483	60	24.562	-24.542	70	24.591	-24.571

$\alpha_{1929,0} = 18^h 13^m 20^s.60$

$\delta_{1929,0} = -87^\circ 39' 43''.13$

Sg)  $\chi$  Octantis 5<sup>m</sup>.22

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	$\alpha$ Glieder	AR.	Dekl.	$\alpha$ Glieder	AR.	Dekl.	$\alpha$ Glieder	AR.	Dekl.	$\alpha$ Glieder
	18 <sup>h</sup> 13 <sup>m</sup>	—	in	18 <sup>h</sup> 13 <sup>m</sup>	—	in	18 <sup>h</sup> 13 <sup>m</sup>	—	in	18 <sup>h</sup> 13 <sup>m</sup>	—	in
	87° 40'	0.01   0.01		87° 40'	0.01   0.01		87° 39'	0.01   0.01		87° 39'	0.01   0.01	
1	50.81	6.28	+18 + 1	36.49	8.17	+10 - 9	22.49	64.57	-12 - 3	14.93	56.74	- 8 + 7
2	50.38	6.42	+18 - 4	36.00	8.14	+ 3 -10	22.12	64.37	-12 + 1	14.83	56.43	- 3 + 9
3	49.94	6.56	+14 - 8	35.50	8.11	- 4 - 9	21.75	64.16	-11 + 5	14.73	56.12	+ 2 +10
4	49.50	6.69	+ 8 -10	35.01	8.07	- 9 - 6	21.39	63.95	- 7 + 8	14.64	55.81	+ 7 + 9
5	49.06	6.82	+ 1 -10	34.52	8.02	-12 - 3	21.04	63.73	- 1 +10	14.57	55.50	+11 + 6
6	48.61	6.94	- 6 - 8	34.03	7.97	-12 + 3	20.70	63.51	+ 4 +10	14.50	55.18	+13 + 2
7	48.16	7.06	-10 - 4	33.54	7.91	- 9 + 6	20.36	63.28	+ 8 + 8	14.45	54.86	+12 - 2
8	47.70	7.17	-12 0	33.05	7.85	- 5 + 9	20.03	63.05	+12 + 5	14.40	54.55	+ 8 - 6
9	47.24	7.28	-10 + 4	32.57	7.78	+ 1 +10	19.71	62.81	+13 + 1	14.37	54.23	+ 2 - 9
10	46.77	7.38	- 7 + 7	32.09	7.70	+ 6 + 9	19.40	62.57	+11 - 4	14.35	53.91	- 5 -10
11	46.30	7.48	- 2 + 9	31.61	7.62	+10 + 7	19.10	62.33	+ 7 - 8	14.34	53.59	-12 -10
12	45.83	7.57	+ 3 +10	31.13	7.53	+13 + 3	18.81	62.08	0 -10	14.34	53.27	-18 - 7
13	45.35	7.65	+ 8 + 8	30.66	7.44	+13 - 1	18.52	61.83	- 7 -11	14.35	52.94	-22 - 2
14	44.87	7.73	+11 + 5	30.19	7.34	+10 - 5	18.24	61.58	-14 - 9	14.37	52.62	-21 + 3
15	44.39	7.80	+13 + 2	29.72	7.23	+ 5 - 9	17.97	61.32	-19 - 5	14.40	52.30	-16 + 7
16	43.91	7.87	+12 - 3	29.26	7.11	- 2 -10	17.71	61.06	-21 0	14.44	51.97	- 8 +10
17	43.42	7.93	+ 9 - 7	28.80	6.99	- 9 -10	17.46	60.80	-18 + 5	14.50	51.64	+ 2 +11
18	42.93	7.99	+ 3 -10	28.34	6.86	-15 - 8	17.22	60.53	-11 + 9	14.56	51.32	+12 + 9
19	42.44	8.04	- 4 -11	27.89	6.73	-19 - 3	16.99	60.26	- 2 +11	14.63	50.99	+18 + 5
20	41.95	8.08	-12 -10	27.44	6.60	-19 + 2	16.76	59.98	+ 7 +10	14.71	50.67	+21 0
21	41.46	8.12	-18 - 6	27.00	6.46	-15 + 7	16.55	59.70	+15 + 7	14.81	50.34	+19 - 5
22	40.96	8.15	-21 - 1	26.56	6.31	- 8 +10	16.34	59.42	+20 + 3	14.91	50.02	+14 - 9
23	40.47	8.17	-19 + 4	26.13	6.16	+ 1 +11	16.15	59.13	+20 - 2	15.03	49.69	+ 6 -10
24	39.98	8.19	-13 + 8	25.70	6.01	+10 + 9	15.96	58.84	+16 - 7	15.16	49.37	- 1 - 9
25	39.48	8.21	- 5 +11	25.28	5.85	+17 + 5	15.78	58.55	+10 -10	15.30	49.04	- 7 - 7
26	38.98	8.22	+ 4 +11	24.86	5.69	+19 0	15.61	58.25	+ 2 -10	15.44	48.72	-11 - 2
27	38.48	8.22	+12 + 8	24.45	5.51	+18 - 5	15.45	57.95	- 5 - 9	15.60	48.40	-11 + 2
28	37.98	8.22	+17 + 4	24.04	5.33	+13 - 8	15.31	57.65	-10 - 5	15.77	48.08	- 9 + 6
29	37.48	8.21	+19 - 2	23.64	5.15	+ 6 -10	15.18	57.35	-12 - 1	15.95	47.76	- 5 + 9
30	36.98	8.19	+16 - 6	23.25	4.96	- 2 -10	15.05	57.05	-11 + 4	16.14	47.44	+ 1 +10
31	36.49	8.17	+10 - 9	22.87	4.77	- 8 - 7	14.93	56.74	- 8 + 7	16.34	47.12	+ 6 + 9
32				22.49	4.57	-12 - 3				16.55	46.80	+10 + 7

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-87° 39' 40"	24.504	-24.483	-87° 40' 0"	24.562	-24.542
50	24.533	-24.513	10	24.591	-24.571

$$\alpha_{1929.0} = 18^{\text{h}} 13^{\text{m}} 20^{\text{s}}.60$$

$$\delta_{1929.0} = -87^{\circ} 39' 43''.13$$

\*) Tag der doppelten unteren Kulmination: Dez. 25



Sh)  $\sigma$  Octantis  $5^m.48$

Tag	Januar			Februar			März			April		
	AR.	Dekl.	$\zeta$ Glieder	AR.	Dekl.	$\zeta$ Glieder	AR.	Dekl.	$\zeta$ Glieder	AR.	Dekl.	$\zeta$ Glieder
	19 44 <sup>m</sup>	89° 11'	in 0.01 0.01	19 44 <sup>m</sup>	89° 11'	in 0.01 0.01	19 44 <sup>m</sup>	89° 11'	in 0.01 0.01	19 45 <sup>m</sup>	89° 11'	in 0.01 0.01
1	14.41	62.01	+48 - 5	27.41	51.36	-18 - 6	59.98	43.13	-28 - 4	50.80	37.34	-26 + 8
2	14.40	61.66	+31 - 8	28.27	51.03	-31 - 2	61.43	42.88	-36 0	52.58	37.23	-13 + 9
3	14.42	61.31	+11 - 8	29.15	50.71	-37 + 1	62.89	42.64	-37 + 3	54.37	37.12	+ 3 + 8
4	14.46	60.97	- 8 - 7	30.06	50.38	-36 + 4	64.37	42.40	-32 + 6	56.16	37.01	+18 + 6
5	14.54	60.62	-24 - 5	30.99	50.06	-28 + 7	65.87	42.16	-21 + 8	57.95	36.91	+30 + 3
6	14.64	60.28	-34 - 1	31.95	49.74	-16 + 9	67.38	41.93	- 6 + 9	59.75	36.81	+35 - 2
7	14.77	59.93	-38 + 2	32.93	49.42	0 + 9	68.91	41.70	+10 + 8	61.55	36.72	+32 - 6
8	14.93	59.58	-35 + 6	33.94	49.11	+16 + 7	70.45	41.47	+25 + 5	63.36	36.63	+19 -10
9	15.13	59.24	-25 + 8	34.97	48.79	+30 + 4	72.00	41.25	+34 + 1	65.17	36.55	+ 1 -11
10	15.35	58.89	-11 + 9	36.02	48.48	+36 0	73.57	41.03	+36 - 3	66.98	36.47	-20 -11
11	15.60	58.54	+ 6 + 8	37.10	48.17	+34 - 5	75.15	40.82	+29 - 7	68.79	36.40	-38 - 8
12	15.88	58.19	+21 + 6	38.19	47.87	+23 - 9	76.75	40.61	+14 -10	70.60	36.33	-48 - 3
13	16.19	57.84	+31 + 2	39.31	47.57	+ 4 -11	78.36	40.41	- 7 -11	72.42	36.27	-48 + 2
14	16.53	57.50	+35 - 2	40.46	47.27	-17 -11	79.98	40.21	-28 -10	74.23	36.21	-36 + 7
15	16.90	57.15	+29 - 7	41.62	46.97	-37 - 9	81.61	40.01	-44 - 6	76.05	36.15	-15 +10
16	17.29	56.80	+14 -10	42.81	46.67	-50 - 4	83.25	39.82	-50 - 1	77.86	36.10	+10 +11
17	17.72	56.45	- 7 -12	44.01	46.38	-52 + 1	84.90	39.63	-46 + 4	79.67	36.06	+33 + 9
18	18.17	56.11	-28 -11	45.24	46.09	-43 + 6	86.56	39.45	-30 + 9	81.49	36.02	+49 + 5
19	18.65	55.76	-46 - 7	46.48	45.80	-23 + 9	88.24	39.27	- 8 +11	83.30	35.99	+56 + 1
20	19.16	55.42	-54 - 2	47.75	45.52	+ 1 +11	89.92	39.09	+17 +10	85.12	35.96	+51 - 4
21	19.70	55.07	-51 + 3	49.04	45.24	+25 + 9	91.62	38.92	+38 + 8	86.93	35.94	+38 - 7
22	20.27	54.73	-36 + 8	50.34	44.96	+43 + 6	93.32	38.75	+51 + 3	88.74	35.92	+19 - 9
23	20.87	54.39	-13 +10	51.67	44.69	+53 + 2	95.03	38.59	+53 - 1	90.55	35.91	- 1 - 9
24	21.49	54.04	+13 +10	53.01	44.42	+52 - 3	96.76	38.43	+45 - 5	92.35	35.90	-19 - 6
25	22.13	53.70	+36 + 8	54.37	44.16	+41 - 6	98.49	38.28	+30 - 8	94.16	35.90	-32 - 3
26	22.80	53.36	+51 + 4	55.75	43.90	+24 - 8	100.22	38.13	+11 - 9	95.96	35.90	-38 + 1
27	23.50	53.02	+56 0	57.14	43.64	+ 5 - 9	101.97	37.99	- 8 - 8	97.76	35.91	-37 + 4
28	24.23	52.69	+51 - 4	58.55	43.38	-14 - 7	103.72	37.85	-25 - 5	99.55	35.92	-31 + 7
29	24.98	52.35	+37 - 7	59.98	43.13	-28 - 4	105.48	37.72	-35 - 2	101.33	35.94	-18 + 9
30	25.76	52.02	+18 - 8				107.25	37.59	-39 + 2	103.11	35.96	- 3 + 9
31	26.57	51.69	- 1 - 8				109.02	37.46	-36 + 5	104.88	35.98	+12 + 7
32	27.41	51.36	-18 - 6				110.80	37.34	-26 + 8			

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-89° 11' 30"	70.884	-70.877	-89° 11' 40"	71.128	-71.121	-89° 11' 60"	71.622	-71.615
40	71.128	-71.121	50	71.374	-71.367	70	71.872	-71.865

$$\alpha_{1929.0} = 19^h 46^m 3^s.01$$

$$\delta_{1929.0} = -89^\circ 11' 49''.82$$

\*) Tag der doppelten unteren Kulmination: Jan. 17

Sh)  $\sigma$  Octantis 5<sup>m</sup>.48

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder	AR.	Dekl.	♁ Glieder
	19 <sup>h</sup> 46 <sup>m</sup>	89° 11'	in ♁.01   ♁.01	19 <sup>h</sup> 47 <sup>m</sup>	89° 11'	in ♁.01   ♁.01	19 <sup>h</sup> 48 <sup>m</sup>	89° 11'	in ♁.01   ♁.01	19 <sup>h</sup> 48 <sup>m</sup>	89° 11'	in ♁.01   ♁.01
1	44.88	35.98	+12 + 7	35.23	39.14	+26 - 7	9.12	45.95	-23 -12	21.09	55.44	-38 + 8
2	46.65	36.01	+25 + 4	36.64	39.31	+11 -11	9.90	46.23	-43 - 9	21.01	55.74	-14 +10
3	48.41	36.05	+32 0	38.04	39.49	- 9 -12	10.66	46.50	-55 - 5	20.90	56.05	+13 +10
4	50.17	36.09	+31 - 4	39.42	39.67	-30 -11	11.40	46.78	-57 + 1	20.76	56.35	+37 + 8
5	51.91	36.13	+22 - 9	40.79	39.86	-47 - 8	12.11	47.06	-47 + 6	20.60	56.66	+52 + 3
6	53.65	36.18	+ 6 -11	42.13	40.05	-54 - 3	12.79	47.34	-26 + 9	20.41	56.96	+56 - 1
7	55.38	36.24	-14 -11	43.46	40.25	-50 + 3	13.45	47.63	0 +11	20.19	57.27	+49 - 5
8	57.11	36.30	-34 - 9	44.77	40.45	-35 + 8	14.08	47.91	+27 +10	19.94	57.57	+34 - 8
9	58.82	36.37	-48 - 5	46.06	40.65	-12 +11	14.68	48.20	+48 + 6	19.67	57.87	+14 - 9
10	60.53	36.44	-51 0	47.33	40.86	+15 +11	15.26	48.49	+58 + 2	19.36	58.17	- 6 - 7
11	62.23	36.51	-43 + 5	48.58	41.07	+39 + 9	15.81	48.78	+57 - 3	19.03	58.47	-22 - 4
12	63.92	36.59	-24 + 9	49.81	41.28	+55 + 5	16.34	49.07	+46 - 6	18.68	58.77	-32 - 1
13	65.60	36.67	+ 1 +11	51.03	41.50	+60 0	16.84	49.37	+28 - 8	18.29	59.06	-34 + 3
14	67.27	36.76	+26 +10	52.22	41.72	+54 - 4	17.31	49.66	+ 7 - 8	17.88	59.35	-29 + 7
15	68.93	36.85	+46 + 7	53.39	41.94	+39 - 7	17.76	49.96	-12 - 6	17.45	59.64	-19 + 9
16	70.58	36.95	+57 + 3	54.54	42.17	+19 - 9	18.18	50.26	-26 - 3	16.98	59.92	- 5 +10
17	72.22	37.05	+57 - 2	55.67	42.40	- 2 - 8	18.57	50.56	-33 + 1	16.49	60.21	+11 + 9
18	73.85	37.16	+47 - 6	56.77	42.63	-19 - 5	18.94	50.87	-34 + 4	15.97	60.49	+24 + 6
19	75.46	37.27	+29 - 8	57.86	42.87	-32 - 2	{19.27 19.58	{51.17 51.47}	{-27 +7 -15 +6}	15.42	60.77	+34 + 3
20	77.07	37.39	+ 8 - 9	58.92	43.11	-36 + 2	19.86	51.77	0 + 9	14.85	61.05	+38 - 2
21	78.66	37.51	-11 - 7	59.96	43.35	-34 + 5	20.12	52.08	+15 + 8	14.25	61.32	+32 - 6
22	80.24	37.64	-27 - 4	60.98	43.60	-25 + 8	20.35	52.38	+27 + 5	13.63	61.60	+18 -10
23	81.80	37.77	-36 - 1	61.98	43.85	-12 + 9	20.55	52.69	+34 + 1	12.98	61.87	- 2 -11
24	83.35	37.91	-38 + 3	62.96	44.10	+ 3 + 9	20.72	52.99	+34 - 4	12.30	62.14	-24 -11
25	84.89	38.05	-33 + 6	63.91	44.36	+18 + 7	20.86	53.30	+26 - 8	11.60	62.40	-44 - 8
26	86.41	38.19	-22 + 8	64.84	44.62	+29 + 3	20.98	53.60	+ 9 -11	10.88	62.67	-56 - 4
27	87.92	38.34	- 8 + 9	65.74	44.88	+34 - 1	21.07	53.91	-13 -12	10.13	62.93	-57 + 2
28	89.41	38.49	+ 7 + 8	66.62	45.15	+30 - 6	21.13	54.21	-34 -11	9.36	63.19	-46 + 6
29	90.89	38.65	+21 + 5	67.48	45.41	+18 -10	21.16	54.52	-52 - 7	8.56	63.45	-25 +10
30	92.35	38.81	+30 + 2	68.31	45.68	- 1 -12	21.16	54.83	-59 - 2	7.74	63.70	+ 1 +11
31	93.80	38.97	+32 - 3	69.12	45.95	-23 -12	21.14	55.13	-54 + 4	6.89	63.95	+26 + 9
32	95.23	39.14	+26 - 7				21.09	55.44	-38 + 8	6.02	64.19	+45 + 5

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-89° 11' 30"	70.884	-70.877	-89° 11' 40"	71.128	-71.121	-89° 11' 60"	71.622	-71.615
40	71.128	-71.121	50	71.374	-71.367	70	71.872	-71.865

$$\alpha_{1929.0} = 19^{\text{h}} 46^{\text{m}} 3^{\text{s}}.01$$

$$\delta_{1929.0} = -89^{\circ} 11' 49''.82$$

# Scheinbare Sternörter 1929

219\*

Obere Kulmination Greenwich

Sh)  $\sigma$  Octantis 5<sup>m</sup>.48

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	in			in			in			in		
	<sup>h</sup> <sub>19 47</sub> <sup>m</sup>	<sup>°</sup> <sub>89° 12'</sub>	<sup>o</sup> <sub>o.o1</sub> <sup>o</sup> <sub>o.o1</sub>	<sup>h</sup> <sub>19 46</sub> <sup>m</sup>	<sup>°</sup> <sub>89° 12'</sub>	<sup>o</sup> <sub>o.o1</sub> <sup>o</sup> <sub>o.o1</sub>	<sup>h</sup> <sub>19 46</sub> <sup>m</sup>	<sup>°</sup> <sub>89° 12'</sub>	<sup>o</sup> <sub>o.o1</sub> <sup>o</sup> <sub>o.o1</sub>	<sup>h</sup> <sub>19 45</sub> <sup>m</sup>	<sup>°</sup> <sub>89° 11'</sub>	<sup>o</sup> <sub>o.o1</sub> <sup>o</sup> <sub>o.o1</sub>
1	66.02	4.19	+45 + 5	90.95	9.46	+43 - 7	46.04	9.53	-24 - 5	70.17	64.13	-34 + 5
2	65.13	4.43	+53 0	89.55	9.55	+26 - 9	44.63	9.43	-34 - 2	69.28	63.87	-26 + 8
3	64.22	4.67	+50 - 4	88.14	9.64	+ 5 - 9	43.24	9.33	-36 + 2	68.41	63.61	-12 +10
4	63.28	4.90	+38 - 8	86.73	9.72	-14 - 7	41.85	9.22	-32 + 6	67.57	63.34	+ 3 + 9
5	62.32	5.13	+20 - 9	85.31	9.80	-28 - 4	40.48	9.10	-21 + 9	66.75	63.07	+18 + 8
6	61.34	5.35	0 - 8	83.88	9.87	-35 0	39.11	8.98	- 7 + 9	65.95	62.79	+29 + 4
7	60.34	5.57	-18 - 6	82.44	9.93	-35 + 4	37.75	8.85	+ 8 + 9	65.18	62.51	+34 0
8	59.32	5.79	-30 - 2	81.00	9.99	-28 + 7	36.41	8.72	+22 + 7	64.44	62.23	+33 - 4
9	58.27	6.00	-34 + 2	79.56	10.04	-16 + 9	35.08	8.58	+32 + 3	63.72	61.94	+23 - 8
10	57.21	6.21	-32 + 5	78.11	10.09	- 1 + 9	33.77	8.43	+36 - 1	63.03	61.65	+ 6 -11
11	56.12	6.41	-23 + 8	76.65	10.13	+14 + 8	32.47	8.28	+31 - 5	62.37	61.36	-15 -12
12	55.02	6.61	-10 + 9	75.18	10.16	+27 + 5	31.18	8.12	+19 - 9	61.73	61.06	-36 -10
13	53.90	6.80	+ 5 + 9	73.72	10.19	+35 + 2	29.91	7.96	+ 1 -11	61.12	60.76	-52 - 7
14	52.75	6.99	+20 + 7	72.25	10.21	+36 - 3	28.66	7.79	-20 -11	60.54	60.46	-58 - 2
15	51.59	7.18	+31 + 4	70.78	10.23	+29 - 7	27.42	7.62	-40 - 9	59.99	60.15	-53 + 4
16	50.42	7.36	+38 0	69.31	10.24	+15 -10	26.20	7.44	-52 - 5	59.46	59.84	-37 + 8
17	49.22	7.54	+36 - 4	67.84	10.24	- 5 -11	24.99	7.26	-55 + 1	58.96	59.53	-13 +11
18	48.01	7.71	+26 - 8	66.37	10.24	-26 -10	23.81	7.07	-45 + 6	58.49	59.21	+14 +11
19	46.78	7.88	+ 8 -11	64.90	10.23	-44 - 7	22.64	6.87	-25 +10	58.05	58.89	+37 + 8
20	45.54	8.04	-13 -11	63.42	10.21	-53 - 2	21.48	6.67	0 +11	57.64	58.57	+55 + 4
21	44.28	8.20	-34 - 9	61.95	10.19	-51 + 3	20.35	6.46	+26 +10	57.25	58.25	+59 - 1
22	43.01	8.35	-50 - 6	60.48	10.16	-38 + 8	19.24	6.25	+46 + 7	56.90	57.92	+51 - 5
23	41.72	8.50	-55 - 1	59.01	10.13	-16 +11	18.15	6.03	+57 + 1	56.57	57.60	+35 - 8
24	40.42	8.64	-49 + 5	57.55	10.09	+10 +11	17.07	5.81	+55 - 3	56.27	57.27	+13 - 9
25	39.10	8.77	-32 + 9	56.09	10.04	+33 + 9	16.02	5.58	+43 - 7	56.00	56.93	- 7 - 8
26	37.77	8.90	- 8 +11	54.64	9.99	+49 + 4	14.99	5.35	+24 - 9	55.76	56.60	-24 - 4
27	36.43	9.02	+17 +10	53.19	9.93	+55 - 1	13.98	5.11	+ 2 - 9	55.55	56.27	-33 0
28	35.07	9.14	+38 + 7	51.74	9.86	+49 - 5	13.00	4.87	-17 - 7	55.37	55.93	-34 + 4
29	33.71	9.25	+51 + 2	50.31	9.79	+34 - 8	12.03	4.63	-30 - 3	55.21	55.59	-28 + 7
30	32.33	9.36	+52 - 3	48.88	9.71	+13 - 9	11.09	4.38	-36 + 1	55.09	55.25	-16 + 9
31	30.95	9.46	+43 - 7	47.45	9.62	- 8 - 8	10.17	4.13	-34 + 5	55.00	54.91	- 1 +10
32				46.04	9.53	-24 - 5				54.94	54.57	+14 + 9

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-89° 11' 50"	71.374	-71.367	-89° 12' 10"	71.872	-71.865
60	71.622	-71.615	20	72.123	-72.116

$$\alpha_{1929.0} = 19^{\text{h}} 46^{\text{m}} 3^{\text{s}}.01$$

$$\delta_{1929.0} = -89^{\circ} 11' 49''.82$$

Si)  $\beta$  Octantis 4<sup>m</sup>.34

Tag	Januar			Februar			März			April		
	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder
	22 <sup>h</sup> 38 <sup>m</sup>	81° 45'	o.oi   o.oi	22 <sup>h</sup> 38 <sup>m</sup>	81° 45'	o.oi   o.oi	22 <sup>h</sup> 38 <sup>m</sup>	81° 45'	o.oi   o.oi	22 <sup>h</sup> 38 <sup>m</sup>	81° 45'	o.oi   o.oi
I	49.95	41.32	+6 +2	47.74	32.38	-1 -7	47.61	22.11	-2 -7	49.58	10.73	-4 +2
2	49.85	41.10	+5 -2	47.71	32.03	-3 -6	47.64	21.73	-3 -5	49.67	10.39	-3 +5
3	49.75	40.87	+3 -5	47.68	31.68	-4 -4	47.67	21.35	-4 -2	49.77	10.05	-2 +7
4	49.65	40.64	+1 -6	47.65	31.33	-5 -2	47.70	20.97	-5 +1	49.88	9.71	0 +7
5	49.56	40.40	-1 -7	47.62	30.98	-5 +2	47.74	20.59	-4 +4	49.98	9.38	+2 +6
6	49.46	40.15	-3 -6	47.59	30.63	-4 +4	47.78	20.21	-3 +6	50.08	9.05	+4 +3
7	49.37	39.90	-4 -4	47.56	30.28	-2 +7	47.82	19.84	-1 +7	50.19	8.72	+5 0
8	49.28	39.65	-5 0	47.54	29.92	0 +8	47.87	19.46	+1 +7	50.30	8.39	+4 -5
9	49.19	39.39	-4 +3	47.52	29.56	+2 +7	47.92	19.08	+3 +5	50.40	8.07	+3 -8
10	49.10	39.13	-3 +5	47.50	29.20	+4 +4	47.97	18.70	+4 +2	50.51	7.75	0 -11
11	49.02	38.86	-1 +7	47.48	28.84	+5 +1	48.02	18.33	+5 -2	50.63	7.43	-2 -11
12	48.94	38.59	+1 +7	47.47	28.47	+4 -4	48.07	17.95	+4 -6	50.74	7.11	-4 -9
13	48.86	38.32	+3 +6	47.46	28.10	+3 -8	48.12	17.57	+2 -9	50.86	6.80	-5 -4
14	48.78	38.04	+4 +3	47.45	27.74	+1 -11	48.18	17.20	-1 -11	50.98	6.49	-5 +1
15	48.71	37.76	+5 -1	47.44	27.37	-2 -11	48.25	16.83	-3 -10	51.10	6.19	-4 +6
16	48.63	37.47	+4 -6	47.44	27.00	-4 -10	48.31	16.46	-5 -8	51.22	5.89	-2 +10
17	48.56	37.18	+2 -10	47.44	26.63	-5 -6	48.37	16.09	-6 -3	51.34	5.59	+1 +12
18	48.49	36.88	0 -12	47.44	26.26	-6 -1	48.44	15.72	-5 +3	51.46	5.30	+4 +11
19	48.42	36.58	-3 -11	47.44	25.89	-5 +4	48.51	15.36	-3 +7	51.59	5.01	+5 +8
20	48.35	36.28	-5 -9	47.45	25.51	-2 +8	48.57	14.99	-1 +10	51.72	4.72	+6 +4
21	48.29	35.97	-6 -4	47.46	25.13	0 +11	48.64	14.62	+2 +11	51.85	4.44	+5 0
22	48.23	35.66	-5 +1	47.47	24.76	+3 +11	48.72	14.26	+4 +9	51.98	4.16	+4 -4
23	48.17	35.35	-4 +6	47.48	24.38	+5 +8	48.80	13.90	+6 +6	52.12	3.88	+2 -7
24	48.12	35.03	-1 +10	47.49	24.00	+6 +5	48.88	13.54	+6 +2	52.25	3.61	0 -7
25	48.06	34.71	+2 +11	47.51	23.62	+6 +1	48.96	13.18	+4 -2	52.39	3.34	-2 -7
26	48.01	34.39	+4 +10	47.53	23.25	+4 -3	49.04	12.83	+3 -5	52.53	3.07	-4 -5
27	47.96	34.06	+6 +8	47.55	22.87	+2 -6	49.13	12.47	+1 -7	52.66	2.81	-5 -2
28	47.91	33.73	+6 +4	47.58	22.49	0 -7	49.21	12.12	-1 -7	52.80	2.55	-5 +1
29	47.87	33.40	+5 0	47.61	22.11	-2 -7	49.30	11.77	-3 -6	52.94	2.30	-4 +4
30	47.82	33.06	+4 -4				49.39	11.42	-4 -4	53.08	2.05	-2 +6
31	47.78	32.72	+1 -6				49.48	11.07	-5 -1	53.23	1.81	0 +7
32	47.74	32.38	-1 -7				49.58	10.73	-4 +2			

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-81° 45' 0''	6.969	-6.897	-81° 45' 20''	6.974	-6.902	-81° 45' 40''	6.978	-6.906
10	6.971	-6.899	30	6.976	-6.904	50	6.981	-6.909

$$\alpha_{1929.0} = 22^{\text{h}} 38^{\text{m}} 54^{\text{s}}.56$$

$$\delta_{1929.0} = -81^{\circ} 45' 16''.94$$

\*) Tag der doppelten unteren Kulmination: März 2

Si)  $\beta$  Octantis 4<sup>m</sup>.34

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	22 <sup>h</sup> 38 <sup>m</sup>	81° 44'	in o.oi   o.oi	22 <sup>h</sup> 38 <sup>m</sup>	81° 44'	in o.oi   o.oi	22 <sup>h</sup> 39 <sup>m</sup>	81° 44'	in o.oi   o.oi	22 <sup>h</sup> 39 <sup>m</sup>	81° 45'	in o.oi   o.oi
1	53.23	61.81	0 + 7	58.14	56.53	+4 - 2	3.05	56.18	0 - 12	7.11	0.70	-6 - 4
2	53.38	61.57	+1 + 6	58.31	56.44	+4 - 6	3.20	56.25	-2 - 13	7.21	0.92	-6 + 1
3	53.52	61.33	+3 + 4	58.47	56.35	+2 - 10	3.35	56.33	-4 - 11	7.31	1.14	-4 + 6
4	53.67	61.10	+4 + 1	58.64	56.27	0 - 12	3.50	56.41	-6 - 7	7.40	1.37	-1 + 9
5	53.82	60.87	+4 - 3	58.81	56.20	-3 - 12	3.65	56.50	-6 - 2	7.50	1.60	+2 + 10
6	53.97	60.65	+3 - 8	58.98	56.13	-5 - 9	3.80	56.59	-5 + 4	7.59	1.83	+4 + 10
7	54.12	60.43	+1 - 11	59.15	56.07	-6 - 4	3.94	56.69	-2 + 8	7.68	2.06	+6 + 7
8	54.27	60.22	-1 - 12	59.31	56.01	-5 + 1	4.09	56.79	0 + 11	7.77	2.30	+6 + 3
9	54.42	60.01	-3 - 10	59.48	55.96	-4 + 7	4.24	56.90	+3 + 11	7.86	2.54	+5 - 1
10	54.58	59.80	-5 - 7	59.65	55.91	-1 + 11	4.38	57.01	+5 + 9	7.94	2.78	+3 - 4
11	54.73	59.60	-5 - 1	59.82	55.87	+2 + 12	4.53	57.13	+6 + 6	8.02	3.03	+1 - 6
12	54.88	59.40	-4 + 4	59.98	55.84	+4 + 11	4.67	57.25	+6 + 1	8.10	3.28	-1 - 6
13	55.04	59.21	-2 + 9	60.15	55.81	+6 + 8	4.80	57.38	+5 - 2	8.18	3.54	-3 - 5
14	55.20	59.02	0 + 11	60.31	55.78	+6 + 4	4.94	57.51	+2 - 5	8.25	3.80	-4 - 2
15	55.35	58.84	+3 + 12	60.48	55.76	+5 0	5.08	57.65	0 - 6	8.32	4.06	-5 + 1
16	55.51	58.66	+5 + 10	60.64	55.75	+4 - 4	5.21	57.79	-2 - 6	8.39	4.32	-4 + 4
17	55.67	58.49	+6 + 6	60.81	55.74	+1 - 6	5.34	57.94	-4 - 4	8.45	4.58	-3 + 7
18	55.83	58.32	+6 + 2	60.97	55.73	-1 - 7	5.48	58.10	-4 - 1	8.51	4.85	-1 + 8
19	55.99	58.16	+5 - 2	61.14	55.73	-3 - 6	5.61	58.26	-5 + 2	8.57	5.12	+1 + 8
20	56.15	58.01	+3 - 5	61.30	55.74	-4 - 3	5.73	58.42	-4 + 5	8.63	5.39	+3 + 7
21	56.32	57.86	0 - 7	61.47	55.75	-5 0	5.86	58.59	-2 + 7	8.68	5.67	+4 + 4
22	56.48	57.71	-2 - 7	61.63	55.77	-4 + 3	5.98	58.76	0 + 8	8.73	5.94	+5 0
23	56.65	57.57	-3 - 5	61.79	55.80	-3 + 5	6.10	58.93	+2 + 7	8.78	6.22	+4 - 5
24	56.81	57.43	-4 - 3	61.95	55.83	-2 + 7	6.22	59.11	+3 + 5	8.83	6.50	+3 - 9
25	56.98	57.30	-5 0	62.11	55.86	0 + 7	6.34	59.30	+4 + 2	8.87	6.78	0 - 11
26	57.14	57.17	-4 + 3	62.27	55.90	+2 + 6	6.46	59.49	+4 - 3	8.91	7.07	-2 - 12
27	57.31	57.05	-3 + 6	62.42	55.95	+4 + 4	6.57	59.68	+3 - 7	8.95	7.35	-5 - 10
28	57.47	56.93	-1 + 7	62.58	56.00	+4 0	6.68	59.87	+2 - 11	8.99	7.64	-6 - 6
29	57.64	56.82	+1 + 7	62.74	56.05	+4 - 5	6.79	60.07	-1 - 12	9.02	7.93	-6 - 1
30	57.80	56.72	+3 + 5	62.89	56.11	+3 - 9	6.90	60.28	-4 - 12	9.05	8.22	-5 + 4
31	57.97	56.62	+4 + 2	63.05	56.18	0 - 12	7.01	60.49	-6 - 9	9.08	8.51	-2 + 8
32	58.14	56.53	+4 - 2				7.11	60.70	-6 - 4	{ 9.10 9.12	8.80 9.09	{ 0 + 10 +3 + 10 }

$\delta$	$\sec \delta$	$\operatorname{tg} \delta$	$\delta$	$\sec \delta$	$\operatorname{tg} \delta$
-81° 44' 50"	6.967	-6.895	-81° 45' 0"	6.969	-6.897
60	6.969	-6.897	10	6.971	-6.899

$$\alpha_{1929.0} = 22^{\text{h}} 38^{\text{m}} 54^{\text{s}}.56$$

$$\delta_{1929.0} = -81^{\circ} 45' 16''.94$$

Si)  $\beta$  Octantis  $4^m.34$ 

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder	AR.	Dekl.	« Glieder
	$22^h 39^m$	$81^\circ 45'$	$\begin{matrix} \text{in} \\ \text{o.oI}   \text{o.oI} \end{matrix}$	$22^h 39^m$	$81^\circ 45'$	$\begin{matrix} \text{in} \\ \text{o.oI}   \text{o.oI} \end{matrix}$	$22^h 39^m$	$81^\circ 45'$	$\begin{matrix} \text{in} \\ \text{o.oI}   \text{o.oI} \end{matrix}$	$22^h 38^m$	$81^\circ 45'$	$\begin{matrix} \text{in} \\ \text{o.oI}   \text{o.oI} \end{matrix}$
1	$\begin{matrix} 9.10 \\ 9.12 \end{matrix}$	$\begin{matrix} 8.80 \\ 9.09 \end{matrix}$	$\begin{matrix} + \\ +3 \\ +10 \end{matrix}$	8.47	17.80	+6 +1	5.48	24.42	-1 -7	61.49	26.05	-5 -1
2	9.14	9.39	+5 +7	8.41	18.07	+5 -3	5.36	24.56	-3 -6	61.35	26.01	-5 +2
3	9.16	9.68	+6 +4	8.34	18.34	+3 -6	5.24	24.69	-4 -3	61.22	25.96	-3 +5
4	9.17	9.97	+5 -1	8.27	18.60	0 -7	5.11	24.82	-5 0	61.08	25.91	-2 +7
5	9.18	10.27	+4 -4	8.20	18.86	-2 -7	4.99	24.95	-4 +4	60.95	25.85	0 +8
6	9.19	10.57	+2 -6	8.12	19.12	-4 -5	4.86	25.07	-3 +6	60.81	25.78	+2 +7
7	9.19	10.87	0 -7	8.04	19.37	-4 -2	4.74	25.18	-1 +8	60.68	25.70	+3 +5
8	9.19	11.17	-3 -6	7.96	19.62	-5 +2	4.61	25.29	+1 +8	60.54	25.62	+4 +1
9	9.19	11.46	-4 -3	7.88	19.87	-3 +5	4.48	25.39	+2 +6	60.41	25.53	+4 -3
10	9.18	11.76	-4 0	7.80	20.11	-2 +7	4.35	25.48	+4 +4	60.28	25.44	+3 -7
11	9.17	12.05	-4 +3	7.71	20.35	-1 +8	4.21	25.57	+4 0	60.15	25.34	+1 -11
12	9.16	12.35	-3 +6	7.62	20.59	+1 +8	4.08	25.66	+4 -5	60.02	25.24	-1 -13
13	9.15	12.65	-2 +7	7.53	20.82	+3 +6	3.95	25.74	+3 -9	59.89	25.13	-3 -12
14	9.14	12.94	0 +8	7.44	21.05	+4 +3	3.81	25.81	+1 -11	59.76	25.01	-5 -9
15	9.12	13.24	+2 +7	7.35	21.27	+5 -1	3.68	25.87	-2 -12	59.64	24.89	-6 -4
16	9.10	13.53	+4 +5	7.26	21.49	+4 -6	3.54	25.93	-4 -10	59.51	24.76	-6 +1
17	9.07	13.83	+5 +1	7.16	21.71	+2 -9	3.40	25.98	-6 -7	59.38	24.63	-4 +7
18	9.04	14.12	+5 -3	7.06	21.92	0 -11	3.27	26.02	-6 -1	59.25	24.49	-1 +10
19	9.01	14.41	+3 -7	6.96	22.13	-3 -11	3.13	26.06	-5 +4	59.13	24.34	+2 +11
20	8.98	14.70	+1 -10	6.86	22.33	-5 -9	3.00	26.09	-2 +8	59.01	24.19	+4 +10
21	8.95	14.99	-1 -12	6.75	22.53	-6 -4	2.86	26.12	0 +11	58.89	24.03	+6 +7
22	8.91	15.28	-4 -11	6.64	22.73	-5 +1	2.72	26.14	+3 +11	58.77	23.87	+6 +3
23	8.87	15.57	-5 -8	6.53	22.92	-4 +6	2.58	26.16	+5 +9	58.66	23.70	+5 -2
24	8.83	15.85	-6 -3	6.42	23.11	-1 +10	2.45	26.17	+6 +5	58.54	23.52	+3 -5
25	8.78	16.13	-5 +2	6.31	23.29	+1 +11	2.31	26.17	+6 0	58.43	23.34	+1 -7
26	8.73	16.42	-3 +7	6.20	23.47	+4 +10	2.17	26.17	+5 -4	58.32	23.15	-1 -6
27	8.68	16.70	0 +10	6.08	23.64	+6 +7	2.03	26.16	+2 -6	58.21	22.96	-3 -5
28	8.63	16.98	+2 +10	5.97	23.81	+6 +3	1.90	26.14	0 -7	58.10	22.76	-4 -2
29	8.58	17.26	+5 +9	5.85	23.97	+5 -2	1.76	26.11	-2 -6	57.99	22.56	-4 +2
30	8.53	17.53	+6 +5	5.73	24.12	+3 -5	1.63	26.08	-4 -4	57.88	22.35	-4 +5
31	8.47	17.80	+6 +1	5.61	24.27	+1 -7	1.49	26.05	-5 -1	57.78	22.13	-2 +7
32				5.48	24.42	-1 -7				57.67	21.91	-1 +8

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
$-81^\circ 45' 0''$	6.969	-6.897	$-81^\circ 45' 20''$	6.974	-6.902
$10$	6.971	-6.899	$30$	6.976	-6.904

$$\alpha_{1929.0} = 22^h 38^m 54^s.56$$

$$\delta_{1929.0} = -81^\circ 45' 16''.94$$

# Scheinbare Sternörter 1929

223\*

Obere Kulmination Greenwich

 Sk)  $\tau$  Octantis  $5^m.56$ 

Tag	Januar			Februar			März			April		
	AR.	Dekl.	Glieder	AR.	Dekl.	Glieder	AR.	Dekl.	Glieder	AR.	Dekl.	Glieder
	23 <sup>h</sup> 17 <sup>m</sup>	87° 52'	<sup>o</sup> .01   <sup>o</sup> .01	23 <sup>h</sup> 17 <sup>m</sup>	87° 52'	<sup>o</sup> .01   <sup>o</sup> .01	23 <sup>h</sup> 17 <sup>m</sup>	87° 52'	<sup>o</sup> .01   <sup>o</sup> .01	23 <sup>h</sup> 17 <sup>m</sup>	87° 52'	<sup>o</sup> .01   <sup>o</sup> .01
			in			in			in			in
1	59.90	47.22	+20 + 4	47.67	38.86	+ 2 - 6	43.35	28.53	- 3 - 7	46.77	16.54	-17 + 1
2	59.42	47.03	+18 0	47.40	38.52	- 5 - 6	43.32	28.14	- 9 - 6	47.02	16.17	-15 + 4
3	58.93	46.83	+14 - 3	47.14	38.18	-11 - 5	43.31	27.75	-16 - 4	47.28	15.80	-10 + 6
4	58.45	46.62	+ 7 - 6	46.88	37.84	-16 - 3	43.30	27.36	-18 - 1	47.54	15.44	- 3 + 7
5	57.97	46.41	- 1 - 7	46.63	37.49	-17 0	43.31	26.96	-17 + 2	47.81	15.08	+ 5 + 6
6	57.50	46.19	- 8 - 6	46.39	37.14	-16 + 3	43.32	26.57	-14 + 5	48.09	14.72	+12 + 4
7	57.04	45.97	-14 - 5	46.16	36.79	-12 + 6	43.34	26.18	- 8 + 7	48.38	14.36	+17 + 1
8	56.58	45.74	-17 - 2	45.94	36.44	- 5 + 7	43.37	25.79	0 + 7	48.67	14.01	+18 - 3
9	56.13	45.50	-17 + 1	45.72	36.08	+ 3 + 7	43.41	25.39	+ 8 + 6	48.97	13.65	+15 - 7
10	55.68	45.26	-15 + 4	45.51	35.72	+11 + 5	43.46	25.00	+14 + 4	49.28	13.30	+ 9 -10
11	55.24	45.02	- 9 + 6	45.31	35.36	+16 + 2	43.52	24.61	+18 0	49.60	12.95	0 -11
12	54.81	44.77	- 2 + 7	45.13	34.99	+18 - 2	43.59	24.22	+18 - 4	49.93	12.61	- 9 - 9
13	54.38	44.52	+ 6 + 6	44.95	34.63	+16 - 6	43.67	23.83	+13 - 8	50.26	12.27	-16 - 6
14	53.96	44.26	+13 + 4	44.78	34.26	+10 -10	43.76	23.44	+ 5 -10	50.60	11.93	-20 - 1
15	53.55	43.99	+17 0	44.62	33.89	+ 1 -11	43.85	23.05	- 4 -11	50.95	11.59	-18 + 4
16	53.15	43.72	+18 - 4	44.47	33.52	- 8 -10	43.95	22.66	-12 - 8	51.30	11.25	-12 + 9
17	52.75	43.45	+14 - 8	44.33	33.14	-15 - 7	44.06	22.27	-18 - 4	51.66	10.92	- 3 +11
18	52.36	43.18	+ 6 -11	44.20	32.77	-20 - 3	44.18	21.88	-20 + 1	52.03	10.59	+ 6 +11
19	51.97	42.90	- 3 -12	44.07	32.39	-19 + 2	44.31	21.49	-16 + 6	52.40	10.26	+14 + 9
20	51.59	42.61	-11 -10	43.96	32.01	-14 + 7	44.45	21.11	- 9 + 9	52.78	9.94	+19 + 6
21	51.22	42.32	-18 - 6	43.86	31.63	- 6 +10	44.59	20.72	0 +11	53.17	9.62	+20 + 1
22	50.86	42.02	-20 - 1	43.77	31.24	+ 4 +11	44.75	20.33	+ 9 +10	53.57	9.30	+16 - 3
23	50.50	41.72	-17 + 5	43.68	30.86	+12 + 9	44.92	19.94	+16 + 7	53.97	8.99	+11 - 6
24	50.15	41.42	-10 + 9	43.60	30.48	+18 + 6	45.09	19.56	+19 + 4	54.38	8.68	+ 3 - 7
25	49.81	41.11	- 1 +11	43.53	30.09	+20 + 2	45.27	19.18	+18 0	54.80	8.38	- 5 - 7
26	49.48	40.80	+ 8 +11	43.47	29.70	+17 - 2	45.46	18.80	+14 - 4	55.22	8.08	-11 - 6
27	49.16	40.48	+15 + 9	43.42	29.31	+12 - 5	45.66	18.42	+ 8 - 6	55.65	7.78	-17 - 3
28	48.85	40.16	+19 + 5	43.38	28.92	+ 5 - 7	45.86	18.04	0 - 7	56.08	7.48	-18 0
29	48.54	39.84	+19 + 1	43.35	28.53	- 3 - 7	46.07	17.67	- 7 - 6	56.52	7.19	-16 + 2
30	48.24	39.52	+15 - 2				46.29	17.29	-13 - 5	56.97	6.90	-12 + 5
31	47.95	39.19	+ 9 - 5				46.53	16.91	-17 - 2	57.42	6.62	- 6 + 6
32	47.67	38.86	+ 2 - 6				46.77	16.54	-17 + 1			

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-87° 52' 0"	26.864	-26.845	-87° 52' 20"	26.934	-26.915	-87° 52' 40"	27.004	-26.986
10	26.899	-26.880	30	26.969	-26.950	50	27.040	-27.021

$$\alpha_{1929.0} = 23^h 18^m 7^s.66$$

$$\delta_{1929.0} = -87^\circ 52' 21''.84$$

\*) Tag der doppelten unteren Kulmination: März 12

Sk)  $\tau$  Octantis  $5^m.56$ 

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	$23^h 17^m$	$87^\circ 52'$	$0.01   0.01$	$23^h 18^m$	$87^\circ 51'$	$0.01   0.01$	$23^h 18^m$	$87^\circ 51'$	$0.01   0.01$	$23^h 18^m$	$87^\circ 52'$	$0.01   0.01$
1	57.42	6.62	- 6 + 6	13.79	60.05	+17 - 1	31.58	58.48	+10 - 11	47.72	2.01	-19 - 6
2	57.88	6.34	+ 1 + 6	14.37	59.92	+17 - 5	32.16	58.52	+ 1 - 13	48.15	2.20	-21 - 1
3	58.35	6.06	+ 9 + 5	14.96	59.79	+14 - 9	32.74	58.56	- 8 - 12	48.57	2.40	-17 + 5
4	58.82	5.79	+15 + 2	15.54	59.67	+ 7 - 12	33.31	58.60	-16 - 9	48.99	2.60	-10 + 9
5	59.29	5.53	+18 - 2	16.13	59.55	- 3 - 12	33.88	58.65	-20 - 3	49.40	2.81	0 + 11
6	59.77	5.27	+17 - 6	16.72	59.44	-11 - 10	34.45	58.71	-19 + 2	49.80	3.02	+ 9 + 10
7	60.26	5.01	+12 - 10	17.31	59.33	-17 - 6	35.02	58.77	-14 + 7	50.19	3.24	+17 + 8
8	60.75	4.75	+ 3 - 11	17.90	59.23	-20 0	35.58	58.83	- 6 + 10	50.58	3.46	+21 + 4
9	61.24	4.50	- 6 - 11	18.50	59.14	-17 + 5	36.14	58.90	+ 4 + 11	50.96	3.68	+20 0
10	61.74	4.26	-14 - 8	19.10	59.05	-11 + 10	36.70	58.98	+13 + 10	51.33	3.91	+15 - 3
11	62.25	4.02	-19 - 3	19.70	58.97	- 2 + 12	37.25	59.07	+19 + 7	51.70	4.14	+ 8 - 6
12	62.76	3.78	-19 + 2	20.30	58.89	+ 8 + 12	37.80	59.16	+21 + 3	52.05	4.37	0 - 6
13	63.27	3.55	-15 + 7	20.89	58.82	+15 + 9	38.34	59.25	+18 - 1	52.39	4.61	- 8 - 5
14	63.79	3.33	- 7 + 11	21.49	58.75	+20 + 6	38.88	59.35	+12 - 4	52.72	4.85	-14 - 3
15	64.32	3.11	+ 2 + 12	22.09	58.69	+20 + 1	39.41	59.46	+ 4 - 6	53.05	5.10	-17 0
16	64.85	2.89	+11 + 11	22.69	58.63	+16 - 3	39.94	59.57	- 3 - 6	53.37	5.35	-17 + 3
17	65.38	2.67	+17 + 8	23.29	58.58	+10 - 5	40.47	59.68	-10 - 5	53.68	5.60	-14 + 5
18	65.91	2.46	+20 + 4	23.88	58.54	+ 3 - 6	40.99	59.80	-15 - 2	53.98	5.85	- 9 + 7
19	66.45	2.26	+18 - 1	24.48	58.50	- 6 - 6	41.51	59.93	-17 0	54.28	6.11	- 2 + 8
20	67.00	2.06	+13 - 4	25.08	58.47	-12 - 4	42.02	60.06	-16 + 3	54.56	6.37	+ 6 + 7
21	67.55	1.86	+ 6 - 6	25.68	58.44	-16 - 2	42.53	60.20	-12 + 6	54.83	6.63	+13 + 5
22	68.10	1.67	- 2 - 7	26.27	58.42	-17 + 1	43.03	60.34	- 7 + 7	55.10	6.90	+17 + 1
23	68.66	1.49	- 9 - 6	26.87	58.40	-15 + 4	43.53	60.48	+ 1 + 7	55.36	7.17	+18 - 3
24	69.22	1.31	-14 - 4	27.46	58.39	-11 + 6	44.02	60.63	+ 8 + 6	55.60	7.44	+15 - 8
25	69.78	1.13	-17 - 1	28.05	58.39	- 4 + 7	44.50	60.79	+15 + 3	55.84	7.72	+ 8 - 11
26	70.35	0.96	-17 + 2	28.65	58.39	+ 3 + 6	44.98	60.95	+18 - 1	56.06	8.00	- 1 - 12
27	70.91	0.80	-14 + 4	29.24	58.40	+11 + 4	45.45	61.11	+17 - 6	56.27	8.28	-10 - 11
28	71.48	0.64	- 9 + 6	29.83	58.41	+16 + 1	45.92	61.28	+13 - 9	56.48	8.56	-17 - 8
29	72.05	0.48	- 2 + 7	30.42	58.43	+18 - 3	46.38	61.46	+ 5 - 12	56.68	8.84	-21 - 3
30	72.63	0.33	+ 6 + 6	31.00	58.45	+16 - 8	46.83	61.64	- 4 - 12	56.86	9.12	-19 + 2
31	73.21	0.19	+13 + 3	31.58	58.48	+10 - 11	47.28	61.82	-13 - 10	57.03	9.41	-13 + 7
32	73.79	0.05	+17 - 1				47.72	62.01	-19 - 6	57.20	9.70	- 4 + 10

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
$-87^\circ 51' 50''$	26.829	-26.810	$-87^\circ 52' 0''$	26.864	-26.845
60	26.864	-26.845	10	26.899	-26.880

$$\alpha_{1929.0} = 23^h 18^m 7^s.66$$

$$\delta_{1929.0} = -87^\circ 52' 21''.84$$



Obere Kulmination Greenwich

Sk)  $\tau$  Octantis 5<sup>m</sup>.56

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder	AR.	Dekl.	♄ Glieder
	23 <sup>h</sup> 18 <sup>m</sup>	87° 52'	— in 0.01 0.01	23 <sup>h</sup> 18 <sup>m</sup>	87° 52'	— in 0.01 0.01	23 <sup>h</sup> 18 <sup>m</sup>	87° 52'	— in 0.01 0.01	23 <sup>h</sup> 18 <sup>m</sup>	87° 52'	— in 0.01 0.01
1	57.20	9.70	-4 +10	57.04	19.03	+20 +2	47.12	26.63	0-7	31.41	29.49	-16 -2
2	57.36	9.99	+5 +10	56.86	19.32	+18 -2	46.67	26.81	-7-6	30.85	29.49	-18 +1
3	57.50	10.29	+14 +9	56.68	19.61	+13 -5	46.21	26.98	-13-4	30.28	29.48	-16 +4
4	57.64	10.58	+19 +5	56.49	19.89	+6 -7	45.74	27.15	-17-1	29.71	29.47	-12 +6
5	57.76	10.88	+20 +1	56.28	20.18	-3 -7	45.27	27.31	-17 +2	29.14	29.45	-5 +7
6	57.87	11.18	+17 -3	56.06	20.46	-10 -6	44.79	27.47	-15 +5	28.57	29.42	+2 +7
7	57.98	11.48	+11 -5	55.83	20.74	-15 -3	44.30	27.62	-10 +7	28.00	29.39	+9 +5
8	58.08	11.78	+3 -6	55.59	21.02	-17 0	43.81	27.76	-3 +7	27.43	29.35	+15 +2
9	58.16	12.08	-5 -6	55.35	21.29	-16 +3	43.32	27.90	+5 +7	26.86	29.30	+17 -2
10	58.23	12.39	-12 -4	55.09	21.56	-13 +6	42.82	28.04	+12 +5	26.30	29.24	+16 -6
11	58.29 58.34	12.69 12.99	-16 -2 -17 +1	54.82	21.83	-7 +7	42.31	28.17	+17 +1	25.73	29.18	+12 -10
12	58.38	13.30	-15 +4	54.54	22.10	0 +8	41.80	28.29	+18 -3	25.17	29.11	+4 -12
13	58.41	13.60	-11 +7	54.26	22.36	+7 +6	41.29	28.41	+16 -7	24.60	29.04	-5 -12
14	58.42	13.90	-5 +8	53.97	22.62	+14 +4	40.77	28.53	+10 -10	24.04	28.96	-13 -10
15	58.42	14.21	+3 +7	53.66	22.88	+17 0	40.24	28.64	+1 -12	23.48	28.87	-19 -6
16	58.42	14.51	+10 +6	53.34	23.13	+18 -4	39.71	28.74	-8 -11	22.92	28.78	-21 0
17	58.41	14.82	+16 +3	53.01	23.38	+14 -8	39.18	28.83	-16 -8	22.36	28.68	-17 +5
18	58.38	15.13	+18 -1	52.67	23.63	+7 -11	38.64	28.92	-20 -3	21.81	28.57	-10 +9
19	58.34	15.43	+17 -6	52.33	23.87	-2 -11	38.10	29.00	-20 +2	21.26	28.46	0 +11
20	58.29	15.74	+12 -9	51.98	24.11	-11 -10	37.55	29.07	-15 +7	20.72	28.34	+9 +11
21	58.23	16.05	+3 -11	51.62	24.34	-18 -6	37.00	29.14	-6 +11	20.18	28.22	+17 +8
22	58.16	16.35	-6 -11	51.25	24.57	-21 -1	36.45	29.21	+4 +12	19.64	28.09	+21 +4
23	58.08	16.65	-14 -9	50.87	24.80	-18 +4	35.90	29.27	+13 +10	19.10	27.95	+20 0
24	57.99	16.95	-19 -4	50.48	25.02	-11 +9	35.35	29.32	+19 +7	18.56	27.81	+15 -4
25	57.89	17.25	-20 +1	50.09	25.24	-2 +11	34.79	29.36	+21 +2	18.03	27.66	+8 -6
26	57.77	17.55	-16 +6	49.69	25.45	+7 +10	34.23	29.40	+18 -2	17.50	27.51	-1 -6
27	57.65	17.85	-8 +9	49.28	25.66	+15 +8	33.67	29.43	+12 -5	16.98	27.35	-9 -5
28	57.51	18.15	+1 +10	48.86	25.86	+20 +4	33.11	29.46	+4 -7	16.46	27.18	-14 -3
29	57.37	18.45	+11 +9	48.43	26.06	+20 0	32.54	29.48	-4 -7	15.95	27.01	-17 0
30	57.21	18.74	+18 +7	48.00	26.26	+16 -4	31.98	29.49	-11 -5	15.44	26.83	-17 +3
31	57.04	19.03	+20 +2	47.56	26.45	+9 -7	31.41	29.49	-16 -2	14.93	26.65	-14 +6
32				47.12	26.63	0-7				14.43	26.46	-8 +8

$\delta$	sec $\delta$	tg $\delta$	$\delta$	sec $\delta$	tg $\delta$
-87° 52' 0"	26.864	-26.845	-87° 52' 20"	26.934	-26.915
10	26.899	-26.880	30	26.969	-26.950

$\alpha_{1929.0} = 23^h 18^m 7^s.66$

$\delta_{1929.0} = -87^\circ 52' 21''.84$

Scheinbare Koordinaten für 12<sup>h</sup> Sternzeit Greenwich

Tag	BD +89° 1		BD +89° 3		BD +89° 37		CPD -89° 38		Kurzperiod. Mondgl. *)	
	Gr. 10.56		Gr. 9.06		Gr. 10.06		Gr. 9.5			
1929	x	y	x	y	x	y	x	y	in 0.0r	
Jan. 0	-73.52	+71.96	+127.94	+856.15	-856.41	-350.40	-275.16	-307.91	-11	-5
1	73.53	71.62	127.93	855.81	856.42	350.74	275.02	308.22	-8	-8
2	73.54	71.27	127.92	855.46	856.43	351.09	274.88	308.53	-4	-10
3	73.54	70.93	127.92	855.12	856.43	351.43	274.73	308.84	0	-9
4	73.53	70.59	127.92	854.78	856.43	351.77	274.57	309.15	+4	-7
5	-73.52	+70.25	+127.93	+854.44	-856.42	-352.11	-274.41	-309.46	+6	-3
6	73.50	69.91	127.95	854.10	856.40	352.45	274.24	309.77	+7	+1
7	73.47	69.58	127.98	853.77	856.37	352.78	274.07	310.07	+6	+4
8	73.44	69.24	128.01	853.44	856.34	353.12	273.89	310.37	+5	+7
9	73.40	68.90	128.05	853.10	856.30	353.46	273.70	310.67	+2	+9
10	-73.36	+68.56	+128.10	+852.77	-856.26	-353.80	-273.51	-310.97	-1	+9
11	73.31	68.23	128.15	852.44	856.21	354.13	273.31	311.26	-4	+8
12	73.25	67.90	128.21	852.11	856.16	354.46	273.11	311.55	-6	+5
13	73.19	67.57	128.27	851.78	856.10	354.79	272.90	311.83	-7	+1
14	73.12	67.24	128.34	851.45	856.03	355.12	272.69	312.12	-6	-4
15	-73.04	+66.92	+128.42	+851.12	-855.95	-355.44	-272.47	-312.40	-3	-8
16	72.96	66.59	128.50	850.80	855.87	355.77	272.24	312.68	0	-10
17	72.87	66.27	128.59	850.48	855.78	356.09	272.01	312.96	+5	-10
18	72.77	65.95	128.68	850.16	855.68	356.41	271.78	313.23	+9	-8
19	72.67	65.63	128.78	849.84	855.58	356.73	271.54	313.50	+11	-4
20	-72.56	+65.32	+128.89	+849.53	-855.47	-357.04	-271.29	-313.77	+11	+1
21	72.44	65.01	129.00	849.22	855.35	357.35	271.04	314.03	+9	+6
22	72.32	64.70	129.12	848.92	855.23	357.66	270.78	314.29	+6	+9
23	72.20	64.40	129.25	848.61	855.11	357.97	270.52	314.55	0	+10
24	72.07	64.09	129.38	848.31	854.98	358.27	270.26	314.80	-5	+9
25	-71.93	+63.79	+129.51	+848.01	-854.84	-358.57	-269.99	-315.05	-9	+6
26	71.79	63.50	129.65	847.71	854.70	358.87	269.72	315.30	-11	+1
27	71.64	63.20	129.80	847.42	854.55	359.17	269.44	315.54	-11	-4
28	71.49	62.91	129.96	847.13	854.39	359.46	269.16	315.78	-8	-8
29	71.33	62.62	130.12	846.84	854.23	359.75	268.87	316.02	-5	-10
30	-71.16	+62.34	+130.29	+846.56	-854.06	-360.03	-268.58	-316.25	-1	-10
31	70.99	62.06	130.46	846.28	853.89	360.31	268.28	316.48	+3	-8
Febr. 1	70.81	61.79	130.63	846.00	853.71	360.58	267.98	316.70	+5	-5
2	70.63	61.52	130.81	845.73	853.53	360.85	267.67	316.92	+7	-1
3	70.44	61.25	131.00	845.46	853.34	361.12	267.37	317.13	+6	+3
4	-70.25	+60.99	+131.19	+845.20	-853.15	-361.39	-267.06	-317.34	+5	+6
5	70.05	60.73	131.39	844.94	852.95	361.65	266.74	317.55	+3	+9
6	-69.85	+60.47	+131.59	+844.69	-852.75	-361.91	-266.42	-317.75	0	+10
Mittl. Ort	-58.95	+79.34	+142.46	+863.55	-841.82	-343.05	-249.32	-309.23		

Die Werte von  $x$  und  $y$  enthalten nicht die kurzperiodischen Mondglieder.

\*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Scheinbare Koordinaten für 12<sup>h</sup> Sternzeit Greenwich

Tag	BD +89° 1		BD +89° 3		BD +89° 37		CPD -89° 38		Kurzperiod. Mondgl.*)
	Gr. 10.56		Gr. 9.06		Gr. 10.06		Gr. 9.5		
1929	<i>x</i>	<i>y</i>	<i>x</i>	<i>y</i>	<i>x</i>	<i>y</i>	<i>x</i>	<i>y</i>	in o.oi
Febr. 6	-69.85	+60.47	+131.59	+844.69	-852.75	-361.91	-266.42	-317.75	0 +10
7	69.64	60.22	131.80	844.44	852.54	362.16	266.10	317.95	- 3 + 9
8	69.43	59.97	132.01	844.19	852.33	362.41	265.77	318.14	- 6 + 6
9	69.21	59.73	132.23	843.95	852.11	362.65	265.44	318.33	- 7 + 2
10	68.99	59.49	132.45	843.71	851.89	362.89	265.11	318.51	- 7 - 2
11	-68.76	+59.26	+132.68	+843.48	-851.66	-363.13	-264.77	-318.69	- 5 - 6
12	68.53	59.03	132.91	843.26	851.43	363.36	264.43	318.87	- 2 -10
13	68.29	58.81	133.15	843.04	851.19	363.58	264.09	319.04	+ 3 -11
14	68.05	58.59	133.39	842.82	850.95	363.80	263.74	319.21	+ 7 - 9
15	67.81	58.38	133.63	842.61	850.71	364.01	263.39	319.37	+10 - 6
16	-67.56	+58.17	+133.88	+842.40	-850.46	-364.22	-263.04	-319.53	+11 - 1
17	67.31	57.97	134.13	842.20	850.21	364.42	262.69	319.68	+10 + 4
18	67.06	57.77	134.38	842.00	849.96	364.62	262.33	319.83	+ 7 + 8
19	66.80	57.58	134.64	841.81	849.70	364.81	261.97	319.97	+ 2 +10
20	66.53	57.39	134.91	841.62	849.44	365.00	261.61	320.11	- 3 +10
21	-66.27	+57.21	+135.17	+841.44	-849.17	-365.18	-261.24	-320.25	- 8 + 7
22	66.00	57.04	135.44	841.27	848.90	365.35	260.87	320.38	-10 + 3
23	65.73	56.87	135.71	841.10	848.63	365.52	260.50	320.50	-11 - 2
24	65.45	56.71	135.99	840.94	848.36	365.68	260.13	320.62	- 9 - 6
25	65.17	56.55	136.27	840.78	848.08	365.84	259.76	320.74	- 6 - 9
26	-64.89	+56.40	+136.55	+840.63	-847.80	-365.99	-259.39	-320.85	- 2 -10
27	64.60	56.25	136.84	840.48	847.51	366.14	259.01	320.95	+ 2 - 9
28	64.31	56.11	137.13	840.34	847.22	366.28	258.63	321.05	+ 5 - 6
März 1	64.02	55.98	137.42	840.21	846.93	366.41	258.25	321.15	+ 6 - 2
2	63.73	55.85	137.71	840.08	846.64	366.54	257.87	321.24	+ 7 + 2
3	-63.43	+55.73	+138.00	+839.96	-846.34	-366.66	-257.48	-321.33	+ 6 + 5
4	63.14	55.61	138.30	839.84	846.05	366.78	257.10	321.41	+ 4 + 8
5	62.84	55.50	138.59	839.73	845.75	366.89	256.71	321.49	+ 1 + 9
6	62.54	55.40	138.89	839.63	845.45	366.99	256.33	321.56	- 2 + 9
7	62.24	55.30	139.19	839.53	845.15	367.09	255.94	321.62	- 5 + 7
8	-61.94	+55.21	+139.49	+839.44	-844.85	-367.18	-255.55	-321.68	- 6 + 4
9	61.63	55.12	139.80	839.35	844.54	367.27	255.16	321.74	- 7 0
10	61.32	55.04	140.11	839.27	844.23	367.35	254.77	321.79	- 6 - 5
11	61.02	54.97	140.41	839.20	843.92	367.42	254.37	321.84	- 3 - 8
12	60.71	54.91	140.72	839.14	843.61	367.49	253.98	321.88	+ 1 -10
13	-60.40	+54.85	+141.03	+839.08	-843.30	-367.55	-253.59	-321.92	+ 5 -10
14	60.09	54.79	141.34	839.02	842.99	367.60	253.19	321.95	+ 8 - 7
15	-59.78	+54.74	+141.65	+838.97	-842.68	-367.65	-252.80	-321.98	+10 - 3
Mittl. Ort	-58.95	+79.34	+142.46	+863.55	-841.82	-343.05	-249.32	-309.23	

Die Werte von *x* und *y* enthalten nicht die kurzperiodischen Mondglieder.

\*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Scheinbare Koordinaten für 12<sup>h</sup> Sternzeit Greenwich

Tag	BD +89° 1		BD +89° 3		BD +89° 37		CPD -89° 38		Kurzperiod. Mondgl. *)	
	Gr. 10.56		Gr. 9.06		Gr. 10.06		Gr. 9.5			
1929	x	y	x	y	x	y	x	y	in a.o.	
März 15	-59.78	+54.74	+141.65	+838.97	-842.68	-367.65	-252.80	-321.98	+10	-3
16	59.47	54.70	141.96	838.93	842.37	367.69	252.41	322.00	+10	+2
17	59.16	54.66	142.27	838.89	842.05	367.73	252.01	322.01	+8	+7
18	58.84	54.63	142.59	838.86	841.74	367.76	251.62	322.02	+3	+10
19	58.53	54.61	142.90	838.84	841.43	367.78	251.22	322.03	-2	+11
20	-58.22	+54.60	+143.21	+838.83	-841.11	-367.80	-250.82	-322.03	-6	+9
21	57.90	54.59	143.53	838.82	840.80	367.81	250.43	322.03	-10	+5
22	57.59	54.59	143.84	838.82	840.49	367.81	250.03	322.02	-11	0
23	57.28	54.59	144.15	838.82	840.17	367.81	249.64	322.01	-10	-5
	56.97	54.60	144.46	838.83	839.86	367.80	249.25	321.99	-7	-8
24	-56.66	+54.61	+144.77	+838.84	-839.55	-367.79	-248.85	-321.97	-3	-10
25	56.35	54.63	145.08	838.86	839.24	367.77	248.46	321.94	+1	-9
26	56.04	54.66	145.39	838.89	838.93	367.74	248.07	321.91	+4	-7
27	55.74	54.69	145.69	838.92	838.63	367.71	247.67	321.87	+6	-4
28	55.43	54.73	146.00	838.96	838.32	367.67	247.28	321.82	+7	0
29	-55.12	+54.78	+146.31	+839.01	-838.01	-367.62	-246.89	-321.77	+7	+4
30	54.81	54.83	146.62	839.06	837.70	367.57	246.50	321.72	+5	+7
31	54.51	54.89	146.92	839.12	837.40	367.51	246.11	321.67	+2	+9
April 1	54.21	54.95	147.22	839.18	837.10	367.45	245.73	321.61	-1	+9
2	53.91	55.02	147.52	839.25	836.80	367.38	245.34	321.54	-3	+8
3	-53.61	+55.09	+147.82	+839.32	-836.50	-367.31	-244.96	-321.47	-6	+5
4	53.32	55.17	148.11	839.40	836.21	367.23	244.57	321.39	-7	+1
5	53.02	55.26	148.41	839.49	835.91	367.14	244.19	321.31	-6	-3
6	52.73	55.35	148.70	839.58	835.62	367.05	243.81	321.22	-4	-7
7	52.44	55.45	148.99	839.68	835.33	366.95	243.43	321.13	-1	-10
8	-52.15	+55.56	+149.28	+839.79	-835.04	-366.84	-243.05	-321.03	+4	-11
9	51.86	55.67	149.56	839.90	834.75	366.73	242.67	320.93	+7	-9
10	51.58	55.78	149.84	840.01	834.47	366.62	242.30	320.83	+10	-5
11	51.30	55.90	150.12	840.13	834.19	366.50	241.93	320.72	+10	0
12	51.03	56.03	150.40	840.26	833.92	366.37	241.56	320.61	+9	+5
13	-50.75	+56.16	+150.67	+840.39	-833.64	-366.24	-241.19	-320.49	+5	+9
14	50.48	56.30	150.94	840.53	833.37	366.10	240.83	320.37	0	+11
15	50.21	56.44	151.21	840.67	833.10	365.96	240.46	320.24	-5	+10
16	49.94	56.59	151.48	840.82	832.83	365.81	240.10	320.11	-9	+7
17	49.68	56.74	151.74	840.97	832.57	365.66	239.74	319.97	-11	+2
18	-49.42	+56.90	+152.00	+841.13	-832.31	-365.50	-239.38	-319.83	-11	-3
19	49.17	57.06	152.25	841.29	832.06	365.34	239.03	319.69	-9	-7
20	-48.92	+57.23	+152.50	+841.46	-831.81	-365.17	-238.68	-319.54	-5	-9
Mittl. Ort	-58.95	+79.34	+142.46	+863.55	-841.82	-343.05	-249.32	-309.23		

Die Werte von  $x$  und  $y$  enthalten nicht die kurzperiodischen Mondglieder.

\*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Scheinbare Koordinaten für 12<sup>h</sup> Sternzeit Greenwich

Tag	BD +89° 1		BD +89° 3		BD +89° 37		CPD -89° 38		Kurzperiod. Mondgl. *)	
	Gr. 10.56		Gr. 9.06		Gr. 10.06		Gr. 9.5			
1929	<i>x</i>	<i>y</i>	<i>x</i>	<i>y</i>	<i>x</i>	<i>y</i>	<i>x</i>	<i>y</i>	in 0.01	
April 20	-48.92	+57.23	+152.50	+841.46	-831.81	-365.17	-238.68	-319.54	- 5	- 9
21	48.67	57.40	152.75	841.64	831.56	364.99	238.33	319.39	+ 1	-10
22	48.43	57.58	152.99	841.82	831.32	364.81	237.99	319.23	+ 3	- 8
23	48.19	57.76	153.23	842.00	831.08	364.63	237.64	319.07	+ 6	- 5
24	47.95	57.95	153.47	842.18	830.84	364.45	237.30	318.90	+ 7	- 1
25	-47.72	+58.14	+153.70	+842.37	-830.61	-364.26	-236.97	-318.73	+ 7	+ 3
26	47.49	58.34	153.93	842.57	830.38	364.06	236.63	318.56	+ 6	+ 6
27	47.26	58.54	154.16	842.77	830.15	363.86	236.30	318.38	+ 3	+ 9
28	47.04	58.75	154.38	842.97	829.93	363.65	235.97	318.20	0	+ 9
29	46.82	58.96	154.59	843.18	829.71	363.44	235.64	318.01	- 3	+ 9
30	-46.61	+59.17	+154.80	+843.39	-829.50	-363.23	-235.32	-317.82	- 5	+ 6
Mai 1	46.41	59.39	155.01	843.61	829.29	363.01	235.01	317.62	- 6	+ 3
2	46.21	59.62	155.21	843.83	829.09	362.79	234.69	317.42	- 6	- 2
3	46.01	59.84	155.41	844.06	828.90	362.56	234.38	317.22	- 5	- 6
4	45.81	60.07	155.60	844.29	828.71	362.34	234.07	317.02	- 2	- 9
5	-45.62	+60.30	+155.79	+844.52	-828.52	-362.11	-233.77	-316.81	+ 2	-10
6	45.44	60.54	155.97	844.76	828.33	361.87	233.47	316.60	+ 7	-10
7	45.26	60.78	156.15	845.00	828.14	361.63	233.17	316.38	+10	- 7
8	45.09	61.02	156.32	845.24	827.97	361.39	232.88	316.16	+11	- 2
9	44.92	61.27	156.49	845.49	827.80	361.14	232.59	315.94	+10	+ 3
10	-44.75	+61.53	+156.65	+845.75	-827.63	-360.89	-232.30	-315.71	+ 7	+ 8
11	44.59	61.78	156.81	846.00	827.47	360.63	232.02	315.48	+ 2	+10
12	44.44	62.04	156.96	846.26	827.32	360.38	231.74	315.25	- 3	+10
13	44.29	62.30	157.11	846.52	827.17	360.12	231.47	315.01	- 8	+ 8
14	44.15	62.56	157.25	846.78	827.02	359.86	231.20	314.77	-11	+ 4
15	-44.01	+62.82	+157.39	+847.04	-826.88	-359.60	-230.94	-314.53	-12	- 1
16	43.88	63.09	157.52	847.31	826.75	359.33	230.68	314.28	-10	- 6
17	43.75	63.36	157.65	847.58	826.62	359.06	230.42	314.03	+ 7	- 9
18	43.63	63.63	157.77	847.85	826.50	358.79	230.17	313.78	- 3	-10
19	43.52	63.91	157.89	848.13	826.38	358.51	229.92	313.52	+ 1	- 9
20	-43.41	+64.19	+158.00	+848.41	-826.27	-358.23	-229.68	-313.26	+ 4	- 7
21	43.30	64.47	158.11	848.69	826.17	357.95	229.44	313.00	+ 6	- 3
22	43.20	64.75	158.21	848.97	826.07	357.67	229.21	312.73	+ 7	+ 1
23	43.11	65.04	158.30	849.26	825.97	357.38	228.98	312.47	+ 6	+ 5
24	43.02	65.32	158.39	849.54	825.88	357.10	228.75	312.20	+ 4	+ 8
25	-42.93	+65.61	+158.47	+849.83	-825.80	-356.81	-228.53	-311.93	+ 1	+ 9
26	42.85	65.90	158.55	850.12	825.72	356.52	228.31	311.65	- 2	+ 9
27	-42.78	+66.19	+158.62	+850.41	-825.64	-356.23	-228.10	-311.37	- 4	+ 7
Mittl. Ort	-58.95	+79.34	+142.46	+863.55	-841.82	-343.05	-249.32	-309.23		

Die Werte von *x* und *y* enthalten **nicht** die kurzperiodischen Mondglieder.

\*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Scheinbare Koordinaten für 12<sup>h</sup> Sternzeit Greenwich

Tag	BD +89° 1		BD +89° 3		BD +89° 37		CPD -89° 38		Kurzperiod. Mondgl. *)
	Gr. 10.56		Gr. 9.06		Gr. 10.06		Gr. 9.5		
1929	x	y	x	y	x	y	x	y	in 201
Mai 27	-42.78	+66.19	+158.62	+850.41	-825.64	-356.23	-228.10	-311.37	- 4 + 7
28	42.71	66.49	158.69	850.70	825.57	355.93	227.89	311.09	- 6 + 4
29	42.65	66.78	158.75	851.00	825.51	355.64	227.69	310.81	- 6 0
30	42.60	67.08	158.80	851.30	825.45	355.34	227.50	310.52	- 5 - 4
31	42.55	67.38	158.85	851.59	825.40	355.04	227.31	310.23	- 3 - 8
Juni 1	-42.50	+67.68	+158.89	+851.89	-825.36	-354.74	-227.12	-309.94	+ 1 -10
2	42.46	67.98	158.93	852.19	825.32	354.44	226.94	309.65	+ 6 -10
3	42.43	68.28	158.96	852.49	825.29	354.14	226.77	309.36	+ 9 - 8
4	42.40	68.58	158.99	852.79	825.26	353.84	226.60	309.07	+11 - 4
5	42.38	68.89	159.01	853.09	825.24	353.53	226.43	308.77	+11 + 1
6	-42.37	+69.19	+159.02	+853.40	-825.22	-353.23	-226.27	-308.47	+ 9 + 6
7	42.36	69.50	159.03	853.71	825.21	352.92	226.11	308.17	+ 5 + 9
8	42.35	69.80	159.03	854.02	825.20	352.62	225.96	307.86	- 1 +11
9	42.35	70.11	159.03	854.33	825.20	352.31	225.82	307.56	- 6 + 9
10	42.36	70.42	159.02	854.64	825.21	352.01	225.68	307.25	-10 + 6
11	-42.38	+70.72	+159.01	+854.95	-825.23	-351.70	-225.54	-306.94	-12 + 1
12	42.40	71.03	158.99	855.26	825.25	351.39	225.41	306.64	-12 - 4
13	42.42	71.34	158.96	855.56	825.27	351.08	225.29	306.33	- 9 - 8
14	42.45	71.64	158.93	855.87	825.30	350.78	225.17	306.02	- 5 -10
15	42.49	71.95	158.89	856.17	825.34	350.47	225.06	305.71	- 1 -10
16	-42.53	+72.25	+158.85	+856.47	-825.38	-350.16	-224.96	-305.39	+ 3 - 8
17	42.58	72.56	158.80	856.78	825.43	349.85	224.86	305.07	+ 5 - 4
18	42.63	72.86	158.75	857.09	825.48	349.55	224.76	304.76	+ 7 0
19	42.69	73.17	158.69	857.40	825.54	349.24	224.67	304.44	+ 6 + 4
20	42.76	73.47	158.62	857.70	825.60	348.94	224.59	304.13	+ 5 + 7
21	-42.83	+73.78	+158.55	+858.01	-825.67	-348.64	-224.51	-303.81	+ 2 + 9
22	42.91	74.08	158.47	858.31	825.75	348.33	224.43	303.49	- 1 +10
23	42.99	74.39	158.39	858.62	825.83	348.03	224.36	303.17	- 4 + 8
24	43.08	74.69	158.30	858.92	825.92	347.73	224.30	302.86	- 6 + 6
25	43.17	75.00	158.21	859.22	826.01	347.42	224.25	302.54	- 7 + 2
26	-43.27	+75.30	+158.11	+859.52	-826.11	-347.12	-224.20	-302.22	- 6 - 3
27	43.38	75.60	158.00	859.82	826.22	346.82	224.15	301.90	- 4 - 7
28	43.49	75.90	157.89	860.12	826.33	346.52	224.11	301.58	0 -10
29	43.60	76.20	157.78	860.41	826.44	346.22	224.08	301.26	+ 4 -11
30	43.72	76.50	157.66	860.71	826.56	345.93	224.06	300.94	+ 8 - 9
Juli 1	-43.85	+76.79	+157.53	+861.00	-826.69	-345.63	-224.04	-300.62	+11 - 6
2	43.98	77.09	157.40	861.30	826.82	345.34	224.02	300.30	+12 - 1
3	-44.12	+77.38	+157.26	+861.59	-826.95	-345.04	-224.01	-299.98	+11 + 4
Mittl. Ort	-58.95	+79.34	+142.46	+863.55	-841.82	-343.05	-249.32	-309.23	

Die Werte von  $x$  und  $y$  enthalten nicht die kurzperiodischen Mondglieder.

Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Scheinbare Koordinaten für 12<sup>h</sup> Sternzeit Greenwich

Tag	BD +89° 1		BD +89° 3		BD +89° 37		CPD -89° 38		Kurzperiod. Mondgl.*)		
	Gr. 10.56		Gr. 9.06		Gr. 10.06		Gr. 9.5				
1929	x	y	x	y	x	y	x	y	in o.oi		
Juli	3	-44.12	+77.38	+157.26	+861.59	-826.95	-345.04	-224.01	-299.98	+11	+4
	4	44.26	77.68	157.12	861.88	827.09	344.75	224.01	299.67	+7	+8
	5	44.41	77.97	156.97	862.17	827.24	344.46	224.01	299.35	+2	+11
	6	44.56	78.26	156.82	862.46	827.39	344.17	224.02	299.03	-3	+10
	7	44.72	78.55	156.66	862.75	827.55	343.88	224.03	298.72	-8	+8
	8	-44.88	+78.83	+156.50	+863.03	-827.71	-343.60	-224.05	-298.40	-11	+3
	9	45.05	79.11	156.33	863.31	827.87	343.32	224.08	298.09	-12	-2
	10	45.22	79.39	156.15	863.59	828.04	343.04	224.11	297.78	-10	-6
	11	45.40	79.67	155.97	863.87	828.22	342.76	224.14	297.47	-7	-9
	12	45.58	79.94	155.79	864.14	828.40	342.49	224.18	297.16	-3	-10
	13	-45.77	+80.22	+155.60	+864.42	-828.59	-342.21	-224.23	-296.85	+1	-9
	14	45.96	80.49	155.40	864.69	828.78	341.94	224.28	296.53	+4	-6
	15	46.16	80.76	155.20	864.96	828.98	341.67	224.34	296.22	+6	-2
	16	46.36	81.03	155.00	865.23	829.18	341.40	224.41	295.92	+6	+2
	17	46.57	81.30	154.79	865.50	829.39	341.13	224.48	295.61	+5	+6
	18	-46.78	+81.56	+154.58	+865.76	-829.60	-340.87	-224.56	-295.31	+3	+9
	19	47.00	81.82	154.36	866.02	829.82	340.61	224.64	295.02	0	+10
	20	47.22	82.07	154.14	866.27	830.04	340.36	224.72	294.72	-3	+9
	21	47.45	82.33	153.91	866.53	830.27	340.10	224.81	294.42	-6	+7
	22	47.68	82.58	153.68	866.78	830.50	339.85	224.91	294.13	-7	+3
	23	-47.91	+82.83	+153.44	+867.03	-830.73	-339.60	-225.01	-293.84	-7	-1
	24	48.15	83.08	153.20	867.28	830.97	339.35	225.12	293.54	-5	-5
	25	48.39	83.32	152.96	867.52	831.21	339.11	225.23	293.25	-2	-9
	26	48.64	83.56	152.71	867.76	831.46	338.87	225.35	292.97	+2	-10
	27	48.89	83.80	152.46	868.00	831.71	338.63	225.47	292.68	+6	-10
	28	-49.15	+84.04	+152.20	+868.24	-831.97	-338.39	-225.60	-292.40	+10	-8
	29	49.41	84.27	151.94	868.47	832.23	338.16	225.74	292.12	+12	-3
	30	49.68	84.49	151.67	868.69	832.49	337.94	225.88	291.85	+12	+2
	31	49.95	84.72	151.40	868.92	832.76	337.71	226.02	291.58	+10	+7
Aug.	1	50.22	84.94	151.13	869.14	833.03	337.49	226.17	291.31	+5	+10
	2	-50.50	+85.16	+150.85	+869.36	-833.31	-337.27	-226.33	-291.04	0	+11
	3	50.78	85.37	150.57	869.57	833.59	337.06	226.49	290.78	-5	+9
	4	51.07	85.58	150.28	869.78	833.88	336.85	226.65	290.52	-9	+5
	5	51.36	85.79	149.99	869.99	834.17	336.64	226.82	290.27	-11	0
	6	51.65	85.99	149.70	870.19	834.46	336.44	227.00	290.02	-10	-5
	7	-51.95	+86.19	+149.40	+870.39	-834.76	-336.24	-227.18	-289.77	-8	-9
	8	52.25	86.39	149.10	870.59	835.06	336.04	227.36	289.52	-4	-10
	9	-52.55	+86.58	+148.79	+870.78	-835.36	-335.85	-227.55	-289.28	0	-10
Mittl. Ort		-58.95	+79.34	+142.46	+863.55	-841.82	-343.05	-249.32	-309.23		

Die Werte von x und y enthalten nicht die kurzperiodischen Mondglieder.

\*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Scheinbare Koordinaten für 12<sup>h</sup> Sternzeit Greenwich

Tag	BD +89° 1		BD +89° 3		BD +89° 37		CPD -89° 38		Kurzperiod. Mondgl. *)
	Gr. 10.56		Gr. 9.06		Gr. 10.06		Gr. 9.5		
1929	x	y	x	y	x	y	x	y	in 2001
Aug. 9	-52.55	+86.58	+148.79	+870.78	-835.36	-335.85	-227.55	-289.28	0 -10
10	52.86	86.77	148.48	870.97	835.67	335.66	227.74	289.04	+3 -7
11	53.17	86.96	148.17	871.16	835.98	335.48	227.94	288.81	+5 -3
12	53.48	87.14	147.86	871.34	836.29	335.29	228.14	288.58	+6 +1
13	53.80	87.32	147.54	871.52	836.61	335.11	228.35	288.36	+5 +5
14	-54.12	+87.50	+147.22	+871.70	-836.93	-334.94	-228.56	-288.14	+3 +8
15	54.45	87.67	146.89	871.87	837.25	334.77	228.77	287.92	0 +10
16	54.78	87.84	146.56	872.04	837.58	334.60	228.99	287.70	-2 +9
17	55.11	88.00	146.23	872.20	837.91	334.44	229.21	287.49	-5 +8
18	55.44	88.16	145.90	872.36	838.24	334.28	229.44	287.29	-7 +5
19	-55.78	+88.31	+145.56	+872.51	-838.57	-334.13	-229.67	-287.09	-8 +1
20	56.12	88.46	145.22	872.66	838.91	333.98	229.91	286.89	-7 -4
21	56.46	88.61	144.88	872.81	839.25	333.83	230.14	286.70	-4 -8
22	56.80	88.75	144.54	872.95	839.59	333.69	230.38	286.52	0 -10
23	57.15	88.89	144.19	873.09	839.94	333.55	230.63	286.34	+4 -10
24	-57.50	+89.02	+143.84	+873.22	-840.29	-333.42	-230.88	-286.16	+8 -9
25	57.85	89.15	143.49	873.35	840.64	333.29	231.13	285.99	+11 -5
26	58.20	89.28	143.13	873.48	840.99	333.16	231.39	285.82	+12 0
27	58.56	89.40	142.78	873.60	841.35	333.04	231.65	285.66	+10 +5
28	58.92	89.52	142.42	873.72	841.71	332.92	231.91	285.51	+7 +9
29	-59.28	+89.63	+142.06	+873.83	-842.07	-332.81	-232.17	-285.36	+2 +11
30	59.64	89.74	141.69	873.94	842.43	332.70	232.44	285.21	-3 +10
31	60.01	89.84	141.33	874.04	842.80	332.60	232.71	285.07	-7 +7
Sept. 1	60.37	89.94	140.96	874.14	843.16	332.50	232.98	284.94	-10 +2
2	60.74	90.03	140.59	874.23	843.53	332.41	233.26	284.81	-10 -3
3	-61.11	+90.12	+140.22	+874.32	-843.90	-332.32	-233.54	-284.68	-8 -7
4	61.48	90.21	139.85	874.41	844.27	332.23	233.82	284.56	-5 -10
5	61.86	90.29	139.47	874.49	844.65	332.15	234.10	284.44	-1 -10
6	62.23	90.37	139.10	874.57	845.02	332.07	234.39	284.33	+3 -8
7	62.61	90.44	138.72	874.64	845.40	332.00	234.68	284.23	+5 -5
8	-62.99	+90.51	+138.34	+874.70	-845.78	-331.94	-234.97	-284.13	+6 -1
9	63.37	90.57	137.96	874.76	846.16	331.88	235.26	284.04	+6 +3
10	63.75	90.63	137.58	874.82	846.54	331.82	235.55	283.96	+4 +7
11	64.13	90.68	137.20	874.88	846.92	331.76	235.84	283.88	+2 +9
12	64.51	90.73	136.82	874.93	847.30	331.71	236.14	283.80	-1 +10
13	-64.90	+90.78	+136.43	+874.97	-847.69	-331.67	-236.44	-283.73	-4 +9
14	65.28	90.82	136.05	875.01	848.07	331.63	236.74	283.67	-6 +6
15	-65.67	+90.86	+135.67	+875.05	-848.46	-331.59	-237.04	-283.61	-7 +2
Mittl. Ort	-58.95	+79.34	+142.46	+863.55	-841.82	-343.05	-249.32	-309.23	

Die Werte von  $x$  und  $y$  enthalten **nicht** die kurzperiodischen Mondglieder.

\*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.



Scheinbare Koordinaten für 12<sup>b</sup> Sternzeit Greenwich

Tag	BD +89° 1		BD +89° 3		BD +89° 37		CPD -89° 38		Kurzperiod. Mondgl. *)
	Gr. 10.56		Gr. 9.06		Gr. 10.06		Gr. 9.5		
1929	x	y	x	y	x	y	x	y	in o.oi
Sept. 15	-65.67	+90.86	+135.67	+875.05	-848.46	-331.59	-237.04	-283.61	- 7 + 2
16	66.06	90.89	135.28	875.08	848.85	331.56	237.34	283.56	- 7 - 2
17	66.44	90.92	134.89	875.11	849.23	331.53	237.64	283.52	- 5 - 6
18	66.83	90.94	134.51	875.13	849.62	331.51	237.95	283.48	- 2 - 9
19	67.22	90.96	134.12	875.15	850.01	331.49	238.25	283.45	+ 2 -10
20	-67.61	+90.97	+133.73	+875.16	-850.40	-331.48	-238.56	-283.42	+ 6 -10
21	68.00	90.97	133.34	875.16	850.79	331.48	238.86	283.40	+10 - 7
22	68.39	90.97	132.95	875.16	851.18	331.48	239.17	283.38	+11 - 2
23	68.78	90.97	132.56	875.16	851.57	331.48	239.48	283.37	+11 + 3
24	69.17	90.96	132.16	875.15	851.96	331.49	239.79	283.37	+ 8 + 8
25	-69.56	+90.95	+131.77	+875.14	-852.35	-331.50	-240.10	-283.37	+ 4 +10
26	69.95	90.93	131.38	875.12	852.74	331.52	240.41	283.38	- 2 +11
27	70.35	90.91	130.98	875.10	853.13	331.54	240.72	283.40	- 6 + 8
28	70.74	90.88	130.59	875.08	853.52	331.57	241.02	283.42	- 9 + 4
29	71.13	90.85	130.20	875.05	853.91	331.60	241.33	283.45	-10 - 1
30	-71.52	+90.81	+129.81	+875.01	-854.30	-331.64	-241.63	-283.49	- 9 - 6
Okt. 1	71.91	90.77	129.42	874.97	854.69	331.68	241.94	283.53	- 6 - 9
2	72.30	90.72	129.03	874.92	855.08	331.73	242.24	283.57	- 2 -10
3	72.69	90.67	128.64	874.87	855.47	331.78	242.54	283.62	+ 2 - 9
4	73.08	90.61	128.25	874.81	855.86	331.84	242.84	283.68	+ 5 - 6
5	-73.47	+90.55	+127.86	+874.75	-856.25	-331.90	-243.14	-283.75	+ 7 - 2
6	73.85	90.48	127.47	874.68	856.63	331.97	243.44	283.82	+ 7 + 2
7	74.24	90.41	127.09	874.61	857.02	332.04	243.74	283.90	+ 5 + 6
8	74.63	90.34	126.70	874.54	857.41	332.11	244.04	283.98	+ 3 + 8
9	75.01	90.26	126.32	874.46	857.79	332.19	244.33	284.07	0 +10
10	-75.39	+90.17	+125.93	+874.37	-858.17	-332.28	-244.63	-284.16	- 3 + 9
11	75.77	90.08	125.55	874.28	858.55	332.37	244.92	284.26	- 6 + 7
12	76.15	89.99	125.17	874.19	858.93	332.46	245.21	284.37	- 7 + 4
13	76.53	89.89	124.79	874.09	859.31	332.56	245.49	284.48	- 7 0
14	76.91	89.78	124.41	873.98	859.69	332.67	245.78	284.60	- 6 - 5
15	-77.29	+89.67	+124.03	+873.87	-860.07	-332.78	-246.06	-284.73	- 3 - 8
16	77.66	89.55	123.66	873.76	860.44	332.89	246.34	284.86	0 -10
17	78.03	89.43	123.29	873.64	860.81	333.01	246.62	284.99	+ 5 -10
18	78.40	89.31	122.92	873.51	861.18	333.13	246.89	285.13	+ 8 - 8
19	78.77	89.18	122.55	873.38	861.55	333.26	247.16	285.28	+11 - 4
20	-79.14	+89.05	+122.18	+873.25	-861.92	-333.39	-247.43	-285.43	+11 + 1
21	79.51	88.91	121.81	873.12	862.29	333.53	247.70	285.59	+ 9 + 6
22	-79.87	+88.77	+121.45	+872.98	-862.65	-333.68	-247.96	-285.75	+ 5 +10
Mittl. Ort	-58.95	+79.34	+142.46	+863.55	-841.82	-343.05	-249.32	-309.23	

Die Werte von x und y enthalten nicht die kurzperiodischen Mondglieder.

\*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Scheinbare Koordinaten für 12<sup>h</sup> Sternzeit Greenwich

Tag	BD +89° 1		BD +89° 3		BD +89° 37		CPD -89° 38		Kurzperiod. Mondgl. *)
	Gr. 10.56		Gr. 9.06		Gr. 10.06		Gr. 9.5		
1929	x	y	x	y	x	y	x	y	in $\circ \circ'$
Okt. 22	-79.87	+88.77	+121.45	+872.98	-862.65	-333.68	-247.96	-285.75	+ 5 +10
23	80.23	88.62	121.09	872.83	863.01	333.83	248.22	285.92	0 +11
24	80.59	88.47	120.73	872.68	863.37	333.98	248.48	286.09	- 5 +10
25	80.95	88.31	120.37	872.52	863.73	334.14	248.73	286.27	- 9 + 6
26	81.30	88.15	120.02	872.36	864.08	334.30	248.98	286.46	-11 + 1
27	-81.65	+87.98	+119.67	+872.19	-864.43	-334.47	-249.23	-286.65	-10 - 4
28	82.00	87.81	119.32	872.02	864.78	334.64	249.47	286.85	- 8 - 8
29	82.34	87.64	118.98	871.85	865.12	334.82	249.71	287.05	- 4 -10
30	82.69	87.46	118.63	871.67	865.47	335.00	249.94	287.25	0 -10
31	83.03	87.28	118.29	871.49	865.81	335.18	250.17	287.46	+ 4 - 8
Nov. 1	-83.36	+87.09	+117.96	+871.30	-866.14	-335.37	-250.39	-287.67	+ 6 - 4
2	83.70	86.90	117.62	871.11	866.48	335.56	250.61	287.89	+ 7 0
3	84.03	86.70	117.29	870.91	866.81	335.76	250.83	288.11	+ 6 + 4
4	84.36	86.50	116.96	870.71	867.14	335.96	251.04	288.34	+ 4 + 8
5	84.68	86.30	116.64	870.51	867.46	336.17	251.25	288.58	+ 1 + 9
6	-85.00	+86.09	+116.32	+870.30	-867.78	-336.38	-251.45	-288.82	- 2 + 9
7	85.32	85.87	116.00	870.08	868.10	336.59	251.65	289.06	- 5 + 8
8	85.63	85.65	115.69	869.86	868.41	336.81	251.84	289.31	- 6 + 5
9	85.94	85.43	115.38	869.64	868.72	337.03	252.03	289.56	- 7 + 1
10	86.24	85.21	115.07	869.42	869.02	337.26	252.21	289.81	- 6 - 3
11	-86.55	+84.98	+114.77	+869.19	-869.33	-337.49	-252.39	-290.07	- 4 - 7
12	86.85	84.74	114.47	868.95	869.63	337.73	252.56	290.33	- 1 -10
13	87.14	84.50	114.17	868.71	869.92	337.97	252.73	290.59	+ 4 -10
14	87.43	84.26	113.88	868.47	870.21	338.21	252.89	290.86	+ 8 - 9
15	87.72	84.01	113.59	868.22	870.50	338.46	253.05	291.14	+11 - 6
16	-88.00	+83.76	+113.31	+867.97	-870.78	-338.71	-253.20	-291.41	+12 - 1
17	88.27	83.51	113.04	867.72	871.05	338.97	253.35	291.69	+10 + 4
18	88.54	83.25	112.77	867.46	871.32	339.23	253.49	291.98	+ 7 + 8
19	88.81	82.99	112.50	867.20	871.59	339.49	253.62	292.26	+ 2 +11
20	89.08	82.73	112.23	866.94	871.86	339.75	253.75	292.55	- 3 +10
21	-89.34	+82.46	+111.97	+866.67	-872.12	-340.02	-253.87	-292.84	- 8 + 8
22	89.59	82.19	111.72	866.40	872.37	340.29	253.99	293.13	-11 + 3
23	89.84	81.91	111.47	866.13	872.62	340.57	254.10	293.43	-11 - 2
24	90.08	81.63	111.23	865.85	872.86	340.85	254.20	293.73	-10 - 7
25	90.32	81.35	110.99	865.57	873.10	341.13	254.30	294.03	- 6 -10
26	-90.56	+81.06	+110.75	+865.29	-873.34	-341.42	-254.39	-294.34	- 2 -11
27	90.79	80.77	110.52	865.00	873.57	341.71	254.47	294.65	+ 2 - 9
28	-91.01	+80.48	+110.30	+864.71	-873.79	-342.00	-254.55	-294.96	+ 5 - 6
Mittl. Ort	-58.95	+79.34	+142.46	+863.55	-841.82	-343.05	-249.32	-309.23	

Die Werte von  $x$  und  $y$  enthalten **nicht** die kurzperiodischen Mondglieder.

\*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Scheinbare Koordinaten für 12<sup>h</sup> Sternzeit Greenwich

Tag	BD +89° 1		BD +89° 3		BD +89° 37		CPD -89° 38		Kurzperiod. Mondgl. *)	
	Gr. 10.56		Gr. 9.06		Gr. 10.06		Gr. 9.5			
1929	x	y	x	y	x	y	x	y	in o.oi	
Nov. 28	-91.01	+80.48	+110.30	+864.71	-873.79	-342.00	-254.55	-294.96	+ 5	- 6
29	91.23	80.19	110.08	864.42	874.01	342.30	254.63	295.27	+ 7	- 1
30	91.44	79.89	109.86	864.12	874.22	342.59	254.70	295.58	+ 6	+ 3
Dez. 1	91.65	79.60	109.65	863.82	874.43	342.89	254.76	295.89	+ 5	+ 7
2	91.85	79.30	109.45	863.52	874.63	343.19	254.81	296.21	+ 2	+ 9
3	-92.05	+78.99	+109.25	+863.22	-874.83	-343.50	-254.86	-296.53	- 1	+10
4	92.24	78.68	109.06	862.91	875.02	343.81	254.90	296.85	- 4	+ 9
5	92.43	78.37	108.87	862.60	875.21	344.12	254.93	297.17	- 6	+ 6
6	92.61	78.06	108.69	862.29	875.39	344.43	254.96	297.49	- 7	+ 3
7	92.78	77.74	108.52	861.97	875.56	344.75	254.98	297.82	- 7	- 1
8	-92.95	+77.42	+108.35	+861.66	-875.73	-345.07	-255.00	-298.14	- 5	- 5
9	93.12	77.10	108.18	861.34	875.90	345.39	255.01	298.47	- 2	- 9
10	93.28	76.78	108.02	861.02	876.06	345.71	255.01	298.79	+ 2	-10
11	93.43	76.46	107.87	860.70	876.21	346.03	255.01	299.12	+ 7	-10
12	93.57	76.14	107.73	860.38	876.35	346.35	255.00	299.45	+10	- 7
13	-93.71	+75.81	+107.59	+860.05	-876.49	-346.68	-254.99	-299.78	+12	- 3
14	93.84	75.48	107.46	859.72	876.62	347.01	254.97	300.12	+12	+ 2
15	93.96	75.15	107.33	859.39	876.75	347.34	254.94	300.45	+ 9	+ 7
16	94.08	74.82	107.21	859.06	876.87	347.67	254.90	300.78	+ 5	+10
17	94.19	74.49	107.10	858.73	876.98	348.01	254.86	301.11	- 1	+11
18	-94.30	+74.15	+106.99	+858.39	-877.09	-348.34	-254.81	-301.44	- 6	+ 9
19	94.40	73.82	106.89	858.06	877.19	348.68	254.75	301.77	-10	+ 5
20	94.50	73.48	106.79	857.72	877.29	349.01	254.69	302.09	-12	0
21	94.59	73.15	106.70	857.39	877.38	349.35	254.62	302.42	-11	- 5
22	94.67	72.81	106.62	857.05	877.46	349.69	254.54	302.75	- 8	- 9
23	-94.75	+72.47	+106.54	+856.71	-877.54	-350.03	-254.46	-303.07	- 4	-11
24	94.82	72.13	106.47	856.37	877.61	350.37	254.37	303.40	0	-10
25	94.88	71.80	106.41	856.03	877.67	350.71	254.28	303.72	+ 4	- 7
26	94.94	71.46	106.36	855.69	877.73	351.04	254.18	304.05	+ 6	- 3
27	94.99	71.12	106.31	855.35	877.78	351.38	254.07	304.37	+ 6	+ 1
28	-95.03	+70.78	+106.27	+855.01	-877.82	-351.73	-253.96	-304.69	+ 5	+ 5
29	95.07	70.44	106.23	854.67	877.86	352.07	253.84	305.02	+ 3	+ 8
30	95.10	70.10	106.20	854.33	877.89	352.41	253.72	305.34	0	+10
31	95.12	69.76	106.17	853.99	877.91	352.76	253.59	305.65	- 4	+ 9
32	-95.14	+69.41	+106.15	+853.65	-877.93	-353.10	-253.45	-305.97	- 6	+ 7
Mittl. Ort	-58.95	+79.34	+142.46	+863.55	-841.82	-343.05	-249.32	-309.23		

Die Werte von x und y enthalten nicht die kurzperiodischen Mondglieder.

\*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

## zur Reduktion auf den scheinbaren Ort

$$A = t - (0.34215 + 0.00031 T) \sin \Omega + 0.00415 \sin 2 \Omega - 0.02526 \sin 2 L_{\odot} \\ + 0.00251 \sin M_{\odot} - 0.00099 \sin (2 L_{\odot} + M_{\odot}) + 0.00042 \sin (2 L_{\odot} - M_{\odot}) \\ + 0.00025 \sin (2 L_{\odot} - \Omega)$$

$$A' = -0.00405 \sin 2 L_{\zeta} + 0.00135 \sin M_{\zeta} - 0.00068 \sin (2 L_{\zeta} - \Omega) \\ - 0.00052 \sin (2 L_{\zeta} + M_{\zeta}) + 0.00030 \sin (2 L_{\zeta} - 2 L_{\odot} - M_{\zeta}) \\ + 0.00023 \sin (2 L_{\zeta} - M_{\zeta}) + 0.00012 \sin (2 L_{\zeta} - 2 L_{\odot})$$

$$B = -(g''.210 + 0''.001 T) \cos \Omega + 0''.090 \cos 2 \Omega - 0''.551 \cos 2 L_{\odot} \\ - 0''.022 \cos (2 L_{\odot} + M_{\odot}) + 0''.009 \cos (2 L_{\odot} - M_{\odot}) \\ + 0''.007 \cos (2 L_{\odot} - \Omega)$$

$$B' = -0''.089 \cos 2 L_{\zeta} - 0''.018 \cos (2 L_{\zeta} - \Omega) - 0''.011 \cos (2 L_{\zeta} + M_{\zeta}) \\ + 0''.005 \cos (2 L_{\zeta} - M_{\zeta})$$

$$C = -20''.47 \cos \odot \cos \varepsilon$$

$$D = -20''.47 \sin \odot$$

$$E = -(0''.0029 - 0''.0004 T) \sin \Omega$$

$T$  Zeit seit 1900.0 in Einheiten von 100 tropischen Jahren

$t$  Zeit seit Beginn des annus fictus in Bruchteilen des tropischen Jahres

$t = 0$  für 1929 Januar 0.8373

$$a = m + \frac{1}{15} n \sin \alpha \operatorname{tg} \delta$$

$$b = \frac{1}{15} \cos \alpha \operatorname{tg} \delta$$

$$c = \frac{1}{15} \cos \alpha \sec \delta$$

$$d = \frac{1}{15} \sin \alpha \sec \delta$$

$$a' = n \cos \alpha$$

$$b' = -\sin \alpha$$

$$c' = \operatorname{tg} \varepsilon \cos \delta - \sin \alpha \sin \delta$$

$$d' = \cos \alpha \sin \delta$$

Für 1929.0 gilt:  $m = +3''.0729$ ,  $n = +20''.044$ ,  $\varepsilon = 23^{\circ} 26' 54''.68$

$$\alpha_{\text{app.}} = \alpha_{1929,0} + t \mu_{\alpha} + Aa + Bb + Cc + Dd + E + [A'a + B'b]$$

$$\delta_{\text{app.}} = \delta_{1929,0} + t \mu_{\delta} + Aa' + Bb' + Cc' + Dd' + [A'a' + B'b']$$

$\mu_{\alpha}$ ,  $\mu_{\delta}$  jährliche Eigenbewegung in Rektaszension, bez. Deklination

Setzt man

$$\begin{array}{|l|l|l} f = mA + E & f' = mA' & i = C \operatorname{tg} \varepsilon \\ g \sin G = B & g' \sin G' = B' & h \sin H = C \\ g \cos G = nA & g' \cos G' = nA' & h \cos H = D, \end{array}$$

so wird:

$$\alpha_{\text{app.}} = \alpha_{1929,0} + t \mu_{\alpha} + f + \frac{1}{15} g \sin (G + \alpha) \operatorname{tg} \delta + \frac{1}{15} h \sin (H + \alpha) \sec \delta \\ + [f' + \frac{1}{15} g' \sin (G' + \alpha) \operatorname{tg} \delta]$$

$$\delta_{\text{app.}} = \delta_{1929,0} + t \mu_{\delta} + g \cos (G + \alpha) + h \cos (H + \alpha) \sin \delta + i \cos \delta \\ + [g' \cos (G' + \alpha)]$$

# Reduktionsgrößen 1929

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 für 12<sup>h</sup> Sternzeit Greenwich

Welt-Zeit	<i>t</i>	log <i>A</i>	log <i>B</i>	log <i>C</i>	log <i>D</i>	<i>E</i>	
1929							
Jan.	1.2	0.0010	9.44254 <sub>n</sub>	0.63988 <sub>n</sub>	0.52776 <sub>n</sub>	1.30399	—0.0023
	11.2	0.0284	9.38001 <sub>n</sub>	0.65677 <sub>n</sub>	0.81816 <sub>n</sub>	1.28269	23
	21.2	0.0557	9.31143 <sub>n</sub>	0.67770 <sub>n</sub>	0.98123 <sub>n</sub>	1.24571	23
	31.1	0.0830	9.23704 <sub>n</sub>	0.70044 <sub>n</sub>	1.08884 <sub>n</sub>	1.19025	22
Febr.	10.1	0.1103	9.15682 <sub>n</sub>	0.72272 <sub>n</sub>	1.16358 <sub>n</sub>	1.11090	22
	20.1	0.1376	9.06982 <sub>n</sub>	0.74265 <sub>n</sub>	1.21540 <sub>n</sub>	0.99704	—0.0022
März	2.1	0.1649	8.97317 <sub>n</sub>	0.75884 <sub>n</sub>	1.24937 <sub>n</sub>	0.82373	22
	12.0	0.1922	8.86010 <sub>n</sub>	0.77048 <sub>n</sub>	1.26827 <sub>n</sub>	0.50651	22
	22.0	0.2195	8.71441 <sub>n</sub>	0.77728 <sub>n</sub>	1.27303 <sub>n</sub>	9.50786 <sub>n</sub>	22
April	1.0	0.2468	8.49164 <sub>n</sub>	0.77924 <sub>n</sub>	1.26595 <sub>n</sub>	0.58263 <sub>n</sub>	21
	10.9	0.2741	7.95952 <sub>n</sub>	0.77685 <sub>n</sub>	1.24504 <sub>n</sub>	0.85703 <sub>n</sub>	—0.0021
	20.9	0.3014	8.16820	0.77100 <sub>n</sub>	1.20975 <sub>n</sub>	1.01444 <sub>n</sub>	21
	30.9	0.3287	8.61363	0.76298 <sub>n</sub>	1.15770 <sub>n</sub>	1.11952 <sub>n</sub>	21
Mai	10.9	0.3560	8.84628	0.75412 <sub>n</sub>	1.08451 <sub>n</sub>	1.19337 <sub>n</sub>	21
	20.8	0.3833	9.00860	0.74601 <sub>n</sub>	0.98164 <sub>n</sub>	1.24556 <sub>n</sub>	21
Juni	30.8	0.4106	9.13399	0.74013 <sub>n</sub>	0.83046 <sub>n</sub>	1.28092 <sub>n</sub>	—0.0021
	9.8	0.4379	9.23566	0.73775 <sub>n</sub>	0.57611 <sub>n</sub>	1.30220 <sub>n</sub>	21
	19.8	0.4652	9.32007	0.73957 <sub>n</sub>	9.82802 <sub>n</sub>	1.31084 <sub>n</sub>	21
	29.7	0.4925	9.39099	0.74593 <sub>n</sub>	0.38686	1.30743 <sub>n</sub>	20
Juli	9.7	0.5198	9.45082	0.75648 <sub>n</sub>	0.73878	1.29179 <sub>n</sub>	20
	19.7	0.5471	9.50139	0.77012 <sub>n</sub>	0.92288	1.26300 <sub>n</sub>	—0.0020
	29.6	0.5744	9.54409	0.78604 <sub>n</sub>	1.04293	1.21906 <sub>n</sub>	20
	Aug. 8.6	0.6017	9.58009	0.80257 <sub>n</sub>	1.12730	1.15637 <sub>n</sub>	20
Aug.	18.6	0.6290	9.61050	0.81836 <sub>n</sub>	1.18774	1.06830 <sub>n</sub>	19
	28.6	0.6563	9.63640	0.83232 <sub>n</sub>	1.23006	0.94111 <sub>n</sub>	19
	Sept. 7.5	0.6836	9.65883	0.84342 <sub>n</sub>	1.25739	0.74060 <sub>n</sub>	—0.0019
	17.5	0.7110	9.67887	0.85114 <sub>n</sub>	1.27138	0.32181 <sub>n</sub>	19
Okt.	27.5	0.7383	9.69757	0.85497 <sub>n</sub>	1.27267	0.14114	19
	7.5	0.7656	9.71585	0.85491 <sub>n</sub>	1.26114	0.68547	18
	17.4	0.7929	9.73452	0.85138 <sub>n</sub>	1.23586	0.91302	18
	27.4	0.8202	9.75414	0.84497 <sub>n</sub>	1.19479	1.05296	—0.0018
Nov.	6.4	0.8475	9.77499	0.83677 <sub>n</sub>	1.13437	1.14879	18
	16.3	0.8748	9.79707	0.82808 <sub>n</sub>	1.04793	1.21638	18
	26.3	0.9021	9.82008	0.82040 <sub>n</sub>	0.92184	1.26326	17
Dez.	6.3	0.9294	9.84353	0.81531 <sub>n</sub>	0.72198	1.29329	17
	16.3	0.9567	9.86682	0.81398 <sub>n</sub>	0.30449	1.30860	—0.0017
	26.2	0.9840	9.88931	0.81710 <sub>n</sub>	0.11661 <sub>n</sub>	1.31006	17
	36.2	1.0113	9.91046	0.82471 <sub>n</sub>	0.66210 <sub>n</sub>	1.29774	—0.0017

## Reduktionsgrößen 1929

Tag	O <sup>b</sup> Welt-Zeit								
	St.-Zt Grw.	<i>t</i>	<i>f</i>	log <i>g</i>	<i>G</i>	log <i>h</i>	<i>H</i>	log <i>i</i>	<i>i</i>
1929									
Jan. 0	6.6 <sup>h</sup>	-0.0023 <sup>n</sup>	-0.868	0.8529	14 <sup>h</sup> 30.3 <sup>m</sup>	1.3102	23 <sup>h</sup> 26.6 <sup>m</sup>	0.1099 <sub>n</sub>	-1.288
1	6.7	+0.0004	0.856	0.8497	14 32.2	1.3100	23 22.8	0.1556 <sub>n</sub>	1.431
2	6.7	0.0032	0.845	0.8465	14 34.1	1.3098	23 19.1	0.1967 <sub>n</sub>	1.573
3	6.8	0.0059	0.833	0.8434	14 36.1	1.3096	23 15.3	0.2343 <sub>n</sub>	1.715
4	6.9	0.0087	0.821	0.8404	14 38.1	1.3093	23 11.5	0.2686 <sub>n</sub>	1.856
5	6.9	0.0114	0.810	0.8374	14 40.1	1.3090	23 7.8	0.3004 <sub>n</sub>	1.997
6	7.0	0.0141	-0.798	0.8345	14 42.1	1.3087	23 4.0	0.3298 <sub>n</sub>	-2.137
7	7.1	0.0169	0.787	0.8316	14 44.2	1.3084	23 0.2	0.3572 <sub>n</sub>	2.276
8	7.1	0.0196	0.775	0.8288	14 46.3	1.3081	22 56.4	0.3829 <sub>n</sub>	2.415
9	7.2	0.0224	0.764	0.8261	14 48.5	1.3077	22 52.6	0.4071 <sub>n</sub>	2.553
10	7.3	0.0251	0.753	0.8234	14 50.7	1.3073	22 48.8	0.4298 <sub>n</sub>	2.690
11	7.3	0.0278	0.742	0.8208	14 52.9	1.3069	22 45.0	0.4512 <sub>n</sub>	2.826
12	7.4	0.0306	-0.731	0.8183	14 55.1	1.3065	22 41.2	0.4716 <sub>n</sub>	-2.962
13	7.5	0.0333	0.720	0.8158	14 57.4	1.3061	22 37.4	0.4909 <sub>n</sub>	3.097
14	7.5	0.0360	0.709	0.8134	14 59.7	1.3057	22 33.5	0.5093 <sub>n</sub>	3.231
15	7.6	0.0388	0.698	0.8111	15 2.0	1.3052	22 29.7	0.5267 <sub>n</sub>	3.363
16	7.7	0.0415	0.687	0.8088	15 4.4	1.3047	22 25.8	0.5433 <sub>n</sub>	3.494
17	7.7	0.0443	0.676	0.8066	15 6.8	1.3042	22 22.0	0.5592 <sub>n</sub>	3.624
18	7.8	0.0470	-0.665	0.8045	15 9.2	1.3037	22 18.1	0.5744 <sub>n</sub>	-3.753
19	7.9	0.0497	0.655	0.8025	15 11.6	1.3032	22 14.2	0.5889 <sub>n</sub>	3.881
20	7.9	0.0525	0.644	0.8006	15 14.0	1.3026	22 10.4	0.6029 <sub>n</sub>	4.008
21	8.0	0.0552	0.634	0.7988	15 16.5	1.3021	22 6.5	0.6163 <sub>n</sub>	4.133
22	8.1	0.0579	0.623	0.7970	15 18.9	1.3015	22 2.6	0.6291 <sub>n</sub>	4.257
23	8.1	0.0607	0.613	0.7953	15 21.4	1.3009	21 58.7	0.6415 <sub>n</sub>	4.380
24	8.2	0.0634	-0.603	0.7937	15 23.9	1.3003	21 54.8	0.6533 <sub>n</sub>	-4.501
25	8.3	0.0662	0.593	0.7922	15 26.4	1.2997	21 50.8	0.6647 <sub>n</sub>	4.621
26	8.3	0.0689	0.583	0.7908	15 28.8	1.2991	21 46.9	0.6757 <sub>n</sub>	4.739
27	8.4	0.0716	0.573	0.7895	15 31.3	1.2985	21 43.0	0.6863 <sub>n</sub>	4.856
28	8.5	0.0744	0.563	0.7883	15 33.8	1.2979	21 39.0	0.6964 <sub>n</sub>	4.971
29	8.5	0.0771	0.553	0.7871	15 36.3	1.2973	21 35.0	0.7062 <sub>n</sub>	5.084
30	8.6	0.0798	-0.544	0.7860	15 38.8	1.2966	21 31.1	0.7157 <sub>n</sub>	-5.196
31	8.6	0.0826	0.534	0.7850	15 41.3	1.2960	21 27.1	0.7248 <sub>n</sub>	5.306
Febr. 1	8.7	0.0853	0.525	0.7841	15 43.7	1.2953	21 23.1	0.7336 <sub>n</sub>	5.415
2	8.8	0.0881	0.515	0.7833	15 46.2	1.2947	21 19.1	0.7421 <sub>n</sub>	5.522
3	8.8	0.0908	0.506	0.7826	15 48.6	1.2940	21 15.0	0.7504 <sub>n</sub>	5.628
4	8.9	0.0935	0.497	0.7819	15 51.1	1.2934	21 11.0	0.7582 <sub>n</sub>	5.731
5	9.0	0.0963	-0.488	0.7813	15 53.5	1.2927	21 7.0	0.7658 <sub>n</sub>	-5.832
6	9.0	0.0990	0.479	0.7807	15 55.9	1.2921	21 2.9	0.7732 <sub>n</sub>	5.932
7	9.1	0.1018	0.470	0.7802	15 58.3	1.2914	20 58.8	0.7803 <sub>n</sub>	6.030
8	9.2	0.1045	0.461	0.7798	16 0.7	1.2907	20 54.8	0.7872 <sub>n</sub>	6.126
9	9.2	0.1072	0.453	0.7794	16 3.1	1.2901	20 50.7	0.7938 <sub>n</sub>	6.220
10	9.3	0.1100	-0.444	0.7791	16 5.4	1.2894	20 46.6	0.8002 <sub>n</sub>	-6.312

Tag	O <sup>b</sup> Welt-Zeit								
	<i>f'</i>	<i>g'</i>	<i>G'</i>	Allgemeine Präzession seit 1929.0	$\Delta\psi$	$\Delta\psi'$	Wahre Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$
1929	in 0.001	in 0.01				in 0.01	23° 26'		in 0.01
Jan. 0	+17	+12	22.5	-0.12	-14.07	+28	59.07	+4.35	+ 4
1	+13	11	21.1	+0.02	14.02	+21	59.11	4.36	+ 8
2	+ 7	11	19.7	0.16	13.97	+11	59.14	4.38	+10
3	+ 1	9	18.2	0.30	13.91	+ 1	59.16	4.39	+ 9
4	- 5	8	16.5	0.43	13.86	- 8	59.15	4.41	+ 7
5	- 8	7	14.4	0.57	13.81	-14	59.13	4.42	+ 4
6	-10	+ 7	12.0	+0.71	-13.76	-17	59.11	+4.44	0
7	-10	7	10.0	0.85	13.71	-16	59.09	4.46	- 4
8	- 8	8	8.4	0.99	13.66	-12	59.07	4.47	- 7
9	- 4	9	7.1	1.12	13.61	- 6	59.07	4.49	- 9
10	+ 1	9	5.8	1.26	13.57	+ 1	59.08	4.51	- 9
11	+ 5	9	4.5	1.40	13.52	+ 9	59.11	4.53	- 8
12	+ 9	+ 8	3.0	+1.54	-13.48	+14	59.16	+4.55	- 6
13	+10	7	0.8	1.67	13.43	+17	59.22	4.57	- 1
14	+ 9	7	22.2	1.81	13.39	+15	59.28	4.59	+ 3
15	+ 6	8	19.9	1.95	13.35	+10	59.34	4.62	+ 7
16	0	10	18.1	2.09	13.31	+ 1	59.39	4.64	+10
17	- 6	11	16.5	2.22	13.27	-11	59.42	4.66	+10
18	-13	+12	15.1	+2.36	-13.23	-21	59.42	+4.69	+ 9
19	-17	12	13.6	2.50	13.20	-27	59.41	4.71	+ 5
20	-17	11	11.9	2.64	13.16	-29	59.38	4.73	0
21	-15	11	10.1	2.77	13.13	-24	59.35	4.76	- 5
22	- 8	10	8.1	2.91	13.10	-14	59.34	4.78	- 9
23	- 1	10	6.1	3.05	13.07	- 1	59.35	4.81	-10
24	+ 7	+11	4.2	+3.19	-13.04	+12	59.38	+4.83	- 9
25	+13	11	2.4	3.32	13.01	+22	59.44	4.86	- 6
26	+17	11	0.7	3.46	12.98	+27	59.51	4.88	- 2
27	+17	11	22.9	3.60	12.96	+27	59.58	4.91	+ 3
28	+13	11	21.4	3.74	12.94	+22	59.64	4.93	+ 7
29	+ 8	11	20.0	3.87	12.91	+14	59.69	4.96	+ 9
30	+ 2	+10	18.6	+4.01	-12.89	+ 4	59.72	+4.99	+10
31	- 3	8	17.0	4.15	12.88	- 5	59.73	5.01	+ 8
Febr. 1	- 7	7	15.1	4.29	12.86	-12	59.73	5.04	+ 5
2	-10	6	12.7	4.43	12.84	-16	59.71	5.07	+ 1
3	-10	7	10.5	4.56	12.83	-16	59.70	5.09	- 3
4	- 8	8	8.8	4.70	12.82	-14	59.69	5.12	- 6
5	- 5	+ 9	7.4	+4.84	-12.81	- 8	59.69	+5.15	- 9
6	0	9	6.1	4.98	12.80	- 1	59.71	5.17	- 9
7	+ 4	9	4.9	5.11	12.79	+ 7	59.74	5.20	- 9
8	+ 8	8	3.4	5.25	12.79	+13	59.79	5.22	- 6
9	+10	7	1.4	5.39	12.78	+17	59.85	5.25	- 3
10	+11	+ 7	23.0	+5.53	-12.78	+17	59.92	+5.28	+ 2

Tag	O <sup>h</sup> Welt-Zeit								
	St.-Zt. Grw.	<i>t</i>	<i>f</i>	log <i>g</i>	<i>G</i>	log <i>h</i>	<i>H</i>	log <i>i</i>	<i>i</i>
1929									
Febr. 10	<sup>h</sup> 9.3	<sup>n</sup> 0.1100	<sup>*</sup> -0.444	0.7791	16 <sup>h</sup> 5.4	1.2894	20 <sup>h</sup> 46.6	0.8002 <sub>n</sub>	-6.312
11	9.4	0.1127	0.436	0.7789	16 7.7	1.2888	20 42.5	0.8062 <sub>n</sub>	6.401
12	9.4	0.1154	0.427	0.7787	16 10.0	1.2881	20 38.4	0.8122 <sub>n</sub>	6.489
13	9.5	0.1182	0.419	0.7786	16 12.3	1.2875	20 34.2	0.8179 <sub>n</sub>	6.575
14	9.6	0.1209	0.411	0.7785	16 14.6	1.2868	20 30.1	0.8234 <sub>n</sub>	6.659
15	9.6	0.1237	0.403	0.7784	16 16.8	1.2862	20 25.9	0.8287 <sub>n</sub>	6.741
16	9.7	0.1264	-0.395	0.7784	16 19.0	1.2856	20 21.8	0.8338 <sub>n</sub>	-6.820
17	9.8	0.1291	0.387	0.7785	16 21.2	1.2849	20 17.6	0.8387 <sub>n</sub>	6.897
18	9.8	0.1319	0.379	0.7786	16 23.4	1.2843	20 13.4	0.8434 <sub>n</sub>	6.973
19	9.9	0.1346	0.372	0.7787	16 25.5	1.2837	20 9.2	0.8479 <sub>n</sub>	7.046
20	10.0	0.1373	0.364	0.7789	16 27.6	1.2831	20 5.0	0.8522 <sub>n</sub>	7.116
21	10.0	0.1401	0.356	0.7790	16 29.6	1.2826	20 0.8	0.8564 <sub>n</sub>	7.185
22	10.1	0.1428	-0.349	0.7792	16 31.7	1.2820	19 56.6	0.8605 <sub>n</sub>	-7.252
23	10.2	0.1456	0.341	0.7794	16 33.7	1.2814	19 52.4	0.8643 <sub>n</sub>	7.316
24	10.2	0.1483	0.334	0.7796	16 35.7	1.2809	19 48.1	0.8679 <sub>n</sub>	7.378
25	10.3	0.1510	0.327	0.7798	16 37.7	1.2804	19 43.9	0.8714 <sub>n</sub>	7.437
26	10.4	0.1538	0.320	0.7800	16 39.7	1.2799	19 39.6	0.8747 <sub>n</sub>	7.494
27	10.4	0.1565	0.313	0.7803	16 41.6	1.2794	19 35.4	0.8779 <sub>n</sub>	7.549
28	10.5	0.1592	-0.306	0.7805	16 43.5	1.2789	19 31.1	0.8809 <sub>n</sub>	-7.601
März 1	10.6	0.1620	0.299	0.7808	16 45.4	1.2784	19 26.8	0.8837 <sub>n</sub>	7.651
2	10.6	0.1647	0.292	0.7811	16 47.2	1.2780	19 22.5	0.8864 <sub>n</sub>	7.699
3	10.7	0.1675	0.285	0.7814	16 49.0	1.2776	19 18.2	0.8890 <sub>n</sub>	7.745
4	10.8	0.1702	0.278	0.7817	16 50.8	1.2772	19 13.9	0.8914 <sub>n</sub>	7.788
5	10.8	0.1729	0.271	0.7819	16 52.6	1.2768	19 9.6	0.8937 <sub>n</sub>	7.828
6	10.9	0.1757	-0.265	0.7822	16 54.4	1.2764	19 5.3	0.8958 <sub>n</sub>	-7.866
7	10.9	0.1784	0.258	0.7824	16 56.1	1.2761	19 1.0	0.8977 <sub>n</sub>	7.902
8	11.0	0.1812	0.251	0.7826	16 57.8	1.2758	18 56.7	0.8995 <sub>n</sub>	7.935
9	11.1	0.1839	0.245	0.7828	16 59.5	1.2755	18 52.4	0.9012 <sub>n</sub>	7.966
10	11.1	0.1866	0.238	0.7830	17 1.2	1.2752	18 48.1	0.9028 <sub>n</sub>	7.994
11	11.2	0.1894	0.232	0.7832	17 2.9	1.2749	18 43.7	0.9042 <sub>n</sub>	8.020
12	11.3	0.1921	-0.225	0.7833	17 4.5	1.2747	18 39.4	0.9055 <sub>n</sub>	-8.044
13	11.3	0.1948	0.219	0.7835	17 6.2	1.2745	18 35.1	0.9066 <sub>n</sub>	8.065
14	11.4	0.1976	0.212	0.7836	17 7.8	1.2743	18 30.7	0.9076 <sub>n</sub>	8.084
15	11.5	0.2003	0.206	0.7837	17 9.5	1.2741	18 26.4	0.9085 <sub>n</sub>	8.100
16	11.5	0.2031	0.200	0.7838	17 11.1	1.2740	18 22.1	0.9092 <sub>n</sub>	8.114
17	11.6	0.2058	0.193	0.7838	17 12.7	1.2739	18 17.7	0.9098 <sub>n</sub>	8.125
18	11.7	0.2085	-0.187	0.7838	17 14.3	1.2738	18 13.4	0.9103 <sub>n</sub>	-8.134
19	11.7	0.2113	0.181	0.7838	17 15.9	1.2737	18 9.1	0.9106 <sub>n</sub>	8.140
20	11.8	0.2140	0.174	0.7838	17 17.5	1.2737	18 4.7	0.9108 <sub>n</sub>	8.144
21	11.9	0.2167	0.168	0.7838	17 19.1	1.2737	18 0.4	0.9109 <sub>n</sub>	8.146
22	11.9	0.2195	0.162	0.7838	17 20.6	1.2737	17 56.1	0.9109 <sub>n</sub>	8.145
23	12.0	0.2222	-0.155	0.7837	17 22.2	1.2737	17 51.8	0.9107 <sub>n</sub>	-8.142



Tag	O <sup>b</sup> Welt-Zeit								
	$f'$	$g'$	$G'$	Allgemeine Präzession seit 1929.0	$\Delta\psi$	$\Delta\psi'$	Wahre Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$
1929	in 0.001	in 0.01				in 0.01	23° 26'		in 0.01
Febr. 10	+11	+ 7	23.0 <sup>h</sup>	+ 5.53	-12.78	+17	59.92	+5.28	+ 2
11	+ 8	8	20.8	5.66	12.78	+13	59.99	5.30	+ 6
12	+ 3	9	18.8	5.80	12.78	+ 5	60.04	5.33	+ 9
13	- 3	11	17.2	5.94	12.78	- 6	60.08	5.36	+10
14	-10	11	15.7	6.08	12.79	-16	60.09	5.38	+ 9
15	-15	11	14.2	6.21	12.79	-24	60.08	5.41	+ 6
16	-17	+11	12.5	+ 6.35	-12.80	-28	60.06	+5.43	+ 1
17	-15	11	10.7	6.49	12.81	-25	60.03	5.46	- 4
18	-11	11	8.7	6.63	12.82	-17	60.01	5.48	- 8
19	- 3	10	6.8	6.76	12.83	- 6	60.01	5.50	-10
20	+ 4	10	4.9	6.90	12.84	+ 7	60.04	5.53	-10
21	+11	10	3.1	7.04	12.86	+18	60.08	5.55	- 8
22	+15	+11	1.2	+ 7.18	-12.87	+25	60.15	+5.57	- 3
23	+16	11	23.4	7.32	12.89	+27	60.22	5.60	+ 2
24	+14	11	21.8	7.45	12.91	+23	60.28	5.62	+ 6
25	+ 9	11	20.3	7.59	12.93	+15	60.33	5.64	+ 9
26	+ 3	10	18.8	7.73	12.95	+ 5	60.36	5.66	+10
27	- 2	9	17.3	7.87	12.97	- 4	60.37	5.68	+ 9
28	- 7	+ 8	15.6	+ 8.00	-12.99	-11	60.36	+5.70	+ 6
März 1	-10	7	13.4	8.14	13.01	-16	60.34	5.72	+ 2
2	-10	7	11.1	8.28	13.04	-17	60.32	5.74	- 2
3	- 9	8	9.2	8.42	13.06	-15	60.30	5.76	- 5
4	- 6	9	7.7	8.55	13.09	-10	60.29	5.77	- 8
5	- 2	9	6.5	8.69	13.12	- 3	60.29	5.79	- 9
6	+ 3	+ 9	5.3	+ 8.83	-13.15	+ 4	60.31	+5.81	- 9
7	+ 7	9	3.9	8.97	13.17	+11	60.34	5.82	- 7
8	+10	7	2.1	9.10	13.20	+16	60.39	5.84	- 4
9	+11	7	23.8	9.24	13.23	+17	60.45	5.85	0
10	+ 9	7	21.4	9.38	13.27	+15	60.50	5.87	+ 5
11	+ 5	9	19.4	9.52	13.30	+ 8	60.55	5.88	+ 8
12	- 1	+10	17.8	+ 9.65	-13.33	- 2	60.58	+5.89	+10
13	- 7	11	16.3	9.79	13.36	-12	60.59	5.91	+10
14	-13	11	14.8	9.93	13.39	-21	60.58	5.92	+ 7
15	-16	11	13.1	10.07	13.43	-26	60.54	5.93	+ 3
16	-15	10	11.3	10.20	13.46	-25	60.50	5.94	- 2
17	-12	10	9.2	10.34	13.49	-19	60.46	5.95	- 7
18	- 5	+10	7.2	+10.48	-13.53	- 8	60.44	+5.96	-10
19	+ 3	11	5.4	10.62	13.56	+ 4	60.44	5.97	-10
20	+10	11	3.6	10.76	13.60	+16	60.46	5.97	- 9
21	+15	11	1.8	10.89	13.63	+24	60.50	5.98	- 5
22	+17	11	0.0	11.03	13.66	+27	60.56	5.99	0
23	+15	+11	22.3	+11.17	-13.70	+24	60.61	+5.99	+ 5

Tag	O <sup>h</sup> Welt-Zeit								
	St.-Zt. Grw.	<i>t</i>	<i>f</i>	log <i>g</i>	<i>G</i>	log <i>h</i>	<i>H</i>	log <i>i</i>	<i>i</i>
1929									
März 23	12.0 <sup>h</sup>	0.2222 <sup>n</sup>	-0.155 <sup>s</sup>	0.7837	17 22.2 <sup>h m</sup>	1.2737	17 51.8 <sup>h m</sup>	0.9107 <sub>n</sub>	-8.142 <sup>s</sup>
24	12.1	0.2250	0.149	0.7836	17 23.8	1.2738	17 47.4	0.9104 <sub>n</sub>	8.136
25	12.1	0.2277	0.142	0.7834	17 25.3	1.2739	17 43.1	0.9099 <sub>n</sub>	8.127
26	12.2	0.2304	0.136	0.7832	17 26.9	1.2740	17 38.8	0.9093 <sub>n</sub>	8.116
27	12.3	0.2332	0.130	0.7830	17 28.5	1.2741	17 34.5	0.9086 <sub>n</sub>	8.103
28	12.3	0.2359	0.123	0.7828	17 30.1	1.2742	17 30.2	0.9078 <sub>n</sub>	8.087
29	12.4	0.2386	-0.117	0.7825	17 31.6	1.2744	17 25.9	0.9068 <sub>n</sub>	-8.069
30	12.5	0.2414	0.111	0.7822	17 33.2	1.2746	17 21.6	0.9057 <sub>n</sub>	8.049
31	12.5	0.2441	0.104	0.7819	17 34.8	1.2748	17 17.3	0.9046 <sub>n</sub>	8.027
April 1	12.6	0.2469	0.098	0.7816	17 36.4	1.2751	17 13.0	0.9032 <sub>n</sub>	8.002
2	12.7	0.2496	0.091	0.7812	17 38.0	1.2754	17 8.8	0.9017 <sub>n</sub>	7.974
3	12.7	0.2523	0.084	0.7808	17 39.7	1.2757	17 4.5	0.9000 <sub>n</sub>	7.944
4	12.8	0.2551	-0.078	0.7804	17 41.3	1.2760	17 0.3	0.8983 <sub>n</sub>	-7.912
5	12.9	0.2578	0.071	0.7800	17 42.9	1.2763	16 56.0	0.8964 <sub>n</sub>	7.878
6	12.9	0.2606	0.064	0.7795	17 44.6	1.2766	16 51.8	0.8944 <sub>n</sub>	7.841
7	13.0	0.2633	0.058	0.7791	17 46.3	1.2770	16 47.6	0.8922 <sub>n</sub>	7.801
8	13.1	0.2660	0.051	0.7786	17 47.9	1.2774	16 43.3	0.8898 <sub>n</sub>	7.759
9	13.1	0.2688	0.044	0.7781	17 49.6	1.2778	16 39.1	0.8874 <sub>n</sub>	7.716
10	13.2	0.2715	-0.037	0.7776	17 51.3	1.2782	16 34.9	0.8849 <sub>n</sub>	-7.671
11	13.2	0.2742	0.030	0.7771	17 53.1	1.2787	16 30.7	0.8821 <sub>n</sub>	7.623
12	13.3	0.2770	0.023	0.7766	17 54.9	1.2791	16 26.6	0.8793 <sub>n</sub>	7.573
13	13.4	0.2797	0.016	0.7760	17 56.7	1.2796	16 22.4	0.8762 <sub>n</sub>	7.520
14	13.4	0.2825	0.009	0.7754	17 58.5	1.2801	16 18.3	0.8731 <sub>n</sub>	7.466
15	13.5	0.2852	-0.002	0.7748	18 0.3	1.2806	16 14.1	0.8698 <sub>n</sub>	7.410
16	13.6	0.2879	+0.006	0.7743	18 2.1	1.2811	16 10.0	0.8663 <sub>n</sub>	-7.351
17	13.6	0.2907	0.013	0.7737	18 3.9	1.2817	16 5.9	0.8627 <sub>n</sub>	7.290
18	13.7	0.2934	0.021	0.7731	18 5.8	1.2822	16 1.8	0.8590 <sub>n</sub>	7.227
19	13.8	0.2961	0.028	0.7725	18 7.7	1.2828	15 57.7	0.8550 <sub>n</sub>	7.161
20	13.8	0.2989	0.036	0.7720	18 9.7	1.2833	15 53.6	0.8509 <sub>n</sub>	7.094
21	13.9	0.3016	0.044	0.7715	18 11.6	1.2839	15 49.6	0.8466 <sub>n</sub>	7.025
22	14.0	0.3044	+0.051	0.7710	18 13.6	1.2845	15 45.5	0.8422 <sub>n</sub>	-6.954
23	14.0	0.3071	0.059	0.7705	18 15.6	1.2851	15 41.5	0.8377 <sub>n</sub>	6.881
24	14.1	0.3098	0.067	0.7700	18 17.6	1.2857	15 37.4	0.8328 <sub>n</sub>	6.805
25	14.2	0.3126	0.075	0.7695	18 19.7	1.2863	15 33.4	0.8279 <sub>n</sub>	6.728
26	14.2	0.3153	0.083	0.7691	18 21.8	1.2869	15 29.4	0.8228 <sub>n</sub>	6.649
27	14.3	0.3180	0.091	0.7687	18 23.9	1.2875	15 25.4	0.8174 <sub>n</sub>	6.568
28	14.4	0.3208	+0.100	0.7683	18 26.0	1.2881	15 21.5	0.8119 <sub>n</sub>	-6.485
29	14.4	0.3235	0.108	0.7679	18 28.2	1.2888	15 17.5	0.8062 <sub>n</sub>	6.401
30	14.5	0.3263	0.116	0.7676	18 30.4	1.2894	15 13.6	0.8004 <sub>n</sub>	6.315
Mai 1	14.6	0.3290	0.125	0.7674	18 32.6	1.2900	15 9.6	0.7943 <sub>n</sub>	6.227
2	14.6	0.3317	0.133	0.7671	18 34.8	1.2907	15 5.7	0.7880 <sub>n</sub>	6.137
3	14.7	0.3345	+0.142	0.7669	18 37.1	1.2913	15 1.8	0.7815 <sub>n</sub>	-6.046

Tag	O <sup>h</sup> Welt-Zeit								
	<i>f'</i>	<i>g'</i>	<i>G'</i>	Allgemeine Präzession seit 1929.0	$\Delta\psi$	$\Delta\psi'$	Wahre Schiefe	$\Delta e$	$\Delta e'$
1929	in 0.001	in 0.01				in 0.01	23° 27'		in 0.01
März 23	+15	+11	22.3	+11.17	-13.70	+24	0.61	+5.99	+ 5
24	+11	11	20.7	11.31	13.73	+18	0.65	6.00	+ 8
25	+ 5	10	19.2	11.44	13.77	+ 8	0.67	6.00	+10
26	- 1	9	17.7	11.58	13.80	- 2	0.67	6.01	+ 9
27	- 6	8	16.0	11.72	13.83	-10	0.65	6.01	+ 7
28	-10	7	13.9	11.86	13.87	-16	0.61	6.01	+ 3
29	-11	+ 7	11.8	+11.99	-13.90	-18	0.57	+6.01	0
30	-10	8	9.8	12.13	13.93	-16	0.53	6.01	- 4
31	- 7	9	8.2	12.27	13.96	-12	0.50	6.01	- 7
April 1	- 3	9	6.9	12.41	13.99	- 6	0.48	6.01	- 9
2	+ 1	9	5.7	12.54	14.02	+ 2	0.48	6.01	- 9
3	+ 5	9	4.4	12.68	14.05	+ 9	0.49	6.01	- 8
4	+ 9	+ 8	2.8	+12.82	-14.08	+14	0.52	+6.01	- 5
5	+10	7	0.6	12.96	14.11	+17	0.55	6.01	- 1
6	+ 9	7	22.1	13.09	14.14	+15	0.59	6.00	+ 3
7	+ 6	8	19.8	13.23	14.17	+ 9	0.63	6.00	+ 7
8	0	10	18.1	13.37	14.19	+ 1	0.65	6.00	+10
9	- 6	11	16.7	13.51	14.22	- 9	0.65	5.99	+10
10	-11	+11	15.3	+13.65	-14.24	-19	0.62	+5.99	+ 9
11	-15	11	13.7	13.78	14.27	-25	0.58	5.98	+ 5
12	-16	10	12.1	13.92	14.29	-26	0.52	5.98	0
13	-13	10	9.8	14.06	14.31	-21	0.46	5.97	- 5
14	- 7	10	7.7	14.20	14.33	-11	0.41	5.96	- 9
15	+ 1	11	5.8	14.33	14.35	+ 1	0.39	5.95	-11
16	+ 9	+11	4.0	+14.47	-14.37	+14	0.39	+5.95	- 9
17	+14	11	2.3	14.61	14.38	+23	0.41	5.94	- 6
18	+17	11	0.6	14.75	14.40	+28	0.45	5.93	- 2
19	+16	11	22.9	14.88	14.41	+27	0.49	5.92	+ 3
20	+13	11	21.3	15.02	14.43	+21	0.52	5.91	+ 7
21	+ 7	11	19.7	15.16	14.44	+12	0.53	5.90	+10
22	+ 1	+10	18.2	+15.30	-14.45	+ 1	0.52	+5.89	+10
23	- 5	9	16.6	15.43	14.46	- 8	0.49	5.88	+ 8
24	- 9	8	14.6	15.57	14.47	-15	0.45	5.87	+ 5
25	-11	7	12.4	15.71	14.48	-18	0.40	5.86	+ 1
26	-11	8	10.3	15.85	14.48	-17	0.34	5.85	- 3
27	- 8	8	8.6	15.98	14.49	-14	0.30	5.84	- 7
28	- 5	+ 9	7.3	+16.12	-14.49	- 8	0.26	+5.83	- 9
29	0	10	6.1	16.26	14.49	0	0.24	5.82	-10
30	+ 4	9	4.8	16.40	14.49	+ 7	0.24	5.80	- 9
Mai 1	+ 8	8	3.4	16.53	14.49	+12	0.25	5.79	- 6
2	+10	7	1.4	16.67	14.48	+16	0.28	5.78	- 2
3	+ 9	+ 6	22.7	+16.81	-14.48	+15	0.31	+5.77	+ 2

## Reduktionsgrößen 1929

Tag	0 <sup>h</sup> Welt-Zeit								
	St.-Zt. Grw.	<i>t</i>	<i>f</i>	log <i>g</i> <sub>1</sub>	<i>G</i>	log <i>h</i>	<i>H</i>	log <i>i</i>	<i>i</i>
1929									
Mai	3	14.7 <sup>h</sup> 0.3345 <sup>m</sup>	+0.142 <sup>s</sup>	0.7669	18 <sup>h</sup> 37.1 <sup>m</sup>	1.2913	15 <sup>h</sup> 1.8 <sup>m</sup>	0.7815 <sub>n</sub>	-6.046
	4	14.8 0.3372	0.151	0.7667	18 39.4	1.2919	14 57.9	0.7747 <sub>n</sub>	5.953
	5	14.8 0.3400	0.160	0.7666	18 41.7	1.2926	14 54.1	0.7677 <sub>n</sub>	5.858
	6	14.9 0.3427	0.169	0.7666	18 44.1	1.2932	14 50.2	0.7605 <sub>n</sub>	5.761
	7	15.0 0.3454	0.178	0.7665	18 46.4	1.2938	14 46.3	0.7530 <sub>n</sub>	5.663
	8	15.0 0.3482	0.187	0.7666	18 48.8	1.2944	14 42.5	0.7453 <sub>n</sub>	5.563
	9	15.1 0.3509	+0.196	0.7667	18 51.2	1.2951	14 38.7	0.7374 <sub>n</sub>	-5.462
	10	15.2 0.3536	0.205	0.7669	18 53.6	1.2957	14 34.9	0.7291 <sub>n</sub>	5.359
	11	15.2 0.3564	0.215	0.7672	18 56.0	1.2963	14 31.1	0.7206 <sub>n</sub>	5.255
	12	15.3 0.3591	0.224	0.7675	18 58.5	1.2969	14 27.3	0.7117 <sub>n</sub>	5.149
	13	15.4 0.3619	0.234	0.7679	19 1.0	1.2975	14 23.5	0.7026 <sub>n</sub>	5.042
	14	15.4 0.3646	0.243	0.7683	19 3.4	1.2981	14 19.7	0.6932 <sub>n</sub>	4.934
	15	15.5 0.3673	+0.253	0.7688	19 5.9	1.2987	14 16.0	0.6835 <sub>n</sub>	-4.825
	16	15.5 0.3701	0.263	0.7694	19 8.4	1.2993	14 12.2	0.6734 <sub>n</sub>	4.714
	17	15.6 0.3728	0.273	0.7701	19 10.9	1.2999	14 8.5	0.6629 <sub>n</sub>	4.601
	18	15.7 0.3755	0.283	0.7709	19 13.4	1.3004	14 4.8	0.6520 <sub>n</sub>	4.487
	19	15.7 0.3783	0.293	0.7717	19 15.9	1.3010	14 1.1	0.6407 <sub>n</sub>	4.372
	20	15.8 0.3810	0.303	0.7726	19 18.5	1.3015	13 57.4	0.6291 <sub>n</sub>	4.257
	21	15.9 0.3838	+0.313	0.7736	19 21.0	1.3021	13 53.7	0.6170 <sub>n</sub>	-4.140
	22	15.9 0.3865	0.323	0.7747	19 23.5	1.3026	13 50.0	0.6043 <sub>n</sub>	4.021
23	16.0 0.3892	0.333	0.7759	19 26.1	1.3031	13 46.4	0.5912 <sub>n</sub>	3.901	
24	16.1 0.3920	0.344	0.7772	19 28.6	1.3036	13 42.7	0.5776 <sub>n</sub>	3.781	
25	16.1 0.3947	0.354	0.7785	19 31.1	1.3041	13 39.1	0.5635 <sub>n</sub>	3.660	
26	16.2 0.3974	0.365	0.7799	19 33.7	1.3045	13 35.4	0.5486 <sub>n</sub>	3.537	
27	16.3 0.4002	+0.375	0.7814	19 36.2	1.3050	13 31.8	0.5333 <sub>n</sub>	-3.414	
28	16.3 0.4029	0.386	0.7830	19 38.7	1.3054	13 28.2	0.5172 <sub>n</sub>	3.290	
29	16.4 0.4057	0.397	0.7847	19 41.2	1.3059	13 24.6	0.5002 <sub>n</sub>	3.164	
30	16.5 0.4084	0.407	0.7865	19 43.6	1.3063	13 21.0	0.4826 <sub>n</sub>	3.038	
31	16.5 0.4111	0.418	0.7883	19 46.1	1.3067	13 17.4	0.4640 <sub>n</sub>	2.911	
Juni	1	16.6 0.4139	0.429	0.7902	19 48.5	1.3071	13 13.8	0.4445 <sub>n</sub>	2.783
	2	16.7 0.4166	+0.440	0.7922	19 50.9	1.3074	13 10.2	0.4241 <sub>n</sub>	-2.655
	3	16.7 0.4194	0.451	0.7943	19 53.3	1.3078	13 6.6	0.4024 <sub>n</sub>	2.526
	4	16.8 0.4221	0.462	0.7965	19 55.7	1.3081	13 3.1	0.3797 <sub>n</sub>	2.397
	5	16.9 0.4248	0.473	0.7987	19 58.1	1.3084	12 59.5	0.3555 <sub>n</sub>	2.267
	6	16.9 0.4276	0.484	0.8010	20 0.4	1.3087	12 56.0	0.3294 <sub>n</sub>	2.135
	7	17.0 0.4303	0.495	0.8034	20 2.7	1.3090	12 52.4	0.3017 <sub>n</sub>	2.003
	8	17.1 0.4330	+0.506	0.8059	20 5.0	1.3093	12 48.9	0.2721 <sub>n</sub>	-1.871
	9	17.1 0.4358	0.518	0.8084	20 7.2	1.3096	12 45.3	0.2403 <sub>n</sub>	1.739
	10	17.2 0.4385	0.529	0.8110	20 9.5	1.3098	12 41.8	0.2057 <sub>n</sub>	1.606
	11	17.3 0.4413	0.540	0.8136	20 11.7	1.3100	12 38.3	0.1682 <sub>n</sub>	1.473
	12	17.3 0.4440	0.552	0.8163	20 13.8	1.3102	12 34.8	0.1268 <sub>n</sub>	1.339
	13	17.4 0.4467	+0.563	0.8191	20 15.9	1.3104	12 31.2	0.0810 <sub>n</sub>	-1.205

Tag	O <sup>h</sup> Welt-Zeit								
	<i>f'</i>	<i>g'</i>	<i>G'</i>	Allgemeine Präzession seit 1929.0	$\Delta\psi$	$\Delta\psi'$	Wahre Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$
1929	in 0.001	in 0.01				in 0.01	23° 26'		in 0.01
Mai			<sup>h</sup>						
3	+ 9	+ 6	22.7	+16.81	-14.48	+15	60.31	+5.77	+ 2
4	+ 6	8	20.2	16.95	14.47	+11	60.34	5.76	+ 6
5	+ 2	10	18.4	17.09	14.47	+ 2	60.36	5.75	+ 9
6	- 5	11	16.9	17.22	14.46	- 8	60.35	5.73	+11
7	-11	12	15.6	17.36	14.45	-18	60.33	5.72	+ 9
8	-15	12	14.1	17.50	14.44	-25	60.28	5.71	+ 6
9	-17	+11	12.5	+17.64	-14.42	-27	60.22	+5.70	+ 1
10	-15	10	10.5	17.77	14.41	-24	60.16	5.69	- 4
11	- 9	10	8.5	17.91	14.40	-15	60.10	5.68	- 8
12	- 2	11	6.4	18.05	14.38	- 3	60.07	5.66	-10
13	+ 6	11	4.5	18.19	14.36	+10	60.05	5.65	-10
14	+13	12	2.8	18.32	14.34	+22	60.07	5.64	- 8
15	+17	+12	1.1	+18.46	-14.32	+28	60.10	+5.63	- 3
16	+18	12	23.5	18.60	14.30	+30	60.14	5.62	+ 2
17	+15	12	21.9	18.74	14.27	+25	60.17	5.61	+ 6
18	+10	11	20.4	18.87	14.25	+16	60.19	5.60	+ 9
19	+ 4	10	18.9	19.01	14.22	+ 6	60.19	5.59	+10
20	- 3	9	17.3	19.15	14.19	- 4	60.16	5.58	+ 9
21	- 7	+ 8	15.4	+19.29	-14.17	-12	60.12	+5.57	+ 6
22	-10	7	13.2	19.42	14.14	-16	60.08	5.56	+ 2
23	-11	7	10.9	19.56	14.11	-17	60.02	5.55	- 2
24	- 9	8	9.0	19.70	14.07	-14	59.98	5.54	- 6
25	- 5	9	7.5	19.84	14.04	- 9	59.94	5.54	- 8
26	- 1	10	6.3	19.98	14.01	- 2	59.92	5.53	- 9
27	+ 3	+ 9	5.2	+20.11	-13.97	+ 5	59.92	+5.52	- 9
28	+ 7	8	3.8	20.25	13.93	+11	59.93	5.51	- 7
29	+ 9	7	2.1	20.39	13.89	+15	59.96	5.51	- 4
30	+10	6	23.5	20.53	13.86	+16	59.99	5.50	+ 1
31	+ 7	7	20.9	20.66	13.82	+12	60.03	5.50	+ 5
Juni									
1	+ 3	9	18.8	20.80	13.78	+ 5	60.06	5.49	+ 9
2	- 3	+10	17.2	+20.94	-13.74	- 5	60.07	+5.49	+10
3	-10	12	15.8	21.08	13.69	-16	60.06	5.48	+10
4	-15	12	14.4	21.21	13.65	-25	60.03	5.48	+ 7
5	-18	12	12.9	21.35	13.61	-29	59.98	5.47	+ 3
6	-17	11	11.3	21.49	13.56	-28	59.92	5.47	- 2
7	-13	11	9.3	21.63	13.52	-21	59.87	5.47	- 7
8	- 5	+11	7.3	+21.76	-13.47	- 9	59.84	+5.47	-10
9	+ 3	11	5.3	21.90	13.43	+ 5	59.83	5.47	-11
10	+11	11	3.4	22.04	13.38	+18	59.85	5.47	- 9
11	+16	12	1.6	22.18	13.33	+27	59.89	5.47	- 5
12	+19	12	0.0	22.31	13.29	+30	59.93	5.47	0
13	+17	+12	22.4	+22.45	-13.24	+28	59.98	+5.47	+ 5

Tag	O <sup>b</sup> Welt-Zeit								
	St.-Zt Grw.	<i>t</i>	<i>f</i>	log <i>g</i>	<i>G</i>	log <i>h</i>	<i>H</i>	log <i>i</i>	<i>i</i>
1929									
Juni 13	17.4	0.4467	+0.563	0.8191	2 <sup>h</sup> 15.9	1.3104	12 <sup>h</sup> 31.2	0.0810 <sub>n</sub>	-1.205
14	17.5	0.4495	0.574	0.8219	20 18.0	1.3105	12 27.7	0.0294 <sub>n</sub>	1.070
15	17.5	0.4522	0.586	0.8248	20 20.1	1.3107	12 24.2	9.9708 <sub>n</sub>	0.935
16	17.6	0.4549	0.597	0.8277	20 22.1	1.3108	12 20.7	9.9031 <sub>n</sub>	0.800
17	17.7	0.4577	0.608	0.8307	20 24.1	1.3109	12 17.2	9.8228 <sub>n</sub>	0.665
18	17.7	0.4604	0.620	0.8337	20 26.0	1.3110	12 13.7	9.7243 <sub>n</sub>	0.530
19	17.8	0.4632	+0.631	0.8368	20 27.9	1.3110	12 10.2	9.5966 <sub>n</sub>	-0.395
20	17.8	0.4659	0.643	0.8399	20 29.8	1.3111	12 6.7	9.4133 <sub>n</sub>	0.259
21	17.9	0.4686	0.654	0.8430	20 31.7	1.3111	12 3.2	9.0899 <sub>n</sub>	-0.123
22	18.0	0.4714	0.666	0.8462	20 33.5	1.3111	11 59.7	8.0792	+0.012
23	18.0	0.4741	0.677	0.8494	20 35.3	1.3111	11 56.2	9.1703	0.148
24	18.1	0.4768	0.688	0.8526	20 37.0	1.3111	11 52.7	9.4533	0.284
25	18.2	0.4796	+0.700	0.8559	20 38.7	1.3110	11 49.2	9.6222	+0.419
26	18.2	0.4823	0.711	0.8592	20 40.3	1.3110	11 45.7	9.7435	0.554
27	18.3	0.4851	0.723	0.8625	20 41.9	1.3109	11 42.2	9.8382	0.689
28	18.4	0.4878	0.734	0.8658	20 43.5	1.3108	11 38.7	9.9159	0.824
29	18.4	0.4905	0.745	0.8691	20 45.0	1.3106	11 35.2	9.9818	0.959
30	18.5	0.4933	0.757	0.8724	20 46.5	1.3105	11 31.7	0.0390	1.094
Juli 1	18.6	0.4960	+0.768	0.8758	20 48.0	1.3103	11 28.1	0.0892	+1.228
2	18.6	0.4987	0.780	0.8792	20 49.4	1.3102	11 24.6	0.1342	1.362
3	18.7	0.5015	0.791	0.8825	20 50.8	1.3100	11 21.1	0.1746	1.495
4	18.8	0.5042	0.802	0.8859	20 52.1	1.3097	11 17.6	0.2117	1.628
5	18.8	0.5070	0.813	0.8893	20 53.4	1.3095	11 14.1	0.2458	1.761
6	18.9	0.5097	0.824	0.8927	20 54.7	1.3092	11 10.5	0.2772	1.893
7	19.0	0.5124	+0.836	0.8961	20 55.9	1.3090	11 7.0	0.3062	+2.024
8	19.0	0.5152	0.847	0.8995	20 57.1	1.3087	11 3.5	0.3334	2.155
9	19.1	0.5179	0.858	0.9028	20 58.3	1.3084	10 59.9	0.3591	2.286
10	19.2	0.5207	0.869	0.9062	20 59.4	1.3081	10 56.4	0.3831	2.416
11	19.2	0.5234	0.880	0.9095	21 0.5	1.3077	10 52.8	0.4057	2.545
12	19.3	0.5261	0.891	0.9128	21 1.6	1.3074	10 49.3	0.4270	2.673
13	19.4	0.5289	+0.902	0.9161	21 2.6	1.3070	10 45.7	0.4473	+2.801
14	19.4	0.5316	0.912	0.9195	21 3.6	1.3066	10 42.2	0.4666	2.928
15	19.5	0.5343	0.923	0.9228	21 4.6	1.3062	10 38.6	0.4849	3.054
16	19.6	0.5371	0.934	0.9261	21 5.5	1.3058	10 35.0	0.5023	3.179
17	19.6	0.5398	0.944	0.9293	21 6.4	1.3054	10 31.4	0.5189	3.303
18	19.7	0.5426	0.955	0.9325	21 7.3	1.3050	10 27.8	0.5349	3.427
19	19.8	0.5453	+0.965	0.9357	21 8.2	1.3045	10 24.2	0.5502	+3.550
20	19.8	0.5480	0.976	0.9389	21 9.0	1.3040	10 20.6	0.5649	3.672
21	19.9	0.5508	0.986	0.9421	21 9.8	1.3035	10 17.0	0.5789	3.792
22	20.0	0.5535	0.997	0.9453	21 10.6	1.3030	10 13.3	0.5923	3.911
23	20.0	0.5562	1.007	0.9485	21 11.3	1.3025	10 9.7	0.6053	4.030
24	20.1	0.5590	+1.017	0.9516	21 12.1	1.3020	10 6.0	0.6178	+4.148

Tag		O <sup>h</sup> Welt-Zeit									
		f'	g'	G'	Allgemeine Präzeession seit 1929.0	$\Delta\psi$	$\Delta\psi'$	Wahre Schiefe	$\Delta z$	$\Delta z'$	
1929		in 0.00r	in 0.0r					23° 26'		in 0.0r	
Juni	13	+17	+12	22.4 <sup>h</sup>	+22.45	-13.24	+28	59.98	+5.47	+ 5	
	14	+13	12	20.9	22.59	13.19	+21	60.02	5.47	+ 8	
	15	+ 6	11	19.5	22.73	13.14	+11	60.04	5.47	+10	
	16	0	9	18.0	22.86	13.09	0	60.03	5.47	+ 9	
	17	- 5	8	16.2	23.00	13.04	- 9	60.01	5.48	+ 7	
	18	- 9	7	14.0	23.14	13.00	-14	59.97	5.48	+ 3	
	19	-10	+ 7	11.5	+23.28	-12.95	-16	59.94	+5.49	- 1	
	20	- 9	7	9.4	23.42	12.90	-15	59.90	5.49	- 5	
	21	- 6	9	7.8	23.55	12.85	-10	59.87	5.50	- 8	
	22	- 2	9	6.5	23.69	12.80	- 3	59.86	5.50	- 9	
	23	+ 3	9	5.3	23.83	12.75	+ 4	59.87	5.51	- 9	
	24	+ 7	9	4.1	23.97	12.70	+11	59.89	5.52	- 8	
	25	+ 9	+ 8	2.5	+24.10	-12.65	+15	59.93	+5.52	- 5	
	26	+10	7	0.3	24.24	12.60	+17	59.97	5.53	- 1	
	27	+ 9	7	21.8	24.38	12.55	+14	60.02	5.54	+ 4	
	28	+ 5	8	19.5	24.52	12.50	+ 8	60.07	5.55	+ 7	
	29	- 1	10	17.7	24.65	12.45	- 2	60.11	5.56	+10	
	30	- 8	11	16.2	24.79	12.40	-13	60.12	5.57	+10	
	Juli	1	-14	+12	14.8	+24.93	-12.36	-23	60.11	+5.58	+ 8
		2	-18	13	13.4	25.07	12.31	-29	60.09	5.60	+ 5
		3	-19	12	11.8	25.20	12.26	-31	60.04	5.61	0
		4	-16	11	10.2	25.34	12.21	-26	60.01	5.62	- 5
		5	- 9	11	8.2	25.48	12.17	-15	59.98	5.63	- 9
		6	- 1	11	6.2	25.62	12.12	- 2	59.98	5.65	-11
		7	+ 7	+11	4.3	+25.75	-12.08	+12	60.00	+5.66	-10
		8	+14	11	2.4	25.89	12.03	+23	60.05	5.68	- 6
		9	+18	11	0.6	26.03	11.99	+29	60.11	5.70	- 2
		10	+17	12	22.9	26.17	11.95	+28	60.18	5.71	+ 3
		11	+14	12	21.4	26.30	11.91	+23	60.23	5.73	+ 7
		12	+ 9	11	20.0	26.44	11.87	+14	60.27	5.74	+10
13		+ 2	+10	18.5	+26.58	-11.82	+ 4	60.29	+5.76	+10	
14		- 3	8	17.0	26.72	11.78	- 6	60.29	5.78	+ 8	
15	- 7	7	14.9	26.86	11.75	-12	60.27	5.80	+ 5		
16	- 9	6	12.3	26.99	11.71	-15	60.24	5.82	0		
17	- 9	7	9.8	27.13	11.67	-14	60.22	5.84	- 4		
18	- 6	8	8.0	27.27	11.64	-10	60.21	5.86	- 7		
19	- 3	+ 9	6.7	+27.41	-11.60	- 4	60.21	+5.88	- 9		
20	+ 2	10	5.5	27.54	11.57	+ 3	60.22	5.90	-10		
21	+ 6	9	4.3	27.68	11.54	+10	60.25	5.92	- 8		
22	+ 9	8	2.9	27.82	11.50	+15	60.30	5.94	- 6		
23	+11	7	1.0	27.96	11.47	+18	60.35	5.96	- 2		
24	+10	+ 7	22.7	+28.09	-11.45	+17	60.42	+5.98	+ 2		

Tag	O <sup>n</sup> Welt-Zeit									
	St.-Zt. Grw.	<i>t</i>	<i>f</i>	log <i>g</i>	<i>G</i>	log <i>h</i>	<i>H</i>	log <i>i</i>	<i>i</i>	
1929										
Juli	24	20.1 <sup>h</sup>	0.5590 <sup>m</sup>	+1.017	0.9516	21 <sup>h</sup> 12.1 <sup>m</sup>	1.3020	10 <sup>h</sup> 6.0 <sup>m</sup>	0.6178	+4.148
	25	20.1	0.5617	1.027	0.9547	21 12.8	1.3015	10 2.4	0.6298	4.264
	26	20.2	0.5645	1.037	0.9578	21 13.5	1.3009	9 58.7	0.6414	4.379
	27	20.3	0.5672	1.047	0.9608	21 14.1	1.3004	9 55.0	0.6524	4.492
	28	20.3	0.5699	1.057	0.9637	21 14.8	1.2998	9 51.3	0.6632	4.605
	29	20.4	0.5727	1.067	0.9667	21 15.4	1.2993	9 47.6	0.6737	4.717
	30	20.5	0.5754	+1.077	0.9696	21 16.0	1.2987	9 43.9	0.6837	+4.827
	31	20.5	0.5781	1.086	0.9726	21 16.6	1.2981	9 40.2	0.6934	4.936
Aug.	1	20.6	0.5809	1.096	0.9755	21 17.1	1.2975	9 36.5	0.7027	5.043
	2	20.7	0.5836	1.105	0.9784	21 17.7	1.2969	9 32.7	0.7117	5.149
	3	20.7	0.5864	1.115	0.9812	21 18.2	1.2963	9 29.0	0.7205	5.254
	4	20.8	0.5891	1.124	0.9840	21 18.7	1.2957	9 25.2	0.7289	5.357
	5	20.9	0.5918	+1.134	0.9867	21 19.2	1.2951	9 21.4	0.7371	+5.459
	6	20.9	0.5946	1.143	0.9894	21 19.7	1.2945	9 17.6	0.7450	5.559
	7	21.0	0.5973	1.152	0.9921	21 20.2	1.2939	9 13.8	0.7527	5.658
	8	21.1	0.6001	1.161	0.9948	21 20.6	1.2932	9 10.0	0.7600	5.755
	9	21.1	0.6028	1.170	0.9974	21 21.1	1.2926	9 6.2	0.7672	5.851
	10	21.2	0.6055	1.179	1.0000	21 21.5	1.2920	9 2.4	0.7742	5.945
	11	21.3	0.6083	+1.187	1.0026	21 21.9	1.2913	8 58.5	0.7809	+6.038
	12	21.3	0.6110	1.196	1.0051	21 22.3	1.2907	8 54.7	0.7874	6.129
	13	21.4	0.6137	1.205	1.0076	21 22.7	1.2901	8 50.8	0.7937	6.218
	14	21.5	0.6165	1.213	1.0101	21 23.0	1.2895	8 46.9	0.7997	6.305
	15	21.5	0.6192	1.222	1.0126	21 23.4	1.2888	8 43.0	0.8055	6.390
	16	21.6	0.6220	1.230	1.0150	21 23.7	1.2882	8 39.1	0.8112	6.474
17	21.7	0.6247	+1.238	1.0174	21 24.1	1.2876	8 35.1	0.8166	+6.556	
18	21.7	0.6274	1.246	1.0197	21 24.4	1.2870	8 31.2	0.8220	6.637	
19	21.8	0.6302	1.254	1.0220	21 24.8	1.2864	8 27.2	0.8270	6.715	
20	21.9	0.6329	1.262	1.0242	21 25.1	1.2858	8 23.3	0.8319	6.791	
21	21.9	0.6356	1.270	1.0265	21 25.4	1.2852	8 19.3	0.8367	6.866	
22	22.0	0.6384	1.278	1.0287	21 25.8	1.2846	8 15.3	0.8413	6.939	
23	22.1	0.6411	+1.286	1.0308	21 26.1	1.2840	8 11.3	0.8457	+7.009	
24	22.1	0.6439	1.294	1.0329	21 26.4	1.2835	8 7.3	0.8499	7.078	
25	22.2	0.6466	1.301	1.0350	21 26.7	1.2829	8 3.3	0.8540	7.145	
26	22.3	0.6493	1.309	1.0371	21 27.0	1.2824	7 59.2	0.8579	7.210	
27	22.3	0.6521	1.316	1.0392	21 27.3	1.2818	7 55.2	0.8617	7.273	
28	22.4	0.6548	1.324	1.0412	21 27.6	1.2813	7 51.1	0.8653	7.334	
29	22.4	0.6575	+1.331	1.0432	21 27.9	1.2808	7 47.1	0.8688	+7.392	
30	22.5	0.6603	1.339	1.0451	21 28.2	1.2803	7 43.0	0.8721	7.449	
31	22.6	0.6630	1.346	1.0470	21 28.4	1.2798	7 38.9	0.8753	7.504	
Sept.	1	22.6	0.6658	1.353	1.0489	21 28.7	1.2793	7 34.8	0.8783	7.557
	2	22.7	0.6685	1.360	1.0508	21 29.0	1.2788	7 30.7	0.8812	7.607
	3	22.8	0.6712	+1.367	1.0526	21 29.3	1.2784	7 26.5	0.8839	+7.654



Tag		0 <sup>h</sup> Welt-Zeit								
		f'	g'	G'	Allgemeine Präzession seit 1929,0	$\Delta\psi$	$\Delta\psi'$	Wahre Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$
1929		in 0.001	in 0.01				in 0.01	23° 27'		in 0.01
Juli	24	+10	+ 7	22.7	+28.09	-11.45	+17	0.42	+5.98	+ 2
	25	+ 7	8	20.3	28.23	11.42	+11	0.48	6.00	+ 6
	26	+ 2	9	18.4	28.37	11.39	+ 2	0.53	6.03	+ 9
	27	- 5	11	16.8	28.51	11.37	- 8	0.57	6.05	+11
	28	-12	12	15.4	28.64	11.34	-19	0.57	6.07	+ 9
	29	-17	12	13.9	28.78	11.32	-27	0.56	6.10	+ 6
	30	-19	+12	12.4	+28.92	-11.30	-31	0.54	+6.12	+ 1
	31	-17	12	10.7	29.06	11.28	-29	0.51	6.14	- 4
Aug.	1	-12	11	9.0	29.19	11.26	-20	0.49	6.16	- 8
	2	- 5	11	7.1	29.33	11.24	- 8	0.48	6.19	-11
	3	+ 3	10	5.2	29.47	11.22	+ 5	0.51	6.21	-10
	4	+11	10	3.2	29.61	11.21	+17	0.56	6.24	- 8
	5	+15	+11	1.2	+29.75	-11.19	+25	0.62	+6.26	- 3
	6	+17	11	23.4	29.88	11.18	+27	0.70	6.28	+ 2
	7	+14	11	21.7	30.02	11.17	+24	0.77	6.31	+ 6
	8	+10	11	20.2	30.16	11.16	+16	0.82	6.33	+ 9
	9	+ 4	10	18.8	30.30	11.15	+ 6	0.85	6.36	+10
	10	- 2	9	17.4	30.43	11.14	- 3	0.86	6.38	+ 9
	11	- 7	+ 7	15.6	+30.57	-11.14	-11	0.85	+6.40	+ 6
	12	- 9	6	13.0	30.71	11.13	-15	0.83	6.43	+ 2
	13	- 9	6	10.5	30.85	11.13	-15	0.81	6.45	- 2
	14	- 7	8	8.4	30.98	11.13	-11	0.80	6.47	- 6
	15	- 3	9	6.9	31.12	11.13	- 5	0.80	6.50	- 9
	16	+ 1	10	5.7	31.26	11.13	+ 2	0.81	6.52	-10
	17	+ 5	+ 9	4.5	+31.40	-11.13	+ 9	0.84	+6.55	- 9
	18	+ 9	9	3.2	31.53	11.14	+15	0.88	6.57	- 7
19	+11	8	1.5	31.67	11.14	+18	0.94	6.59	- 3	
20	+11	7	23.4	31.81	11.15	+18	1.00	6.61	+ 1	
21	+ 9	8	21.2	31.95	11.16	+15	1.07	6.64	+ 5	
22	+ 4	9	19.2	32.08	11.17	+ 7	1.12	6.66	+ 9	
23	- 2	+10	17.5	+32.22	-11.18	- 3	1.16	+6.68	+10	
24	- 9	11	16.0	32.36	11.19	-14	1.17	6.70	+10	
25	-15	12	14.5	32.50	11.20	-24	1.17	6.72	+ 7	
26	-18	12	12.9	32.63	11.21	-29	1.14	6.74	+ 3	
27	-18	12	11.3	32.77	11.23	-29	1.11	6.76	- 2	
28	-14	12	9.5	32.91	11.24	-23	1.08	6.78	- 7	
29	- 7	+11	7.7	+33.05	-11.26	-12	1.07	+6.80	-10	
30	+ 1	11	5.9	33.19	11.28	+ 1	1.08	6.82	-11	
31	+ 8	10	3.9	33.32	11.30	+13	1.12	6.84	- 9	
Sept.	1	+13	10	1.9	33.46	11.32	+22	1.18	6.86	- 5
	2	+16	10	0.0	33.60	11.34	+26	1.24	6.88	0
	3	+15	+11	22.1	+33.74	-11.36	+24	1.31	+6.90	+ 5

Tag	O <sup>b</sup> Welt-Zeit								
	St.-Zt. Grw.	<i>t</i>	<i>f</i>	log <i>g</i>	<i>G</i>	log <i>h</i>	<i>H</i>	log <i>i</i>	<i>i</i>
1929									
Sept. 3	22.8 <sup>h</sup>	0.6712 <sup>a</sup>	+1.367	1.0526	21 <sup>n</sup> 29.3 <sup>m</sup>	1.2784	7 <sup>b</sup> 26.5 <sup>m</sup>	0.8839	+7.654
4	22.8	0.6740	1.374	1.0544	21 29.6	1.2780	7 22.4	0.8865	7.700
5	22.9	0.6767	1.381	1.0562	21 29.9	1.2776	7 18.2	0.8890	7.744
6	23.0	0.6795	1.388	1.0579	21 30.2	1.2772	7 14.1	0.8913	7.786
7	23.0	0.6822	1.395	1.0596	21 30.4	1.2768	7 9.9	0.8935	7.826
8	23.1	0.6849	1.402	1.0613	21 30.7	1.2765	7 5.8	0.8956	7.863
9	23.2	0.6877	+1.409	1.0629	21 31.0	1.2761	7 1.6	0.8975	+7.897
10	23.2	0.6904	1.415	1.0646	21 31.3	1.2758	6 57.4	0.8993	7.930
11	23.3	0.6931	1.422	1.0662	21 31.6	1.2755	6 53.2	0.9010	7.961
12	23.4	0.6959	1.429	1.0678	21 32.0	1.2752	6 49.0	0.9025	7.989
13	23.4	0.6986	1.435	1.0694	21 32.3	1.2750	6 44.7	0.9039	8.015
14	23.5	0.7014	1.442	1.0709	21 32.6	1.2747	6 40.5	0.9051	8.038
15	23.6	0.7041	+1.449	1.0724	21 32.9	1.2745	6 36.3	0.9063	+8.059
16	23.6	0.7068	1.455	1.0739	21 33.3	1.2743	6 32.0	0.9073	8.078
17	23.7	0.7096	1.462	1.0753	21 33.6	1.2742	6 27.8	0.9082	8.095
18	23.8	0.7123	1.468	1.0767	21 33.9	1.2740	6 23.5	0.9090	8.109
19	23.8	0.7150	1.475	1.0781	21 34.3	1.2739	6 19.3	0.9096	8.121
20	23.9	0.7178	1.481	1.0795	21 34.6	1.2738	6 15.0	0.9101	8.130
21	0.0	0.7205	+1.488	1.0809	21 35.0	1.2738	6 10.8	0.9105	+8.137
22	0.0	0.7233	1.494	1.0823	21 35.3	1.2737	6 6.5	0.9107	8.142
23	0.1	0.7260	1.501	1.0837	21 35.7	1.2737	6 2.2	0.9109	8.145
24	0.2	0.7287	1.507	1.0851	21 36.1	1.2737	5 58.0	0.9109	8.145
25	0.2	0.7315	1.514	1.0864	21 36.5	1.2737	5 53.7	0.9108	8.143
26	0.3	0.7342	1.520	1.0877	21 36.9	1.2737	5 49.4	0.9105	8.138
27	0.4	0.7369	+1.526	1.0890	21 37.3	1.2738	5 45.1	0.9101	+8.131
28	0.4	0.7397	1.533	1.0903	21 37.7	1.2739	5 40.9	0.9096	8.121
29	0.5	0.7424	1.539	1.0916	21 38.1	1.2740	5 36.6	0.9090	8.109
30	0.6	0.7452	1.546	1.0928	21 38.5	1.2742	5 32.3	0.9082	8.095
Okt. 1	0.6	0.7479	1.552	1.0941	21 39.0	1.2743	5 28.0	0.9074	8.079
2	0.7	0.7506	1.559	1.0953	21 39.4	1.2745	5 23.8	0.9063	8.060
3	0.7	0.7534	+1.566	1.0965	21 39.9	1.2747	5 19.5	0.9052	+8.039
4	0.8	0.7561	1.572	1.0977	21 40.3	1.2750	5 15.2	0.9039	8.015
5	0.9	0.7589	1.579	1.0989	21 40.8	1.2752	5 11.0	0.9025	7.989
6	0.9	0.7616	1.586	1.1001	21 41.3	1.2755	5 6.7	0.9009	7.960
7	1.0	0.7643	1.592	1.1013	21 41.8	1.2758	5 2.4	0.8992	7.929
8	1.1	0.7671	1.599	1.1025	21 42.3	1.2761	4 58.2	0.8974	7.896
9	1.1	0.7698	+1.606	1.1037	21 42.8	1.2765	4 53.9	0.8954	+7.860
10	1.2	0.7725	1.613	1.1049	21 43.3	1.2768	4 49.7	0.8933	7.822
11	1.3	0.7753	1.620	1.1061	21 43.8	1.2772	4 45.4	0.8911	7.782
12	1.3	0.7780	1.627	1.1072	21 44.4	1.2776	4 41.2	0.8887	7.739
13	1.4	0.7808	1.634	1.1084	21 44.9	1.2780	4 37.0	0.8861	7.693
14	1.5	0.7835	+1.641	1.1096	21 45.5	1.2785	4 32.7	0.8834	+7.646

Tag	O <sup>h</sup> Welt-Zeit								
	$f'$	$g'$	$G'$	Allgemeine Präzession seit 1929.0	$\Delta\psi$	$\Delta\psi'$	Wahre Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$
1929	in 0.001	in 0.01				in 0.01	23° 27'		in 0.01
Sept. 3	+15	+11	22.1	+33.74	-11.36	+24	1.31	+6.90	+ 5
4	+10	11	20.5	33.87	11.39	+17	1.36	6.92	+ 9
5	+ 5	11	19.1	34.01	11.41	+ 8	1.39	6.93	+10
6	- 1	10	17.7	34.15	11.43	- 2	1.40	6.95	+10
7	- 6	8	16.0	34.29	11.46	-10	1.39	6.97	+ 7
8	- 9	7	13.8	34.42	11.49	-15	1.37	6.98	+ 3
9	-10	+ 6	11.3	+34.56	-11.51	-16	1.34	+6.99	- 1
10	- 8	7	9.0	34.70	11.54	-13	1.31	7.01	- 5
11	- 5	9	7.4	34.84	11.57	- 8	1.29	7.02	- 8
12	0	9	6.1	34.97	11.60	0	1.29	7.04	- 9
13	+ 4	10	4.9	35.11	11.63	+ 7	1.30	7.05	- 9
14	+ 8	9	3.6	35.25	11.66	+13	1.33	7.06	- 7
15	+11	+ 8	2.1	+35.39	-11.69	+18	1.37	+7.07	- 4
16	+12	8	0.1	35.52	11.72	+19	1.42	7.08	0
17	+10	8	21.9	35.66	11.75	+16	1.47	7.09	+ 4
18	+ 6	9	19.8	35.80	11.78	+10	1.52	7.10	+ 8
19	0	10	18.1	35.94	11.81	0	1.55	7.11	+10
20	- 6	11	16.5	36.08	11.84	-10	1.56	7.12	+10
21	-12	+11	15.1	+36.21	-11.87	-20	1.55	+7.13	+ 8
22	-16	12	13.5	36.35	11.91	-27	1.51	7.13	+ 4
23	-17	11	11.8	36.49	11.94	-28	1.47	7.14	- 1
24	-15	11	10.0	36.63	11.97	-24	1.42	7.15	- 5
25	- 9	11	8.1	36.76	12.00	-15	1.39	7.15	- 9
26	- 1	11	6.3	36.90	12.03	- 2	1.38	7.15	-11
27	+ 6	+10	4.5	+37.04	-12.07	+10	1.39	+7.16	-10
28	+12	10	2.6	37.18	12.10	+20	1.43	7.16	- 6
29	+16	10	0.6	37.31	12.13	+25	1.48	7.16	- 2
30	+15	10	22.7	37.45	12.16	+25	1.53	7.17	+ 3
Okt. 1	+12	11	21.0	37.59	12.19	+19	1.57	7.17	+ 8
2	+ 6	11	19.4	37.73	12.22	+10	1.59	7.17	+10
3	0	+10	18.0	+37.86	-12.25	0	1.59	+7.17	+10
4	- 6	9	16.4	38.00	12.28	- 9	1.57	7.17	+ 8
5	- 9	7	14.4	38.14	12.31	-15	1.53	7.17	+ 4
6	-10	7	12.0	38.28	12.34	-17	1.48	7.16	0
7	- 9	7	9.7	38.41	12.37	-15	1.44	7.16	- 4
8	- 6	8	7.9	38.55	12.39	-10	1.40	7.16	- 7
9	- 2	+ 9	6.5	+38.69	-12.42	- 3	1.38	+7.15	- 9
10	+ 3	10	5.3	38.83	12.45	+ 4	1.37	7.15	-10
11	+ 7	9	4.1	38.96	12.47	+11	1.37	7.14	- 8
12	+10	8	2.7	39.10	12.49	+16	1.40	7.14	- 5
13	+11	7	0.8	39.24	12.52	+18	1.43	7.13	- 2
14	+10	+ 7	22.5	+39.38	-12.54	+17	1.46	+7.13	+ 3

Tag	O <sup>h</sup> Welt-Zeit								
	St.-Zt. Grw.	<i>t</i>	<i>f</i>	log <i>g</i>	<i>G</i>	log <i>h</i>	<i>H</i>	log <i>i</i>	<i>i</i>
1929									
Okt. 14	<sup>h</sup> 1.5	<sup>a</sup> 0.7835	+1.641	1.1096	21 <sup>h</sup> 45 <sup>m</sup> .5	1.2785	<sup>h</sup> 4 32.7	0.8834	+7.646
15	1.5	0.7862	1.648	1.1108	21 46.0	1.2789	4 28.5	0.8806	7.597
16	1.6	0.7890	1.655	1.1119	21 46.6	1.2794	4 24.3	0.8777	7.545
17	1.7	0.7917	1.662	1.1131	21 47.2	1.2799	4 20.1	0.8745	7.491
18	1.7	0.7944	1.670	1.1143	21 47.8	1.2804	4 15.9	0.8712	7.434
19	1.8	0.7972	1.677	1.1155	21 48.4	1.2809	4 11.7	0.8678	7.375
20	1.9	0.7999	+1.685	1.1167	21 49.0	1.2815	4 7.5	0.8642	+7.314
21	1.9	0.8027	1.692	1.1179	21 49.6	1.2820	4 3.3	0.8604	7.251
22	2.0	0.8054	1.700	1.1191	21 50.2	1.2826	3 59.1	0.8564	7.185
23	2.1	0.8081	1.708	1.1203	21 50.8	1.2831	3 55.0	0.8523	7.117
24	2.1	0.8109	1.715	1.1215	21 51.5	1.2837	3 50.8	0.8480	7.047
25	2.2	0.8136	1.723	1.1228	21 52.1	1.2843	3 46.7	0.8435	6.975
26	2.3	0.8163	+1.731	1.1240	21 52.7	1.2849	3 42.5	0.8389	+6.901
27	2.3	0.8191	1.739	1.1253	21 53.4	1.2855	3 38.4	0.8340	6.824
28	2.4	0.8218	1.747	1.1265	21 54.0	1.2862	3 34.3	0.8290	6.745
29	2.5	0.8246	1.755	1.1278	21 54.7	1.2868	3 30.2	0.8238	6.665
30	2.5	0.8273	1.764	1.1291	21 55.4	1.2874	3 26.1	0.8184	6.582
31	2.6	0.8300	1.772	1.1304	21 56.0	1.2880	3 22.0	0.8127	6.497
Nov.									
1	2.7	0.8328	+1.781	1.1317	21 56.7	1.2887	3 17.9	0.8069	+6.410
2	2.7	0.8355	1.789	1.1330	21 57.4	1.2893	3 13.9	0.8008	6.321
3	2.8	0.8383	1.798	1.1344	21 58.1	1.2900	3 9.8	0.7946	6.231
4	2.9	0.8410	1.807	1.1357	21 58.8	1.2906	3 5.8	0.7881	6.139
5	2.9	0.8437	1.816	1.1371	21 59.5	1.2913	3 1.7	0.7813	6.044
6	3.0	0.8465	1.825	1.1385	22 0.1	1.2920	2 57.7	0.7743	5.947
7	3.0	0.8492	+1.834	1.1399	22 0.8	1.2926	2 53.7	0.7670	+5.848
8	3.1	0.8519	1.843	1.1413	22 1.5	1.2933	2 49.7	0.7595	5.748
9	3.2	0.8547	1.853	1.1427	22 2.2	1.2939	2 45.7	0.7517	5.646
10	3.2	0.8574	1.862	1.1442	22 2.9	1.2946	2 41.7	0.7437	5.542
11	3.3	0.8602	1.872	1.1457	22 3.6	1.2952	2 37.7	0.7353	5.436
12	3.4	0.8629	1.881	1.1472	22 4.3	1.2959	2 33.8	0.7266	5.329
13	3.4	0.8656	+1.891	1.1487	22 5.0	1.2965	2 29.8	0.7177	+5.220
14	3.5	0.8684	1.901	1.1503	22 5.7	1.2971	2 25.9	0.7083	5.109
15	3.6	0.8711	1.910	1.1518	22 6.4	1.2978	2 21.9	0.6987	4.997
16	3.6	0.8738	1.920	1.1534	22 7.1	1.2984	2 18.0	0.6887	4.883
17	3.7	0.8766	1.930	1.1549	22 7.7	1.2990	2 14.1	0.6783	4.768
18	3.8	0.8793	1.940	1.1565	22 8.4	1.2996	2 10.2	0.6675	4.651
19	3.8	0.8821	+1.951	1.1581	22 9.1	1.3002	2 6.3	0.6563	+4.532
20	3.9	0.8848	1.961	1.1597	22 9.8	1.3008	2 2.4	0.6446	4.412
21	4.0	0.8875	1.972	1.1614	22 10.4	1.3014	1 58.5	0.6326	4.291
22	4.0	0.8903	1.982	1.1630	22 11.1	1.3019	1 54.6	0.6200	4.169
23	4.1	0.8930	1.993	1.1647	22 11.8	1.3025	1 50.8	0.6069	4.045
24	4.2	0.8957	+2.004	1.1664	22 12.4	1.3030	1 46.9	0.5932	+3.919

Tag	0 <sup>h</sup> Welt-Zeit								
	<i>f'</i>	<i>g'</i>	<i>G'</i>	Allgemeine Präzession seit 1929.0	$\Delta\psi$	$\Delta\psi'$	Wahre Schiefe	$\Delta s$	$\Delta s'$
1929	in 0.001	in 0.01					23° 27'		in 0.01
Okt. 14	+10	+ 7	22.5	+39.38	-12.54	+17	1.46	+7.13	+ 3
15	+ 7	8	20.3	39.52	12.56	+11	1.49	7.12	+ 7
16	+ 2	9	18.5	39.65	12.58	+ 3	1.51	7.11	+ 9
17	- 4	11	16.9	39.79	12.60	- 7	1.51	7.11	+10
18	-11	11	15.5	39.93	12.61	-18	1.49	7.10	+ 9
19	-15	11	14.0	40.07	12.63	-25	1.45	7.09	+ 6
20	-17	+11	12.4	+40.20	-12.65	-28	1.39	+7.08	+ 1
21	-16	11	10.6	40.34	12.66	-26	1.33	7.07	- 4
22	-11	11	8.6	40.48	12.67	-17	1.27	7.06	- 8
23	- 3	11	6.7	40.62	12.68	- 5	1.24	7.05	-11
24	+ 5	11	4.9	40.75	12.69	+ 8	1.23	7.04	-10
25	+12	11	3.0	40.89	12.70	+19	1.24	7.03	- 8
26	+16	+11	1.2	+41.03	-12.71	+26	1.27	+7.01	- 3
27	+17	11	23.3	41.17	12.72	+27	1.31	7.00	+ 2
28	+14	11	21.6	41.30	12.72	+23	1.35	6.99	+ 7
29	+ 8	11	20.0	41.44	12.72	+14	1.36	6.98	+10
30	+ 2	11	18.5	41.58	12.72	+ 3	1.36	6.96	+10
31	- 4	9	16.9	41.72	12.72	- 7	1.33	6.95	+ 9
Nov. 1	- 9	+ 8	15.0	+41.85	-12.72	-14	1.28	+6.94	+ 6
2	-11	7	12.8	41.99	12.72	-17	1.22	6.92	+ 1
3	-10	7	10.4	42.13	12.71	-17	1.16	6.91	- 3
4	- 8	8	8.4	42.27	12.71	-12	1.11	6.90	- 7
5	- 3	9	6.9	42.40	12.70	- 5	1.08	6.88	- 9
6	+ 1	10	5.7	42.54	12.69	+ 2	1.05	6.87	-10
7	+ 6	+ 9	4.5	+42.68	-12.68	+ 9	1.05	+6.86	- 9
8	+ 9	9	3.1	42.82	12.67	+15	1.06	6.84	- 6
9	+11	7	1.4	42.96	12.65	+18	1.08	6.83	- 3
10	+10	7	23.1	43.09	12.63	+17	1.10	6.82	+ 2
11	+ 8	8	20.7	43.23	12.62	+13	1.13	6.80	+ 6
12	+ 3	9	18.9	43.37	12.60	+ 5	1.15	6.79	+ 9
13	- 3	+11	17.2	+43.51	-12.58	- 5	1.15	+6.77	+10
14	-10	12	15.8	43.64	12.55	-16	1.13	6.76	+10
15	-15	12	14.5	43.78	12.53	-24	1.09	6.75	+ 7
16	-18	12	12.9	43.92	12.50	-29	1.03	6.73	+ 3
17	-17	11	11.2	44.06	12.48	-28	0.96	6.72	- 2
18	-13	11	9.3	44.19	12.45	-21	0.90	6.71	- 7
19	- 6	+11	7.4	+44.33	-12.42	-10	0.86	+6.70	-10
20	+ 2	11	5.4	44.47	12.39	+ 4	0.83	6.68	-11
21	+10	11	3.6	44.61	12.35	+16	0.84	6.67	- 9
22	+15	11	1.7	44.74	12.32	+25	0.87	6.66	- 5
23	+18	11	23.9	44.88	12.28	+29	0.91	6.65	0
24	+16	+12	22.2	+45.02	-12.25	+26	0.94	+6.64	+ 5

Tag	0 <sup>h</sup> Welt-Zeit								
	St.-Zt. Grw.	<i>t</i>	<i>f</i>	log <i>g</i>	<i>G</i>	log <i>h</i>	<i>H</i>	log <i>i</i>	<i>i</i>
1929									
Nov. 24	<sup>h</sup> 4.2	<sup>m</sup> 0.8957	+ <sup>s</sup> 2.004	1.1664	<sup>h</sup> 22 <sup>m</sup> 12.4	1.3030	<sup>h</sup> 1 <sup>m</sup> 46.9	0.5932	+ <sup>s</sup> 3.919
25	4.2	0.8985	2.014	1.1681	22 13.1	1.3035	1 43.1	0.5789	3.792
26	4.3	0.9012	2.025	1.1699	22 13.7	1.3040	1 39.2	0.5640	3.664
27	4.4	0.9040	2.036	1.1716	22 14.3	1.3045	1 35.4	0.5484	3.535
28	4.4	0.9067	2.047	1.1734	22 14.9	1.3050	1 31.6	0.5321	3.405
29	4.5	0.9094	2.058	1.1751	22 15.5	1.3055	1 27.7	0.5149	3.273
30	4.6	0.9122	+2.069	1.1769	22 16.2	1.3060	1 23.9	0.4971	+3.141
Dez. 1	4.6	0.9149	2.081	1.1787	22 16.8	1.3064	1 20.1	0.4783	3.008
2	4.7	0.9176	2.092	1.1805	22 17.4	1.3068	1 16.3	0.4585	2.874
3	4.8	0.9204	2.103	1.1824	22 18.0	1.3072	1 12.5	0.4374	2.738
4	4.8	0.9231	2.115	1.1842	22 18.5	1.3076	1 8.7	0.4153	2.602
5	4.9	0.9259	2.126	1.1861	22 19.1	1.3080	1 4.9	0.3918	2.465
6	5.0	0.9286	+2.138	1.1879	22 19.6	1.3083	1 1.2	0.3668	+2.327
7	5.0	0.9313	2.150	1.1898	22 20.2	1.3086	0 57.4	0.3400	2.188
8	5.1	0.9341	2.161	1.1917	22 20.7	1.3089	0 53.6	0.3113	2.048
9	5.1	0.9368	2.173	1.1936	22 21.2	1.3092	0 49.9	0.2806	1.908
10	5.2	0.9396	2.185	1.1955	22 21.7	1.3095	0 46.1	0.2475	1.768
11	5.3	0.9423	2.197	1.1974	22 22.2	1.3098	0 42.4	0.2114	1.627
12	5.3	0.9450	+2.208	1.1993	22 22.7	1.3100	0 38.6	0.1717	+1.485
13	5.4	0.9478	2.220	1.2012	22 23.2	1.3102	0 34.9	0.1278	1.342
14	5.5	0.9505	2.232	1.2031	22 23.7	1.3104	0 31.1	0.0788	1.199
15	5.5	0.9532	2.244	1.2051	22 24.1	1.3105	0 27.4	0.0237	1.056
16	5.6	0.9560	2.256	1.2070	22 24.6	1.3107	0 23.6	9.9605	0.913
17	5.7	0.9587	2.268	1.2090	22 25.0	1.3108	0 19.9	9.8859	0.769
18	5.7	0.9615	+2.280	1.2109	22 25.4	1.3109	0 16.1	9.7959	+0.625
19	5.8	0.9642	2.292	1.2129	22 25.8	1.3110	0 12.4	9.6812	0.480
20	5.9	0.9669	2.304	1.2148	22 26.2	1.3111	0 8.7	9.5250	0.335
21	5.9	0.9697	2.316	1.2167	22 26.6	1.3111	0 4.9	9.2788	0.190
22	6.0	0.9724	2.328	1.2187	22 27.0	1.3111	0 1.2	8.6532	+0.045
23	6.1	0.9751	2.341	1.2206	22 27.3	1.3111	23 57.4	8.9956 <sub>n</sub>	-0.099
24	6.1	0.9779	+2.353	1.2226	22 27.7	1.3111	23 53.7	9.3874 <sub>n</sub>	-0.244
25	6.2	0.9806	2.365	1.2246	22 28.0	1.3110	23 50.0	9.5899 <sub>n</sub>	0.389
26	6.3	0.9834	2.377	1.2265	22 28.3	1.3110	23 46.2	9.7267 <sub>n</sub>	0.533
27	6.3	0.9861	2.389	1.2285	22 28.6	1.3109	23 42.5	9.8306 <sub>n</sub>	0.677
28	6.4	0.9888	2.401	1.2304	22 28.9	1.3108	23 38.7	9.9143 <sub>n</sub>	0.821
29	6.5	0.9916	2.413	1.2323	22 29.2	1.3106	23 35.0	9.9845 <sub>n</sub>	0.965
30	6.5	0.9943	+2.425	1.2343	22 29.5	1.3105	23 31.2	0.0449 <sub>n</sub>	-1.109
31	6.6	0.9970	2.437	1.2362	22 29.8	1.3103	23 27.5	0.0980 <sub>n</sub>	1.253
32	6.7	0.9998	+2.449	1.2381	22 30.0	1.3101	23 23.7	0.1449 <sub>n</sub>	-1.396

Tag	O <sup>h</sup> Welt-Zeit								
	<i>f'</i>	<i>g'</i>	<i>G'</i>	Allgemeine Präzession seit 1929.0	$\Delta\psi$	$\Delta\psi'$	Wahre Schiefe	$\Delta s$	$\Delta s'$
1929	in 0.001	in 0.01				in 0.01	23° 27'		in 0.01
Nov. 24	+16	+12	22.2	+45.02	-12.25	+26	0.94	+6.64	+ 5
25	+11	11	20.7	45.16	12.21	+18	0.97	6.62	+ 9
26	+ 5	11	19.2	45.29	12.17	+ 8	0.97	6.61	+10
27	- 2	10	17.6	45.43	12.13	- 3	0.95	6.61	+10
28	- 7	8	15.8	45.57	12.08	-11	0.92	6.60	+ 7
29	-10	7	13.6	45.71	12.04	-16	0.86	6.59	+ 3
30	-10	+ 7	11.1	+45.85	-11.99	-17	0.81	+6.58	- 2
Dez. 1	- 8	8	9.0	45.98	11.95	-14	0.76	6.57	- 6
2	- 5	9	7.3	46.12	11.90	- 8	0.72	6.56	- 8
3	0	10	6.0	46.26	11.85	0	0.70	6.55	-10
4	+ 5	10	4.8	46.40	11.80	+ 7	0.70	6.55	- 9
5	+ 8	9	3.5	46.53	11.75	+14	0.71	6.54	- 7
6	+11	+ 8	2.0	+46.67	-11.70	+17	0.74	+6.54	- 4
7	+11	7	23.8	46.81	11.64	+18	0.77	6.53	0
8	+ 9	7	21.5	46.95	11.59	+14	0.81	6.53	+ 4
9	+ 4	8	19.3	47.08	11.54	+ 7	0.84	6.52	+ 8
10	- 2	10	17.6	47.22	11.48	- 3	0.86	6.52	+10
11	- 8	12	16.2	47.36	11.43	-13	0.85	6.52	+10
12	-14	+12	14.8	+47.50	-11.37	-23	0.83	+6.52	+ 8
13	-18	13	13.3	47.63	11.31	-30	0.79	6.51	+ 4
14	-19	12	11.7	47.77	11.25	-31	0.74	6.51	- 1
15	-16	12	10.1	47.91	11.20	-26	0.69	6.51	- 6
16	-10	11	8.2	48.05	11.14	-16	0.65	6.51	- 9
17	- 1	11	6.3	48.18	11.08	- 2	0.63	6.52	-11
18	+ 7	+11	4.3	+48.32	-11.02	+12	0.64	+6.52	-10
19	+14	11	2.4	48.46	10.96	+23	0.68	6.52	- 6
20	+17	11	0.5	48.60	10.90	+28	0.73	6.52	- 2
21	+17	12	22.8	48.73	10.84	+28	0.79	6.53	+ 4
22	+14	12	21.2	48.87	10.78	+22	0.83	6.53	+ 8
23	+ 8	11	19.7	49.01	10.72	+13	0.86	6.54	+10
24	+ 1	+10	18.3	+49.15	-10.66	+ 2	0.87	+6.55	+10
25	- 5	9	16.7	49.29	10.60	- 7	0.85	6.55	+ 8
26	- 8	7	14.5	49.42	10.54	-14	0.82	6.56	+ 4
27	-10	6	11.8	49.56	10.48	-16	0.78	6.57	0
28	- 8	7	9.3	49.70	10.42	-14	0.74	6.58	- 5
29	- 5	9	7.5	49.84	10.36	- 9	0.72	6.59	- 8
30	- 1	+ 9	6.2	+49.97	-10.30	- 1	0.71	+6.60	- 9
31	+ 4	10	5.0	50.11	10.25	+ 6	0.72	6.61	- 9
32	+ 8	+ 9	3.8	+50.25	-10.19	+13	0.75	+6.62	- 8

## Reduktionsgrößen 1929

für 12<sup>h</sup> Sternzeit Greenwich

Welt-Zeit		<i>t</i>	<i>A</i>	<i>A'</i>	<i>B</i>	<i>B'</i>	<i>C</i>	<i>D</i>
1929								
Jan.	0.224	-0.0017	-0.28084	+525	-4.350	- 54	- 3.042	+20.199
	1.221	+0.0010	0.27705	+377	4.364	- 85	3.371	20.137
	2.218	0.0038	0.27326	+184	4.379	- 97	3.698	20.069
	3.216	0.0065	0.26949	- 16	4.394	- 90	4.024	19.994
	4.213	0.0092	0.26573	-184	4.410	- 67	4.349	19.913
	5.210	0.0120	0.26199	-293	4.426	- 32	4.672	19.826
	6.208	0.0147	-0.25826	-338	-4.443	+ 7	- 4.994	+19.733
	7.205	0.0174	0.25455	-312	4.460	+ 45	5.315	19.633
	8.202	0.0202	0.25086	-228	4.478	+ 75	5.634	19.527
	9.199	0.0229	0.24718	-101	4.497	+ 91	5.951	19.415
	10.197	0.0256	0.24352	+ 47	4.517	+ 94	6.266	19.297
	11.194	0.0284	0.23989	+193	4.537	+ 78	6.579	19.173
	12.191	0.0311	-0.23628	+297	-4.557	+ 48	- 6.890	+19.043
	13.188	0.0338	0.23268	+336	4.578	+ 7	7.198	18.907
	14.186	0.0365	0.22911	+294	4.599	- 38	7.504	18.765
	15.183	0.0393	0.22557	+166	4.621	- 78	7.808	18.617
	16.180	0.0420	0.22205	- 27	4.643	-101	8.110	18.463
	17.177	0.0447	0.21856	-248	4.666	-102	8.409	18.304
	18.175	0.0475	-0.21509	-440	-4.689	- 80	- 8.705	+18.139
	19.172	0.0502	0.21165	-554	4.713	- 37	8.999	17.967
	20.169	0.0529	0.20824	-562	4.737	+ 12	9.290	17.790
	21.167	0.0557	0.20485	-450	4.761	+ 61	9.577	17.608
	22.164	0.0584	0.20149	-239	4.785	+ 95	9.861	17.421
	23.161	0.0611	0.19816	+ 18	4.810	+104	10.142	17.228
	24.158	0.0638	-0.19486	+272	-4.835	+ 91	-10.420	+17.030
	25.156	0.0666	0.19159	+462	4.860	+ 56	10.695	16.826
	26.153	0.0693	0.18835	+554	4.886	+ 9	10.967	16.617
	27.150	0.0720	0.18514	+535	4.912	- 37	11.235	16.403
	28.147	0.0748	0.18196	+420	4.938	- 75	11.499	16.184
	29.145	0.0775	0.17881	+243	4.964	- 95	11.760	15.960
	30.142	0.0802	-0.17569	+ 46	-4.990	- 95	-12.017	+15.731
	31.139	0.0830	0.17260	-131	5.017	- 78	12.270	15.497
Febr.	1.137	0.0857	0.16954	-260	5.043	- 46	12.519	15.258
	2.134	0.0884	0.16652	-327	5.070	- 6	12.764	15.015
	3.131	0.0912	0.16353	-323	5.096	+ 31	13.005	14.767
	4.128	0.0939	0.16057	-257	5.123	+ 64	13.242	14.515
	5.126	0.0966	-0.15764	-143	-5.149	+ 87	-13.475	+14.258
	6.123	0.0993	0.15475	+ 1	5.176	+ 95	13.704	13.997
	7.120	0.1021	0.15189	+151	5.202	+ 86	13.928	13.731
	8.117	0.1048	0.14906	+274	5.229	+ 61	14.148	13.461
	9.115	0.1075	0.14626	+345	5.255	+ 22	14.363	13.187
	10.112	0.1103	-0.14349	+339	-5.281	- 23	-14.574	+12.909



# Reduktionsgrößen 1929

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für 12<sup>h</sup> Sternzeit Greenwich

Welt-Zeit	<i>t</i>	<i>A</i>	<i>A'</i>	<i>B</i>	<i>B'</i>	<i>C</i>	<i>D</i>
1929							
Febr. 10.112	0.1103	-0.14349	in 0.0001 +339	-5.281	in 0.001 - 23	-14.574	+12.909
11.109	0.1130	0.14075	+248	5.307	- 64	14.780	12.627
12.107	0.1157	0.13804	+ 79	5.333	- 95	14.982	12.341
13.104	0.1185	0.13536	-133	5.359	-105	15.179	12.052
14.101	0.1212	0.13271	-340	5.384	- 93	15.371	11.759
15.098	0.1239	0.13009	-493	5.409	- 57	15.558	11.463
16.096	0.1266	-0.12751	-552	-5.434	- 8	-15.741	+11.163
17.093	0.1294	0.12495	-494	5.458	+ 42	15.919	10.860
18.090	0.1321	0.12242	-326	5.482	+ 84	16.091	10.554
19.087	0.1348	0.11992	- 88	5.506	+104	16.258	10.245
20.085	0.1376	0.11744	+164	5.529	+100	16.421	9.932
21.082	0.1403	0.11499	+378	5.552	+ 73	16.578	9.616
22.079	0.1430	-0.11256	+505	-5.574	+ 29	-16.730	+ 9.298
23.076	0.1458	0.11016	+529	5.596	- 19	16.877	8.977
24.074	0.1485	0.10779	+448	5.618	- 62	17.018	8.653
25.071	0.1512	0.10544	+292	5.640	- 91	17.154	8.327
26.068	0.1540	0.10311	+ 98	5.661	- 98	17.286	7.999
27.066	0.1567	0.10080	- 88	5.681	- 88	17.412	7.669
28.063	0.1594	-0.09852	-235	-5.701	- 60	-17.533	+ 7.336
März 1.060	0.1621	0.09626	-322	5.720	- 20	17.648	7.001
2.057	0.1649	0.09401	-339	5.739	+ 17	17.757	6.664
3.055	0.1676	0.09178	-291	5.757	+ 54	17.861	6.325
4.052	0.1703	0.08958	-191	5.775	+ 82	17.959	5.985
5.049	0.1731	0.08739	- 55	5.792	+ 94	18.052	5.643
6.046	0.1758	-0.08522	+ 95	-5.809	+ 92	-18.139	+ 5.299
7.044	0.1785	0.08306	+229	5.825	+ 72	18.221	4.954
8.041	0.1813	0.08092	+322	5.840	+ 38	18.298	4.607
9.038	0.1840	0.07879	+346	5.855	- 5	18.369	4.259
10.036	0.1867	0.07667	+291	5.869	- 49	18.434	3.910
11.033	0.1894	0.07456	+158	5.882	- 85	18.493	3.560
12.030	0.1922	-0.07246	- 36	-5.895	-104	-18.547	+ 3.210
13.027	0.1949	0.07037	-244	5.907	-100	18.595	2.859
14.025	0.1976	0.06829	-420	5.919	- 74	18.638	2.507
15.022	0.2004	0.06622	-517	5.930	- 29	18.675	2.154
16.019	0.2031	0.06415	-503	5.940	+ 21	18.707	1.801
17.016	0.2058	0.06209	-378	5.950	+ 68	18.733	1.448
18.014	0.2086	-0.06003	-165	-5.959	+ 99	-18.753	+ 1.094
19.011	0.2113	0.05797	+ 84	5.967	+105	18.767	0.740
20.008	0.2140	0.05592	+316	5.975	+ 86	18.776	0.386
21.006	0.2168	0.05386	+478	5.982	+ 49	18.779	+ 0.032
22.003	0.2195	0.05181	+537	5.988	- 1	18.777	- 0.322
23.000	0.2222	-0.04976	+488	-5.993	- 47	-18.769	- 0.675

## Reduktionsgrößen 1929

für 12<sup>h</sup> Sternzeit Greenwich

Welt-Zeit	<i>t</i>	<i>A</i>	<i>A'</i>	<i>B</i>	<i>B'</i>	<i>C</i>	<i>D</i>			
1929			in 0.0001		in 0.001					
März 23.000	0.2222	-0.04976 <sub>206</sub>	+488	-5.993	5	-47	-18.769	13	-0.675	353
23.997	0.2249	0.04770 <sub>206</sub>	+350	5.998	4	-81	18.756	19	1.028	352
24.995	0.2277	0.04564 <sub>207</sub>	+159	6.002	4	-98	18.737	25	1.380	352
25.992	0.2304	0.04357 <sub>207</sub>	-35	6.006	3	-93	18.712	30	1.732	351
26.989	0.2331	0.04150 <sub>208</sub>	-204	6.009	2	-73	18.682	36	2.083	350
27.986	0.2359	0.03942 <sub>209</sub>	-312	6.011	2	-36	18.646	41	2.433	349
28.984	0.2386	-0.03733 <sub>209</sub>	-354	-6.013	1	+4	-18.605	47	-2.782	349
29.981	0.2413	0.03524 <sub>210</sub>	-327	6.014	1	+42	18.558	52	3.131	348
30.978	0.2441	0.03314 <sub>212</sub>	-241	6.015	0	+74	18.506	58	3.479	346
31.975	0.2468	0.03102 <sub>213</sub>	-114	6.015	1	+92	18.448	63	3.825	345
April 1.973	0.2495	0.02889 <sub>214</sub>	+29	6.014	1	+94	18.385	68	4.170	343
2.970	0.2522	0.02675 <sub>215</sub>	+171	6.013	2	+81	18.317	73	4.513	341
3.967	0.2550	-0.02460 <sub>216</sub>	+278	-6.011	2	+51	-18.244	79	-4.854	340
4.965	0.2577	0.02244 <sub>218</sub>	+330	6.009	3	+12	18.165	84	5.194	338
5.962	0.2604	0.02026 <sub>219</sub>	+304	6.006	3	-32	18.081	90	5.532	337
6.959	0.2632	0.01807 <sub>221</sub>	+200	6.002	4	-73	17.991	95	5.869	335
7.956	0.2659	0.01586 <sub>223</sub>	+29	5.998	4	-99	17.896	100	6.204	332
8.954	0.2686	0.01363 <sub>225</sub>	-175	5.993	5	-105	17.796	105	6.536	330
9.951	0.2714	-0.01138 <sub>227</sub>	-364	-5.988	6	-88	-17.691	110	-6.866	329
10.948	0.2741	0.00911 <sub>229</sub>	-488	5.982	6	-49	17.581	115	7.195	326
11.945	0.2768	0.00682 <sub>231</sub>	-514	5.976	7	0	17.466	120	7.521	323
12.943	0.2795	0.00451 <sub>233</sub>	-427	5.969	7	+51	17.346	125	7.844	321
13.940	0.2823	-0.00218 <sub>234</sub>	-237	5.962	8	+89	17.221	130	8.165	319
14.937	0.2850	+0.00016 <sub>237</sub>	+9	5.954	8	+106	17.091	135	8.484	316
15.935	0.2877	+0.00253 <sub>239</sub>	+259	-5.946	8	+98	-16.956	140	-8.800	314
16.932	0.2905	0.00492 <sub>242</sub>	+456	5.938	8	+66	16.816	145	9.114	311
17.929	0.2932	0.00734 <sub>244</sub>	+556	5.930	9	+20	16.671	149	9.425	307
18.926	0.2959	0.00978 <sub>246</sub>	+543	5.921	9	-29	16.522	154	9.732	304
19.924	0.2987	0.01224 <sub>249</sub>	+431	5.912	10	-70	16.368	159	10.036	302
20.921	0.3014	0.01473 <sub>252</sub>	+250	5.902	10	-94	16.209	164	10.338	299
21.918	0.3041	+0.01725 <sub>254</sub>	+45	-5.892	10	-98	-16.045	168	-10.637	295
22.915	0.3069	0.01979 <sub>257</sub>	-145	5.882	10	-83	15.877	172	10.932	292
23.913	0.3096	0.02236 <sub>259</sub>	-283	5.872	11	-52	15.705	177	11.224	289
24.910	0.3123	0.02495 <sub>262</sub>	-352	5.861	11	-12	15.528	181	11.513	285
25.907	0.3150	0.02757 <sub>265</sub>	-348	5.850	11	+28	15.347	185	11.798	281
26.904	0.3178	0.03022 <sub>268</sub>	-282	5.839	11	+62	15.162	190	12.079	278
27.902	0.3205	+0.03290 <sub>270</sub>	-167	-5.828	11	+86	-14.972	194	-12.357	274
28.899	0.3232	0.03560 <sub>273</sub>	-27	5.817	11	+94	14.778	198	12.631	270
29.896	0.3260	0.03833 <sub>275</sub>	+117	5.806	12	+88	14.580	202	12.901	267
30.894	0.3287	0.04108 <sub>278</sub>	+237	5.794	11	+64	14.378	206	13.168	263
Mai 1.891	0.3314	0.04386 <sub>282</sub>	+304	5.783	12	+29	14.172	210	13.431	258
2.888	0.3342	+0.04668	+305	-5.771		-15	-13.962		-13.689	

# Reduktionsgrößen 1929

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für 12<sup>h</sup> Sternzeit Greenwich

Welt-Zeit	t	A	A'	B	B'	C	D	
1929								
Mai	2.888	0.3342	+0.04668 <sup>284</sup>	+305	-5.771 <sup>12</sup>	- 15	-13.962 <sup>214</sup>	-13.689 <sup>255</sup>
	3.885	0.3369	0.04952 <sup>287</sup>	+227	5.759 <sup>12</sup>	- 57	13.748 <sup>217</sup>	13.944 <sup>251</sup>
	4.883	0.3396	0.05239 <sup>290</sup>	+ 76	5.747 <sup>12</sup>	- 90	13.531 <sup>221</sup>	14.195 <sup>247</sup>
	5.880	0.3423	0.05529 <sup>293</sup>	-123	5.735 <sup>12</sup>	-104	13.310 <sup>226</sup>	14.442 <sup>242</sup>
	6.877	0.3451	0.05822 <sup>295</sup>	-325	5.723 <sup>12</sup>	- 97	13.084 <sup>229</sup>	14.684 <sup>238</sup>
	7.874	0.3478	0.06117 <sup>298</sup>	-477	5.711 <sup>11</sup>	- 67	12.855 <sup>232</sup>	14.922 <sup>233</sup>
	8.872	0.3505	+0.06415 <sup>301</sup>	-543	-5.700 <sup>12</sup>	- 20	-12.623 <sup>236</sup>	-15.155 <sup>229</sup>
	9.869	0.3533	0.06716 <sup>303</sup>	-494	5.688 <sup>11</sup>	+ 32	12.387 <sup>239</sup>	15.384 <sup>225</sup>
	10.866	0.3560	0.07019 <sup>306</sup>	-335	5.677 <sup>12</sup>	+ 76	12.148 <sup>242</sup>	15.609 <sup>220</sup>
	11.864	0.3587	0.07325 <sup>309</sup>	- 96	5.665 <sup>11</sup>	+103	11.906 <sup>246</sup>	15.829 <sup>216</sup>
	12.861	0.3615	0.07634 <sup>312</sup>	+171	5.654 <sup>11</sup>	+104	11.660 <sup>249</sup>	16.045 <sup>211</sup>
	13.858	0.3642	0.07946 <sup>314</sup>	+405	5.643 <sup>11</sup>	+ 81	11.411 <sup>251</sup>	16.256 <sup>207</sup>
	14.855	0.3669	+0.08260 <sup>317</sup>	+553	-5.632 <sup>11</sup>	+ 40	-11.160 <sup>255</sup>	-16.463 <sup>202</sup>
	15.853	0.3697	0.08577 <sup>319</sup>	+591	5.621 <sup>10</sup>	- 9	10.905 <sup>258</sup>	16.665 <sup>197</sup>
	16.850	0.3724	0.08896 <sup>322</sup>	+518	5.611 <sup>10</sup>	- 55	10.647 <sup>261</sup>	16.862 <sup>192</sup>
	17.847	0.3751	0.09218 <sup>325</sup>	+356	5.601 <sup>10</sup>	- 89	10.386 <sup>264</sup>	17.054 <sup>188</sup>
	18.844	0.3778	0.09543 <sup>327</sup>	+149	5.591 <sup>10</sup>	-100	10.122 <sup>267</sup>	17.242 <sup>183</sup>
	19.842	0.3806	0.09870 <sup>330</sup>	- 55	5.581 <sup>9</sup>	- 91	9.855 <sup>269</sup>	17.425 <sup>177</sup>
	20.839	0.3833	+0.10200 <sup>332</sup>	-220	-5.572 <sup>9</sup>	- 66	- 9.586 <sup>271</sup>	-17.602 <sup>172</sup>
	21.836	0.3860	0.10532 <sup>333</sup>	-320	5.563 <sup>9</sup>	- 27	9.315 <sup>274</sup>	17.774 <sup>168</sup>
	22.834	0.3888	0.10865 <sup>336</sup>	-348	5.554 <sup>8</sup>	+ 13	9.041 <sup>276</sup>	17.942 <sup>162</sup>
	23.831	0.3915	0.11201 <sup>338</sup>	-301	5.546 <sup>8</sup>	+ 51	8.765 <sup>279</sup>	18.101 <sup>157</sup>
	24.828	0.3942	0.11539 <sup>341</sup>	-202	5.538 <sup>8</sup>	+ 80	8.486 <sup>281</sup>	18.261 <sup>152</sup>
	25.825	0.3970	0.11880 <sup>343</sup>	- 66	5.530 <sup>7</sup>	+ 94	8.205 <sup>283</sup>	18.413 <sup>147</sup>
	26.823	0.3997	+0.12223 <sup>345</sup>	+ 76	-5.523 <sup>7</sup>	+ 92	- 7.922 <sup>285</sup>	-18.560 <sup>142</sup>
	27.820	0.4024	0.12568 <sup>347</sup>	+204	5.516 <sup>7</sup>	+ 75	7.637 <sup>288</sup>	18.702 <sup>136</sup>
	28.817	0.4051	0.12915 <sup>349</sup>	+291	5.509 <sup>6</sup>	+ 43	7.349 <sup>290</sup>	18.838 <sup>131</sup>
	29.814	0.4079	0.13264 <sup>350</sup>	+314	5.503 <sup>6</sup>	+ 2	7.059 <sup>291</sup>	18.969 <sup>126</sup>
	30.812	0.4106	0.13614 <sup>352</sup>	+260	5.497 <sup>5</sup>	- 42	6.768 <sup>293</sup>	19.095 <sup>120</sup>
	31.809	0.4133	0.13966 <sup>354</sup>	+127	5.492 <sup>5</sup>	- 80	6.475 <sup>295</sup>	19.215 <sup>115</sup>
Juni	1.806	0.4161	+0.14320 <sup>356</sup>	- 64	-5.487 <sup>4</sup>	-102	- 6.180 <sup>297</sup>	-19.330 <sup>110</sup>
	2.803	0.4188	0.14676 <sup>357</sup>	-275	5.483 <sup>4</sup>	-102	5.883 <sup>298</sup>	19.440 <sup>104</sup>
	3.801	0.4215	0.15033 <sup>359</sup>	-460	5.479 <sup>3</sup>	- 81	5.585 <sup>299</sup>	19.544 <sup>99</sup>
	4.798	0.4243	0.15392 <sup>360</sup>	-569	5.476 <sup>3</sup>	- 39	5.286 <sup>301</sup>	19.643 <sup>93</sup>
	5.795	0.4270	0.15752 <sup>361</sup>	-569	5.473 <sup>2</sup>	+ 10	4.985 <sup>302</sup>	19.736 <sup>88</sup>
	6.793	0.4297	0.16113 <sup>363</sup>	-450	5.471 <sup>2</sup>	+ 59	4.683 <sup>304</sup>	19.824 <sup>82</sup>
	7.790	0.4325	+0.16476 <sup>364</sup>	-231	-5.469 <sup>1</sup>	+ 94	- 4.379 <sup>305</sup>	-19.906 <sup>77</sup>
	8.787	0.4352	0.16840 <sup>365</sup>	+ 38	5.468 <sup>1</sup>	+107	4.074 <sup>306</sup>	19.983 <sup>71</sup>
	9.784	0.4379	0.17205 <sup>366</sup>	+302	5.467 <sup>0</sup>	+ 93	3.768 <sup>307</sup>	20.054 <sup>66</sup>
	10.782	0.4406	0.17571 <sup>367</sup>	+501	5.467 <sup>0</sup>	+ 60	3.461 <sup>307</sup>	20.120 <sup>60</sup>
	11.779	0.4434	0.17938 <sup>368</sup>	+596	5.467 <sup>1</sup>	+ 12	3.154 <sup>308</sup>	20.180 <sup>54</sup>
	12.776	0.4461	+0.18306	+573	-5.468	- 38	- 2.846	-20.234

## Reduktionsgrößen 1929

für 12<sup>b</sup> Sternzeit Greenwich

Welt-Zeit		<i>t</i>	<i>A</i>	<i>A'</i>	<i>B</i>	<i>B'</i>	<i>C</i>	<i>D</i>	
1929									
Juni	12.776	0.4461	+0.18306	in 0.0001 +573	-5.468	in 0.001 - 38	-2.846	-20.234	
	13.773	0.4488	0.18674 <sup>368</sup>	+450	5.469	1 - 77	2.537 <sup>309</sup>	20.283	
	14.771	0.4516	0.19043 <sup>369</sup>	+260	5.471	2 - 98	2.228 <sup>309</sup>	20.326	
	15.768	0.4543	0.19413 <sup>370</sup>	+ 47	5.474	3 - 98	1.918 <sup>310</sup>	20.364	
	16.765	0.4570	0.19783 <sup>370</sup>	-139	5.477	3 - 77	1.607 <sup>311</sup>	20.396	
	17.763	0.4598	0.20154 <sup>371</sup>	-267	5.481	4 - 44	1.296 <sup>311</sup>	20.422	
	18.760	0.4625	+0.20525 <sup>371</sup>	-324	-5.485	4 - 2	-0.985 <sup>312</sup>	-20.442	
	19.757	0.4652	0.20896 <sup>371</sup>	-305	5.490	5 + 38	0.673 <sup>312</sup>	20.457	
	20.754	0.4679	0.21267 <sup>372</sup>	-226	5.495	5 + 71	0.361 <sup>312</sup>	20.466	
	21.752	0.4707	0.21639 <sup>372</sup>	- 99	5.501	6 + 91	-0.049 <sup>312</sup>	20.470	
	22.749	0.4734	0.22011 <sup>371</sup>	+ 44	5.508	7 + 96	+0.263 <sup>311</sup>	20.468	
	23.746	0.4761	0.22382 <sup>371</sup>	+181	5.515	7 + 83	0.574 <sup>312</sup>	20.461	
	24.743	0.4789	+0.22753 <sup>371</sup>	+286	-5.523	8 + 57	+0.886 <sup>311</sup>	-20.448	
	25.741	0.4816	0.23124 <sup>371</sup>	+333	5.531	8 + 18	1.197 <sup>311</sup>	20.429	
	26.738	0.4843	0.23495 <sup>370</sup>	+305	5.540	9 - 26	1.508 <sup>310</sup>	20.404	
	27.735	0.4871	0.23865 <sup>369</sup>	+197	5.550	10 - 67	1.818 <sup>310</sup>	20.374	
	28.733	0.4898	0.24234 <sup>369</sup>	+ 20	5.560	10 - 95	2.128 <sup>309</sup>	20.338	
	29.730	0.4925	0.24603 <sup>368</sup>	-194	5.571	11 -105	2.437 <sup>309</sup>	20.297	
	Juli	30.727	0.4953	+0.24971 <sup>367</sup>	-405	-5.582	11 - 93	+2.746 <sup>308</sup>	-20.250
		1.724	0.4980	0.25338 <sup>366</sup>	-559	5.594	12 - 58	3.054 <sup>307</sup>	20.198
2.722		0.5007	0.25704 <sup>366</sup>	-613	5.606	12 - 11	3.361 <sup>307</sup>	20.140	
3.719		0.5034	0.26070 <sup>365</sup>	-550	5.619	13 + 41	3.668 <sup>305</sup>	20.077	
4.716		0.5062	0.26435 <sup>365</sup>	-372	5.632	13 + 84	3.973 <sup>304</sup>	20.008	
5.713		0.5089	0.26798 <sup>362</sup>	-120	5.646	14 +106	4.277 <sup>303</sup>	19.933	
6.711		0.5116	+0.27160 <sup>360</sup>	+157	-5.661	15 +103	+4.580 <sup>301</sup>	-19.853	
7.708		0.5144	0.27520 <sup>359</sup>	+395	5.676	15 + 76	4.881 <sup>300</sup>	19.767	
8.705		0.5171	0.27879 <sup>358</sup>	+543	5.692	16 + 30	5.181 <sup>299</sup>	19.676	
9.702		0.5198	0.28237 <sup>357</sup>	+579	5.708	16 - 19	5.480 <sup>297</sup>	19.579	
10.700		0.5226	0.28594 <sup>355</sup>	+501	5.724	17 - 65	5.777 <sup>296</sup>	19.477	
11.697		0.5253	0.28949 <sup>353</sup>	+339	5.741	17 - 94	6.073 <sup>294</sup>	19.370	
12.694		0.5280	+0.29302 <sup>352</sup>	+136	-5.758	18 -102	+6.367 <sup>293</sup>	-19.257	
13.692		0.5307	0.29654 <sup>350</sup>	- 61	5.776	18 - 89	6.660 <sup>291</sup>	19.139	
14.689		0.5335	0.30004 <sup>348</sup>	-212	5.794	18 - 57	6.951 <sup>288</sup>	19.016	
15.686		0.5362	0.30352 <sup>346</sup>	-295	5.812	19 - 18	7.239 <sup>286</sup>	18.888	
16.683		0.5389	0.30698 <sup>344</sup>	-302	5.831	19 + 23	7.525 <sup>285</sup>	18.755	
17.681		0.5417	0.31042 <sup>342</sup>	-239	5.850	20 + 61	7.810 <sup>283</sup>	18.616	
18.678		0.5444	+0.31384 <sup>340</sup>	-127	-5.870	20 + 85	+8.093 <sup>280</sup>	-18.472	
19.675		0.5471	0.31724 <sup>338</sup>	+ 14	5.890	21 + 96	8.373 <sup>278</sup>	18.323	
20.672	0.5499	0.32062 <sup>335</sup>	+156	5.911	21 + 89	8.651 <sup>276</sup>	18.169		
21.670	0.5526	0.32397 <sup>333</sup>	+276	5.932	21 + 68	8.927 <sup>273</sup>	18.010		
22.667	0.5553	0.32730 <sup>332</sup>	+348	5.953	22 + 33	9.200 <sup>271</sup>	17.846		
23.664	0.5581	+0.33062	+349	-5.975	22 - 8	+9.471	-17.677		

# Reduktionsgrößen 1929

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## für 12<sup>h</sup> Sternzeit Greenwich

Welt-Zeit		<i>t</i>	<i>A</i>	<i>A'</i>	<i>B</i>	<i>B'</i>	<i>C</i>	<i>D</i>	
1929				in 0.00001		in 0.001			
Juli	23.664	0.5581	+0.33062 <sup>329</sup>	+349	-5.975 <sup>22</sup>	- 8	+ 9.471 <sup>268</sup>	-17.677 <sup>174</sup>	
	24.662	0.5608	0.33391 <sup>327</sup>	+272	5.997 <sup>22</sup>	- 52	9.739 <sup>266</sup>	17.503 <sup>179</sup>	
	25.659	0.5635	0.33718 <sup>325</sup>	+120	6.019 <sup>22</sup>	- 86	10.005 <sup>263</sup>	17.324 <sup>184</sup>	
	26.656	0.5662	0.34043 <sup>322</sup>	- 88	6.041 <sup>23</sup>	-104	10.268 <sup>260</sup>	17.140 <sup>189</sup>	
	27.653	0.5690	0.34365 <sup>320</sup>	-308	6.064 <sup>23</sup>	-100	10.528 <sup>257</sup>	16.951 <sup>193</sup>	
	28.651	0.5717	0.34685 <sup>317</sup>	-496	6.087 <sup>23</sup>	- 75	10.785 <sup>254</sup>	16.758 <sup>198</sup>	
	29.648	0.5744	+0.35002 <sup>315</sup>	-604	-6.110 <sup>23</sup>	- 31	+11.039 <sup>251</sup>	-16.560 <sup>203</sup>	
	30.645	0.5772	0.35317 <sup>311</sup>	-598	6.133 <sup>24</sup>	+ 22	11.290 <sup>249</sup>	16.357 <sup>207</sup>	
	31.642	0.5799	0.35628 <sup>308</sup>	-474	6.157 <sup>24</sup>	+ 69	11.539 <sup>245</sup>	16.150 <sup>212</sup>	
	Aug.	1.640	0.5826	0.35936 <sup>307</sup>	-253	6.180 <sup>23</sup>	+101	11.784 <sup>242</sup>	15.938 <sup>216</sup>
		2.637	0.5854	0.36243 <sup>303</sup>	+ 13	6.204 <sup>24</sup>	+108	12.026 <sup>239</sup>	15.722 <sup>220</sup>
		3.634	0.5881	0.36546 <sup>302</sup>	+268	6.227 <sup>24</sup>	+ 90	12.265 <sup>235</sup>	15.502 <sup>225</sup>
		4.631	0.5908	+0.36848 <sup>299</sup>	+457	-6.251 <sup>24</sup>	+ 50	+12.500 <sup>232</sup>	-15.277 <sup>229</sup>
		5.629	0.5935	0.37147 <sup>296</sup>	+541	6.275 <sup>24</sup>	+ 11	12.732 <sup>228</sup>	15.048 <sup>234</sup>
		6.626	0.5963	0.37443 <sup>293</sup>	+512	6.299 <sup>24</sup>	- 49	12.960 <sup>225</sup>	14.814 <sup>238</sup>
		7.623	0.5990	0.37736 <sup>291</sup>	+383	6.323 <sup>24</sup>	- 86	13.185 <sup>221</sup>	14.576 <sup>242</sup>
8.621		0.6017	0.38027 <sup>288</sup>	+195	6.347 <sup>23</sup>	-102	13.406 <sup>218</sup>	14.334 <sup>246</sup>	
9.618		0.6045	0.38315 <sup>285</sup>	- 2	6.370 <sup>24</sup>	- 97	13.624 <sup>214</sup>	14.088 <sup>250</sup>	
10.615		0.6072	+0.38600 <sup>282</sup>	-167	-6.394 <sup>24</sup>	- 71	+13.838 <sup>210</sup>	-13.838 <sup>254</sup>	
11.612		0.6099	0.38882 <sup>280</sup>	-271	6.418 <sup>24</sup>	- 33	14.048 <sup>206</sup>	13.584 <sup>258</sup>	
12.610		0.6127	0.39162 <sup>277</sup>	-301	6.442 <sup>24</sup>	+ 9	14.254 <sup>202</sup>	13.326 <sup>261</sup>	
13.607		0.6154	0.39439 <sup>275</sup>	-261	6.466 <sup>24</sup>	+ 50	14.456 <sup>199</sup>	13.065 <sup>265</sup>	
14.604		0.6181	0.39714 <sup>273</sup>	-160	6.490 <sup>24</sup>	+ 79	14.655 <sup>195</sup>	12.800 <sup>269</sup>	
15.601		0.6208	0.39987 <sup>268</sup>	- 26	6.514 <sup>23</sup>	+ 95	14.850 <sup>190</sup>	12.531 <sup>272</sup>	
16.599		0.6236	+0.40255 <sup>266</sup>	+120	-6.537 <sup>23</sup>	+ 94	+15.040 <sup>186</sup>	-12.259 <sup>276</sup>	
17.596	0.6263	0.40521 <sup>264</sup>	+251	6.560 <sup>22</sup>	+ 76	15.226 <sup>182</sup>	11.983 <sup>280</sup>		
18.593	0.6290	0.40785 <sup>261</sup>	+342	6.582 <sup>23</sup>	+ 46	15.408 <sup>178</sup>	11.703 <sup>283</sup>		
19.591	0.6318	0.41046 <sup>259</sup>	+375	6.605 <sup>22</sup>	+ 7	15.586 <sup>173</sup>	11.420 <sup>286</sup>		
20.588	0.6345	0.41305 <sup>256</sup>	+331	6.627 <sup>23</sup>	- 38	15.759 <sup>169</sup>	11.134 <sup>290</sup>		
21.585	0.6372	0.41561 <sup>254</sup>	+209	6.650 <sup>22</sup>	- 75	15.928 <sup>165</sup>	10.844 <sup>293</sup>		
22.582	0.6400	+0.41815 <sup>252</sup>	+ 24	-6.672 <sup>22</sup>	-100	+16.093 <sup>160</sup>	-10.551 <sup>296</sup>		
23.580	0.6427	0.42067 <sup>249</sup>	-196	6.694 <sup>21</sup>	-104	16.253 <sup>156</sup>	10.255 <sup>299</sup>		
24.577	0.6454	0.42316 <sup>247</sup>	-402	6.715 <sup>21</sup>	- 87	16.409 <sup>151</sup>	9.956 <sup>302</sup>		
25.574	0.6482	0.42563 <sup>245</sup>	-546	6.736 <sup>21</sup>	- 49	16.560 <sup>146</sup>	9.654 <sup>304</sup>		
26.571	0.6509	0.42808 <sup>243</sup>	-592	6.757 <sup>20</sup>	+ 11	16.706 <sup>142</sup>	9.350 <sup>307</sup>		
27.569	0.6536	0.43051 <sup>240</sup>	-522	6.777 <sup>20</sup>	+ 51	16.848 <sup>137</sup>	9.043 <sup>311</sup>		
28.566	0.6563	+0.43291 <sup>238</sup>	-346	-6.797 <sup>20</sup>	+ 91	+16.985 <sup>132</sup>	- 8.732 <sup>313</sup>		
29.563	0.6591	0.43529 <sup>236</sup>	- 98	6.817 <sup>19</sup>	+108	17.117 <sup>128</sup>	8.419 <sup>315</sup>		
30.561	0.6618	0.43765 <sup>234</sup>	+159	6.836 <sup>19</sup>	+100	17.245 <sup>123</sup>	8.104 <sup>317</sup>		
31.558	0.6645	0.43999 <sup>232</sup>	+372	6.855 <sup>18</sup>	+ 69	17.368 <sup>117</sup>	7.787 <sup>320</sup>		
Sept.	1.555	0.6673	0.44231 <sup>230</sup>	+498	6.873 <sup>18</sup>	+ 21	17.485 <sup>113</sup>	7.467 <sup>322</sup>	
	2.552	0.6700	+0.44461 <sup>230</sup>	+506	-6.891	- 29	+17.598	- 7.145	

## Reduktionsgrößen 1929

für 12<sup>h</sup> Sternzeit Greenwich

Welt-Zeit		<i>t</i>	<i>A</i>	<i>A'</i>	<i>B</i>	<i>B'</i>	<i>C</i>	<i>D</i>
1929								
Sept.	2.552	0.6700	+0.44461	in 0.00001 +506	-6.891	in 0.001 - 29	+17.598	-7.145
	3.550	0.6727	0.44690	+411	6.909	- 73	17.706	6.820
	4.547	0.6755	0.44917	+243	6.926	- 98	17.809	6.493
	5.544	0.6782	0.45142	+ 45	6.942	-102	17.907	6.165
	6.541	0.6809	0.45365	-137	6.958	- 84	18.000	5.835
	7.539	0.6836	0.45587	-260	6.973	- 50	18.088	5.503
	8.536	0.6864	+0.45808	-317	-6.988	- 7	+18.171	-5.169
	9.533	0.6891	0.46027	-293	7.003	+ 35	18.248	4.833
	10.530	0.6918	0.46245	-207	7.017	+ 69	18.320	4.495
	11.528	0.6946	0.46461	- 79	7.031	+ 91	18.387	4.156
	12.525	0.6973	0.46676	+ 67	7.044	+ 96	18.449	3.816
	13.522	0.7000	0.46891	+209	7.056	+ 85	18.506	3.474
	14.520	0.7028	+0.47105	+316	-7.067	+ 59	+18.558	-3.131
	15.517	0.7055	0.47317	+373	7.078	+ 23	18.604	2.788
	16.514	0.7082	0.47528	+359	7.088	- 22	18.645	2.444
	17.511	0.7110	0.47739	+269	7.098	- 62	18.680	2.098
	18.509	0.7137	0.47950	+109	7.107	- 92	18.710	1.752
	19.506	0.7164	0.48161	- 95	7.115	-104	18.735	1.405
	20.503	0.7191	+0.48371	-305	-7.123	- 96	+18.754	-1.057
	21.500	0.7219	0.48581	-475	7.130	- 67	18.768	0.709
	22.498	0.7246	0.48791	-561	7.137	- 20	18.776	0.361
	23.495	0.7273	0.49000	-535	7.143	+ 31	18.779	-0.012
	24.492	0.7301	0.49209	-401	7.148	+ 76	18.776	+0.337
	25.490	0.7328	0.49419	-177	7.153	+104	18.768	0.686
	26.487	0.7355	+0.49629	+ 78	-7.157	+106	+18.755	+1.035
	27.484	0.7383	0.49839	+309	7.161	+ 84	18.736	1.384
	28.481	0.7410	0.50050	+467	7.164	+ 42	18.712	1.733
	29.479	0.7437	0.50261	+515	7.166	- 9	18.682	2.082
	30.476	0.7464	0.50473	+455	7.167	- 58	18.647	2.430
Okt.	1.473	0.7492	0.50686	+302	7.168	- 92	18.606	2.778
	2.470	0.7519	+0.50899	+103	-7.168	-104	+18.559	+3.125
	3.468	0.7546	0.51113	- 94	7.168	- 94	18.507	3.471
	4.465	0.7574	0.51328	-245	7.167	- 65	18.450	3.816
	5.462	0.7601	0.51545	-327	7.165	- 23	18.387	4.161
	6.460	0.7628	0.51763	-330	7.163	+ 19	18.319	4.505
	7.457	0.7656	0.51981	-260	7.160	+ 58	18.245	4.847
	8.454	0.7683	+0.52201	-140	-7.157	+ 85	+18.166	+5.188
	9.451	0.7710	0.52424	+ 7	7.153	+ 96	18.082	5.527
	10.449	0.7738	0.52648	+152	7.148	+ 91	17.992	5.865
	11.446	0.7765	0.52873	+277	7.143	+ 71	17.897	6.202
	12.443	0.7792	0.53100	+351	7.137	+ 37	17.796	6.537
	13.440	0.7819	+0.53329	+363	-7.131	- 3	+17.690	+6.871

# Reduktionsgrößen 1929

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für 12<sup>h</sup> Sternzeit Greenwich

Welt-Zeit	t	A	A'	B	B'	C	D
<b>1929</b>							
Okt.	13.440	0.7819	+0.53329	in 0.00001	in 0.001	+17.690	+ 6.871
	14.438	0.7847	0.53560	+363	— 3	111	332
	15.435	0.7874	0.53792	+301	— 46	117	329
	16.432	0.7901	0.54027	+165	— 81	122	327
	17.429	0.7929	0.54265	— 24	7.110	127	326
	18.427	0.7956	0.54504	—232	7.102	132	323
	19.424	0.7983	+0.54745	—418	7.093	138	321
	20.421	0.8011	0.54989	—536	—7.084	143	318
	21.419	0.8038	0.55236	—550	7.074	147	316
	22.416	0.8065	0.55485	—450	7.064	153	313
	23.413	0.8092	0.55737	—253	7.054	158	310
	24.410	0.8120	0.55992	+ 1	7.043	163	307
	25.408	0.8147	+0.56249	+253	7.032	168	305
	26.405	0.8174	0.56509	+444	—7.021	173	301
	27.402	0.8202	0.56772	+534	7.010	178	298
	28.399	0.8229	0.57038	+513	6.998	183	295
	29.397	0.8256	0.57306	+386	6.986	187	292
	30.394	0.8284	0.57578	+192	6.973	192	288
	31.391	0.8311	+0.57853	— 18	6.960	197	285
Nov.	1.389	0.8338	0.58131	—199	—6.947	201	281
	2.386	0.8366	0.58411	—314	6.934	206	278
	3.383	0.8393	0.58695	—348	6.921	210	274
	4.380	0.8420	0.58982	—302	6.908	215	269
	5.378	0.8447	0.59272	—198	6.894	219	265
	6.375	0.8475	+0.59565	— 56	6.881	224	262
	7.372	0.8502	0.59861	+ 95	—6.867	228	258
	8.369	0.8529	0.60160	+230	6.853	232	253
	9.367	0.8557	0.60463	+322	6.839	236	249
	10.364	0.8584	0.60769	+356	6.825	240	244
	11.361	0.8611	0.61078	+318	6.811	244	240
	12.358	0.8639	+0.61391	+205	6.797	248	235
	13.356	0.8666	0.61707	+ 31	—6.784	252	230
	14.353	0.8693	0.62025	—178	6.770	256	226
	15.350	0.8720	0.62346	—376	6.757	260	221
	16.348	0.8748	0.62671	—524	6.744	263	216
	17.345	0.8775	0.62999	—579	6.731	267	211
	18.342	0.8802	+0.63330	—520	6.718	270	206
	19.339	0.8830	0.63664	—349	—6.705	274	201
	20.337	0.8857	0.64001	—103	6.692	277	196
	21.334	0.8884	0.64341	+164	6.680	280	191
	22.331	0.8912	0.64684	+396	6.668	283	185
	23.328	0.8939	+0.65030	+539	6.656	286	180
				+567	—6.645	— 19	+17.828

## Reduktionsgrößen 1929

für 12<sup>h</sup> Sternzeit Greenwich

Welt-Zeit	<i>t</i>	<i>A</i>	<i>A'</i>	<i>B</i>	<i>B'</i>	<i>C</i>	<i>D</i>
1929			in 0.00001		in 0.001		
Nov. 23.328	0.8939	+0.65030	+567	-6.645	- 19	+9.230	+17.828
24.326	0.8966	0.65378 <sup>348</sup>	+479	6.634 <sup>11</sup>	- 67	8.940 <sup>290</sup>	18.002 <sup>174</sup>
25.323	0.8994	0.65729 <sup>351</sup>	+304	6.623 <sup>11</sup>	- 97	8.648 <sup>292</sup>	18.171 <sup>169</sup>
26.320	0.9021	0.66082 <sup>353</sup>	+ 89	6.613 <sup>10</sup>	-106	8.353 <sup>295</sup>	18.334 <sup>163</sup>
27.318	0.9048	0.66438 <sup>356</sup>	-116	6.603 <sup>9</sup>	- 91	8.055 <sup>298</sup>	18.491 <sup>157</sup>
28.315	0.9075	0.66797 <sup>359</sup>	-265	6.594 <sup>9</sup>	- 59	7.755 <sup>300</sup>	18.643 <sup>152</sup>
29.312	0.9103	+0.67158 <sup>361</sup>	-335	-6.585 <sup>8</sup>	- 14	+7.453 <sup>302</sup>	+18.789 <sup>146</sup>
30.309	0.9130	0.67522 <sup>364</sup>	-322	6.577 <sup>8</sup>	+ 29	7.148 <sup>305</sup>	18.930 <sup>141</sup>
Dez. 1.307	0.9157	0.67888 <sup>366</sup>	-238	6.569 <sup>8</sup>	+ 67	6.841 <sup>307</sup>	19.065 <sup>135</sup>
2.304	0.9185	0.68256 <sup>368</sup>	-105	6.561 <sup>8</sup>	+ 91	6.531 <sup>310</sup>	19.193 <sup>128</sup>
3.301	0.9212	0.68626 <sup>370</sup>	+ 47	6.554 <sup>7</sup>	+ 98	6.219 <sup>312</sup>	19.315 <sup>122</sup>
4.298	0.9239	0.68999 <sup>373</sup>	+191	6.547 <sup>7</sup>	+ 88	5.905 <sup>314</sup>	19.432 <sup>117</sup>
5.296	0.9267	0.69373 <sup>374</sup>	+300	-6.541 <sup>6</sup>	+ 63	+5.589 <sup>316</sup>	+19.543 <sup>111</sup>
6.293	0.9294	0.69749 <sup>376</sup>	+356	6.536 <sup>5</sup>	+ 27	5.272 <sup>317</sup>	19.647 <sup>104</sup>
7.290	0.9321	0.70127 <sup>378</sup>	+340	6.536 <sup>5</sup>	+ 27	5.272 <sup>319</sup>	19.647 <sup>98</sup>
8.288	0.9348	0.70506 <sup>379</sup>	+250	6.531 <sup>4</sup>	- 14	4.953 <sup>322</sup>	19.745 <sup>93</sup>
9.285	0.9376	0.70887 <sup>381</sup>	+ 92	6.527 <sup>4</sup>	- 55	4.631 <sup>323</sup>	19.838 <sup>86</sup>
10.282	0.9403	0.71269 <sup>382</sup>	-113	6.524 <sup>3</sup>	- 87	4.308 <sup>323</sup>	19.924 <sup>80</sup>
11.279	0.9430	0.71653 <sup>384</sup>	-326	6.521 <sup>3</sup>	-102	3.984 <sup>324</sup>	20.004 <sup>74</sup>
12.277	0.9458	0.72038 <sup>385</sup>	-504	6.519 <sup>2</sup>	- 98	+3.659 <sup>325</sup>	+20.078 <sup>67</sup>
13.274	0.9485	0.72424 <sup>386</sup>	-603	6.517 <sup>2</sup>	- 72	3.332 <sup>327</sup>	20.145 <sup>61</sup>
14.271	0.9512	0.72812 <sup>388</sup>	-593	6.516 <sup>1</sup>	- 29	3.004 <sup>328</sup>	20.206 <sup>55</sup>
15.268	0.9540	0.73201 <sup>389</sup>	-463	6.515 <sup>1</sup>	+ 21	2.676 <sup>328</sup>	20.261 <sup>49</sup>
16.266	0.9567	0.73590 <sup>389</sup>	-242	6.515 <sup>0</sup>	+ 69	2.347 <sup>329</sup>	20.310 <sup>42</sup>
17.263	0.9594	0.73980 <sup>390</sup>	+ 32	6.516 <sup>1</sup>	+101	2.016 <sup>331</sup>	20.352 <sup>36</sup>
18.260	0.9621	0.74370 <sup>390</sup>	+ 295	-6.518 <sup>2</sup>	+109	+1.685 <sup>332</sup>	+20.388 <sup>29</sup>
19.257	0.9649	0.74761 <sup>391</sup>	+489	6.520 <sup>2</sup>	+ 92	1.353 <sup>332</sup>	20.417 <sup>23</sup>
20.255	0.9676	0.75153 <sup>391</sup>	+576	6.523 <sup>3</sup>	+ 53	1.021 <sup>332</sup>	20.440 <sup>16</sup>
21.252	0.9703	0.75545 <sup>392</sup>	+541	6.527 <sup>4</sup>	+ 2	0.688 <sup>333</sup>	20.456 <sup>10</sup>
22.249	0.9731	0.75937 <sup>392</sup>	+404	6.531 <sup>4</sup>	- 49	0.356 <sup>332</sup>	20.466 <sup>4</sup>
23.247	0.9758	0.76329 <sup>392</sup>	+200	6.536 <sup>5</sup>	- 87	+0.023 <sup>333</sup>	20.470 <sup>3</sup>
24.244	0.9785	0.76720 <sup>391</sup>	- 12	-6.542 <sup>6</sup>	-106	-0.310 <sup>333</sup>	+20.467 <sup>9</sup>
25.241	0.9813	0.77111 <sup>391</sup>	-188	6.548 <sup>6</sup>	- 98	0.643 <sup>333</sup>	20.458 <sup>16</sup>
26.238	0.9840	0.77502 <sup>391</sup>	-293	6.555 <sup>7</sup>	- 73	0.976 <sup>333</sup>	20.442 <sup>22</sup>
27.236	0.9867	0.77893 <sup>391</sup>	-315	6.563 <sup>8</sup>	- 32	1.308 <sup>332</sup>	20.420 <sup>28</sup>
28.233	0.9895	0.78283 <sup>390</sup>	-256	6.572 <sup>9</sup>	+ 14	1.640 <sup>332</sup>	20.392 <sup>35</sup>
29.230	0.9922	0.78672 <sup>389</sup>	-140	6.581 <sup>10</sup>	+ 53	1.972 <sup>331</sup>	20.357 <sup>42</sup>
30.227	0.9949	0.79061 <sup>388</sup>	+ 9	-6.591 <sup>10</sup>	+ 83	-2.303 <sup>330</sup>	+20.315 <sup>47</sup>
31.225	0.9976	0.79449 <sup>387</sup>	+157	6.601 <sup>11</sup>	+ 98	2.633 <sup>329</sup>	20.268 <sup>54</sup>
32.222	1.0004	+0.79836 <sup>387</sup>	+283	6.612 <sup>12</sup>	+ 93	2.962 <sup>329</sup>	20.214 <sup>61</sup>
				-6.624	+ 74	-3.291	+20.153



## Übertragung mittlerer Sternörter

von dem Äquinoktium  $t_1$  auf  $t_2 = 1929.0$

$t_1$	$m^s(t_2-t_1)$	$\log[n^s(t_2-t_1)]$	$\log[n''(t_2-t_1)]$
1755	+8 <sup>m</sup> 54.399	2.366612	3.542703
1790	7 6.949	2.269045	3.445136
1800	6 36.245	2.236611	3.412702
1810	6 5.540	2.201558	3.377649
1825	5 19.478	2.143031	3.319122
1830	+5 4.123	2.121629	3.297720
1835	4 48.768	2.099117	3.275208
1840	4 33.412	2.075375	3.251466
1845	4 18.055	2.050258	3.226349
1850	4 2.699	2.023603	3.199694
1855	+3 47.342	1.995202	3.171293
1860	3 31.984	1.964814	3.140905
1865	3 16.626	1.932139	3.108230
1870	3 1.267	1.896808	3.072899
1875	2 45.908	1.858345	3.034436
1880	+2 30.548	1.816143	2.992234
1885	2 15.188	1.769394	2.945485
1890	1 59.828	1.717003	2.893094
1895	1 44.467	1.65742	2.83351
1900	1 29.105	1.58833	2.76442
1905	+1 13.744	1.50613	2.68222
1910	0 58.381	1.40466	2.58075
1915	0 43.018	1.27205	2.44814
1920	0 27.655	1.08016	2.25625
1925	+0 12.291	0.72796	1.90405
1930	-0 3.073	0.12590 <sub>n</sub>	1.30199 <sub>n</sub>

Sind  $\alpha_1, \delta_1$  die Koordinaten für  $t_1$  und  $\alpha_2, \delta_2$  jene für  $t_2 = 1929.0$ , ist ferner  $\alpha', \delta'$  der genäherte Sternort für die Zeit

$$\frac{1}{2}(t_1 + t_2),$$

so ist

$$\begin{aligned} \alpha_2 &= \alpha_1 + m^s(t_2-t_1) + [n^s(t_2-t_1)] \sin \alpha' \operatorname{tg} \delta' \\ \delta_2 &= \delta_1 + [n''(t_2-t_1)] \cos \alpha' \end{aligned}$$

## Übertragung mittlerer Polsternörter

von dem Äquinoktium  $t_1$  auf  $t_2 = 1929.0$ 

$t_1$	$90^\circ - (N)$	$(m) + (N) - 90^\circ$	$(n)$
1755	+66 46.88	+66 49.28	+58 8.79
1790	53 21.40	53 22.93	46 26.88
1800	49 31.22	49 32.54	43 6.34
1810	45 41.02	45 42.14	39 45.81
1825	39 55.68	39 56.53	34 45.02
1830	+38 0.55	+38 1.33	+33 4.76
1835	36 5.42	36 6.12	31 24.51
1840	34 10.29	34 10.92	29 44.25
1845	32 15.15	32 15.71	28 4.00
1850	30 20.00	30 20.50	26 23.74
1855	+28 24.85	+28 25.28	+24 43.50
1860	26 29.70	26 30.07	23 3.25
1865	24 34.53	24 34.86	21 23.00
1870	22 39.37	22 39.65	19 42.75
1875	20 44.20	20 44.43	18 2.51
1880	+18 49.02	+18 49.21	+16 22.27
1885	16 53.83	16 53.99	14 42.03
1890	14 58.64	14 58.77	13 1.79
1895	13 3.45	13 3.55	11 21.55
1900	11 8.25	11 8.33	9 41.32
1905	+ 9 13.05	+ 9 13.10	+ 8 1.09
1910	7 17.84	7 17.87	6 20.85
1915	5 22.63	5 22.64	4 40.62
1920	3 27.41	3 27.41	3 0.40
1925	+ 1 32.18	+ 1 32.18	+ 1 20.17
1930	- 0 23.05	- 0 23.05	- 0 20.05

Sind  $\alpha_1, \delta_1$  die Koordinaten für  $t_1$  und  $\alpha_2, \delta_2$  jene für  $t_2 = 1929.0$ , so hat man zur Reduktion von dem Äquinoktium  $t_1$  auf  $t_2$ :

$$a_1 = \alpha_1 + [90^\circ - (N)]$$

$$p_1 = \left( \operatorname{tang} \delta_1 + \cos a_1 \operatorname{tang} \frac{1}{2}(n) \right) \sin(n)$$

$$\operatorname{tang} \Delta a_1 = \frac{p_1 \sin a_1}{1 - p_1 \cos a_1}$$

$$a_2 = a_1 + [(m) + (N) - 90^\circ] + \Delta a_1$$

$$\operatorname{tang} \frac{1}{2}(\delta_2 - \delta_1) =$$

$$\cos \left( a_1 + \frac{1}{2} \Delta a_1 \right) \sec \frac{1}{2} \Delta a_1 \operatorname{tang} \frac{1}{2}(n)$$

zur Reduktion von dem Äquinoktium  $t_2$  auf  $t_1$ :

$$a_2 = a_2 - [(m) + (N) - 90^\circ]$$

$$p_2 = - \left( \operatorname{tang} \delta_2 - \cos a_2 \operatorname{tang} \frac{1}{2}(n) \right) \sin(n)$$

$$\operatorname{tang} \Delta a_2 = \frac{p_2 \sin a_2}{1 - p_2 \cos a_2}$$

$$a_1 = a_2 - [90^\circ - (N)] + \Delta a_2$$

$$\operatorname{tang} \frac{1}{2}(\delta_1 - \delta_2) =$$

$$- \cos \left( a_2 + \frac{1}{2} \Delta a_2 \right) \sec \frac{1}{2} \Delta a_2 \operatorname{tang} \frac{1}{2}(n)$$

## Reduktion

scheinbarer Rektaszensions- und Deklinations-Differenzen  
auf mittlere für den Jahresanfang.

Die Tafeln der Werte  $p$ ,  $q$ ,  $r$  (in Einheiten der vierten Dezimale) auf Seite 268\*—279\* sollen zur bequemen Reduktion scheinbarer Rektaszensions- und Deklinationsdifferenzen auf mittlere, für den Jahresanfang geltende, dienen.

Ist  $\Delta\alpha^m$  die gemessene scheinbare Rektaszensionsdifferenz in

Zeitminuten,

$\Delta\delta'$  » » » Deklinationsdifferenz in

Bogenminuten,

beides im Sinne Objekt minus Stern, so sind die an diesen Größen anzubringenden Korrekturen in Zeit- bez. Bogensekunden gegeben durch die Ausdrücke:

Korr. für  $\Delta\alpha = p \cdot \Delta\alpha^m \cdot \sec \delta + q \cdot \Delta\delta' \cdot \frac{1}{15} \sec^2 \delta$  in Zeitsekunden

Korr. für  $\Delta\delta = -q \cdot 15 \cdot \Delta\alpha^m + r \cdot \Delta\delta'$  in Bogensekunden.

Die Werte  $\sec \delta$  und  $\frac{1}{15} \sec^2 \delta$  sind in nachstehender Tafel enthalten.

$\delta$	$\operatorname{tg} \delta$	$\sec \delta$	$\frac{1}{15} \sec^2 \delta$	$\delta$	$\operatorname{tg} \delta$	$\sec \delta$	$\frac{1}{15} \sec^2 \delta$
0°	0.00	1.00	0.07	63°	1.96	2.20	0.32
5	0.09	1.00	0.07	64	2.05	2.28	0.35
10	0.18	1.02	0.07	65	2.14	2.37	0.37
15	0.27	1.04	0.07	66	2.25	2.46	0.40
20	0.36	1.06	0.08	67	2.36	2.56	0.44
25	0.47	1.10	0.08	68	2.48	2.67	0.48
30	0.58	1.15	0.09	69	2.61	2.79	0.52
35	0.70	1.22	0.10	70	2.75	2.92	0.57
40	0.84	1.31	0.11	71	2.90	3.07	0.63
				72	3.08	3.24	0.70
40°	0.84	1.31	0.11	73	3.27	3.42	0.78
42	0.90	1.35	0.12	74	3.49	3.63	0.88
44	0.97	1.39	0.13	75	3.73	3.86	1.00
46	1.04	1.44	0.14				
48	1.11	1.49	0.15	75°	3.73	3.86	1.00
50	1.19	1.56	0.16	75.5	3.87	3.99	1.06
52	1.28	1.62	0.18	76.0	4.01	4.13	1.14
54	1.38	1.70	0.19	76.5	4.17	4.28	1.22
56	1.48	1.79	0.21	77.0	4.33	4.45	1.32
58	1.60	1.89	0.24	77.5	4.51	4.62	1.42
60	1.73	2.00	0.27	78.0	4.70	4.81	1.54
				78.5	4.92	5.02	1.68
60°	1.73	2.00	0.27	79.0	5.14	5.24	1.83
61	1.80	2.06	0.28	79.5	5.40	5.49	2.01
62	1.88	2.13	0.30	80.0	5.67	5.76	2.21
63	1.96	2.20	0.32				

p, 1929 Januar 15

$\delta$ $\alpha$	$-80^\circ$	$-60^\circ$	$-40^\circ$	$-20^\circ$	$0^\circ$	$+20^\circ$	$+40^\circ$	$+60^\circ$	$+80^\circ$	$\delta$ $\alpha$
0 <sup>h</sup>	-67	-66	-63	-59	-54	-50	-46	-43	-41	12 <sup>h</sup>
1	-67	-66	-64	-61	-58	-55	-52	-50	-49	13
2	-63	-62	-61	-60	-58	-57	-55	-54	-54	14
3	-54	-54	-54	-54	-54	-54	-54	-54	-54	15
4	-42	-42	-43	-45	-47	-48	-50	-51	-52	16
5	-26	-28	-30	-32	-36	-39	-42	-44	-45	17
6	-9	-11	-14	-18	-22	-27	-31	-34	-36	18
7	+8	+6	+3	-2	-8	-13	-18	-22	-24	19
8	+26	+23	+19	+14	+8	+1	-4	-8	-10	20
9	+41	+39	+34	+29	+22	+16	+10	+6	+4	21
10	+54	+51	+47	+42	+36	+30	+24	+20	+18	22
11	+62	+60	+57	+52	+46	+41	+36	+32	+30	23
12	+67	+66	+63	+59	+54	+50	+46	+43	+41	24

q, 1929 Januar 15

$\delta$ $\alpha$	$-80^\circ$	$-60^\circ$	$-40^\circ$	$-20^\circ$	$0^\circ$	$+20^\circ$	$+40^\circ$	$+60^\circ$	$+80^\circ$	$\delta$ $\alpha$
0 <sup>h</sup>	-9	-6	-1	+6	+13	+21	+28	+33	+36	12 <sup>h</sup>
1	+9	+10	+11	+14	+16	+19	+21	+23	+24	13
2	+26	+25	+23	+21	+18	+16	+13	+12	+11	14
3	+41	+38	+33	+26	+19	+11	+4	-1	-3	15
4	+53	+49	+41	+30	+18	+6	-5	-13	-17	16
5	+62	+56	+46	+32	+16	0	-14	-24	-30	17
6	+67	+60	+48	+32	+13	-5	-22	-34	-40	18
7	+66	+60	+47	+29	+9	-11	-28	-41	-48	19
8	+62	+55	+42	+25	+5	-15	-33	-46	-53	20
9	+53	+47	+35	+18	0	-19	-35	-47	-54	21
10	+41	+35	+25	+11	-5	-21	-35	-45	-51	22
11	+26	+21	+13	+3	-10	-22	-33	-41	-45	23
12	+9	+6	+1	-6	-13	-21	-28	-33	-36	24

r, 1929 Januar 15

$\delta$ $\alpha$	$-80^\circ$	$-60^\circ$	$-40^\circ$	$-20^\circ$	$0^\circ$	$+20^\circ$	$+40^\circ$	$+60^\circ$	$+80^\circ$	$\delta$ $\alpha$
0 <sup>h</sup>	0	-19	-35	-48	-54	-54	-48	-36	-19	12 <sup>h</sup>
1	0	-21	-38	-51	-58	-58	-51	-38	-20	13
2	0	-21	-38	-51	-58	-58	-51	-38	-20	14
3	0	-19	-35	-48	-54	-54	-48	-36	-19	15
4	+2	-15	-29	-40	-47	-47	-42	-32	-18	16
5	+3	-9	-21	-30	-36	-37	-34	-26	-16	17
6	+6	-3	-11	-18	-22	-24	-24	-20	-14	18
7	+8	+5	0	-4	-8	-10	-12	-12	-11	19
8	+11	+12	+12	+10	+8	+4	0	-5	-8	20
9	+14	+20	+24	+24	+22	+18	+11	+3	-6	21
10	+16	+26	+34	+37	+36	+30	+21	+9	-3	22
11	+18	+32	+42	+47	+46	+40	+29	+15	-2	23
12	+19	+36	+48	+54	+54	+48	+35	+19	0	24
	$+80^\circ$	$+60^\circ$	$+40^\circ$	$+20^\circ$	$0^\circ$	$-20^\circ$	$-40^\circ$	$-60^\circ$	$-80^\circ$	$\delta$ $\alpha$

Bei der Tafel für  $r$  wird mit der Deklination für  $0^h \leq \alpha \leq 12^h$  in die obere, für  $12^h \leq \alpha \leq 24^h$  in die untere Argumentenzeile eingegangen.

Die Einheit der Tafelwerte ist 0.0001. Die Vorzeichen gelten für  $0^h \leq \alpha \leq 12^h$ ; liegt  $\alpha$  zwischen  $12^h$  und  $24^h$ , so sind bei allen Tafeln die Vorzeichen umzukehren.

Korr.  $(\Delta\alpha)^n = p \cdot \Delta\alpha^m \cdot \sec \delta + q \cdot \Delta\delta' \cdot \frac{1}{15} \sec^2 \delta$ ; Korr.  $(\Delta\delta)'' = -q \cdot 15 \cdot \Delta\alpha^m + r \cdot \Delta\delta'$

p, 1929 Februar 15

$\frac{\delta}{\alpha}$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\frac{\delta}{\alpha}$
0 <sup>h</sup>	-41	-40	-38	-36	-33	-31	-28	-27	-26	12 <sup>h</sup>
1	-47	-47	-46	-45	-44	-43	-42	-41	-41	13
2	-50	-50	-51	-51	-52	-52	-52	-53	-53	14
3	-50	-51	-52	-54	-56	-58	-59	-61	-61	15
4	-46	-47	-50	-52	-56	-59	-62	-64	-66	16
5	-39	-41	-44	-48	-52	-57	-61	-64	-65	17
6	-30	-32	-35	-40	-45	-51	-55	-59	-61	18
7	-18	-20	-24	-29	-35	-41	-46	-50	-52	19
8	-5	-7	-11	-16	-22	-28	-34	-38	-40	20
9	+8	+6	+2	-3	-8	-14	-19	-23	-25	21
10	+21	+19	+16	+11	+6	+1	-3	-6	-8	22
11	+32	+30	+28	+24	+21	+17	+13	+11	+9	23
12	+41	+40	+38	+36	+33	+31	+28	+27	+26	24

q, 1929 Februar 15

$\frac{\delta}{\alpha}$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\frac{\delta}{\alpha}$
0 <sup>h</sup>	-29	-23	-13	0	+16	+31	+45	+55	+60	12 <sup>h</sup>
1	-17	-13	-5	+5	+17	+29	+40	+48	+52	13
2	-5	-2	+3	+10	+17	+25	+32	+37	+40	14
3	+8	+9	+11	+14	+16	+19	+22	+24	+25	15
4	+21	+20	+19	+17	+14	+12	+10	+9	+8	16
5	+32	+29	+25	+18	+11	+4	-2	-6	-9	17
6	+40	+36	+29	+19	+8	-4	-14	-21	-25	18
7	+46	+41	+32	+18	+3	-12	-25	-35	-40	19
8	+49	+43	+32	+16	-1	-19	-34	-46	-52	20
9	+49	+42	+30	+13	-6	-25	-42	-54	-61	21
10	+45	+39	+26	+9	-10	-29	-46	-58	-65	22
11	+38	+32	+20	+5	-13	-31	-47	-58	-65	23
12	+29	+23	+13	0	-16	-31	-45	-55	-60	24

r, 1929 Februar 15

$\frac{\delta}{\alpha}$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\frac{\delta}{\alpha}$
0 <sup>h</sup>	+14	0	-13	-25	-33	-38	-38	-34	-25	12 <sup>h</sup>
1	+12	-5	-21	-35	-44	-48	-46	-39	-27	13
2	+10	-9	-27	-42	-52	-55	-52	-43	-28	14
3	+10	-11	-30	-46	-56	-59	-55	-45	-29	15
4	+10	-11	-30	-46	-56	-59	-55	-45	-29	16
5	+10	-9	-28	-42	-52	-56	-53	-43	-28	17
6	+11	-6	-22	-36	-45	-49	-47	-40	-27	18
7	+13	0	-14	-26	-35	-40	-39	-34	-25	19
8	+15	+6	-5	-14	-22	-28	-30	-28	-23	20
9	+18	+13	+6	-1	-8	-14	-19	-21	-21	21
10	+20	+20	+18	+13	+6	-1	-8	-14	-18	22
11	+23	+27	+28	+26	+21	+13	+3	-7	-16	23
12	+25	+34	+38	+38	+33	+25	+13	0	-14	24
	+80°	+60°	+40°	+20°	0°	-20°	-40°	-60°	-80°	$\frac{\alpha}{\delta}$

Bei der Tafel für r wird mit der Deklination für  $0^h \leq \alpha \leq 12^h$  in die obere, für  $12^h \leq \alpha \leq 24^h$  in die untere Argumentenzeile eingegangen.

Die Einheit der Tafelwerte ist 0.0001. Die Vorzeichen gelten für  $0^h \leq \alpha \leq 12^h$ ; liegt  $\alpha$  zwischen  $12^h$  und  $24^h$ , so sind bei allen Tafeln die Vorzeichen umzukehren.

Korr.  $(\Delta\alpha)^* = p \cdot \Delta\alpha^m \cdot \sec \delta + q \cdot \Delta\delta' \cdot \frac{1}{15} \sec^2 \delta$ ; Korr.  $(\Delta\delta)'' = -q \cdot 15 \cdot \Delta\alpha^m + r \cdot \Delta\delta'$

p, 1929 März 15

$\delta$ $\alpha$	$-80^\circ$	$-60^\circ$	$-40^\circ$	$-20^\circ$	$0^\circ$	$+20^\circ$	$+40^\circ$	$+60^\circ$	$+80^\circ$	$\delta$ $\alpha$
0 <sup>h</sup>	-10	-10	-9	-8	-6	-5	-4	-3	-2	12 <sup>h</sup>
1	-19	-20	-20	-20	-20	-20	-21	-21	-21	13
2	-27	-28	-29	-31	-33	-34	-36	-37	-38	14
3	-34	-35	-37	-40	-43	-46	-49	-51	-52	15
4	-37	-39	-42	-46	-50	-55	-59	-62	-63	16
5	-39	-40	-44	-49	-54	-60	-64	-68	-70	17
6	-37	-39	-43	-48	-54	-60	-65	-69	-71	18
7	-34	-36	-40	-45	-51	-57	-62	-66	-68	19
8	-27	-29	-33	-38	-44	-50	-55	-58	-60	20
9	-19	-21	-24	-29	-34	-39	-44	-47	-49	21
10	-10	-11	-14	-18	-22	-26	-29	-32	-34	22
11	0	-1	-3	-5	-8	-11	-13	-15	-16	23
12	+10	+10	+9	+8	+6	+5	+4	+3	+2	24

q, 1929 März 15

$\delta$ $\alpha$	$-80^\circ$	$-60^\circ$	$-40^\circ$	$-20^\circ$	$0^\circ$	$+20^\circ$	$+40^\circ$	$+60^\circ$	$+80^\circ$	$\delta$ $\alpha$
0 <sup>h</sup>	-36	-30	-18	-1	+17	+36	+52	+64	+71	12 <sup>h</sup>
1	-32	-26	-15	0	+18	+35	+50	+62	+68	13
2	-26	-21	-11	+2	+17	+32	+45	+55	+60	14
3	-18	-14	-7	+3	+15	+27	+37	+44	+48	15
4	-9	-7	-2	+5	+12	+19	+26	+31	+33	16
5	0	+1	+3	+6	+8	+11	+13	+15	+16	17
6	+10	+9	+8	+6	+4	+2	0	-2	-2	18
7	+19	+17	+12	+6	-1	-8	-14	-18	-20	19
8	+27	+23	+16	+6	-5	-16	-26	-34	-37	20
9	+33	+28	+18	+5	-10	-24	-37	-47	-52	21
10	+36	+30	+19	+4	-13	-30	-45	-56	-62	22
11	+38	+31	+19	+3	-16	-34	-51	-63	-69	23
12	+36	+30	+18	+1	-17	-36	-52	-64	-71	24

r, 1929 März 15

$\delta$ $\alpha$	$-80^\circ$	$-60^\circ$	$-40^\circ$	$-20^\circ$	$0^\circ$	$+20^\circ$	$+40^\circ$	$+60^\circ$	$+80^\circ$	$\delta$ $\alpha$
0 <sup>h</sup>	+22	+17	+10	+2	-6	-14	-20	-24	-24	12 <sup>h</sup>
1	+20	+10	0	-11	-20	-27	-31	-30	-27	13
2	+18	+4	-10	-22	-33	-39	-40	-37	-29	14
3	+16	-1	-18	-32	-43	-48	-48	-42	-31	15
4	+14	-5	-23	-39	-50	-55	-54	-46	-32	16
5	+14	-7	-26	-43	-54	-59	-57	-47	-33	17
6	+14	-7	-26	-43	-54	-59	-57	-48	-33	18
7	+14	-5	-24	-40	-51	-56	-54	-46	-32	19
8	+16	-2	-18	-33	-44	-49	-49	-42	-31	20
9	+17	+3	-11	-24	-34	-40	-41	-37	-29	21
10	+19	+10	-1	-12	-22	-28	-32	-31	-27	22
11	+22	+16	+9	+1	-8	-16	-21	-24	-25	23
12	+24	+24	+20	+14	+6	-2	-10	-17	-22	24
	$+80^\circ$	$+60^\circ$	$+40^\circ$	$+20^\circ$	$0^\circ$	$-20^\circ$	$-40^\circ$	$-60^\circ$	$-80^\circ$	$\delta$ $\alpha$

Bei der Tafel für  $r$  wird mit der Deklination für  $0^h \leq \alpha \leq 12^h$  in die obere, für  $12^h \leq \alpha \leq 24^h$  in die untere Argumentenzeile eingegangen.

Die Einheit der Tafelwerte ist 0.0001. Die Vorzeichen gelten für  $0^h \leq \alpha \leq 12^h$ ; liegt  $\alpha$  zwischen  $12^h$  und  $24^h$ , so sind bei allen Tafeln die Vorzeichen umzukehren.

Korr.  $(\Delta\alpha)^s = p \cdot \Delta\alpha^m \cdot \sec\delta + q \cdot \Delta\delta' \cdot \frac{1}{\sin^2\delta} \sec^2\delta$ ; Korr.  $(\Delta\delta)'' = -q \cdot 15 \cdot \Delta\alpha^m + r \cdot \Delta\delta'$

*p*, 1929 April 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	+25	+25	+25	+25	+25	+25	+25	+25	+25	12 <sup>h</sup>
1	+15	+15	+14	+12	+11	+10	+8	+7	+7	13
2	+5	+4	+2	0	-3	-6	-9	-11	-12	14
3	-6	-7	-10	-13	-18	-22	-25	-28	-30	15
4	-16	-18	-21	-26	-31	-36	-40	-44	-45	16
5	-25	-27	-31	-36	-42	-47	-52	-56	-58	17
6	-33	-35	-39	-44	-50	-56	-61	-65	-67	18
7	-38	-40	-44	-49	-54	-60	-65	-69	-71	19
8	-41	-42	-46	-50	-55	-60	-65	-68	-70	20
9	-41	-42	-45	-48	-53	-57	-60	-63	-65	21
10	-38	-39	-41	-43	-46	-49	-52	-54	-55	22
11	-32	-33	-34	-35	-37	-38	-40	-40	-41	23
12	-25	-25	-25	-25	-25	-25	-25	-25	-25	24

*q*, 1929 April 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	-32	-26	-15	0	+17	+34	+49	+60	+66	12 <sup>h</sup>
1	-37	-30	-18	-2	+17	+35	+52	+64	+70	13
2	-40	-33	-21	-4	+15	+34	+51	+63	+70	14
3	-40	-33	-22	-6	+12	+30	+46	+58	+64	15
4	-37	-32	-21	-7	+9	+24	+38	+49	+54	16
5	-32	-27	-19	-8	+4	+17	+28	+36	+40	17
6	-24	-22	-16	-8	0	+8	+16	+22	+24	18
7	-15	-14	-12	-8	+4	+1	+3	+5	+6	19
8	-5	-6	-7	-8	-9	-10	-11	-12	-12	20
9	+5	+3	+1	-6	-12	-18	-24	-27	-30	21
10	+15	+12	+5	-4	-15	-26	-35	-42	-45	22
11	+24	+19	+10	-2	-17	-31	-43	-53	-58	23
12	+32	+26	+15	0	-17	-34	-49	-60	-66	24

*r*, 1929 April 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	+26	+31	+33	+31	+25	+16	+5	-6	-17	12 <sup>h</sup>
1	+23	+24	+22	+18	+11	+3	-6	-13	-19	13
2	+21	+17	+11	+4	-3	-11	-16	-20	-22	14
3	+18	+10	0	-9	-18	-24	-27	-28	-24	15
4	+16	+3	-10	-21	-31	-36	-37	-34	-27	16
5	+14	-2	-18	-32	-42	-46	-46	-39	-28	17
6	+13	-6	-24	-39	-50	-54	-52	-44	-30	18
7	+12	-8	-28	-44	-54	-58	-56	-46	-31	19
8	+12	-9	-28	-45	-55	-59	-56	-46	-31	20
9	+12	-8	-26	-42	-53	-57	-54	-45	-30	21
10	+13	-4	-22	-36	-46	-51	-49	-42	-29	22
11	+15	0	-14	-27	-37	-42	-42	-37	-28	23
12	+17	+6	-5	-16	-25	-31	-33	-31	-26	24
	+80°	+60°	+40°	+20°	0°	-20°	-40°	-60°	-80°	$\delta$ $\alpha$

Bei der Tafel für *r* wird mit der Deklination für  $0^h \leq \alpha \leq 12^h$  in die obere, für  $12^h \leq \alpha \leq 24^h$  in die untere Argumentenzeile eingegangen.

Die Einheit der Tafelwerte ist 0,0001. Die Vorzeichen gelten für  $0^h \leq \alpha \leq 12^h$ , liegt  $\alpha$  zwischen  $12^h$  und  $24^h$ , so sind bei allen Tafeln die Vorzeichen umzukehren.

Korr.  $(\Delta\alpha)^a = p \cdot \Delta\alpha^m \cdot \sec \delta + q \cdot \Delta\delta' \cdot \frac{1}{15} \sec^2 \delta$ ; Korr.  $(\Delta\delta)'' = -q \cdot 15 \cdot \Delta\alpha^m + r \cdot \Delta\delta'$

## Reduktionsgrößen 1929

*p*, 1929 Mai 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	+53	+52	+51	+50	+48	+46	+45	+44	+43	12 <sup>h</sup>
1	+47	+46	+44	+41	+38	+35	+32	+30	+29	13
2	+38	+36	+33	+30	+25	+21	+17	+14	+13	14
3	+26	+24	+21	+16	+11	+6	+1	-2	-4	15
4	+12	+10	+7	+2	-4	-10	-15	-18	-20	16
5	-2	-4	-8	-13	-19	-25	-30	-34	-36	17
6	-16	-18	-22	-27	-32	-38	-43	-46	-48	18
7	-29	-31	-34	-38	-44	-49	-53	-56	-58	19
8	-40	-42	-44	-48	-52	-56	-60	-62	-64	20
9	-48	-49	-51	-54	-57	-59	-62	-64	-65	21
10	-54	-54	-55	-56	-58	-59	-60	-61	-61	22
11	-55	-55	-55	-55	-54	-54	-54	-54	-54	23
12	-53	-52	-51	-50	-48	-46	-45	-44	-43	24

*q*, 1929 Mai 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	-15	-11	-4	+6	+16	+28	+37	+44	+48	12 <sup>h</sup>
1	-28	-23	-13	0	+15	+30	+43	+52	+58	13
2	-39	-33	-21	-6	+12	+30	+45	+57	+63	14
3	-48	-41	-28	-11	+8	+28	+45	+57	+64	15
4	-53	-46	-33	-16	+4	+24	+41	+54	+61	16
5	-54	-48	-35	-19	0	+18	+35	+47	+53	17
6	-52	-46	-36	-21	-5	+11	+26	+36	+42	18
7	-46	-42	-33	-22	-9	+4	+15	+24	+28	19
8	-37	-34	-29	-21	-12	-4	+4	+9	+12	20
9	-26	-25	-22	-19	-15	-11	-8	-6	-4	21
10	-13	-13	-14	-15	-17	-18	-19	-20	-21	22
11	+1	-1	-5	-11	-17	-24	-29	-33	-36	23
12	+15	+11	+4	-6	-17	-28	-37	-44	-48	24

*r*, 1929 Mai 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	+22	+36	+46	+50	+48	+40	+28	+12	-6	12 <sup>h</sup>
1	+20	+31	+38	+40	+38	+31	+20	+7	-7	13
2	+18	+25	+28	+28	+25	+19	+10	0	-9	14
3	+16	+18	+17	+15	+11	+6	-1	-7	-12	15
4	+13	+10	+6	+1	-4	-9	-12	-14	-14	16
5	+10	+3	-5	-13	-19	-22	-23	-22	-17	17
6	+8	-4	-16	-26	-32	-35	-34	-28	-19	18
7	+6	-10	-24	-36	-44	-46	-42	-34	-21	19
8	+5	-14	-31	-44	-52	-54	-49	-38	-23	20
9	+4	-16	-34	-48	-57	-58	-52	-40	-24	21
10	+4	-17	-35	-49	-58	-59	-53	-41	-24	22
11	+4	-15	-33	-46	-54	-56	-51	-39	-23	23
12	+6	-12	-28	-40	-48	-50	-46	-36	-22	24
	+80°	+60°	+40°	+20°	0°	-20°	-40°	-60°	-80°	$\alpha$ $\delta$

Bei der Tafel für *r* wird mit der Deklination für  $0^h \leq \alpha \leq 12^h$  in die obere, für  $12^h \leq \alpha \leq 24^h$  in die untere Argumentenzeile eingegangen.

Die Einheit der Tafelwerte ist 0.0001. Die Vorzeichen gelten für  $0^h \leq \alpha \leq 12^h$ ; liegt  $\alpha$  zwischen  $12^h$  und  $24^h$ , so sind bei allen Tafeln die Vorzeichen umzukehren.

Korr.  $(\Delta z)^n = p \cdot \Delta \alpha^m \cdot \sec \delta + q \cdot \Delta \delta' \cdot \frac{r}{15} \sec^2 \delta$ ; Korr.  $(\Delta \delta)'' = -q \cdot 15 \cdot \Delta z^m + r \cdot \Delta \delta'$



*p*, 1929 Juni 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	+70	+69	+66	+63	+59	+55	+52	+50	+48	12 <sup>h</sup>
1	+70	+68	+65	+61	+56	+50	+46	+43	+41	13
2	+65	+63	+59	+54	+48	+42	+37	+33	+31	14
3	+56	+54	+50	+44	+37	+31	+25	+21	+19	15
4	+43	+41	+37	+31	+24	+18	+12	+ 8	+ 5	16
5	+27	+25	+21	+16	+ 9	+ 3	- 2	- 6	- 9	17
6	+10	+ 8	+ 4	- 1	- 6	-12	-16	-20	-22	18
7	- 9	-11	-13	-17	-21	-26	-29	-32	-34	19
8	-27	-28	-30	-32	-35	-38	-40	-42	-43	20
9	-43	-43	-44	-45	-46	-47	-48	-49	-50	21
10	-56	-56	-56	-55	-54	-54	-53	-53	-53	22
11	-65	-65	-63	-61	-59	-56	-54	-53	-52	23
12	-70	-69	-66	-63	-59	-55	-52	-50	-48	24

*q*, 1929 Juni 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	+10	+10	+12	+14	+16	+18	+20	+21	+22	12 <sup>h</sup>
1	- 9	- 6	- 1	+ 5	+12	+20	+26	+31	+34	13
2	-26	-22	-14	- 4	+ 8	+20	+31	+38	+43	14
3	-42	-37	-26	-12	+ 3	+19	+33	+44	+49	15
4	-55	-49	-37	-20	- 2	+17	+33	+45	+52	16
5	-65	-58	-44	-27	- 7	+13	+31	+41	+51	17
6	-69	-62	-49	-31	-11	+ 9	+27	+40	+47	18
7	-70	-63	-51	-34	-15	+ 4	+21	+33	+40	19
8	-65	-59	-48	-34	-18	- 1	+13	+24	+30	20
9	-56	-52	-43	-32	-19	- 6	+ 5	+13	+18	21
10	-43	-40	-35	-28	-19	-11	- 4	+ 2	+ 4	22
11	-27	-26	-24	-21	-18	-15	- 12	-10	- 9	23
12	-10	-10	-12	-14	-16	-18	-20	-21	-22	24

*r*, 1929 Juni 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	+13	+32	+47	+56	+59	+55	+44	+27	+ 8	12 <sup>h</sup>
1	+12	+30	+44	+53	+56	+51	+41	+25	+ 7	13
2	+11	+26	+38	+46	+48	+44	+35	+22	+ 6	14
3	+ 9	+21	+30	+36	+37	+34	+27	+16	+ 4	15
4	+ 7	+14	+20	+24	+24	+22	+17	+10	+ 2	16
5	+ 4	+ 7	+ 9	+10	+ 9	+ 8	+ 5	+ 2	- 1	17
6	+ 2	- 1	- 3	- 5	- 6	- 7	- 6	- 6	- 4	18
7	- 1	- 8	-15	-19	-21	-21	-18	-13	- 6	19
8	- 3	-15	-25	-32	-35	-34	-28	-20	- 9	20
9	- 5	-21	-34	-43	-46	-44	-37	-26	-11	21
10	- 7	-25	-40	-50	-54	-52	-43	-30	-12	22
11	- 8	-27	-43	-54	-59	-56	-47	-32	-13	23
12	- 8	-27	-44	-55	-59	-56	-47	-32	-13	24
	+80°	+60°	+40°	+20°	0°	-20°	-40°	-60°	-80°	$\delta$ $\alpha$

Bei der Tafel für *r* wird mit der Deklination für  $0^h \leq \alpha \leq 12^h$  in die obere, für  $12^h \leq \alpha \leq 24^h$  in die untere Argumentenzeile eingegangen.

Die Einheit der Tafelwerte ist 0.0001 Die Vorzeichen gelten für  $0^h \leq \alpha \leq 12^h$ ; liegt  $\alpha$  zwischen  $12^h$  und  $24^h$ , so sind bei allen Tafeln die Vorzeichen umzukehren.

Korr.  $(\Delta\alpha)^* = p \cdot \Delta\alpha^m \cdot \sec \delta + q \cdot \Delta\delta' \cdot \frac{1}{15} \sec^2 \delta$ ; Korr.  $(\Delta\delta)'' = -q \cdot 15 \cdot \Delta\alpha^m + r \cdot \Delta\delta'$

## Reduktionsgrößen 1929

*p*, 1929 Juli 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	+72	+70	+66	+61	+55	+49	+44	+40	+38	12 <sup>h</sup>
1	+80	+77	+72	+66	+59	+51	+45	+40	+38	13
2	+81	+79	+73	+66	+58	+50	+43	+38	+35	14
3	+78	+75	+69	+62	+54	+45	+38	+32	+30	15
4	+68	+66	+60	+53	+45	+37	+30	+25	+22	16
5	+55	+52	+48	+41	+34	+27	+21	+16	+14	17
6	+37	+35	+31	+26	+20	+15	+10	+6	+4	18
7	+17	+16	+13	+10	+6	+2	-2	-5	-6	19
8	-4	-5	-6	-8	-10	-12	-14	-15	-16	20
9	-25	-25	-25	-25	-25	-24	-24	-24	-24	21
10	-44	-44	-42	-40	-38	-35	-33	-32	-31	22
11	-60	-59	-56	-52	-48	-44	-40	-37	-36	23
12	-72	-70	-66	-61	-55	-49	-44	-40	-38	24

*q*, 1929 Juli 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	+37	+35	+30	+24	+17	+10	+4	-1	-3	12 <sup>h</sup>
1	+17	+17	+15	+14	+12	+10	+8	+7	+6	13
2	-4	-3	-1	+2	+6	+9	+12	+14	+16	14
3	-25	-22	-16	-9	0	+8	+15	+21	+24	15
4	-44	-39	-31	-20	-7	+6	+17	+26	+30	16
5	-60	-54	-43	-29	-13	+4	+18	+29	+35	17
6	-72	-65	-53	-36	-18	+1	+18	+30	+37	18
7	-79	-72	-59	-41	-21	-1	+16	+29	+36	19
8	-81	-74	-61	-44	-24	-4	+14	+27	+34	20
9	-77	-71	-59	-43	-24	-6	+10	+22	+28	21
10	-68	-63	-53	-39	-23	-8	+6	+16	+21	22
11	-54	-50	-43	-33	-21	-9	+1	+9	+13	23
12	-37	-35	-30	-24	-17	-10	-4	+1	+3	24

*r*, 1929 Juli 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	+1	+20	+37	+49	+55	+55	+48	+35	+18	12 <sup>h</sup>
1	+2	+22	+39	+52	+59	+58	+51	+37	+19	13
2	+1	+21	+39	+52	+58	+58	+50	+37	+19	14
3	+1	+19	+35	+47	+54	+53	+47	+34	+18	15
4	-1	+15	+29	+40	+45	+46	+40	+30	+17	16
5	-3	+9	+20	+29	+34	+35	+32	+25	+15	17
6	-5	+3	+10	+16	+20	+22	+21	+18	+12	18
7	-8	-5	-2	+2	+6	+8	+10	+10	+10	19
8	-10	-13	-13	-12	-10	-6	-2	+3	+7	20
9	-13	-20	-24	-26	-25	-20	-13	-5	+4	21
10	-15	-26	-34	-38	-38	-32	-23	-11	+2	22
11	-17	-32	-42	-48	-48	-42	-31	-16	0	23
12	-18	-35	-48	-55	-55	-49	-37	-20	-1	24
	+80°	+60°	+40°	+20°	0°	-20°	-40°	-60°	-80°	$\delta$ $\alpha$

Bei der Tafel für *r* wird mit der Deklination für  $0^h \leq \alpha \leq 12^h$  in die obere, für  $12^h \leq \alpha \leq 24^h$  in die untere Argumentenzeile eingegangen.

Die Einheit der Tafelwerte ist 0.0001. Die Vorzeichen gelten für  $0^h \leq \alpha \leq 12^h$ ; liegt  $\alpha$  zwischen  $12^h$  und  $24^h$ , so sind bei allen Tafeln die Vorzeichen umzukehren.

Korr.  $(\Delta\alpha)^s = p \cdot \Delta\alpha^m \cdot \sec \delta + q \cdot \Delta\delta' \cdot \frac{1}{15} \sec^2 \delta$ ; Korr.  $(\Delta\delta)'' = -q \cdot 15 \cdot \Delta\alpha^m + r \cdot \Delta\delta'$

p, 1929 August 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	+60	+57	+52	+45	+37	+29	+22	+17	+14	12 <sup>h</sup>
1	+74	+70	+64	+56	+47	+38	+29	+23	+20	13
2	+82	+79	+72	+64	+53	+43	+34	+28	+24	14
3	+86	+82	+76	+67	+56	+46	+37	+31	+27	15
4	+83	+80	+74	+65	+56	+46	+38	+31	+28	16
5	+75	+72	+67	+59	+51	+43	+35	+30	+27	17
6	+62	+59	+55	+49	+43	+36	+31	+26	+24	18
7	+44	+42	+40	+36	+32	+28	+24	+21	+20	19
8	+23	+23	+22	+20	+19	+17	+16	+14	+14	20
9	+1	+2	+2	+3	+4	+5	+6	+7	+7	21
10	-21	-20	-17	-14	-11	-7	-4	-1	0	22
11	-42	-40	-36	-31	-25	-19	-13	-9	-7	23
12	-60	-57	-52	-45	-37	-29	-22	-17	-14	24

q, 1929 August 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	+61	+56	+46	+34	+19	+4	-9	-18	-23	12 <sup>h</sup>
1	+44	+40	+33	+23	+12	+1	-8	-15	-19	13
2	+23	+21	+17	+11	+5	-2	-7	-11	-14	14
3	+1	+1	0	-2	-3	-4	-6	-7	-7	15
4	-21	-20	-17	-14	-11	-7	-4	-1	0	16
5	-42	-39	-33	-26	-17	-9	-2	+4	+7	17
6	-60	-55	-47	-36	-23	-10	+1	+9	+13	18
7	-73	-68	-57	-43	-27	-11	+3	+13	+19	19
8	-82	-76	-64	-48	-30	-11	+5	+17	+23	20
9	-85	-79	-66	-49	-30	-10	+6	+19	+26	21
10	-83	-76	-64	-47	-28	-9	+8	+20	+27	22
11	-74	-68	-57	-42	-24	-7	+9	+20	+26	23
12	-61	-56	-46	-34	-19	-4	+9	+18	+23	24

r, 1929 August 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	-12	+2	+16	+28	+37	+41	+40	+35	+25	12 <sup>h</sup>
1	-10	+7	+24	+38	+47	+50	+48	+40	+26	13
2	-9	+11	+29	+44	+53	+57	+53	+43	+28	14
3	-8	+12	+31	+47	+56	+59	+55	+44	+28	15
4	-9	+12	+31	+46	+56	+59	+55	+44	+28	16
5	-9	+9	+27	+42	+51	+54	+51	+42	+27	17
6	-11	+5	+21	+34	+43	+47	+45	+38	+26	18
7	-13	0	+12	+24	+32	+36	+36	+32	+24	19
8	-15	+7	+2	+11	+19	+24	+26	+26	+22	20
9	-18	-14	-9	-2	+4	+10	+15	+18	+19	21
10	-20	-21	-20	-16	-11	-4	+4	+11	+16	22
11	-23	-28	-31	-30	-25	-17	-7	+4	+14	23
12	-25	-35	-40	-41	-37	-28	-16	-2	+12	24
	+80°	+60°	+40°	+20°	0°	-20°	-40°	-60°	-80°	$\alpha$ $\delta$

Bei der Tafel für  $r$  wird mit der Deklination für  $0^h \leq \alpha \leq 12^h$  in die obere, für  $12^h \leq \alpha \leq 24^h$  in die untere Argumentenzeile eingegangen.

Die Einheit der Tafelwerte ist 0,0001. Die Vorzeichen gelten für  $0^h \leq \alpha \leq 12^h$ ; liegt  $\alpha$  zwischen  $12^h$  und  $24^h$ , so sind bei allen Tafeln die Vorzeichen umzukehren.

Korr.  $(\Delta\alpha)^s = p \cdot \Delta\alpha^m \cdot \sec \delta + q \cdot \Delta\delta' \cdot \frac{\pi}{180} \sec^2 \delta$ ; Korr.  $(\Delta\delta)'' = -q \cdot 15 \cdot \Delta\alpha^m + r \cdot \Delta\delta'$

*p*, 1929 September 15

$\frac{\delta}{\alpha}$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\frac{\delta}{\alpha}$
0 <sup>h</sup>	+36	+32	+26	+18	+9	-1	-9	-15	-19	12 <sup>h</sup>
I	+54	+50	+43	+33	+22	+11	+2	-5	-9	13
2	+68	+64	+56	+46	+34	+23	+12	+5	+1	14
3	+78	+74	+66	+56	+44	+33	+22	+15	+11	15
4	+82	+78	+71	+62	+51	+40	+31	+24	+20	16
5	+81	+78	+72	+64	+54	+45	+37	+31	+28	17
6	+74	+72	+67	+61	+54	+47	+41	+36	+34	18
7	+62	+61	+58	+54	+50	+46	+42	+39	+37	19
8	+46	+46	+45	+44	+42	+41	+40	+39	+38	20
9	+27	+28	+29	+30	+32	+34	+35	+36	+37	21
10	+6	+8	+11	+15	+19	+24	+28	+31	+33	22
11	-15	-13	-8	-2	+6	+13	+19	+24	+27	23
12	-36	-32	-26	-18	-9	+1	+9	+15	+19	24

*q*, 1929 September 15

$\frac{\delta}{\alpha}$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\frac{\delta}{\alpha}$
0 <sup>h</sup>	+74	+67	+55	+39	+21	+2	-14	-26	-33	12 <sup>h</sup>
I	+62	+56	+45	+30	+13	-4	-19	-30	-36	13
2	+46	+41	+31	+19	+4	-10	-23	-33	-38	14
3	+27	+23	+16	+6	-5	-16	-26	-33	-36	15
4	+6	+3	-1	-7	-14	-20	-26	-30	-33	16
5	-16	-16	-18	-19	-21	-23	-25	-26	-27	17
6	-36	-35	-33	-30	-28	-25	-22	-20	-19	18
7	-54	-51	-46	-40	-32	-24	-18	-13	-10	19
8	-68	-64	-56	-46	-34	-22	-12	-4	0	20
9	-78	-72	-63	-49	-34	-19	-6	+4	+10	21
10	-82	-76	-64	-49	-32	-14	+1	+13	+19	22
11	-81	-74	-62	-46	-27	-8	+8	+20	+27	23
12	-74	-67	-55	-39	-21	-2	+14	+26	+33	24

*r*, 1929 September 15

$\frac{\delta}{\alpha}$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\frac{\delta}{\alpha}$
0 <sup>h</sup>	-22	-16	-8	0	+9	+16	+22	+25	+24	12 <sup>h</sup>
I	-19	-9	+2	+13	+22	+29	+32	+32	+27	13
2	-17	-3	+11	+24	+34	+40	+41	+38	+29	14
3	-15	+2	+19	+34	+44	+50	+49	+42	+31	15
4	-14	+5	+24	+40	+51	+56	+54	+46	+32	16
5	-14	+7	+27	+43	+54	+59	+57	+48	+32	17
6	-14	+7	+26	+43	+54	+59	+56	+47	+32	18
7	-14	+5	+23	+39	+50	+55	+53	+45	+32	19
8	-16	+1	+18	+32	+42	+48	+48	+41	+30	20
9	-17	-4	+10	+22	+32	+38	+40	+36	+29	21
10	-20	-10	0	+10	+20	+26	+30	+30	+26	22
11	-22	-18	-11	-3	+6	+13	+19	+23	+24	23
12	-24	-25	-22	-16	-9	0	+8	+16	+22	24
	+80°	+60°	+40°	+20°	0°	-20°	-40°	-60°	-80°	$\frac{\alpha}{\delta}$

Bei der Tafel für *r* wird mit der Deklination für  $0^h \leq \alpha \leq 12^h$  in die obere, für  $12^h \leq \alpha \leq 24^h$  in die untere Argumentenzeile eingegangen.

Die Einheit der Tafelwerte ist 0.0001. Die Vorzeichen gelten für  $0^h \leq \alpha \leq 12^h$ ; liegt  $\alpha$  zwischen  $12^h$  und  $24^h$ , so sind bei allen Tafeln die Vorzeichen umzukehren.

Korr.  $(\Delta\alpha)^* = p \cdot \Delta\alpha^m \cdot \sec \delta + q \cdot \Delta\delta' \cdot \frac{1}{15} \sec^2 \delta$ ; Korr.  $(\Delta\delta)'' = -q \cdot 15 \cdot \Delta\alpha^m + r \cdot \Delta\delta'$

## p, 1929 Oktober 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	+ 9	+ 6	- 1	-10	-22	-33	-42	-49	-52	12 <sup>h</sup>
1	+28	+23	+15	+ 5	- 8	-20	-30	-38	-43	13
2	+44	+39	+31	+20	+ 7	- 6	-17	-26	-30	14
3	+57	+53	+44	+33	+21	+ 8	- 3	-11	-15	15
4	+66	+62	+55	+45	+33	+22	+12	+ 4	0	16
5	+71	+68	+62	+53	+44	+34	+26	+19	+16	17
6	+71	+69	+64	+58	+51	+44	+38	+33	+31	18
7	+66	+65	+62	+59	+55	+51	+47	+44	+43	19
8	+57	+57	+56	+56	+55	+54	+53	+53	+53	20
9	+44	+45	+46	+49	+51	+54	+56	+58	+59	21
10	+28	+30	+33	+38	+44	+50	+55	+59	+60	22
11	+10	+12	+18	+26	+34	+42	+50	+56	+58	23
12	- 9	- 6	+ 1	+11	+22	+32	+42	+49	+52	24

*Bibl. Jag.*

## q, 1929 Oktober 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	+71	+65	+53	+38	+21	+ 3	-12	-23	-29	12 <sup>h</sup>
1	+66	+59	+47	+31	+12	- 7	-23	-36	-42	13
2	+56	+50	+38	+21	+ 2	-16	-33	-45	-52	14
3	+43	+37	+25	+10	- 8	-25	-40	-52	-58	15
4	+27	+22	+12	- 2	-17	-32	-45	-55	-60	16
5	+ 9	+ 4	- 3	-13	-25	-36	-47	-54	-58	17
6	-10	-13	-18	-24	-31	-39	-45	-50	-52	18
7	-28	-29	-31	-33	-36	-38	-40	-42	-43	19
8	-44	-43	-42	-40	-37	-35	-33	-31	-31	20
9	-57	-55	-50	-44	-37	-30	-23	-19	-16	21
10	-66	-62	-55	-45	-34	-22	-12	- 5	- 1	22
11	-71	-66	-56	-43	-28	-13	0	+10	+15	23
12	-71	-65	-53	-38	-21	- 3	+12	+23	+29	24

## r, 1929 Oktober 15

$\delta$ $\alpha$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\delta$ $\alpha$
0 <sup>h</sup>	-26	-30	-31	-28	-22	-13	- 2	+ 8	+18	12 <sup>h</sup>
1	-23	-23	-20	-15	- 8	0	+ 8	+15	+20	13
2	-21	-16	- 9	- 1	+ 7	+14	+20	+23	+23	14
3	-18	- 9	+ 2	+12	+21	+27	+30	+30	+25	15
4	-16	- 2	+11	+24	+33	+39	+40	+36	+28	16
5	-14	+ 3	+19	+33	+44	+49	+48	+41	+29	17
6	-13	+ 6	+25	+40	+51	+55	+53	+45	+31	18
7	-12	+ 8	+28	+44	+55	+59	+56	+46	+31	19
8	-12	+ 8	+28	+44	+55	+59	+56	+47	+31	20
9	-13	+ 6	+25	+40	+51	+56	+53	+45	+31	21
10	-14	+ 3	+20	+34	+44	+49	+48	+41	+30	22
11	-16	- 2	+12	+24	+34	+40	+40	+36	+28	23
12	-18	- 8	+ 2	+13	+22	+28	+31	+30	+26	24
	+80°	+60°	+40°	+20°	0°	-20°	-40°	-60°	-80°	$\alpha$ $\delta$

Bei der Tafel für r wird mit der Deklination für  $0^h \leq \alpha \leq 12^h$  in die obere, für  $12^h \leq \alpha \leq 24^h$  in die untere Argumentenzeile eingegangen.

Die Einheit der Tafelwerte ist 0.0001. Die Vorzeichen gelten für  $0^h \leq \alpha \leq 12^h$ ; liegt  $\alpha$  zwischen  $12^h$  und  $24^h$ , so sind bei allen Tafeln die Vorzeichen umzukehren.

Korr.  $(\Delta\alpha)^s = p \cdot \Delta\alpha^m \cdot \sec \delta + q \cdot \Delta\delta' \cdot \frac{1}{15} \sec^2 \delta$ ; Korr.  $(\Delta\delta)'' = -q \cdot 15 \cdot \Delta\alpha^m + r \cdot \Delta\delta'$

## Reduktionsgrößen 1929

p, 1929 November 15

$\frac{\delta}{\alpha}$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\frac{\delta}{\alpha}$
h										h
0	-11	-16	-24	-35	-47	-59	-70	-78	-83	12
1	+3	-2	-11	-23	-37	-50	-62	-72	-76	13
2	+17	+12	+3	-10	-24	-38	-50	-60	-65	14
3	+30	+25	+16	+4	-10	-23	-35	-44	-48	15
4	+40	+36	+28	+18	+6	-6	-17	-25	-29	16
5	+48	+45	+38	+30	+20	+10	+2	-4	-8	17
6	+53	+51	+46	+40	+34	+27	+21	+16	+14	18
7	+54	+53	+51	+48	+44	+41	+38	+36	+35	19
8	+51	+52	+52	+52	+52	+53	+53	+54	+54	20
9	+45	+47	+49	+53	+57	+61	+64	+67	+68	21
10	+36	+39	+44	+50	+57	+65	+71	+76	+79	22
11	+24	+28	+35	+44	+54	+64	+73	+80	+84	23
12	+11	+16	+24	+35	+47	+59	+70	+78	+83	24

q, 1929 November 15

$\frac{\delta}{\alpha}$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\frac{\delta}{\alpha}$
h										h
0	+53	+49	+41	+31	+20	+8	-2	-9	-13	12
1	+53	+48	+38	+25	+10	-6	-19	-29	-34	13
2	+51	+44	+33	+17	-1	-19	-35	-47	-53	14
3	+44	+38	+25	+8	-12	-31	-48	-61	-68	15
4	+35	+28	+15	-2	-22	-41	-58	-71	-78	16
5	+23	+17	+5	-12	-30	-48	-65	-77	-83	17
6	+10	+4	-6	-20	-36	-52	-66	-77	-83	18
7	-4	-8	-17	-28	-40	-53	-64	-72	-76	19
8	-18	-21	-26	-33	-41	-50	-57	-62	-65	20
9	-30	-31	-34	-36	-40	-43	-46	-48	-49	21
10	-41	-40	-39	-37	-35	-33	-32	-30	-30	22
11	-48	-46	-41	-35	-28	-22	-15	-11	-8	23
12	-53	-49	-41	-31	-20	-8	+2	+9	+13	24

r, 1929 November 15

$\frac{\delta}{\alpha}$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\frac{\delta}{\alpha}$
h										h
0	-22	-36	-45	-49	-47	-39	-27	-11	+6	12
1	-21	-31	-37	-40	-37	-30	-19	-6	+8	13
2	-18	-25	-28	-28	-24	-18	-9	+1	+10	14
3	-16	-17	-17	-14	-10	-4	+2	+8	+13	15
4	-13	-10	-5	0	+6	+10	+14	+15	+15	16
5	-11	-2	+6	+14	+20	+24	+25	+23	+18	17
6	-8	+4	+16	+26	+34	+36	+35	+29	+20	18
7	-7	+10	+25	+37	+44	+47	+43	+35	+22	19
8	-5	+14	+31	+44	+52	+54	+50	+39	+23	20
9	-4	+16	+34	+48	+57	+58	+53	+41	+24	21
10	-4	+16	+35	+49	+57	+59	+53	+41	+24	22
11	-5	+14	+32	+46	+54	+56	+51	+40	+24	23
12	-6	+11	+27	+39	+47	+49	+45	+36	+22	24
	+80°	+60°	+40°	+20°	0°	-20°	-40°	-60°	-80°	$\frac{\alpha}{\delta}$

Bei der Tafel für  $r$  wird mit der Deklination für  $0^h \leq \alpha \leq 12^h$  in die obere, für  $12^h \leq \alpha \leq 24^h$  in die untere Argumentenzeile eingegangen.

Die Einheit der Tafelwerte ist 0.0001. Die Vorzeichen gelten für  $0^h \leq \alpha \leq 12^h$ ; liegt  $\alpha$  zwischen  $12^h$  und  $24^h$ , so sind bei allen Tafeln die Vorzeichen umzukehren.

Korr.  $(\Delta\alpha)^n = p \cdot \Delta\alpha^m \cdot \sec \delta + q \cdot \Delta\delta' \cdot \frac{1}{15} \sec^2 \delta$ ; Korr.  $(\Delta\delta)'' = -q \cdot 15 \cdot \Delta\alpha^m + r \cdot \Delta\delta'$

p, 1929 Dezember 15

$\frac{\delta}{\sigma}$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\frac{\delta}{\alpha}$
0 <sup>h</sup>	-17	-22	-32	-44	-59	-74	-86	-96	-101	12 <sup>h</sup>
1	-10	-15	-26	-40	-55	-71	-85	-95	-100	13
2	-2	-8	-18	-32	-48	-63	-77	-88	-93	14
3	+6	+1	-9	-22	-37	-52	-65	-75	-80	15
4	+14	+9	+1	-10	-23	-36	-48	-56	-60	16
5	+20	+17	+10	+2	-8	-18	-27	-34	-37	17
6	+26	+24	+19	+14	+7	+1	-5	-9	-12	18
7	+29	+28	+27	+25	+22	+20	+17	+16	+15	19
8	+31	+32	+32	+34	+36	+37	+39	+40	+40	20
9	+30	+32	+36	+41	+47	+52	+58	+61	+63	21
10	+28	+31	+37	+45	+55	+64	+72	+78	+82	22
11	+23	+28	+36	+46	+59	+71	+82	+90	+95	23
12	+17	+22	+32	+44	+59	+74	+86	+96	+101	24

q, 1929 Dezember 15

$\frac{\delta}{\alpha}$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\frac{\delta}{\alpha}$
0 <sup>h</sup>	+26	+25	+24	+21	+19	+16	+14	+13	+12	12 <sup>h</sup>
1	+29	+26	+22	+15	+7	0	-7	-12	-14	13
2	+30	+26	+18	+7	-5	-17	-28	-36	-40	14
3	+29	+24	+13	-1	-17	-33	-47	-57	-63	15
4	+26	+20	+8	-9	-27	-46	-63	-75	-81	16
5	+22	+15	+2	-16	-36	-56	-74	-87	-94	17
6	+16	+9	-5	-22	-43	-63	-81	-94	-101	18
7	+8	+2	-10	-27	-46	-65	-82	-94	-100	19
8	+1	-5	-16	-30	-46	-63	-77	-88	-93	20
9	-8	-12	-20	-31	-44	-56	-68	-76	-80	21
10	-15	-17	-23	-30	-38	-46	-53	-58	-61	22
11	-21	-22	-24	-26	-29	-32	-35	-37	-38	23
12	-26	-25	-24	-21	-19	-16	-14	-13	-12	24

r, 1929 Dezember 15

$\frac{\delta}{\alpha}$	-80°	-60°	-40°	-20°	0°	+20°	+40°	+60°	+80°	$\frac{\delta}{\alpha}$
0 <sup>h</sup>	-13	-32	-47	-57	-59	-55	-43	-27	-7	12 <sup>h</sup>
1	-13	-30	-44	-53	-55	-51	-40	-25	-7	13
2	-11	-26	-38	-46	-48	-44	-34	-21	-5	14
3	-9	-21	-30	-36	-37	-34	-26	-16	-3	15
4	-7	-14	-20	-23	-23	-21	-16	-9	-1	16
5	-4	-7	-8	-9	-8	-7	-4	-2	+2	17
6	-2	+1	+3	+6	+7	+8	+7	+6	+4	18
7	+1	+8	+15	+20	+22	+22	+19	+14	+7	19
8	+3	+15	+25	+33	+36	+35	+29	+21	+9	20
9	+5	+21	+34	+43	+47	+45	+38	+26	+11	21
10	+6	+25	+40	+50	+55	+52	+44	+30	+12	22
11	+7	+27	+43	+54	+59	+56	+47	+32	+13	23
12	+7	+27	+43	+55	+59	+57	+47	+32	+13	24
	+80°	+60°	+40°	+20°	0°	-20°	-40°	-60°	-80°	

Bei der Tafel für r wird mit der Deklination für 0<sup>h</sup> ≤ α ≤ 12<sup>h</sup> in die obere, für 12<sup>h</sup> ≤ α ≤ 24<sup>h</sup> in die untere Argumentenzeile eingegangen.

Die Einheit der Tafelwerte ist 0.0001. Die Vorzeichen gelten für 0<sup>h</sup> ≤ α ≤ 12<sup>h</sup>; liegt α zwischen 12<sup>h</sup> und 24<sup>h</sup>, so sind bei allen Tafeln die Vorzeichen umzukehren.

Korr. (Δα)<sup>\*</sup> = p · Δα<sup>m</sup> · sec δ + q · Δδ' ·  $\frac{1}{15}$  sec<sup>2</sup> δ; Korr. (Δδ)'' = -q · 15 · Δα<sup>m</sup> + r · Δδ'

Übertragung von Rektaszensions- und Deklinationsdifferenzen  
vom mittleren Äquinoktium 1929.0 auf das Normaläquinoktium 1925.0

$\alpha$	$a_1$	$a_2$	$d_1$	$\alpha$	$\alpha$	$a_1$	$a_2$	$d_1$	$\alpha$
0 <sup>h</sup> 0 <sup>m</sup>	-0.0233-	-0.0000+	+0.000-	24 <sup>h</sup> 0 <sup>m</sup>	6 <sup>h</sup> 0 <sup>m</sup>	+0.0000+	-0.0233+	+0.350-	18 <sup>h</sup> 0 <sup>m</sup>
10	233	10	15	50	10	10	233	349	50
20	232	20	31	40	20	20	232	348	40
30	231	30	46	30	30	30	231	347	30
40	230	40	61	20	40	40	230	345	20
50	228	50	76	10	50	50	228	342	10
1 0	-0.0225-	-0.0060+	+0.091-	23 0	7 0	+0.0060+	-0.0225+	+0.338-	17 0
10	222	070	105	50	10	070	222	334	50
20	219	080	120	40	20	080	219	329	40
30	215	089	134	30	30	089	215	323	30
40	211	099	148	20	40	099	211	317	20
50	207	108	162	10	50	108	207	310	10
2 0	-0.0202-	-0.0117+	+0.175-	22 0	8 0	+0.0117+	-0.0202+	+0.303-	16 0
10	197	125	188	50	10	125	197	295	50
20	191	134	201	40	20	134	191	287	40
30	185	142	213	30	30	142	185	278	30
40	179	150	225	20	40	150	179	268	20
50	172	158	236	10	50	158	172	258	10
3 0	-0.0165-	-0.0165+	+0.247-	21 0	9 0	+0.0165+	-0.0165+	+0.247-	15 0
10	158	172	258	50	10	172	158	236	50
20	150	179	268	40	20	179	150	225	40
30	142	185	278	30	30	185	142	213	30
40	134	191	287	20	40	191	134	201	20
50	125	197	295	10	50	197	125	188	10
4 0	-0.0117-	-0.0202+	+0.303-	20 0	10 0	+0.0202+	-0.0117+	+0.175-	14 0
10	108	207	310	50	10	207	108	162	50
20	099	211	317	40	20	211	099	148	40
30	089	215	323	30	30	215	089	134	30
40	080	219	329	20	40	219	080	120	20
50	070	222	334	10	50	222	070	105	10
5 0	-0.0060-	-0.0225+	+0.338-	19 0	11 0	+0.0225+	-0.0060+	+0.091-	13 0
10	50	228	342	50	10	228	50	76	50
20	40	230	345	40	20	230	40	61	40
30	30	231	347	30	30	231	30	46	30
40	20	232	348	20	40	232	20	31	20
50	10	233	349	10	50	233	10	15	10
6 0	-0.0000-	-0.0233+	+0.350-	18 0	12 0	+0.0233+	-0.0000+	+0.000-	12 0

Für  $\alpha$  zwischen 12<sup>h</sup> und 24<sup>h</sup> gelten die Vorzeichen zur Rechten.

$$\Delta p_{\alpha}^m = a_1 \cdot \operatorname{tg} \delta \cdot \Delta \alpha^m + a_2 \cdot \frac{1}{15} \sec^2 \delta \cdot \Delta \delta'; \quad \Delta p_{\delta}^m = d_1 \cdot \Delta \alpha^m$$

$\Delta \alpha^m$  bedeutet die Rektaszensionsdifferenz in Zeitminuten,  $\Delta \delta'$  ist die Deklinationsdifferenz in Bogenminuten.

Die Werte von  $\operatorname{tg} \delta$  und  $\frac{1}{15} \sec^2 \delta$  sind auf S. 267\* enthalten.



# Reduktionsgrößen 1929

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Reduktion von dem mittleren Äquinoktium 1925.0 auf das jedesmalige wahre Äquinoktium

O <sup>h</sup>				O <sup>h</sup>					
Welt-Zeit	<i>f</i>	log <i>g</i>	<i>G</i>	Welt-Zeit	<i>f</i>	log <i>g</i>	<i>G</i>		
1929				1929					
Jan.	1	+11.435	1.87354	23 <sup>h</sup> 46 <sup>m</sup> 37 <sup>a</sup>	Mai	17	+12.564	1.91468	23 <sup>h</sup> 44 <sup>m</sup> 20 <sup>a</sup>
	5	11.481	1.87531	23 46 29		21	12.604	1.91605	23 44 30
	9	11.527	1.87705	23 46 20	25	12.646	1.91745	23 44 38	
	13	11.572	1.87875	23 46 8	29	12.688	1.91889	23 44 46	
	17	11.616	1.88040	23 45 55	Juni	2	12.731	1.92035	23 44 53
	21	+11.658	1.88201	23 45 41		6	+12.776	1.92184	23 44 59
Febr.	25	11.699	1.88356	23 45 26	10	12.821	1.92334	23 45 3	
	29	11.738	1.88505	23 45 11	14	12.866	1.92487	23 45 5	
	2	11.776	1.88648	23 44 55	18	12.911	1.92640	23 45 6	
	6	11.812	1.88785	23 44 39	22	12.957	1.92795	23 45 6	
	10	+11.847	1.88916	23 44 23	26	+13.003	1.92949	23 45 4	
	14	11.880	1.89042	23 44 7	30	13.048	1.93102	23 45 1	
	18	11.912	1.89161	23 43 52	Juli	4	13.093	1.93254	23 44 56
	22	11.943	1.89275	23 43 38		8	13.138	1.93403	23 44 50
26	11.972	1.89384	23 43 25	12	13.182	1.93549	23 44 43		
März	2	+12.000	1.89489	23 43 14	16	+13.225	1.93692	23 44 34	
	6	12.027	1.89589	23 43 4	20	13.267	1.93831	23 44 24	
	10	12.053	1.89686	23 42 56	24	13.309	1.93968	23 44 14	
	14	12.079	1.89780	23 42 49	28	13.349	1.94101	23 44 3	
	18	12.104	1.89873	23 42 44	Aug.	1	13.388	1.94230	23 43 51
	22	+12.130	1.89963	23 42 41		5	+13.425	1.94354	23 43 39
April	26	12.155	1.90054	23 42 40	9	13.461	1.94474	23 43 27	
	30	12.181	1.90145	23 42 41	13	13.495	1.94589	23 43 14	
	3	12.207	1.90237	23 42 44	17	13.530	1.94700	23 43 2	
	7	12.234	1.90332	23 42 48	21	13.562	1.94807	23 42 50	
	11	+12.262	1.90429	23 42 54	25	+13.593	1.94909	23 42 39	
	15	12.290	1.90529	23 43 1	29	13.623	1.95006	23 42 29	
	19	12.320	1.90631	23 43 9	Sept.	2	13.652	1.95100	23 42 20
	23	12.351	1.90737	23 43 18		6	13.680	1.95191	23 42 11
27	12.383	1.90847	23 43 28	10	13.707	1.95279	23 42 4		
Mai	1	+12.416	1.90963	23 43 38	14	+13.734	1.95365	23 41 59	
	5	12.451	1.91083	23 43 49	18	13.760	1.95449	23 41 54	
	9	12.487	1.91207	23 44 0	22	13.786	1.95531	23 41 51	
	13	12.525	1.91336	23 44 10	26	13.811	1.95613	23 41 50	
	17	+12.564	1.91468	23 44 20	30	+13.837	1.95694	23 41 51	

## Reduktionsgrößen 1929

Reduktion von dem mittleren Äquinoktium 1925.0 auf das jedesmalige wahre Äquinoktium

$O^h$ Welt-Zeit	$f$	$\log g$	$G$	$O^h$ Welt-Zeit	$f$	$\log g$	$G$
1929				1929			
Sept. 30	+13.837	1.95694	23 <sup>h</sup> 41 <sup>m</sup> 51 <sup>s</sup>	Nov. 17	+14.222	1.96862	23 <sup>h</sup> 43 <sup>m</sup> 26 <sup>s</sup>
Okt. 4	13.864	1.95776	23 41 53	21	14.263	1.96985	23 43 36
8	13.891	1.95859	23 41 56	25	14.306	1.97112	23 43 45
12	13.918	1.95943	23 42 1	29	14.350	1.97243	23 43 54
16	13.946	1.96030	23 42 7	Dez. 3	14.395	1.97377	23 44 2
20	+13.976	1.96120	23 42 14	7	+14.441	1.97515	23 44 8
24	14.007	1.96213	23 42 23	11	14.488	1.97655	23 44 13
28	14.039	1.96310	23 42 33	15	14.536	1.97797	23 44 17
Nov. 1	14.072	1.96412	23 42 43	19	14.584	1.97940	23 44 19
5	14.107	1.96518	23 42 53	23	14.632	1.98084	23 44 19
9	+14.144	1.96628	23 43 4	27	+14.680	1.98227	23 44 19
13	14.182	1.96743	23 43 15	31	+14.728	1.98369	23 44 16
17	+14.222	1.96862	23 43 26				

$$\text{Red. in } \alpha = f + \frac{1}{15} g \sin(G + \alpha) \operatorname{tg} \delta$$

$$\text{Red. in } \delta = g \cos(G + \alpha)$$



α	0 <sup>h</sup> , 12 <sup>h</sup>		1 <sup>h</sup> , 13 <sup>h</sup>		2 <sup>h</sup> , 14 <sup>h</sup>		3 <sup>h</sup> , 15 <sup>h</sup>		4 <sup>h</sup> , 16 <sup>h</sup>		5 <sup>h</sup> , 17 <sup>h</sup>		α
	-A <sub>1</sub> +	-D+	-A <sub>1</sub> +	-D+	-A <sub>1</sub> +	-D+	-A <sub>1</sub> +	-D+	-A <sub>1</sub> +	-D+	-A <sub>1</sub> +	-D+	
m													m
0	a	80.18	1.381	77.45	2.670	69.45	3.778	56.72	4.628	40.12	5.162	20.79	0
1	0.022	80.18	403	77.36	691	69.28	794	56.47	640	39.82	168	20.45	1
2	045	80.18	426	77.27	711	69.10	810	56.22	651	39.52	174	20.11	2
3	068	80.17	448	77.17	731	68.92	827	55.97	662	39.21	180	19.77	3
4	091	80.17	471	77.08	751	68.74	843	55.72	674	38.91	185	19.43	4
5	114	80.16	493	76.98	771	68.56	859	55.47	685	38.60	191	19.09	5
6	138	80.15	516	76.88	791	68.38	875	55.22	696	38.29	197	18.75	6
7	161	80.14	538	76.78	811	68.19	891	54.96	707	37.98	202	18.41	7
8	184	80.13	560	76.68	831	68.01	907	54.71	718	37.67	208	18.07	8
9	208	80.12	583	76.58	851	67.83	923	54.45	729	37.36	213	17.73	9
10	0.231	80.10	1.605	76.48	2.870	67.64	3.939	54.19	4.740	37.05	5.218	17.39	10
11	255	80.09	627	76.37	890	67.45	955	53.93	751	36.74	223	17.05	11
12	278	80.07	650	76.26	910	67.26	970	53.67	761	36.43	228	16.71	12
13	301	80.05	672	76.15	929	67.07	986	53.41	772	36.12	233	16.37	13
14	324	80.03	694	76.04	949	66.88	4.002	53.15	783	35.81	237	16.03	14
15	347	80.01	716	75.93	968	66.68	017	52.89	793	35.49	242	15.68	15
16	371	79.99	738	75.82	2.987	66.49	032	52.63	803	35.18	246	15.34	16
17	394	79.96	760	75.70	3.007	66.29	048	52.36	813	34.87	251	15.00	17
18	417	79.94	782	75.59	026	66.10	063	52.10	823	34.55	255	14.65	18
19	440	79.91	804	75.47	045	65.90	078	51.83	833	34.24	259	14.31	19
20	0.463	79.88	1.826	75.35	3.064	65.70	4.093	51.56	4.843	33.92	5.263	13.96	20
21	487	79.85	848	75.23	083	65.50	108	51.29	853	33.60	267	13.62	21
22	510	79.81	870	75.11	102	65.30	123	51.02	862	33.28	271	13.27	22
23	533	79.78	892	74.99	121	65.09	138	50.75	872	32.96	275	12.93	23
24	556	79.74	914	74.87	140	64.89	153	50.48	881	32.64	278	12.58	24
25	579	79.70	935	74.74	159	64.68	167	50.21	891	32.32	282	12.23	25
26	603	79.66	957	74.61	178	64.47	182	49.94	900	32.00	285	11.89	26
27	626	79.62	1.979	74.48	196	64.26	196	49.67	910	31.68	289	11.54	27
28	649	79.58	2.000	74.35	215	64.05	210	49.39	919	31.36	292	11.20	28
29	672	79.54	022	74.22	234	63.84	225	49.12	928	31.04	296	10.85	29
30	0.695	79.50	2.043	74.09	3.252	63.63	4.239	48.84	4.937	30.71	5.299	10.50	30
31	719	79.45	065	73.96	270	63.42	253	48.56	946	30.39	302	10.16	31
32	742	79.40	086	73.82	289	63.20	267	48.28	955	30.07	305	9.81	32
33	765	79.35	107	73.68	307	62.99	281	48.00	964	29.74	308	9.46	33
34	788	79.30	129	73.54	326	62.77	295	47.72	973	29.42	311	9.11	34
35	811	79.25	150	73.40	344	62.55	309	47.44	981	29.09	313	8.76	35
36	834	79.19	172	73.26	362	62.33	323	47.16	990	28.77	315	8.42	36
37	857	79.14	193	73.11	380	62.11	336	46.87	4.998	28.44	318	8.07	37
38	880	79.08	214	72.97	398	61.89	350	46.59	5.006	28.12	320	7.72	38
39	903	79.02	236	72.83	416	61.67	364	46.30	014	27.79	322	7.37	39
40	0.926	78.96	2.257	72.68	3.434	61.44	4.377	46.01	5.022	27.46	5.324	7.02	40
41	949	78.90	278	72.53	452	61.22	390	45.73	030	27.13	326	6.68	41
42	972	78.84	299	72.38	469	60.99	404	45.44	038	26.80	328	6.33	42
43	0.995	78.77	320	72.23	487	60.76	417	45.15	045	26.47	330	5.98	43
44	1.018	78.71	341	72.08	505	60.53	430	44.86	053	26.14	332	5.63	44
45	041	78.64	362	71.92	522	60.30	443	44.57	061	25.81	333	5.28	45
46	064	78.57	383	71.77	540	60.07	456	44.28	068	25.48	335	4.93	46
47	087	78.50	404	71.61	557	59.84	469	43.99	076	25.15	336	4.58	47
48	110	78.43	425	71.45	574	59.61	482	43.70	083	24.81	338	4.23	48
49	133	78.36	446	71.29	592	59.38	494	43.41	090	24.48	339	3.88	49
50	1.155	78.28	2.466	71.13	3.609	59.14	4.507	43.11	5.097	24.14	5.340	3.53	50
51	178	78.21	487	70.97	626	58.90	519	42.82	104	23.81	341	3.19	51
52	201	78.13	508	70.80	643	58.66	532	42.52	111	23.48	342	2.84	52
53	223	78.05	528	70.64	660	58.42	544	42.22	118	23.14	343	2.49	53
54	246	77.97	549	70.48	677	58.18	556	41.92	125	22.81	344	2.14	54
55	268	77.89	569	70.31	694	57.94	568	41.62	131	22.47	344	1.79	55
56	291	77.81	589	70.14	711	57.70	580	41.32	138	22.14	345	1.44	56
57	313	77.72	610	69.97	728	57.46	592	41.02	144	21.80	345	1.09	57
58	336	77.63	630	69.80	745	57.21	604	40.72	150	21.47	345	0.74	58
59	358	77.54	650	69.63	762	56.97	616	40.42	156	21.13	345	0.39	59
60	1.381	77.45	2.670	69.45	3.778	56.72	4.628	40.12	5.162	20.79	5.345	0.04	60

## Äquinoktium 1929.0 auf das Normaläquinoktium 1925.0

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$\alpha$	$6^h, 18^h$		$7^h, 19^h$		$8^h, 20^h$		$9^h, 21^h$		$10^h, 22^h$		$11^h, 23^h$		$\alpha$
m	-A <sub>1</sub> + +D-	+D-	-A <sub>1</sub> + +D-	+D-	-A <sub>1</sub> + +D-	+D-	-A <sub>1</sub> + +D-	+D-	-A <sub>1</sub> + +D-	+D-	-A <sub>1</sub> + +D-	+D-	m
0	5.345	.	5.164	20.72	4.630	40.06	3.781	56.67	2.675	69.42	1.386	77.44	0
1	345	0.31	158	21.06	619	40.36	765	56.92	655	69.60	364	77.53	1
2	345	0.66	152	21.40	607	40.66	748	57.16	634	69.77	341	77.62	2
3	345	1.01	145	21.73	595	40.96	732	57.41	614	69.94	319	77.70	3
4	344	1.36	139	22.07	583	41.26	715	57.65	594	70.11	296	77.79	4
5	344	1.71	132	22.40	571	41.56	698	57.89	573	70.28	273	77.87	5
6	343	2.06	126	22.74	559	41.86	681	58.13	553	70.45	251	77.95	6
7	343	2.41	119	23.08	546	42.16	664	58.37	532	70.61	228	78.03	7
8	342	2.76	112	23.41	534	42.46	647	58.61	512	70.78	205	78.11	8
9	341	3.11	105	23.75	522	42.76	630	58.85	491	70.94	182	78.19	9
10	5.340	3.46	5.098	24.08	4.509	43.05	3.613	59.09	2.470	71.10	1.159	78.27	10
11	339	3.81	091	24.42	497	43.35	596	59.33	450	71.26	137	78.35	11
12	338	4.16	084	24.75	484	43.64	578	59.56	429	71.42	114	78.42	12
13	337	4.51	077	25.08	472	43.93	561	59.80	408	71.58	091	78.49	13
14	336	4.86	070	25.41	459	44.22	544	60.03	387	71.74	068	78.56	14
15	334	5.21	062	25.74	446	44.51	526	60.26	366	71.89	045	78.63	15
16	333	5.56	055	26.07	433	44.80	509	60.49	345	72.05	023	78.70	16
17	331	5.91	047	26.40	420	45.09	491	60.72	324	72.20	1.000	78.76	17
18	329	6.26	040	26.73	407	45.38	474	60.95	303	72.35	0.977	78.83	18
19	327	6.61	032	27.06	394	45.67	456	61.18	282	72.50	954	78.89	19
20	5.325	6.95	5.024	27.39	4.380	45.96	3.438	61.40	2.261	72.65	0.931	78.95	20
21	323	7.30	016	27.72	367	46.25	420	61.63	240	72.80	908	79.01	21
22	321	7.65	008	28.05	353	46.53	402	61.85	219	72.94	885	79.07	22
23	319	8.00	5.000	28.38	340	46.82	384	62.07	198	73.09	862	79.13	23
24	317	8.35	4.992	28.71	326	47.10	366	62.29	177	73.23	839	79.19	24
25	314	8.69	983	29.03	312	47.38	348	62.51	155	73.37	816	79.24	25
26	312	9.04	975	29.36	298	47.66	330	62.73	134	73.51	793	79.29	26
27	309	9.39	966	29.68	284	47.94	311	62.95	112	73.65	770	79.34	27
28	306	9.74	957	30.01	270	48.22	293	63.16	091	73.79	747	79.39	28
29	303	10.09	948	30.33	256	48.50	275	63.38	070	73.93	724	79.44	29
30	5.300	10.43	4.939	30.65	4.242	48.78	3.256	63.59	2.048	74.06	0.700	79.49	30
31	297	10.78	930	30.98	228	49.06	238	63.80	027	74.19	677	79.54	31
32	294	11.13	921	31.30	213	49.34	219	64.01	2.005	74.32	654	79.58	32
33	290	11.47	912	31.62	199	49.61	201	64.22	1.983	74.45	631	79.62	33
34	287	11.82	903	31.94	185	49.89	182	64.43	961	74.58	608	79.66	34
35	283	12.16	893	32.26	170	50.16	163	64.64	939	74.71	584	79.70	35
36	280	12.51	884	32.58	156	50.43	144	64.85	918	74.84	561	79.74	36
37	276	12.86	874	32.90	141	50.70	125	65.05	896	74.96	538	79.77	37
38	272	13.20	865	33.22	126	50.97	106	65.26	874	75.09	515	79.81	38
39	268	13.55	855	33.54	111	51.24	087	65.46	852	75.21	492	79.84	39
40	5.264	13.89	4.845	33.85	4.096	51.51	3.068	65.66	1.830	75.33	0.468	79.87	40
41	260	14.24	835	34.17	081	51.78	049	65.86	808	75.45	445	79.90	41
42	256	14.58	825	34.49	066	52.05	030	66.06	786	75.57	422	79.93	42
43	252	14.93	815	34.80	051	52.31	3.011	66.25	764	75.68	399	79.95	43
44	248	15.27	805	35.12	036	52.58	2.992	66.45	742	75.80	376	79.98	44
45	243	15.61	795	35.43	020	52.84	972	66.64	720	75.91	352	80.00	45
46	239	15.96	785	35.75	4.005	53.10	953	66.84	698	76.02	329	80.02	46
47	234	16.30	774	36.06	3.989	53.36	933	67.03	676	76.13	306	80.04	47
48	229	16.64	764	36.37	974	53.62	914	67.22	654	76.24	283	80.06	48
49	224	16.98	753	36.68	958	53.88	894	67.41	632	76.35	260	80.08	49
50	5.219	17.32	4.742	36.99	3.942	54.14	2.874	67.60	1.610	76.45	0.236	80.10	50
51	214	17.66	731	37.30	927	54.40	855	67.79	588	76.56	213	80.12	51
52	209	18.00	720	37.61	911	54.66	835	67.98	565	76.66	190	80.13	52
53	204	18.34	709	37.92	895	54.91	815	68.16	543	76.76	166	80.14	53
54	199	18.68	698	38.23	879	55.17	795	68.35	521	76.86	143	80.15	54
55	193	19.02	687	38.53	863	55.42	775	68.53	498	76.96	119	80.16	55
56	188	19.36	676	38.84	847	55.67	755	68.71	476	77.06	096	80.17	56
57	182	19.70	665	39.14	830	55.92	735	68.89	454	77.16	073	80.17	57
58	176	20.04	653	39.45	814	56.17	715	69.07	431	77.25	049	80.18	58
59	170	20.38	642	39.76	798	56.42	695	69.25	409	77.35	026	80.18	59
60	5.164	20.72	4.630	40.06	3.781	56.67	2.675	69.42	1.386	77.44	0.002	80.18	60

Übertragung von Sternörterern vom mittleren Äquinoktium 1929.0  
auf das Normaläquinoktium 1925.0

$\alpha$	$A$	$A_2$	$D_1$	$\alpha$	$\alpha$	$A$	$A_2$	$D_1$	$\alpha$
0 <sup>h</sup> 0 <sup>m</sup>	-12.291	+0.0000	-0.000	12 <sup>h</sup> 0 <sup>m</sup>	6 <sup>h</sup> 0 <sup>m</sup>	-12.291	-0.0000	-0.016	18 <sup>h</sup> 0 <sup>m</sup>
10	291	1	0	10	10	291	1	16	10
20	291	2	0	20	20	291	2	15	20
30	291	3	0	30	30	291	3	15	30
40	291	4	0	40	40	292	4	15	40
50	291	4	1	50	50	292	4	15	50
1 0	-12.291	+0.0005	-0.001	13 0	7 0	-12.292	-0.0005	-0.015	19 0
10	291	6	1	10	10	292	6	14	10
20	291	7	2	20	20	292	7	14	20
30	291	7	2	30	30	292	7	13	30
40	291	8	3	40	40	292	8	13	40
50	291	9	3	50	50	292	9	12	50
2 0	-12.291	+0.0009	-0.004	14 0	8 0	-12.292	-0.0009	-0.012	20 0
10	291	9	4	10	10	292	9	11	10
20	291	10	5	20	20	292	10	10	20
30	291	10	6	30	30	292	10	10	30
40	291	10	6	40	40	292	10	9	40
50	291	10	7	50	50	292	10	8	50
3 0	-12.291	+0.0010	-0.008	15 0	9 0	-12.292	-0.0010	-0.008	21 0
10	291	10	8	10	10	292	10	7	10
20	291	10	9	20	20	292	10	6	20
30	291	10	10	30	30	292	10	6	30
40	291	10	10	40	40	292	10	5	40
50	291	9	11	50	50	292	9	4	50
4 0	-12.291	+0.0009	-0.012	16 0	10 0	-12.292	-0.0009	-0.004	22 0
10	291	9	12	10	10	292	9	3	10
20	291	8	13	20	20	292	8	3	20
30	291	7	13	30	30	292	7	2	30
40	291	7	14	40	40	292	7	2	40
50	291	6	14	50	50	292	6	1	50
5 0	-12.291	+0.0005	-0.015	17 0	11 0	-12.292	-0.0005	-0.001	23 0
10	291	4	15	10	10	292	4	1	10
20	291	4	15	20	20	292	4	0	20
30	291	3	15	30	30	291	3	0	30
40	291	2	15	40	40	291	2	0	40
50	291	1	16	50	50	291	1	0	50
6 0	-12.291	+0.0000	-0.016	18 0	12 0	-12.291	-0.0000	-0.000	24 0

$$\alpha_{1925} = \alpha_{1929} + A + A_1 \operatorname{tg} \delta_{1929} + A_2 \operatorname{tg}^2 \delta_{1929}$$

$$\delta_{1925} = \delta_{1929} + D + D_1 \operatorname{tg} \delta_{1929}$$

$A_1$  und  $D$  sind aus der Tafel (S.284\*/285\*) mit dem Argument  $\alpha_{1929}$  zu entnehmen; für die Werte von  $\alpha$  zwischen 0<sup>h</sup> und 12<sup>h</sup> gelten die Vorzeichen zur Linken, für die Werte von  $\alpha$  zwischen 12<sup>h</sup> und 24<sup>h</sup> die Vorzeichen zur Rechten.

**Finsternisse, Sternbedeckungen,  
Mösting A, Trabanten**

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**Konstellationen, Hülftafeln**

**1929**

Im Jahre 1929 finden zwei Sonnenfinsternisse statt.  
Der Mond wird nicht verfinstert.

### I. Totale Sonnenfinsternis 1929 Mai 9

Konjunktion in Rektaszension . . . . .	Mai 9, 5 <sup>h</sup> 58 <sup>m</sup> 0.2	Welt-Zeit
Rektaszension des Mondes . . . . .	3 <sup>h</sup> 2 <sup>m</sup> 36.70	
Stündliche Änderung . . . . .	2 24.02	
Rektaszension der Sonne . . . . .	3 2 36.70	
Stündliche Änderung . . . . .	9.73	
Deklination des Mondes . . . . .	+16° 55' 16.8	
Stündliche Änderung . . . . .	+ 13 31.2	
Deklination der Sonne . . . . .	+17° 14' 1.9	
Stündliche Änderung . . . . .	+ 0 40.4	
Äquatorialhorizontalparallaxe des Mondes . . . . .	60 24.7	
» der Sonne . . . . .	8.7	
Halbmesser des Mondes . . . . .	16 26.9	
» der Sonne . . . . .	15 50.3	

	Welt-Zeit	Westl. Länge v. Greenwich	Geogr. Breite
Anfang der Finsternis . . . . .	Mai 9, 3 <sup>h</sup> 32.5	313° 13'	−31° 12'
Anfang der zentralen Verfinsterung	» 4 30.2	325 3	−36 46
Zentrale Finsternis im wahren Mittag	» 5 58.0	270 25	− 0 54
Ende der zentralen Verfinsterung	» 7 50.1	206 57	+ 4 48
Ende der Finsternis . . . . .	» 8 47.7	219 32	+10 30

### Verlauf der Zentrallinie

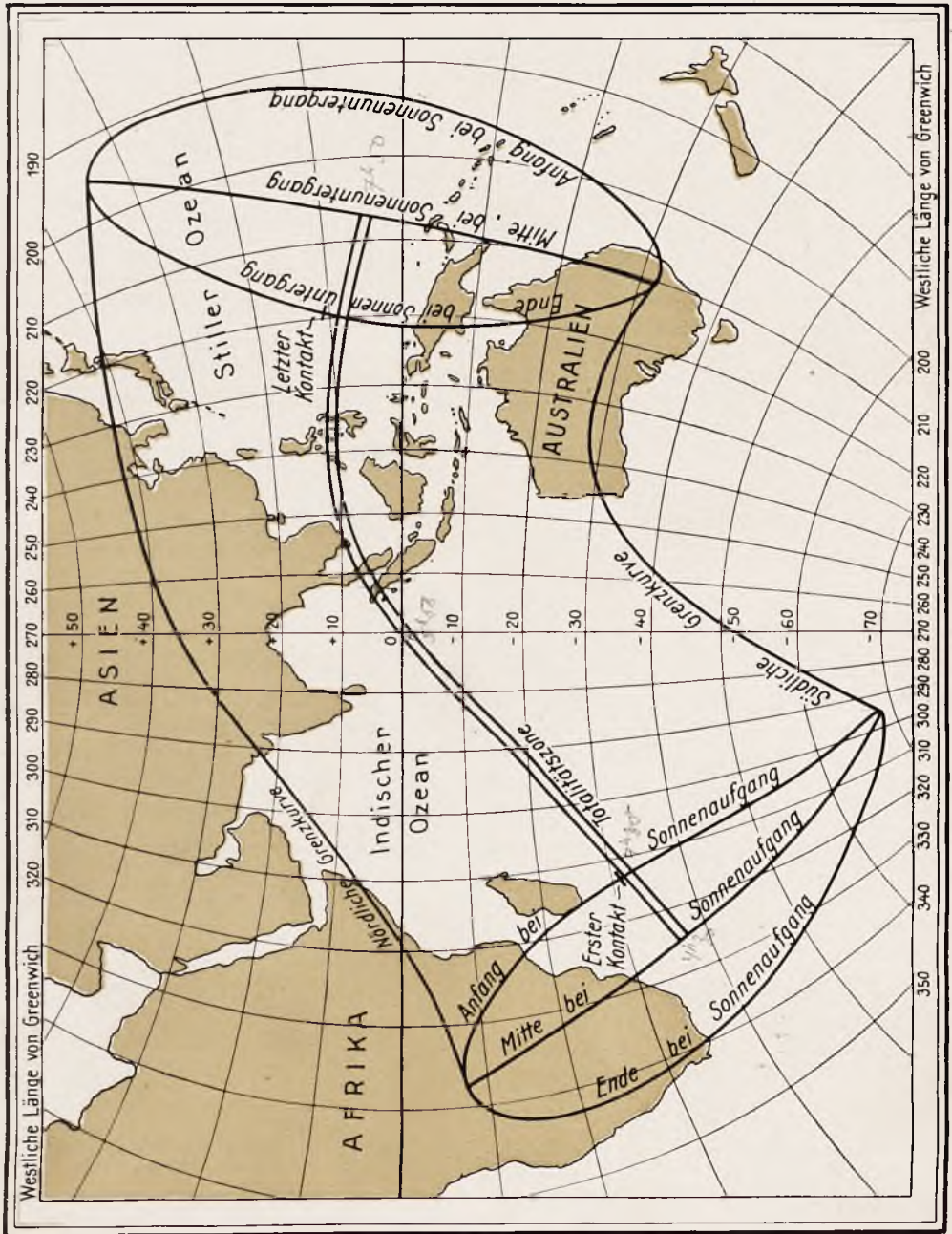
Welt-Zeit	Westl. Länge v. Greenw.	Geogr. Breite	Dauer der Totalität	Welt-Zeit	Westl. Länge v. Greenw.	Geogr. Breite	Dauer der Totalität
<sup>h</sup> <sup>m</sup>	<sup>o</sup> <sup>'</sup>	<sup>o</sup> <sup>'</sup>	<sup>m</sup> <sup>s</sup>	<sup>h</sup> <sup>m</sup>	<sup>o</sup> <sup>'</sup>	<sup>o</sup> <sup>'</sup>	<sup>m</sup> <sup>s</sup>
4 30.2	325 3	−36 46	—	6 20	264 37.4	+ 3 27.1	5 7.2
4 35	307 36.3	−29 38.9	2 46.2	6 40	258 50.7	+ 6 42.8	4 59.7
4 40	301 25.6	−26 13.8	3 3.8	7 0	252 0.1	+ 9 13.2	4 39.4
5 0	288 30.8	−17 5.5	3 51.6	7 20	243 4.8	+10 40.6	4 5.4
5 20	280 59.2	−10 29.3	4 25.0	7 40	228 58.0	+10 2.8	3 13.1
5 40	275 9.0	− 5 4.4	4 48.7	7 45	222 56.2	+ 9 0.4	2 54.0
6 0	269 53.8	− 0 28.3	5 3.2	7 50.1	206 57	+ 4 48	—

Die Finsternis ist sichtbar im südöstlichen Afrika, im Indischen Ozean, in Indien, China, Japan mit Ausnahme der nördlichen Inseln, auf den großen Sunda-Inseln, Neuguinea und in Australien mit Ausnahme des südlichsten Teiles.



# Totaler Sonnenfinsternis

1929 Mai 9





## Elemente der totalen Sonnenfinsternis 1929 Mai 9

Welt-Zeit	$x$	$y$	$\log \sin d$	$\log \cos d$	$\mu$	$l^{(a)}$	$l^{(i)}$
3 <sup>h</sup> 30 <sup>m</sup>	-1.31425	-0.83775	9.47106	9.98011	233° 24.4	+0.53587	-0.00999
40	1.22549	0.80214	9.47111	9.98011	235 54.4	0.53587	0.01000
50	1.13672	0.76653	9.47115	9.98010	238 24.5	0.53587	0.01000
4 0	-1.04795	-0.73093	9.47120	9.98010	240 54.5	+0.53586	-0.01000
10	0.95917	0.69534	9.47124	9.98009	243 24.5	0.53586	0.01001
20	0.87038	0.65974	9.47128	9.98009	245 54.5	0.53585	0.01001
30	0.78160	0.62415	9.47133	9.98009	248 24.5	0.53585	0.01002
40	0.69280	0.58857	9.47137	9.98008	250 54.6	0.53584	0.01003
50	0.60399	0.55299	9.47141	9.98008	253 24.6	0.53583	0.01003
5 0	-0.51519	-0.51741	9.47146	9.98007	255 54.6	+0.53582	-0.01004
10	0.42638	0.48184	9.47150	9.98007	258 24.6	0.53581	0.01005
20	0.33756	0.44627	9.47154	9.98006	260 54.6	0.53580	0.01006
30	0.24874	0.41071	9.47159	9.98006	263 24.6	0.53579	0.01007
40	0.15992	0.37515	9.47163	9.98006	265 54.7	0.53578	0.01008
50	-0.07110	0.33960	9.47167	9.98005	268 24.7	0.53577	0.01009
6 0	+0.01773	-0.30405	9.47172	9.98005	270 54.7	+0.53576	-0.01011
10	0.10656	0.26851	9.47176	9.98004	273 24.7	0.53575	0.01012
20	0.19540	0.23297	9.47180	9.98004	275 54.7	0.53573	0.01013
30	0.28423	0.19744	9.47185	9.98004	278 24.8	0.53572	0.01015
40	0.37307	0.16191	9.47189	9.98003	280 54.8	0.53570	0.01016
50	0.46191	0.12639	9.47194	9.98003	283 24.8	0.53569	0.01018
7 0	+0.55076	-0.09087	9.47198	9.98002	285 54.8	+0.53567	-0.01020
10	0.63960	0.05536	9.47202	9.98002	288 24.8	0.53565	0.01021
20	0.72845	-0.01985	9.47207	9.98002	290 54.9	0.53564	0.01023
30	0.81729	+0.01565	9.47211	9.98001	293 24.9	0.53562	0.01025
40	0.90614	0.05115	9.47215	9.98001	295 54.9	0.53560	0.01027
50	0.99499	0.08664	9.47220	9.98000	298 24.9	0.53558	0.01029
8 0	+1.08384	+0.12212	9.47224	9.98000	300 54.9	+0.53556	-0.01031
10	1.17268	0.15760	9.47228	9.97999	303 25.0	0.53554	0.01033
20	1.26153	0.19307	9.47233	9.97999	305 55.0	0.53551	0.01035
30	1.35038	0.22853	9.47237	9.97998	308 25.0	0.53549	0.01037
40	1.43922	0.26399	9.47241	9.97998	310 55.0	0.53547	0.01040
50	+1.52807	+0.29944	9.47246	9.97998	313 25.0	+0.53544	-0.01042

Welt-Zeit	$x'$	$y'$	$\log \tan g f^{(a)}$	$\log \tan g f^{(i)}$
3 <sup>h</sup> 0 <sup>m</sup>	+0.008874	+0.003562	7.66560	7.66343
4 0	0.008878	0.003560	7.66560	7.66343
5 0	0.008881	0.003557	7.66559	7.66342
6 0	0.008883	0.003554	7.66559	7.66342
7 0	0.008884	0.003551	7.66558	7.66342
8 0	0.008885	0.003548	7.66558	7.66341
9 0	+0.008884	+0.003544	7.66558	7.66341

## II. Ringförmige Sonnenfinsternis 1929 November 1

Konjunktion in Rektaszension November 1, 11<sup>h</sup> 46<sup>m</sup> 31.8 Welt-Zeit

Rektaszension des Mondes . . . . .	14 <sup>h</sup> 24 <sup>m</sup> 46.86
Stündliche Änderung . . . . .	2 1.15
Rektaszension der Sonne . . . . .	14 24 46.86
Stündliche Änderung . . . . .	9.79
Deklination des Mondes . . . . .	-14 <sup>o</sup> 0 26.4
Stündliche Änderung . . . . .	-13 5.2
Deklination der Sonne . . . . .	-14 22 5.4
Stündliche Änderung . . . . .	-0 48.2
Äquatorialhorizontalparallaxe des Mondes . . . . .	56 <sup>''</sup> 15.4
» der Sonne . . . . .	8.9
Halbmesser des Mondes . . . . .	15 19.0
» der Sonne . . . . .	16 7.1

	Welt-Zeit	Westl. Länge v. Greenw.	Geogr. Breite
Beginn der Finsternis . . . . .	November 1, 9 <sup>h</sup> 12.3	41 <sup>o</sup> 21'	+36 <sup>o</sup> 17'
Beginn der zentralen Finsternis . . . . .	» 10 18.6	54 42	+43 27
Zentrale Finsternis im wahren Mittag . . . . .	» 11 46.5	0 43	+ 8 23
Ende der zentralen Finsternis . . . . .	» 13 50.9	300 50	- 3 45
Ende der Finsternis . . . . .	» 14 57.2	315 29	-11 6

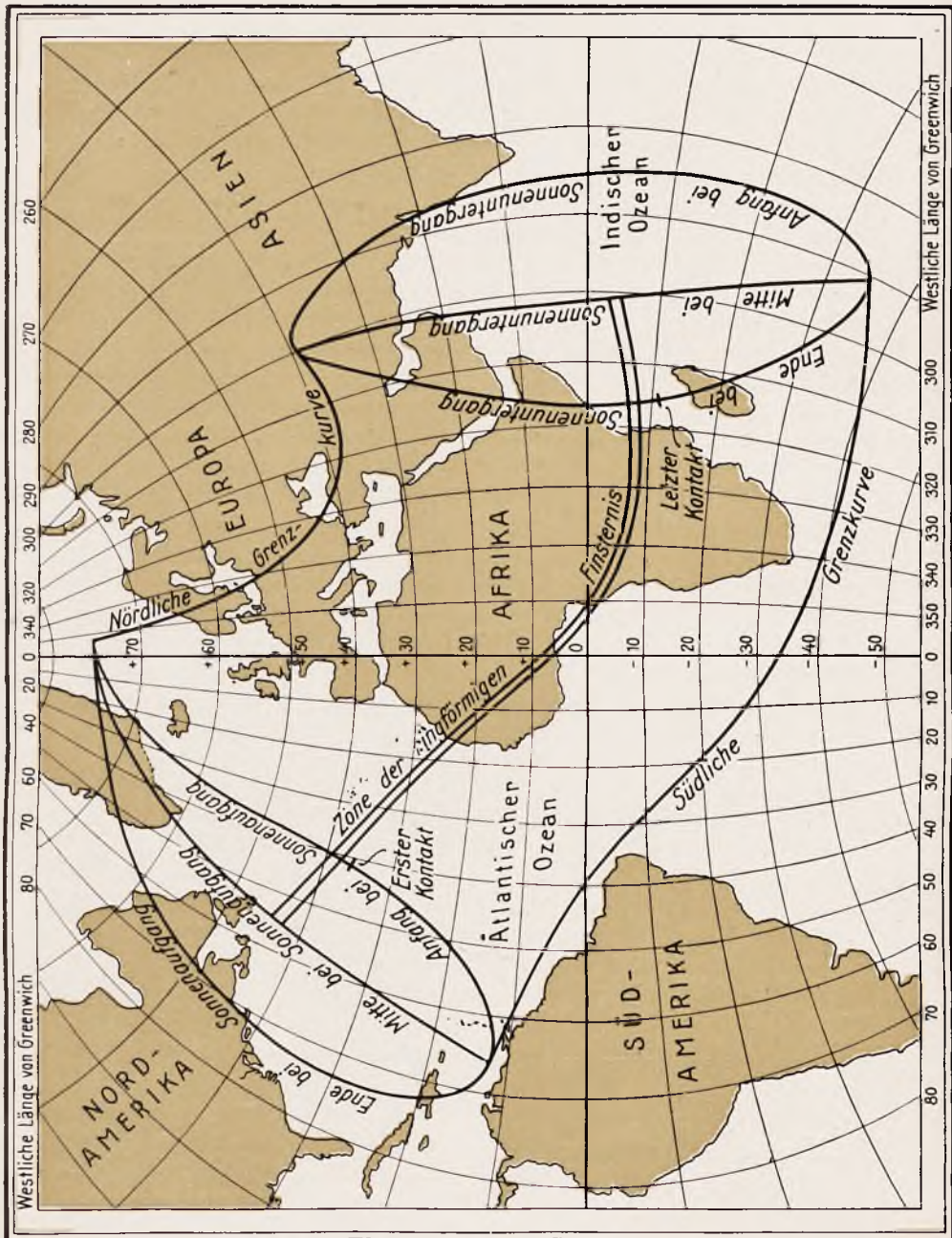
## Verlauf der Zentrallinie

Welt-Zeit	Westl. Länge v. Greenw.	Geogr. Breite	Dauer der ringf. Verf.	Welt-Zeit	Westl. Länge v. Greenw.	Geogr. Breite	Dauer der ringf. Verf.
10 <sup>h</sup> 18.6 <sup>m</sup>	54 <sup>o</sup> 42'	+43 <sup>o</sup> 27'	m —	12 <sup>h</sup> 0 <sup>m</sup>	357 <sup>o</sup> 51.0	+5 <sup>o</sup> 26.0	m 3 52.9
10 20	44 14.7	+40 11.3	3 22.0	12 20	353 30.0	+1 28.4	3 56.3
10 40	21 18.4	+28 9.0	3 31.8	12 40	348 39.6	-1 58.7	3 57.7
11 0	12 37.3	+20 52.4	3 37.9	13 0	342 48.6	-4 51.4	3 56.2
11 20	6 48.5	+14 58.8	3 43.4	13 20	335 0.7	-6 56.7	3 50.8
11 40	2 7.9	+ 9 54.4	3 48.5	13 40	322 24.7	-7 28.5	3 40.0
12 0	357 51.0	+ 5 26.0	3 52.9	13 50.9	300 50	-3 45	—

Die Finsternis ist sichtbar im Atlantischen Ozean, in West- und Mitteleuropa, in Afrika und im westlichen Teil des Indischen Ozeans.

# Ringförmige Sonnenfinsternis

1929 November 1





## Elemente der ringförmigen Sonnenfinsternis 1929 November I

Welt-Zeit	$x$	$y$	$\log \sin d$	$\log \cos d$	$\mu$	$l^{(a)}$	$l^{(i)}$
<sup>h</sup> 9 <sup>m</sup> 10	-1.25571	+0.95696	9.39375 <sub>n</sub>	9.98626	321° 34.7	+0.55989	+0.01390
20	1.17552	0.92045	9.39381 <sub>n</sub>	9.98626	324 4.7	0.55992	0.01393
30	1.09532	0.88395	9.39388 <sub>n</sub>	9.98625	326 34.7	0.55995	0.01396
40	1.01511	0.84745	9.39394 <sub>n</sub>	9.98625	329 4.7	0.55997	0.01399
50	0.93490	0.81095	9.39400 <sub>n</sub>	9.98624	331 34.8	0.56000	0.01401
10 0	-0.85469	+0.77446	9.39407 <sub>n</sub>	9.98624	334 4.8	+0.56003	+0.01404
10	0.77447	0.73797	9.39413 <sub>n</sub>	9.98624	336 34.8	0.56006	0.01407
20	0.69425	0.70148	9.39420 <sub>n</sub>	9.98623	339 4.8	0.56008	0.01409
30	0.61403	0.66499	9.39426 <sub>n</sub>	9.98623	341 34.8	0.56011	0.01412
40	0.53380	0.62851	9.39432 <sub>n</sub>	9.98622	344 4.8	0.56013	0.01414
50	0.45357	0.59203	9.39439 <sub>n</sub>	9.98622	346 34.8	0.56016	0.01417
11 0	-0.37334	+0.55555	9.39445 <sub>n</sub>	9.98622	349 4.9	+0.56018	+0.01419
10	0.29311	0.51907	9.39451 <sub>n</sub>	9.98621	351 34.9	0.56020	0.01421
20	0.21288	0.48260	9.39458 <sub>n</sub>	9.98621	354 4.9	0.56022	0.01424
30	0.13264	0.44613	9.39464 <sub>n</sub>	9.98620	356 34.9	0.56025	0.01426
40	-0.05240	0.40967	9.39470 <sub>n</sub>	9.98620	359 4.9	0.56027	0.01428
50	+0.02784	0.37321	9.39477 <sub>n</sub>	9.98620	I 34.9	0.56029	0.01430
12 0	+0.10808	+0.33675	9.39483 <sub>n</sub>	9.98619	4 5.0	+0.56031	+0.01432
10	0.18832	0.30030	9.39489 <sub>n</sub>	9.98619	6 35.0	0.56033	0.01434
20	0.26856	0.26385	9.39496 <sub>n</sub>	9.98618	9 5.0	0.56035	0.01436
30	0.34881	0.22741	9.39502 <sub>n</sub>	9.98618	11 35.0	0.56037	0.01438
40	0.42905	0.19097	9.39508 <sub>n</sub>	9.98617	14 5.0	0.56038	0.01439
50	0.50930	0.15454	9.39515 <sub>n</sub>	9.98617	16 35.0	0.56040	0.01441
13 0	+0.58954	+0.11811	9.39521 <sub>n</sub>	9.98617	19 5.0	+0.56042	+0.01443
10	0.66978	0.08168	9.39527 <sub>n</sub>	9.98616	21 35.1	0.56043	0.01444
20	0.75003	0.04526	9.39534 <sub>n</sub>	9.98616	24 5.1	0.56045	0.01446
30	0.83027	+0.00885	9.39540 <sub>n</sub>	9.98615	26 35.1	0.56046	0.01447
40	0.91051	-0.02756	9.39546 <sub>n</sub>	9.98615	29 5.1	0.56048	0.01449
50	0.99075	0.06397	9.39553 <sub>n</sub>	9.98614	31 35.1	0.56049	0.01450
14 0	+1.07099	-0.10037	9.39559 <sub>n</sub>	9.98614	34 5.1	+0.56050	+0.01451
10	1.15123	0.13676	9.39565 <sub>n</sub>	9.98614	36 35.1	0.56051	0.01452
20	1.23147	0.17315	9.39572 <sub>n</sub>	9.98613	39 5.2	0.56053	0.01454
30	1.31170	0.20953	9.39578 <sub>n</sub>	9.98613	41 35.2	0.56054	0.01455
40	1.39194	0.24591	9.39584 <sub>n</sub>	9.98612	44 5.2	0.56055	0.01456
50	1.47217	0.28228	9.39591 <sub>n</sub>	9.98612	46 35.2	0.56056	0.01457
15 0	+1.55239	-0.31864	9.39597 <sub>n</sub>	9.98612	49 5.2	+0.56057	+0.01458

Welt-Zeit	$x'$	$y'$	$\log \tan f^{(a)}$	$\log \tan f^{(i)}$
<sup>h</sup> 9 <sup>m</sup> 10	+0.008019	-0.003651	7.67327	7.67110
10 0	0.008021	0.003649	7.67328	7.67111
11 0	0.008023	0.003648	7.67328	7.67111
12 0	0.008024	0.003646	7.67329	7.67112
13 0	0.008024	0.003643	7.67329	7.67112
14 0	0.008024	0.003640	7.67330	7.67113
15 0	+0.008022	-0.003636	7.67330	7.67113

## Ringförmige Sonnenfinsternis 1929 November 1

φ	Östl. Länge von Greenwich	Anfang der Finsternis			Größte Phase		Ende der Finsternis		
		Welt-Zeit	P	Q	Welt-Zeit	Betrag	Welt-Zeit	P	Q
44°	20 <sup>m</sup>	10 <sup>h</sup> 9.6 <sup>m</sup>	259.7	275.0	11 <sup>h</sup> 10.2 <sup>m</sup>	0.25	12 <sup>h</sup> 13.0 <sup>m</sup>	174.0	163.6
	40	10 24.9	253.1	261.3	11 19.4	0.19	12 15.1	179.2	164.3
	60	10 43.0	245.6	245.8	11 29.4	0.13	12 16.2	184.6	165.9
	80	11 4.0	236.9	228.3	11 39.9	0.07	12 15.9	190.8	168.7
	100	11 29.0	226.2	208.7	11 50.9	0.03	12 12.8	198.2	173.3
46°	20	10 12.2	256.8	270.8	11 9.4	0.23	12 8.4	175.9	167.0
	40	10 27.5	250.1	257.3	11 18.2	0.16	12 9.8	181.1	168.1
	60	10 45.6	242.5	242.2	11 27.7	0.11	12 10.1	186.9	170.2
	80	11 7.1	233.3	224.7	11 37.8	0.06	12 8.6	193.5	173.7
	100	11 35.2	220.3	203.3	11 48.1	0.01	12 1.3	203.5	181.1
48°	20	10 15.1	253.8	266.5	11 8.7	0.20	12 3.9	177.7	170.1
	40	10 30.4	247.1	253.4	11 17.2	0.14	12 4.7	183.1	171.8
	60	10 48.5	239.3	238.5	11 26.2	0.09	12 4.2	189.2	174.4
	80	11 10.7	229.5	220.9	11 35.8	0.04	12 1.0	196.6	179.0
50°	20	10 18.2	250.8	262.3	11 8.3	0.18	11 59.6	179.6	173.1
	40	10 33.4	244.0	249.4	11 16.3	0.12	11 59.8	185.1	175.2
	60	10 51.7	236.0	234.6	11 24.9	0.07	11 58.4	191.5	178.5
	80	11 15.2	225.1	216.0	11 34.0	0.02	11 53.0	200.2	184.6
52°	20	10 21.5	247.8	258.1	11 8.0	0.16	11 55.5	181.4	176.0
	40	10 36.7	241.0	245.5	11 15.6	0.10	11 55.0	187.1	178.5
	60	10 55.1	232.6	230.6	11 23.7	0.05	11 52.5	193.9	182.5
	80	11 21.2	219.6	210.1	11 32.3	0.01	11 43.4	204.9	191.8
54°	20	10 25.0	244.8	253.9	11 7.8	0.14	11 51.6	183.2	178.8
	40	10 40.1	237.9	241.6	11 15.1	0.09	11 50.4	189.1	181.7
	60	10 58.8	229.0	226.6	11 22.7	0.04	11 46.7	196.5	186.7
56°	20	10 28.6	241.8	249.9	11 7.8	0.12	11 47.8	185.0	181.4
	40	10 43.6	234.7	237.7	11 14.7	0.07	11 45.9	191.1	184.8
	60	11 3.0	225.2	222.3	11 21.8	0.02	11 40.7	199.3	190.9
58°	20	10 32.2	238.8	246.0	11 8.0	0.10	11 44.2	186.8	184.0
	40	10 47.2	231.6	233.8	11 14.4	0.05	11 41.6	193.2	187.9
	60	11 7.9	220.9	217.4	11 21.0	0.01	11 34.2	202.6	195.7
60°	20	10 36.0	235.8	242.2	11 8.2	0.08	11 40.8	188.6	186.4
	40	10 51.0	228.4	229.8	11 14.2	0.04	11 37.4	195.2	190.8
	60	11 15.9	214.5	210.2	11 20.4	0.00	11 25.1	207.9	202.5



I. Verzeichnis von Fixsternen, die in Mitteleuropa  
vom Monde bedeckt werden

Nr.*)	Name	Gr.	$\alpha_{1929.0}$	$\delta_{1929.0}$	Nr.*)	Name	Gr.	$\alpha_{1929.0}$	$\delta_{1929.0}$
18	Ceti	6.3	<sup>h</sup> 0 20 52	— 2° 36.7	499	Geminorum	6.1	<sup>h</sup> 7 10 22	+25° 0.6
33	Ceti	5.4	0 31 54	— 0 53.7	502	Geminorum	6.5	7 12 40	+26 49.1
68	Ceti	6.1	1 6 54	+ 2 4.1	507	<i>A</i> Geminorum	5.1	7 19 9	+25 11.3
76	<i>f</i> Piscium	5.3	1 14 8	+ 3 14.5	529	<i>c</i> Geminorum	5.5	7 39 47	+25 57.3
87	<i>μ</i> Piscium	5.0	1 26 28	+ 5 46.7	530	<i>x</i> Geminorum	3.6	7 40 10	+24 34.2
105	<i>o</i> Piscium	4.5	1 41 39	+ 8 48.1	542	<i>ω</i> Cancri	6.1	7 56 38	+25 35.3
162	<i>o</i> Arietis	5.8	2 40 38	+15 0.7	547	Cancri	6.2	7 57 27	+25 17.2
169	<i>c</i> Arietis	5.4	2 47 34	+14 47.4	567	$\lambda$ Cancri	5.9	8 16 19	+24 14.8
170	Arietis	6.4	2 49 14	+16 11.7	575	Cancri	6.1	8 24 24	+24 22.9
181	Arietis	6.5	3 0 43	+15 34.8	577	<i>ν</i> <sup>1</sup> Cancri	5.7	8 27 19	+24 19.3
184	Arietis	6.0	3 3 26	+17 36.4	632	Cancri	6.1	9 9 34	+21 34.6
200	Arietis	6.4	3 23 0	+18 30.5	656	Leonis	6.5	9 40 33	+19 11.4
213	Tauri	5.6	3 38 13	+19 28.4	673	Leonis	6.3	10 1 50	+16 6.2
214	Tauri	6.2	3 39 41	+19 26.5	676	$\eta$ Leonis	3.6	10 3 28	+17 6.6
215	Tauri	6.1	3 40 20	+20 42.3	687	Leonis	6.1	10 18 1	+15 20.0
246	<i>A</i> Tauri	4.5	4 0 30	+21 53.4	698	Leonis	5.8	10 28 25	+14 30.1
248	Tauri	6.1	4 1 8	+21 49.1	763	<i>ν</i> Virginis	4.2	11 42 13	+ 6 55.6
259	Tauri	6.1	4 8 38	+22 13.9	776	<i>b</i> Virginis	5.2	11 56 19	+ 4 3.0
263	Tauri	5.6	4 14 11	+21 24.4	786	Virginis	6.2	12 6 3	+ 2 17.8
265	Tauri	5.2	4 15 24	+21 36.2	819	$\gamma$ Virginis	2.9	12 38 4	— 1 3.6
284	<i>x</i> Tauri	4.1	4 21 8	+22 8.0	827	Virginis	6.1	12 49 33	— 3 10.0
285	Tauri	5.4	4 21 11	+22 2.3	828	Virginis	6.5	12 49 58	— 3 50.3
288	<i>ν</i> Tauri	4.2	4 22 3	+22 39.2	834	<i>k</i> Virginis	5.7	12 56 0	— 3 25.8
291	Tauri	5.4	4 23 3	+22 50.3	835	Virginis	6.1	12 56 56	— 2 59.2
292	Tauri	5.8	4 23 48	+21 27.7	837	Virginis	6.5	13 0 15	— 3 16.9
314	Tauri	6.0	4 32 13	+23 11.8	841	$\vartheta$ Virginis	4.4	13 6 16	— 5 9.6
320	$\tau$ Tauri	4.3	4 37 59	+22 49.3	859	Virginis	6.1	13 26 43	— 6 6.3
321	Tauri	6.2	4 38 56	+23 57.3	872	<i>m</i> Virginis	5.2	13 37 53	— 8 20.7
322	Tauri	6.2	4 41 25	+23 30.0	880	Virginis	6.2	13 43 28	— 9 21.3
330	Tauri	6.3	4 51 56	+24 28.8	916	$\lambda$ Virginis	4.5	14 15 16	—13 2.7
332	Tauri	6.0	4 53 30	+23 50.3	938	Librae	5.4	14 46 45	—15 42.2
333	<i>k</i> Tauri	5.6	4 53 49	+24 56.5	939	$\alpha$ Librae	2.7	14 46 57	—15 44.9
345	Tauri	5.5	5 3 47	+24 10.4	963	Librae	6.3	15 10 33	—17 30.3
372	Tauri	5.4	5 24 54	+25 5.7	975	Librae	6.2	15 26 30	—20 29.1
385	Tauri	5.1	5 35 20	+25 51.5	977	Librae	6.1	15 27 38	—19 55.4
407	Tauri	4.7	5 53 35	+25 56.8	979	Librae	5.4	15 28 32	—19 25.8
477	Geminorum	5.7	6 50 57	+25 28.0	985	Librae	5.9	15 34 8	—20 46.9
479	Geminorum	6.2	6 54 25	+26 10.5	1019	$\delta$ Scorpii	2.7	15 56 8	—22 25.3
480	Geminorum	6.3	6 55 5	+26 0.7	1027	Scorpii	5.7	16 1 52	—23 24.8
492	Geminorum	5.6	7 6 59	+26 58.5	1034	Scorpii	5.8	16 4 29	—23 29.8

\* Nummern des Catalogue of Zodiacal Stars by H. B. Hedrick (Astronomical Papers of the American Ephemeris, Vol VIII, Part III).

## I. Verzeichnis von Fixsternen, die in Mitteleuropa vom Monde bedeckt werden

Nr.°)	Name	Gr.	$\alpha_{1929,0}$	$\delta_{1929,0}$	Nr.°)	Name	Gr.	$\alpha_{1929,0}$	$\delta_{1929,0}$
1053	Scorpii	4.9	16 <sup>h</sup> 16 <sup>m</sup> 22 <sup>s</sup>	-24° 0.0	1366	Capricorni	6.2	20 <sup>h</sup> 28 <sup>m</sup> 39 <sup>s</sup>	-25° 11.1
1059	$\rho$ Ophiuchi	4.7	16 21 19	-23 17.1	1388	Capricorni	6.2	20 48 52	-24 3.0
1072	Scorpii	6.1	16 37 18	-24 19.9	1426	Capricorni	5.3	21 20 8	-21 9.3
1109	Ophiuchi	6.3	17 7 52	-25 10.1	1430	Capricorni	6.0	21 23 14	-21 30.3
1112	Ophiuchi	5.4	17 10 59	-26 30.0	1438	Capricorni	5.7	21 30 52	-20 24.1
1132	Ophiuchi	6.3	17 22 32	-25 52.9	1448	Capricorni	6.1	21 39 15	-19 56.8
1148	Sagittarii	6.2	17 44 1	-26 57.1	1459	Capricorni	6.1	21 47 45	-18 57.3
1160	Sagittarii	5.7	17 52 13	-28 3.3	1467	Capricorni	6.4	21 58 17	-18 14.7
1178	Sagittarii	4.7	18 3 35	-28 28.0	1519	Aquarii	5.6	22 43 57	-14 25.9
1194	Sagittarii	4.7	18 13 37	-27 4.2	1522	$\tau$ Aquarii	4.4	22 45 50	-13 58.1
1202	Sagittarii	6.1	18 17 31	-28 27.8	1550	Aquarii	6.3	23 10 58	-11 4.5
1264	$\tau$ Sagittarii	3.5	19 2 31	-27 46.5	1556	$\psi^2$ Aquarii	4.6	23 14 13	-9 34.2
1289	Sagittarii	5.9	19 20 5	-28 0.3	1557	$\psi^3$ Aquarii	5.2	23 15 16	-10 0.0
1297	Sagittarii	5.7	19 25 29	-27 7.9	1566	Aquarii	6.3	23 25 21	-9 39.4
1321	$\omega$ Sagittarii	4.8	19 51 30	-26 29.3	1577	Aquarii	6.5	23 31 52	-7 51.5
1324	$\lambda$ Sagittarii	4.9	19 54 38	-26 23.3	1588	Aquarii	6.3	23 44 54	-6 46.5

\*) Nummern des Catalogue of Zodiacal Stars by H. B. Hedrick (Astronomical Papers of the American Ephemeris, Vol VIII, Part III).

## II. Konjunktionszeiten der in Mitteleuropa sichtbaren Sternbedeckungen

Nr.	Größe	Konjunktion in Rektaszension (Welt-Zeit)		Nr.	Größe	Konjunktion in Rektaszension (Welt-Zeit)		Nr.	Größe	Konjunktion in Rektaszension (Welt-Zeit)	
		1929				1929				1929	
763	4.2	Jan. 1	7 <sup>h</sup> 20.0	477	5.7	Jan. 23	17 <sup>h</sup> 16.9	1297	5.7	Febr. 7	5 <sup>h</sup> 18.7
837	6.5	3	0 20.4	479	6.2	23	18 32.0	213	5.6	16	22 40.6
979	5.4	6	7 21.1	480	6.3	23	18 46.4	214	6.2	16	23 17.8
1109	6.3	8	7 50.2	499	6.1	24	0 17.7	284	4.1	17	16 26.5
1459	6.1	13	15 44.7	507	5.1	24	3 29.0	285	5.4	17	16 27.8
1519	5.6	14	19 13.5	567	5.9	25	0 34.6	292	5.8	17	17 31.0
1566	6.3	15	16 0.4	687	6.1	27	1 47.8	320	4.3	17	23 11.6
18	6.3	16	20 9.8	698	5.8	27	6 23.3	322	6.2	18	0 33.4
68	6.1	17	19 14.5	776	5.2	29	0 2.6	372	5.4	18	17 27.9
76	5.3	17	22 48.6	819	2.9	29	21 21.9	407	4.7	19	4 20.6
181	6.5	20	0 28.1	834	5.7	30	6 44.2	477	5.7	20	1 46.1
320	4.3	21	16 17.5	835	6.1	30	7 13.8	479	6.2	20	3 3.6
332	6.0	21	22 14.1	859	6.1	30	22 57.7	480	6.3	20	3 18.5
345	5.5	22	2 7.4	872	5.2	31	4 53.1	530	3.6	20	20 11.4
407	4.7	22	20 32.4	963	6.3	Febr. 2	5 31.2	673	6.3	23	4 56.8

## II. Konjunktionszeiten der in Mitteleuropa sichtbaren Sternbedeckungen

Nr.	Größe	Konjunktion in Rektaszension (Welt-Zeit)		Nr.	Größe	Konjunktion in Rektaszension (Welt-Zeit)		Nr.	Größe	Konjunktion in Rektaszension (Welt-Zeit)	
		1929	<sup>h</sup> <sup>m</sup>			1929	<sup>h</sup> <sup>m</sup>			1929	<sup>h</sup> <sup>m</sup>
676	3.6	Febr. 23	5 39.1	916	4.5	April 24	2 26.6	1019	2.7	Juli 16	23 48.9
698	5.8	23	16 38.6	938	5.4	24	18 35.1	1072	6.1	17	19 35.4
938	5.4	März 1	1 52.5	939	2.7	24	18 40.9	1297	5.7	21	0 28.6
939	2.7	1	1 58.4	1072	6.1	27	0 37.2	1459	6.1	23	19 42.8
979	5.4	1	23 0.7	1519	5.6	Mai 4	3 40.0	1467	6.4	24	0 58.2
1059	4.7	3	0 54.0	18	6.3	6	3 53.6	1519	5.6	25	0 13.0
1132	6.3	4	5 45.0	479	6.2	12	21 28.6	1522	4.4	25	1 11.6
1194	4.7	5	5 4.7	480	6.3	12	21 43.2	1566	6.3	25	21 49.3
1459	6.1	9	6 25.6	542	6.1	13	20 37.8	18	6.3	27	3 4.6
87	5.0	13	16 50.1	547	6.2	13	20 56.4	162	5.8	30	0 30.6
200	6.4	15	21 42.7	676	3.6	16	0 52.3	169	5.4	30	3 39.6
263	5.6	16	19 1.9	938	5.4	22	1 10.6	213	5.6	31	1 42.3
265	5.2	16	19 31.7	939	2.7	22	1 16.5	214	6.2	31	2 19.0
284	4.1	16	21 50.8	977	6.1	22	21 48.2	314	6.0	31	23 30.1
285	5.4	16	21 52.1	979	5.4	22	22 14.9	321	6.2	Aug. 1	2 6.6
288	4.2	16	22 13.1	985	5.9	23	1 1.4	322	6.2	1	3 4.3
291	5.4	16	22 37.0	1059	4.7	23	23 54.6	385	5.1	1	23 17.6
372	5.4	17	22 57.5	1112	5.4	24	23 10.8	985	5.9	12	19 55.4
Mars	0.8	18	17 28.7	1264	3.5	27	1 51.6	1112	5.4	14	17 57.3
507	5.1	19	18 29.1	1321	4.8	28	0 12.1	1264	3.5	16	20 35.7
567	5.9	20	16 43.4	1324	4.9	28	1 38.8	1321	4.8	17	18 51.2
656	6.5	22	3 32.0	1388	6.2	29	3 0.8	1324	4.9	17	20 17.5
687	6.1	22	20 6.5	1448	6.1	30	3 22.6	1388	6.2	18	21 31.7
698	5.8	23	0 50.2	1550	6.3	Juni 1	1 33.7	1438	5.7	19	17 41.8
776	5.2	24	19 6.1	Venus*)	-4.2	4	11 57.9	1459	6.1	20	1 58.9
834	5.7	26	1 33.8	656	6.5	11	22 0.8	1550	6.3	21	20 12.8
835	6.1	26	2 3.0	698	5.8	12	18 57.3	1557	5.2	21	22 26.8
837	6.5	26	3 45.6	834	5.7	15	20 34.7	105	4.5	25	2 5.5
872	5.2	26	23 16.9	835	6.1	15	21 4.6	200	6.4	27	1 26.8
880	6.2	27	2 10.8	837	6.5	15	22 49.8	259	6.1	27	20 47.4
1366	6.2	April 4	2 21.6	872	5.2	16	18 50.5	288	4.2	28	2 15.9
200	6.4	12	4 54.7	880	6.2	16	21 48.5	291	5.4	28	2 39.8
345	5.5	13	20 52.5	1148	6.2	21	20 30.0	372	5.4	29	2 52.6
567	5.9	16	22 2.8	1366	6.2	24	23 37.9	529	5.5	31	4 53.8
575	6.1	17	1 16.8	1430	6.0	26	1 47.3	827	6.1	Sept. 5	18 24.2
632	6.1	17	19 51.4	1588	6.3	29	2 11.2	828	6.5	5	18 36.7
676	3.6	18	19 24.3	33	5.4	30	2 38.6	1027	5.7	9	17 18.8
687	6.1	19	2 3.2	181	6.5	Juli 3	1 37.6	1034	5.8	9	18 33.3
776	5.2	21	1 59.6	265	5.2	4	8 1.2	1160	5.7	11	20 14.6
819	2.9	21	23 35.7	916	4.5	14	20 49.4	1366	6.2	14	19 24.8

\*) Konjunktion am Tage; westl. Stundenwinkel 2 50.3<sup>h m</sup>

## II. Konjunktionszeiten der in Mitteleuropa sichtbaren Sternbedeckungen

Nr.	Größe	Konjunktion in Rektaszension (Welt-Zeit)			Nr.	Größe	Konjunktion in Rektaszension (Welt-Zeit)			Nr.	Größe	Konjunktion in Rektaszension (Welt-Zeit)		
		1929					1929					1929		
		Sept. 15	b	m			Okt. 22	h	m			Nov. 21	h	m
1426	5.3	19	52.6		330	6.3	1	38.1		547	6.2	5	51.5	
1430	6.0	15	21 22.2		333	5.6	22	2 21.6		656	6.5	22	23 8.6	
1438	5.7	16	1 4.9		385	5.1	22	18 10.4		841	4.4	27	2 31.2	
1550	6.3	18	3 19.7		492	5.6	24	4 26.3		1366	6.2	Dez. 5	19 8.6	
1588	6.3	18	20 50.2		502	6.5	24	6 34.5		1467	6.4	7	15 31.6	
33	5.4	19	21 5.3		542	6.1	24	23 20.4		1522	4.4	8	16 23.6	
184	6.0	22	22 20.6		547	6.2	24	23 39.3		1577	6.5	9	16 59.4	
246	4.5	23	22 52.1		632	6.1	26	4 31.5		1588	6.3	9	23 58.2	
248	6.1	23	23 8.0		676	3.6	27	3 40.4		162	5.8	13	15 45.7	
259	6.1	24	2 14.1		819	2.9	30	5 58.2		170	6.4	13	19 33.3	
330	6.3	24	19 39.9	Venus*)	-3.4		30	11 39.4		184	6.0	14	1 42.0	
333	5.6	24	20 24.3	1053	4.9	Nov. 3	17	8.8		215	6.1	14	17 3.0	
492	5.6	26	23 5.5	1178	4.7	5	17	33.6		246	4.5	15	1 4.8	
502	6.5	27	1 14.0	1321	4.8	7	18	17.4		248	6.1	15	1 19.8	
567	5.9	28	1 35.6	1324	4.9	7	19	44.4		259	6.1	15	4 15.6	
575	6.1	28	4 45.5	1388	6.2	8	21	19.5		321	6.2	15	15 48.0	
687	6.1	30	3 56.5	1448	6.1	9	22	3.5		330	6.3	15	20 38.0	
1202	6.1	Okt. 9	15 41.4	1550	6.3	11	21	10.4		333	5.6	15	21 19.5	
1289	5.9	10	19 52.7	1556	4.6	11	22	52.2		407	4.7	16	18 50.4	
1459	6.1	13	17 44.0	1557	5.2	11	23	25.3		479	6.2	17	16 13.4	
1467	6.4	13	22 58.4	1588	6.3	12	14	55.3		492	5.6	17	20 39.2	
1519	5.6	14	22 2.6	33	5.4	13	15	16.3		502	6.5	17	22 39.7	
1522	4.4	14	23 0.5	105	4.5	15	1	50.9		567	5.9	18	21 39.7	
1577	6.5	15	22 40.7	162	5.8	16	4	54.5		575	6.1	19	0 40.5	
18	6.3	16	23 51.8	184	6.0	16	14	46.6		577	5.7	19	1 45.9	
105	4.5	18	15 59.6	200	6.4	16	22	59.9		632	6.1	19	18 2.1	
162	5.8	19	19 19.4	215	6.1	17	6	6.1		656	6.5	20	6 34.0	
170	6.4	19	23 8.7	259	6.1	17	17	21.9		687	6.1	20	22 30.2	
184	6.0	20	5 21.7	288	4.2	17	22	34.6		698	5.8	21	3 4.9	
215	6.1	20	21 1.4	291	5.4	17	22	57.4		786	6.2	23	1 24.5	
246	4.5	21	5 17.6	314	6.0	18	2	28.2		827	6.1	23	23 30.0	
248	6.1	21	5 33.1	321	6.2	18	5	1.5		828	6.5	23	23 43.0	
314	6.0	21	17 57.0	385	5.1	19	1	57.0		975	6.2	27	7 1.6	
321	6.2	21	20 34.9	542	6.1	21	5	33.1		1053	4.9	28	6 46.6	

\*) Konjunktion am Tage; westl. Stundenwinkel  $1^{\text{h}} 23.3^{\text{m}}$

O <sup>h</sup> Welt-Zeit	Mondbewegung			Lage des Mondäquators gegen den Erdäquator			
	$\Omega$	$L_{\alpha}$	$M_{\alpha}$	$i$	$\Delta$	$\Omega'$	$\Delta - \vartheta$
1929							
Jan. -7	58.6927	56.0079	342.52	22.685	241.831	356.589	3.139
+3	58.1631	187.7719	113.17	22.672	241.286	356.607	3.122
13	57.6336	319.5359	243.82	22.660	240.740	356.625	3.106
23	57.1040	91.2999	14.47	22.648	240.194	356.643	3.088
Febr. 2	56.5745	223.0638	145.12	22.635	239.647	356.661	3.072
12	56.0450	354.8278	275.77	22.623	239.100	356.680	3.055
22	55.5154	126.5918	46.42	22.611	238.553	356.699	3.038
März 4	54.9859	258.3557	177.07	22.599	238.006	356.719	3.020
14	54.4564	30.1197	307.72	22.587	237.458	356.738	3.002
24	53.9268	161.8836	78.37	22.575	236.910	356.758	2.984
April 3	53.3973	293.6476	209.02	22.563	236.362	356.779	2.965
13	52.8677	65.4116	339.67	22.551	235.814	356.800	2.946
23	52.3382	197.1756	110.32	22.539	235.265	356.821	2.927
Mai 3	51.8087	328.9395	240.97	22.528	234.716	356.842	2.908
13	51.2791	100.7035	11.62	22.516	234.167	356.864	2.888
23	50.7496	232.4675	142.27	22.505	233.617	356.886	2.868
Juni 2	50.2200	4.2314	272.92	22.493	233.067	356.908	2.847
12	49.6905	135.9954	43.57	22.482	232.517	356.930	2.827
22	49.1610	267.7594	174.22	22.471	231.967	356.953	2.806
Juli 2	48.6314	39.5233	304.87	22.459	231.416	356.976	2.785
12	48.1019	171.2873	75.52	22.448	230.865	356.999	2.763
22	47.5724	303.0513	206.17	22.437	230.314	357.023	2.742
Aug. 1	47.0428	74.8152	336.82	22.426	229.763	357.047	2.720
11	46.5133	206.5792	107.47	22.416	229.211	357.071	2.698
21	45.9837	338.3432	238.12	22.405	228.659	357.096	2.675
31	45.4542	110.1071	8.77	22.394	228.107	357.120	2.652
Sept. 10	44.9246	241.8711	139.42	22.384	227.554	357.146	2.629
20	44.3951	13.6351	270.07	22.374	227.001	357.171	2.606
30	43.8656	145.3990	40.72	22.363	226.448	357.196	2.583
Okt. 10	43.3360	277.1630	171.37	22.353	225.895	357.222	2.559
20	42.8065	48.9270	302.02	22.342	225.342	357.248	2.535
30	42.2770	180.6909	72.67	22.332	224.788	357.275	2.511
Nov. 9	41.7474	312.4549	203.32	22.322	224.234	357.301	2.486
19	41.2179	84.2189	333.97	22.313	223.679	357.328	2.461
29	40.6883	215.9828	104.62	22.303	223.125	357.356	2.436
Dez. 9	40.1588	347.7468	235.27	22.293	222.570	357.383	2.411
19	39.6293	119.5108	5.92	22.284	222.015	357.411	2.386
29	39.0997	251.2747	136.57	22.274	221.460	357.439	2.360
39	38.5702	23.0387	267.22	22.265	220.904	357.468	2.334

Tag	0 <sup>h</sup> Welt-Zeit		
	$\alpha_c - \alpha_k$	$\delta_c - \delta_k$	$\log \sin p_k$
1929			
Jan. 0	-14.69 + <sup>0</sup> .40 + <sup>0</sup> .59	+25.4 + <sup>0</sup> .4 - 2.2	8.23030 -730 - 9
1	-14.29 + <sup>0</sup> .79 + <sup>0</sup> .39	+35.8 + 7.6 - 2.8	8.22300 -681 + 49
2	-13.50 + <sup>0</sup> .07 + <sup>0</sup> .28	+43.4 + 5.6 - 2.0	8.21619 -595 + 86
3	-12.43 + <sup>0</sup> .23 + <sup>0</sup> .16	+49.0 + 4.7 - 0.9	8.21024 -484 +111
4	-11.20	+53.7	8.20540
Jan. 19	- 1.86 - <sup>0</sup> .06	+97.5 -26.0	8.23427 +481
20	- 1.92 - <sup>0</sup> .58 - <sup>0</sup> .52	+71.5 -28.4 - 2.4	8.23908 +425 - 56
21	- 2.50 - <sup>0</sup> .29 - <sup>0</sup> .71	+43.1 -26.9 + 1.5	8.24333 +323 -102
22	- 3.79 - <sup>0</sup> .20 - <sup>0</sup> .71	+16.2 -20.3 + 6.6	8.24656 +178 -145
23	- 5.79 - <sup>0</sup> .40 - <sup>0</sup> .40	- 4.1 - 9.7 +10.6	8.24834 - 3 -181
24	- 8.19 - <sup>0</sup> .26 + <sup>0</sup> .14	-13.8 + 1.8 +11.5	8.24831 -195 -192
25	-10.45 - <sup>0</sup> .68 + <sup>0</sup> .58	-12.0 + <sup>0</sup> .2 + 8.4	8.24636 -381 -186
26	-12.13 - <sup>0</sup> .93 + <sup>0</sup> .75	- 1.8 + <sup>0</sup> .14 + 3.9	8.24255 -530 -149
27	-13.06 - <sup>0</sup> .25 + <sup>0</sup> .68	+12.3 + <sup>0</sup> .14 + 0.2	8.23725 -633 -103
28	-13.31 + <sup>0</sup> .27 + <sup>0</sup> .52	+26.6 + <sup>0</sup> .12 - 2.2	8.23092 -676 - 43
29	-13.04 + <sup>0</sup> .65 + <sup>0</sup> .38	+38.7 + 9.5 - 2.6	8.22416 -661 + 15
30	-12.39 + <sup>0</sup> .93 + <sup>0</sup> .28	+48.2 + 7.4 - 2.1	8.21755 -601 + 60
31	-11.46 + <sup>0</sup> .12 + <sup>0</sup> .19	+55.6 + 6.2 - 1.2	8.21154 -504 + 97
Febr. 1	-10.34 + <sup>0</sup> .23 + <sup>0</sup> .11	+61.8 + 6.4 + 0.2	8.20650 -381 +123
2	- 9.11	+68.2	8.20269
Febr. 17	- 3.16 - <sup>0</sup> .66	+42.1 -24.5	8.23698 +234
18	- 3.82 - <sup>0</sup> .22 - <sup>0</sup> .56	+17.6 -20.3 + 4.2	8.23932 +169 - 65
19	- 5.04 - <sup>0</sup> .69 - <sup>0</sup> .47	- 2.7 -12.7 + 7.6	8.24101 + 81 - 88
20	- 6.73 - <sup>0</sup> .83 - <sup>0</sup> .14	-15.4 - 3.3 + 9.4	8.24182 - 27 -108
21	- 8.56 - <sup>0</sup> .58 + <sup>0</sup> .25	-18.7 + 5.6 + 8.9	8.24155 -155 -128
22	-10.14 - <sup>0</sup> .09 + <sup>0</sup> .49	-13.1 + <sup>0</sup> .17 + 6.1	8.24000 -286 -131
23	-11.23 - <sup>0</sup> .55 + <sup>0</sup> .54	- 1.4 + <sup>0</sup> .14 + 2.7	8.23714 -404 -118
24	-11.78 - <sup>0</sup> .07 + <sup>0</sup> .48	+13.0 + <sup>0</sup> .16 + 0.2	8.23310 -500 - 96
25	-11.85 + <sup>0</sup> .31 + <sup>0</sup> .38	+27.6 + <sup>0</sup> .13 - 1.6	8.22810 -554 - 54
26	-11.54 + <sup>0</sup> .61 + <sup>0</sup> .30	+40.6 + <sup>0</sup> .11 - 2.0	8.22256 -568 - 14
27	-10.93 + <sup>0</sup> .84 + <sup>0</sup> .23	+51.6 + 9.2 - 1.8	8.21688 -536 + 32
28	-10.09 + <sup>0</sup> .01 + <sup>0</sup> .17	+60.8 + 8.3 - 0.9	8.21152 -465 + 71
März 1	- 9.08 + <sup>0</sup> .11 + <sup>0</sup> .10	+69.1 + 8.3 0.0	8.20687 -362 +103
2	- 7.97 + <sup>0</sup> .13 + <sup>0</sup> .02	+77.4 + 9.1 + 0.8	8.20325 -237 +125
3	- 6.84 + <sup>0</sup> .05 - <sup>0</sup> .08	+86.5 + <sup>0</sup> .4 + 1.3	8.20088 -100 +137
4	- 5.79	+96.9	8.19988

Tag	O <sup>h</sup> Welt-Zeit		
	$\alpha_{\tau} - \alpha_k$	$\delta_{\tau} - \delta_k$	$\log \sin p_k$
1929			
März 19	- 7.56 - 1.39 + 0.22	- 16.0 - 4.0 + 7.6	8.23793 -106 - 58
20	- 8.95 - 1.17 + 0.38	- 20.0 + 3.6 + 7.6	8.23687 -164 - 60
21	- 10.12 - 0.79 + 0.38	- 16.4 + 9.2 + 5.6	8.23523 -224 - 64
22	- 10.91 - 0.36 + 0.43	- 7.2 + 12.4 + 3.2	8.23299 -288 - 62
23	- 11.27 + 0.01 + 0.37	+ 5.2 + 13.7 + 1.3	8.23011 -350 - 53
24	- 11.26 + 0.31 + 0.30	+ 18.9 + 13.5 - 0.2	8.22661 -403 - 35
25	- 10.95 + 0.55 + 0.24	+ 32.4 + 12.5 - 1.0	8.22258 -438 - 12
26	- 10.40 + 0.72 + 0.17	+ 44.9 + 11.3 - 1.2	8.21820 -450 + 20
27	- 9.68 + 0.87 + 0.15	+ 56.2 + 10.4 - 0.9	8.21370 -430 + 49
28	- 8.81 + 0.97 + 0.10	+ 66.6 + 9.8 - 0.6	8.20940 -381 + 78
29	- 7.84 + 1.01 + 0.04	+ 76.4 + 10.0 + 0.2	8.20559 -303 + 106
30	- 6.83 + 1.00 - 0.01	+ 86.4 + 10.7 + 0.7	8.20256 -197 + 123
31	- 5.83 + 0.90 - 0.10	+ 97.1 + 11.5 + 0.8	8.20059 - 74 + 136
April 1	- 4.93 + 0.72 - 0.18	+ 108.6 + 12.0 + 0.5	8.19985 + 62
2	- 4.21	+ 120.6	8.20047
April 17	- 11.44 - 0.62 + 0.48	- 15.2 + 9.3 + 2.5	8.23499 -350 - 18
18	- 12.06 - 0.14 + 0.39	- 5.9 + 11.8 + 2.5	8.23149 -368 - 7
19	- 12.20 + 0.25 + 0.26	+ 5.9 + 12.5 - 0.3	8.22781 -375 - 3
20	- 11.95 + 0.51 + 0.19	+ 18.4 + 12.2 - 0.6	8.22406 -378 0
21	- 11.44 + 0.70 + 0.12	+ 30.6 + 11.6 - 0.5	8.22028 -378 + 4
22	- 10.74 + 0.82 + 0.09	+ 42.2 + 11.1 - 0.6	8.21650 -374 + 16
23	- 9.92 + 0.91 + 0.06	+ 53.3 + 10.5 - 0.1	8.21276 -358 + 28
24	- 9.01 + 0.97 + 0.01	+ 63.8 + 10.4 + 0.1	8.20918 -330 + 43
25	- 8.04 + 0.98 - 0.02	+ 74.2 + 10.5 + 0.3	8.20588 -287 + 65
26	- 7.06 + 0.96 - 0.07	+ 84.7 + 10.8 + 0.6	8.20301 -222 + 86
27	- 6.10 + 0.89 - 0.12	+ 95.5 + 11.4 + 0.4	8.20079 -136 + 103
28	- 5.21 + 0.77 - 0.15	+ 106.9 + 11.8 - 0.1	8.19943 - 33 + 118
29	- 4.44 + 0.62 - 0.13	+ 118.7 + 11.7 - 0.9	8.19910 + 85 + 130
30	- 3.82 + 0.49 - 0.11	+ 130.4 + 10.8 - 2.0	8.19995 + 215 + 131
Mai 1	- 3.33 + 0.38	+ 141.2 + 8.8	8.20210 + 346
2	- 2.95	+ 150.0	8.20556
Mai 17	- 13.34 + 0.59 + 0.23	+ 23.1 + 12.1 - 1.3	8.22550 -500 + 39
18	- 12.75 + 0.82 + 0.13	+ 35.2 + 10.8 - 1.0	8.22050 -461 + 48
19	- 11.93 + 0.95 + 0.07	+ 46.0 + 9.8 - 0.6	8.21589 -413 + 49
20	- 10.98 + 1.02 + 0.03	+ 55.8 + 9.2 0.0	8.21176 -364 + 50
21	- 9.96 + 1.05 - 0.01	+ 65.0 + 9.2 + 0.3	8.20812 -314 + 53
22	- 8.91 + 1.04 - 0.05	+ 74.2 + 9.5 + 0.5	8.20498 -261 + 54
23	- 7.87 + 0.99 - 0.09	+ 83.7 + 10.0 + 0.6	8.20237 -207 + 65
24	- 6.88	+ 93.7	8.20030

Tag	O <sup>b</sup> Welt-Zeit								
	$\alpha_c - \alpha_k$		$\delta_c - \delta_k$		$\log \sin p_k$				
1929									
Mai 24	— 6.88	+0.90	—0.09	+ 93.7	+10.6	+0.6	8.20030	—142	+ 65
25	— 5.98	+0.79	—0.11	+104.3	+10.9	+0.3	8.19888	— 70	+ 72
26	— 5.19	+0.67	—0.12	+115.2	+10.9	0.0	8.19818	+ 16	+ 86
27	— 4.52	+0.58	—0.09	+126.1	+10.2	—0.7	8.19834	+114	+ 98
28	— 3.94	+0.53	—0.05	+136.3	+ 8.9	—1.3	8.19948	+222	+108
29	— 3.41	+0.51	—0.02	+145.2	+ 6.5	—2.4	8.20170	+339	+117
30	— 2.90	+0.52	+0.01	+151.7	+ 3.0	—3.5	8.20509	+455	+116
31	— 2.38			+154.7			8.20964		
Juni 16	—12.34	+1.02		+ 62.1	+ 8.3		8.21396	—475	
17	—11.32	+1.08	+0.06	+ 70.4	+ 7.7	—0.6	8.20921	—391	+ 84
18	—10.24	+1.08	0.00	+ 78.1	+ 7.7	0.0	8.20530	—305	+ 86
19	— 9.16	+1.04	—0.04	+ 85.8	+ 8.2	+0.5	8.20225	—224	+ 81
20	— 8.12	+0.94	—0.10	+ 94.0	+ 8.8	+0.6	8.20001	—148	+ 76
21	— 7.18	+0.83	—0.11	+102.8	+ 9.3	+0.5	8.19853	— 75	+ 73
22	— 6.35	+0.69	—0.14	+112.1	+ 9.4	+0.1	8.19778	— 3	+ 72
23	— 5.66	+0.61	—0.08	+121.5	+ 8.9	—0.5	8.19775	+ 71	+ 74
24	— 5.05	+0.57	—0.04	+130.4	+ 7.7	—1.2	8.19846	+150	+ 79
25	— 4.48	+0.59	+0.02	+138.1	+ 5.8	—1.9	8.19996	+235	+ 85
26	— 3.89	+0.65	+0.06	+143.9	+ 3.3	—2.5	8.20231	+325	+ 90
27	— 3.24	+0.72	+0.07	+147.2	— 0.3	—3.6	8.20556	+420	+ 95
28	— 2.52	+0.76	+0.04	+146.9	— 4.7	—4.4	8.20976	+513	+ 93
29	— 1.76	+0.74	—0.02	+142.2	—10.3	—5.6	8.21489	+594	+ 81
30	— 1.02	+0.64	—0.10	+131.9	—16.6	—6.3	8.22083	+655	+ 61
Juli 1	— 0.38			+115.3			8.22738		
Juli 15	—11.43	+1.01		+ 84.0	+ 6.7		8.20861	—425	
16	—10.42	+1.00	—0.01	+ 90.7	+ 6.5	—0.2	8.20436	—314	+111
17	— 9.42	+0.96	—0.04	+ 97.2	+ 6.9	+0.4	8.20122	—205	+109
18	— 8.46	+0.84	—0.12	+104.1	+ 7.3	+0.4	8.19917	—105	+100
19	— 7.62	+0.73	—0.11	+111.4	+ 7.5	+0.2	8.19812	— 16	+ 89
20	— 6.89	+0.61	—0.12	+118.9	+ 7.1	—0.4	8.19796	+ 64	+ 80
21	— 6.28	+0.57	—0.04	+126.0	+ 6.2	—0.9	8.19860	+135	+ 71
22	— 5.71	+0.58	+0.01	+132.2	+ 4.4	—1.8	8.19995	+200	+ 65
23	— 5.13	+0.64	+0.06	+136.6	+ 2.1	—2.3	8.20195	+262	+ 62
24	— 4.49	+0.73	+0.09	+138.7	— 0.9	—3.0	8.20457	+323	+ 61
25	— 3.76	+0.81	+0.08	+137.8	— 4.6	—3.7	8.20780	+384	+ 61
26	— 2.95	+0.87	+0.06	+133.2	— 8.8	—4.2	8.21164	+446	+ 62
27	— 2.08	+0.86	—0.01	+124.4	—13.9	—5.1	8.21610	+501	+ 55
28	— 1.22	+0.74	—0.12	+110.5	—19.2	—5.3	8.22111	+548	+ 47
29	— 0.48			+ 91.3			8.22659		



Tag	0 <sup>h</sup> Welt-Zeit		
	$\alpha_{\zeta} - \alpha_k$	$\delta_{\zeta} - \delta_k$	$\log \sin p_k$
1929			
Aug. 13	-10.27 +0.86	+101.7 + 5.8	8.20461 -320
14	- 9.41 +0.82 -0.04	+107.5 + 5.8 0.0	8.20141 -194 +126
15	- 8.59 +0.74 -0.08	+113.3 + 5.9 +0.1	8.19947 - 71 +123
16	- 7.85 +0.64 -0.10	+119.2 + 5.7 -0.2	8.19876 + 40 +111
17	- 7.21 +0.57 -0.07	+124.9 + 4.9 -0.8	8.19916 +135 + 95
18	- 6.64 +0.55 -0.02	+129.8 + 3.3 -1.6	8.20051 +210 + 75
19	- 6.09 +0.58 +0.03	+133.1 + 1.0 -2.3	8.20261 +274 + 64
20	- 5.51 +0.64 +0.06	+134.1 - 2.0 -3.0	8.20535 +316 + 42
21	- 4.87 +0.71 +0.07	+132.1 - 5.6 -3.6	8.20851 +350 + 34
22	- 4.16 +0.78 +0.07	+126.5 - 9.6 -4.0	8.21201 +374 + 24
23	- 3.38 +0.80 +0.02	+116.9 -13.9 -4.3	8.21575 +392 + 18
24	- 2.58 +0.76 -0.04	+103.0 -18.2 -4.3	8.21967 +406 + 14
25	- 1.82 +0.60 -0.16	+ 84.8 -22.3 -4.1	8.22373 +415 + 9
26	- 1.22 +0.27 -0.33	+ 62.5 -25.1 -2.8	8.22788 +416 + 1
27	- 0.95	+ 37.4	8.23204
Sept. 12	- 8.31 +0.65	+121.6 + 4.9	8.20007 - 39
13	- 7.66 +0.60 -0.05	+126.5 + 4.4 -0.5	8.19968 + 87 +126
14	- 7.06 +0.58 -0.02	+130.9 + 3.1 -1.3	8.20055 +203 +116
15	- 6.48 +0.57 -0.01	+134.0 + 1.0 -2.1	8.20258 +297 + 94
16	- 5.91 +0.59 +0.02	+135.0 - 2.0 -3.0	8.20555 +366 + 69
17	- 5.32 +0.61 +0.02	+133.0 - 5.9 -3.9	8.20921 +408 + 42
18	- 4.71 +0.63 +0.02	+127.1 -10.3 -4.4	8.21329 +421 + 13
19	- 4.08 +0.62 -0.01	+116.8 -15.0 -4.7	8.21750 +412 - 9
20	- 3.46 +0.56 -0.06	+101.8 -19.3 -4.3	8.22162 +386 - 26
21	- 2.90 +0.42 -0.14	+ 82.5 -22.9 -3.6	8.22548 +346 - 40
22	- 2.48 +0.15 -0.27	+ 59.6 -25.2 -2.3	8.22894 +301 - 45
23	- 2.33 -0.27 -0.42	+ 34.4 -25.0 +0.2	8.23195 +254 - 47
24	- 2.60 -0.79 -0.52	+ 9.4 -22.1 +2.9	8.23449 +207 - 47
25	- 3.39 -1.60 -0.81	- 12.7 -15.6 +6.5	8.23656 +160 - 47
26	- 4.99	- 28.3	8.23816
Okt. 11	- 7.09 +c.64	+132.8 + 3.5	8.19997 +127
12	- 6.45 +0.66 +0.02	+136.3 + 2.1 -1.4	8.20124 +256 +129
13	- 5.79 +0.67 +0.01	+138.4 - 0.6 -2.7	8.20380 +372 +116
14	- 5.12 +0.65 -0.02	+137.8 - 4.1 -3.5	8.20752 +462 + 90
15	- 4.47 +0.63 -0.02	+133.7 - 8.8 -4.7	8.21214 +517 + 55
16	- 3.84 +0.56 -0.07	+124.9 -14.3 -5.5	8.21731 +534 + 17
17	- 3.28 +0.44 -0.12	+110.6 -19.6 -5.3	8.22265 +510 - 24
18	- 2.84	+ 91.0 -4.8	8.22775 - 61

Tag	0 <sup>h</sup> Welt-Zeit		
	$\alpha_{\zeta} - \alpha_k$	$\delta_{\zeta} - \delta_k$	$\log \sin p_k$
1929			
Okt. 18	— 2.84 <sup>°</sup> + <sup>°</sup> 0.23 — <sup>°</sup> 0.21	+ 91.0 <sup>°</sup> — <sup>°</sup> 24.4 — <sup>°</sup> 4.8	8.22775 +449 — 61
19	— 2.61 — <sup>°</sup> 0.10 — <sup>°</sup> 0.33	+ 66.6 — <sup>°</sup> 27.3 — <sup>°</sup> 2.9	8.23224 +359 — 90
20	— 2.71 — <sup>°</sup> 0.55 — <sup>°</sup> 0.45	+ 39.3 — <sup>°</sup> 27.3 0.0	8.23583 +254 —105
21	— 3.26 — <sup>°</sup> 1.08 — <sup>°</sup> 0.53	+ 12.0 — <sup>°</sup> 23.6 + 3.7	8.23837 +141 —113
22	— 4.34 — <sup>°</sup> 1.55 — <sup>°</sup> 0.47	— 11.6 — <sup>°</sup> 16.3 + 7.3	8.23978 + 39 —102
23	— 5.89 — <sup>°</sup> 1.76 — <sup>°</sup> 0.21	— 27.9 — <sup>°</sup> 6.5 + 9.8	8.24017 — 50 — 89
24	— 7.65 — <sup>°</sup> 1.58 + <sup>°</sup> 0.18	— 34.4 + 3.2 + 9.7	8.23967 —121 — 71
25	— 9.23	— 31.2	8.23846
Nov. 10	— 4.84 + <sup>°</sup> 0.84 — <sup>°</sup> 0.01	+ 140.6 — <sup>°</sup> 1.4 — <sup>°</sup> 4.0	8.20363 +414 +110
11	— 4.00 + <sup>°</sup> 0.83 — <sup>°</sup> 0.07	+ 139.2 — <sup>°</sup> 10.6 — <sup>°</sup> 5.2	8.20777 +524 + 83
12	— 3.17 + <sup>°</sup> 0.76 — <sup>°</sup> 0.14	+ 133.8 — <sup>°</sup> 16.7 — <sup>°</sup> 6.1	8.21301 +607 + 40
13	— 2.41 + <sup>°</sup> 0.62 — <sup>°</sup> 0.25	+ 123.2 — <sup>°</sup> 22.9 — <sup>°</sup> 6.2	8.21908 +647 — 9
14	— 1.79 + <sup>°</sup> 0.37 — <sup>°</sup> 0.39	+ 106.5 — <sup>°</sup> 28.1 — <sup>°</sup> 5.2	8.22555 +638 — 65
15	— 1.42 — <sup>°</sup> 0.02 — <sup>°</sup> 0.57	+ 83.6 — <sup>°</sup> 30.4 + 2.0	8.23193 +573 —115
16	— 1.44 — <sup>°</sup> 0.59 — <sup>°</sup> 0.72	+ 55.5 — <sup>°</sup> 28.4 + 7.4	8.23766 +458 —176
17	— 2.03 — <sup>°</sup> 1.31 — <sup>°</sup> 0.69	— 3.3 — <sup>°</sup> 21.0 +11.5	8.24529 +129 —172
18	— 3.34 — <sup>°</sup> 2.00 — <sup>°</sup> 0.36	— 24.3 — <sup>°</sup> 9.5 +12.4	8.24658 — 43 —151
19	— 5.34 — <sup>°</sup> 2.36 + <sup>°</sup> 0.16	— 33.8 + 2.9 + 9.6	8.24615 —194 —117
20	— 7.70 — <sup>°</sup> 2.20 + <sup>°</sup> 0.62	— 30.9 +12.5 + 5.2	8.24421 —311 — 78
21	— 9.90 — <sup>°</sup> 1.58 + <sup>°</sup> 0.66	— 18.4 +17.7	8.24110 —389
22	— 11.48 — <sup>°</sup> 0.92	— 0.7	8.23721
23	— 12.40		
Dez. 10	— 1.91 + <sup>°</sup> 1.00 — <sup>°</sup> 0.18	+ 128.8 — <sup>°</sup> 11.8 — <sup>°</sup> 6.1	8.21201 +633 + 72
11	— 0.91 + <sup>°</sup> 0.82 — <sup>°</sup> 0.32	+ 117.0 — <sup>°</sup> 17.9 — <sup>°</sup> 6.4	8.21834 +705 + 22
12	— 0.09 + <sup>°</sup> 0.50 — <sup>°</sup> 0.55	+ 99.1 — <sup>°</sup> 24.3 — <sup>°</sup> 5.3	8.22539 +727 — 34
13	+ 0.41 — <sup>°</sup> 0.05 — <sup>°</sup> 0.80	+ 74.8 — <sup>°</sup> 29.6 — <sup>°</sup> 2.1	8.23266 +693 —100
14	+ 0.36 — <sup>°</sup> 0.85 — <sup>°</sup> 1.00	+ 45.2 — <sup>°</sup> 31.7 + 3.7	8.23959 +593 —159
15	— 0.49 — <sup>°</sup> 1.85 — <sup>°</sup> 0.86	+ 13.5 — <sup>°</sup> 28.0 +10.3	8.24552 +434 —208
16	— 2.34 — <sup>°</sup> 2.71 — <sup>°</sup> 0.30	— 14.5 — <sup>°</sup> 17.7 +14.7	8.24986 +226 —226
17	— 5.05 — <sup>°</sup> 3.01 + <sup>°</sup> 0.43	— 32.2 — <sup>°</sup> 3.0 +13.9	8.25212 0 —218
18	— 8.06 — <sup>°</sup> 2.58 + <sup>°</sup> 0.85	— 35.2 +10.9 + 9.2	8.25212 —218 —181
19	— 10.64 — <sup>°</sup> 1.73 + <sup>°</sup> 0.88	— 24.3 +20.1 + 3.3	8.24994 —399 —128
20	— 12.37 — <sup>°</sup> 0.85 + <sup>°</sup> 0.69	— 4.2 +23.4 — <sup>°</sup> 0.9	8.24595 —527 — 72
21	— 13.22 — <sup>°</sup> 0.16 + <sup>°</sup> 0.43	+ 19.2 +22.5 — <sup>°</sup> 3.0	8.24068 —599 — 18
22	— 13.38 + <sup>°</sup> 0.27 + <sup>°</sup> 0.25	+ 41.7 +19.5 +16.0	8.23469 —617 + 19
23	— 13.11 + <sup>°</sup> 0.52	+ 61.2 +16.0	8.22852 —598
24	— 12.59	+ 77.2	8.22254

Verfinsterungen: E. Eintritte, A. Austritte (in Welt-Zeit)

TRABANT I			TRABANT I			TRABANT I			TRABANT I								
Jan.	1	16 <sup>h</sup> 5 <sup>m</sup> 7	A.	März	31	4 <sup>h</sup> 8 <sup>m</sup> 6	A.	Aug.	10	19 <sup>h</sup> 41 <sup>m</sup> 4	E.	Nov.	7	7 <sup>h</sup> 26 <sup>m</sup> 4	E.		
	3	10 34.6	A.		April	1	22 37.4		A.	12	14 9.9		E.	9	1 55.1	E.	
	5	5 3.5	A.		3	17 6.1	A.		14	8 38.3	E.		10	20 23.7	E.		
	6	23 32.4	A.		5	11 34.8	A.		16	3 6.8	E.		12	14 52.4	E.		
	8	18 1.3	A.		7	6 3.5	A.		17	21 35.2	E.		14	9 20.9	E.		
	10	12 30.3	A.		9	0 32.2	A.		19	16 3.7	E.		16	3 49.7	E.		
	12	6 59.2	A.		10	19 1.0	A.		21	10 32.1	E.		17	22 18.3	E.		
	14	1 28.2	A.		12	13 29.7	A.		23	5 0.6	E.		19	16 47.0	E.		
	15	19 57.0	A.		14	7 58.3	A.		24	23 29.1	E.		21	11 15.6	E.		
	17	14 26.0	A.		16	2 27.1	A.		26	17 57.5	E.		23	5 44.4	E.		
	19	8 54.8	A.		17	20 55.7	A.		28	12 25.9	E.		25	0 13.0	E.		
	21	3 23.8	A.		19	15 24.4	A.		30	6 54.4	E.		26	18 41.8	E.		
	22	21 52.7	A.		21	9 53.1	A.		Sept.	1	1 22.8		E.	28	13 10.4	E.	
	24	16 21.6	A.		23	4 21.8	A.		2	19 51.3	E.		30	7 39.2	E.		
	26	10 50.5	A.		24	22 50.5	A.		4	14 19.7	E.		Dez.	2	2 7.9	E.	
	28	5 19.5	A.		26	17 19.1	A.		6	8 48.2	E.		3	20 36.7	E.		
	29	23 48.3	A.		28	11 47.8	A.		8	3 16.7	E.		3	22 48.4	A.		
	31	18 17.2	A.		30	6 16.4	A.		9	21 45.1	E.		5	17 17.1	A.		
	Febr.	2	12 46.1		A.	Juni	15		4 30.2	E.	11		16 13.6	E.	7	11 45.9	A.
	4	7 15.0	A.		16		22 58.7		E.	13	10 42.1		E.	9	6 14.6	A.	
6	1 43.9	A.	18	17 27.2	E.		15	5 10.5	E.	11	0 43.5	A.					
7	20 12.8	A.	20	11 55.7	E.		16	23 39.0	E.	12	19 12.2	A.					
9	14 41.7	A.	22	6 24.2	E.		18	18 7.4	E.	14	13 41.1	A.					
11	9 10.6	A.	24	0 52.7	E.		20	12 36.0	E.	16	8 9.9	A.					
13	3 39.5	A.	25	19 21.2	E.		22	7 4.4	E.	18	2 38.7	A.					
14	22 8.3	A.	27	13 49.8	E.		24	1 33.0	E.	19	21 7.5	A.					
16	16 37.2	A.	29	8 18.2	E.		25	20 1.4	E.	21	15 36.4	A.					
18	11 6.1	A.	Juli	1	2 46.7		E.	27	14 29.9	E.	23	10 5.2	A.				
20	5 34.9	A.	2	21 15.2	E.	29	8 58.3	E.	25	4 34.1	A.						
22	0 3.8	A.	4	15 43.7	E.	Okt.	1	3 26.9	E.	26	23 2.9	A.					
23	18 32.6	A.	6	10 12.2	E.	2	21 55.3	E.	28	17 31.8	A.						
25	13 1.5	A.	8	4 40.7	E.	4	16 23.9	E.	30	12 0.6	A.						
27	7 30.2	A.	9	23 9.1	E.	6	10 52.4	E.	<b>TRABANT II</b>								
März	1	1 59.1	A.	11	17 37.6	E.	8	5 20.9	E.	Jan.	1	1 <sup>h</sup> 29 <sup>m</sup> 7	E.				
2	20 28.0	A.	13	12 6.1	E.	9	23 49.4	E.	1	3 45.9	A.						
4	14 56.8	A.	15	6 34.6	E.	11	18 17.9	E.	4	14 48.2	E.						
6	9 25.6	A.	17	1 3.0	E.	13	12 46.4	E.	4	17 4.3	A.						
8	3 54.4	A.	18	19 31.5	E.	15	7 15.0	E.	8	4 7.0	E.						
9	22 23.2	A.	20	14 0.0	E.	17	1 43.5	E.	8	6 23.1	A.						
11	16 52.1	A.	22	8 28.4	E.	18	20 12.1	E.	11	17 25.5	E.						
13	11 20.9	A.	24	2 56.9	E.	20	14 40.6	E.	11	19 41.7	A.						
15	5 49.7	A.	25	21 25.4	E.	22	9 9.2	E.	15	6 44.4	E.						
17	0 18.4	A.	27	15 53.8	E.	24	3 37.7	E.	15	9 0.5	A.						
18	18 47.2	A.	29	10 22.3	E.	25	22 6.3	E.	18	20 3.0	E.						
20	13 16.0	A.	31	4 50.7	E.	27	16 34.8	E.	18	22 19.2	A.						
22	7 44.8	A.	Aug.	1	23 19.2	E.	29	11 3.5	E.	22	9 22.0	E.					
24	2 13.5	A.	3	17 47.6	E.	31	5 32.0	E.	22	11 38.2	A.						
25	20 42.3	A.	5	12 16.1	E.	Nov.	2	0 0.6	E.	25	22 40.7	E.					
27	15 11.1	A.	7	6 44.5	E.	3	18 29.2	E.	26	0 56.9	A.						
29	9 39.8	A.	9	1 13.0	E.	5	12 57.8	E.									

Verfinsterungen: E. Eintritte, A. Austritte (in Welt-Zeit)

TRABANT II			TRABANT II			TRABANT II			TRABANT III		
Jan.	29	11 <sup>h</sup> 59.7 <sup>m</sup> E.	Aug.	5	21 <sup>h</sup> 36.8 <sup>m</sup> E.	Nov.	27	14 <sup>h</sup> 52.6 <sup>m</sup> E.	Juli	7	4 <sup>h</sup> 58.0 <sup>m</sup> E.
	29	14 16.0 A.		5	23 57.0 A.	Dez.	1	4 9.8 E.		7	6 58.3 A.
Febr.	2	1 18.4 A.		9	10 54.9 A.		4	19 52.1 A.		14	8 58.1 E.
	2	3 34.7 A.		9	13 15.2 A.		8	9 9.6 A.		14	10 59.1 A.
	5	14 37.6 E.		13	0 12.5 E.		11	22 27.1 A.		21	12 57.9 E.
	5	16 53.9 A.		13	2 33.0 A.		15	11 44.7 A.		21	14 59.8 A.
	9	3 56.4 E.		16	13 30.5 E.		19	1 2.3 A.		28	16 58.2 E.
	9	6 12.6 A.		16	15 51.0 A.		22	14 20.0 A.		28	19 1.0 A.
	12	17 15.6 E.		20	2 48.0 E.		26	3 37.7 A.	Aug.	4	20 57.5 E.
	12	19 31.9 A.		20	5 8.7 A.		29	16 55.4 A.		4	23 1.2 A.
	16	6 34.4 E.		23	16 5.9 E.	<b>TRABANT III</b>				12	0 56.8 E.
	16	8 50.7 A.		23	18 26.6 A.	Jan.	1	20 <sup>h</sup> 29.9 <sup>m</sup> E.		12	3 1.4 A.
	19	19 53.7 E.		27	5 23.4 E.		1	22 20.7 A.		19	4 55.8 E.
	19	22 10.1 A.		27	7 44.2 A.		9	0 32.7 E.		19	7 1.3 A.
	23	9 12.4 E.		30	18 41.1 E.		9	0 32.7 E.		26	8 55.0 E.
	23	11 28.8 A.		30	21 2.0 A.		9	2 23.4 A.		26	11 1.4 A.
	26	22 31.9 E.	Sept.	3	7 58.5 E.		16	4 34.7 E.	Sept.	2	12 54.7 E.
	27	0 48.3 A.		3	10 19.6 A.		16	6 25.3 A.		2	15 2.1 A.
März	2	14 7.1 A.		6	21 16.1 E.		23	8 36.7 E.		9	16 54.3 E.
	6	3 26.6 A.		6	23 37.3 A.		23	10 27.2 A.		9	19 2.6 A.
	9	16 45.4 A.		10	10 33.5 E.		30	12 38.2 E.		16	20 54.3 E.
	13	6 5.0 A.		10	12 54.8 A.		30	14 28.8 A.		16	23 3.7 A.
	16	19 23.9 A.		13	23 51.0 E.	Febr.	6	16 39.9 E.		24	0 53.5 E.
	20	8 43.6 A.		14	2 12.4 A.		6	18 30.5 A.		24	3 3.9 A.
	23	22 2.3 A.		17	13 8.3 E.		13	20 42.0 E.	Okt.	1	4 52.6 E.
	27	11 21.9 A.		17	15 29.9 A.		13	22 32.7 A.		1	7 4.1 A.
	31	0 40.7 A.		21	2 25.7 E.		21	0 44.0 E.		8	8 51.5 E.
April	3	14 0.4 A.		21	4 47.4 A.		21	2 34.8 A.		8	11 4.1 A.
	7	3 19.2 A.		24	15 42.9 E.		28	4 46.4 E.		15	12 50.8 E.
	10	16 38.9 A.		24	18 4.8 A.		28	6 37.4 A.		15	15 4.4 A.
	14	5 57.6 A.		28	5 0.2 E.	März	7	8 48.0 E.		22	16 50.7 E.
	17	19 17.3 A.		28	7 22.2 A.		7	10 39.2 A.		22	19 5.4 A.
	21	8 36.0 A.	Okt.	1	18 17.4 E.		14	12 49.3 E.		29	20 50.6 E.
	24	21 55.7 A.		1	20 39.6 A.		14	14 40.8 A.		29	23 6.3 A.
	28	11 14.4 A.		5	7 34.8 E.		21	16 50.3 E.	Nov.	6	0 50.9 E.
Juni	17	3 21.2 E.		5	9 57.0 A.		21	18 42.0 A.		6	3 7.8 A.
	20	16 40.2 E.		8	20 52.0 E.		28	20 51.3 E.		13	4 50.6 E.
	24	5 58.3 E.		12	10 9.4 E.		28	22 43.4 A.		20	8 50.2 E.
	27	19 17.2 E.		15	23 26.5 E.	April	5	0 52.7 E.		27	12 49.8 E.
Juli	1	8 35.2 E.		19	12 43.7 E.		5	2 45.1 A.	Dez.	4	16 49.7 E.
	4	21 54.0 E.		23	2 0.7 E.		12	4 54.0 E.		4	19 11.2 A.
	8	11 11.9 E.		26	15 17.8 E.		12	6 46.8 A.		11	23 13.1 A.
	12	0 30.6 E.		30	4 35.0 E.		19	10 48.9 A.		19	3 14.8 A.
	15	13 48.5 E.	Nov.	2	17 52.1 E.		26	14 50.1 A.		26	7 17.1 A.
	19	3 7.0 E.		6	7 9.3 E.	Juni	15	16 59.2 E.	<b>TRABANT IV</b>		
	22	16 24.8 E.		9	20 26.4 E.		15	18 57.2 A.	wird nicht		
	26	5 43.2 E.		13	9 43.6 E.		22	20 58.9 E.	verfinstert.		
	29	19 0.9 E.		16	23 0.8 E.		22	22 57.7 A.			
Aug.	2	8 19.2 E.		20	12 18.0 E.		30	0 58.4 E.			
	2	10 39.2 A.		24	1 35.3 E.		30	2 58.0 A.			

0 <sup>h</sup> Welt-Zeit		$\alpha$	$\beta$	$p_a$	$a$	$b$	$U'$	$B'$	$P'$	
1929										
Jan.	-1	15.17	13.92	0.00	34.16	+15.41	93.990	+26.748	+1.877	
	+3	15.19	13.95	0.00	34.22	15.42	94.125	26.749	1.941	
	7	15.22	13.98	-0.01	34.29	15.44	94.260	26.749	2.005	
	11	15.26	14.02	0.01	34.37	15.47	94.395	26.749	2.068	
	15	15.30	14.06	0.01	34.47	15.50	94.530	26.750	2.131	
	19	15.35	14.10	-0.01	34.58	+15.53	94.665	+26.750	+2.195	
	23	15.40	14.15	0.01	34.70	15.57	94.800	26.749	2.258	
	27	15.46	14.20	0.02	34.83	15.61	94.935	26.749	2.322	
	31	15.53	14.26	0.02	34.98	15.66	95.070	26.748	2.385	
	Febr.	4	15.60	14.32	0.02	35.14	15.71	95.205	26.747	2.449
8		15.68	14.39	-0.02	35.31	+15.77	95.340	+26.746	+2.512	
12		15.76	14.46	0.02	35.49	15.83	95.475	26.745	2.575	
16		15.84	14.53	0.03	35.68	15.90	95.610	26.744	2.638	
20		15.93	14.61	0.03	35.87	15.97	95.745	26.743	2.702	
24		16.02	14.69	0.03	36.07	16.05	95.880	26.741	2.765	
28		16.12	14.78	-0.03	36.28	+16.13	96.015	+26.740	+2.828	
4		16.22	14.87	0.03	36.51	16.21	96.149	26.738	2.891	
März	8	16.32	14.97	0.04	36.75	16.30	96.284	26.737	2.955	
	12	16.42	15.06	0.04	36.99	16.39	96.419	26.735	3.018	
	16	16.53	15.16	0.04	37.24	16.49	96.554	26.734	3.081	
	20	16.64	15.26	-0.04	37.48	+16.59	96.689	+26.732	+3.144	
	24	16.75	15.36	0.04	37.73	16.69	96.824	26.730	3.207	
	28	16.86	15.47	0.04	37.98	16.79	96.959	26.727	3.270	
	April	1	16.97	15.57	0.04	38.24	16.90	97.094	26.725	3.333
		5	17.09	15.68	0.04	38.49	17.01	97.228	26.722	3.397
9		17.20	15.78	-0.04	38.75	+17.12	97.363	+26.720	+3.460	
13		17.31	15.88	0.04	39.00	17.23	97.498	26.717	3.523	
17		17.42	15.98	0.03	39.24	17.34	97.633	26.714	3.586	
21		17.53	16.08	0.03	39.49	17.45	97.768	26.711	3.649	
25		17.64	16.18	0.03	39.73	17.56	97.903	26.708	3.712	
Mai	29	17.74	16.28	-0.03	39.96	+17.67	98.037	+26.705	+3.775	
	3	17.84	16.37	0.02	40.18	17.77	98.172	26.701	3.838	
	7	17.93	16.45	0.02	40.39	17.87	98.307	26.698	3.901	
	11	18.02	16.53	0.02	40.58	17.97	98.441	26.694	3.964	
	15	18.10	16.60	0.02	40.76	18.07	98.576	26.691	4.027	
	19	18.17	16.67	-0.01	40.93	+18.16	98.711	+26.687	+4.090	
	23	18.24	16.73	0.01	41.08	18.24	98.846	26.683	4.153	
	27	18.30	16.78	0.01	41.21	18.31	98.981	26.679	4.216	
	31	18.35	16.83	0.01	41.32	18.37	99.115	26.675	4.278	
Juni	4	18.39	16.87	-0.01	41.41	18.43	99.250	26.670	4.341	
	8	18.42	16.90	0.00	41.48	+18.48	99.384	+26.666	+4.404	
	12	18.44	16.92	0.00	41.54	18.52	99.519	26.662	4.467	
	16	18.45	16.93	0.00	41.57	18.55	99.653	26.658	4.529	
	20	18.45	16.93	0.00	41.58	18.57	99.788	26.653	4.592	
	24	18.44	16.92	0.00	41.56	18.58	99.923	26.648	4.655	
	28	18.43	16.91	0.00	41.52	18.59	100.057	26.642	4.717	
	2	18.41	16.89	0.00	41.46	+18.58	100.192	+26.637	+4.780	

O <sup>h</sup> Welt-Zeit		$\alpha$	$\beta$	$p_a$	$a$	$b$	$U'$	$B'$	$P'$	
1929										
Juli	2	18.41	16.89	0.00	41.46	+18.58	100.192	+26.637	+4.780	
	6	18.37	16.86	+0.01	41.38	18.56	100.326	26.631	4.842	
	10	18.32	16.82	0.01	41.28	18.53	100.461	26.625	4.905	
	14	18.27	16.77	0.01	41.16	18.49	100.595	26.620	4.967	
	18	18.21	16.72	0.01	41.02	18.45	100.730	26.614	5.030	
	22	18.14	16.66	+0.01	40.86	+18.39	100.865	+26.608	+5.092	
	26	18.06	16.59	0.02	40.69	18.33	100.999	26.602	5.155	
	30	17.98	16.51	0.02	40.51	18.26	101.134	26.596	5.217	
	Aug.	3	17.89	16.43	0.02	40.31	18.18	101.268	26.590	5.279
		7	17.79	16.34	0.02	40.10	18.10	101.402	26.584	5.342
11		17.70	16.25	+0.03	39.88	+18.01	101.537	+26.577	+5.404	
15		17.60	16.16	0.03	39.65	17.92	101.671	26.571	5.466	
19		17.50	16.06	0.03	39.41	17.82	101.806	26.565	5.528	
23		17.39	15.96	0.03	39.16	17.72	101.940	26.558	5.590	
27		17.28	15.86	0.04	38.91	17.61	102.074	26.551	5.652	
31		17.17	15.76	+0.04	38.66	+17.50	102.208	+26.543	+5.715	
Sept.		4	17.06	15.66	0.04	38.41	17.39	102.343	26.536	5.777
		8	16.94	15.55	0.04	38.15	17.28	102.477	26.528	5.839
	12	16.83	15.45	0.04	37.90	17.17	102.611	26.521	5.901	
	16	16.71	15.35	0.04	37.65	17.06	102.746	26.513	5.963	
	20	16.60	15.25	+0.04	37.40	+16.95	102.880	+26.505	+6.025	
	24	16.50	15.15	0.04	37.16	16.84	103.014	26.497	6.087	
	28	16.39	15.05	0.04	36.92	16.73	103.148	26.489	6.149	
	Okt.	2	16.29	14.95	0.04	36.68	16.63	103.282	26.480	6.211
6		16.19	14.86	0.03	36.45	16.53	103.416	26.472	6.272	
10		16.09	14.77	+0.03	36.23	+16.43	103.550	+26.464	+6.334	
14		15.99	14.68	0.03	36.02	16.33	103.685	26.455	6.396	
18		15.90	14.60	0.03	35.82	16.23	103.819	26.447	6.458	
22		15.81	14.52	0.03	35.62	16.14	103.953	26.439	6.519	
26		15.73	14.45	0.03	35.43	16.05	104.087	26.430	6.581	
30		15.65	14.37	+0.02	35.25	+15.96	104.221	+26.421	+6.643	
Nov.	3	15.58	14.30	0.02	35.09	15.87	104.355	26.411	6.704	
	7	15.51	14.24	0.02	34.94	15.79	104.489	26.402	6.766	
	11	15.45	14.19	0.01	34.80	15.71	104.623	26.392	6.827	
	15	15.39	14.13	0.01	34.67	15.63	104.756	26.383	6.889	
	19	15.34	14.08	+0.01	34.55	+15.56	104.890	+26.373	+6.950	
	23	15.29	14.04	0.01	34.44	15.50	105.024	26.364	7.012	
	27	15.25	14.00	0.01	34.34	15.44	105.158	26.354	7.073	
	Dez.	1	15.21	13.96	0.01	34.26	15.38	105.292	26.344	7.135
5		15.18	13.93	0.01	34.19	15.32	105.426	26.333	7.196	
9		15.16	13.90	+0.01	34.13	+15.27	105.559	+26.323	+7.257	
13		15.14	13.88	0.00	34.09	15.22	105.693	26.312	7.318	
17		15.12	13.87	0.00	34.06	15.18	105.827	26.302	7.379	
21		15.11	13.86	0.00	34.04	15.14	105.960	26.291	7.440	
25		15.10	13.85	0.00	34.03	15.11	106.094	26.281	7.501	
29		15.11	13.86	0.00	34.04	15.08	106.228	26.270	7.562	
33		15.12	13.87	0.00	34.06	+15.06	106.362	+26.259	+7.623	

O <sup>h</sup>				O <sup>h</sup>				
Welt-Zeit				Welt-Zeit				
	U	B	P		U	B	P	
1929				1929				
Jan.	1	137.884	+26.793	+5.441	April 3	145.415	+26.224	+6.045
	3	138.140 <sup>256</sup>	26.782 <sup>11</sup>	5.464 <sup>23</sup>	5	145.435 <sup>20</sup>	26.220 <sup>4</sup>	6.046 <sup>1</sup>
	5	138.394 <sup>254</sup>	26.771 <sup>11</sup>	5.486 <sup>22</sup>	7	145.448 <sup>13</sup>	26.217 <sup>3</sup>	6.047 <sup>1</sup>
	7	138.646 <sup>252</sup>	26.760 <sup>11</sup>	5.507 <sup>21</sup>	9	145.454 <sup>6</sup>	26.215 <sup>2</sup>	6.048 <sup>1</sup>
	9	138.897 <sup>251</sup>	26.749 <sup>11</sup>	5.529 <sup>21</sup>	11	145.452 <sup>2</sup>	26.214 <sup>1</sup>	6.048 <sup>1</sup>
	11	139.146 <sup>249</sup>	+26.737 <sup>12</sup>	+5.550 <sup>21</sup>	13	145.443 <sup>9</sup>	+26.213 <sup>0</sup>	+6.047 <sup>1</sup>
	13	139.393 <sup>247</sup>	26.725 <sup>12</sup>	5.571 <sup>20</sup>	15	145.427 <sup>16</sup>	26.213 <sup>0</sup>	6.046 <sup>1</sup>
	15	139.637 <sup>244</sup>	26.712 <sup>13</sup>	5.591 <sup>21</sup>	17	145.404 <sup>23</sup>	26.214 <sup>1</sup>	6.044 <sup>2</sup>
	17	139.878 <sup>241</sup>	26.699 <sup>13</sup>	5.612 <sup>21</sup>	19	145.404 <sup>32</sup>	26.214 <sup>2</sup>	6.044 <sup>3</sup>
	19	140.115 <sup>237</sup>	26.685 <sup>14</sup>	5.632 <sup>20</sup>	21	145.372 <sup>39</sup>	26.216 <sup>2</sup>	6.041 <sup>3</sup>
	21	140.349 <sup>234</sup>	+26.671 <sup>14</sup>	+5.652 <sup>20</sup>	23	145.333 <sup>44</sup>	+26.218 <sup>3</sup>	+6.038 <sup>3</sup>
	23	140.580 <sup>231</sup>	26.656 <sup>15</sup>	5.671 <sup>19</sup>	25	145.289 <sup>51</sup>	+26.221 <sup>4</sup>	+6.035 <sup>4</sup>
	25	140.807 <sup>227</sup>	26.656 <sup>15</sup>	5.690 <sup>19</sup>	27	145.238 <sup>59</sup>	26.225 <sup>5</sup>	6.031 <sup>5</sup>
	27	141.030 <sup>223</sup>	26.641 <sup>15</sup>	5.708 <sup>18</sup>	29	145.179 <sup>65</sup>	26.230 <sup>6</sup>	6.026 <sup>5</sup>
29	141.251 <sup>221</sup>	26.626 <sup>15</sup>	5.726 <sup>18</sup>	1	145.114 <sup>72</sup>	26.236 <sup>6</sup>	6.021 <sup>5</sup>	
31	141.467 <sup>216</sup>	26.611 <sup>16</sup>	5.743 <sup>17</sup>	Mai 1	145.042 <sup>78</sup>	26.242 <sup>7</sup>	6.016 <sup>6</sup>	
Febr.	2	141.679 <sup>212</sup>	+26.595 <sup>15</sup>	+5.743 <sup>17</sup>	3	144.964 <sup>85</sup>	+26.249 <sup>7</sup>	+6.010 <sup>6</sup>
	4	141.886 <sup>207</sup>	26.580 <sup>16</sup>	5.760 <sup>17</sup>	5	144.879 <sup>91</sup>	26.256 <sup>8</sup>	6.004 <sup>7</sup>
	6	141.886 <sup>203</sup>	26.564 <sup>15</sup>	5.777 <sup>16</sup>	7	144.788 <sup>97</sup>	26.264 <sup>9</sup>	5.997 <sup>7</sup>
	8	142.089 <sup>198</sup>	26.549 <sup>15</sup>	5.793 <sup>16</sup>	9	144.691 <sup>102</sup>	26.273 <sup>9</sup>	5.990 <sup>7</sup>
	10	142.287 <sup>194</sup>	26.534 <sup>15</sup>	5.809 <sup>15</sup>	11	144.589 <sup>109</sup>	26.282 <sup>10</sup>	5.983 <sup>8</sup>
	12	142.481 <sup>188</sup>	+26.519 <sup>15</sup>	+5.824 <sup>15</sup>	13	144.480 <sup>114</sup>	+26.292 <sup>10</sup>	+5.975 <sup>9</sup>
	14	142.669 <sup>184</sup>	26.504 <sup>15</sup>	5.839 <sup>14</sup>	15	144.366 <sup>118</sup>	26.302 <sup>10</sup>	5.966 <sup>9</sup>
	16	142.853 <sup>178</sup>	26.489 <sup>15</sup>	5.853 <sup>14</sup>	17	144.248 <sup>123</sup>	26.312 <sup>11</sup>	5.957 <sup>9</sup>
	18	143.031 <sup>173</sup>	26.474 <sup>15</sup>	5.867 <sup>14</sup>	19	144.125 <sup>129</sup>	26.323 <sup>12</sup>	5.948 <sup>9</sup>
	20	143.204 <sup>167</sup>	26.459 <sup>15</sup>	5.881 <sup>14</sup>	21	143.996 <sup>133</sup>	26.335 <sup>12</sup>	5.938 <sup>10</sup>
	22	143.371 <sup>162</sup>	+26.444 <sup>15</sup>	+5.894 <sup>13</sup>	23	143.863 <sup>139</sup>	+26.347 <sup>12</sup>	+5.928 <sup>10</sup>
	24	143.533 <sup>156</sup>	26.429 <sup>14</sup>	5.906 <sup>12</sup>	25	143.726 <sup>137</sup>	26.359 <sup>13</sup>	5.918 <sup>11</sup>
	26	143.689 <sup>150</sup>	26.415 <sup>15</sup>	5.918 <sup>11</sup>	27	143.586 <sup>140</sup>	26.372 <sup>13</sup>	5.907 <sup>12</sup>
	28	143.839 <sup>144</sup>	26.400 <sup>14</sup>	5.929 <sup>11</sup>	29	143.441 <sup>145</sup>	26.372 <sup>13</sup>	5.895 <sup>11</sup>
30	143.983 <sup>138</sup>	26.386 <sup>14</sup>	5.940 <sup>10</sup>	31	143.293 <sup>148</sup>	26.385 <sup>13</sup>	5.884 <sup>11</sup>	
März	2	144.121 <sup>132</sup>	+26.373 <sup>13</sup>	+5.950 <sup>10</sup>	Juni 1	143.293 <sup>151</sup>	26.398 <sup>13</sup>	5.884 <sup>12</sup>
	4	144.253 <sup>125</sup>	26.360 <sup>13</sup>	5.960 <sup>10</sup>	2	143.142 <sup>153</sup>	+26.411 <sup>14</sup>	+5.872 <sup>11</sup>
	6	144.378 <sup>119</sup>	26.347 <sup>12</sup>	5.970 <sup>9</sup>	4	142.989 <sup>155</sup>	26.425 <sup>14</sup>	5.861 <sup>12</sup>
	8	144.497 <sup>113</sup>	26.335 <sup>12</sup>	5.979 <sup>9</sup>	6	142.833 <sup>156</sup>	26.439 <sup>14</sup>	5.849 <sup>12</sup>
	10	144.610 <sup>106</sup>	26.322 <sup>12</sup>	5.988 <sup>8</sup>	8	142.674 <sup>159</sup>	26.453 <sup>14</sup>	5.836 <sup>13</sup>
	12	144.716 <sup>99</sup>	+26.310 <sup>11</sup>	+5.996 <sup>7</sup>	10	142.513 <sup>161</sup>	26.467 <sup>14</sup>	5.824 <sup>12</sup>
	14	144.815 <sup>92</sup>	26.299 <sup>11</sup>	6.003 <sup>6</sup>	12	142.351 <sup>162</sup>	+26.482 <sup>15</sup>	+5.811 <sup>13</sup>
	16	144.907 <sup>85</sup>	26.288 <sup>10</sup>	6.009 <sup>6</sup>	14	142.188 <sup>163</sup>	26.496 <sup>15</sup>	5.798 <sup>13</sup>
	18	144.992 <sup>78</sup>	26.278 <sup>9</sup>	6.015 <sup>5</sup>	16	142.024 <sup>164</sup>	26.511 <sup>14</sup>	5.785 <sup>13</sup>
	20	145.070 <sup>71</sup>	26.269 <sup>8</sup>	6.020 <sup>5</sup>	18	141.860 <sup>164</sup>	26.525 <sup>14</sup>	5.772 <sup>13</sup>
	22	145.141 <sup>63</sup>	+26.261 <sup>7</sup>	+6.025 <sup>5</sup>	20	141.695 <sup>165</sup>	26.525 <sup>14</sup>	5.759 <sup>13</sup>
	24	145.204 <sup>57</sup>	26.254 <sup>7</sup>	6.030 <sup>4</sup>	22	141.530 <sup>165</sup>	+26.554 <sup>14</sup>	+5.746 <sup>13</sup>
	26	145.261 <sup>50</sup>	26.247 <sup>7</sup>	6.034 <sup>3</sup>	24	141.366 <sup>164</sup>	26.568 <sup>14</sup>	5.733 <sup>14</sup>
	28	145.311 <sup>42</sup>	26.240 <sup>6</sup>	6.037 <sup>3</sup>	26	141.203 <sup>162</sup>	26.582 <sup>14</sup>	5.719 <sup>13</sup>
30	145.353 <sup>35</sup>	26.234 <sup>5</sup>	6.040 <sup>3</sup>	28	141.041 <sup>161</sup>	26.596 <sup>14</sup>	5.706 <sup>13</sup>	
April	1	145.388 <sup>27</sup>	26.229 <sup>5</sup>	6.043 <sup>2</sup>	30	140.880 <sup>160</sup>	26.610 <sup>14</sup>	5.693 <sup>13</sup>
	3	145.415	+26.224	+6.045	Juli 2	140.720 <sup>157</sup>	26.624 <sup>14</sup>	5.680 <sup>13</sup>
				4	140.563	+26.638	+5.667 <sup>13</sup>	

1929		1929			1929		1929		
O <sup>h</sup> Welt-Zeit		U	B	P	O <sup>h</sup> Welt-Zeit		U	B	P
Juli	4	140.563 <sup>154</sup>	+26.638 <sup>13</sup>	+5.667 <sup>13</sup>	Okt.	4	139.231 <sup>129</sup>	+26.961 <sup>2</sup>	+5.565 <sup>11</sup>
	6	140.409 <sup>152</sup>	26.651 <sup>13</sup>	5.654 <sup>12</sup>		6	139.360 <sup>136</sup>	26.959 <sup>2</sup>	5.576 <sup>12</sup>
	8	140.257 <sup>149</sup>	26.664 <sup>13</sup>	5.642 <sup>12</sup>		8	139.496 <sup>142</sup>	26.957 <sup>3</sup>	5.588 <sup>12</sup>
	10	140.108 <sup>145</sup>	26.677 <sup>13</sup>	5.630 <sup>12</sup>		10	139.638 <sup>148</sup>	26.954 <sup>3</sup>	5.600 <sup>13</sup>
	12	139.963 <sup>141</sup>	26.690 <sup>12</sup>	5.618 <sup>12</sup>		12	139.786 <sup>154</sup>	26.951 <sup>4</sup>	5.613 <sup>13</sup>
	14	139.822 <sup>138</sup>	+26.702 <sup>12</sup>	+5.606 <sup>11</sup>		14	139.940 <sup>159</sup>	+26.947 <sup>4</sup>	+5.626 <sup>13</sup>
	16	139.684 <sup>133</sup>	26.714 <sup>12</sup>	5.595 <sup>11</sup>		16	140.099 <sup>164</sup>	26.943 <sup>5</sup>	5.639 <sup>14</sup>
	18	139.551 <sup>129</sup>	26.726 <sup>12</sup>	5.584 <sup>11</sup>		18	140.263 <sup>171</sup>	26.938 <sup>5</sup>	5.653 <sup>14</sup>
	20	139.422 <sup>124</sup>	26.738 <sup>12</sup>	5.573 <sup>11</sup>		20	140.434 <sup>176</sup>	26.933 <sup>5</sup>	5.667 <sup>15</sup>
	22	139.298 <sup>121</sup>	26.750 <sup>11</sup>	5.562 <sup>10</sup>		22	140.610 <sup>180</sup>	26.928 <sup>6</sup>	5.682 <sup>15</sup>
	24	139.177 <sup>115</sup>	+26.761 <sup>11</sup>	+5.552 <sup>10</sup>		24	140.790 <sup>186</sup>	+26.922 <sup>7</sup>	+5.697 <sup>15</sup>
26	139.062 <sup>109</sup>	26.772 <sup>11</sup>	5.542 <sup>9</sup>	26	140.976 <sup>191</sup>	26.915 <sup>8</sup>	5.712 <sup>16</sup>		
28	138.953 <sup>103</sup>	26.783 <sup>10</sup>	5.533 <sup>8</sup>	28	141.167 <sup>196</sup>	26.907 <sup>9</sup>	5.728 <sup>17</sup>		
30	138.850 <sup>98</sup>	26.793 <sup>10</sup>	5.525 <sup>8</sup>	30	141.363 <sup>200</sup>	26.898 <sup>10</sup>	5.745 <sup>16</sup>		
Aug.	1	138.752 <sup>92</sup>	26.803 <sup>10</sup>	5.517 <sup>8</sup>	Nov.	1	141.563 <sup>204</sup>	26.888 <sup>11</sup>	5.761 <sup>17</sup>
	3	138.660 <sup>86</sup>	+26.813 <sup>10</sup>	+5.509 <sup>7</sup>		3	141.767 <sup>210</sup>	+26.877 <sup>12</sup>	+5.778 <sup>17</sup>
	5	138.574 <sup>79</sup>	26.823 <sup>9</sup>	5.502 <sup>7</sup>		5	141.977 <sup>213</sup>	26.865 <sup>11</sup>	5.795 <sup>17</sup>
	7	138.495 <sup>73</sup>	26.832 <sup>9</sup>	5.495 <sup>7</sup>		7	142.190 <sup>217</sup>	26.854 <sup>12</sup>	5.812 <sup>17</sup>
	9	138.422 <sup>67</sup>	26.841 <sup>8</sup>	5.489 <sup>6</sup>		9	142.407 <sup>220</sup>	26.842 <sup>13</sup>	5.829 <sup>18</sup>
	11	138.355 <sup>60</sup>	26.849 <sup>9</sup>	5.483 <sup>5</sup>		11	142.627 <sup>225</sup>	26.829 <sup>14</sup>	5.847 <sup>18</sup>
	13	138.295 <sup>53</sup>	+26.858 <sup>8</sup>	+5.478 <sup>4</sup>		13	142.852 <sup>228</sup>	+26.815 <sup>15</sup>	+5.865 <sup>18</sup>
	15	138.242 <sup>46</sup>	26.866 <sup>8</sup>	5.474 <sup>4</sup>		15	143.080 <sup>231</sup>	26.800 <sup>15</sup>	5.883 <sup>18</sup>
	17	138.196 <sup>39</sup>	26.874 <sup>7</sup>	5.470 <sup>3</sup>		17	143.311 <sup>234</sup>	26.785 <sup>16</sup>	5.901 <sup>18</sup>
	19	138.157 <sup>32</sup>	26.881 <sup>8</sup>	5.467 <sup>3</sup>		19	143.545 <sup>238</sup>	26.769 <sup>17</sup>	5.919 <sup>18</sup>
	21	138.125 <sup>25</sup>	26.889 <sup>7</sup>	5.464 <sup>2</sup>		21	143.783 <sup>240</sup>	26.752 <sup>18</sup>	5.937 <sup>18</sup>
23	138.100 <sup>18</sup>	+26.896 <sup>6</sup>	+5.462 <sup>1</sup>	23	144.023 <sup>242</sup>	+26.734 <sup>19</sup>	+5.955 <sup>18</sup>		
25	138.082 <sup>10</sup>	26.902 <sup>6</sup>	5.461 <sup>0</sup>	25	144.265 <sup>244</sup>	26.715 <sup>19</sup>	5.973 <sup>19</sup>		
27	138.072 <sup>4</sup>	26.908 <sup>6</sup>	5.461 <sup>0</sup>	27	144.509 <sup>248</sup>	26.690 <sup>20</sup>	5.992 <sup>19</sup>		
29	138.068 <sup>3</sup>	26.914 <sup>6</sup>	5.461 <sup>0</sup>	29	144.757 <sup>250</sup>	26.676 <sup>21</sup>	6.010 <sup>19</sup>		
31	138.071 <sup>11</sup>	26.920 <sup>5</sup>	5.461 <sup>1</sup>	Dez.	1	145.007 <sup>252</sup>	26.655 <sup>20</sup>	6.029 <sup>19</sup>	
Sept.	2	138.082 <sup>19</sup>	+26.925 <sup>5</sup>		+5.462 <sup>2</sup>	3	145.259 <sup>253</sup>	+26.635 <sup>21</sup>	+6.048 <sup>19</sup>
	4	138.101 <sup>25</sup>	26.930 <sup>5</sup>		5.464 <sup>3</sup>	5	145.512 <sup>255</sup>	26.614 <sup>22</sup>	6.067 <sup>18</sup>
	6	138.126 <sup>33</sup>	26.935 <sup>4</sup>		5.467 <sup>3</sup>	7	145.767 <sup>257</sup>	26.592 <sup>23</sup>	6.085 <sup>19</sup>
	8	138.159 <sup>41</sup>	26.939 <sup>3</sup>		5.470 <sup>3</sup>	9	146.024 <sup>258</sup>	26.569 <sup>24</sup>	6.104 <sup>19</sup>
	10	138.200 <sup>48</sup>	26.942 <sup>4</sup>		5.473 <sup>4</sup>	11	146.282 <sup>259</sup>	26.545 <sup>26</sup>	6.123 <sup>18</sup>
	12	138.248 <sup>55</sup>	+26.946 <sup>3</sup>		+5.477 <sup>5</sup>	13	146.541 <sup>260</sup>	+26.519 <sup>25</sup>	+6.141 <sup>19</sup>
	14	138.303 <sup>61</sup>	26.949 <sup>4</sup>		5.482 <sup>5</sup>	15	146.801 <sup>261</sup>	26.494 <sup>26</sup>	6.160 <sup>18</sup>
	16	138.364 <sup>69</sup>	26.953 <sup>3</sup>		5.487 <sup>6</sup>	17	147.062 <sup>260</sup>	26.468 <sup>26</sup>	6.178 <sup>18</sup>
	18	138.433 <sup>76</sup>	26.956 <sup>2</sup>		5.493 <sup>7</sup>	19	147.322 <sup>261</sup>	26.442 <sup>27</sup>	6.196 <sup>18</sup>
	20	138.509 <sup>83</sup>	26.958 <sup>1</sup>		5.500 <sup>8</sup>	21	147.583 <sup>261</sup>	26.415 <sup>28</sup>	6.214 <sup>18</sup>
	22	138.592 <sup>90</sup>	+26.959 <sup>1</sup>	+5.508 <sup>8</sup>	23	147.844 <sup>262</sup>	+26.387 <sup>29</sup>	+6.232 <sup>18</sup>	
24	138.682 <sup>96</sup>	26.960 <sup>1</sup>	5.516 <sup>9</sup>	25	148.106 <sup>262</sup>	26.358 <sup>29</sup>	6.250 <sup>18</sup>		
26	138.778 <sup>103</sup>	26.961 <sup>0</sup>	5.525 <sup>9</sup>	27	148.368 <sup>262</sup>	26.329 <sup>29</sup>	6.268 <sup>17</sup>		
28	138.881 <sup>110</sup>	26.961 <sup>1</sup>	5.534 <sup>10</sup>	29	148.630 <sup>261</sup>	26.300 <sup>30</sup>	6.285 <sup>17</sup>		
30	138.991 <sup>117</sup>	26.962 <sup>0</sup>	5.544 <sup>10</sup>	31	148.891 <sup>260</sup>	26.270 <sup>32</sup>	6.302 <sup>17</sup>		
Okt.	2	139.108 <sup>123</sup>	26.962 <sup>1</sup>	5.554 <sup>11</sup>	33	149.151	+26.238	+6.319	
	4	139.231	+26.961	+5.565					



O <sup>h</sup> Welt-Zeit	L	M	log $\frac{\alpha(\Delta)}{\Delta}$	$\frac{\alpha(\Delta)}{\Delta} \sin B$	O <sup>h</sup> Welt-Zeit	L	M	log $\frac{\alpha(\Delta)}{\Delta}$	$\frac{\alpha(\Delta)}{\Delta} \sin B$
<b>MIMAS</b>					<b>MIMAS</b>				
1929					1929				
Febr. 28	75.327	275.10	1.39327	+10.99	Mai 17	350.275	112.04	1.44461	+12.34
März 2	119.300	317.07	1.39460	11.02	19	34.248	154.02	1.44547	12.37
4	163.273	359.04	1.39595	11.05	21	78.221	195.99	1.44628	12.40
6	207.246	41.02	1.39731	11.08	23	122.194	237.96	1.44705	12.43
8	251.219	82.99	1.39868	11.11	25	166.166	279.94	1.44776	12.46
10	295.193	124.96	1.40007	+11.15	27	210.139	321.91	1.44843	+12.48
12	339.166	166.94	1.40148	11.18	29	254.112	3.88	1.44904	12.50
14	23.139	208.91	1.40290	11.21	31	298.084	45.86	1.44961	12.52
16	67.112	250.88	1.40433	11.24	Juni 2	342.057	87.83	1.45012	12.54
18	111.085	292.85	1.40577	11.27	4	26.030	129.80	1.45057	12.56
20	155.058	334.82	1.40721	+11.30	6	70.003	171.77	1.45097	+12.58
22	199.031	16.80	1.40866	11.33	8	113.976	213.74	1.45132	12.60
24	243.004	58.77	1.41012	11.36	10	157.948	255.72	1.45161	12.62
26	286.978	100.74	1.41158	11.40	12	201.921	297.69	1.45185	12.63
28	330.951	142.72	1.41303	11.44	14	245.894	339.66	1.45202	12.64
30	14.924	184.69	1.41449	+11.48	16	289.866	21.64	1.45214	+12.65
April 1	58.897	226.66	1.41595	11.52	18	333.839	63.61	1.45220	12.65
3	102.870	268.63	1.41740	11.56	20	17.812	105.58	1.45221	12.66
5	146.843	310.61	1.41885	11.60	22	61.785	147.55	1.45215	12.66
7	190.816	352.58	1.42028	11.64	24	105.757	189.52	1.45204	12.66
9	234.789	34.55	1.42171	+11.68	26	149.730	231.50	1.45188	+12.67
11	278.763	76.53	1.42313	11.71	28	193.703	273.47	1.45166	12.67
13	322.736	118.50	1.42453	11.75	30	237.675	315.44	1.45138	12.66
15	6.709	160.47	1.42592	11.78	Juli 2	281.648	357.42	1.45104	12.66
17	50.682	202.45	1.42729	11.82	4	325.621	39.39	1.45065	12.66
19	94.655	244.42	1.42865	+11.86	6	9.593	81.36	1.45020	+12.65
21	138.628	286.39	1.42998	11.89	8	53.566	123.33	1.44970	12.65
23	182.601	328.37	1.43129	11.93	10	97.538	165.30	1.44915	12.64
25	226.574	10.34	1.43258	11.97	12	141.511	207.28	1.44854	12.63
27	270.546	52.31	1.43384	12.00	14	185.484	249.25	1.44789	12.62
29	314.519	94.29	1.43507	+12.04	16	229.456	291.22	1.44718	+12.60
Mai 1	358.492	136.26	1.43627	12.07	18	273.429	333.20	1.44643	12.58
3	42.465	178.23	1.43744	12.11	20	317.402	15.17	1.44563	12.56
5	86.438	220.20	1.43858	12.14	22	1.374	57.14	1.44478	12.53
7	130.411	262.18	1.43968	12.18	24	45.347	99.11	1.44389	12.51
9	174.384	304.15	1.44075	+12.21	26	89.319	141.08	1.44296	+12.48
11	218.357	346.12	1.44178	12.25	28	133.292	183.06	1.44199	12.46
13	262.329	28.10	1.44277	12.28	30	177.265	225.03	1.44097	12.43
15	306.302	70.07	1.44371	12.31	Aug. 1	221.237	267.00	1.43992	12.41
17	350.275	112.04	1.44461	+12.34	3	265.210	308.98	1.43883	+12.38

MIMAS					ENCELADUS				
0 <sup>h</sup> Welt-Zeit	L	M	$\log \frac{\alpha(\Delta)}{\Delta}$	$\frac{\alpha(\Delta)}{\Delta} \sin B$	0 <sup>h</sup> Welt-Zeit	L	M	$\log \frac{\alpha(\Delta)}{\Delta}$	$\frac{\alpha(\Delta)}{\Delta} \sin B$
1929					1929				
Aug. 3	265.210	308.98	1.43883	+12.38	Febr. 28	8.395	300.3	1.50148	+14.10
5	309.183	350.95	1.43771	12.36	März 2	173.857	105.1	1.50281	14.14
7	353.155	32.92	1.43655	12.33	4	339.319	269.8	1.50416	14.18
9	37.128	74.89	1.43536	12.30	6	144.781	74.6	1.50552	14.22
11	81.100	116.86	1.43414	12.27	8	310.242	239.4	1.50689	14.26
13	125.073	158.84	1.43289	+12.24	10	115.704	44.2	1.50828	+14.30
15	169.045	200.81	1.43162	12.21	12	281.166	208.9	1.50969	14.34
17	213.018	242.78	1.43033	12.18	14	86.628	13.7	1.51111	14.38
19	256.990	284.76	1.42901	12.14	16	252.090	178.5	1.51254	14.42
21	300.963	326.73	1.42767	12.11	18	57.552	343.3	1.51398	14.46
23	344.935	8.70	1.42631	+12.07	20	223.014	148.1	1.51542	+14.50
25	28.908	50.67	1.42493	12.04	22	28.475	312.9	1.51687	14.54
27	72.880	92.64	1.42354	12.00	24	193.937	117.6	1.51833	14.58
29	116.853	134.62	1.42214	11.96	26	359.399	282.4	1.51979	14.62
31	160.825	176.59	1.42073	11.93	28	164.861	87.2	1.52124	14.67
Sept. 2	204.797	218.56	1.41930	+11.89	30	330.323	252.0	1.52270	+14.72
4	248.769	260.54	1.41786	11.86	April 1	135.785	56.8	1.52416	14.77
6	292.742	302.51	1.41642	11.82	3	301.247	221.6	1.52561	14.82
8	336.714	344.48	1.41498	11.78	5	106.709	26.4	1.52706	14.87
10	20.687	26.45	1.41353	11.75	7	272.171	191.2	1.52849	14.92
12	64.659	68.42	1.41208	+11.71	9	77.633	355.9	1.52992	+14.97
14	108.632	110.40	1.41063	11.68	11	243.096	160.7	1.53134	15.02
16	152.604	152.37	1.40918	11.64	13	48.558	325.5	1.53274	15.07
18	196.576	194.34	1.40774	11.60	15	214.020	130.3	1.53413	15.11
20	240.548	236.32	1.40630	11.56	17	19.482	295.1	1.53550	15.16
22	284.521	278.29	1.40487	+11.52	19	184.944	99.9	1.53686	+15.21
24	328.493	320.26	1.40345	11.48	21	350.406	264.7	1.53819	15.26
26	12.465	2.23	1.40204	11.45	23	155.868	69.5	1.53950	15.30
28	56.437	44.20	1.40063	11.41	25	321.330	234.2	1.54079	15.35
30	100.410	86.18	1.39924	11.37	27	126.793	39.0	1.54205	15.40
Okt. 2	144.382	128.15	1.39786	+11.34	29	292.255	203.8	1.54328	+15.44
4	188.354	170.12	1.39650	11.30	Mai 1	97.717	8.6	1.54448	15.49
6	232.326	212.10	1.39516	11.27	3	263.179	173.4	1.54565	15.54
8	276.299	254.07	1.39383	11.23	5	68.641	338.2	1.54679	15.59
10	320.271	296.04	1.39252	11.19	7	234.103	143.0	1.54789	15.63
12	4.243	338.01	1.39123	+11.15	9	39.566	307.8	1.54896	+15.67
14	48.215	19.98	1.38996	11.11	11	205.028	112.5	1.54999	15.71
16	92.188	61.95	1.38871	11.08	13	10.490	277.3	1.55098	15.75
18	136.160	103.92	1.38749	11.05	15	175.952	82.1	1.55192	15.79
20	180.132	145.90	1.38629	+11.02	17	341.415	246.9	1.55282	+15.83

0 <sup>h</sup> Welt-Zeit		<i>L</i>	<i>M</i>	$\log \frac{\alpha(\Delta)}{\Delta}$	$\frac{\alpha(\Delta)}{\Delta} \sin B$	0 <sup>h</sup> Welt-Zeit		<i>L</i>	<i>M</i>	$\log \frac{\alpha(\Delta)}{\Delta}$	$\frac{\alpha(\Delta)}{\Delta} \sin B$
<b>ENCELADUS</b>						<b>ENCELADUS</b>					
1929						1929					
Mai	17	341.415	246.9	1.55282	+15.83	Aug.	3	314.453	193.6	1.54704	+15.90
	19	146.877	51.7	1.55368	15.87		5	119.916	358.4	1.54592	15.86
	21	312.339	216.5	1.55449	15.90	7	285.379	163.2	1.54476	15.82	
	23	117.802	21.3	1.55526	15.93	9	90.842	328.0	1.54357	15.78	
	25	283.264	186.1	1.55597	15.96	11	256.305	132.8	1.54235	15.74	
	27	88.726	350.8	1.55664	+15.99	13	61.768	297.6	1.54110	+15.70	
	29	254.189	155.6	1.55725	16.02	15	227.231	102.3	1.53983	15.66	
	31	59.651	320.4	1.55782	16.05	17	32.693	267.1	1.53854	15.62	
Juni	2	225.114	125.2	1.55833	16.08	19	198.156	71.9	1.53722	15.58	
	4	30.576	290.0	1.55878	16.11	21	3.619	236.7	1.53588	15.54	
	6	196.038	94.8	1.55918	+16.13	23	169.082	41.5	1.53452	+15.49	
	8	1.501	259.6	1.55953	16.15	25	334.545	206.3	1.53314	15.45	
	10	166.963	64.4	1.55982	16.17	27	140.008	11.1	1.53175	15.40	
	12	332.425	229.1	1.56006	16.19	29	305.471	175.9	1.53035	15.36	
	14	137.888	33.9	1.56023	16.20	31	110.934	340.6	1.52894	15.31	
	16	303.350	198.7	1.56035	+16.22	Sept.	2	276.397	145.4	1.52751	+15.26
	18	108.813	3.5	1.56041	16.23		4	81.860	310.2	1.52607	15.21
	20	274.275	168.3	1.56042	16.24	6	247.323	115.0	1.52463	15.16	
	22	79.738	333.1	1.56036	16.24	8	52.786	279.8	1.52319	15.11	
	24	245.200	137.9	1.56025	16.24	10	218.249	84.6	1.52174	15.07	
	26	50.663	302.7	1.56009	+16.25	12	23.712	249.4	1.52029	+15.02	
	28	216.125	107.4	1.55987	16.25	14	189.176	54.2	1.51884	14.97	
	30	21.588	272.2	1.55959	16.24	16	354.639	218.9	1.51739	14.92	
Juli	2	187.051	77.0	1.55925	16.24	18	160.102	23.7	1.51595	14.88	
	4	352.514	241.8	1.55886	16.23	20	325.566	188.5	1.51451	14.83	
	6	157.976	46.6	1.55841	+16.23	22	131.029	353.3	1.51308	+14.78	
	8	323.439	211.4	1.55791	16.22	24	296.492	158.1	1.51166	14.73	
	10	128.901	16.2	1.55736	16.21	26	101.955	322.9	1.51025	14.69	
	12	294.364	181.0	1.55675	16.20	28	267.418	127.7	1.50884	14.64	
	14	99.826	345.7	1.55610	16.19	30	72.882	292.5	1.50745	14.59	
	16	265.289	150.5	1.55539	+16.17	Okt.	2	238.345	97.2	1.50607	+14.55
	18	70.752	315.3	1.55464	16.14		4	43.808	262.0	1.50471	14.50
	20	236.215	120.1	1.55384	16.11	6	209.272	66.8	1.50337	14.46	
	22	41.677	284.9	1.55299	16.08	8	14.735	231.6	1.50204	14.41	
	24	207.140	89.7	1.55210	16.05	10	180.198	36.4	1.50073	14.36	
	26	12.602	254.5	1.55117	+16.02	12	345.661	201.2	1.49944	+14.32	
	28	178.065	59.3	1.55020	15.99	14	151.124	6.0	1.49817	14.27	
	30	343.528	224.0	1.54918	15.96	16	316.588	170.8	1.49692	14.23	
Aug.	1	148.990	28.8	1.54813	15.93	18	122.051	335.5	1.49570	14.19	
	3	314.453	193.6	1.54704	+15.90	20	287.515	140.3	1.49450	+14.14	

Oh Welt-Zeit	<i>L</i>	<i>M</i>	$\log \frac{\alpha(\Delta)}{\Delta}$	$\frac{\alpha(\Delta)}{\Delta} \sin B$	Oh Welt-Zeit	<i>L</i>	<i>M</i>	$\log \frac{\alpha(\Delta)}{\Delta}$	$\frac{\alpha(\Delta)}{\Delta} \sin B$
TETHYS					TETHYS				
1929					1929				
Febr. 28	136.092		1.59417	+17.46	Mai 17	250.551		1.64551	+19.59
März 2	157.488		1.59550	17.50	19	271.947		1.64637	19.64
4	178.885		1.59685	17.55	21	293.343		1.64718	19.68
6	200.281		1.59821	17.60	23	314.740		1.64795	19.72
8	221.677		1.59958	17.65	25	336.136		1.64866	19.76
10	243.074		1.60097	+17.70	27	357.532		1.64933	+19.80
12	264.470		1.60238	17.75	29	18.929		1.64994	19.84
14	285.867		1.60380	17.80	31	40.325		1.65051	19.88
16	307.263		1.60523	17.85	Juni 2	61.722		1.65102	19.92
18	328.659		1.60667	17.90	4	83.118		1.65147	19.95
20	350.056		1.60811	+17.96	6	104.514		1.65187	+19.98
22	11.452		1.60956	18.01	8	125.911		1.65222	20.01
24	32.848		1.61102	18.07	10	147.307		1.65251	20.03
26	54.245		1.61248	18.12	12	168.703		1.65275	20.05
28	75.641		1.61393	18.18	14	190.100		1.65292	20.06
30	97.038		1.61539	+18.23	16	211.496		1.65304	+20.08
April 1	118.434		1.61685	18.29	18	232.893		1.65310	20.09
3	139.830		1.61830	18.34	20	254.289		1.65311	20.10
5	161.227		1.61975	18.40	22	275.685		1.65305	20.10
7	182.623		1.62118	18.46	24	297.082		1.65294	20.10
9	204.019		1.62261	+18.52	26	318.478		1.65278	+20.11
11	225.416		1.62403	18.58	28	339.874		1.65256	20.11
13	246.812		1.62543	18.64	30	1.271		1.65228	20.10
15	268.209		1.62682	18.70	Juli 2	22.667		1.65194	20.10
17	289.605		1.62819	18.76	4	44.064		1.65155	20.09
19	311.001		1.62955	+18.82	6	65.460		1.65110	+20.09
21	332.398		1.63088	18.88	8	86.856		1.65060	20.08
23	353.794		1.63219	18.94	10	108.253		1.65005	20.07
25	15.190		1.63348	19.00	12	129.649		1.64944	20.05
27	36.587		1.63474	19.06	14	151.045		1.64879	20.03
29	57.983		1.63597	+19.12	16	172.442		1.64808	+20.01
Mai 1	79.380		1.63717	19.18	18	193.838		1.64733	19.98
3	100.776		1.63834	19.23	20	215.235		1.64653	19.95
5	122.172		1.63948	19.29	22	236.631		1.64568	19.91
7	143.569		1.64058	19.34	24	258.027		1.64479	19.87
9	164.965		1.64165	+19.39	26	279.424		1.64386	+19.83
11	186.361		1.64268	19.44	28	300.820		1.64289	19.79
13	207.758		1.64367	19.49	30	322.216		1.64187	19.75
15	229.154		1.64461	19.54	Aug. 1	343.613		1.64082	19.71
17	250.551		1.64551	+19.59	3	5.009		1.63973	+19.67

TETHYS					DIONE				
$O^h$ Welt-Zeit	$L$	$M$	$\log \frac{\alpha(\Delta)}{\Delta}$	$\frac{\alpha(\Delta)}{\Delta} \sin B$	$O^h$ Welt-Zeit	$L$	$M$	$\log \frac{\alpha(\Delta)}{\Delta}$	$\frac{\alpha(\Delta)}{\Delta} \sin B$
1929					1929				
Aug. 3	5.009		1.63973	+19.67	Febr.28	218.206	22.4	1.70165	+22.36
5	26.406		1.63861	19.63	März 2	121.276	285.3	1.70298	22.42
7	47.802		1.63745	19.59	4	24.346	188.2	1.70433	22.48
9	69.198		1.63626	19.54	6	287.416	91.1	1.70569	22.54
11	90.595		1.63504	19.49	8	190.485	354.0	1.70706	22.61
13	111.991		1.63379	+19.44	10	93.555	256.9	1.70845	+22.67
15	133.387		1.63252	19.39	12	356.625	159.8	1.70986	22.73
17	154.784		1.63123	19.34	14	259.695	62.7	1.71128	22.80
19	176.180		1.62991	19.28	16	162.765	325.6	1.71271	22.86
21	197.577		1.62857	19.23	18	65.835	228.5	1.71415	22.93
23	218.973		1.62721	+19.17	20	328.905	131.4	1.71559	+23.00
25	240.369		1.62583	19.12	22	231.975	34.3	1.71704	23.07
27	261.766		1.62444	19.06	24	135.044	297.2	1.71850	23.14
29	283.162		1.62304	19.01	26	38.114	200.1	1.71996	23.21
31	304.559		1.62162	18.95	28	301.184	103.0	1.72141	23.28
Sept. 2	325.955		1.62020	+18.89	30	204.254	5.9	1.72287	+23.36
4	347.352		1.61876	18.83	April 1	107.324	268.8	1.72433	23.43
6	8.748		1.61732	18.77	3	10.394	171.7	1.72578	23.51
8	30.145		1.61588	18.71	5	273.464	74.6	1.72723	23.58
10	51.541		1.61443	18.65	7	176.534	337.5	1.72866	23.66
12	72.938		1.61298	+18.59	9	79.603	240.4	1.73009	+23.73
14	94.334		1.61153	18.53	11	342.673	143.3	1.73151	23.81
16	115.730		1.61008	18.47	13	245.743	46.2	1.73291	23.88
18	137.127		1.60864	18.41	15	148.813	309.1	1.73430	23.96
20	158.523		1.60720	18.35	17	51.883	212.0	1.73567	24.03
22	179.920		1.60577	+18.29	19	314.953	114.9	1.73703	+24.11
24	201.316		1.60435	18.23	21	218.023	17.8	1.73836	24.18
26	222.712		1.60294	18.18	23	121.093	280.7	1.73967	24.26
28	244.109		1.60153	18.12	25	24.162	183.6	1.74096	24.33
30	265.505		1.60014	18.06	27	287.232	86.5	1.74222	24.41
Oktober 2	286.901		1.59876	+18.01	29	190.302	349.4	1.74345	+24.48
4	308.298		1.59740	17.95	Mai 1	93.372	252.3	1.74465	24.56
6	329.694		1.59606	17.89	3	356.442	155.2	1.74582	24.63
8	351.091		1.59473	17.84	5	259.512	58.1	1.74696	24.70
10	12.487		1.59342	17.78	7	162.582	321.0	1.74806	24.77
12	33.883		1.59213	+17.73	9	65.652	223.9	1.74913	+24.84
14	55.280		1.59086	17.68	11	328.721	126.8	1.75016	24.90
16	76.676		1.58961	17.62	13	231.791	29.7	1.75115	24.97
18	98.072		1.58839	17.57	15	134.861	292.6	1.75209	25.03
20	119.469		1.58719	+17.51	17	37.931	195.5	1.75299	+25.10

DIONE					DIONE				
1929					1929				
0 <sup>h</sup> Welt-Zeit	<i>L</i>	<i>M</i>	$\log \frac{\alpha(\Delta)}{\Delta}$	$\frac{\alpha(\Delta)}{\Delta} \sin E$	0 <sup>h</sup> Welt-Zeit	<i>L</i>	<i>M</i>	$\log \frac{\alpha(\Delta)}{\Delta}$	$\frac{\alpha(\Delta)}{\Delta} \sin E$
<b>Mai</b>					<b>Aug.</b>				
17	37.931	195.5	1.75299	+25.10	3	217.653	8.7	1.74721	+25.21
19	301.001	98.4	1.75385	25.16	5	120.723	271.6	1.74609	25.15
21	204.071	1.3	1.75466	25.21	7	23.793	174.5	1.74493	25.09
23	107.140	264.2	1.75543	25.26	9	286.863	77.4	1.74374	25.03
25	10.210	167.1	1.75614	25.31	11	189.933	340.3	1.74252	24.97
27	273.280	70.0	1.75681	+25.36	13	93.002	243.2	1.74127	+24.90
29	176.350	332.9	1.75742	25.41	15	356.072	146.1	1.74000	24.84
31	79.419	235.8	1.75799	25.46	17	259.142	49.0	1.73871	24.77
<b>Juni</b>					<b>Sept.</b>				
2	342.489	138.7	1.75850	25.51	2	162.212	311.9	1.73739	24.70
4	245.559	41.6	1.75895	25.55	21	65.281	214.8	1.73605	24.63
6	148.629	304.5	1.75935	+25.59	23	328.351	117.7	1.73469	+24.56
8	51.699	207.4	1.75970	25.63	25	231.421	20.6	1.73331	24.49
10	314.769	110.3	1.75999	25.66	27	134.491	283.5	1.73192	24.41
12	217.838	13.2	1.76023	25.69	29	37.560	186.4	1.73052	24.34
14	120.908	276.1	1.76040	25.71	31	300.630	89.3	1.72911	24.26
16	23.978	179.0	1.76052	+25.73	<b>Sept.</b>				
18	287.048	81.9	1.76058	25.74	2	203.700	352.2	1.72768	+24.19
20	190.118	344.8	1.76059	25.75	4	106.770	255.1	1.72624	24.11
22	93.188	247.7	1.76053	25.76	6	9.839	158.0	1.72480	24.04
24	356.258	150.6	1.76042	25.77	8	272.909	60.9	1.72336	23.96
26	259.327	53.6	1.76026	+25.77	10	175.979	323.8	1.72191	23.89
28	162.397	316.5	1.76004	25.77	12	79.049	226.7	1.72046	+23.81
30	65.467	219.4	1.75976	25.76	14	342.118	129.6	1.71901	23.74
<b>Juli</b>					16	245.188	32.4	1.71756	23.66
2	328.537	122.3	1.75942	25.75	18	148.258	295.3	1.71612	23.58
4	231.606	25.2	1.75903	25.74	20	51.328	198.2	1.71468	23.51
6	134.676	288.1	1.75858	+25.73	22	314.397	101.1	1.71325	+23.43
8	37.746	191.0	1.75808	25.71	24	217.467	4.0	1.71183	23.35
10	300.816	93.9	1.75753	25.69	26	120.537	266.9	1.71042	23.28
12	203.885	356.8	1.75692	25.66	28	23.607	169.8	1.70901	23.20
14	106.955	259.7	1.75627	25.63	30	286.676	72.7	1.70762	23.13
16	10.025	162.6	1.75556	+25.60	<b>Okt.</b>				
18	273.095	65.5	1.75481	25.57	2	189.746	335.7	1.70624	+23.05
20	176.164	328.4	1.75401	25.54	4	92.816	238.6	1.70488	22.98
22	79.234	231.3	1.75316	25.50	6	355.886	141.5	1.70354	22.90
24	342.304	134.2	1.75227	25.46	8	258.955	44.4	1.70221	22.83
26	245.374	37.1	1.75134	+25.42	10	162.025	307.3	1.70090	22.76
28	148.444	300.0	1.75037	25.37	12	65.095	210.2	1.69961	+22.69
30	51.513	202.9	1.74935	25.32	14	328.165	113.1	1.69834	22.63
<b>Aug.</b>					16	231.234	16.0	1.69709	22.56
1	314.583	105.8	1.74830	25.27	18	134.304	278.9	1.69587	22.49
3	217.653	8.7	1.74721	+25.21	20	37.374	181.8	1.69467	+22.43

O <sup>h</sup> Welt-Zeit	L	M	log $\frac{\alpha(\Delta)}{\Delta}$	$\frac{\alpha(\Delta)}{\Delta} \sin B$	O <sup>h</sup> Welt-Zeit	L	M	log $\frac{\alpha(\Delta)}{\Delta}$	$\frac{\alpha(\Delta)}{\Delta} \sin B$
<b>RHEA</b>					<b>RHEA</b>				
1929					1929				
Febr. 28	194.180	7.1	1.84669	+31.22	Mai 17	289.998	103.0	1.89803	+35.05
März 2	353.560	166.5	1.84802	31.30	19	89.378	262.4	1.89889	35.13
4	152.940	325.9	1.84937	31.38	21	248.758	61.8	1.89970	35.21
6	312.320	125.3	1.85073	31.47	23	48.138	221.2	1.90047	35.29
8	111.700	284.6	1.85210	31.56	25	207.518	20.6	1.90118	35.36
10	271.080	84.0	1.85349	+31.65	27	6.898	179.9	1.90185	+35.43
12	70.460	243.4	1.85490	31.74	29	166.277	339.3	1.90246	35.50
14	229.840	42.8	1.85632	31.83	31	325.657	138.7	1.90303	35.56
16	29.219	202.2	1.85775	31.92	Juni 2	125.037	298.1	1.90354	35.62
18	188.599	1.6	1.85919	32.01	4	284.417	97.5	1.90399	35.68
20	347.979	160.9	1.86063	+32.11	6	83.797	256.9	1.90439	+35.73
22	147.359	320.3	1.86208	32.21	8	243.177	56.3	1.90474	35.78
24	306.739	119.7	1.86354	32.31	10	42.557	215.7	1.90503	35.82
26	106.119	279.1	1.86500	32.41	12	201.937	15.0	1.90527	35.85
28	265.499	78.4	1.86645	32.51	14	1.317	174.4	1.90544	35.88
30	64.879	237.8	1.86791	+32.61	16	160.697	333.8	1.90556	+35.91
April 1	224.259	37.2	1.86937	32.72	18	320.077	133.2	1.90562	35.93
3	23.639	196.6	1.87082	32.82	20	119.457	292.6	1.90563	35.95
5	183.019	356.0	1.87227	32.93	22	278.837	92.0	1.90557	35.96
7	342.399	155.4	1.87370	33.03	24	78.217	251.3	1.90546	35.96
9	141.779	314.7	1.87513	+33.14	26	237.597	50.7	1.90530	+35.97
11	301.158	114.1	1.87655	33.24	28	36.977	210.1	1.90508	35.98
13	100.538	273.5	1.87795	33.35	30	196.356	9.5	1.90480	35.97
15	259.918	72.9	1.87934	33.45	Juli 2	355.736	168.8	1.90446	35.96
17	59.298	232.3	1.88071	33.56	4	155.116	328.2	1.90407	35.95
19	218.678	31.7	1.88207	+33.66	6	314.496	127.6	1.90362	+35.93
21	18.058	191.1	1.88340	33.77	8	113.876	287.0	1.90312	35.91
23	177.438	350.5	1.88471	33.88	10	273.256	86.4	1.90257	35.88
25	336.818	149.8	1.88600	33.99	12	72.636	245.8	1.90196	35.84
27	136.198	309.2	1.88726	34.10	14	232.016	45.1	1.90131	35.80
29	295.578	108.6	1.88849	+34.20	16	31.396	204.5	1.90060	+35.75
Mai 1	94.958	268.0	1.88969	34.30	18	190.776	3.9	1.89985	35.70
3	254.338	67.4	1.89086	34.40	20	350.156	163.3	1.89905	35.65
5	53.718	226.8	1.89200	34.50	22	149.536	322.7	1.89820	35.60
7	213.098	26.1	1.89310	34.60	24	308.916	122.1	1.89731	35.54
9	12.478	185.5	1.89417	+34.70	26	108.296	281.4	1.89638	+35.48
11	171.858	344.9	1.89520	34.79	28	267.676	80.8	1.89541	35.42
13	331.238	144.3	1.89619	34.88	30	67.056	240.2	1.89439	35.35
15	130.618	303.6	1.89713	34.97	Aug. 1	226.435	39.6	1.89334	35.28
17	289.998	103.0	1.89803	+35.05	3	25.815	198.9	1.89225	+35.20

RHEA					TITAN				
Oh Welt-Zeit	L	M	$\log \frac{\alpha(\Delta)}{\Delta}$	$\frac{\alpha(\Delta)}{\Delta} \sin B$	Oh Welt-Zeit	L	M	$\log \frac{\alpha(\Delta)}{\Delta}$	$\frac{\alpha(\Delta)}{\Delta} \sin B$
RHEA					TITAN				
1929					1929				
Aug. 3	25.815	198.9	1.89225	+35.20	Febr.28	123.27	311.4	2.21184	+72.38
5	185.195	358.3	1.89113	35.12	März 2	168.42	356.5	2.21317	72.57
7	344.575	157.7	1.88997	35.04	4	213.58	41.7	2.21452	72.76
9	143.955	317.1	1.88878	34.95	6	258.73	86.8	2.21588	72.96
11	303.335	116.5	1.88756	34.86	8	303.88	132.0	2.21725	73.16
13	102.715	275.9	1.88631	+34.77	10	349.04	177.1	2.21864	+73.37
15	262.095	75.2	1.88504	34.68	12	34.19	222.3	2.22005	73.58
17	61.475	234.6	1.88375	34.59	14	79.34	267.4	2.22147	73.79
19	220.855	34.0	1.88243	34.49	16	124.50	312.6	2.22290	74.00
21	20.235	193.4	1.88109	34.39	18	169.65	357.7	2.22434	74.22
23	179.615	352.8	1.87973	+34.29	20	214.81	42.9	2.22578	+74.44
25	338.995	152.2	1.87835	34.19	22	259.96	88.0	2.22723	74.67
27	138.375	311.6	1.87696	34.09	24	305.11	133.2	2.22869	74.90
29	297.755	111.0	1.87556	33.99	26	350.27	178.3	2.23015	75.13
31	97.135	270.3	1.87415	33.88	28	35.42	223.5	2.23160	75.36
Sept. 2	256.514	69.7	1.87272	+33.78	30	80.57	268.6	2.23306	+75.60
4	55.894	229.1	1.87128	33.67	April 1	125.73	313.8	2.23452	75.84
6	215.274	28.5	1.86984	33.57	3	170.88	358.9	2.23597	76.08
8	14.654	187.9	1.86840	33.46	5	216.04	44.1	2.23742	76.32
10	174.034	347.3	1.86695	33.36	7	261.19	89.2	2.23885	76.57
12	333.414	146.7	1.86550	+33.25	9	306.34	134.4	2.24028	+76.82
14	132.794	306.1	1.86405	33.14	11	351.50	179.5	2.24170	77.06
16	292.174	105.4	1.86260	33.03	13	36.65	224.7	2.24310	77.31
18	91.554	264.8	1.86116	32.92	15	81.81	269.8	2.24449	77.56
20	250.934	64.2	1.85972	32.82	17	126.96	315.0	2.24586	77.81
22	50.314	223.6	1.85829	+32.71	19	172.11	0.1	2.24722	+78.05
24	209.694	23.0	1.85687	32.61	21	217.27	45.3	2.24855	78.30
26	9.074	182.4	1.85546	32.50	23	262.42	90.4	2.24986	78.54
28	168.454	341.7	1.85405	32.40	25	307.57	135.6	2.25115	78.79
30	327.834	141.1	1.85266	32.29	27	352.73	180.7	2.25241	79.03
Okt. 2	127.214	300.5	1.85128	+32.19	29	37.88	225.9	2.25364	+79.27
4	286.593	99.9	1.84992	32.09	Mai 1	83.04	271.0	2.25484	79.51
6	85.973	259.2	1.84858	31.99	3	128.19	316.2	2.25601	79.75
8	245.353	58.6	1.84725	31.89	5	173.34	1.3	2.25715	79.98
10	44.733	218.0	1.84594	31.79	7	218.50	46.5	2.25825	80.20
12	204.113	17.4	1.84465	+31.69	9	263.65	91.6	2.25932	+80.42
14	3.493	176.8	1.84338	31.59	11	308.81	136.8	2.26035	80.64
16	162.873	336.2	1.84213	31.50	13	353.96	181.9	2.26134	80.85
18	322.253	135.5	1.84091	31.41	15	39.11	227.1	2.26228	81.06
20	121.633	294.9	1.83971	+31.32	17	84.27	272.2	2.26318	+81.26



$0^h$ Welt-Zeit	$L$	$M$	$\log \frac{a(\Delta)}{\Delta}$	$\frac{a(\Delta)}{\Delta} \sin B$	$0^h$ Welt-Zeit	$L$	$M$	$\log \frac{a(\Delta)}{\Delta}$	$\frac{a(\Delta)}{\Delta} \sin B$
TITAN					TITAN				
1929					1929				
Mai 17	84.27	272.2	2.26318	+81.26	Aug. 3	45.26	233.1	2.25740	+81.59
19	129.42	317.4	2.26404	81.45	5	90.41	278.2	2.25628	81.41
21	174.57	2.5	2.26485	81.63	7	135.57	323.4	2.25512	81.22
23	219.73	47.7	2.26562	81.81	9	180.72	8.5	2.25393	81.02
25	264.88	92.8	2.26633	81.98	11	225.88	53.7	2.25271	80.82
27	310.03	138.0	2.26700	+82.14	13	271.03	98.8	2.25146	+80.61
29	355.19	183.1	2.26761	82.29	15	316.18	144.0	2.25019	80.40
31	40.34	228.3	2.26818	82.44	17	1.34	189.1	2.24890	80.18
Juni 2	85.49	273.4	2.26869	82.57	19	46.49	234.3	2.24758	79.96
4	130.65	318.6	2.26914	82.70	21	91.64	279.4	2.24624	79.73
6	175.80	3.7	2.26954	+82.82	23	136.80	324.6	2.24488	+79.50
8	220.96	48.9	2.26989	82.93	25	181.95	9.8	2.24350	79.27
10	266.11	94.0	2.27018	83.03	27	227.11	54.9	2.24211	79.03
12	311.26	139.2	2.27042	83.11	29	272.26	100.1	2.24071	78.79
14	356.42	184.3	2.27059	83.19	31	317.41	145.3	2.23930	78.55
16	41.57	229.5	2.27071	+83.26	Sept. 2	2.57	190.4	2.23787	+78.31
18	86.72	274.6	2.27077	83.31	4	47.72	235.6	2.23643	78.06
20	131.88	319.8	2.27078	83.35	6	92.87	280.7	2.23499	77.82
22	177.03	4.9	2.27072	83.38	8	138.03	325.9	2.23355	77.57
24	222.19	50.1	2.27061	83.40	10	183.18	11.0	2.23210	77.33
26	267.34	95.2	2.27045	+83.41	12	228.34	56.2	2.23065	+77.08
28	312.49	140.4	2.27023	83.41	14	273.49	101.3	2.22920	76.83
30	357.65	185.5	2.26995	83.40	16	318.64	146.5	2.22775	76.58
Juli 2	42.80	230.7	2.26961	83.38	18	3.80	191.6	2.22631	76.33
4	87.95	275.8	2.26922	83.34	20	48.95	236.8	2.22487	76.08
6	133.11	321.0	2.26877	+83.29	22	94.10	281.9	2.22344	+75.84
8	178.26	6.1	2.26827	83.23	24	139.26	327.1	2.22202	75.59
10	223.42	51.3	2.26772	83.16	26	184.41	12.2	2.22061	75.35
12	268.57	96.4	2.26711	83.08	28	229.57	57.4	2.21920	75.11
14	313.72	141.6	2.26646	82.99	30	274.72	102.5	2.21781	74.87
16	358.88	186.7	2.26575	+82.89	Ok. 2	319.87	147.7	2.21643	+74.63
18	44.03	231.9	2.26500	82.78	4	5.03	192.8	2.21507	74.39
20	89.18	277.0	2.26420	82.66	6	50.18	238.0	2.21373	74.16
22	134.34	322.2	2.26335	82.54	8	95.33	283.1	2.21240	73.93
24	179.49	7.3	2.26246	82.40	10	140.49	328.3	2.21109	73.70
26	224.65	52.5	2.26153	+82.25	12	185.64	13.4	2.20980	+73.47
28	269.80	97.6	2.26056	82.10	14	230.80	58.6	2.20853	73.25
30	314.95	142.8	2.25954	81.94	16	275.95	103.7	2.20728	73.03
Aug. 1	0.11	187.9	2.25849	81.77	18	321.11	148.9	2.20606	72.81
3	45.26	233.1	2.25740	+81.59	20	6.26	194.0	2.20486	+72.60

Bewegung der mittleren Länge  $L$  und der mittleren Anomalie  $M$ 

Zeit	Mimas		Enceladus		Tethys	Dione		Rhea		Titan	
	$L$	$M$	$L$	$M$	$L$	$L$	$M$	$L$	$M$	$L$	$M$
<sup>d</sup> 1	381.987	380.99	262.731	262.4	190.698	131.535	131.5	79.690	79.7	22.58	22.6
<sup>h</sup> 1	15.916	15.87	10.947	10.9	7.946	5.481	5.5	3.320	3.3	0.94	0.9
2	31.832	31.75	21.894	21.9	15.892	10.961	11.0	6.641	6.6	1.88	1.9
3	47.748	47.62	32.842	32.8	23.838	16.442	16.4	9.961	10.0	2.82	2.8
4	63.664	63.50	43.789	43.7	31.783	21.923	21.9	13.282	13.3	3.76	3.8
5	79.581	79.37	54.736	54.7	39.729	27.403	27.4	16.602	16.6	4.70	4.7
6	95.497	95.25	65.683	65.6	47.675	32.884	32.9	19.923	19.9	5.64	5.7
7	111.413	111.12	76.630	76.5	55.621	38.364	38.4	23.243	23.2	6.59	6.6
8	127.329	127.00	87.577	87.5	63.566	43.845	43.8	26.564	26.6	7.53	7.5
9	143.245	142.87	98.525	98.4	71.512	49.326	49.3	29.884	29.9	8.47	8.5
10	159.161	158.75	109.472	109.3	79.458	54.806	54.8	33.205	33.2	9.41	9.4
11	175.077	174.62	120.419	120.3	87.403	60.287	60.3	36.525	36.5	10.35	10.4
12	190.993	190.50	131.366	131.2	95.349	65.767	65.7	39.845	39.8	11.29	11.3
13	206.910	206.37	142.313	142.1	103.295	71.248	71.2	43.166	43.2	12.23	12.2
14	222.826	222.24	153.260	153.1	111.241	76.729	76.7	46.486	46.5	13.17	13.2
15	238.742	238.12	164.207	164.0	119.186	82.209	82.2	49.806	49.8	14.11	14.1
16	254.658	253.99	175.154	174.9	127.132	87.690	87.7	53.127	53.1	15.05	15.1
17	270.574	269.86	186.101	185.9	135.078	93.171	93.1	56.447	56.5	15.99	16.0
18	286.490	285.74	197.048	196.8	143.024	98.651	98.6	59.768	59.8	16.93	17.0
19	302.406	301.61	207.996	207.7	150.970	104.132	104.1	63.088	63.1	17.88	17.9
20	318.322	317.49	218.943	218.7	158.916	109.613	109.6	66.409	66.4	18.82	18.8
21	334.239	333.36	229.890	229.6	166.861	115.093	115.1	69.729	69.7	19.76	19.8
22	350.155	349.24	240.837	240.5	174.806	120.574	120.5	73.050	73.1	20.70	20.7
23	366.071	365.11	251.784	251.5	182.752	126.054	126.0	76.370	76.4	21.64	21.7
<sup>m</sup> 1	0.265	0.26	0.182	0.2	0.132	0.091	0.1	0.055	0.0	0.02	0.0
2	0.531	0.53	0.365	0.4	0.265	0.183	0.2	0.111	0.1	0.03	0.0
3	0.796	0.79	0.547	0.5	0.397	0.274	0.3	0.166	0.1	0.05	0.0
4	1.061	1.06	0.730	0.7	0.530	0.365	0.4	0.221	0.2	0.06	0.1
5	1.326	1.32	0.912	0.9	0.662	0.457	0.5	0.277	0.2	0.08	0.1
6	1.592	1.58	1.095	1.1	0.795	0.548	0.5	0.332	0.3	0.09	0.1
7	1.857	1.85	1.278	1.3	0.927	0.640	0.6	0.387	0.3	0.11	0.1
8	2.122	2.11	1.460	1.4	1.060	0.731	0.7	0.442	0.4	0.13	0.1
9	2.388	2.38	1.642	1.6	1.192	0.822	0.8	0.497	0.4	0.14	0.1
10	2.653	2.64	1.825	1.8	1.324	0.914	0.9	0.553	0.5	0.16	0.2
20	5.305	5.29	3.649	3.6	2.649	1.827	1.8	1.107	1.1	0.31	0.3
30	7.958	7.93	5.474	5.4	3.973	2.740	2.7	1.660	1.6	0.47	0.5
40	10.611	10.58	7.298	7.3	5.297	3.654	3.7	2.214	2.2	0.63	0.6
50	13.263	13.22	9.123	9.1	6.622	4.567	4.6	2.767	2.7	0.78	0.8
10 <sup>*</sup>	0.044	0.04	0.030	0.0	0.022	0.015	0.0	0.009	0.0	0.00	0.0
20	0.088	0.09	0.061	0.1	0.044	0.030	0.0	0.018	0.0	0.01	0.0
30	0.133	0.13	0.091	0.1	0.066	0.046	0.0	0.028	0.0	0.01	0.0
40	0.177	0.17	0.122	0.1	0.088	0.061	0.1	0.037	0.0	0.01	0.0
50	0.221	0.22	0.152	0.2	0.110	0.076	0.1	0.046	0.0	0.01	0.0

Oh Welt-Zeit	♄					γ	N	J	ω
	Mimas	Encel.	Tethys	Dione	Rhea	Rhea	Saturnsring		
1929 Jan. -5	172.8	253.8	343.2	357.7	339.3	19.74	127.584	6.801	42.048
+11	156.8	247.2	340.1	356.4	338.7	19.75	127.586	6.800	42.047
27	140.8	240.5	336.9	355.0	338.2	19.76	127.587	6.800	42.046
Febr. 12	124.8	233.8	333.7	353.7	337.8	19.78	127.589	6.800	42.044
28	108.7	227.1	330.5	352.3	337.3	19.79	127.591	6.800	42.043
März 16	92.7	220.4	327.4	350.9	336.9	19.80	127.593	6.800	42.042
April 1	76.7	213.8	324.2	349.6	336.4	19.82	127.595	6.799	42.041
17	60.7	207.1	321.0	348.2	335.9	19.83	127.596	6.799	42.040
Mai 3	44.7	200.4	317.8	346.9	335.5	19.84	127.598	6.799	42.038
19	28.7	193.7	314.7	345.5	335.0	19.86	127.600	6.799	42.037
Juni 4	12.7	187.0	311.5	344.1	334.6	19.87	127.602	6.799	42.036
20	356.7	180.4	308.3	342.8	334.1	19.88	127.604	6.798	42.034
Juli 6	340.7	173.6	305.1	341.4	333.6	19.90	127.606	6.798	42.033
22	324.7	166.9	301.9	340.1	333.2	19.91	127.607	6.798	42.032
Aug. 7	308.7	160.3	298.8	338.7	332.7	19.93	127.609	6.798	42.031
23	292.7	153.6	295.6	337.3	332.3	19.94	127.611	6.798	42.029
Sept. 8	276.7	146.9	292.4	336.0	331.8	19.95	127.613	6.798	42.028
24	260.7	140.2	289.2	334.6	331.3	19.97	127.615	6.797	42.027
Okt. 10	244.7	133.5	286.0	333.3	330.9	19.98	127.616	6.797	42.026
26	228.7	126.8	282.9	331.9	330.4	19.99	127.618	6.797	42.024
Nov. 11	212.7	120.1	279.7	330.5	330.0	20.01	127.620	6.797	42.023
27	196.7	113.4	276.5	329.2	329.5	20.02	127.622	6.797	42.022
Dez. 13	180.7	106.8	273.3	327.8	329.0	20.03	127.624	6.796	42.021
29	164.7	100.1	270.2	326.5	328.6	20.05	127.625	6.796	42.019
45	148.7	93.4	267.0	325.1	328.1	20.06	127.627	6.796	42.018

$\log \frac{1}{1+z}$ , in Einheiten der 5. Dezimale

u - U		Mimas	Encel.	Tethys	Dione	Rhea	u - U	
0°	360°	-6+	-7+	-9+	-11+	-16+	180°	180°
10	350	-6+	-7+	-9+	-11+	-16+	170	190
20	340	-5+	-7+	-8+	-11+	-15+	160	200
30	330	-5+	-6+	-8+	-10+	-14+	150	210
40	320	-4+	-6+	-7+	-9+	-12+	140	220
50	310	-3+	-5+	-6+	-8+	-10+	130	230
60	300	-3+	-4+	-4+	-6+	-8+	120	240
70	290	-2+	-3+	-3+	-4+	-6+	110	250
80	280	-1+	-1+	-2+	-2+	-3+	100	260
90	270	0	0	0	0	0	90	270

M	Mimas		Enceladus		Dione		Rhea		M
	$\pm(v-M)$	$\log \frac{r}{a}$	$\pm(v-M)$	$\log \frac{r}{a}$	$\pm(v-M)$	$\log \frac{r}{a}$	$\pm(v-M)$	$\log \frac{r}{a}$	
0	0.000	9.99167	0.000	9.99800	0.000	9.99913	0.000	9.99961	360
2	0.078	9.99167	0.018	9.99800	0.008	9.99913	0.004	9.99961	358
4	0.156	9.99169	0.037	9.99800	0.016	9.99913	0.007	9.99961	356
6	0.233	9.99172	0.055	9.99801	0.024	9.99913	0.011	9.99961	354
8	0.310	9.99175	0.074	9.99802	0.032	9.99914	0.014	9.99961	352
10	0.387	9.99180	0.092	9.99803	0.040	9.99914	0.018	9.99961	350
12	0.463	9.99186	0.110	9.99804	0.048	9.99915	0.021	9.99962	348
14	0.539	9.99193	0.128	9.99806	0.056	9.99916	0.025	9.99962	346
16	0.614	9.99201	0.146	9.99808	0.063	9.99916	0.028	9.99962	344
18	0.688	9.99210	0.164	9.99810	0.071	9.99917	0.032	9.99963	342
20	0.762	9.99220	0.181	9.99812	0.079	9.99918	0.035	9.99963	340
22	0.834	9.99230	0.199	9.99814	0.086	9.99919	0.039	9.99964	338
24	0.905	9.99242	0.216	9.99817	0.093	9.99921	0.042	9.99964	336
26	0.975	9.99255	0.232	9.99820	0.101	9.99922	0.045	9.99965	334
28	1.044	9.99269	0.249	9.99823	0.108	9.99923	0.048	9.99966	332
30	1.111	9.99284	0.265	9.99827	0.115	9.99925	0.052	9.99966	330
32	1.177	9.99299	0.281	9.99830	0.122	9.99926	0.055	9.99967	328
34	1.242	9.99316	0.296	9.99834	0.128	9.99928	0.058	9.99968	326
36	1.305	9.99333	0.311	9.99838	0.135	9.99930	0.061	9.99968	324
38	1.366	9.99351	0.326	9.99842	0.141	9.99931	0.064	9.99969	322
40	1.425	9.99370	0.340	9.99847	0.148	9.99933	0.066	9.99970	320
42	1.483	9.99390	0.354	9.99852	0.154	9.99935	0.069	9.99971	318
44	1.538	9.99410	0.368	9.99856	0.159	9.99937	0.072	9.99972	316
46	1.592	9.99431	0.381	9.99861	0.165	9.99940	0.074	9.99973	314
48	1.644	9.99453	0.393	9.99866	0.171	9.99942	0.077	9.99974	312
50	1.693	9.99476	0.405	9.99872	0.176	9.99944	0.079	9.99975	310
52	1.741	9.99499	0.417	9.99877	0.181	9.99947	0.081	9.99976	308
54	1.786	9.99523	0.428	9.99883	0.186	9.99949	0.083	9.99977	306
56	1.829	9.99547	0.438	9.99889	0.190	9.99951	0.085	9.99978	304
58	1.870	9.99572	0.448	9.99895	0.195	9.99954	0.087	9.99979	302
60	1.908	9.99598	0.458	9.99901	0.199	9.99957	0.089	9.99980	300
62	1.944	9.99623	0.467	9.99907	0.203	9.99959	0.091	9.99982	298
64	1.977	9.99650	0.475	9.99913	0.206	9.99962	0.093	9.99983	296
66	2.008	9.99676	0.483	9.99919	0.210	9.99965	0.094	9.99984	294
68	2.036	9.99704	0.490	9.99926	0.213	9.99967	0.096	9.99985	292
70	2.062	9.99731	0.496	9.99932	0.216	9.99970	0.097	9.99987	290
72	2.086	9.99759	0.502	9.99939	0.218	9.99973	0.098	9.99988	288
74	2.106	9.99787	0.508	9.99946	0.220	9.99976	0.099	9.99989	286
76	2.124	9.99815	0.512	9.99952	0.222	9.99979	0.100	9.99991	284
78	2.140	9.99843	0.516	9.99959	0.224	9.99982	0.101	9.99992	282
80	2.153	9.99872	0.520	9.99966	0.226	9.99985	0.102	9.99993	280
82	2.163	9.99900	0.523	9.99973	0.227	9.99988	0.102	9.99995	278
84	2.170	9.99929	0.525	9.99980	0.228	9.99991	0.103	9.99996	276
86	2.175	9.99958	0.526	9.99987	0.229	9.99994	0.103	9.99997	274
88	2.177	9.99987	0.527	9.99994	0.229	9.99997	0.103	9.99999	272
90	2.177	0.00016	0.527	0.00001	0.229	0.00000	0.103	0.00000	270

M	Mimas		Enceladus		Dione		Rhea		M
	$\pm(v-M)$	$\log \frac{r}{a}$	$\pm(v-M)$	$\log \frac{r}{a}$	$\pm(v-M)$	$\log \frac{r}{a}$	$\pm(v-M)$	$\log \frac{r}{a}$	
90°	2.177	0.00016	0.527	0.00001	0.229	0.00000	0.103	0.00000	270°
92	2.174	0.00044	0.527	0.00008	0.229	0.00003	0.103	0.00001	268
94	2.168	0.00073	0.526	0.00015	0.229	0.00006	0.103	0.00003	266
96	2.159	0.00101	0.524	0.00022	0.228	0.00009	0.103	0.00004	264
98	2.148	0.00130	0.522	0.00029	0.227	0.00012	0.102	0.00005	262
100	2.135	0.00158	0.519	0.00035	0.226	0.00015	0.102	0.00007	260
102	2.119	0.00186	0.515	0.00042	0.224	0.00018	0.101	0.00008	258
104	2.100	0.00214	0.511	0.00049	0.222	0.00021	0.100	0.00009	256
106	2.079	0.00241	0.506	0.00056	0.220	0.00024	0.099	0.00011	254
108	2.055	0.00268	0.500	0.00062	0.218	0.00027	0.098	0.00012	252
110	2.029	0.00295	0.494	0.00069	0.215	0.00030	0.097	0.00013	250
112	2.000	0.00321	0.488	0.00075	0.212	0.00033	0.096	0.00015	248
114	1.969	0.00347	0.480	0.00082	0.209	0.00035	0.094	0.00016	246
116	1.936	0.00373	0.473	0.00088	0.206	0.00038	0.093	0.00017	244
118	1.901	0.00398	0.464	0.00094	0.202	0.00041	0.091	0.00018	242
120	1.863	0.00422	0.455	0.00100	0.198	0.00044	0.089	0.00019	240
122	1.823	0.00446	0.446	0.00106	0.194	0.00046	0.087	0.00021	238
124	1.781	0.00469	0.436	0.00112	0.190	0.00049	0.085	0.00022	236
126	1.737	0.00492	0.425	0.00118	0.185	0.00051	0.083	0.00023	234
128	1.691	0.00514	0.414	0.00123	0.180	0.00053	0.081	0.00024	232
130	1.643	0.00536	0.402	0.00129	0.175	0.00056	0.079	0.00025	230
132	1.593	0.00557	0.390	0.00134	0.170	0.00058	0.077	0.00026	228
134	1.541	0.00577	0.378	0.00139	0.164	0.00060	0.074	0.00027	226
136	1.487	0.00597	0.365	0.00144	0.159	0.00062	0.072	0.00028	224
138	1.431	0.00616	0.351	0.00148	0.153	0.00065	0.069	0.00029	222
140	1.374	0.00634	0.337	0.00153	0.147	0.00067	0.066	0.00030	220
142	1.316	0.00651	0.323	0.00157	0.141	0.00068	0.064	0.00031	218
144	1.256	0.00668	0.308	0.00162	0.134	0.00070	0.061	0.00032	216
146	1.194	0.00683	0.293	0.00166	0.128	0.00072	0.058	0.00032	214
148	1.131	0.00698	0.278	0.00169	0.121	0.00074	0.055	0.00033	212
150	1.067	0.00713	0.262	0.00173	0.114	0.00075	0.052	0.00034	210
152	1.001	0.00726	0.246	0.00176	0.107	0.00077	0.048	0.00034	208
154	0.934	0.00738	0.230	0.00179	0.100	0.00078	0.045	0.00035	206
156	0.867	0.00750	0.213	0.00182	0.093	0.00079	0.042	0.00036	204
158	0.798	0.00760	0.196	0.00185	0.086	0.00080	0.039	0.00036	202
160	0.728	0.00770	0.179	0.00187	0.078	0.00081	0.035	0.00037	200
162	0.658	0.00779	0.162	0.00190	0.071	0.00082	0.032	0.00037	198
164	0.587	0.00787	0.144	0.00192	0.063	0.00083	0.028	0.00037	196
166	0.515	0.00794	0.127	0.00193	0.055	0.00084	0.025	0.00038	194
168	0.442	0.00800	0.109	0.00195	0.048	0.00085	0.021	0.00038	192
170	0.369	0.00805	0.091	0.00196	0.040	0.00085	0.018	0.00038	190
172	0.296	0.00810	0.073	0.00197	0.032	0.00086	0.014	0.00039	188
174	0.222	0.00813	0.055	0.00198	0.024	0.00086	0.011	0.00039	186
176	0.148	0.00815	0.037	0.00199	0.016	0.00086	0.007	0.00039	184
178	0.074	0.00817	0.018	0.00199	0.008	0.00087	0.004	0.00039	182
180	0.000	0.00817	0.000	0.00199	0.000	0.00087	0.000	0.00039	180

0 <sup>h</sup> Welt-Zeit	HYPERION			0 <sup>h</sup> Welt-Zeit	HYPERION		
	U	B	P		U	B	P
1929				1929			
Febr. 28	140.482	+26.466	+5.370	Mai 17	140.758	+26.398	+5.394
März 2	140.621 <sup>139</sup>	26.453 <sup>13</sup>	5.381 <sup>11</sup>	19	140.634 <sup>124</sup>	26.408 <sup>10</sup>	5.384 <sup>10</sup>
4	140.754 <sup>133</sup>	26.440 <sup>13</sup>	5.392 <sup>11</sup>	21	140.506 <sup>128</sup>	26.418 <sup>10</sup>	5.374 <sup>10</sup>
6	140.880 <sup>126</sup>	26.429 <sup>11</sup>	5.402 <sup>10</sup>	23	140.373 <sup>133</sup>	26.429 <sup>11</sup>	5.364 <sup>11</sup>
8	141.001 <sup>121</sup>	26.418 <sup>10</sup>	5.411 <sup>9</sup>	25	140.237 <sup>136</sup>	26.440 <sup>11</sup>	5.353 <sup>11</sup>
10	141.114 <sup>113</sup>	+26.408 <sup>10</sup>	+5.419 <sup>8</sup>	27	140.096 <sup>141</sup>	+26.452 <sup>12</sup>	+5.342 <sup>11</sup>
12	141.221 <sup>107</sup>	26.398 <sup>10</sup>	5.427 <sup>8</sup>	29	139.952 <sup>144</sup>	26.463 <sup>11</sup>	5.331 <sup>11</sup>
14	141.320 <sup>99</sup>	26.389 <sup>9</sup>	5.434 <sup>7</sup>	31	139.804 <sup>148</sup>	26.475 <sup>12</sup>	5.320 <sup>11</sup>
16	141.413 <sup>93</sup>	26.380 <sup>9</sup>	5.441 <sup>7</sup>	Juni 2	139.653 <sup>151</sup>	26.487 <sup>13</sup>	5.308 <sup>12</sup>
18	141.499 <sup>86</sup>	26.371 <sup>8</sup>	5.447 <sup>6</sup>	4	139.499 <sup>154</sup>	26.500 <sup>12</sup>	5.295 <sup>13</sup>
20	141.577 <sup>78</sup>	+26.363 <sup>8</sup>	+5.453 <sup>6</sup>	6	139.343 <sup>156</sup>	+26.513 <sup>13</sup>	+5.282 <sup>12</sup>
22	141.648 <sup>71</sup>	26.355 <sup>8</sup>	5.459 <sup>6</sup>	8	139.185 <sup>158</sup>	26.526 <sup>13</sup>	5.270 <sup>12</sup>
24	141.712 <sup>64</sup>	26.348 <sup>7</sup>	5.464 <sup>5</sup>	10	139.025 <sup>160</sup>	26.539 <sup>13</sup>	5.258 <sup>12</sup>
26	141.769 <sup>57</sup>	26.341 <sup>7</sup>	5.468 <sup>4</sup>	12	138.863 <sup>162</sup>	26.552 <sup>13</sup>	5.245 <sup>13</sup>
28	141.818 <sup>49</sup>	26.335 <sup>6</sup>	5.472 <sup>4</sup>	14	138.700 <sup>163</sup>	26.565 <sup>13</sup>	5.232 <sup>13</sup>
30	141.860 <sup>42</sup>	+26.329 <sup>5</sup>	+5.476 <sup>3</sup>	16	138.536 <sup>164</sup>	+26.578 <sup>13</sup>	+5.219 <sup>13</sup>
April 1	141.895 <sup>35</sup>	26.324 <sup>5</sup>	5.479 <sup>3</sup>	18	138.371 <sup>165</sup>	26.591 <sup>13</sup>	5.206 <sup>13</sup>
3	141.923 <sup>28</sup>	26.320 <sup>4</sup>	5.481 <sup>2</sup>	20	138.206 <sup>165</sup>	26.604 <sup>13</sup>	5.192 <sup>14</sup>
5	141.943 <sup>20</sup>	26.316 <sup>4</sup>	5.482 <sup>1</sup>	22	138.043 <sup>163</sup>	26.617 <sup>13</sup>	5.179 <sup>13</sup>
7	141.956 <sup>13</sup>	26.314 <sup>2</sup>	5.483 <sup>1</sup>	24	137.879 <sup>164</sup>	26.631 <sup>14</sup>	5.166 <sup>13</sup>
9	141.962 <sup>6</sup>	+26.312 <sup>1</sup>	+5.484 <sup>0</sup>	26	137.716 <sup>163</sup>	+26.644 <sup>14</sup>	+5.153 <sup>13</sup>
11	141.960 <sup>2</sup>	26.311 <sup>0</sup>	5.484 <sup>0</sup>	28	137.554 <sup>162</sup>	26.658 <sup>14</sup>	5.140 <sup>13</sup>
13	141.951 <sup>9</sup>	26.311 <sup>0</sup>	5.483 <sup>1</sup>	30	137.393 <sup>161</sup>	26.670 <sup>12</sup>	5.127 <sup>13</sup>
15	141.936 <sup>15</sup>	26.311 <sup>0</sup>	5.482 <sup>1</sup>	Juli 2	137.234 <sup>159</sup>	26.681 <sup>11</sup>	5.114 <sup>13</sup>
17	141.912 <sup>24</sup>	26.312 <sup>1</sup>	5.480 <sup>2</sup>	4	137.076 <sup>158</sup>	26.692 <sup>11</sup>	5.101 <sup>13</sup>
19	141.881 <sup>31</sup>	+26.314 <sup>2</sup>	+5.478 <sup>2</sup>	6	136.921 <sup>155</sup>	+26.704 <sup>12</sup>	+5.087 <sup>14</sup>
21	141.843 <sup>38</sup>	26.316 <sup>2</sup>	5.475 <sup>3</sup>	8	136.769 <sup>152</sup>	26.716 <sup>12</sup>	5.074 <sup>13</sup>
23	141.798 <sup>45</sup>	26.319 <sup>3</sup>	5.471 <sup>4</sup>	10	136.621 <sup>148</sup>	26.728 <sup>12</sup>	5.061 <sup>13</sup>
25	141.747 <sup>51</sup>	26.322 <sup>3</sup>	5.467 <sup>4</sup>	12	136.476 <sup>145</sup>	26.740 <sup>12</sup>	5.049 <sup>12</sup>
27	141.689 <sup>58</sup>	26.326 <sup>4</sup>	5.463 <sup>4</sup>	14	136.335 <sup>141</sup>	26.752 <sup>12</sup>	5.037 <sup>12</sup>
29	141.625 <sup>64</sup>	+26.330 <sup>4</sup>	+5.459 <sup>4</sup>	16	136.198 <sup>137</sup>	+26.764 <sup>12</sup>	+5.026 <sup>11</sup>
Mai 1	141.554 <sup>71</sup>	26.335 <sup>5</sup>	5.454 <sup>5</sup>	18	136.064 <sup>134</sup>	26.775 <sup>11</sup>	5.015 <sup>11</sup>
3	141.476 <sup>78</sup>	26.340 <sup>5</sup>	5.448 <sup>6</sup>	20	135.935 <sup>129</sup>	26.786 <sup>11</sup>	5.004 <sup>10</sup>
5	141.392 <sup>84</sup>	26.347 <sup>7</sup>	5.442 <sup>6</sup>	22	135.810 <sup>125</sup>	26.796 <sup>10</sup>	4.994 <sup>10</sup>
7	141.301 <sup>91</sup>	26.354 <sup>7</sup>	5.435 <sup>7</sup>	24	135.690 <sup>120</sup>	26.806 <sup>10</sup>	4.984 <sup>10</sup>
9	141.205 <sup>96</sup>	+26.362 <sup>8</sup>	+5.428 <sup>7</sup>	26	135.575 <sup>115</sup>	+26.816 <sup>9</sup>	+4.974 <sup>9</sup>
11	141.102 <sup>103</sup>	26.370 <sup>8</sup>	5.420 <sup>8</sup>	28	135.465 <sup>110</sup>	26.825 <sup>9</sup>	4.965 <sup>8</sup>
13	140.992 <sup>110</sup>	26.379 <sup>9</sup>	5.412 <sup>8</sup>	30	135.361 <sup>104</sup>	26.834 <sup>9</sup>	4.957 <sup>8</sup>
15	140.878 <sup>114</sup>	26.388 <sup>9</sup>	5.403 <sup>9</sup>	Aug. 1	135.264 <sup>97</sup>	26.843 <sup>9</sup>	4.949 <sup>7</sup>
17	140.758 <sup>120</sup>	+26.398 <sup>10</sup>	+5.394 <sup>9</sup>	3	135.173 <sup>91</sup>	+26.852 <sup>9</sup>	+4.942 <sup>7</sup>

0 <sup>h</sup> Welt-Zeit		HYPERION			0 <sup>h</sup> Welt-Zeit		JAPETUS		
		U	B	P			U	B	P
1929					1929				
Aug. 3	135.173	85	+26.852	+4.942	Febr. 28	221.482	+12.990	+11.670	
5	135.088	80	26.861	4.935	März 2	221.612	12.963	11.648	
7	135.008	72	26.870	4.928	4	221.732	12.938	11.627	
9	134.936	67	26.879	4.922	6	221.844	12.914	11.607	
11	134.869	60	26.888	4.916	8	221.950	12.891	11.587	
13	134.809	54	+26.896	+4.910	10	222.050	+12.869	+11.570	
15	134.755	46	26.904	4.905	12	222.145	12.848	11.553	
17	134.709	40	26.912	4.901	14	222.234	12.828	11.536	
19	134.669	33	26.919	4.898	16	222.318	12.810	11.520	
21	134.636	25	26.926	4.895	18	222.395	12.793	11.505	
23	134.611	16	+26.932	+4.893	20	222.465	+12.777	+11.490	
25	134.595	11	26.938	4.892	22	222.529	12.763	11.476	
27	134.584	2	26.944	4.892	24	222.588	12.751	11.463	
29	134.582	3	26.950	4.892	26	222.640	12.740	11.452	
31	134.585	10	26.956	4.893	28	222.685	12.730	11.443	
Sept. 2	134.595	18	+26.962	+4.894	30	222.724	+12.721	+11.436	
4	134.613	25	26.968	4.896	April 1	222.757	12.712	11.431	
6	134.638	33	26.973	4.898	3	222.782	12.704	11.427	
8	134.671	41	26.978	4.901	5	222.800	12.697	11.424	
10	134.712	49	26.982	4.905	7	222.812	12.692	11.422	
12	134.761	57	+26.986	+4.910	9	222.818	+12.689	+11.421	
14	134.818	63	26.989	4.915	11	222.818	12.688	11.422	
16	134.881	68	26.992	4.921	13	222.811	12.688	11.424	
18	134.949	76	26.994	4.927	15	222.798	12.689	11.427	
20	135.025	83	26.996	4.934	17	222.778	12.691	11.431	
22	135.108	90	+26.998	+4.942	19	222.752	+12.695	+11.436	
24	135.198	97	27.000	4.950	21	222.719	12.701	11.443	
26	135.295	104	27.003	4.959	23	222.679	12.709	11.451	
28	135.399	111	27.006	4.968	25	222.632	12.719	11.460	
30	135.510	117	27.008	4.978	27	222.579	12.730	11.470	
Okt. 2	135.627	123	+27.010	+4.989	29	222.519	+12.742	+11.481	
4	135.750	129	27.009	5.000	Mai 1	222.453	12.754	11.492	
6	135.879	136	27.008	5.011	3	222.381	12.767	11.504	
8	136.015	142	27.006	5.023	5	222.303	12.782	11.517	
10	136.157	148	27.004	5.035	7	222.220	12.797	11.531	
12	136.305	154	+27.002	+5.048	9	222.132	+12.813	+11.546	
14	136.459	159	27.001	5.061	11	222.039	12.830	11.562	
16	136.618	165	26.999	5.075	13	221.941	12.848	11.580	
18	136.783	172	26.996	5.089	15	221.838	12.867	11.599	
20	136.955		+26.992	+5.104	17	221.731	+12.887	+11.619	

0 <sup>h</sup> Welt-Zeit	JAPETUS			0 <sup>h</sup> Welt-Zeit	JAPETUS		
	<i>U</i>	<i>B</i>	<i>P</i>		<i>U</i>	<i>B</i>	<i>P</i>
1929				1929			
Mai 17	221.731 <sub>111</sub>	+12.887 <sub>21</sub>	+11.619 <sub>21</sub>	Aug. 3	216.698 <sub>77</sub>	+13.936 <sub>19</sub>	+12.500 <sub>13</sub>
19	221.620 <sub>115</sub>	12.908 <sub>22</sub>	11.640 <sub>21</sub>	5	216.621 <sub>71</sub>	13.955 <sub>17</sub>	12.513 <sub>12</sub>
21	221.505 <sub>119</sub>	12.930 <sub>24</sub>	11.661 <sub>22</sub>	7	216.550 <sub>65</sub>	13.972 <sub>16</sub>	12.525 <sub>11</sub>
23	221.386 <sub>122</sub>	12.954 <sub>26</sub>	11.683 <sub>22</sub>	9	216.485 <sub>58</sub>	13.988 <sub>16</sub>	12.536 <sub>10</sub>
25	221.264 <sub>125</sub>	12.980 <sub>28</sub>	11.705 <sub>23</sub>	11	216.427 <sub>52</sub>	14.004 <sub>15</sub>	12.546 <sub>10</sub>
27	221.139 <sub>129</sub>	+13.008 <sub>28</sub>	+11.728 <sub>24</sub>	13	216.375 <sub>46</sub>	+14.019 <sub>14</sub>	+12.556 <sub>9</sub>
29	221.010 <sub>133</sub>	13.036 <sub>28</sub>	11.752 <sub>25</sub>	15	216.329 <sub>41</sub>	14.033 <sub>13</sub>	12.565 <sub>8</sub>
31	220.877 <sub>137</sub>	13.064 <sub>28</sub>	11.777 <sub>26</sub>	17	216.288 <sub>35</sub>	14.046 <sub>12</sub>	12.573 <sub>6</sub>
Juni 2	220.740 <sub>140</sub>	13.092 <sub>28</sub>	11.803 <sub>26</sub>	19	216.253 <sub>28</sub>	14.058 <sub>10</sub>	12.579 <sub>5</sub>
4	220.600 <sub>143</sub>	13.120 <sub>28</sub>	11.829 <sub>24</sub>	21	216.225 <sub>22</sub>	14.068 <sub>8</sub>	12.584 <sub>4</sub>
6	220.457 <sub>145</sub>	+13.148 <sub>28</sub>	+11.853 <sub>26</sub>	23	216.203 <sub>16</sub>	+14.076 <sub>8</sub>	+12.588 <sub>3</sub>
8	220.312 <sub>145</sub>	13.176 <sub>28</sub>	11.879 <sub>26</sub>	25	216.187 <sub>8</sub>	14.084 <sub>7</sub>	12.591 <sub>1</sub>
10	220.167 <sub>147</sub>	13.204 <sub>28</sub>	11.905 <sub>26</sub>	27	216.179 <sub>2</sub>	14.091 <sub>6</sub>	12.592 <sub>1</sub>
12	220.020 <sub>147</sub>	13.232 <sub>29</sub>	11.931 <sub>26</sub>	29	216.177 <sub>4</sub>	14.097 <sub>5</sub>	12.593 <sub>0</sub>
14	219.873 <sub>147</sub>	13.261 <sub>29</sub>	11.957 <sub>26</sub>	31	216.181 <sub>10</sub>	14.102 <sub>4</sub>	12.593 <sub>2</sub>
16	219.726 <sub>147</sub>	+13.290 <sub>30</sub>	+11.983 <sub>26</sub>	Sept. 2	216.191 <sub>18</sub>	+14.106 <sub>2</sub>	+12.591 <sub>3</sub>
18	219.579 <sub>147</sub>	13.320 <sub>30</sub>	12.009 <sub>26</sub>	4	216.209 <sub>24</sub>	14.108 <sub>2</sub>	12.588 <sub>4</sub>
20	219.432 <sub>148</sub>	13.350 <sub>30</sub>	12.035 <sub>26</sub>	6	216.233 <sub>31</sub>	14.110 <sub>2</sub>	12.584 <sub>4</sub>
22	219.284 <sub>148</sub>	13.380 <sub>30</sub>	12.061 <sub>26</sub>	8	216.264 <sub>38</sub>	14.112 <sub>1</sub>	12.580 <sub>5</sub>
24	219.136 <sub>148</sub>	13.410 <sub>30</sub>	12.087 <sub>26</sub>	10	216.302 <sub>45</sub>	14.111 <sub>2</sub>	12.575 <sub>6</sub>
26	218.988 <sub>146</sub>	+13.440 <sub>30</sub>	+12.113 <sub>26</sub>	12	216.347 <sub>52</sub>	+14.109 <sub>2</sub>	+12.569 <sub>7</sub>
28	218.842 <sub>144</sub>	13.470 <sub>30</sub>	12.139 <sub>25</sub>	14	216.399 <sub>57</sub>	14.107 <sub>3</sub>	12.562 <sub>8</sub>
30	218.698 <sub>144</sub>	13.500 <sub>29</sub>	12.164 <sub>24</sub>	16	216.456 <sub>64</sub>	14.104 <sub>5</sub>	12.554 <sub>9</sub>
Juli 2	218.554 <sub>141</sub>	13.529 <sub>29</sub>	12.188 <sub>24</sub>	18	216.520 <sub>70</sub>	14.099 <sub>6</sub>	12.545 <sub>10</sub>
4	218.413 <sub>139</sub>	13.558 <sub>28</sub>	12.212 <sub>23</sub>	20	216.590 <sub>75</sub>	14.093 <sub>8</sub>	12.535 <sub>11</sub>
6	218.274 <sub>138</sub>	+13.586 <sub>28</sub>	+12.235 <sub>22</sub>	22	216.665 <sub>82</sub>	+14.085 <sub>10</sub>	+12.524 <sub>13</sub>
8	218.136 <sub>134</sub>	13.614 <sub>28</sub>	12.257 <sub>22</sub>	24	216.747 <sub>90</sub>	14.075 <sub>11</sub>	12.511 <sub>14</sub>
10	218.002 <sub>131</sub>	13.642 <sub>28</sub>	12.279 <sub>22</sub>	26	216.837 <sub>95</sub>	14.064 <sub>11</sub>	12.497 <sub>15</sub>
12	217.871 <sub>127</sub>	13.670 <sub>27</sub>	12.301 <sub>21</sub>	28	216.932 <sub>101</sub>	14.053 <sub>12</sub>	12.482 <sub>16</sub>
14	217.744 <sub>125</sub>	13.697 <sub>27</sub>	12.322 <sub>21</sub>	30	217.033 <sub>107</sub>	14.041 <sub>13</sub>	12.466 <sub>18</sub>
16	217.619 <sub>121</sub>	+13.724 <sub>26</sub>	+12.343 <sub>20</sub>	Okt. 2	217.140 <sub>112</sub>	+14.028 <sub>14</sub>	+12.448 <sub>18</sub>
18	217.498 <sub>118</sub>	13.750 <sub>26</sub>	12.303 <sub>20</sub>	4	217.252 <sub>118</sub>	14.014 <sub>14</sub>	12.430 <sub>19</sub>
20	217.380 <sub>113</sub>	13.776 <sub>26</sub>	12.383 <sub>19</sub>	6	217.370 <sub>123</sub>	14.000 <sub>15</sub>	12.411 <sub>20</sub>
22	217.267 <sub>107</sub>	13.802 <sub>25</sub>	12.402 <sub>19</sub>	8	217.493 <sub>129</sub>	13.985 <sub>17</sub>	12.391 <sub>21</sub>
24	217.160 <sub>102</sub>	13.827 <sub>23</sub>	12.421 <sub>17</sub>	10	217.622 <sub>135</sub>	13.968 <sub>19</sub>	12.370 <sub>22</sub>
26	217.058 <sub>96</sub>	+13.850 <sub>23</sub>	+12.438 <sub>17</sub>	12	217.757 <sub>140</sub>	+13.949 <sub>20</sub>	+12.348 <sub>23</sub>
28	216.962 <sub>92</sub>	13.873 <sub>22</sub>	12.455 <sub>16</sub>	14	217.897 <sub>145</sub>	13.929 <sub>22</sub>	12.325 <sub>24</sub>
30	216.870 <sub>89</sub>	13.895 <sub>21</sub>	12.471 <sub>15</sub>	16	218.042 <sub>150</sub>	13.907 <sub>24</sub>	12.301 <sub>25</sub>
Aug. 1	216.781 <sub>83</sub>	13.916 <sub>20</sub>	12.486 <sub>14</sub>	18	218.192 <sub>155</sub>	13.883 <sub>24</sub>	12.276 <sub>26</sub>
3	216.698	+13.936	+12.500	20	218.347	+13.859	+12.250



Qh Welt-Zeit	HYPERION		Qh Welt-Zeit	HYPERION		Qh Welt-Zeit	HYPERION	
	$\alpha_{tr} - \alpha_{pl}$	$\delta_{tr} - \delta_{pl}$		$\alpha_{tr} - \alpha_{pl}$	$\delta_{tr} - \delta_{pl}$		$\alpha_{tr} - \alpha_{pl}$	$\delta_{tr} - \delta_{pl}$
1929			1929			1929		
Febr. 28	+13.1 <sup>0</sup> -1.9	- 63 <sup>0</sup> -15	April 8	+12.9 <sup>0</sup> +1.9	+ 28 <sup>0</sup> -28	Mai 17	- 0.7 <sup>0</sup> +5.2	+ 88 <sup>0</sup> - 9
März 1	+11.2 <sup>0</sup> -2.7	- 78 <sup>0</sup> -13	9	+14.8 <sup>0</sup> +0.7	0 <sup>0</sup> -27	18	+ 4.5 <sup>0</sup> +4.8	+ 79 <sup>0</sup> -17
2	+ 8.5 <sup>0</sup> -3.2	- 91 <sup>0</sup> - 7	10	+15.5 <sup>0</sup> -0.6	- 27 <sup>0</sup> -26	19	+ 9.3 <sup>0</sup> +3.7	+ 62 <sup>0</sup> -25
3	+ 5.3 <sup>0</sup> -3.7	- 98 <sup>0</sup> - 2	11	+14.9 <sup>0</sup> -1.7	- 53 <sup>0</sup> -23	20	+13.0 <sup>0</sup> +2.4	+ 37 <sup>0</sup> -29
4	+ 1.6 <sup>0</sup> -3.7	-100 <sup>0</sup> + 6	12	+13.2 <sup>0</sup> -2.6	- 76 <sup>0</sup> -16	21	+15.4 <sup>0</sup> +0.9	+ 8 <sup>0</sup> -29
5	- 2.1 <sup>0</sup> -3.6	- 94 <sup>0</sup> +10	13	+10.6 <sup>0</sup> -3.3	- 92 <sup>0</sup> -10	22	+16.3 <sup>0</sup> -0.3	- 21 <sup>0</sup> -29
6	- 5.7 <sup>0</sup> -3.2	- 84 <sup>0</sup> +17	14	+ 7.3 <sup>0</sup> -3.7	-102 <sup>0</sup> - 4	23	+16.0 <sup>0</sup> -1.5	- 50 <sup>0</sup> -24
7	- 8.9 <sup>0</sup> -2.7	- 67 <sup>0</sup> +22	15	+ 3.6 <sup>0</sup> -4.1	-106 <sup>0</sup> + 2	24	+14.5 <sup>0</sup> -2.6	- 74 <sup>0</sup> -19
8	-11.6 <sup>0</sup> -1.7	- 45 <sup>0</sup> +26	16	- 0.5 <sup>0</sup> -4.0	-104 <sup>0</sup> + 9	25	+11.9 <sup>0</sup> -3.4	- 93 <sup>0</sup> -13
9	-13.3 <sup>0</sup> -0.5	- 19 <sup>0</sup> +26	17	- 4.5 <sup>0</sup> -3.7	- 95 <sup>0</sup> +15	26	+ 8.5 <sup>0</sup> -3.9	-106 <sup>0</sup> - 6
10	-13.8 <sup>0</sup> +0.8	+ 7 <sup>0</sup> +25	18	- 8.2 <sup>0</sup> -3.1	- 80 <sup>0</sup> +22	27	+ 4.6 <sup>0</sup> -4.2	-112 <sup>0</sup> + 1
11	-13.0 <sup>0</sup> +2.1	+ 32 <sup>0</sup> +24	19	-11.3 <sup>0</sup> -2.3	- 58 <sup>0</sup> +26	28	+ 0.4 <sup>0</sup> -4.3	-111 <sup>0</sup> + 8
12	-10.9 <sup>0</sup> +3.4	+ 56 <sup>0</sup> +16	20	-13.6 <sup>0</sup> -1.1	- 32 <sup>0</sup> +29	29	- 3.9 <sup>0</sup> -4.0	-103 <sup>0</sup> +15
13	- 7.5 <sup>0</sup> +4.4	+ 72 <sup>0</sup> + 8	21	-14.7 <sup>0</sup> +0.3	- 3 <sup>0</sup> +29	30	- 7.9 <sup>0</sup> -3.4	- 88 <sup>0</sup> +22
14	- 3.1 <sup>0</sup> +4.6	+ 80 <sup>0</sup> - 3	22	-14.4 <sup>0</sup> +1.7	+ 26 <sup>0</sup> +26	31	-11.3 <sup>0</sup> -2.5	- 66 <sup>0</sup> +27
15	+ 1.5 <sup>0</sup> +4.7	+ 77 <sup>0</sup> -11	23	-12.7 <sup>0</sup> +3.5	+ 52 <sup>0</sup> +20	Juni 1	-13.8 <sup>0</sup> -1.5	- 39 <sup>0</sup> +29
16	+ 6.2 <sup>0</sup> +3.7	+ 66 <sup>0</sup> -19	24	- 9.2 <sup>0</sup> +4.2	+ 72 <sup>0</sup> +12	2	-15.3 <sup>0</sup> 0.0	- 10 <sup>0</sup> +30
17	+ 9.9 <sup>0</sup> +3.0	+ 47 <sup>0</sup> -26	25	- 5.0 <sup>0</sup> +4.9	+ 84 <sup>0</sup> + 1	3	-15.3 <sup>0</sup> +1.6	+ 20 <sup>0</sup> +30
18	+12.9 <sup>0</sup> +1.6	+ 21 <sup>0</sup> -28	26	- 0.1 <sup>0</sup> +5.2	+ 85 <sup>0</sup> - 9	4	-13.7 <sup>0</sup> +3.2	+ 50 <sup>0</sup> +23
19	+14.5 <sup>0</sup> +0.4	- 7 <sup>0</sup> -28	27	+ 5.1 <sup>0</sup> +4.4	+ 76 <sup>0</sup> -19	5	-10.5 <sup>0</sup> +4.3	+ 73 <sup>0</sup> +14
20	+14.9 <sup>0</sup> -0.8	- 35 <sup>0</sup> -22	28	+ 9.5 <sup>0</sup> +3.5	+ 57 <sup>0</sup> -25	6	- 6.2 <sup>0</sup> +5.1	+ 87 <sup>0</sup> + 2
21	+14.1 <sup>0</sup> -1.8	- 57 <sup>0</sup> -19	29	+13.0 <sup>0</sup> +2.2	+ 32 <sup>0</sup> -28	7	- 1.1 <sup>0</sup> +5.4	+ 89 <sup>0</sup> - 7
22	+12.3 <sup>0</sup> -2.7	- 76 <sup>0</sup> -14	30	+15.2 <sup>0</sup> +0.8	+ 4 <sup>0</sup> -28	8	+ 4.3 <sup>0</sup> +4.7	+ 82 <sup>0</sup> -17
23	+ 9.6 <sup>0</sup> -3.3	- 90 <sup>0</sup> -10	Mai 1	+16.0 <sup>0</sup> -0.4	- 24 <sup>0</sup> -26	9	+ 9.0 <sup>0</sup> +3.9	+ 65 <sup>0</sup> -25
24	+ 6.3 <sup>0</sup> -3.6	-100 <sup>0</sup> - 3	2	+15.6 <sup>0</sup> -1.6	- 50 <sup>0</sup> -24	10	+12.9 <sup>0</sup> +2.5	+ 40 <sup>0</sup> -29
25	+ 2.7 <sup>0</sup> -3.9	-103 <sup>0</sup> + 3	3	+14.0 <sup>0</sup> -2.6	- 74 <sup>0</sup> -18	11	+15.4 <sup>0</sup> +1.1	+ 11 <sup>0</sup> -30
26	- 1.2 <sup>0</sup> -3.9	-100 <sup>0</sup> +10	4	+11.4 <sup>0</sup> -3.3	- 92 <sup>0</sup> -12	12	+16.5 <sup>0</sup> -0.3	- 19 <sup>0</sup> -29
27	- 5.1 <sup>0</sup> -3.5	- 90 <sup>0</sup> +17	5	+ 8.1 <sup>0</sup> -3.9	-104 <sup>0</sup> - 5	13	+16.2 <sup>0</sup> -1.4	- 48 <sup>0</sup> -25
28	- 8.6 <sup>0</sup> -2.9	- 73 <sup>0</sup> +22	6	+ 4.2 <sup>0</sup> -4.2	-109 <sup>0</sup> + 1	14	+14.8 <sup>0</sup> -2.5	- 73 <sup>0</sup> -19
29	-11.5 <sup>0</sup> -1.9	- 51 <sup>0</sup> +25	7	0.0 <sup>0</sup> -4.1	-108 <sup>0</sup> + 9	15	+12.3 <sup>0</sup> -3.4	- 92 <sup>0</sup> -14
30	-13.4 <sup>0</sup> -0.8	- 26 <sup>0</sup> +29	8	- 4.1 <sup>0</sup> -3.9	- 99 <sup>0</sup> +15	16	+ 8.9 <sup>0</sup> -3.9	-106 <sup>0</sup> - 7
31	-14.2 <sup>0</sup> +0.5	+ 3 <sup>0</sup> +27	9	- 8.0 <sup>0</sup> -3.3	- 84 <sup>0</sup> +22	17	+ 5.0 <sup>0</sup> -4.2	-113 <sup>0</sup> 0
April 1	-13.7 <sup>0</sup> +2.0	+ 30 <sup>0</sup> +24	10	-11.3 <sup>0</sup> -2.5	- 62 <sup>0</sup> +26	18	+ 0.8 <sup>0</sup> -4.4	-113 <sup>0</sup> + 7
2	-11.7 <sup>0</sup> +3.2	+ 54 <sup>0</sup> +18	11	-13.8 <sup>0</sup> -1.2	- 36 <sup>0</sup> +29	19	- 3.6 <sup>0</sup> -4.2	-106 <sup>0</sup> +14
3	- 8.5 <sup>0</sup> +4.2	+ 72 <sup>0</sup> + 9	12	-15.0 <sup>0</sup> +0.1	- 7 <sup>0</sup> +30	20	- 7.8 <sup>0</sup> -3.5	- 92 <sup>0</sup> +22
4	- 4.3 <sup>0</sup> +4.9	+ 81 <sup>0</sup> + 1	13	-14.9 <sup>0</sup> +1.6	+ 23 <sup>0</sup> +27	21	-11.3 <sup>0</sup> -2.5	- 70 <sup>0</sup> +27
5	+ 0.6 <sup>0</sup> +4.8	+ 82 <sup>0</sup> -11	14	-13.3 <sup>0</sup> +3.2	+ 50 <sup>0</sup> +23	22	-13.8 <sup>0</sup> -1.4	- 43 <sup>0</sup> +30
6	+ 5.4 <sup>0</sup> +4.4	+ 71 <sup>0</sup> -19	15	-10.1 <sup>0</sup> +4.4	+ 73 <sup>0</sup> +12	23	-15.2 <sup>0</sup> -0.2	- 13 <sup>0</sup> +31
7	+ 9.8 <sup>0</sup> +3.1	+ 52 <sup>0</sup> -24	16	- 5.7 <sup>0</sup> +5.0	+ 85 <sup>0</sup> + 3	24	-15.4 <sup>0</sup> +1.5	+ 18 <sup>0</sup> +28
8	+12.9 <sup>0</sup>	+ 28 <sup>0</sup>	17	- 0.7 <sup>0</sup>	+ 88 <sup>0</sup>	25	-13.9 <sup>0</sup>	+ 46 <sup>0</sup>

0 <sup>h</sup> Welt-Zeit	HYPERION		0 <sup>h</sup> Welt-Zeit	HYPERION		0 <sup>h</sup> Welt-Zeit	HYPERION	
	$\alpha_{tr} - \alpha_{pl}$	$\delta_{tr} - \delta_{pl}$		$\alpha_{tr} - \alpha_{pl}$	$\delta_{tr} - \delta_{pl}$		$\alpha_{tr} - \alpha_{pl}$	$\delta_{tr} - \delta_{pl}$
1929			1929			1929		
Juni 25	-13.9 <sup>9</sup>	+46 <sup>9</sup>	Aug. 3	-13.0 <sup>9</sup>	-48 <sup>9</sup>	Sept. II	-1.0 <sup>9</sup>	-103 <sup>9</sup>
26	+3.0	+25	4	-14.6 <sup>6</sup>	-19 <sup>29</sup>	12	-4.8 <sup>3</sup>	-93 <sup>10</sup>
27	+4.3	+15	5	-15.0 <sup>4</sup>	+10 <sup>29</sup>	13	-8.3 <sup>5</sup>	-75 <sup>18</sup>
28	+5.1	+5	6	-13.9 <sup>1</sup>	+38 <sup>28</sup>	14	-11.2 <sup>9</sup>	-56 <sup>19</sup>
29	+4.9	-16	7	-11.4 <sup>5</sup>	+64 <sup>26</sup>	15	-13.2 <sup>0</sup>	-29 <sup>27</sup>
30	+8.7 <sup>3</sup>	+67 <sup>24</sup>	8	-7.5 <sup>9</sup>	+80 <sup>8</sup>	16	-14.1 <sup>5</sup>	-2 <sup>27</sup>
Juli 1	+12.6 <sup>2</sup>	+43 <sup>29</sup>	9	-2.6 <sup>1</sup>	+88 <sup>5</sup>	17	-13.6 <sup>8</sup>	+25 <sup>25</sup>
2	+15.2 <sup>1</sup>	+14 <sup>29</sup>	10	+2.5 <sup>1</sup>	+83 <sup>13</sup>	18	-11.8 <sup>2</sup>	+50 <sup>19</sup>
3	+16.4 <sup>0</sup>	-15 <sup>30</sup>	11	+7.3 <sup>4</sup>	+70 <sup>22</sup>	19	-8.6 <sup>4</sup>	+69 <sup>12</sup>
4	+16.3 <sup>1</sup>	-45 <sup>26</sup>	12	+11.3 <sup>2</sup>	+48 <sup>27</sup>	20	-4.5 <sup>7</sup>	+81 <sup>0</sup>
5	+14.8 <sup>2</sup>	-71 <sup>20</sup>	13	+14.1 <sup>5</sup>	+21 <sup>28</sup>	21	+0.2 <sup>4</sup>	+81 <sup>8</sup>
6	+12.4 <sup>3</sup>	-91 <sup>15</sup>	14	+15.6 <sup>0</sup>	-7 <sup>29</sup>	22	+4.9 <sup>1</sup>	+73 <sup>18</sup>
7	+9.1 <sup>3</sup>	-106 <sup>7</sup>	15	+15.7 <sup>1</sup>	-36 <sup>25</sup>	23	+9.0 <sup>2</sup>	+55 <sup>23</sup>
8	+5.2 <sup>4</sup>	-113 <sup>0</sup>	16	+14.6 <sup>1</sup>	-61 <sup>21</sup>	24	+12.2 <sup>0</sup>	+32 <sup>26</sup>
9	+1.0 <sup>4</sup>	-113 <sup>7</sup>	17	+12.5 <sup>9</sup>	-82 <sup>16</sup>	25	+14.2 <sup>7</sup>	+6 <sup>27</sup>
10	-3.3 <sup>4</sup>	-106 <sup>14</sup>	18	+9.6 <sup>3</sup>	-98 <sup>9</sup>	26	+14.9 <sup>5</sup>	-21 <sup>25</sup>
11	-7.4 <sup>3</sup>	-92 <sup>21</sup>	19	+6.0 <sup>4</sup>	-107 <sup>2</sup>	27	+14.4 <sup>5</sup>	-46 <sup>22</sup>
12	-10.9 <sup>2</sup>	-71 <sup>26</sup>	20	+2.0 <sup>4</sup>	-109 <sup>4</sup>	28	+12.9 <sup>2</sup>	-68 <sup>17</sup>
13	-13.5 <sup>1</sup>	-45 <sup>29</sup>	21	-2.0 <sup>3</sup>	-105 <sup>13</sup>	29	+10.5 <sup>3</sup>	-85 <sup>12</sup>
14	-15.1 <sup>0</sup>	-16 <sup>30</sup>	22	-5.9 <sup>3</sup>	-92 <sup>17</sup>	30	+7.5 <sup>3</sup>	-97 <sup>5</sup>
15	-15.3 <sup>1</sup>	+14 <sup>30</sup>	23	-9.4 <sup>2</sup>	-75 <sup>24</sup>	Okt. I	+4.0 <sup>3</sup>	-102 <sup>1</sup>
16	-13.9 <sup>2</sup>	+44 <sup>24</sup>	24	-12.2 <sup>1</sup>	-51 <sup>27</sup>	2	+0.3 <sup>3</sup>	-101 <sup>7</sup>
17	-11.1 <sup>4</sup>	+68 <sup>17</sup>	25	-14.0 <sup>0</sup>	-24 <sup>29</sup>	3	-3.4 <sup>3</sup>	-94 <sup>14</sup>
18	-7.0 <sup>4</sup>	+85 <sup>5</sup>	26	-14.6 <sup>0</sup>	+5 <sup>28</sup>	4	-6.9 <sup>3</sup>	-80 <sup>20</sup>
19	-2.1 <sup>5</sup>	+90 <sup>5</sup>	27	-13.8 <sup>2</sup>	+33 <sup>24</sup>	5	-9.9 <sup>2</sup>	-60 <sup>23</sup>
20	+3.1 <sup>4</sup>	+85 <sup>16</sup>	28	-11.5 <sup>3</sup>	+57 <sup>19</sup>	6	-12.2 <sup>1</sup>	-37 <sup>27</sup>
21	+8.0 <sup>4</sup>	+69 <sup>24</sup>	29	-8.0 <sup>4</sup>	+76 <sup>8</sup>	7	-13.4 <sup>0</sup>	-10 <sup>27</sup>
22	+12.1 <sup>2</sup>	+45 <sup>29</sup>	30	-3.5 <sup>5</sup>	+84 <sup>1</sup>	8	-13.4 <sup>1</sup>	+17 <sup>25</sup>
23	+14.8 <sup>1</sup>	+16 <sup>29</sup>	31	+1.5 <sup>4</sup>	+83 <sup>12</sup>	9	-12.0 <sup>2</sup>	+42 <sup>21</sup>
24	+16.1 <sup>0</sup>	-13 <sup>28</sup>	Sept. I	+6.2 <sup>4</sup>	+71 <sup>20</sup>	10	-9.3 <sup>3</sup>	+63 <sup>12</sup>
25	+16.1 <sup>1</sup>	-41 <sup>26</sup>	2	+10.3 <sup>3</sup>	+51 <sup>25</sup>	11	-5.6 <sup>4</sup>	+75 <sup>5</sup>
26	+14.8 <sup>2</sup>	-67 <sup>21</sup>	3	+13.3 <sup>1</sup>	+26 <sup>28</sup>	12	-1.2 <sup>4</sup>	+80 <sup>6</sup>
27	+12.4 <sup>3</sup>	-88 <sup>15</sup>	4	+14.9 <sup>0</sup>	-2 <sup>27</sup>	13	+3.4 <sup>4</sup>	+74 <sup>14</sup>
28	+9.3 <sup>3</sup>	-103 <sup>8</sup>	5	+15.2 <sup>0</sup>	-29 <sup>26</sup>	14	+7.6 <sup>3</sup>	+60 <sup>22</sup>
29	+5.6 <sup>4</sup>	-111 <sup>1</sup>	6	+14.4 <sup>1</sup>	-55 <sup>21</sup>	15	+10.9 <sup>2</sup>	+38 <sup>27</sup>
30	+1.4 <sup>4</sup>	-112 <sup>7</sup>	7	+12.6 <sup>2</sup>	-76 <sup>16</sup>	16	+13.2 <sup>1</sup>	+11 <sup>25</sup>
31	-2.8 <sup>4</sup>	-105 <sup>13</sup>	8	+10.0 <sup>3</sup>	-92 <sup>9</sup>	17	+14.3 <sup>0</sup>	-14 <sup>23</sup>
Aug. 1	-6.8 <sup>3</sup>	-92 <sup>19</sup>	9	+6.7 <sup>3</sup>	-101 <sup>5</sup>	18	+14.3 <sup>1</sup>	-37 <sup>22</sup>
2	-10.3 <sup>2</sup>	-73 <sup>25</sup>	10	+2.9 <sup>3</sup>	-106 <sup>3</sup>	19	+13.2 <sup>2</sup>	-59 <sup>18</sup>
3	-13.0 <sup>1</sup>	-48 <sup>25</sup>	11	-1.0 <sup>3</sup>	-103 <sup>3</sup>	20	+11.2 <sup>2</sup>	-77 <sup>18</sup>

0 <sup>h</sup> Welt-Zeit	JAPETUS		0 <sup>h</sup> Welt-Zeit	JAPETUS		0 <sup>h</sup> Welt-Zeit	JAPETUS	
	$\alpha_{tr} - \alpha_{pl}$	$\delta_{tr} - \delta_{pl}$		$\alpha_{tr} - \alpha_{pl}$	$\delta_{tr} - \delta_{pl}$		$\alpha_{tr} - \alpha_{pl}$	$\delta_{tr} - \delta_{pl}$
1929			1929			1929		
Febr. 28	-32.9 <sup>o</sup> <sub>-0.8</sub>	+ 56 <sup>o</sup> <sub>+10</sub>	April 8	+31.7 <sup>o</sup> <sub>+1.1</sub>	- 39 <sup>o</sup> <sub>-11</sub>	Mai 17	-35.6 <sup>o</sup> <sub>-1.1</sub>	+ 47 <sup>o</sup> <sub>+12</sub>
März 1	-33.7 <sup>o</sup> <sub>-0.5</sub>	+ 66 <sup>o</sup> <sub>+ 9</sub>	9	+32.8 <sup>o</sup> <sub>+0.9</sub>	- 50 <sup>o</sup> <sub>-11</sub>	18	-36.7 <sup>o</sup> <sub>-0.9</sub>	+ 59 <sup>o</sup> <sub>+11</sub>
2	-34.2 <sup>o</sup> <sub>-0.3</sub>	+ 75 <sup>o</sup> <sub>+ 9</sub>	10	+33.7 <sup>o</sup> <sub>+0.7</sub>	- 61 <sup>o</sup> <sub>-11</sub>	19	-37.6 <sup>o</sup> <sub>-0.7</sub>	+ 70 <sup>o</sup> <sub>+11</sub>
3	-34.5 <sup>o</sup> <sub>-0.2</sub>	+ 84 <sup>o</sup> <sub>+ 9</sub>	11	+34.4 <sup>o</sup> <sub>+0.6</sub>	- 72 <sup>o</sup> <sub>-11</sub>	20	-38.3 <sup>o</sup> <sub>-0.4</sub>	+ 81 <sup>o</sup> <sub>+11</sub>
4	-34.7 <sup>o</sup> <sub>o.o</sub>	+ 93 <sup>o</sup> <sub>+ 8</sub>	12	+34.8 <sup>o</sup> <sub>+0.2</sub>	- 83 <sup>o</sup> <sub>-10</sub>	21	-38.7 <sup>o</sup> <sub>-0.2</sub>	+ 92 <sup>o</sup> <sub>+10</sub>
5	-34.7 <sup>o</sup> <sub>+0.2</sub>	+101 <sup>o</sup> <sub>+ 8</sub>	13	+35.0 <sup>o</sup> <sub>o.o</sub>	- 93 <sup>o</sup> <sub>- 9</sub>	22	-38.9 <sup>o</sup> <sub>o.o</sub>	+102 <sup>o</sup> <sub>+10</sub>
6	-34.5 <sup>o</sup> <sub>+0.4</sub>	+109 <sup>o</sup> <sub>+ 7</sub>	14	+35.0 <sup>o</sup> <sub>-0.3</sub>	-102 <sup>o</sup> <sub>- 8</sub>	23	-38.9 <sup>o</sup> <sub>+0.2</sub>	+112 <sup>o</sup> <sub>+ 9</sub>
7	-34.1 <sup>o</sup> <sub>+0.6</sub>	+116 <sup>o</sup> <sub>+ 6</sub>	15	+34.7 <sup>o</sup> <sub>-0.6</sub>	-110 <sup>o</sup> <sub>- 8</sub>	24	-38.7 <sup>o</sup> <sub>+0.4</sub>	+121 <sup>o</sup> <sub>+ 9</sub>
8	-33.5 <sup>o</sup> <sub>+0.8</sub>	+122 <sup>o</sup> <sub>+ 6</sub>	16	+34.1 <sup>o</sup> <sub>-0.7</sub>	-118 <sup>o</sup> <sub>- 7</sub>	25	-38.3 <sup>o</sup> <sub>+0.7</sub>	+130 <sup>o</sup> <sub>+ 7</sub>
9	-32.7 <sup>o</sup> <sub>+1.0</sub>	+128 <sup>o</sup> <sub>+ 5</sub>	17	+33.4 <sup>o</sup> <sub>-1.0</sub>	-125 <sup>o</sup> <sub>- 6</sub>	26	-37.6 <sup>o</sup> <sub>+0.9</sub>	+137 <sup>o</sup> <sub>+ 7</sub>
10	-31.7 <sup>o</sup> <sub>+1.2</sub>	+133 <sup>o</sup> <sub>+ 4</sub>	18	+32.4 <sup>o</sup> <sub>-1.3</sub>	-131 <sup>o</sup> <sub>- 6</sub>	27	-36.7 <sup>o</sup> <sub>+1.2</sub>	+144 <sup>o</sup> <sub>+ 6</sub>
11	-30.5 <sup>o</sup> <sub>+1.4</sub>	+137 <sup>o</sup> <sub>+ 3</sub>	19	+31.1 <sup>o</sup> <sub>-1.5</sub>	-137 <sup>o</sup> <sub>- 5</sub>	28	-35.5 <sup>o</sup> <sub>+1.4</sub>	+150 <sup>o</sup> <sub>+ 5</sub>
12	-29.1 <sup>o</sup> <sub>+1.5</sub>	+140 <sup>o</sup> <sub>+ 3</sub>	20	+29.6 <sup>o</sup> <sub>-1.5</sub>	-142 <sup>o</sup> <sub>- 3</sub>	29	-34.1 <sup>o</sup> <sub>+1.6</sub>	+155 <sup>o</sup> <sub>+ 4</sub>
13	-27.6 <sup>o</sup> <sub>+1.6</sub>	+143 <sup>o</sup> <sub>+ 2</sub>	21	+28.1 <sup>o</sup> <sub>-1.8</sub>	-145 <sup>o</sup> <sub>- 2</sub>	30	-32.5 <sup>o</sup> <sub>+1.7</sub>	+159 <sup>o</sup> <sub>+ 3</sub>
14	-26.0 <sup>o</sup> <sub>+1.8</sub>	+145 <sup>o</sup> <sub>+ 1</sub>	22	+26.3 <sup>o</sup> <sub>-2.1</sub>	-147 <sup>o</sup> <sub>- 2</sub>	31	-30.8 <sup>o</sup> <sub>+1.9</sub>	+162 <sup>o</sup> <sub>+ 2</sub>
15	-24.2 <sup>o</sup> <sub>+2.0</sub>	+146 <sup>o</sup> <sub>o</sub>	23	+24.2 <sup>o</sup> <sub>-2.3</sub>	-149 <sup>o</sup> <sub>o</sub>	Juni 1	-28.9 <sup>o</sup> <sub>+2.1</sub>	+164 <sup>o</sup> <sub>+ 2</sub>
16	-22.2 <sup>o</sup> <sub>+2.1</sub>	+146 <sup>o</sup> <sub>- 1</sub>	24	+21.9 <sup>o</sup> <sub>-2.3</sub>	-149 <sup>o</sup> <sub>o</sub>	2	-26.8 <sup>o</sup> <sub>+2.3</sub>	+166 <sup>o</sup> <sub>o</sub>
17	-20.1 <sup>o</sup> <sub>+2.3</sub>	+145 <sup>o</sup> <sub>- 1</sub>	25	+19.6 <sup>o</sup> <sub>-2.5</sub>	-149 <sup>o</sup> <sub>+ 2</sub>	3	-24.5 <sup>o</sup> <sub>+2.5</sub>	+166 <sup>o</sup> <sub>- 1</sub>
18	-17.8 <sup>o</sup> <sub>+2.4</sub>	+144 <sup>o</sup> <sub>- 3</sub>	26	+17.1 <sup>o</sup> <sub>-2.6</sub>	-147 <sup>o</sup> <sub>+ 2</sub>	4	-22.0 <sup>o</sup> <sub>+2.6</sub>	+165 <sup>o</sup> <sub>- 1</sub>
19	-15.4 <sup>o</sup> <sub>+2.4</sub>	+141 <sup>o</sup> <sub>- 3</sub>	27	+14.5 <sup>o</sup> <sub>-2.7</sub>	-145 <sup>o</sup> <sub>+ 3</sub>	5	-19.4 <sup>o</sup> <sub>+2.7</sub>	+164 <sup>o</sup> <sub>- 3</sub>
20	-13.0 <sup>o</sup> <sub>+2.6</sub>	+138 <sup>o</sup> <sub>- 4</sub>	28	+11.8 <sup>o</sup> <sub>-2.9</sub>	-142 <sup>o</sup> <sub>+ 5</sub>	6	-16.7 <sup>o</sup> <sub>+2.8</sub>	+161 <sup>o</sup> <sub>- 4</sub>
21	-10.4 <sup>o</sup> <sub>+2.6</sub>	+134 <sup>o</sup> <sub>- 5</sub>	29	+ 8.9 <sup>o</sup> <sub>-2.9</sub>	-137 <sup>o</sup> <sub>+ 5</sub>	7	-13.9 <sup>o</sup> <sub>+2.9</sub>	+157 <sup>o</sup> <sub>- 5</sub>
22	- 7.8 <sup>o</sup> <sub>+2.6</sub>	+129 <sup>o</sup> <sub>- 6</sub>	30	+ 6.0 <sup>o</sup> <sub>-2.9</sub>	-132 <sup>o</sup> <sub>+ 6</sub>	8	-11.0 <sup>o</sup> <sub>+3.0</sub>	+152 <sup>o</sup> <sub>- 6</sub>
23	- 5.2 <sup>o</sup> <sub>+2.7</sub>	+123 <sup>o</sup> <sub>- 6</sub>	Mai 1	+ 3.1 <sup>o</sup> <sub>-2.9</sub>	-126 <sup>o</sup> <sub>+ 7</sub>	9	- 8.0 <sup>o</sup> <sub>+3.0</sub>	+146 <sup>o</sup> <sub>- 7</sub>
24	- 2.5 <sup>o</sup> <sub>+2.7</sub>	+117 <sup>o</sup> <sub>- 7</sub>	2	+ 0.2 <sup>o</sup> <sub>-3.0</sub>	-119 <sup>o</sup> <sub>+ 8</sub>	10	- 5.0 <sup>o</sup> <sub>+3.1</sub>	+139 <sup>o</sup> <sub>- 8</sub>
25	+ 0.2 <sup>o</sup> <sub>+2.8</sub>	+110 <sup>o</sup> <sub>- 8</sub>	3	- 2.8 <sup>o</sup> <sub>-3.0</sub>	-111 <sup>o</sup> <sub>+ 9</sub>	11	- 1.9 <sup>o</sup> <sub>+3.1</sub>	+131 <sup>o</sup> <sub>- 8</sub>
26	+ 3.0 <sup>o</sup> <sub>+2.8</sub>	+102 <sup>o</sup> <sub>- 8</sub>	4	- 5.8 <sup>o</sup> <sub>-2.9</sub>	-102 <sup>o</sup> <sub>+ 9</sub>	12	+ 1.2 <sup>o</sup> <sub>+3.1</sub>	+123 <sup>o</sup> <sub>- 9</sub>
27	+ 5.8 <sup>o</sup> <sub>+2.7</sub>	+ 94 <sup>o</sup> <sub>- 9</sub>	5	- 8.7 <sup>o</sup> <sub>-2.9</sub>	- 93 <sup>o</sup> <sub>+10</sub>	13	+ 4.3 <sup>o</sup> <sub>+3.0</sub>	+114 <sup>o</sup> <sub>-10</sub>
28	+ 8.5 <sup>o</sup> <sub>+2.6</sub>	+ 85 <sup>o</sup> <sub>-10</sub>	6	-11.6 <sup>o</sup> <sub>-2.8</sub>	- 83 <sup>o</sup> <sub>+10</sub>	14	+ 7.3 <sup>o</sup> <sub>+3.0</sub>	+104 <sup>o</sup> <sub>-11</sub>
29	+11.1 <sup>o</sup> <sub>+2.6</sub>	+ 75 <sup>o</sup> <sub>-10</sub>	7	-14.4 <sup>o</sup> <sub>-2.7</sub>	- 73 <sup>o</sup> <sub>+11</sub>	15	+10.3 <sup>o</sup> <sub>+2.9</sub>	+ 93 <sup>o</sup> <sub>-11</sub>
30	+13.7 <sup>o</sup> <sub>+2.5</sub>	+ 65 <sup>o</sup> <sub>-11</sub>	8	-17.1 <sup>o</sup> <sub>-2.7</sub>	- 62 <sup>o</sup> <sub>+12</sub>	16	+13.2 <sup>o</sup> <sub>+2.8</sub>	+ 82 <sup>o</sup> <sub>-12</sub>
31	+16.2 <sup>o</sup> <sub>+2.5</sub>	+ 54 <sup>o</sup> <sub>-11</sub>	9	-19.8 <sup>o</sup> <sub>-2.5</sub>	- 50 <sup>o</sup> <sub>+12</sub>	17	+16.0 <sup>o</sup> <sub>+2.8</sub>	+ 70 <sup>o</sup> <sub>-13</sub>
April 1	+18.7 <sup>o</sup> <sub>+2.3</sub>	+ 43 <sup>o</sup> <sub>-11</sub>	10	-22.3 <sup>o</sup> <sub>-2.4</sub>	- 38 <sup>o</sup> <sub>+11</sub>	18	+18.8 <sup>o</sup> <sub>+2.6</sub>	+ 57 <sup>o</sup> <sub>-13</sub>
2	+21.0 <sup>o</sup> <sub>+2.2</sub>	+ 32 <sup>o</sup> <sub>-12</sub>	11	-24.7 <sup>o</sup> <sub>-2.3</sub>	- 27 <sup>o</sup> <sub>+12</sub>	19	+21.4 <sup>o</sup> <sub>+2.4</sub>	+ 44 <sup>o</sup> <sub>-13</sub>
3	+23.2 <sup>o</sup> <sub>+2.0</sub>	+ 20 <sup>o</sup> <sub>-12</sub>	12	-27.0 <sup>o</sup> <sub>-2.1</sub>	- 15 <sup>o</sup> <sub>+13</sub>	20	+23.8 <sup>o</sup> <sub>+2.3</sub>	+ 31 <sup>o</sup> <sub>-13</sub>
4	+25.2 <sup>o</sup> <sub>+1.9</sub>	+ 8 <sup>o</sup> <sub>-12</sub>	13	-29.1 <sup>o</sup> <sub>-1.9</sub>	- 2 <sup>o</sup> <sub>+13</sub>	21	+26.1 <sup>o</sup> <sub>+2.1</sub>	+ 18 <sup>o</sup> <sub>-14</sub>
5	+27.1 <sup>o</sup> <sub>+1.7</sub>	- 4 <sup>o</sup> <sub>-12</sub>	14	-31.0 <sup>o</sup> <sub>-1.7</sub>	+ 11 <sup>o</sup> <sub>+12</sub>	22	+28.2 <sup>o</sup> <sub>+1.9</sub>	+ 4 <sup>o</sup> <sub>-14</sub>
6	+28.8 <sup>o</sup> <sub>+1.6</sub>	- 16 <sup>o</sup> <sub>-11</sub>	15	-32.7 <sup>o</sup> <sub>-1.5</sub>	+ 23 <sup>o</sup> <sub>+12</sub>	23	+30.1 <sup>o</sup> <sub>+1.7</sub>	- 10 <sup>o</sup> <sub>-14</sub>
7	+30.4 <sup>o</sup> <sub>+1.3</sub>	- 27 <sup>o</sup> <sub>-12</sub>	16	-34.2 <sup>o</sup> <sub>-1.4</sub>	+ 35 <sup>o</sup> <sub>+12</sub>	24	+31.8 <sup>o</sup> <sub>+1.5</sub>	- 24 <sup>o</sup> <sub>-14</sub>
8	+31.7 <sup>o</sup>	- 39 <sup>o</sup>	17	-35.6 <sup>o</sup>	+ 47 <sup>o</sup>	25	+33.3 <sup>o</sup>	- 38 <sup>o</sup>

0 <sup>h</sup>		JAPETUS		0 <sup>h</sup>		JAPETUS		0 <sup>h</sup>		JAPETUS	
Welt-Zeit		$\alpha_{tr} - \alpha_{pl}$	$\delta_{tr} - \delta_{pl}$	Welt-Zeit		$\alpha_{tr} - \alpha_{pl}$	$\delta_{tr} - \delta_{pl}$	Welt-Zeit		$\alpha_{tr} - \alpha_{pl}$	$\delta_{tr} - \delta_{pl}$
1929			1929			1929			1929		
Juni	25	+33.3 <sup>a</sup> +1.3	-38 <sup>a</sup> -13	Aug.	3	-34.9 <sup>a</sup> -1.0	+48 <sup>a</sup> +12	Sept.	II	+29.6 <sup>a</sup> +1.2	-26 <sup>a</sup> -12
	26	+34.6 <sup>a</sup> +1.0	-51 <sup>a</sup> -13		4	-35.9 <sup>a</sup> -0.8	+60 <sup>a</sup> +12		12	+30.8 <sup>a</sup> +1.0	-38 <sup>a</sup> -12
	27	+35.6 <sup>a</sup> +0.8	-64 <sup>a</sup> -13		5	-36.7 <sup>a</sup> -0.6	+72 <sup>a</sup> +12		13	+31.8 <sup>a</sup> +0.8	-50 <sup>a</sup> -12
	28	+36.4 <sup>a</sup> +0.5	-77 <sup>a</sup> -12		6	-37.3 <sup>a</sup> -0.4	+84 <sup>a</sup> +11		14	+32.6 <sup>a</sup> +0.6	-62 <sup>a</sup> -11
	29	+36.9 <sup>a</sup> +0.2	-89 <sup>a</sup> -11		7	-37.7 <sup>a</sup> -0.2	+95 <sup>a</sup> +10		15	+33.2 <sup>a</sup> +0.3	-73 <sup>a</sup> -11
	30	+37.1 <sup>a</sup> 0.0	-100 <sup>a</sup> -11		8	-37.9 <sup>a</sup> +0.1	+105 <sup>a</sup> +10		16	+33.5 <sup>a</sup> +0.1	-84 <sup>a</sup> -10
Juli	1	+37.1 <sup>a</sup> -0.3	-111 <sup>a</sup> -10		9	-37.8 <sup>a</sup> +0.3	+115 <sup>a</sup> +9		17	+33.6 <sup>a</sup> -0.1	-94 <sup>a</sup> -10
	2	+36.8 <sup>a</sup> -0.6	-121 <sup>a</sup> -9		10	-37.5 <sup>a</sup> +0.5	+124 <sup>a</sup> +9		18	+33.5 <sup>a</sup> -0.3	-104 <sup>a</sup> -9
	3	+36.2 <sup>a</sup> -0.8	-130 <sup>a</sup> -8		11	-37.0 <sup>a</sup> +0.7	+133 <sup>a</sup> +8		19	+33.2 <sup>a</sup> -0.6	-113 <sup>a</sup> -8
	4	+35.4 <sup>a</sup> -1.0	-138 <sup>a</sup> -7		12	-36.3 <sup>a</sup> +0.9	+141 <sup>a</sup> +7		20	+32.6 <sup>a</sup> -0.8	-121 <sup>a</sup> -7
	5	+34.4 <sup>a</sup> -1.3	-145 <sup>a</sup> -6		13	-35.4 <sup>a</sup> +1.1	+148 <sup>a</sup> +6		21	+31.8 <sup>a</sup> -0.9	-128 <sup>a</sup> -6
	6	+33.1 <sup>a</sup> -1.5	-151 <sup>a</sup> -5		14	-34.3 <sup>a</sup> +1.3	+154 <sup>a</sup> +4		22	+30.9 <sup>a</sup> -1.2	-134 <sup>a</sup> -5
	7	+31.6 <sup>a</sup> -1.8	-156 <sup>a</sup> -4		15	-33.0 <sup>a</sup> +1.5	+158 <sup>a</sup> +4		23	+29.7 <sup>a</sup> -1.4	-139 <sup>a</sup> -5
	8	+29.8 <sup>a</sup> -2.0	-160 <sup>a</sup> -3		16	-31.5 <sup>a</sup> +1.7	+162 <sup>a</sup> +3		24	+28.3 <sup>a</sup> -1.6	-144 <sup>a</sup> -3
	9	+27.8 <sup>a</sup> -2.1	-163 <sup>a</sup> -2		17	-29.8 <sup>a</sup> +1.9	+165 <sup>a</sup> +2		25	+26.7 <sup>a</sup> -1.7	-147 <sup>a</sup> -3
	10	+25.7 <sup>a</sup> -2.3	-165 <sup>a</sup> 0		18	-27.9 <sup>a</sup> +2.0	+167 <sup>a</sup> +2		26	+25.0 <sup>a</sup> -1.9	-150 <sup>a</sup> -1
	11	+23.4 <sup>a</sup> -2.5	-165 <sup>a</sup> -1		19	-25.9 <sup>a</sup> +2.2	+169 <sup>a</sup> 0		27	+23.1 <sup>a</sup> -2.0	-151 <sup>a</sup> -1
	12	+20.9 <sup>a</sup> -2.6	-166 <sup>a</sup> +2		20	-23.7 <sup>a</sup> +2.3	+169 <sup>a</sup> -1		28	+21.1 <sup>a</sup> -2.2	-152 <sup>a</sup> +1
	13	+18.3 <sup>a</sup> -2.8	-164 <sup>a</sup> +3		21	-21.4 <sup>a</sup> +2.4	+168 <sup>a</sup> -2		29	+18.9 <sup>a</sup> -2.3	-151 <sup>a</sup> +1
	14	+15.5 <sup>a</sup> -2.9	-161 <sup>a</sup> +4		22	-19.0 <sup>a</sup> +2.5	+166 <sup>a</sup> -3		30	+16.6 <sup>a</sup> -2.4	-150 <sup>a</sup> +3
	15	+12.6 <sup>a</sup> -2.9	-157 <sup>a</sup> +5		23	-16.5 <sup>a</sup> +2.6	+163 <sup>a</sup> -4	Okt.	1	+14.2 <sup>a</sup> -2.5	-147 <sup>a</sup> +3
	16	+9.7 <sup>a</sup> -3.0	-152 <sup>a</sup> +6		24	-13.9 <sup>a</sup> +2.7	+159 <sup>a</sup> -4		2	+11.7 <sup>a</sup> -2.5	-144 <sup>a</sup> +5
	17	+6.7 <sup>a</sup> -3.0	-146 <sup>a</sup> +7		25	-11.2 <sup>a</sup> +2.7	+155 <sup>a</sup> -6		3	+9.2 <sup>a</sup> -2.6	-139 <sup>a</sup> +5
	18	+3.7 <sup>a</sup> -3.1	-139 <sup>a</sup> +8		26	-8.5 <sup>a</sup> +2.8	+149 <sup>a</sup> -7		4	+6.6 <sup>a</sup> -2.6	-134 <sup>a</sup> +6
	19	+0.6 <sup>a</sup> -3.0	-131 <sup>a</sup> +8		27	-5.7 <sup>a</sup> +2.8	+142 <sup>a</sup> -7		5	+4.0 <sup>a</sup> -2.7	-128 <sup>a</sup> +7
	20	-2.4 <sup>a</sup> -3.0	-123 <sup>a</sup> +10		28	-2.9 <sup>a</sup> +2.8	+135 <sup>a</sup> -8		6	+1.3 <sup>a</sup> -2.6	-121 <sup>a</sup> +7
	21	-5.4 <sup>a</sup> -3.0	-113 <sup>a</sup> +10		29	-0.1 <sup>a</sup> +2.8	+127 <sup>a</sup> -9		7	-1.3 <sup>a</sup> -2.6	-114 <sup>a</sup> +8
	22	-8.4 <sup>a</sup> -2.9	-103 <sup>a</sup> +11		30	+2.7 <sup>a</sup> +2.8	+118 <sup>a</sup> -10		8	-3.9 <sup>a</sup> -2.6	-106 <sup>a</sup> +9
	23	-11.3 <sup>a</sup> -2.9	-92 <sup>a</sup> +11		31	+5.5 <sup>a</sup> +2.7	+108 <sup>a</sup> -10		9	-6.5 <sup>a</sup> -2.5	-97 <sup>a</sup> +10
	24	-14.2 <sup>a</sup> -2.8	-81 <sup>a</sup> +12	Sept.	I	+8.2 <sup>a</sup> +2.7	+98 <sup>a</sup> -11		10	-9.0 <sup>a</sup> -2.5	-87 <sup>a</sup> +10
	25	-17.0 <sup>a</sup> -2.6	-69 <sup>a</sup> +12		2	+10.9 <sup>a</sup> +2.6	+87 <sup>a</sup> -12		11	-11.5 <sup>a</sup> -2.4	-77 <sup>a</sup> +10
	26	-19.6 <sup>a</sup> -2.5	-57 <sup>a</sup> +13		3	+13.5 <sup>a</sup> +2.5	+75 <sup>a</sup> -12		12	-13.9 <sup>a</sup> -2.3	-67 <sup>a</sup> +10
	27	-22.1 <sup>a</sup> -2.3	-44 <sup>a</sup> +13		4	+16.0 <sup>a</sup> +2.4	+63 <sup>a</sup> -12		13	-16.2 <sup>a</sup> -2.2	-57 <sup>a</sup> +11
	28	-24.4 <sup>a</sup> -2.2	-31 <sup>a</sup> +13		5	+18.4 <sup>a</sup> +2.3	+51 <sup>a</sup> -12		14	-18.4 <sup>a</sup> -2.1	-46 <sup>a</sup> +11
	29	-26.6 <sup>a</sup> -2.1	-18 <sup>a</sup> +14		6	+20.7 <sup>a</sup> +2.1	+39 <sup>a</sup> -13		15	-20.5 <sup>a</sup> -2.0	-35 <sup>a</sup> +11
	30	-28.7 <sup>a</sup> -1.9	+4 <sup>a</sup> +13		7	+22.8 <sup>a</sup> +2.0	+26 <sup>a</sup> -13		16	-22.5 <sup>a</sup> -1.8	-24 <sup>a</sup> +11
	31	-30.6 <sup>a</sup> -1.6	+9 <sup>a</sup> +13		8	+24.8 <sup>a</sup> +1.8	+13 <sup>a</sup> -13		17	-24.3 <sup>a</sup> -1.7	-13 <sup>a</sup> +12
Aug.	1	-32.2 <sup>a</sup> -1.4	+22 <sup>a</sup> +13		9	+26.6 <sup>a</sup> +1.6	0 <sup>a</sup> -13		18	-26.0 <sup>a</sup> -1.5	-1 <sup>a</sup> +12
	2	-33.6 <sup>a</sup> -1.3	+35 <sup>a</sup> +13		10	+28.2 <sup>a</sup> +1.4	-13 <sup>a</sup> -13		19	-27.5 <sup>a</sup> -1.4	+11 <sup>a</sup> +11
	3	-34.9 <sup>a</sup>	+48 <sup>a</sup>		11	+29.6 <sup>a</sup>	-26 <sup>a</sup>		20	-28.9 <sup>a</sup>	+22 <sup>a</sup>

## Östliche Elongationen (in Welt-Zeit)

### MIMAS

Febr. 28	11.4 <sup>h</sup>	April 14	17.1 <sup>h</sup>	Mai 29	22.6 <sup>h</sup>	Juli 14	4.0 <sup>h</sup>	Aug. 28	9.7 <sup>h</sup>
März 1	10.0	15	15.7	30	21.2	15	2.7	29	8.3
2	8.6	16	14.3	31	19.8	16	1.3	30	7.0
3	7.2	17	12.9	Juni 1	18.5	16	23.9	31	5.6
4	5.8	18	11.5	2	17.1	17	22.5	Sept. 1	4.2
5	4.5	19	10.1	3	15.7	18	21.1	2	2.8
6	3.1	20	8.7	4	14.3	19	19.8	3	1.5
7	1.7	21	7.3	5	12.9	20	18.4	4	0.1
8	0.3	22	6.0	6	11.5	21	17.0	4	22.7
8	23.0	23	4.6	7	10.1	22	15.6	5	21.3
9	21.6	24	3.2	8	8.7	23	14.2	6	20.0
10	20.2	25	1.8	9	7.4	24	12.8	7	18.6
11	18.8	26	0.5	10	6.0	25	11.4	8	17.2
12	17.4	26	23.1	11	4.6	26	10.0	9	15.8
13	16.1	27	21.7	12	3.2	27	8.7	10	14.4
14	14.7	28	20.3	13	1.8	28	7.3	11	13.1
15	13.3	29	18.9	14	0.4	29	5.9	12	11.7
16	11.9	30	17.6	14	23.0	30	4.5	13	10.3
17	10.5	Mai 1	16.2	15	21.6	31	3.2	14	8.9
18	9.1	2	14.8	16	20.3	Aug. 1	1.8	15	7.6
19	7.7	3	13.4	17	18.9	2	0.4	16	6.2
20	6.3	4	12.0	18	17.5	2	23.0	17	4.8
21	5.0	5	10.6	19	16.1	3	21.6	18	3.4
22	3.6	6	9.2	20	14.7	4	20.3	19	2.1
23	2.2	7	7.8	21	13.3	5	18.9	20	0.7
24	0.8	8	6.5	22	11.9	6	17.5	20	23.3
24	23.5	9	5.1	23	10.5	7	16.1	21	21.9
25	22.1	10	3.7	24	9.1	8	14.7	22	20.6
26	20.7	11	2.3	25	7.8	9	13.3	23	19.2
27	19.3	12	0.9	26	6.4	10	11.9	24	17.8
28	17.9	12	23.5	27	5.0	11	10.5	25	16.4
29	16.5	13	22.1	28	3.6	12	9.2	26	15.0
30	15.2	14	20.7	29	2.2	13	7.8	27	13.7
31	13.8	15	19.3	30	0.8	14	6.4	28	12.3
April 1	12.4	16	18.0	30	23.4	15	5.0	29	10.9
2	11.0	17	16.6	Juli 1	22.0	16	3.7	30	9.5
3	9.6	18	15.2	2	20.7	17	2.3	Okt. 1	8.2
4	8.2	19	13.8	3	19.3	18	0.9	2	6.8
5	6.8	20	12.4	4	17.9	18	23.5	3	5.4
6	5.5	21	11.0	5	16.5	19	22.1	4	4.0
7	4.1	22	9.6	6	15.1	20	20.8	5	2.7
8	2.7	23	8.2	7	13.7	21	19.4	6	1.3
9	1.3	24	6.9	8	12.3	22	18.0	6	23.9
10	0.0	25	5.5	9	10.9	23	16.6	7	22.5
10	22.6	26	4.1	10	9.5	24	15.2	8	21.2
11	21.2	27	2.7	11	8.2	25	13.8	9	19.8
12	19.8	28	1.4	12	6.8	26	12.5	10	18.4
13	18.4	29	0.0	13	5.4	27	11.1	11	17.0



## Östliche Elongationen (in Welt-Zeit)

TETHYS		TETHYS		DIONE		DIONE		RHEA				
Mai	16	23.2 <sup>h</sup>	Aug. 15	13.3 <sup>h</sup>	März 16	14.6 <sup>h</sup>	Juli 25	22.3 <sup>h</sup>	April 14	18.0 <sup>h</sup>		
	18	20.5		17		10.6		19		8.3	28	15.9
	20	17.8		19	7.9	22	2.0	31	9.6	23	18.8	
	22	15.1		21	5.2	24	19.7	Aug. 3	3.3	28	7.2	
	24	12.4		23	2.5	27	13.3		5	20.9	Mai 2	19.5
	26	9.7		24	23.8	30	7.0	8	14.6	7		7.9
	28	6.9		26	21.1	April 2	0.7	11	8.3	11	20.2	
	30	4.2		28	18.4		4	18.4	14	2.0	16	8.6
Juni	1	1.5	Sept. 1	15.7	10	5.8	16	19.7	19	13.3	25	9.2
	2	22.8		3		10.4		12		23.4		22
	4	20.1		5	7.7	15	17.1	25	0.7	Juni 3	9.9	
	6	17.4		7	5.0	18	10.8	27	18.4		7	22.2
	8	14.7		9	2.3	21	4.5	30	12.1	12	10.5	
	10	12.0		10	23.6	23	22.1	Sept. 2	5.8	16	22.7	
	12	9.3		12	20.9	26	15.8		4	23.5	21	11.0
	14	6.5		14	18.2	29	9.5	7	17.2	25	23.3	
	16	3.8		16	15.6	Mai 2	3.1	10	10.9	30	11.6	
	18	1.1		18	12.9		4	20.8	13	4.6	Juli 5	0.0
	19	22.4		20	10.2	7	14.5	15	22.3	9		12.3
	21	19.7		22	7.5	10	8.1	18	16.0	14	0.6	
	23	17.0		24	4.8	13	1.8	21	9.7	18	13.0	
	25	14.3		26	2.1	15	19.4	24	3.4	23	1.3	
	27	11.6		27	23.5	18	13.1	26	21.1	27	13.7	
Juli	29	8.8		29	20.8	21	6.7	29	14.9	Aug. 1	2.1	
	1	6.1	Okt. 1	18.1	24	0.4	Okt. 2	8.6	5		14.4	
3	3.4	3		15.5	26	18.0		5	2.3	10	2.8	
	5	0.7	5	12.8	29	11.7	7	20.1	14	15.2		
	8	19.3	7	10.1	Juni 1	5.4	10	13.8	19	3.5		
	10	16.6	9	7.5		3	23.0	13	7.5	23	15.9	
	12	13.9	11	4.8	6	16.7	16	1.3	28	4.3		
	14	11.2	13	2.1	9	10.3	18	19.0	Sept. 1	16.8		
	16	8.4	14	23.4	12	3.9	21	12.7		6	5.2	
	18	5.7	16	20.8	14	21.6	24	6.5	10	17.7		
	20	3.0	18	18.1	17	15.2	27	0.2	15	6.2		
	22	0.3	20	15.4	20	8.8	RHEA		19	18.6		
	23	21.6	22	12.8	23	2.5			24	7.1		
	25	18.9	24	10.1	25	20.1	Febr. 28	13.4 <sup>h</sup>	28	19.6		
	27	16.2	26	7.4	28	13.8		März 5	1.9	Okt. 3	8.1	
	29	13.5	DIONE		Juli 1	7.4	9		14.4		7	20.6
	31	10.8	Febr. 28	4.3 <sup>h</sup>		4	1.1	14	2.8	12	9.1	
Aug.	2	8.1	März 2	22.0	6	18.7	18	15.3	16	21.6		
	4	5.4	5	15.7	9	12.4	23	3.8	21	10.2		
	6	2.7	8	9.4	12	6.0	27	16.2	25	22.7		
	8	0.0	11	3.2	14	23.7	April 1	4.7	30	11.2		
	9	21.3	13	20.9	17	17.3		5	17.1			
	11	18.6			20	11.0	10	5.5				
	13	15.9			23	4.6						

## Elongationen und Konjunktionen (in Welt-Zeit)

TITAN		Aug. 23		6.2 Ob. Konj.		Juli 24		6.8 Östl. El.	
			27		1.1 Östl. El.		30		13.2 Unt. Konj.
März	1	2.6 Ob. Konj.	31		1.8 Unt. Konj.	Aug.	5		7.2 Westl. El.
	4	22.2 Östl. El.	Sept. 4		6.3 Westl. El.		9		16.1 Ob. Konj.
	8	23.9 Unt. Konj.		8	5.0 Ob. Konj.		14		10.4 Östl. El.
	13	3.9 Westl. El.		12	0.0 Östl. El.		20		17.3 Unt. Konj.
	17	2.1 Ob. Konj.		16	0.9 Unt. Konj.		26		11.7 Westl. El.
	20	21.7 Östl. El.		20	5.5 Westl. El.		30		20.7 Ob. Konj.
	24	23.0 Unt. Konj.		24	4.3 Ob. Konj.	Sept.	4		15.4 Östl. El.
	29	3.2 Westl. El.		27	23.4 Östl. El.		10		23.2 Unt. Konj.
April	2	1.2 Ob. Konj.	Okt. 2		0.4 Unt. Konj.		16		17.6 Westl. El.
	5	20.7 Östl. El.		6	5.2 Westl. El.		21		2.7 Ob. Konj.
	9	21.9 Unt. Konj.		10	4.0 Ob. Konj.		25		22.3 Östl. El.
	14	1.9 Westl. El.		13	23.2 Östl. El.	Okt.	2		7.2 Unt. Konj.
	17	23.9 Ob. Konj.		18	0.4 Unt. Konj.		8		1.2 Westl. El.
	21	19.2 Östl. El.		22	5.3 Westl. El.		12		10.1 Ob. Konj.
	25	20.3 Unt. Konj.					17		6.9 Östl. El.
	30	0.2 Westl. El.					23		16.9 Unt. Konj.
HYPERION		März 4		15.6 Unt. Konj.		JAPETUS			
			10		10.9 Westl. El.	März	4		18.7 Westl. El.
			14		19.8 Ob. Konj.		25		12.7 Ob. Konj.
			19		14.3 Östl. El.	April	13		15.1 Östl. El.
			25		21.9 Unt. Konj.	Mai	2		16.0 Unt. Konj.
			31		15.8 Westl. El.		23		0.4 Westl. El.
			April 5		0.4 Ob. Konj.	Juni	12		6.6 Ob. Konj.
			9		19.2 Östl. El.	Juli	1		2.5 Östl. El.
			16		2.5 Unt. Konj.		19		21.4 Unt. Konj.
			21		19.7 Westl. El.	Aug.	9		4.7 Westl. El.
			26		3.9 Ob. Konj.		29		18.3 Ob. Konj.
			30		22.6 Östl. El.	Sept.	17		23.9 Östl. El.
			Mai 7		5.7 Unt. Konj.	Okt.	7		5.8 Unt. Konj.
			12		22.3 Westl. El.				
			17		6.5 Ob. Konj.				
			22		1.1 Östl. El.				
			28		7.7 Unt. Konj.				
			Juni 3		0.3 Westl. El.				
			7		8.6 Ob. Konj.				
			12		2.8 Östl. El.				
			18		9.0 Unt. Konj.				
			24		2.0 Westl. El.				
			28		10.5 Ob. Konj.				
			Juli 3		4.5 Östl. El.				
			9		10.6 Unt. Konj.				
			15		4.2 Westl. El.				
			19		12.9 Ob. Konj.				



Welt-Zeit			Welt-Zeit						
Jan.	1	8 <sup>h</sup>	☉	im Perigäum	April	1	8 <sup>h</sup>	♄ ♂ ☾	
		8	21	♃ ♂ ☾			7	21	♀ ♂ ♁, ♀ 1° 18' S.
		12	6	♀ ♂ ☾			8	23	♁ ♂ ☾
		14	20	♀ ♂ ☾			9	3	♀ ♂ ☾
		16	18	♁ ♂ ☾			9	17	♃ stationär
		18	20	♃ ♂ ☾			10	18	♀ ♂ ☾
		22	8	♁ ♂ ☾			11	16	♃ ♂ ☾
		22	15	♀ gr. östl. El. 18° 35'			15	20	♁ ♂ ☾
		26	23	♃ ♂ ☾			17	16	♀ obere ♂ ☉
		27	10	♁ stationär			18	7	♀ ♂ ♀, ♀ 7° 33' S.
		27	19	♀ im Perihel			18	20	♀ ♂ ☾
		28	17	♀ stationär			20	9	♀ untere ♂ ☉
	Febr.	5	10 <sup>h</sup>	♃ ♂ ☾		Mai	6	11 <sup>h</sup>	♁ ♂ ☾
		7	4	♀ untere ♂ ☉			7	7	♀ ♂ ☾
		7	18	♀ gr. östl. El. 46° 48'			9	—	☉ tot. Finsternis
		8	1	♀ ♂ ♁, ♀ 1° 57' N.			9	8	♀ stationär
		9	3	♀ ♂ ☾			9	13	♃ ♂ ☾
		13	1	♁ ♂ ☾			10	3	♃ stationär
		13	10	♀ ♂ ☾			10	18	♀ ♂ ☽
		15	8	♃ ♂ ☾			14	2	♁ i Aphel
		18	20	♁ ♂ ☾			14	3	♁ ♂ ☾
		19	2	♀ stationär			14	13	♃ ♂ ☉
		19	3	♃ ♂ ☉			15	18	♀ gr. östl. El. 21° 57'
		23	8	♃ ♂ ☾			16	1	♃ ♂ ☾
März		2	13 <sup>h</sup>	♀ im Perihel			25	19	♃ ♂ ☾
		4	22	♃ ♂ ☾		26	9	♀ im gr. Glanze	
		5	0	♀ gr. westl. El. 27° 14'		28	14	♀ stationär	
		9	1	♀ ♂ ☾	Juni	2	23 <sup>h</sup>	♁ ♂ ☾	
		12	11	♁ ♂ ☾			4	12	♀ ♂ ☾
		12	19	♀ im Aphel			6	10	♃ ♂ ☾
		14	8	♀ ♂ ☾			7	19	♀ ♂ ☾
		14	22	♃ ♂ ☾			8	18	♀ im Aphel
		15	1	♀ im gr. Glanze			9	11	♀ untere ♂ ☉
		18	17	♁ ♂ ☾			11	13	♁ ♂ ☾
		21	3	Frühlingsanfang			12	8	♃ ♂ ☾
		22	15	♃ ♂ ☾			19	0	♃ ♂ ☉
		28	12	♁ ♂ ☉			21	9	♀ stationär
	29	10	♀ stationär			21	22	♃ ♂ ☾	
						21	22	Sommersanfang	
						22	21	♀ im Aphel	
					29	9	♀ gr. westl. El. 45° 45'		
					30	8	♁ ♂ ☾		

Welt-Zeit			Welt-Zeit				
Juli	3	0 <sup>h</sup>	♂♂Ψ, ♂♂° 35' N.	Okt.	3	2 <sup>h</sup>	♁♂☉
	3	7	♀gr. westl. El. 21° 37'		3	13	♀♂☾
	3	17	♀♂☾		4	8	♂♂☾
	4	7	♃♂☾		5	11	♃ stationär
	4	22	☉ im Apogäum		8	6	♀ untere ♂☉
	5	10	♀♂☾		8	23	♁♂☾
	9	19	♂♂☾		13	4	♀ im Perihel
	10	1	♂♂☾		16	15	♀ stationär
	14	10	♀♂♃, ♀ 2° 16' S.		17	6	♁♂☾
	17	13	♁ stationär		18	17	♀ im Perihel
	19	0	♁♂☾		22	4	♃♂☾
	22	18	♀ im Perihel		23	19	♀gr. westl. El. 18° 23'
	27	15	♁♂☾		27	12	♂♂☾
	31	4	♀ obere ♂☉		30	12	♀♂☾
			31	4	♀♂☾		
Aug.	1	0 <sup>h</sup>	♃♂☾	Nov.	1	— <sup>b</sup>	☉ ringf. Finsternis
	2	3	♀♂☾		2	7	♂♂☾
	5	12	♀♂☾		5	11	♁♂☾
	6	6	♂♂☾		11	—	♁ im Aphel
	7	17	♂♂☾		13	14	♁♂☾
	11	19	♀♂♂, ♀♂° 57' N.		18	9	♃♂☾
	15	5	♁♂☾		23	18	♂♂☾
	23	19	♁♂☾		27	14	♀ obere ♂☉
	24	20	♂♂☉		29	15	♀♂♂, ♀♂° 31' S.
	28	14	♃♂☾		29	19	♀♂☾
	29	3	♁ stationär				
31	16	♀♂☾					
Sept.	2	18 <sup>h</sup>	♂♂☾	Dez.	1	7 <sup>h</sup>	♂♂☾
	4	17	♀ im Aphel		1	10	♀♂☾
	5	7	♀♂☾		1	17	♀ im Aphel
	5	11	♂♂☾		3	0	♁♂☾
	10	8	♀♂♂, ♀ 2° 55' S.		3	8	♂♂☉
	11	12	♁♂☾		3	23	♃♂☉
	12	17	♀gr. östl. El. 26° 48'		6	16	♂ stationär
	20	0	♁♂☾		10	23	♁♂☾
	23	13	Herbstanfang		14	16	♀♂♁, ♀ 2° 50' S.
	23	23	♀♂♂, ♀ 4° 20' S.		15	14	♃♂☾
	24	23	♃♂☾		17	14	♁ stationär
	25	17	♀ stationär		21	1	♂♂☾
	27	12	♀♂♂, ♀♂° 18' N.		22	8	Wintersanfang
30	4	♂♂☾	25	4	♁♂☉		
30	10	♀♂☾	30	3	♀♂☾		
			30	7	♂♂☾		
			30	13	♁♂☾		

## Präzession in Rektaszension ( $p_\alpha$ ) und Deklination ( $p_\delta$ )

$\alpha \setminus \delta$	$p_\alpha$												$p_\delta$	
	+60°	+50°	+40°	+30°	+20°	+10°	0°	-10°	-20°	-30°	-40°	-50°		-60°
0 <sup>h</sup>	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	+20.0
1	3.67	3.48	3.36	3.27	3.20	3.13	3.07	3.01	2.95	2.87	2.78	2.66	2.47	+19.4
2	4.23	3.87	3.63	3.46	3.32	3.19	3.07	2.95	2.83	2.69	2.51	2.28	1.92	+17.4
3	4.71	4.20	3.87	3.62	3.42	3.24	3.07	2.91	2.73	2.53	2.28	1.95	1.44	+14.2
4	5.08	4.45	4.04	3.74	3.49	3.28	3.07	2.87	2.65	2.41	2.10	1.69	1.07	+10.0
5	5.31	4.61	4.16	3.82	3.54	3.30	3.07	2.84	2.60	2.33	1.99	1.53	0.84	+ 5.2
6	5.39	4.67	4.19	3.84	3.56	3.31	3.07	2.84	2.59	2.30	1.95	1.48	0.76	0.0
7	5.31	4.61	4.16	3.82	3.54	3.30	3.07	2.84	2.60	2.33	1.99	1.53	0.84	- 5.2
8	5.08	4.45	4.04	3.74	3.49	3.28	3.07	2.87	2.65	2.41	2.10	1.69	1.07	-10.0
9	4.71	4.20	3.87	3.62	3.42	3.24	3.07	2.91	2.73	2.53	2.28	1.95	1.44	-14.2
10	4.23	3.87	3.63	3.46	3.32	3.19	3.07	2.95	2.83	2.69	2.51	2.28	1.92	-17.4
11	3.67	3.48	3.36	3.27	3.20	3.13	3.07	3.01	2.95	2.87	2.78	2.66	2.47	-19.4
12	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	-20.0
13	2.47	2.66	2.78	2.87	2.95	3.01	3.07	3.13	3.20	3.27	3.36	3.48	3.67	-19.4
14	1.92	2.28	2.51	2.69	2.83	2.95	3.07	3.19	3.32	3.46	3.63	3.87	4.23	-17.4
15	1.44	1.95	2.28	2.53	2.73	2.91	3.07	3.24	3.42	3.62	3.87	4.20	4.71	-14.2
16	1.07	1.69	2.10	2.41	2.65	2.87	3.07	3.28	3.49	3.74	4.04	4.45	5.08	-10.0
17	0.84	1.53	1.99	2.33	2.60	2.84	3.07	3.30	3.54	3.82	4.16	4.61	5.31	- 5.2
18	0.76	1.48	1.95	2.30	2.59	2.84	3.07	3.31	3.56	3.84	4.19	4.67	5.39	0.0
19	0.84	1.53	1.99	2.33	2.60	2.84	3.07	3.30	3.54	3.82	4.16	4.61	5.31	+ 5.2
20	1.07	1.69	2.10	2.41	2.65	2.87	3.07	3.28	3.49	3.74	4.04	4.45	5.08	+10.0
21	1.44	1.95	2.28	2.53	2.73	2.91	3.07	3.24	3.42	3.62	3.87	4.20	4.71	+14.2
22	1.92	2.28	2.51	2.69	2.83	2.95	3.07	3.19	3.32	3.46	3.63	3.87	4.23	+17.4
23	2.47	2.66	2.78	2.87	2.95	3.01	3.07	3.13	3.20	3.27	3.36	3.48	3.67	+19.4
24	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	+20.0

## Präzessionswerte und Schiefe der Ekliptik

Zeit	$m$	$n$	$\psi$	$\log \pi$	$\Pi$	$\epsilon$
1900.0	3.07233	20.0468	50.2564	9.67309	173° 57.06	23° 27' 8.26
1905.0	3.07243	20.0464	50.2575	9.67305	173 59.80	23 27 5.92
1910.0	3.07252	20.0460	50.2586	9.67302	174 2.53	23 27 3.58
1915.0	3.07261	20.0456	50.2597	9.67299	174 5.27	23 27 1.23
1920.0	3.07271	20.0451	50.2608	9.67296	174 8.01	23 26 58.89
1925.0	3.07280	20.0447	50.2620	9.67293	174 10.75	23 26 56.55
1930.0	3.07289	20.0443	50.2631	9.67290	174 13.49	23 26 54.21
1935.0	3.07299	20.0438	50.2642	9.67287	174 16.23	23 26 51.87
1940.0	3.07308	20.0434	50.2653	9.67284	174 18.97	23 26 49.52
1945.0	3.07317	20.0430	50.2664	9.67281	174 21.71	23 26 47.18
1950.0	3.07327	20.0426	50.2675	9.67278	174 24.45	23 26 44.84

Präzession in Länge $p_\lambda$											Präz. in Br. $p_\beta$	
Länge $\lambda$	Breite $\beta$										Länge $\lambda$	Präzession $p_\beta$
	0°	+1°	+2°	+3°	+4°	+5°	+6°	+7°	+8°	+9°		
0°	50.262	.254	.245	.237	.229	50.221	.213	.205	.196	.188	0°	+0.048
10	.262	.254	.246	.238	.230	.222	.214	.206	.198	.190	10	+0.128
20	.262	.255	.247	.240	.232	.225	.217	.210	.202	.195	20	+0.205
30	.262	.255	.249	.242	.235	.229	.222	.215	.208	.202	30	+0.275
40	50.262	.256	.251	.245	.239	50.233	.227	.221	.216	.210	40	+0.338
50	.262	.257	.253	.248	.243	.239	.234	.229	.225	.220	50	+0.390
60	.262	.259	.255	.252	.249	.245	.242	.238	.235	.231	60	+0.430
70	.262	.260	.258	.256	.254	.252	.250	.248	.246	.244	70	+0.456
80	50.262	.261	.261	.260	.259	50.259	.258	.258	.257	.257	80	+0.470
90	.262	.263	.263	.264	.265	.266	.267	.268	.269	.270	90	+0.469
100	.262	.264	.267	.269	.271	.273	.275	.277	.280	.282	100	+0.453
110	.262	.266	.269	.273	.277	.280	.284	.287	.291	.294	110	+0.424
120	50.262	.267	.271	.276	.281	50.286	.291	.296	.301	.306	120	+0.382
130	.262	.268	.274	.280	.286	.292	.298	.304	.310	.316	130	+0.328
140	.262	.269	.275	.282	.289	.296	.303	.310	.317	.324	140	+0.265
150	.262	.270	.277	.285	.292	.300	.307	.315	.322	.330	150	+0.193
160	50.262	.270	.278	.286	.294	50.302	.310	.318	.326	.334	160	+0.116
170	.262	.270	.279	.287	.295	.303	.311	.319	.328	.336	170	+0.035
180	.262	.270	.279	.287	.295	.303	.311	.319	.328	.336	180	-0.048
190	.262	.270	.278	.286	.294	.302	.310	.318	.326	.334	190	-0.128
200	50.262	.269	.277	.284	.292	50.299	.307	.314	.322	.329	200	-0.205
210	.262	.269	.275	.282	.289	.295	.302	.309	.316	.322	210	-0.275
220	.262	.268	.273	.279	.285	.291	.297	.303	.308	.314	220	-0.338
230	.262	.267	.271	.276	.281	.285	.290	.295	.299	.304	230	-0.390
240	50.262	.265	.269	.272	.275	50.279	.282	.286	.289	.293	240	-0.430
250	.262	.264	.266	.268	.270	.272	.274	.276	.278	.280	250	-0.456
260	.262	.263	.263	.264	.265	.265	.266	.266	.267	.267	260	-0.470
270	.262	.261	.261	.260	.259	.258	.257	.256	.255	.254	270	-0.469
280	50.262	.260	.257	.255	.253	50.251	.249	.247	.244	.242	280	-0.453
290	.262	.258	.255	.251	.247	.244	.240	.237	.233	.230	290	-0.424
300	.262	.257	.253	.248	.243	.238	.233	.228	.223	.218	300	-0.382
310	.262	.256	.250	.244	.238	.232	.226	.220	.214	.208	310	-0.328
320	50.262	.255	.249	.242	.235	50.228	.221	.214	.207	.200	320	-0.265
330	.262	.254	.247	.239	.232	.224	.217	.209	.202	.194	330	-0.193
340	.262	.254	.246	.238	.230	.222	.214	.206	.198	.190	340	-0.116
350	.262	.254	.245	.237	.229	.221	.213	.205	.196	.188	350	-0.035
360	50.262	.254	.245	.237	.229	50.221	.213	.205	.196	.188	360	+0.048

Präzession in Länge $p_\lambda$											Präz. in Br. $p_\beta$	
Länge $\lambda$	Breite $\beta$										Länge $\lambda$	Präzession $p_\beta$
	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°		
0°	50.262	.270	.279	.287	.295	50.303	.311	.319	.328	.336	0°	+0.048 <sup>80</sup>
10	.262	.270	.278	.286	.294	.302	.310	.318	.326	.334	10	+0.128 <sup>77</sup>
20	.262	.269	.277	.284	.292	.299	.307	.314	.322	.329	20	+0.205 <sup>70</sup>
30	.262	.269	.275	.282	.289	.295	.302	.309	.316	.322	30	+0.275 <sup>63</sup>
40	50.262	.268	.273	.279	.285	50.291	.297	.303	.308	.314	40	+0.338 <sup>52</sup>
50	.262	.267	.271	.276	.281	.285	.290	.295	.299	.304	50	+0.390 <sup>40</sup>
60	.262	.265	.269	.272	.275	.279	.282	.286	.289	.293	60	+0.430 <sup>26</sup>
70	.262	.264	.266	.268	.270	.272	.274	.276	.278	.280	70	+0.456 <sup>14</sup>
80	50.262	.263	.263	.264	.265	50.265	.266	.266	.267	.267	80	+0.470 <sup>1</sup>
90	.262	.261	.261	.260	.259	.258	.257	.256	.255	.254	90	+0.469 <sup>16</sup>
100	.262	.260	.257	.255	.253	.251	.249	.247	.244	.242	100	+0.453 <sup>29</sup>
110	.262	.258	.255	.251	.247	.244	.240	.237	.233	.230	110	+0.424 <sup>42</sup>
120	50.262	.257	.253	.248	.243	50.238	.233	.228	.223	.218	120	+0.382 <sup>54</sup>
130	.262	.256	.250	.244	.238	.232	.226	.220	.214	.208	130	+0.328 <sup>63</sup>
140	.262	.255	.249	.242	.235	.228	.221	.214	.207	.200	140	+0.265 <sup>72</sup>
150	.262	.254	.247	.239	.232	.224	.217	.209	.202	.194	150	+0.193 <sup>77</sup>
160	50.262	.254	.246	.238	.230	50.222	.214	.206	.198	.190	160	+0.116 <sup>81</sup>
170	.262	.254	.245	.237	.229	.221	.213	.205	.196	.188	170	+0.035 <sup>83</sup>
180	.262	.254	.245	.237	.229	.221	.213	.205	.196	.188	180	-0.048 <sup>80</sup>
190	.262	.254	.246	.238	.230	.222	.214	.206	.198	.190	190	-0.128 <sup>77</sup>
200	50.262	.255	.247	.240	.232	50.225	.217	.210	.202	.195	200	-0.205 <sup>70</sup>
210	.262	.255	.249	.242	.235	.229	.222	.215	.208	.202	210	-0.275 <sup>63</sup>
220	.262	.256	.251	.245	.239	.233	.227	.221	.216	.210	220	-0.338 <sup>52</sup>
230	.262	.257	.253	.248	.243	.239	.234	.229	.225	.220	230	-0.390 <sup>40</sup>
240	50.262	.259	.255	.252	.249	50.245	.242	.238	.235	.231	240	-0.430 <sup>26</sup>
250	.262	.260	.258	.256	.254	.252	.250	.248	.246	.244	250	-0.456 <sup>14</sup>
260	.262	.261	.261	.260	.259	.259	.258	.258	.257	.257	260	-0.470 <sup>1</sup>
270	.262	.263	.263	.264	.265	.266	.267	.268	.269	.270	270	-0.469 <sup>16</sup>
280	50.262	.264	.267	.269	.271	50.273	.275	.277	.280	.282	280	-0.453 <sup>29</sup>
290	.262	.266	.269	.273	.277	.280	.284	.287	.291	.294	290	-0.424 <sup>42</sup>
300	.262	.267	.271	.276	.281	.286	.291	.296	.301	.306	300	-0.382 <sup>54</sup>
310	.262	.268	.274	.280	.286	.292	.298	.304	.310	.316	310	-0.328 <sup>63</sup>
320	50.262	.269	.275	.282	.289	50.296	.303	.310	.317	.324	320	-0.265 <sup>72</sup>
330	.262	.270	.277	.285	.292	.300	.307	.315	.322	.330	330	-0.193 <sup>77</sup>
340	.262	.270	.278	.286	.294	.302	.310	.318	.326	.334	340	-0.116 <sup>81</sup>
350	.262	.270	.279	.287	.295	.303	.311	.319	.328	.336	350	-0.035 <sup>83</sup>
360	50.262	.270	.279	.287	.295	50.303	.311	.319	.328	.336	360	+0.048

$\delta \setminus \varphi$	+30°	+32°	+34°	+36°	+38°	+40°	+42°	+44°	+46°	+48°	+50°
—30	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
29	4 45.4	4 38.8	4 31.8	4 24.4	4 16.5	4 8.1	3 58.9	3 48.9	3 37.9	3 25.7	3 11.8
30	4 48.6	4 42.3	4 35.6	4 28.6	4 21.1	4 13.0	4 4.3	3 54.9	3 44.5	3 33.0	3 20.1
28	4 51.7	4 45.7	4 39.3	4 32.6	4 25.5	4 17.8	4 9.6	4 0.7	3 50.9	3 40.1	3 28.0
27	4 54.7	4 49.0	4 42.9	4 36.5	4 29.8	4 22.5	4 14.7	4 6.2	3 57.0	3 46.9	3 35.5
26	4 57.7	4 52.2	4 46.5	4 40.4	4 33.9	4 27.1	4 19.7	4 11.7	4 3.0	3 53.4	3 42.8
25	5 0.6	4 55.4	4 49.9	4 44.2	4 38.0	4 31.5	4 24.5	4 16.9	4 8.7	3 59.7	3 49.7
24	5 3.5	4 58.5	4 53.3	4 47.8	4 42.0	4 35.8	4 29.2	4 22.0	4 14.3	4 5.8	3 56.5
23	5 6.3	5 1.6	4 56.6	4 51.4	4 45.9	4 40.1	4 33.8	4 27.0	4 19.7	4 11.8	4 3.0
22	5 9.0	5 4.6	4 59.9	4 55.0	4 49.7	4 44.2	4 38.3	4 31.9	4 25.0	4 17.5	4 9.3
21	5 11.7	5 7.5	5 3.1	4 58.4	4 53.5	4 48.3	4 42.7	4 36.7	4 30.2	4 23.2	4 15.4
—20	5 14.4	5 10.4	5 6.2	5 1.8	4 57.2	4 52.3	4 47.0	4 41.3	4 35.3	4 28.7	4 21.4
19	5 17.0	5 13.3	5 9.3	5 5.2	5 0.8	4 56.2	4 51.2	4 45.9	4 40.2	4 34.0	4 27.3
18	5 19.6	5 16.1	5 12.4	5 8.5	5 4.4	5 0.0	4 55.4	4 50.4	4 45.1	4 39.3	4 33.0
17	5 22.2	5 18.9	5 15.4	5 11.7	5 7.9	5 3.8	4 55.4	4 54.9	4 49.9	4 44.5	4 38.6
16	5 24.7	5 21.6	5 18.4	5 14.9	5 11.4	5 7.5	5 3.5	4 59.2	4 54.6	4 49.5	4 44.1
15	5 27.2	5 24.3	5 21.3	5 18.1	5 14.8	5 11.2	5 7.5	5 3.5	4 59.2	4 54.5	4 49.5
14	5 29.7	5 27.0	5 24.2	5 21.3	5 18.2	5 14.9	5 11.4	5 7.7	5 3.7	4 59.5	4 54.8
13	5 32.1	5 29.7	5 27.1	5 24.4	5 21.5	5 18.5	5 15.3	5 11.9	5 8.2	5 4.3	5 0.0
12	5 34.6	5 32.3	5 29.9	5 27.4	5 24.8	5 22.1	5 19.1	5 16.0	5 12.6	5 9.0	5 5.1
11	5 37.0	5 34.9	5 32.7	5 30.5	5 28.1	5 25.6	5 22.9	5 20.1	5 17.0	5 13.7	5 10.2
—10	5 39.4	5 37.5	5 35.5	5 33.5	5 31.3	5 29.1	5 26.7	5 24.1	5 21.4	5 18.4	5 15.2
—9	5 41.7	5 40.1	5 38.3	5 36.5	5 34.6	5 32.5	5 30.4	5 28.1	5 25.7	5 23.0	5 20.2
8	5 44.1	5 42.6	5 41.1	5 39.5	5 37.8	5 36.0	5 34.1	5 32.1	5 29.9	5 27.6	5 25.1
7	5 46.4	5 45.2	5 43.8	5 42.4	5 41.0	5 39.4	5 37.8	5 36.0	5 34.2	5 32.2	5 30.0
6	5 48.8	5 47.7	5 46.6	5 45.4	5 44.1	5 42.8	5 41.4	5 40.0	5 38.4	5 36.7	5 34.9
5	5 51.1	5 50.2	5 49.3	5 48.3	5 47.3	5 46.2	5 45.1	5 43.9	5 42.6	5 41.2	5 39.7
4	5 53.4	5 52.7	5 52.0	5 51.2	5 50.4	5 49.6	5 48.7	5 47.8	5 46.8	5 45.7	5 44.5
3	5 55.8	5 55.2	5 54.7	5 54.1	5 53.6	5 53.0	5 52.3	5 51.6	5 50.9	5 50.1	5 49.3
2	5 58.1	5 57.7	5 57.4	5 57.1	5 56.7	5 56.3	5 55.9	5 55.5	5 55.1	5 54.6	5 54.1
—1	6 0.4	6 0.2	6 0.1	6 0.0	5 59.8	5 59.7	5 59.5	5 59.4	5 59.2	5 59.0	5 58.9
0	6 2.7	6 2.7	6 2.8	6 2.9	6 2.9	6 3.0	6 3.1	6 3.2	6 3.4	6 3.5	6 3.6
+1	6 5.0	6 5.2	6 5.5	6 5.8	6 6.1	6 6.4	6 6.7	6 7.1	6 7.5	6 7.9	6 8.4
2	6 7.3	6 7.7	6 8.2	6 8.7	6 9.2	6 9.8	6 10.3	6 11.0	6 11.6	6 12.4	6 13.2
3	6 9.6	6 10.3	6 10.9	6 11.6	6 12.3	6 13.1	6 14.0	6 14.8	6 15.8	6 16.8	6 18.0
4	6 11.9	6 12.8	6 13.6	6 14.5	6 15.5	6 16.5	6 17.6	6 18.7	6 20.0	6 21.3	6 22.8
5	6 14.3	6 15.3	6 16.4	6 17.5	6 18.6	6 19.9	6 21.2	6 22.6	6 24.2	6 25.8	6 27.6
6	6 16.6	6 17.8	6 19.1	6 20.4	6 21.8	6 23.3	6 24.9	6 26.6	6 28.4	6 30.4	6 32.5
7	6 19.0	6 20.4	6 21.8	6 23.4	6 25.0	6 26.7	6 28.6	6 30.5	6 32.6	6 34.9	6 37.4
8	6 21.3	6 22.9	6 24.6	6 26.4	6 28.2	6 30.2	6 32.3	6 34.5	6 36.9	6 39.5	6 42.3
9	6 23.7	6 25.5	6 27.4	6 29.4	6 31.4	6 33.7	6 36.0	6 38.5	6 41.2	6 44.1	6 47.3
10	6 26.1	6 28.1	6 30.2	6 32.4	6 34.7	6 37.2	6 39.8	6 42.5	6 45.6	6 48.8	6 52.3
+11	6 28.5	6 30.7	6 33.0	6 35.4	6 38.0	6 40.7	6 43.6	6 46.6	6 49.9	6 53.5	6 57.4
12	6 31.0	6 33.4	6 35.9	6 38.5	6 41.3	6 44.3	6 47.4	6 50.8	6 54.4	6 58.3	7 2.5
13	6 33.4	6 36.0	6 38.8	6 41.6	6 44.7	6 47.9	6 51.3	6 54.9	6 58.9	7 3.1	7 7.8
14	6 35.9	6 38.7	6 41.7	6 44.8	6 48.0	6 51.5	6 55.2	6 59.2	7 3.4	7 8.0	7 13.1
15	6 38.4	6 41.4	6 44.6	6 47.9	6 51.5	6 55.2	6 59.2	7 3.5	7 8.1	7 13.0	7 18.5
16	6 41.0	6 44.2	6 47.6	6 51.2	6 54.9	6 58.9	7 3.2	7 7.8	7 12.7	7 18.1	7 23.9
17	6 43.5	6 47.0	6 50.6	6 54.4	6 58.5	7 2.7	7 7.3	7 12.2	7 17.5	7 23.3	7 29.5
18	6 46.1	6 49.8	6 53.7	6 57.7	7 2.0	7 6.6	7 11.5	7 16.7	7 22.4	7 28.5	7 35.3
19	6 48.8	6 52.7	6 56.8	7 1.1	7 5.7	7 10.5	7 15.7	7 21.3	7 27.4	7 33.9	7 41.1
20	6 51.5	6 55.6	6 59.9	7 4.5	7 9.4	7 14.5	7 20.1	7 26.0	7 32.4	7 39.4	7 47.1
+21	6 54.2	6 58.6	7 3.1	7 8.0	7 13.1	7 18.6	7 24.5	7 30.8	7 37.6	7 45.1	7 53.3
22	6 56.9	7 1.6	7 6.4	7 11.5	7 17.0	7 22.8	7 29.0	7 35.7	7 42.9	7 50.9	7 59.6
23	6 59.8	7 4.6	7 9.7	7 15.1	7 20.9	7 27.0	7 33.6	7 40.7	7 48.4	7 56.8	8 6.1
24	7 2.6	7 7.7	7 13.1	7 18.8	7 24.9	7 31.3	7 38.3	7 45.8	7 54.0	8 2.9	8 12.9
25	7 5.6	7 10.9	7 16.6	7 22.6	7 29.0	7 35.8	7 43.1	7 51.1	7 59.8	8 9.3	8 19.9
26	7 8.5	7 14.2	7 20.1	7 26.4	7 33.2	7 40.4	7 48.1	7 56.5	8 5.7	8 15.8	8 27.1
27	7 11.6	7 17.5	7 23.8	7 30.4	7 37.5	7 45.0	7 53.2	8 2.1	8 11.8	8 22.6	8 34.7
28	7 14.7	7 20.9	7 27.5	7 34.4	7 41.9	7 49.9	7 58.5	8 7.9	8 18.2	8 29.7	8 42.6
29	7 17.9	7 24.4	7 31.3	7 38.6	7 46.4	7 54.8	8 3.9	8 13.9	8 24.8	8 37.1	8 51.0
+30	7 21.2	7 28.0	7 35.2	7 42.9	7 51.1	7 59.9	8 9.5	8 20.1	8 31.7	8 44.8	8 59.7

# Halber Tagbogen

φ	+50°	+51°	+52°	+53°	+54°	+55°	+56°	+57°	+58°	+59°	+60°
—30°	h m 3 11.8	h m 3 4.1	h m 3 55.8	h m 2 46.8	h m 2 36.9	h m 2 25.9	h m 2 13.5	h m 1 59.3	h m 1 42.4	h m 1 21.1	h m 1 49.7
—29	3 20.1	3 12.9	3 5.3	2 57.0	2 48.0	2 38.1	2 27.1	2 14.7	2 0.4	1 43.4	1 21.9
—28	3 28.0	3 21.3	3 14.2	3 6.6	2 58.3	2 49.3	2 39.4	2 28.4	2 15.9	2 1.6	1 44.5
—27	3 35.5	3 29.3	3 22.7	3 15.7	3 8.0	2 59.8	2 50.8	2 40.8	2 29.8	2 17.3	2 2.9
—26	3 42.8	3 37.0	3 30.8	3 24.2	3 17.2	3 9.6	3 1.4	2 52.4	2 42.4	2 31.3	2 18.8
—25	3 49.7	3 44.3	3 38.6	3 32.4	3 25.9	3 18.9	3 11.3	3 3.1	2 54.1	2 44.1	2 33.0
—24	3 56.5	3 51.4	3 46.0	3 40.3	3 34.3	3 27.8	3 20.8	3 13.2	3 5.0	2 56.0	2 46.0
—23	4 3.0	3 58.2	3 53.2	3 47.9	3 42.3	3 36.2	3 29.8	3 22.8	3 15.3	3 7.1	2 58.0
—22	4 9.3	4 4.9	4 0.2	3 55.2	3 50.0	3 44.3	3 38.4	3 31.9	3 25.0	3 17.5	3 9.3
—21	4 15.4	4 11.3	4 6.9	4 2.3	3 57.4	3 52.2	3 46.6	3 40.7	3 34.3	3 27.4	3 19.9
—20	4 21.4	4 17.5	4 13.5	4 9.1	4 4.6	3 59.8	3 54.6	3 49.1	3 43.2	3 36.9	3 30.0
—19	4 27.3	4 23.7	4 19.9	4 15.8	4 11.6	4 7.1	4 2.3	3 57.2	3 51.8	3 45.9	3 39.6
—18	4 33.0	4 29.6	4 26.1	4 22.3	4 18.4	4 14.2	4 9.8	4 5.1	4 0.1	3 54.7	3 48.9
—17	4 38.6	4 35.4	4 32.1	4 28.7	4 25.0	4 21.1	4 17.0	4 12.7	4 8.1	4 3.1	3 57.8
—16	4 44.1	4 41.2	4 38.1	4 34.9	4 31.5	4 27.9	4 24.1	4 20.1	4 15.9	4 11.3	4 6.4
—15	4 49.5	4 46.8	4 43.9	4 41.0	4 37.8	4 34.5	4 31.0	4 27.4	4 23.4	4 19.3	4 14.8
—14	4 54.8	4 52.3	4 49.7	4 46.9	4 44.1	4 41.0	4 37.8	4 34.4	4 30.8	4 27.0	4 22.9
—13	5 0.0	4 57.7	4 55.3	4 52.8	4 50.2	4 47.4	4 44.5	4 41.4	4 38.1	4 34.6	4 30.9
—12	5 5.1	5 3.0	5 0.9	4 58.6	4 56.2	4 53.7	4 51.0	4 48.2	4 45.2	4 42.0	4 38.7
—11	5 10.2	5 8.3	5 6.4	5 4.3	5 2.1	4 59.8	4 57.4	4 54.9	4 52.2	4 49.3	4 46.3
—10	5 15.2	5 13.5	5 11.8	5 9.9	5 7.9	5 5.9	5 3.7	5 1.5	4 59.1	4 56.5	4 53.8
—9	5 20.2	5 18.7	5 17.1	5 15.5	5 13.7	5 11.9	5 10.0	5 8.0	5 5.8	5 3.6	5 1.2
—8	5 25.1	5 23.8	5 22.4	5 21.0	5 19.5	5 17.9	5 16.2	5 14.4	5 12.5	5 10.6	5 8.5
—7	5 30.0	5 28.9	5 27.7	5 26.4	5 25.1	5 23.8	5 22.3	5 20.8	5 19.2	5 17.5	5 15.7
—6	5 34.9	5 33.9	5 32.9	5 31.8	5 30.7	5 29.6	5 28.4	5 27.1	5 25.7	5 24.3	5 22.8
—5	5 39.7	5 38.9	5 38.1	5 37.2	5 36.3	5 35.4	5 34.4	5 33.4	5 32.2	5 31.1	5 29.9
—4	5 44.5	5 43.9	5 43.3	5 42.6	5 41.9	5 41.2	5 40.4	5 39.6	5 38.7	5 37.8	5 36.9
—3	5 49.3	5 48.9	5 48.4	5 47.9	5 47.4	5 46.9	5 46.3	5 45.8	5 45.2	5 44.5	5 43.8
—2	5 54.1	5 53.8	5 53.5	5 53.3	5 52.9	5 52.6	5 52.3	5 52.0	5 51.6	5 51.2	5 50.8
—1	5 58.9	5 58.8	5 58.7	5 58.6	5 58.4	5 58.3	5 58.2	5 58.1	5 58.0	5 57.9	5 57.7
0	6 3.6	6 3.7	6 3.8	6 3.9	6 4.0	6 4.1	6 4.2	6 4.3	6 4.4	6 4.5	6 4.7
+1	6 8.4	6 8.6	6 8.9	6 9.2	6 9.5	6 9.8	6 10.1	6 10.4	6 10.8	6 11.2	6 11.6
+2	6 13.2	6 13.6	6 14.0	6 14.5	6 15.0	6 15.5	6 16.0	6 16.6	6 17.2	6 17.8	6 18.6
+3	6 18.0	6 18.6	6 19.2	6 19.8	6 20.5	6 21.2	6 22.0	6 22.8	6 23.6	6 24.6	6 25.5
+4	6 22.8	6 23.5	6 24.4	6 25.2	6 26.1	6 27.0	6 28.0	6 29.0	6 30.1	6 31.3	6 32.5
+5	6 27.6	6 28.6	6 29.6	6 30.6	6 31.7	6 32.8	6 34.0	6 35.3	6 36.6	6 38.1	6 39.6
+6	6 32.5	6 33.6	6 34.8	6 36.0	6 37.3	6 38.7	6 40.1	6 41.6	6 43.2	6 44.9	6 46.7
+7	6 37.4	6 38.7	6 40.0	6 41.5	6 43.0	6 44.6	6 46.2	6 48.0	6 49.8	6 51.8	6 53.9
+8	6 42.3	6 43.8	6 45.3	6 47.0	6 48.7	6 50.5	6 52.4	6 54.4	6 56.5	6 58.8	7 1.2
+9	6 47.3	6 48.9	6 50.7	6 52.6	6 54.5	6 56.5	6 58.7	7 0.9	7 3.3	7 5.9	7 8.6
+10	6 52.3	6 54.2	6 56.1	6 58.2	7 0.3	7 2.6	7 5.0	7 7.5	7 10.2	7 13.1	7 16.2
+11	6 57.4	6 59.4	7 1.6	7 3.9	7 6.3	7 8.8	7 11.4	7 14.2	7 17.2	7 20.4	7 23.8
+12	7 2.5	7 4.8	7 7.2	7 9.7	7 12.3	7 15.1	7 18.0	7 21.1	7 24.3	7 27.8	7 31.5
+13	7 7.8	7 10.2	7 12.8	7 15.5	7 18.4	7 21.4	7 24.6	7 28.0	7 31.6	7 35.4	7 39.5
+14	7 13.1	7 15.7	7 18.6	7 21.5	7 24.6	7 27.9	7 31.4	7 35.1	7 39.0	7 43.2	7 47.7
+15	7 18.5	7 21.4	7 24.4	7 27.6	7 31.0	7 34.6	7 38.3	7 42.4	7 46.6	7 51.2	7 56.1
+16	7 23.9	7 27.1	7 30.4	7 33.8	7 37.5	7 41.4	7 45.4	7 49.8	7 54.4	7 59.4	8 4.7
+17	7 29.5	7 32.9	7 36.5	7 40.2	7 44.1	7 48.3	7 52.7	7 57.4	8 2.5	8 7.9	8 13.7
+18	7 35.3	7 38.9	7 42.7	7 46.7	7 50.9	7 55.4	8 0.2	8 5.3	8 10.8	8 16.6	8 23.0
+19	7 41.1	7 45.0	7 49.1	7 53.4	7 57.9	8 2.8	8 7.9	8 13.4	8 19.4	8 25.7	8 32.6
+20	7 47.1	7 51.3	7 55.6	8 0.3	8 5.2	8 10.4	8 15.9	8 21.9	8 28.3	8 35.2	8 42.8
+21	7 53.3	7 57.7	8 2.4	8 7.3	8 12.6	8 18.2	8 24.2	8 30.7	8 37.6	8 45.2	8 53.5
+22	7 59.6	8 4.3	8 9.4	8 14.7	8 20.3	8 26.4	8 32.8	8 39.8	8 47.4	8 55.7	9 4.8
+23	8 6.1	8 11.2	8 16.6	8 22.3	8 28.3	8 34.9	8 41.9	8 49.5	8 57.7	9 6.8	9 16.9
+24	8 12.9	8 18.3	8 24.0	8 30.2	8 36.7	8 43.8	8 51.4	8 59.6	9 8.7	9 18.8	9 30.0
+25	8 19.9	8 25.7	8 31.8	8 38.4	8 45.5	8 53.1	9 1.4	9 10.5	9 20.5	9 31.7	9 44.4
+26	8 27.1	8 33.4	8 40.0	8 47.0	8 54.7	9 3.0	9 12.1	9 22.1	9 33.2	9 45.9	10 0.6
+27	8 34.7	8 41.4	8 48.5	8 56.1	9 4.4	9 13.5	9 23.5	9 34.6	9 47.3	10 1.9	10 19.5
+28	8 42.6	8 49.8	8 57.5	9 5.8	9 14.8	9 24.8	9 35.9	9 48.5	10 3.1	10 20.5	10 42.9
+29	8 51.0	8 58.7	9 7.0	9 16.1	9 26.0	9 37.1	9 49.6	10 4.1	10 21.5	10 43.7	11 18.1
+30	8 59.7	9 8.1	9 17.2	9 27.1	9 38.2	9 50.7	10 5.1	10 22.3	10 44.4	11 18.5	—

## für den Auf- und Untergang der Sonne

Das Vorzeichen gilt für den Anfang, das entgegengesetzte Vorzeichen  
für den Untergang

12 <sup>h</sup> Welt-Zeit		Geographische Breite										
		+30°	+32°	+34°	+36°	+38°	+40°	+42°	+44°	+46°	+48°	+50°
1929												
Jan.	I	-62.7 <sup>m</sup>	-58.0 <sup>m</sup>	-53.1 <sup>m</sup>	-48.0 <sup>m</sup>	-42.6 <sup>m</sup>	-36.7 <sup>m</sup>	-30.5 <sup>m</sup>	-23.8 <sup>m</sup>	-16.5 <sup>m</sup>	-8.7 <sup>m</sup>	0.0
	II	-58.5	-54.0	-49.5	-44.6	-39.6	-34.1	-28.4	-22.1	-15.4	-8.0	0.0
	2I	-52.2	-48.2	-44.1	-39.7	-35.2	-30.3	-25.1	-19.7	-13.7	-7.1	0.0
	3I	-44.4	-41.0	-37.4	-33.7	-29.8	-25.7	-21.2	-16.5	-11.6	-6.0	0.0
Febr.	10	-35.5	-32.9	-30.0	-27.0	-23.9	-20.5	-16.9	-13.1	-9.2	-4.8	0.0
	20	-26.2	-24.3	-22.1	-19.9	-17.6	-15.1	-12.4	-9.6	-6.7	-3.5	0.0
März	2	-16.6	-15.4	-14.0	-12.6	-11.1	-9.5	-7.8	-6.0	-4.2	-2.2	0.0
	12	-6.9	-6.5	-5.9	-5.3	-4.6	-3.9	-3.2	-2.5	-1.8	-0.9	0.0
	22	+2.8	+2.5	+2.3	+2.2	+1.9	+1.7	+1.4	+1.1	+0.7	+0.3	0.0
April	I	+12.4	+11.4	+10.4	+9.5	+8.4	+7.2	+6.0	+4.7	+3.2	+1.6	0.0
	II	+22.1	+20.3	+18.6	+16.8	+14.8	+12.7	+10.5	+8.3	+5.6	+2.9	0.0
Mai	2I	+31.6	+29.0	+26.6	+24.0	+21.1	+18.2	+15.1	+11.8	+8.1	+4.2	0.0
	I	+40.6	+37.5	+34.3	+31.0	+27.4	+23.6	+19.7	+15.3	+10.6	+5.5	0.0
	II	+49.2	+45.5	+41.6	+37.6	+33.4	+28.7	+23.9	+18.6	+12.9	+6.7	0.0
Juni	2I	+56.8	+52.7	+48.2	+43.5	+38.7	+33.3	+27.7	+21.6	+15.0	+7.8	0.0
	3I	+63.0	+58.5	+53.6	+48.4	+43.0	+37.1	+30.8	+24.1	+16.8	+8.8	0.0
	10	+67.1	+62.2	+57.1	+51.6	+45.8	+39.6	+33.0	+25.9	+18.0	+9.5	0.0
Juli	20	+68.8	+63.8	+58.6	+52.9	+47.0	+40.7	+33.9	+26.6	+18.5	+9.8	0.0
	30	+67.9	+62.9	+57.8	+52.2	+46.4	+40.1	+33.4	+26.2	+18.2	+9.6	0.0
	10	+64.4	+59.6	+54.7	+49.4	+43.9	+38.0	+31.6	+24.8	+17.2	+9.1	0.0
Aug.	20	+58.8	+54.4	+49.9	+45.0	+40.0	+34.5	+28.6	+22.5	+15.6	+8.2	0.0
	30	+51.6	+47.7	+43.8	+39.4	+35.0	+30.1	+25.0	+19.5	+13.6	+7.1	0.0
	9	+43.4	+40.1	+36.7	+33.0	+29.3	+25.2	+20.9	+16.3	+11.4	+5.9	0.0
	19	+34.4	+31.9	+29.1	+26.2	+23.2	+20.0	+16.6	+12.8	+9.0	+4.7	0.0
Sept.	29	+25.1	+23.3	+21.3	+19.2	+16.9	+14.6	+12.1	+9.3	+6.6	+3.4	0.0
	8	+15.7	+14.5	+13.3	+12.0	+10.6	+9.1	+7.5	+5.8	+4.1	+2.1	0.0
	18	+6.2	+5.7	+5.2	+4.7	+4.2	+3.6	+2.9	+2.3	+1.7	+0.9	0.0
Okt.	28	-3.5	-3.1	-2.8	-2.5	-2.2	-1.9	-1.6	-1.2	-0.8	-0.4	0.0
	8	-13.1	-11.9	-10.8	-9.8	-8.6	-7.4	-6.1	-4.8	-3.2	-1.6	0.0
	18	-22.6	-20.7	-18.9	-17.0	-15.0	-12.9	-10.6	-8.3	-5.6	-2.9	0.0
Nov.	28	-31.8	-29.3	-26.8	-24.1	-21.3	-18.3	-15.1	-11.8	-8.1	-4.2	0.0
	7	-40.7	-37.6	-34.4	-31.0	-27.4	-23.5	-19.5	-15.2	-10.4	-5.5	0.0
	17	-49.0	-45.3	-41.4	-37.4	-33.0	-28.4	-23.6	-18.3	-12.7	-6.7	0.0
	27	-56.0	-51.8	-47.4	-42.8	-37.9	-32.6	-27.1	-21.1	-14.7	-7.7	0.0
Dez.	7	-61.2	-56.6	-51.8	-46.8	-41.4	-35.7	-29.7	-23.2	-16.1	-8.5	0.0
	17	-63.9	-59.1	-54.1	-48.9	-43.3	-37.4	-31.1	-24.3	-16.9	-8.9	0.0
	27	-63.9	-59.1	-54.1	-48.9	-43.3	-37.4	-31.1	-24.3	-16.9	-8.9	0.0
	37	-61.0	-56.4	-51.6	-46.6	-41.4	-35.7	-29.7	-23.2	-16.1	-8.4	0.0



# Reduktionstafel

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für den Auf- und Untergang der Sonne

Das Vorzeichen gilt für den Ausgang, das entgegengesetzte Vorzeichen  
für den Untergang

12 <sup>h</sup> Welt-Zeit	Geographische Breite										
	+50°	+51°	+52°	+53°	+54°	+55°	+56°	+57°	+58°	+59°	+60°
1929											
Jan. I	0.0	+4.7	+ 9.6	+14.8	+20.5	+26.4	+32.8	+39.6	+47.0	+55.0	+63.8
II	0.0	+4.4	+ 8.9	+13.8	+18.8	+24.4	+30.1	+36.3	+43.0	+50.3	+58.2
2I	0.0	+3.8	+ 7.9	+12.1	+16.6	+21.2	+26.3	+31.7	+37.4	+43.6	+50.3
3I	0.0	+3.2	+ 6.6	+10.1	+13.8	+17.7	+21.9	+26.3	+31.0	+36.1	+41.5
Febr. 10	0.0	+2.5	+ 5.2	+ 8.0	+10.9	+14.0	+17.2	+20.6	+24.3	+28.2	+32.4
20	0.0	+1.8	+ 3.8	+ 5.8	+ 7.9	+10.1	+12.5	+14.9	+17.6	+20.4	+23.3
März 2	0.0	+1.2	+ 2.4	+ 3.7	+ 5.0	+ 6.3	+ 7.8	+ 9.3	+11.0	+12.7	+14.4
12	0.0	+0.5	+ 1.0	+ 1.5	+ 2.1	+ 2.6	+ 3.2	+ 3.8	+ 4.4	+ 5.2	+ 5.9
22	0.0	-0.2	- 0.4	- 0.6	- 0.8	- 1.2	- 1.5	- 1.7	- 2.0	- 2.3	- 2.7
April I	0.0	-0.9	- 1.8	- 2.7	- 3.8	- 4.9	- 6.1	- 7.3	- 8.5	- 9.9	-11.2
II	0.0	-1.5	- 3.2	- 4.9	- 6.8	- 8.7	-10.7	-12.9	-15.1	-17.5	-20.0
2I	0.0	-2.2	- 4.6	- 7.1	- 9.8	-12.6	-15.5	-18.6	-21.9	-25.3	-29.1
Mai I	0.0	-3.0	- 6.1	- 9.3	-12.8	-16.5	-20.3	-24.4	-28.7	-33.3	-38.4
II	0.0	-3.6	- 7.4	-11.4	-15.7	-20.3	-25.0	-30.2	-35.7	-41.5	-47.9
2I	0.0	-4.2	- 8.7	-13.4	-18.4	-23.9	-29.6	-35.8	-42.4	-49.5	-57.3
3I	0.0	-4.7	- 9.8	-15.2	-20.8	-27.0	-33.6	-40.7	-48.3	-56.6	-65.8
Juni 10	0.0	-5.1	-10.6	-16.4	-22.6	-29.2	-36.3	-44.1	-52.6	-61.9	-72.3
20	0.0	-5.3	-10.9	-16.9	-23.3	-30.2	-37.5	-45.6	-54.4	-64.0	-75.1
30	0.0	-5.2	-10.7	-16.6	-22.9	-29.6	-36.9	-44.8	-53.4	-62.8	-73.5
Juli 10	0.0	-4.9	-10.1	-15.6	-21.5	-27.8	-34.4	-41.7	-49.6	-58.4	-67.9
20	0.0	-4.4	- 9.1	-14.0	-19.3	-24.8	-30.8	-37.2	-44.2	-51.7	-60.0
30	0.0	-3.8	- 7.9	-12.1	-16.6	-21.3	-26.4	-31.9	-37.7	-44.0	-50.7
Aug. 9	0.0	-3.2	- 6.5	-10.0	-13.8	-17.6	-21.8	-26.2	-30.9	-35.9	-41.2
19	0.0	-2.5	- 5.1	- 7.8	-10.8	-13.7	-17.0	-20.4	-24.1	-27.9	-32.1
29	0.0	-1.8	- 3.7	- 5.7	- 7.8	- 9.9	-12.2	-14.7	-17.3	-20.1	-23.0
Sept. 8	0.0	-1.2	- 2.3	- 3.6	- 4.9	- 6.1	- 7.6	- 9.1	-10.7	-12.5	-14.3
18	0.0	-0.5	- 0.9	- 1.5	- 2.0	- 2.4	- 3.0	- 3.6	- 4.3	- 5.0	- 5.7
28	0.0	+0.2	+ 0.5	+ 0.6	+ 0.9	+ 1.3	+ 1.5	+ 1.8	+ 2.1	+ 2.4	+ 2.7
Okt. 8	0.0	+0.9	+ 1.8	+ 2.8	+ 3.8	+ 5.0	+ 6.1	+ 7.2	+ 8.5	+ 9.8	+11.1
18	0.0	+1.6	+ 3.2	+ 4.9	+ 6.7	+ 8.7	+10.6	+12.7	+15.0	+17.3	+19.8
28	0.0	+2.2	+ 4.6	+ 7.0	+ 9.6	+12.5	+15.3	+18.3	+21.6	+24.9	+28.6
Nov. 7	0.0	+2.9	+ 6.0	+ 9.1	+12.6	+16.2	+20.0	+23.9	+28.2	+32.7	+37.7
17	0.0	+3.6	+ 7.3	+11.2	+15.4	+19.8	+24.5	+29.5	+34.8	+40.4	+46.6
27	0.0	+4.1	+ 8.4	+13.1	+17.9	+23.0	+28.6	+34.5	+40.8	+47.6	+55.0
Dez. 7	0.0	+4.6	+ 9.3	+14.5	+19.8	+25.6	+31.8	+38.4	+45.6	+53.3	+61.7
17	0.0	+4.8	+ 9.8	+15.2	+20.9	+27.0	+33.5	+40.5	+48.2	+56.4	+65.6
27	0.0	+4.8	+ 9.8	+15.2	+20.9	+27.0	+33.5	+40.5	+48.2	+56.4	+65.6
37	0.0	+4.6	+ 9.3	+14.4	+19.8	+25.6	+31.8	+38.2	+45.3	+53.1	+61.5

## für Auf- und Untergang des Mondes

Das Vorzeichen gilt für den Aufgang, das entgegengesetzte Vorzeichen  
für den Untergang

t <sup>*)</sup>	Geographische Breite										
	+30°	+32°	+34°	+36°	+38°	+40°	+42°	+44°	+46°	+48°	+50°
3 <sup>h</sup> 20 <sup>m</sup>	-94.6 <sup>m</sup>	-87.9 <sup>m</sup>	-80.9 <sup>m</sup>	-73.4 <sup>m</sup>	-65.5 <sup>m</sup>	-56.9 <sup>m</sup>	-47.6 <sup>m</sup>	-37.5 <sup>m</sup>	-26.4 <sup>m</sup>	-14.0 <sup>m</sup>	0.0 <sup>m</sup>
3 30	-88.5	-82.2	-75.6	-68.5	-61.0	-52.9	-44.2	-34.8	-24.4	-12.9	0.0
3 40	-82.5	-76.5	-70.3	-63.7	-56.6	-49.1	-41.0	-32.2	-22.5	-11.9	0.0
3 50	-76.6	-71.0	-65.2	-59.0	-52.4	-45.3	-37.8	-29.6	-20.7	-10.9	0.0
4 0	-70.8	-65.6	-60.1	-54.4	-48.2	-41.7	-34.7	-27.2	-18.9	-9.9	0.0
4 10	-65.1	-60.3	-55.2	-49.9	-44.2	-38.2	-31.7	-24.8	-17.3	-9.0	0.0
4 20	-59.5	-55.0	-50.3	-45.5	-40.3	-34.8	-28.9	-22.5	-15.7	-8.2	0.0
4 30	-54.0	-49.9	-45.6	-41.2	-36.5	-31.4	-26.1	-20.4	-14.1	-7.4	0.0
4 40	-48.4	-44.8	-40.9	-36.9	-32.7	-28.2	-23.3	-18.2	-12.6	-6.6	0.0
4 50	-43.0	-39.8	-36.4	-32.7	-29.0	-24.9	-20.7	-16.1	-11.2	-5.8	0.0
5 0	-37.7	-34.8	-31.8	-28.6	-25.3	-21.8	-18.1	-14.1	-9.8	-5.0	0.0
5 10	-32.4	-29.9	-27.3	-24.6	-21.7	-18.7	-15.5	-12.1	-8.4	-4.3	0.0
5 20	-27.1	-25.0	-22.8	-20.6	-18.2	-15.6	-12.9	-10.1	-7.0	-3.6	0.0
5 30	-21.9	-20.2	-18.4	-16.6	-14.7	-12.6	-10.4	-8.1	-5.6	-2.9	0.0
5 40	-16.7	-15.4	-14.0	-12.6	-11.2	-9.6	-7.9	-6.2	-4.3	-2.2	0.0
5 50	-11.5	-10.6	-9.7	-8.7	-7.7	-6.6	-5.5	-4.2	-2.9	-1.5	0.0
6 0	-6.4	-5.8	-5.4	-4.8	-4.2	-3.6	-3.0	-2.3	-1.6	-0.9	0.0
6 10	-1.2	-1.1	-1.0	-0.9	-0.8	-0.7	-0.6	-0.4	-0.3	-0.2	0.0
6 20	+4.0	+3.7	+3.4	+3.0	+2.6	+2.3	+1.9	+1.5	+1.0	+0.5	0.0
6 30	+9.1	+8.4	+7.7	+6.9	+6.1	+5.3	+4.4	+3.4	+2.4	+1.2	0.0
6 40	+14.3	+13.2	+12.0	+10.8	+9.6	+8.2	+6.8	+5.3	+3.7	+1.9	0.0
6 50	+19.5	+18.0	+16.4	+14.8	+13.1	+11.2	+9.3	+7.2	+5.0	+2.6	0.0
7 0	+24.7	+22.8	+20.9	+18.8	+16.6	+14.2	+11.8	+9.1	+6.3	+3.3	0.0
7 10	+30.0	+27.7	+25.3	+22.8	+20.1	+17.3	+14.3	+11.1	+7.7	+4.0	0.0
7 20	+35.3	+32.6	+29.7	+26.8	+23.7	+20.3	+16.8	+13.1	+9.1	+4.7	0.0
7 30	+40.6	+37.5	+34.3	+30.9	+27.3	+23.4	+19.4	+15.1	+10.5	+5.5	0.0
7 40	+45.9	+42.5	+38.9	+35.0	+31.0	+26.6	+22.1	+17.2	+12.0	+6.2	0.0
7 50	+51.4	+47.6	+43.5	+39.2	+34.7	+29.9	+24.8	+19.3	+13.5	+7.0	0.0
8 0	+56.9	+52.7	+48.2	+43.5	+38.5	+33.2	+27.6	+21.5	+15.0	+7.8	0.0
8 10	+62.5	+57.9	+53.0	+47.9	+42.4	+36.6	+30.4	+23.8	+16.6	+8.6	0.0
8 20	+68.2	+63.2	+57.9	+52.3	+46.4	+40.1	+33.3	+26.1	+18.2	+9.5	0.0
8 30	+74.0	+68.5	+62.9	+56.9	+50.5	+43.7	+36.4	+28.5	+19.8	+10.5	0.0
8 40	+79.8	+74.0	+67.9	+61.5	+54.7	+47.3	+39.5	+30.9	+21.6	+11.4	0.0
8 50	+85.8	+79.6	+73.1	+66.3	+59.0	+51.1	+42.7	+33.5	+23.5	+12.5	0.0
9 0	+91.9	+85.3	+78.4	+71.2	+63.4	+55.0	+46.0	+36.3	+25.5	+13.5	0.0

\*) t ist beim Aufgange der Zeitunterschied zwischen Aufgang und Kulmination,  
beim Untergange der Zeitunterschied zwischen Kulmination und Untergang

## für Auf- und Untergang des Mondes

Das Vorzeichen gilt für den Aufgang, das entgegengesetzte Vorzeichen  
für den Untergang

$t^{*)}$	Geographische Breite										
	+50°	+51°	+52°	+53°	+54°	+55°	+56°	+57°	+58°	+59°	+60°
3 20 <sup>m</sup>	0.0	+7.7	+16.1	+25.2	+35.1	+46.1	+58.4	+72.5	+89.1	+109.7	+138.1
3 30	0.0	+7.1	+14.7	+22.9	+31.8	+41.6	+52.4	+64.5	+78.3	+94.5	+114.3
3 40	0.0	+6.5	+13.4	+20.9	+28.9	+37.6	+47.2	+57.7	+69.4	+82.7	+98.2
3 50	0.0	+5.9	+12.2	+19.0	+26.2	+34.0	+42.5	+51.7	+61.9	+73.3	+86.1
4 0	0.0	+5.4	+11.1	+17.2	+23.7	+30.8	+38.2	+46.3	+55.2	+65.0	+76.0
4 10	0.0	+4.9	+10.1	+15.6	+21.4	+27.7	+34.4	+41.6	+49.4	+57.9	+67.3
4 20	0.0	+4.5	+9.1	+14.0	+19.2	+24.8	+30.8	+37.2	+44.0	+51.5	+59.6
4 30	0.0	+4.0	+8.1	+12.5	+17.2	+22.2	+27.5	+33.1	+39.1	+45.7	+52.7
4 40	0.0	+3.5	+7.3	+11.2	+15.3	+19.7	+24.3	+29.3	+34.5	+40.2	+46.3
4 50	0.0	+3.1	+6.4	+9.8	+13.4	+17.3	+21.4	+25.6	+30.2	+35.1	+40.4
5 0	0.0	+2.7	+5.5	+8.5	+11.6	+15.0	+18.5	+22.2	+26.1	+30.3	+34.8
5 10	0.0	+2.3	+4.7	+7.2	+10.0	+12.8	+15.7	+18.9	+22.2	+25.7	+29.5
5 20	0.0	+2.0	+3.9	+6.0	+8.3	+10.7	+13.1	+15.7	+18.4	+21.3	+24.4
5 30	0.0	+1.6	+3.2	+4.8	+6.7	+8.5	+10.5	+12.6	+14.8	+17.1	+19.6
5 40	0.0	+1.2	+2.4	+3.7	+5.0	+6.5	+7.9	+9.5	+11.2	+13.0	+14.8
5 50	0.0	+0.8	+1.7	+2.6	+3.4	+4.4	+5.5	+6.5	+7.7	+8.9	+10.2
6 0	0.0	+0.5	+0.9	+1.4	+1.9	+2.4	+3.0	+3.6	+4.2	+4.9	+5.6
6 10	0.0	+0.1	+0.2	+0.2	+0.4	+0.5	+0.6	+0.7	+0.8	+0.9	+1.1
6 20	0.0	-0.3	-0.6	-0.9	-1.2	-1.5	-1.9	-2.3	-2.6	-3.0	-3.5
6 30	0.0	-0.6	-1.3	-2.0	-2.7	-3.5	-4.3	-5.2	-6.0	-7.0	-8.0
6 40	0.0	-1.0	-2.1	-3.1	-4.3	-5.5	-6.8	-8.1	-9.5	-11.0	-12.6
6 50	0.0	-1.3	-2.9	-4.3	-5.9	-7.5	-9.4	-11.2	-13.1	-15.1	-17.3
7 0	0.0	-1.7	-3.6	-5.5	-7.5	-9.6	-11.9	-14.3	-16.7	-19.3	-22.2
7 10	0.0	-2.1	-4.4	-6.7	-9.2	-11.7	-14.5	-17.4	-20.4	-23.7	-27.1
7 20	0.0	-2.5	-5.1	-7.9	-10.8	-13.8	-17.1	-20.6	-24.2	-28.1	-32.3
7 30	0.0	-2.9	-6.0	-9.2	-12.6	-16.1	-19.9	-24.0	-28.2	-32.8	-37.7
7 40	0.0	-3.3	-6.9	-10.6	-14.4	-18.5	-22.9	-27.5	-32.4	-37.8	-43.4
7 50	0.0	-3.8	-7.7	-12.0	-16.3	-21.0	-25.9	-31.3	-36.9	-43.0	-49.6
8 0	0.0	-4.2	-8.7	-13.4	-18.3	-23.7	-29.2	-35.3	-41.7	-48.7	-56.3
8 10	0.0	-4.7	-9.6	-14.9	-20.4	-26.4	-32.6	-39.5	-46.8	-54.8	-63.5
8 20	0.0	-5.2	-10.6	-16.4	-22.6	-29.2	-36.3	-44.0	-52.3	-61.5	-71.6
8 30	0.0	-5.7	-11.7	-18.1	-25.0	-32.4	-40.4	-49.1	-58.6	-69.1	-81.0
8 40	0.0	-6.3	-12.9	-19.9	-27.6	-35.8	-44.9	-54.9	-65.7	-77.9	-92.1
8 50	0.0	-6.8	-14.1	-21.9	-30.5	-39.7	-49.8	-61.2	-73.8	-88.5	-106.1
9 0	0.0	-7.4	-15.4	-24.1	-33.7	-44.1	-55.3	-68.4	-83.6	-101.4	-125.9

\*)  $t$  ist beim Aufgange der Zeitunterschied zwischen Aufgang und Kulmination,  
beim Untergange der Zeitunterschied zwischen Kulmination und Untergang

## Julianische Periode

I. Anzahl der am o. Januar, 12<sup>h</sup> Welt-Zeit, seit Anfang der Periode  
verflossenen Tage

Jahr n. Chr.	0	100	200	300	400	500	600	700	800	900
	17	17	17	18	18	19	19	19	20	20
0	21057	57582	94107	30632	67157	03682	40207	76732	13257	49782
4	22518	59043	95568	32093	68618	05143	41668	78193	14718	51243
8	23979	60504	97029	33554	70079	06604	43129	79654	16179	52704
12	25440	61965	98490	35015	71540	08065	44590	81115	17640	54165
16	26901	63426	99951	36476	73001	09526	46051	82576	19101	55626
20	28362	64887	01412	37937	74462	10987	47512	84037	20562	57087
24	29823	66348	02873	39398	75923	12448	48973	85498	22023	58548
28	31284	67809	04334	40859	77384	13909	50434	86959	23484	60009
32	32745	69270	05795	42320	78845	15370	51895	88420	24945	61470
36	34206	70731	07256	43781	80306	16831	53356	89881	26406	62931
40	35667	72192	08717	45242	81767	18292	54817	91342	27867	64392
44	37128	73653	10178	46703	83228	19753	56278	92803	29328	65853
48	38589	75114	11639	48164	84689	21214	57739	94264	30789	67314
52	40050	76575	13100	49625	86150	22675	59200	95725	32250	68775
56	41511	78036	14561	51086	87611	24136	60661	97186	33711	70236
60	42972	79497	16022	52547	89072	25597	62122	98647	35172	71697
64	44433	80958	17483	54008	90533	27058	63583	00108	36633	73158
68	45894	82419	18944	55469	91994	28519	65044	01569	38094	74619
72	47355	83880	20405	56930	93455	29980	66505	03030	39555	76080
76	48816	85341	21866	58391	94916	31441	67966	04491	41016	77541
80	50277	86802	23327	59852	96377	32902	69427	05952	42477	79002
84	51738	88263	24788	61313	97838	34363	70888	07413	43938	80463
88	53199	89724	26249	62774	99299	35824	72349	08874	45399	81924
92	54660	91185	27710	64235	00760	37285	73810	10335	46860	83385
96	56121	92646	29171	65696	02221	38746	75271	11796	48321	84846
100	57582	94107	30632	67157	03682	40207	76732	13257	49782	86307
	17	17	18	18	19	19	19	20	20	20

Ia. Anzahl der am o. jedes Monats, 12<sup>h</sup> Welt-Zeit, seit Beginn  
der Schaltperiode verflossenen Tage

Jahr	Jan. o	Febr. o	März o	April o	Mai o	Juni o	Juli o	Aug. o	Sept. o	Okt. o	Nov. o	Dez. o
0	0	31	60	91	121	152	182	213	244	274	305	335
1	366	397	425	456	486	517	547	578	609	639	670	700
2	731	762	790	821	851	882	912	943	974	1004	1035	1065
3	1096	1127	1155	1186	1216	1247	1277	1308	1339	1369	1400	1430

# Julianische Periode

## I. Anzahl der am o. Januar, 12<sup>h</sup> Welt-Zeit, seit Anfang der Periode verflossenen Tage

Jahr n. Chr.	I000	II00	I200	I300	I400	I500	I600	I700	I800	I900
	20	21	21	21	22	22	23	23	23	24
0	86307	22832	59357	95882	32407	68932	05447	41971 <sup>1)</sup>	78495 <sup>1)</sup>	15019 <sup>1)</sup>
4	87768	24293	60818	97343	33868	70393	06908	43432	79956	16480
8	89229	25754	62279	<u>98804</u>	35329	71854	08369	44893	81417	17941
12	90690	27215	63740	00265	36790	73315	09830	46354	82878	19402
16	92151	28676	65201	01726	38251	74776	11291	47815	84339	20863
20	93612	30137	66662	03187	39712	76237	12752	49276	85800	22324
24	95073	31598	68123	04648	41173	77698	14213	50737	87261	23785
28	96534	33059	69584	06109	42634	79159	15674	52198	88722	25246
32	97995	34520	71045	07570	44095	80620	17135	53659	90183	26707
36	<u>99456</u>	35981	72506	09031	45556	82081	18596	55120	91644	28168
40	00917	37442	73967	10492	47017	83542	20057	56581	93105	29629
44	02378	38903	75428	11953	48478	85003	21518	58042	94566	31090
48	03839	40364	76889	13414	49939	86464	22979	59503	96027	32551
52	05300	41825	78350	14875	51400	87925	24400	60964	97488	34012
56	06761	43286	79811	16336	52861	89386	25901	62425	<u>98949</u>	35473
60	08222	44747	81272	17797	54322	90847	27362	63886	00410	36934
64	09683	46208	82733	19258	55783	92308	28823	65347	01871	38395
68	11144	47669	84194	20719	57244	93769	30284	66808	03332	39856
72	12605	49130	85655	22180	58705	95230	31745	68269	04793	41317
76	14066	50591	87116	23641	60166	96691	33206	69730	06254	42778
80	15527	52052	88577	25102	61627	98152	34667	71191	07715	44239
84	16988	53513	90038	26563	63088	<u>99603</u>	36128	72652	09176	45700
88	18449	54974	91499	28024	64549	01064	37589	74113	10637	47161
92	19910	56435	92960	29485	66010	02525	39050	75574	12098	48622
96	21371	57896	94421	30946	67471	03986	40511	77035	13559	50083
100	22832	59357	95882	32407	68932	05447	41971 <sup>1)</sup>	78495 <sup>1)</sup>	15019 <sup>1)</sup>	51544
	21	21	21	22	22	23	23	23	24	24

<sup>1)</sup> Die Zahlen geben die am —1. Jan. seit Anfang der Periode verflossenen Tage

## Ia. Anzahl der am o. jedes Monats, 12<sup>h</sup> Welt-Zeit, seit Beginn der Schaltperiode verflossenen Tage

Jahr	Jan. o	Febr. o	März o	April o	Mai o	Juni o	Juli o	Aug. o	Sept. o	Okt. o	Nov. o	Dez. o
0	0 <sup>2)</sup>	31 <sup>2)</sup>	60	91	121	152	182	213	244	274	305	335
1	366	397	425	456	486	517	547	578	609	639	670	700
2	731	762	790	821	851	882	912	943	974	1004	1035	1065
3	1096	1127	1155	1186	1216	1247	1277	1308	1339	1369	1400	1430

Von 1582 Okt. 15 bis 1583 Dez. 31 sind die Zahlen der Tafel Ia um 10 zu verkleinern

<sup>2)</sup> In den Jahren 1700, 1800, 1900 um 1 zu vergrößern

## Julianische Periode

II. Anzahl der seit Beginn der Periode am o. jedes Monats,  
12<sup>h</sup> Welt-Zeit, verfloßenen Tage

Jahr n. Chr.	Januar o	Febr. o	März o	April o	Mai o	Junio	Julio	Aug. o	Sept. o	Okt. o	Nov. o	Dez. o	
1860	2400	410	441	470	501	531	562	592	623	654	684	715	745
1861		776	807	835	866	896	927	957	988	*019	*049	*080	*110
1862	2401	141	172	200	231	261	292	322	353	384	414	445	475
1863		506	537	565	596	626	657	687	718	749	779	810	840
1864		871	902	931	962	992	*023	*053	*084	*115	*145	*176	*206
1865	2402	237	268	296	327	357	388	418	449	480	510	541	571
1866		602	633	661	692	722	753	783	814	845	875	906	936
1867		967	998	*026	*057	*087	*118	*148	*179	*210	*240	*271	*301
1868	2403	332	363	392	423	453	484	514	545	576	606	637	667
1869		698	729	757	788	818	849	879	910	941	971	*002	*032
1870	2404	063	094	122	153	183	214	244	275	306	336	367	397
1871		428	459	487	518	548	579	609	640	671	701	732	762
1872		793	824	853	884	914	945	975	*006	*037	*067	*098	*128
1873	2405	159	190	218	249	279	310	340	371	402	432	463	493
1874		524	555	583	614	644	675	705	736	767	797	828	858
1875		889	920	948	979	*009	*040	*070	*101	*132	*162	*193	*223
1876	2406	254	285	314	345	375	406	436	467	498	528	559	589
1877		620	651	679	710	740	771	801	832	863	893	924	954
1878		985	*016	*044	*075	*105	*136	*166	*197	*228	*258	*289	*319
1879	2407	350	381	409	440	470	501	531	562	593	623	654	684
1880		715	746	775	806	836	867	897	928	959	989	*020	*050
1881	2408	081	112	140	171	201	232	262	293	324	354	385	415
1882		446	477	505	536	566	597	627	658	689	719	750	780
1883		811	842	870	901	931	962	992	*023	*054	*084	*115	*145
1884	2409	176	207	236	267	297	328	358	389	420	450	481	511
1885		542	573	601	632	662	693	723	754	785	815	846	876
1886		907	938	966	997	*027	*058	*088	*119	*150	*180	*211	*241
1887	2410	272	303	331	362	392	423	453	484	515	545	576	606
1888		637	668	697	728	758	789	819	850	881	911	942	972
1889	2411	003	034	062	093	123	154	184	215	246	276	307	337
1890		368	399	427	458	488	519	549	580	611	641	672	702
1891		733	764	792	823	853	884	914	945	976	*006	*037	*067
1892	2412	098	129	158	189	219	250	280	311	342	372	403	433
1893		464	495	523	554	584	615	645	676	707	737	768	798
1894		829	860	888	919	949	980	*010	*041	*072	*102	*133	*163
1895	2413	194	225	253	284	314	345	375	406	437	467	498	528
1896		559	590	619	650	680	711	741	772	803	833	864	894
1897		925	956	984	*015	*045	*076	*106	*137	*168	*198	*229	*259
1898	2414	290	321	349	380	410	441	471	502	533	563	594	624
1899		655	686	714	745	775	806	836	867	898	928	959	989

II. Anzahl der seit Beginn der Periode am o. jedes Monats,  
 12<sup>h</sup> Welt-Zeit, verflrossenen Tage

Jahr n. Chr.	Januar o	Febr.o	März o	April o	Mai o	Juni o	Juli o	Aug.o	Sept.o	Okt.o	Nov.o	Dez.o	
1900	2415	020	051	079	110	140	171	201	232	263	293	324	354
1901		385	416	444	475	505	536	566	597	628	658	689	719
1902		750	781	809	840	870	901	931	962	993	*023	*054	*084
1903	2416	115	146	174	205	235	266	296	327	358	388	419	449
1904		480	511	540	571	601	632	662	693	724	754	785	815
1905		846	877	905	936	966	997	*027	*058	*089	*119	*150	*180
1906	2417	211	242	270	301	331	362	392	423	454	484	515	545
1907		576	607	635	666	696	727	757	788	819	849	880	910
1908		941	972	*001	*032	*062	*093	*123	*154	*185	*215	*246	*276
1909	2418	307	338	366	397	427	458	488	519	550	580	611	641
1910		672	703	731	762	792	823	853	884	915	945	976	*006
1911	2419	037	068	096	127	157	188	218	249	280	310	341	371
1912		402	433	462	493	523	554	584	615	646	676	707	737
1913		768	799	827	858	888	919	949	980	*011	*041	*072	*102
1914	2420	133	164	192	223	253	284	314	345	376	406	437	467
1915		498	529	557	588	618	649	679	710	741	771	802	832
1916		863	894	923	954	984	*015	*045	*076	*107	*137	*168	*198
1917	2421	229	260	288	319	349	380	410	441	472	502	533	563
1918		594	625	653	684	714	745	775	806	837	867	898	928
1919		959	990	*018	*049	*079	*110	*140	*171	*202	*232	*263	*293
1920	2422	324	355	384	415	445	476	506	537	568	598	629	659
1921		690	721	749	780	810	841	871	902	933	963	994	*024
1922	2423	055	086	114	145	175	206	236	267	298	328	359	389
1923		420	451	479	510	540	571	601	632	663	693	724	754
1924		785	816	845	876	906	937	967	998	*029	*059	*090	*120
1925	2424	151	182	210	241	271	302	332	363	394	424	455	485
1926		516	547	575	606	636	667	697	728	759	789	820	850
1927		881	912	940	971	*001	*032	*062	*093	*124	*154	*185	*215
1928	2425	246	277	306	337	367	398	428	459	490	520	551	581
1929		612	643	671	702	732	763	793	824	855	885	916	946
1930		977	*008	*036	*067	*097	*128	*158	*189	*220	*250	*281	*311
1931	2426	342	373	401	432	462	493	523	554	585	615	646	676
1932		707	738	767	798	828	859	889	920	951	981	*012	*042
1933	2427	073	104	132	163	193	224	254	285	316	346	377	407
1934		438	469	497	528	558	589	619	650	681	711	742	772
1935		803	834	862	893	923	954	984	*015	*046	*076	*107	*137
1936	2428	168	199	228	259	289	320	350	381	412	442	473	503
1937		534	565	593	624	654	685	715	746	777	807	838	868
1938		899	930	958	989	*019	*050	*080	*111	*142	*172	*203	*233
1939	2429	264	295	323	354	384	415	445	476	507	537	568	598

Red.	0 <sup>m</sup>	1 <sup>m</sup>	2 <sup>m</sup>	3 <sup>m</sup>	Red.	Red.	Red.
0	0 0 0	6 5 15	12 10 29	18 15 44	0.00	0 0	0.50 3 3
1	0 6 5	6 11 20	12 16 34	18 21 49	0.01	0 4	0.51 3 6
2	0 12 10	6 17 25	12 22 40	18 27 54	0.02	0 7	0.52 3 10
3	0 18 16	6 23 30	12 28 45	18 33 59	0.03	0 11	0.53 3 14
4	0 24 21	6 29 36	12 34 50	18 40 5	0.04	0 15	0.54 3 17
5	0 30 26	6 35 41	12 40 55	18 46 10	0.05	0 18	0.55 3 21
6	0 36 31	6 41 46	12 47 1	18 52 15	0.06	0 22	0.56 3 25
7	0 42 37	6 47 51	12 53 6	18 58 20	0.07	0 26	0.57 3 28
8	0 48 42	6 53 56	12 59 11	19 4 26	0.08	0 29	0.58 3 32
9	0 54 47	7 0 2	13 5 16	19 10 31	0.09	0 33	0.59 3 35
10	1 0 52	7 6 7	13 11 21	19 16 36	0.10	0 37	0.60 3 39
11	1 6 58	7 12 12	13 17 27	19 22 41	0.11	0 40	0.61 3 43
12	1 13 3	7 18 17	13 23 32	19 28 47	0.12	0 44	0.62 3 46
13	1 19 8	7 24 23	13 29 37	19 34 52	0.13	0 47	0.63 3 50
14	1 25 13	7 30 28	13 35 42	19 40 57	0.14	0 51	0.64 3 54
15	1 31 19	7 36 33	13 41 48	19 47 2	0.15	0 55	0.65 3 57
16	1 37 24	7 42 38	13 47 53	19 53 7	0.16	0 58	0.66 4 1
17	1 43 29	7 48 44	13 53 58	19 59 13	0.17	1 2	0.67 4 5
18	1 49 34	7 54 49	14 0 3	20 5 18	0.18	1 6	0.68 4 8
19	1 55 40	8 0 54	14 6 9	20 11 23	0.19	1 9	0.69 4 12
20	2 1 45	8 6 59	14 12 14	20 17 28	0.20	1 13	0.70 4 16
21	2 7 50	8 13 5	14 18 19	20 23 34	0.21	1 17	0.71 4 19
22	2 13 55	8 19 10	14 24 24	20 29 39	0.22	1 20	0.72 4 23
23	2 20 1	8 25 15	14 30 30	20 35 44	0.23	1 24	0.73 4 27
24	2 26 6	8 31 20	14 36 35	20 41 49	0.24	1 28	0.74 4 30
25	2 32 11	8 37 26	14 42 40	20 47 55	0.25	1 31	0.75 4 34
26	2 38 16	8 43 31	14 48 45	20 54 0	0.26	1 35	0.76 4 38
27	2 44 22	8 49 36	14 54 51	21 0 5	0.27	1 39	0.77 4 41
28	2 50 27	8 55 41	15 0 56	21 6 10	0.28	1 42	0.78 4 45
29	2 56 32	9 1 47	15 7 1	21 12 16	0.29	1 46	0.79 4 49
30	3 2 37	9 7 52	15 13 6	21 18 21	0.30	1 50	0.80 4 52
31	3 8 43	9 13 57	15 19 12	21 24 26	0.31	1 53	0.81 4 56
32	3 14 48	9 20 2	15 25 17	21 30 31	0.32	1 57	0.82 4 59
33	3 20 53	9 26 8	15 31 22	21 36 37	0.33	2 1	0.83 5 3
34	3 26 58	9 32 13	15 37 27	21 42 42	0.34	2 4	0.84 5 7
35	3 33 3	9 38 18	15 43 33	21 48 47	0.35	2 8	0.85 5 10
36	3 39 9	9 44 23	15 49 38	21 54 52	0.36	2 11	0.86 5 14
37	3 45 14	9 50 28	15 55 43	22 0 58	0.37	2 15	0.87 5 18
38	3 51 19	9 56 34	16 1 48	22 7 3	0.38	2 19	0.88 5 21
39	3 57 24	10 2 39	16 7 54	22 13 8	0.39	2 22	0.89 5 25
40	4 3 30	10 8 44	16 13 59	22 19 13	0.40	2 26	0.90 5 29
41	4 9 35	10 14 49	16 20 4	22 25 19	0.41	2 30	0.91 5 32
42	4 15 40	10 20 55	16 26 9	22 31 24	0.42	2 33	0.92 5 36
43	4 21 45	10 27 0	16 32 14	22 37 29	0.43	2 37	0.93 5 40
44	4 27 51	10 33 5	16 38 20	22 43 34	0.44	2 41	0.94 5 43
45	4 33 56	10 39 10	16 44 25	22 49 39	0.45	2 44	0.95 5 47
46	4 40 1	10 45 16	16 50 30	22 55 45	0.46	2 48	0.96 5 51
47	4 46 6	10 51 21	16 56 35	23 1 50	0.47	2 52	0.97 5 54
48	4 52 12	10 57 26	17 2 41	23 7 55	0.48	2 55	0.98 5 58
49	4 58 17	11 3 31	17 8 46	23 14 0	0.49	2 59	0.99 6 2
50	5 4 22	11 9 37	17 14 51	23 20 6	0.50	3 3	1.00 6 5
51	5 10 27	11 15 42	17 20 56	23 26 11			
52	5 16 33	11 21 47	17 27 2	23 32 16			
53	5 22 38	11 27 52	17 33 7	23 38 21			
54	5 28 43	11 33 58	17 39 12	23 44 27			
55	5 34 48	11 40 3	17 45 17	23 50 32			
56	5 40 54	11 46 8	17 51 23	23 56 37			
57	5 46 59	11 52 13	17 57 28	24 2 42			
58	5 53 4	11 58 19	18 3 33	24 8 48			
59	5 59 9	12 4 24	18 9 38	24 14 53			

Die Reduktion  
ist zur mittl. Zeit  
zu addieren



Red.	0 <sup>m</sup>	1 <sup>m</sup>	2 <sup>m</sup>	3 <sup>m</sup>	Red.	0 <sup>m</sup>	Red.	0 <sup>m</sup>
0	h m s	h m s	h m s	h m s	0.00	0 0	0.50	3 3
1	0 6 6	6 12 21	12 18 35	18 24 50	0.01	0 4	0.51	3 7
2	0 12 12	6 18 27	12 24 42	18 30 56	0.02	0 7	0.52	3 10
3	0 18 19	6 24 33	12 30 48	18 37 2	0.03	0 11	0.53	3 14
4	0 24 25	6 30 40	12 36 54	18 43 9	0.04	0 15	0.54	3 18
5	0 30 31	6 36 46	12 43 0	18 49 15	0.05	0 18	0.55	3 21
6	0 36 37	6 42 52	12 49 7	18 55 21	0.06	0 22	0.56	3 25
7	0 42 44	6 48 58	12 55 13	19 1 27	0.07	0 26	0.57	3 29
8	0 48 50	6 55 4	13 1 19	19 7 34	0.08	0 29	0.58	3 32
9	0 54 56	7 1 11	13 7 25	19 13 40	0.09	0 33	0.59	3 36
10	1 1 2	7 7 17	13 13 31	19 19 46	0.10	0 37	0.60	3 40
11	1 7 9	7 13 23	13 19 38	19 25 52	0.11	0 40	0.61	3 43
12	1 13 15	7 19 29	13 25 44	19 31 59	0.12	0 44	0.62	3 47
13	1 19 21	7 25 36	13 31 50	19 38 5	0.13	0 48	0.63	3 51
14	1 25 27	7 31 42	13 37 56	19 44 11	0.14	0 51	0.64	3 54
15	1 31 34	7 37 48	13 44 3	19 50 17	0.15	0 55	0.65	3 58
16	1 37 40	7 43 54	13 50 9	19 56 23	0.16	0 59	0.66	4 2
17	1 43 46	7 50 1	13 56 15	20 2 30	0.17	1 2	0.67	4 5
18	1 49 52	7 56 7	14 2 21	20 8 36	0.18	1 6	0.68	4 9
19	1 55 59	8 2 13	14 8 28	20 14 42	0.19	1 10	0.69	4 13
20	2 2 5	8 8 19	14 14 34	20 20 48	0.20	1 13	0.70	4 16
21	2 8 11	8 14 26	14 20 40	20 26 55	0.21	1 17	0.71	4 20
22	2 14 17	8 20 32	14 26 46	20 33 1	0.22	1 21	0.72	4 24
23	2 20 24	8 26 38	14 32 53	20 39 7	0.23	1 24	0.73	4 27
24	2 26 30	8 32 44	14 38 59	20 45 13	0.24	1 28	0.74	4 31
25	2 32 36	8 38 51	14 45 5	20 51 20	0.25	1 32	0.75	4 35
26	2 38 42	8 44 57	14 51 11	20 57 26	0.26	1 35	0.76	4 38
27	2 44 49	8 51 3	14 57 18	21 3 32	0.27	1 39	0.77	4 42
28	2 50 55	8 57 9	15 3 24	21 9 38	0.28	1 43	0.78	4 46
29	2 57 1	9 3 16	15 9 30	21 15 45	0.29	1 46	0.79	4 49
30	3 3 7	9 9 22	15 15 36	21 21 51	0.30	1 50	0.80	4 53
31	3 9 14	9 15 28	15 21 43	21 27 57	0.31	1 54	0.81	4 57
32	3 15 20	9 21 34	15 27 49	21 34 3	0.32	1 57	0.82	5 0
33	3 21 26	9 27 41	15 33 55	21 40 10	0.33	2 1	0.83	5 4
34	3 27 32	9 33 47	15 40 1	21 46 16	0.34	2 5	0.84	5 8
35	3 33 38	9 39 53	15 46 8	21 52 22	0.35	2 8	0.85	5 11
36	3 39 45	9 45 59	15 52 14	21 58 28	0.36	2 12	0.86	5 15
37	3 45 51	9 52 5	15 58 20	22 4 35	0.37	2 16	0.87	5 19
38	3 51 57	9 58 12	16 4 26	22 10 41	0.38	2 19	0.88	5 22
39	3 58 3	10 4 18	16 10 33	22 16 47	0.39	2 23	0.89	5 26
40	4 4 10	10 10 24	16 16 39	22 22 53	0.40	2 26	0.90	5 30
41	4 10 16	10 16 30	16 22 45	22 29 0	0.41	2 30	0.91	5 33
42	4 16 22	10 22 37	16 28 51	22 35 6	0.42	2 34	0.92	5 37
43	4 22 28	10 28 43	16 34 57	22 41 12	0.43	2 37	0.93	5 41
44	4 28 35	10 34 49	16 41 4	22 47 18	0.44	2 41	0.94	5 44
45	4 34 41	10 40 55	16 47 10	22 53 24	0.45	2 45	0.95	5 48
46	4 40 47	10 47 2	16 53 16	22 59 31	0.46	2 48	0.96	5 52
47	4 46 53	10 53 8	16 59 22	23 5 37	0.47	2 52	0.97	5 55
48	4 53 0	10 59 14	17 5 29	23 11 43	0.48	2 56	0.98	5 59
49	4 59 6	11 5 20	17 11 35	23 17 49	0.49	2 59	0.99	6 3
50	5 5 12	11 11 27	17 17 41	23 23 56	0.50	3 3	1.00	6 6
51	5 11 18	11 17 33	17 23 47	23 30 2				
52	5 17 25	11 23 39	17 29 54	23 36 8				
53	5 23 31	11 29 45	17 36 0	23 42 14				
54	5 29 37	11 35 52	17 42 6	23 48 21				
55	5 35 43	11 41 58	17 48 12	23 54 27				
56	5 41 50	11 48 4	17 54 19	24 0 33				
57	5 47 56	11 54 10	18 0 25	24 6 39				
58	5 54 2	12 0 17	18 6 31	24 12 46				
59	6 0 8	12 6 23	18 12 37	24 18 52				

Die Reduktion  
ist von der Sternzeit  
zu subtrahieren

m	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	s	d
	d	d	d	d	d	d		
0	.000000	.041667	.083333	.125000	.166667	.208333	0	.000000
1	.000694	.042361	.084028	.125694	.167361	.209028	1	.000012
2	.001389	.043056	.084722	.126389	.168056	.209722	2	.000023
3	.002083	.043750	.085417	.127083	.168750	.210417	3	.000035
4	.002778	.044444	.086111	.127778	.169444	.211111	4	.000046
5	.003472	.045139	.086806	.128472	.170139	.211806	5	.000058
6	.004167	.045833	.087500	.129167	.170833	.212500	6	.000069
7	.004861	.046528	.088194	.129861	.171528	.213194	7	.000081
8	.005556	.047222	.088889	.130556	.172222	.213889	8	.000093
9	.006250	.047917	.089583	.131250	.172917	.214583	9	.000104
10	.006944	.048611	.090278	.131944	.173611	.215278	10	.000116
11	.007639	.049306	.090972	.132639	.174306	.215972	11	.000127
12	.008333	.050000	.091667	.133333	.175000	.216667	12	.000139
13	.009028	.050694	.092361	.134028	.175694	.217361	13	.000150
14	.009722	.051389	.093056	.134722	.176389	.218056	14	.000162
15	.010417	.052083	.093750	.135417	.177083	.218750	15	.000174
16	.011111	.052778	.094444	.136111	.177778	.219444	16	.000185
17	.011806	.053472	.095139	.136806	.178472	.220139	17	.000197
18	.012500	.054167	.095833	.137500	.179167	.220833	18	.000208
19	.013194	.054861	.096528	.138194	.179861	.221528	19	.000220
20	.013889	.055556	.097222	.138889	.180556	.222222	20	.000231
21	.014583	.056250	.097917	.139583	.181250	.222917	21	.000243
22	.015278	.056944	.098611	.140278	.181944	.223611	22	.000255
23	.015972	.057639	.099306	.140972	.182639	.224306	23	.000266
24	.016667	.058333	.100000	.141667	.183333	.225000	24	.000278
25	.017361	.059028	.100694	.142361	.184028	.225694	25	.000289
26	.018056	.059722	.101389	.143056	.184722	.226389	26	.000301
27	.018750	.060417	.102083	.143750	.185417	.227083	27	.000313
28	.019444	.061111	.102778	.144444	.186111	.227778	28	.000324
29	.020139	.061806	.103472	.145139	.186806	.228472	29	.000336
30	.020833	.062500	.104167	.145833	.187500	.229167	30	.000347
31	.021528	.063194	.104861	.146528	.188194	.229861	31	.000359
32	.022222	.063889	.105556	.147222	.188889	.230556	32	.000370
33	.022917	.064583	.106250	.147917	.189583	.231250	33	.000382
34	.023611	.065278	.106944	.148611	.190278	.231944	34	.000394
35	.024306	.065972	.107639	.149306	.190972	.232639	35	.000405
36	.025000	.066667	.108333	.150000	.191667	.233333	36	.000417
37	.025694	.067361	.109028	.150694	.192361	.234028	37	.000428
38	.026389	.068056	.109722	.151389	.193056	.234722	38	.000440
39	.027083	.068750	.110417	.152083	.193750	.235417	39	.000451
40	.027778	.069444	.111111	.152778	.194444	.236111	40	.000463
41	.028472	.070139	.111806	.153472	.195139	.236806	41	.000475
42	.029167	.070833	.112500	.154167	.195833	.237500	42	.000486
43	.029861	.071528	.113194	.154861	.196528	.238194	43	.000498
44	.030556	.072222	.113889	.155556	.197222	.238889	44	.000509
45	.031250	.072917	.114583	.156250	.197917	.239583	45	.000521
46	.031944	.073611	.115278	.156944	.198611	.240278	46	.000532
47	.032639	.074306	.115972	.157639	.199306	.240972	47	.000544
48	.033333	.075000	.116667	.158333	.200000	.241667	48	.000556
49	.034028	.075694	.117361	.159028	.200694	.242361	49	.000567
50	.034722	.076389	.118056	.159722	.201389	.243056	50	.000579
51	.035417	.077083	.118750	.160417	.202083	.243750	51	.000590
52	.036111	.077778	.119444	.161111	.202778	.244444	52	.000602
53	.036806	.078472	.120139	.161806	.203472	.245139	53	.000613
54	.037500	.079167	.120833	.162500	.204167	.245833	54	.000625
55	.038194	.079861	.121528	.163194	.204861	.246528	55	.000637
56	.038889	.080556	.122222	.163889	.205556	.247222	56	.000648
57	.039583	.081250	.122917	.164583	.206250	.247917	57	.000660
58	.040278	.081944	.123611	.165278	.206944	.248611	58	.000671
59	.040972	.082639	.124306	.165972	.207639	.249306	59	.000683

	6 <sup>h</sup> 18	7 <sup>h</sup> 19	8 <sup>h</sup> 20	9 <sup>h</sup> 21	10 <sup>h</sup> 22	11 <sup>h</sup> 23		
m	d	d	d	d	d	d	s	d
0	0.250000	0.291667	0.333333	0.375000	0.416667	0.458333	0	0.000000
1	.250694	.292361	.334028	.375694	.417361	.459028	1	.000012
2	.251389	.293056	.334722	.376389	.418056	.459722	2	.000023
3	.252083	.293750	.335417	.377083	.418750	.460417	3	.000035
4	.252778	.294444	.336111	.377778	.419444	.461111	4	.000046
5	0.253472	0.295139	0.336806	0.378472	0.420139	0.461806	5	0.000058
6	.254167	.295833	.337500	.379167	.420833	.462500	6	.000069
7	.254861	.296528	.338194	.379861	.421528	.463194	7	.000081
8	.255556	.297222	.338889	.380556	.422222	.463889	8	.000093
9	.256250	.297917	.339583	.381250	.422917	.464583	9	.000104
10	0.256944	0.298611	0.340278	0.381944	0.423611	0.465278	10	0.000116
11	.257639	.299306	.340972	.382639	.424306	.465972	11	.000127
12	.258333	.300000	.341667	.383333	.425000	.466667	12	.000139
13	.259028	.300694	.342361	.384028	.425694	.467361	13	.000150
14	.259722	.301389	.343056	.384722	.426389	.468056	14	.000162
15	0.260417	0.302083	0.343750	0.385417	0.427083	0.468750	15	0.000174
16	.261111	.302778	.344444	.386111	.427778	.469444	16	.000185
17	.261806	.303472	.345139	.386806	.428472	.470139	17	.000197
18	.262500	.304167	.345833	.387500	.429167	.470833	18	.000208
19	.263194	.304861	.346528	.388194	.429861	.471528	19	.000220
20	0.263889	0.305556	0.347222	0.388889	0.430556	0.472222	20	0.000231
21	.264583	.306250	.347917	.389583	.431250	.472917	21	.000243
22	.265278	.306944	.348611	.390278	.431944	.473611	22	.000255
23	.265972	.307639	.349306	.390972	.432639	.474306	23	.000266
24	.266667	.308333	.350000	.391667	.433333	.475000	24	.000278
25	0.267361	0.309028	0.350694	0.392361	0.434028	0.475694	25	0.000289
26	.268056	.309722	.351389	.393056	.434722	.476389	26	.000301
27	.268750	.310417	.352083	.393750	.435417	.477083	27	.000313
28	.269444	.311111	.352778	.394444	.436111	.477778	28	.000324
29	.270139	.311806	.353472	.395139	.436806	.478472	29	.000336
30	0.270833	0.312500	0.354167	0.395833	0.437500	0.479167	30	0.000347
31	.271528	.313194	.354861	.396528	.438194	.479861	31	.000359
32	.272222	.313889	.355556	.397222	.438889	.480556	32	.000370
33	.272917	.314583	.356250	.397917	.439583	.481250	33	.000382
34	.273611	.315278	.356944	.398611	.440278	.481944	34	.000394
35	0.274306	0.315972	0.357639	0.399306	0.440972	0.482639	35	0.000405
36	.275000	.316667	.358333	.400000	.441667	.483333	36	.000417
37	.275694	.317361	.359028	.400694	.442361	.484028	37	.000428
38	.276389	.318056	.359722	.401389	.443056	.484722	38	.000440
39	.277083	.318750	.360417	.402083	.443750	.485417	39	.000451
40	0.277778	0.319444	0.361111	0.402778	0.444444	0.486111	40	0.000463
41	.278472	.320139	.361806	.403472	.445139	.486806	41	.000475
42	.279167	.320833	.362500	.404167	.445833	.487500	42	.000486
43	.279861	.321528	.363194	.404861	.446528	.488194	43	.000498
44	.280556	.322222	.363889	.405556	.447222	.488889	44	.000509
45	0.281250	0.322917	0.364583	0.406250	0.447917	0.489583	45	0.000521
46	.281944	.323611	.365278	.406944	.448611	.490278	46	.000532
47	.282639	.324306	.365972	.407639	.449306	.490972	47	.000544
48	.283333	.325000	.366667	.408333	.450000	.491667	48	.000556
49	.284028	.325694	.367361	.409028	.450694	.492361	49	.000567
50	0.284722	0.326389	0.368056	0.409722	0.451389	0.493056	50	0.000579
51	.285417	.327083	.368750	.410417	.452083	.493750	51	.000590
52	.286111	.327778	.369444	.411111	.452778	.494444	52	.000602
53	.286806	.328472	.370139	.411806	.453472	.495139	53	.000613
54	.287500	.329167	.370833	.412500	.454167	.495833	54	.000625
55	0.288194	0.329861	0.371528	0.413194	0.454861	0.496528	55	0.000637
56	.288889	.330556	.372222	.413889	.455556	.497222	56	.000648
57	.289583	.331250	.372917	.414583	.456250	.497917	57	.000660
58	.290278	.331944	.373611	.415278	.456944	.498611	58	.000671
59	.290972	.332639	.374306	.415972	.457639	.499306	59	.000683

## zur Berechnung der optischen Mondlibration

$\lambda - \Omega$	$\Delta\lambda$	$a$	$B$	$\lambda - \Omega$	$\lambda - \Omega$	$\Delta\lambda$	$a$	$B$	$\lambda - \Omega$
0	+0.0+	-0.0269+	0 0.0+	180	45	+0.6+	-0.0190+	-1 5.3+	225
1	0.0	268	0 1.6	181	46	0.6	187	I 6.4	226
2	0.0	268	0 3.2	182	47	0.6	183	I 7.5	227
3	0.1	268	0 4.8	183	48	0.6	180	I 8.6	228
4	0.1	268	0 6.4	184	49	0.6	176	I 9.7	229
5	+0.1+	-0.0268+	0 8.0+	185	50	+0.6+	-0.0173+	-I 10.7+	230
6	0.1	267	0 9.7	186	51	0.6	169	I 11.8	231
7	0.1	267	0 11.3	187	52	0.6	165	I 12.8	232
8	0.2	266	0 12.9	188	53	0.6	162	I 13.8	233
9	0.2	265	0 14.4	189	54	0.6	158	I 14.7	234
10	+0.2+	-0.0264+	0 16.0+	190	55	+0.6+	-0.0154+	-I 15.6+	235
11	0.2	264	0 17.6	191	56	0.6	150	I 16.5	236
12	0.2	263	0 19.2	192	57	0.6	146	I 17.4	237
13	0.3	262	0 20.8	193	58	0.6	142	I 18.3	238
14	0.3	261	0 22.3	194	59	0.5	138	I 19.2	239
15	+0.3+	-0.0259+	0 23.9+	195	60	+0.5+	-0.0134+	-I 20.0+	240
16	0.3	258	0 25.5	196	61	0.5	130	I 20.8	241
17	0.3	257	0 27.0	197	62	0.5	126	I 21.5	242
18	0.4	255	0 28.5	198	63	0.5	122	I 22.3	243
19	0.4	254	0 30.1	199	64	0.5	118	I 23.0	244
20	+0.4+	-0.0252+	0 31.6+	200	65	+0.5+	-0.0114+	-I 23.7+	245
21	0.4	251	0 33.1	201	66	0.5	109	I 24.4	246
22	0.4	249	0 34.6	202	67	0.4	105	I 25.0	247
23	0.4	247	0 36.1	203	68	0.4	101	I 25.6	248
24	0.5	245	0 37.6	204	69	0.4	096	I 26.2	249
25	+0.5+	-0.0243+	0 39.0+	205	70	+0.4+	-0.0092+	-I 26.8+	250
26	0.5	241	0 40.5	206	71	0.4	87	I 27.3	251
27	0.5	239	0 41.9	207	72	0.4	83	I 27.8	252
28	0.5	237	0 43.4	208	73	0.3	79	I 28.3	253
29	0.5	235	0 44.8	209	74	0.3	74	I 28.8	254
30	+0.5+	-0.0233+	0 46.2+	210	75	+0.3+	-0.0070+	-I 29.2+	255
31	0.5	230	0 47.6	211	76	0.3	65	I 29.6	256
32	0.6	228	0 48.9	212	77	0.3	60	I 30.0	257
33	0.6	225	0 50.3	213	78	0.2	56	I 30.3	258
34	0.6	223	0 51.6	214	79	0.2	51	I 30.6	259
35	+0.6+	-0.0220+	0 53.0+	215	80	+0.2+	-0.0047+	-I 30.9+	260
36	0.6	217	0 54.3	216	81	0.2	42	I 31.2	261
37	0.6	214	0 55.6	217	82	0.2	37	I 31.4	262
38	0.6	212	0 56.9	218	83	0.1	33	I 31.6	263
39	0.6	209	0 58.1	219	84	0.1	28	I 31.8	264
40	+0.6+	-0.0206+	0 59.4+	220	85	+0.1+	-0.0023+	-I 32.0+	265
41	0.6	203	I 0.6	221	86	0.1	19	I 32.1	266
42	0.6	200	I 1.8	222	87	0.1	14	I 32.2	267
43	0.6	196	I 3.0	223	88	0.0	09	I 32.3	268
44	0.6	193	I 4.1	224	89	0.0	05	I 32.3	269
45	+0.6+	-0.0190+	-I 5.3+	225	90	+0.0+	-0.0000+	-I 32.3+	270

$$l' = \lambda + \Delta\lambda - a(B - \beta) - L_G; \quad b' = B - \beta$$

$l', b'$  = Optische Libration der Mondmitte in selenographischer Länge und Breite

$\lambda, \beta$  = Länge und Breite des Mondmittelpunktes, berechnet für den Beobachtungsort

$L_G$  = Mittlere Länge des Mondes,  $\Omega$  = Mondknoten.

zur Berechnung der optischen Mondlibration

$\lambda - \Omega$	$\Delta\lambda$	$a$	$B$	$\lambda - \Omega$	$\lambda - \Omega$	$\Delta\lambda$	$a$	$B$	$\lambda - \Omega$
90°	-0.0	+0.0000	-I 32.3+	270°	135°	-0.6	+0.0190	-I 5.3+	315°
91	0.0	05	I 32.3	271	136	0.6	193	I 4.1	316
92	0.0	09	I 32.3	272	137	0.6	196	I 3.0	317
93	0.1	14	I 32.2	273	138	0.6	200	I 1.8	318
94	0.1	19	I 32.1	274	139	0.6	203	I 0.6	319
95	-0.1	+0.0023	-I 32.0+	275	140	-0.6	+0.0206	-0 59.4+	320
96	0.1	28	I 31.8	276	141	0.6	209	0 58.1	321
97	0.1	33	I 31.6	277	142	0.6	212	0 56.9	322
98	0.2	37	I 31.4	278	143	0.6	214	0 55.6	323
99	0.2	42	I 31.2	279	144	0.6	217	0 54.3	324
100	-0.2	+0.0047	-I 30.9+	280	145	-0.6	+0.0220	-0 53.0+	325
101	0.2	51	I 30.6	281	146	0.6	223	0 51.6	326
102	0.2	56	I 30.3	282	147	0.6	225	0 50.3	327
103	0.3	60	I 30.0	283	148	0.6	228	0 48.9	328
104	0.3	65	I 29.6	284	149	0.5	230	0 47.6	329
105	-0.3	+0.0070	-I 29.2+	285	150	-0.5	+0.0233	-0 46.2+	330
106	0.3	74	I 28.8	286	151	0.5	235	0 44.8	331
107	0.3	79	I 28.3	287	152	0.5	237	0 43.4	332
108	0.4	83	I 27.8	288	153	0.5	239	0 41.9	333
109	0.4	87	I 27.3	289	154	0.5	241	0 40.5	334
110	-0.4	+0.0092	-I 26.8+	290	155	-0.5	+0.0243	-0 39.0+	335
111	0.4	096	I 26.2	291	156	0.5	245	0 37.6	336
112	0.4	101	I 25.6	292	157	0.4	247	0 36.1	337
113	0.4	105	I 25.0	293	158	0.4	249	0 34.6	338
114	0.5	109	I 24.4	294	159	0.4	251	0 33.1	339
115	-0.5	+0.0114	-I 23.7+	295	160	-0.4	+0.0252	-0 31.6+	340
116	0.5	118	I 23.0	296	161	0.4	254	0 30.1	341
117	0.5	122	I 22.3	297	162	0.4	255	0 28.5	342
118	0.5	126	I 21.5	298	163	0.3	257	0 27.0	343
119	0.5	130	I 20.8	299	164	0.3	258	0 25.5	344
120	-0.5	+0.0134	-I 20.0+	300	165	-0.3	+0.0259	-0 23.9+	345
121	0.5	138	I 19.2	301	166	0.3	261	0 22.3	346
122	0.6	142	I 18.3	302	167	0.3	262	0 20.8	347
123	0.6	146	I 17.4	303	168	0.2	263	0 19.2	348
124	0.6	150	I 16.5	304	169	0.2	264	0 17.6	349
125	-0.6	+0.0154	-I 15.6+	305	170	-0.2	+0.0264	-0 16.0+	350
126	0.6	158	I 14.7	306	171	0.2	265	0 14.4	351
127	0.6	162	I 13.8	307	172	0.2	266	0 12.9	352
128	0.6	165	I 12.8	308	173	0.1	267	0 11.3	353
129	0.6	169	I 11.8	309	174	0.1	267	0 9.7	354
130	-0.6	+0.0173	-I 10.7+	310	175	-0.1	+0.0268	-0 8.0+	355
131	0.6	176	I 9.7	311	176	0.1	268	0 6.4	356
132	0.6	180	I 8.6	312	177	0.1	268	0 4.8	357
133	0.6	183	I 7.5	313	178	0.0	268	0 3.2	358
134	0.6	187	I 6.4	314	179	0.0	268	0 1.6	359
135	-0.6	+0.0190	-I 5.3+	315	180	-0.0	+0.0269	-0 0.0+	360

$$l' = \lambda + \Delta\lambda - a(B - \beta) - L_{\Omega}; \quad b' = B - \beta$$

$l', b'$  = Optische Libration der Mondmitte in selenographischer Länge und Breite

$\lambda, \beta$  = Länge und Breite des Mondmittelpunktes, berechnet für den Beobachtungsort

$L_{\Omega}$  = Mittlere Länge des Mondes,  $\Omega$  = Mondknoten.

## Hilfsgrößen

zur Berechnung der geozentrischen Koordinaten

$$\rho \sin \varphi' = s \sin \varphi ; \quad \rho \cos \varphi' = c \cos \varphi$$

$\varphi$	log $s$	log $c$	$\varphi$	log $s$	log $c$
$\pm 0^\circ$	9.9970705	0.0000000	$\pm 40^\circ$	9.9976745	0.0006040
1	.9970709 <sup>4</sup>	.0000004 <sup>4</sup>	41	.9976997 <sup>252</sup>	.0006292 <sup>252</sup>
2	.9970723 <sup>14</sup>	.0000018 <sup>14</sup>	42	.9977251 <sup>254</sup>	.0006546 <sup>254</sup>
3	.9970745 <sup>22</sup>	.0000040 <sup>22</sup>	43	.9977506 <sup>255</sup>	.0006801 <sup>255</sup>
4	.9970776 <sup>31</sup>	.0000071 <sup>31</sup>	44	.9977761 <sup>255</sup>	.0007056 <sup>255</sup>
5	9.9970816 <sup>40</sup>	0.0000111 <sup>40</sup>	45	9.9978016 <sup>255</sup>	0.0007311 <sup>255</sup>
6	.9970865 <sup>49</sup>	.0000160 <sup>49</sup>	46	.9978272 <sup>256</sup>	.0007567 <sup>256</sup>
7	.9970922 <sup>57</sup>	.0000217 <sup>57</sup>	47	.9978527 <sup>255</sup>	.0007822 <sup>255</sup>
8	.9970988 <sup>66</sup>	.0000283 <sup>66</sup>	48	.9978782 <sup>255</sup>	.0008077 <sup>255</sup>
9	.9971062 <sup>74</sup>	.0000357 <sup>74</sup>	49	.9979036 <sup>254</sup>	.0008331 <sup>254</sup>
10	9.9971145 <sup>83</sup>	0.0000440 <sup>83</sup>	50	9.9979288 <sup>252</sup>	0.0008583 <sup>252</sup>
11	.9971237 <sup>92</sup>	.0000532 <sup>92</sup>	51	.9979540 <sup>252</sup>	.0008835 <sup>252</sup>
12	.9971336 <sup>99</sup>	.0000631 <sup>99</sup>	52	.9979789 <sup>249</sup>	.0009084 <sup>249</sup>
13	.9971444 <sup>108</sup>	.0000739 <sup>108</sup>	53	.9980036 <sup>247</sup>	.0009331 <sup>247</sup>
14	.9971560 <sup>116</sup>	.0000855 <sup>116</sup>	54	.9980281 <sup>245</sup>	.0009576 <sup>245</sup>
15	9.9971683 <sup>123</sup>	0.0000978 <sup>123</sup>	55	9.9980523 <sup>242</sup>	0.0009818 <sup>242</sup>
16	.9971814 <sup>131</sup>	.0001109 <sup>131</sup>	56	.9980762 <sup>239</sup>	.0010057 <sup>239</sup>
17	.9971953 <sup>139</sup>	.0001248 <sup>139</sup>	57	.9980997 <sup>235</sup>	.0010292 <sup>235</sup>
18	.9972099 <sup>146</sup>	.0001394 <sup>146</sup>	58	.9981229 <sup>232</sup>	.0010524 <sup>232</sup>
19	.9972253 <sup>154</sup>	.0001548 <sup>154</sup>	59	.9981457 <sup>228</sup>	.0010752 <sup>228</sup>
20	9.9972413 <sup>160</sup>	0.0001708 <sup>160</sup>	60	9.9981681 <sup>224</sup>	0.0010976 <sup>224</sup>
21	.9972581 <sup>168</sup>	.0001876 <sup>168</sup>	61	.9981901 <sup>220</sup>	.0011196 <sup>220</sup>
22	.9972755 <sup>174</sup>	.0002050 <sup>174</sup>	62	.9982116 <sup>215</sup>	.0011411 <sup>215</sup>
23	.9972935 <sup>180</sup>	.0002230 <sup>180</sup>	63	.9982325 <sup>209</sup>	.0011620 <sup>209</sup>
24	.9973122 <sup>187</sup>	.0002417 <sup>187</sup>	64	.9982530 <sup>205</sup>	.0011825 <sup>205</sup>
25	9.9973314 <sup>192</sup>	0.0002609 <sup>192</sup>	65	9.9982729 <sup>199</sup>	0.0012024 <sup>199</sup>
26	.9973512 <sup>198</sup>	.0002807 <sup>198</sup>	66	.9982922 <sup>193</sup>	.0012217 <sup>193</sup>
27	.9973716 <sup>204</sup>	.0003011 <sup>204</sup>	67	.9983110 <sup>188</sup>	.0012405 <sup>188</sup>
28	.9973925 <sup>209</sup>	.0003220 <sup>209</sup>	68	.9983291 <sup>181</sup>	.0012586 <sup>181</sup>
29	.9974139 <sup>214</sup>	.0003434 <sup>214</sup>	69	.9983466 <sup>175</sup>	.0012761 <sup>175</sup>
30	9.9974358 <sup>219</sup>	0.0003653 <sup>219</sup>	70	9.9983634 <sup>168</sup>	0.0012929 <sup>168</sup>
31	.9974581 <sup>223</sup>	.0003876 <sup>223</sup>	71	.9983795 <sup>161</sup>	.0013090 <sup>161</sup>
32	.9974808 <sup>227</sup>	.0004103 <sup>227</sup>	72	.9983949 <sup>154</sup>	.0013244 <sup>154</sup>
33	.9975040 <sup>232</sup>	.0004335 <sup>232</sup>	73	.9984096 <sup>147</sup>	.0013391 <sup>147</sup>
34	.9975275 <sup>235</sup>	.0004570 <sup>235</sup>	74	.9984236 <sup>140</sup>	.0013531 <sup>140</sup>
35	9.9975513 <sup>238</sup>	0.0004808 <sup>238</sup>	75	9.9984368 <sup>132</sup>	0.0013663 <sup>132</sup>
36	.9975754 <sup>241</sup>	.0005049 <sup>241</sup>	76	.9984492 <sup>124</sup>	.0013787 <sup>124</sup>
37	.9975999 <sup>245</sup>	.0005294 <sup>245</sup>	77	.9984609 <sup>117</sup>	.0013904 <sup>117</sup>
38	.9976245 <sup>246</sup>	.0005540 <sup>246</sup>	78	.9984717 <sup>108</sup>	.0014012 <sup>108</sup>
39	.9976494 <sup>249</sup>	.0005789 <sup>249</sup>	79	.9984817 <sup>100</sup>	.0014112 <sup>100</sup>
40	9.9976745 <sup>251</sup>	0.0006040 <sup>251</sup>	80	9.9984909 <sup>92</sup>	0.0014204 <sup>92</sup>

Name	See- höhe	Geogr. Breite	Länge von Greenwich + westlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
Abbadia . . . . .	69	+43° 22' 52.2"	+ 0° 7' 0.1"	+ 1.15	+43° 11' 17.8"	9.999317
Åbo . . . . .	—	+60 26 56.8	— 1 29 6.30	— 14.64	+60 16 58.8	9.998894
Adelaide . . . . .	41	—34 55 35.1	— 9 14 19.90	— 91.06	—34 44 42.7	9.999526
Albany (N. Stw.) <sup>1)</sup>	40	+42 39 12.8	+ 4 55 7.12	+ 48.48	+42 27 39.7	9.999334
Algier (N. Stw.) <sup>2)</sup>	345	+36 48 4.1	— 0 12 8.47	— 1.99	+36 36 57.4	9.999497
Allegheny (N. Stw.)	370	+40 28 58.1	+ 5 20 5.39	+ 52.59	+40 17 31.4	9.999411
Allegheny (A. Stw.)	349	+40 27 41.6	+ 5 20 2.97	+ 52.58	+40 16 15.0	9.999411
Amherst (Neue Stw.)	110	+42 21 56.5	+ 4 50 5.98	+ 47.66	+42 10 24.0	9.999346
Amherst (Alte Stw.)	122	+42 22 17.1	+ 4 50 4.72	+ 47.66	+42 10 44.6	9.999347
Ann Arbor . . . . .	282	+42 16 48.7	+ 5 34 55.27	+ 55.02	+42 5 16.4	9.999360
Arcetri Zentr. d. St. <sup>3)</sup>	184	+43 45 14.4	— 0 45 1.30	— 7.39	+43 33 39.5	9.999316
Arequipa <sup>4)</sup> . . . . .	2451	—16 22 28.0	+ 4 46 11.73	+ 47.02	—16 16 12.7	0.000052
Armagh . . . . .	64	+54 21 11	+ 0 26 35.48	+ 4.37	+54 10 11.4	9.999041
Athen . . . . .	110	+37 58 15.5	— 1 34 52.2	— 15.58	+37 47 1.2	9.999456
Bamberg (Remeis' St.)	288	+49 53 6.0	— 0 43 33.57	— 7.15	+49 41 40.0	9.999167
Barcelona <sup>5)</sup> . . . . .	415	+41 24 59.3	— 0 8 30.2	— 1.41	+41 13 29.4	9.999391
Beloit . . . . .	245	+42 30 8.4	+ 5 56 7.4	+ 58.51	+42 18 35.6	9.999352
Bergedorf Mer.-Kr.	41	+53 28 46.9	— 0 40 57.74	— 6.73	+53 17 40.8	9.999060
Berkeley . . . . .	94	+37 52 23.5	+ 8 9 2.80	+ 80.34	+37 41 9.8	9.999458
Berlin-Babelsberg <sup>6)</sup>	82	+52 24 24.2	— 0 52 25.49	— 8.61	+52 13 11.1	9.999089
Berlin (Urania) . . . .	—	+52 31 30.7	— 0 53 27.40	— 8.78	+52 20 18.3	9.999081
Bern . . . . .	573	+46 57 8.7	— 0 29 45.55	— 4.89	+46 45 34.5	9.999261
Besançon . . . . .	312	+47 14 59.0	— 0 23 57.1	— 3.93	+47 3 25.3	9.999236
Bogota . . . . .	2640	+ 4 35 55.2	+ 4 56 19.51	+ 48.68	+ 4 34 4.4	0.000111
Bologna Zentr. d. Stw.	84	+44 29 52.8	— 0 45 24.48	— 7.46	+44 18 17.3	9.999290
Bombay (Colaba) . . . .	19	+18 53 36.2	— 4 51 15.60	— 47.85	+18 46 31.1	9.999849
Bonn Zentr. d. Stw. . . .	62	+50 43 45.0	— 0 28 23.18	— 4.66	+50 32 22.7	9.999130
Bordeaux (Floirac)	73	+44 50 7.2	+ 0 2 6.56	+ 0.35	+44 38 31.6	9.999281
Boston (University) <sup>7)</sup>	31	+42 20 58	+ 4 44 19.1	+ 46.71	+42 9 25.6	9.999341
Bothkamp <sup>8)</sup> . . . . .	32	+54 12 9.6	— 0 40 31.2	— 6.65	+54 1 8.8	9.999042
Breslau Zentr. d. Stw.	147	+51 6 56.5	— 1 8 8.72	— 11.19	+50 55 36.1	9.999126
Breslau Neue Sternw.	117	+51 6 41	— 1 8 21.19	— 11.23	+50 55 20.6	9.999130
Brisbane . . . . .	51	—27 28 23.0	—10 12 6.48	—100.55	—27 18 54.6	9.999694
Brüssel (Alte Sternw.) Pass. Instr.	56	+50 51 10.7	— 0 17 28.71	— 2.87	+50 39 49.0	9.999126
Brüssel (Uccle) Mer.-Kr.	105	+50 47 54.6	— 0 17 26.05	— 2.86	+50 36 32.7	9.999131
Budapest Univ. Stw.	110	+47 29 34.7	— 1 16 15.4	— 12.53	+47 18 1.5	9.999215

1) Dudley Observatory, seit Juni 1893. Alte Sternwarte 37°.0 nördlich, 7°.10 östlich. — 2) Alte Sternwarte 3°.8 südlich, 8° östlich. — 3) Seit Oktober 1872, früher in Florenz. — 4) 1927 geschlossen und nach Bloemfontain verlegt. — 5) J. Comas Solá. — 6) Die Koordinaten beziehen sich auf die Mitte der großen Kuppel, in der der große Refraktor aufgestellt ist. Die frühere Sternwarte in Berlin (seit 1835) lag 5° 52'.5 nördlich und 1° 9'.31 östlich. — 7) Die alte Sternwarte lag 4°.1 östlich, 34°.5 nördlich. — 8) Herr von Bülow.

Name	See- höhe	Geogr. Breite	Länge von Greenwich + westlich	Korr. der Sternzeit	Geoz. Breite	Log. $\rho$ incl. Seehöhe
Budapest <sup>1)</sup> . . . . .	110 <sup>m</sup>	+47° 28' 49"	-1 16 <sup>m</sup> 13.7	-12.53	+47° 17' 16"	9.999215
Bukarest (Mil. Geogr. Inst.)	85	+44 24 34.2	-1 44 27.01	-17.16	+44 12 58.7	9.999292
Cambridge Engl. . . . .	28	+52 12 51.6	-0 0 22.75	-0.06	+52 1 37.3	9.999090
Cambridge Mass. <sup>2)</sup> . . . . .	24	+42 22 47.6	+4 44 31.05	+46.74	+42 11 15.1	9.999340
Cap d. gut. Hoffnung	10	-33 56 6.8	-1 13 54.73	-12.14	-33 45 23.2	9.999547
Catania . . . . .	47	+37 30 13.3	-1 0 20.6	-9.91	+37 19 1.9	9.999466
Charkow . . . . .	139	+50 0 9.9	-2 24 55.72	-23.81	+49 48 44.4	9.999153
Charlottenburg, <sup>Techn. Hochsch.</sup>	60	+52 30 48.7	-0 53 20.5	-8.76	+52 19 36.2	9.999085
Charlottesville <sup>3)</sup> . . . . .	259	+38 2 1.2	+5 14 5.33	+51.60	+37 50 46.5	9.999464
Christiania(Oslo) Mer.-Kr.	25	+59 54 43.7	-0 42 53.51	-7.04	+59 44 39.2	9.998908
Cincinnati (Alte Stw.) . . . . .	—	+39 6 26.5	+5 37 59.09	+55.52	+38 55 6.0	9.999421
Cincinnati (Neue Stw.) <sup>4)</sup>	247	+39 8 19.8	+5 37 41.40	+55.47	+38 56 59.1	9.999437
Cleveland (Case Obs.) . . . . .	215	+41 30 14.5	+5 26 25.86	+53.63	+41 18 44.3	9.999375
Coimbra . . . . .	99	+40 12 24.5	+0 33 43.1	+5.54	+40 0 58.9	9.999400
Columbia Missouri <sup>5)</sup> . . . . .	225	+38 56 12	+6 9 18.37	+60.67	+38 44 52.3	9.999442
Cordoba . . . . .	434	-31 25 15.5	+4 16 48.22	+42.19	-31 14 57.5	9.999635
Danzig . . . . .	3	+54 21 18.0	-1 14 39.6	-12.26	+54 10 18.4	9.999036
Denver <sup>6)</sup> . . . . .	1644	+39 40 36.4	+6 59 47.72	+68.96	+39 29 13.1	9.999519
Dorpat(Tartu,Jurjew)Mer. Kr.	67	+58 22 47.2	-1 46 53.19	-17.56	+58 12 25.1	9.998946
Dresden (Geodät. Inst.)	168	+51 1 49.3	-0 54 55.1	-9.02	+50 50 28.5	9.999130
Dresden (Mathem. Salon)	—	+51 3 14.7	-0 54 55.83	-9.02	+50 51 54.0	9.999117
Dublin (Dunsink Obs.) . . . . .	86	+53 23 13.1	+0 25 21.1	+4.17	+53 12 6.4	9.999065
Düsseldorf (Bilk) . . . . .	46	+51 12 25.0	-0 27 2.69	-4.44	+51 1 5.1	9.999117
Durham . . . . .	108	+54 46 6.2	+0 6 19.75	+1.04	+54 35 9.8	9.999033
Edinburgh . . . . .	146	+55 55 30	+0 12 44.1	+2.09	+55 44 43.5	9.999008
Edinburgh (Blackf. Hill)	134	+55 55 28.0	+0 12 44.0	+2.09	+55 44 41.5	9.999007
Evanston (Dearborn Obs.)	175	+42 3 33.4	+5 50 42.3	+57.61	+41 52 1.6	9.999358
Flagstaff (Lowell Obs.) . . . . .	2210	+35 12 30.5	+7 26 44.6	+73.39	+35 1 35.8	9.999667
Florenz (Alte Sternw.) <sup>7)</sup>	73	+43 46 4.1	-0 44 59.6	-7.39	+43 34 29.2	9.999308
Florenz (Mil. Geogr. Inst.)	72	+43 46 49.4	-0 45 2.5	-7.40	+43 35 14.5	9.999308
Frankfurt a. M. . . . .	121	+50 7 0	-0 34 36.3	-5.70	+49 55 34.6	9.999149
Genf Mer.-Kreis . . . . .	406	+46 11 59.3	-0 24 36.53	-4.04	+46 0 24.1	9.999269
Genua (Mar. Stw.) Mer.-Kr.	108	+44 25 8.1	-0 35 41.28	-5.86	+44 13 32.6	9.999294
Georgetown D. C. . . . .	62	+38 54 26.2	+5 8 18.33	+50.65	+38 43 6.7	9.999430
Glasgow Schottl. . . . .	55	+55 52 42.1	+0 17 10.55	+2.82	+55 41 55.2	9.999003
Glasgow Missouri . . . . .	228	+39 13 45.6	+6 11 18.06	+61.00	+39 2 24.5	9.999433

1) Observ. der Kgl. Josef-Technischen Hochschule. — 2) Harvard College Observatory. — 3) Leander Mc. Cormick Obs. der University of Virginia. — 4) Mount Lookout seit 1873. — 5) Laws Observatory. — 6) University Park, Chamberlin Observatory. — 7) 1872 nach Arcetri verlegt.



Name	See- höhe	Geogr. Breite	Länge von Greenwich + westlich	Korr. der Sternzeit	Geoz. Breite	Log. $\rho$ incl. Seehöhe
Göttingen Mer.-Kreis . . .	161 <sup>m</sup>	+51° 31' 48.2"	— 0 <sup>h</sup> 39 <sup>m</sup> 46.22 <sup>s</sup>	— 6.53	+51° 20' 30.0"	9.999117
Gotha (Neue Stw.) Zentr. d. St. <sup>1)</sup>	322	+50° 56' 37.9"	— 0 42 50.51	— 7.04	+50° 45' 16.7"	9.999142
Graz . . . . .	375	+47 4 37.2	— 1 1 47.71	— 10.15	+46 53 3.2	9.999244
Greenwich Transit Circle	47	+51 28 38.2	0 0 0.00	0.00	+51 17 19.7	9.999110
Groningen . . . . .	4	+53 13 13.8	— 0 26 15.11	— 4.31	+53 2 6.0	9.999064
Hamburg (Alt. Stw.) M.-Kr. <sup>2)</sup>	25	+53 33 6.0	— 0 39 53.60	— 6.55	+53 22 0.4	9.999057
Hamburg (D. Seewarte) . . .	30	+53 32 51.8	— 0 39 53.42	— 6.55	+53 21 46.2	9.999058
Hanover N. H. . . . .	183	+43 42 15.3	+4 49 8.00	+47.50	+43 30 40.5	9.999317
Haverford . . . . .	116	+40 0 40.1	+5 1 12.7	+49.48	+39 49 15.4	9.999406
Heidelberg (Wolfs Stw.)	126	+49 24 35	— 0 34 48.4	— 5.72	+49 13 7	9.999159
Heidelberg (Königst.) M.-Kr.	570	+49 23 54.6	— 0 34 53.13	— 5.73	+49 12 26.8	9.999198
Helsingfors Mer.-Kreis . . .	33	+60 9 42.3	— 1 39 49.10	— 16.40	+59 59 40.8	9.998903
Helwan . . . . .	115	+29 51 31.1	— 2 5 21.77	— 20.59	+29 41 31.4	9.999648
Hongkong . . . . .	33	+22 18 13.2	— 7 36 41.25	— 75.02	+22 10 5.8	9.999793
Hyderabad-Deccan <sup>3)</sup>	554	+17 25 54.3	— 5 13 48.98	— 51.55	+17 19 17.7	9.999907
Innsbruck . . . . .	605	+47 16 7.7	— 0 45 31.42	— 7.48	+47 4 34.0	9.999254
Jena (Univers.) Zentr. d. St.	164	+50 55 35.6	— 0 46 20.22	— 7.61	+50 44 14.3	9.999131
Jena (Winkler) . . . . .	174	+50 56 15.7	— 0 46 20.73	— 7.61	+50 44 54.5	9.999132
Johannesburg . . . . .	1786	— 26 10 52.1	— 1 52 17.9	— 18.45	— 26 1 42.0	9.999839
Johannesburg (Filiale des Yale Observ.)	1730	— 26 11	— 1 52 9	— 18.42	— 26 2	9.999835
Kairo . . . . .	—	+30 4 38.2	— 2 5 8.80	— 20.56	+29 54 35.8	9.999635
Kalocsa <sup>4)</sup> . . . . .	102	+46 31 42.4	— 1 15 54.34	— 12.47	+46 20 7.6	9.999239
Karlsruhe <sup>5)</sup> . . . . .	110	+49 0 29.6	— 0 33 35.40	— 5.52	+48 49 0.4	9.999177
Kasan (Univers.) . . . . .	79	+55 47 24.3	— 3 16 29.03	— 32.28	+55 36 36.6	9.999007
Kasan (Engelhardt) . . . . .	98	+55 50 20.5	— 3 15 15.74	— 32.08	+55 39 33.2	9.999007
Kew . . . . .	10	+51 28 6	+0 1 15.1	+ 0.21	+51 16 47.5	9.999108
Kiel Neuer Mer.-Kreis . . .	52	+54 20 27.6	— 0 40 35.45	— 6.67	+54 9 27.9	9.999040
Kiel Alter Mer.-Kreis . . .	47	+54 20 28.5	— 0 40 35.57	— 6.67	+54 9 28.8	9.999040
Kiew Mer.-Kreis . . . . .	184	+50 27 11.8	— 2 2 0.56	— 20.04	+50 15 48.3	9.999145
Kodaikanal . . . . .	2343	+10 13 50	— 5 9 52.0	— 50.94	+10 9 47.6	0.000114
Königsberg Reps. M.-Kr. <sup>6)</sup>	22	+54 42 50.6	— 1 21 58.98	— 13.47	+54 31 53.8	9.999029
Konstanz <sup>7)</sup> . . . . .	420	+47 39 43.6	— 0 36 42.01	— 6.03	+47 28 10.7	9.999232
Kopenhagen (Neue Stw.) <sup>8)</sup>	14	+55 41 12.6	— 0 50 18.69	— 8.26	+55 30 24.0	9.999005
Kopenhagen (Urania-St.)	10	+55 41 19.2	— 0 50 9.11	— 8.24	+55 30 30.6	9.999005
Krakau Mer.-Kreis . . . . .	221	+50 3 51.9	— 1 19 50.28	— 13.11	+49 52 26.7	9.999158
Kremsmünster Mer.-Kr.	384	+48 3 23.1	— 0 56 31.58	— 9.28	+47 51 51.1	9.999219

1) Seit 1857, früher Seeberg. — 2) 1909 nach Bergedorf verlegt. — 3) Nizamia Observatory.  
 — 4) Erzbischöfl. Haynaldsche Sternwarte. — 5) 1896 nach Heidelberg verlegt. — 6) Nach 1898, vor  
 1898 0°.01 westlich. — 7) Privatsternwarte von E. Leiner. — 8) Seit 1861 Nov. 11. Alte Sternwarte  
 20°.3 südlich, 0°.03 westlich.

Name	See- höhe	Geogr. Breite	Länge von Greenwich + westlich	Korr. der Sternzeit	Geoz. Breite	Log. $\rho$ incl. Seehöhe
Kyoto . . . . .	55 <sup>m</sup>	+35° 1' 37.1"	-9° 3' 6.70"	-89.22	+34° 50' 43.9"	9.999525
Landstuhl (Fauth) . . . . .	385	+49 24 42.5	-0 30 16.35	- 4.97	+49 13 14.7	9.999185
La Plata Mer. Kr. Gautier (Neue Stw.) Mer.-Kr. <sup>1)</sup>	17	-34 54 30.3	+3 51 44.85	+38.07	-34 43 38.1	9.999525
Leiden (Neue Stw.) Mer.-Kr. <sup>1)</sup>	6	+52 9 19.8	-0 17 56.15	- 2.94	+51 58 5.2	9.999090
Leipzig (Neue Stw.) Zentr. <sup>2)</sup>	119	+51 20 5.9	-0 49 33.93	- 8.14	+51 8 46.7	9.999119
Lembang (Bosscha St.) . . .	1300	- 6 49 29.1	-7 10 27.81	-70.71	- 6 46 45.5	0.000068
Lemberg (Techn. Hochsch.) Pass. Instr. (Petersburg)	340	+49 50 11.2	-1 36 3.40	-15.78	+49 38 45.0	9.999171
Leningrad (Akad.) (Petersburg)	20	+59 56 29.7	-2 1 13.35	-19.91	+59 46 25.5	9.998907
Leningrad (Univers.) (Petersburg)	4	+59 56 32.0	-2 1 11.3	-19.91	+59 46 27.8	9.998906
Lissabon (Tapada) . . . . .	94	+38 42 30.5	+0 36 44.68	+ 6.04	+38 31 12.0	9.999437
Lissabon (Mar. Stw.) . . . . .	—	+38 42 17.6	+0 36 33.6	+ 6.01	+38 30 59.2	9.999431
Liverpool (Neue Stw.) <sup>3)</sup>	62	+53 24 4.8	+0 12 17.33	+ 2.02	+53 12 58.2	9.999063
Lourenço Marques . . . . .	60	-25 58 5.5	-2 10 22.63	-21.42	-25 48 58.9	9.999725
Lübeck (Navig.-Sch.) . . . . .	19	+53 51 31.1	-0 42 45.6	- 7.02	+53 40 27.8	9.999049
Lund Zentr. d. Stw. . . . .	34	+55 41 51.6	-0 52 44.97	- 8.66	+55 31 3.1	9.999006
Lüttich Ougrée . . . . .	128	+50 37 6	-0 22 12	- 3.65	+50 25 43	9.999137
Lyon . . . . .	299	+45 41 40.8	-0 19 8.5	- 3.14	+45 30 5.3	9.999274
Madison (Washburn Obs.) . . .	292	+43 4 36.8	+5 57 37.90	+58.75	+42 53 2.9	9.999340
Madras . . . . .	7	+13 4 8.0	-5 20 59.65	-52.73	+12 59 2.5	9.999926
Madrid Zentr. d. Stw. . . . .	656	+40 24 30.1	+0 14 45.09	+ 2.43	+40 13 3.7	9.999433
Mailand, Brera . . . . .	120	+45 27 59.2	-0 36 45.89	- 6.04	+45 16 23.6	9.999268
Manila . . . . .	3	+14 35 25	-8 3 50	-79.48	+14 29 47	9.999908
Mannheim Zentr. d. Stw. . . . .	98	+49 29 11.0	-0 33 50.42	- 5.56	+49 17 43.5	9.999164
Marburg . . . . .	248	+50 48 46.9	-0 35 4.9	- 5.76	+50 37 25.0	9.999141
Mare Island Calif. . . . .	18	+38 5 55.8	+8 9 5.63	+80.35	+37 54 40.8	9.999447
Markree (Col. Cooper) . . . . .	45	+54 10 31.7	+0 33 48.4	+ 5.56	+53 59 30.7	9.999043
Marseille (N. St.) M.-Kr. <sup>4)</sup>	75	+43 18 19.1	-0 21 34.56	- 3.54	+43 6 44.8	9.999320
Melbourne . . . . .	28	-37 49 53.4	-9 39 54.17	-95.26	-37 38 39.9	9.999454
Meudon . . . . .	162	+48 48 18	-0 8 55.5	- 1.46	+48 36 48	9.999185
Mexico . . . . .	2277	+19 26 1.3	+6 36 26.71	+65.13	+19 18 45.9	9.999995
Middletown, Conn. . . . .	70	+41 33 18	+4 50 38.2	+47.74	+41 21 47.6	9.999364
Mizusawa . . . . .	61	+39 8 3.4	-9 24 31.46	-92.74	+38 56 42.7	9.999424
Modena . . . . .	63	+44 38 52.8	-0 43 42.8	- 7.18	+44 27 17.2	9.999285
Montreal . . . . .	57	+45 30 20	+4 54 18.63	+48.35	+45 18 44.4	9.999263
Mt. Hamilton (Lick) Mkr.	1283	+37 20 25.6	+8 6 34.86	+79.94	+37 9 15.2	9.999552
Mt. Wilson Calif. . . . .	1742	+34 12 59.5	+7 52 14.33	+77.57	+34 2 13.3	9.999659

1) Seit 1860. Alte Sternwarte 8°.0 nördlich, 0°.42 östlich. — 2) Seit 1861. Alte Sternwarte 14°.2 nördlich, 4°.00 westlich. — 3) Alte Sternwarte 44°.0 nördlich, 17°.1 östlich. — 4) Seit 1866. Alte Sternwarte 30°.1 südlich, 6°.2 westlich; 29<sup>m</sup>.

Name	See- höhe	Geogr. Breite	Länge von Greenwich + westlich	Korr. der Sternzeit	Geoz. Breite	Log. $\rho$ incl. Seehöhe
Moskau Mer.-Kr. . . .	142 <sup>m</sup>	+55° 45' 19.5"	-2° 30' 17.03"	-24.69	+55° 34' 31.5"	9.999012
Mundenheim <sup>1)</sup> . . .	—	+49 27 30	-0 33 44	- 5.54	+49 16 2	9.999158
München West-Kuppel	529	+48 8 45.5	-0 46 26.02	- 7.63	+47 57 13.8	9.999227
Münster . . . . .	75	+51 57 45.8	-0 30 29.66	- 5.01	+51 46 30.0	9.999100
Nashville (Vanderbilt Obs.)	174	+36 8 58.2	+5 47 12.81	+57.04	+35 57 56.1	9.999506
Natal . . . . .	79	-29 50 46.6	-2 4 1.18	-20.37	-29 40 47.0	9.999645
Neapel (Capo di M.) . . .	164	+40 51 45.4	-0 57 1.38	- 9.37	+40 40 17.3	9.999388
Neuchâtel Refraktor . . .	488	+46 59 49.5	-0 27 49.57	- 4.57	+46 48 15.4	9.999254
New Haven (Neue Stw.) <sup>2)</sup>	40	+41 19 22.3	+4 51 40.58	+47.92	+41 7 52.7	9.999368
New York (Rutherford)	—	+40 43 48.5	+4 55 56.66	+48.62	+40 32 20.9	9.999380
New York (Columb. Obs.)	—	+40 45 23.1	+4 55 53.73	+48.61	+40 33 55.4	9.999379
Nikolajew Mor.-Kr. . . .	55	+46 58 19.3	-2 7 53.98	-21.01	+46 46 45.1	9.999225
Nizza Kl. Mer.-Kr. <sup>3)</sup> . . .	378	+43 43 16.9	-0 29 12.15	- 4.79	+43 31 42.0	9.999330
Northfield (Goodsell Obs.)	290	+44 27 41.4	+6 12 35.94	+61.21	+44 16 5.9	9.999305
Oakland Californ. <sup>4)</sup> . . .	99	+37 47	+8 8 48	+80.30	+37 35 47	9.999460
Odessa (Univ.-Stw.) Mer.-Kr.	55	+46 28 36.2	-2 3 2.05	-20.21	+46 17 1.3	9.999237
Odessa (Filiale Pulkowa)	—	+46 28 36.0	-2 3 2.19	-20.21	+46 17 1.1	9.999234
Oslo (Christiania) Mer.-Kr.	25	+59 54 43.7	-0 42 53.51	- 7.04	+59 44 39.2	9.998908
Ottawa Mer.-Kr. . . . .	85	+45 23 39.1	+5 2 51.98	+49.75	+45 12 3.5	9.999267
Oxford (Radcl. Obs.) . . .	65	+51 45 33.9	+0 5 3.0	+ 0.83	+51 34 17.0	9.999104
Oxford (Univers.) . . . .	64	+51 45 34.2	+0 5 0.4	+ 0.82	+51 34 17.3	9.999104
Oxford, Mississippi . . .	140	+34 22 12.6	+5 58 7.18	+58.83	+34 11 25.1	9.999546
Padua . . . . .	38	+45 24 1.2	-0 47 29.15	- 7.80	+45 12 25.6	9.999263
Palermo . . . . .	72	+38 6 44.0	-0 53 25.87	- 8.78	+37 55 28.9	9.999451
Paris (Obs. nat.) Mer. Cassini	59	+48 50 11.2	-0 9 20.93	- 1.53	+48 38 41.5	9.999177
Paris (Montsouris) westl. Mer.	—	+48 49 18.0	-0 9 20.6	- 1.53	+48 37 48.2	9.999174
Peking . . . . .	—	+39 54 23.0	-7 45 52.87	-76.53	+39 42 58.7	9.999401
Perth West.-Austr. . . .	60	-31 57 10.7	-7 43 21.62	-76.12	-31 46 46.9	9.999597
Petersburg (Leningrad) (Akademie) . . . . .	20	+59 56 29.7	-2 1 13.35	-19.91	+59 46 25.5	9.998907
Petersburg (Leningrad) (Univers.) . . . . .	4	+59 56 32.0	-2 1 11.3	-19.91	+59 46 27.8	9.998906
Philadelphia <sup>5)</sup> . . . . .	74	+39 58 2.1	+5 1 6.88	+49.47	+39 46 37.5	9.999404
Plonsk <sup>6)</sup> . . . . .	—	+52 37 40.0	-1 21 31.9	-13.39	+52 26 28.2	9.999078
Pola . . . . .	32	+44 51 48.6	-0 55 23.07	- 9.10	+44 40 12.9	9.999277
Porto Alegre <sup>7)</sup> Mer.-Kr.	—	-30 1 51	+3 24 53.2	+33.66	-29 51 49	9.999636
Portsmouth . . . . .	—	+50 48 3	+0 4 24.8	+ 0.73	+50 36 41	9.999124
Posen (Poznań) . . . . .	85	+52 23 48.6	-1 7 30.60	-11.09	+52 12 35.4	9.999090

<sup>1)</sup> Dr. Max Müндler. — <sup>2)</sup> Yale University. Alte Sternwarte 45°.8 südlich, 1°.58 westlich. —  
<sup>3)</sup> Herr R. Bischofsheim. — <sup>4)</sup> Chabot Observatory. — <sup>5)</sup> Flower Obs. (Univ. of Pennsylvania). —  
<sup>6)</sup> Dr. Jedrzejewicz; 1898 nach Warschau verlegt. — <sup>7)</sup> Observatorio Regional do Rio Grande do Sul.

Name	See- höhe	Geogr. Breite	Länge von Greenwich + westlich	Korr. der Sternzeit	Geoz. Breite	Log. $\rho$ incl. Seehöhe
Potsdam (Astrophys. Obs.)	97 <sup>m</sup>	+52° 22' 56.0	- 0° 52' 15.86	- 8.58	+52° 11' 42.7	9.999091
Potsdam (Geod. Inst.) Turm	99	+52 22 54.8	- 0 52 16.11	- 8.58	+52 11 41.5	9.999091
Poughkeepsie <sup>1)</sup> . . .	61	+41 41 18	+ 4 55 33.6	+48.56	+41 29 47	9.999360
Prag (Univ.-Stw.) Turm .	197	+50 5 16.0	- 0 57 40.29	- 9.47	+49 53 50.9	9.999155
Prag (Safarik) . . . . .	—	+50 4 24	- 0 57 48	- 9.49	+49 52 59	9.999142
Princeton N. J. (N. Stw.) <sup>2)</sup>	75	+40 20 55.8	+ 4 58 39.44	+49.06	+40 9 29.7	9.999395
Providence <sup>3)</sup> . . . . .	171	+41 49 46.4	+ 4 45 37.64	+46.92	+41 38 15.2	9.999363
Pulkowa Zentr. d. Stw.	75	+59 46 18.5	- 2 1 18.57	-19.93	+59 36 12.3	9.998914
Quebec Canada . . . . .	90	+46 47 59.2	+ 4 44 52.71	+46.80	+46 36 24.8	9.999231
Quito . . . . .	2846	- 0 14 0	+ 5 13 58.20	+51.58	- 0 13 54	0.000194
Riga (Polytechnikum) Turm	—	+56 57 7	- 1 36 28.11	-15.84	+56 46 30	9.998974
Rio de Janeiro . . . . .	63	-22 54 23.7	+ 2 52 41.52	+28.37	-22 46 6.0	9.999784
Rio de Janeiro (N. Stw.)	33	-22 53 41	+ 2 52 53.5	+28.40	-22 45 24	9.999782
Rom (Coll. Rom.) Mer.-Kr.	59	+41 53 53.6	- 0 49 55.36	- 8.19	+41 42 22.3	9.999354
Rom (Capitol) Mer.-Kr. .	65	+41 53 33.2	- 0 49 56.34	- 8.20	+41 42 1.9	9.999355
Rom (Vatican) Mer.-Kr. .	100	+41 54 12.4	- 0 49 48.26	- 8.18	+41 42 41.1	9.999357
Rousdon . . . . .	157	+50 42 38	+ 0 11 58.9	+ 1.96	+50 31 16	9.999137
Rugby . . . . .	119	+52 22 30	+ 0 5 2.0	+ 0.83	+52 11 16.7	9.999093
St. Louis Missouri . . . . .	—	+38 38 3.6	+ 6 0 49.15	+59.28	+38 26 45.5	9.999433
San Fernando . . . . .	30	+36 27 42.0	+ 0 24 49.30	+ 4.08	+36 16 37.7	9.999488
San Francisco <sup>4)</sup> . . . . .	—	+37 47 28.0	+ 8 9 42.81	+8.45	+37 36 14.8	9.999453
Santiago de Chile (N. St.)	580	-33 33 44.2	+ 4 42 46.0	+46.44	-33 23 4.1	9.999595
Santiago de Chile (A. St.)	619	-33 26 25.4	+ 4 42 36.9	+46.42	-33 15 46.4	9.999600
Sétif . . . . .	1120	+36 11 10	- 0 21 38.6	- 3.55	+36 0 7.7	9.999569
Simeis . . . . .	360	+44 24 11.1	- 2 15 58.1	-22.34	+44 12 35.6	9.999312
Sonneberg (Hoffmeister)	405	+50 21 29.5	- 0 44 42.87	- 7.34	+50 10 5.5	9.999163
Sonneberg (Erbisbühl)	640	+50 22 41.4	- 0 44 46.19	- 7.36	+50 11 17.5	9.999178
South Hadley . . . . .	76	+42 15 18.2	+ 4 50 19	+47.69	+42 3 45.9	9.999346
Stará Dala <sup>5)</sup> . . . . .	113	+47 52 27.3	- 1 12 45.49	-11.95	+47 40 54.9	9.999206
Stockholm Mer.-Kreis	44	+59 20 32.7	- 1 1 213.97	-11.86	+59 10 21.4	9.998922
Stonyhurst . . . . .	116	+53 50 40.0	+ 0 9 52.7	+ 1.62	+53 39 36.5	9.999056
Straßburg (N. St.) M.-Kr. <sup>6)</sup>	144	+48 35 0.4	- 0 31 4.53	- 5.10	+48 23 29.9	9.999190
Sydney . . . . .	44	-33 51 41.1	-10 4 49.54	-99.36	-33 40 58.2	9.999551
Tacubaya ) . . . . .	2311	+19 24 17.9	+ 6 36 46.71	+65.18	+19 17 3.0	9.999997
Tartu (Dorpat, Jurjew) Mer.-Kr.	67	+58 22 47.2	- 1 46 53.19	-17.56	+58 12 25.1	9.998946
Taschkent . . . . .	479	+41 19 36.7	- 4 37 10.57	-45.53	+41 8 7.1	9.999398

1) Vassar College. — 2) Alte Sternwarte 2°.0 nördlich, 18°.94 östlich; 65<sup>m</sup>. — 3) Seagrave. Ladd Observatory 35" nördlich, 18°.57 östlich. — 4) Davidson Observatory. — 5) Früher O-Gyalla. — 6) Seit Anfang 1881. — 7) Seit März 1883, früher in Chapultepec.

Name	See- höhe	Geogr. Breite	Länge von Greenwich + westlich	Korr. der Sternzeit	Geoz. Breite	Log. $\rho$ incl. Seehöhe
Teramo (Cerulli) . . . . .	398 <sup>m</sup>	+42° 39' 27"	— 0 <sup>h</sup> 54 <sup>m</sup> 55 <sup>s</sup> .8	— 9.02	+42° 27' 54"	9.999358
Tokio . . . . .	59	+35 40 21.4	— 9 18 10.09	— 91.69	+35 29 23.0	9.999509
Toronto . . . . .	116	+43 40 1.3	+ 5 17 34.67	+ 52.17	+43 28 26.5	9.999313
Tortosa (Ebro-Stw.) M.-Kr.	54	+40 49 14	— 0 1 58	— 0.32	+40 37 46	9.999382
Toulouse Mer.-Kr. . . . .	195	+43 36 44.0	— 0 5 51.2	— 0.96	+43 25 9.3	9.999320
Triest . . . . .	23	+45 38 45.4	— 0 55 2.90	— 9.04	+45 27 9.9	9.999256
Tsingtau (Met.-astr. Stat.) .	—	+36 4 11.3	— 8 1 16.21	— 79.06	+35 53 9.8	9.999496
Tucson Arizona <sup>(Steward Obs.)</sup> . . . . .	757	+32 13 59.4	+ 7 23 47.68	+ 72.90	+32 3 32.6	9.999638
Turin Mer.-Kr. . . . .	276	+45 4 7.9	— 0 30 47.15	— 5.06	+44 52 32.2	9.999288
Turin (Pino Torinese) . . .	618	+45 2 16.3	— 0 31 5.95	— 5.11	+44 50 40.6	9.999312
Upsala (N.Stw.) Pass.-Instr.	21	+59 51 29.4	— 1 10 30.13	— 11.58	+59 41 24.2	9.998909
Urbana Ill. . . . .	236	+40 6 20.2	+ 5 52 53.90	+ 57.97	+39 54 55.1	9.999412
Utrecht . . . . .	12	+52 5 9.5	— 0 20 31.6	— 3.37	+51 53 54.4	9.999093
Valkenburg (Ignatius Coll.)	100	+50 52 29.3	— 0 23 19.91	— 3.83	+50 41 7.8	9.999129
Venedig . . . . .	15	+45 26 10.5	— 0 49 22.12	— 8.11	+45 14 34.9	9.999261
Victoria B. C. (Dominion Obs.)	229	+48 31 15.7	+ 8 13 40.17	+ 81.18	+48 19 45.0	9.999197
Warschau <sup>1)</sup> Zentr. d. Stw.	121	+52 13 4.6	— 1 24 7.25	— 13.82	+52 1 50.3	9.999096
Warschau <sup>2)</sup> . . . . .	—	+52 13 10	— 1 24 4.8	— 13.81	+52 1 56	9.999088
Washington (Alte Stw.) . . .	31	+38 53 38.9	+ 5 8 12.13	+ 50.63	+38 42 19.4	9.999428
Washington (Neue Stw.) . . .	82	+38 55 14.0	+ 5 8 15.78	+ 50.64	+38 43 54.4	9.999431
Washington (Kath.Univ.) . . .	—	+38 56 14.8	+ 5 8 0.0	+ 50.60	+38 44 55.1	9.999425
Wellington Transit Instr. <sup>3)</sup>	127	— 41 17 3.8	— 11 39 4.27	— 114.84	— 41 5 34.3	9.999375
West Point N.Y. (N.Stw.) <sup>4)</sup>	170	+41 23 22.1	+ 4 55 50.6	+ 48.60	+41 11 52.3	9.999375
Wien (Alte Sternw.) . . . . .	167	+48 12 35.5	— 1 5 31.61	— 10.76	+48 1 3.9	9.999201
Wien (Josephstadt) <sup>5)</sup> . . . . .	214	+48 12 53.8	— 1 5 25.17	— 10.74	+48 1 22.2	9.999204
Wien (Neue Sternw.) Zentr. . .	240	+48 13 55.3	— 1 5 21.35	— 10.73	+48 2 23.8	9.999205
Wien (Ottakring) <sup>6)</sup> . . . . .	285	+48 12 46.7	— 1 5 10.97	— 10.71	+48 1 15.1	9.999209
Wien (Mil. Geogr. Inst.) . . . .	211	+48 12 40.5	— 1 5 26.24	— 10.75	+48 1 8.9	9.999203
Wien (Techn. Hochschule) . . .	200	+48 11 58.3	— 1 5 29.76	— 10.76	+48 0 26.7	9.999204
Wilhelmshaven Mer.-Kr. . . . .	9	+53 31 52.1	— 0 32 35.15	— 5.35	+53 20 46.4	9.999057
Williams-Bay Wisc. <sup>7)</sup> . . . . .	334	+42 34 12.6	+ 5 54 13.24	+ 58.19	+42 22 39.6	9.999356
Williamstown Mass. . . . .	213	+42 42 49	+ 4 52 53.5	+ 48.12	+42 31 16	9.999344
Wilna Pass.-Instr. . . . .	122	+54 40 59.1	— 1 41 8.76	— 16.61	+54 30 2.1	9.999036
Windsor N. S. W. <sup>8)</sup> . . . . .	16	— 33 36 30.8	— 10 3 20.77	— 99.11	— 33 25 50.2	9.999556
Wolfersdorf . . . . .	279	+50 47 20.0	— 0 46 50.94	— 7.70	+50 35 58.0	9.999143
Zô-sè China . . . . .	100	+31 5 48.0	— 8 4 44.82	— 79.63	+30 55 33.6	9.999619
Zürich Meridian-Kreis . . . . .	468	+47 22 38.3	— 0 34 12.3	— 5.62	+47 11 4.8	9.999242

1) Universitäts-Sternwarte. — 2) Dr. Jedrzejewicz; seit 1898, früher in Plonsk. — 3) Dominion Observatory. — 4) Seit 1883. Alte Sternwarte 9° nördlich, 18.2 östlich. — 5) von Oppolzers Sternwarte. — 6) v. Kuffner. — 7) Yerkes Observatory. — 8) J. Tebbutt. Neue Sternwarte, 0.4 südlich von der alten.

## Normalzeiten der wichtigeren Länder

### a) An den Meridian von Greenwich angeschlossen

Normalzeit = Mittl. Ortszeit des Meridians	Bezeichnung	Staaten
östl. Gr. h <sup>h</sup> m <sup>m</sup> 11 30	—	Neu Seeland
10 0	Ostaustralische Z.	Victoria, Neu Süd-Wales, Queensland, Tasmanien
9 30	—	Süd-Australien
9 0	—	Japan, Korea
8 0	Ostchinesische Küsten-Z.	Ostküste von China, West-Australien
7 0	Südchinesische Küsten-Z.	Südküste von China, Franz. Indochina
5 30	—	Indien, Ceylon
2 30	—	Deutsch Ostafrika
2 0	Osteuropäische Z.	Finnland, Estland, Lettland, Europ. Rußland, Bulgarien, Rumänien, Griechenland, Türkei, Palästina, Ägypten, Süd-Afrika
1 0	Mitteluropäische Z. (M. E. Z.)	Dänemark, Deutschland, Italien, Luxemburg, Nor- wegen, Österreich, Ungarn, Schweden, Schweiz, Jugoslawien, Polen, Deutsch Südwest-Afrika
h <sup>h</sup> m <sup>m</sup> 0 0	Westeuropäische Z. (Greenwich Z.)	Belgien, Frankreich, Großbritannien und Irland, Portugal, Spanien, Gibraltar, Algerien
westl. Gr. h <sup>h</sup> m <sup>m</sup> 3 0	—	Ost-Brasilien
4 0	Atlantic St. Time	Mittel-Brasilien, Argentinien, Uruguay, Canada (Küste)
4 30	—	Venezuela
5 0	Eastern St. Time	Canada (Quebec, Ontario bis 82° 30' westl.), Vereinigte Staaten (Ost-Zone), Chile, Panama, Peru, West-Brasilien
6 0	Central St. Time	Zentral-Zone von Canada und Vereinigte Staaten, Ostmexico
7 0	Mountain St. Time	Gebirgszone von Canada und Vereinigte Staaten, Westmexico
8 0	Pacific St. Time	Vereinigte Staaten (Pacifische Küste), Britisch Ko- lumbien
10 30	—	Sandwich Inseln

### b) Nicht an den Meridian von Greenwich angeschlossen

Staaten	Meridian	Längendifferenz gegen Greenwich
Columbien . . . . .	Bogota	h <sup>h</sup> m <sup>m</sup> s <sup>s</sup> 4 56 52.4 W.
Ecuador . . . . .	Quito	5 14 6.7 W.
Niederlande . . . . .	Amsterdam	0 19 30.5 0.

## Besondere Erläuterungen zu den Angaben und zum Gebrauch des Jahrbuchs.

Das Jahrbuch gibt die Örter der *Wandelsterne* in geozentrischen und in heliozentrischen Koordinaten. Die Zeitpunkte, für die sie gelten, sind, wenn nicht ausdrücklich eine andere Zeit angegeben wird, in Welt-Zeit ausgedrückt; **Welt-Zeit ist identisch mit Bürgerlicher Zeit Greenwich.** Der bürgerliche Tag beginnt um Mitternacht, die Weltzeit-Stunden sind von  $0^h$  bis  $24^h$  durchgezählt. Die Beziehung zu der bis zum Jahrgang 1924 (einschließlich) im Jahrbuch verwendeten Mittleren Zeit Greenwich besteht darin, daß der astronomische mittlere Tag erst am Mittag des bürgerlichen Tages, also  $12^h$  nach dessen Anfang beginnt. Somit ist 1925 Jan. 1,  $0^h$  Weltzeit gleich 1924 Dez. 31,  $12^h$  Mittlere Zeit Greenwich.

Die Örter der *Fixsterne* sind einmal als »Mittlere Sternörter« auf das mittlere Äquinoktium des Jahresanfangs bezogen, und dann in Ephemeridenform als scheinbare, auf das instantane wahre Äquinoktium bezogen, gegeben.

Zur Erläuterung ist im einzelnen folgendes zu bemerken:

### Sonnenephemeride (S. 2—38).

Der erste Teil der Sonnenephemeride (S. 2—19) gibt auf den linken Seiten für  $0^h$  Welt Zeit (= Mitternacht Greenwich) an jedem Tage:

- 1) Die Zeitgleichung = Mittlere Zeit *minus* Wahre Zeit.
- 2) Die geozentrischen, äquatorialen Koordinaten  $\alpha$ ,  $\delta$  des scheinbaren Sonnenorts, bezogen auf das jedesmalige wahre Äquinoktium, zugleich mit der ersten Differenzreihe. Diese Angaben sind direkt mit den Beobachtungen vergleichbar. Die Nutationsglieder kurzer Periode sind, wie im Vorwort erwähnt, in den Koordinaten nicht enthalten.
- 3) Die halbe Durchgangsdauer (in Sternzeit) der Sonnenscheibe durch den Meridian.
- 4) Den geozentrischen Halbmesser  $H$  der Sonnenscheibe, d. i. der Winkel, unter dem der Sonnenhalbmesser vom Erdmittelpunkt aus erscheint.

Die rechten Seiten geben:

- 1) Die Julianische Zeit, d. i. die Anzahl der seit Beginn der Julianischen Periode verflossenen mittleren Sonnentage.

2) Die Sternzeit für  $0^h$  Welt-Zeit.

Um für einen anderen Erdort der westlichen Längendifferenz  $\Delta\lambda$  (in Stunden) gegen Greenwich die Sternzeit in seiner Mitternacht zu erhalten, ist zu diesen Angaben zuzulegen:  $9^s.8565 \Delta\lambda$ . Diese Werte finden sich unter der Überschrift: »Korr. der Sternzeit« im Verzeichnis der Sternwarten.

3) Die geozentrischen ekliptikalischen Koordinaten  $\lambda$ ,  $\beta$  der Sonne, bezogen auf das mittlere Äquinoktium des Jahresanfangs, sowie  $\log R$ , den Logarithmus der Entfernung  $R$  der Erde von der Sonne. Diese Angaben finden bei Bahnrechnungen u. dergl. Verwendung.

4) Die bürgerlichen Ortszeiten des Aufgangs und Untergangs der Sonne für einen Ort des Nullmeridians in  $+50^\circ$  Breite; sie sind mit der Horizontalrefraktion  $34'$  berechnet und gelten für den oberen Rand der Sonne. Um daraus für einen beliebigen anderen Ort zwischen  $+30^\circ$  und  $+60^\circ$  geographischer Breite die entsprechenden Angaben zu erhalten, ist die Tabelle S. 340\*, 341\* zu benutzen.

Auf S. 20–37 folgen, bezogen auf das mittlere Äquinoktium des Jahresanfangs, die rechtwinkligen geozentrischen äquatorialen Sonnenkoordinaten für  $0^h$  und  $12^h$  Welt-Zeit mit ihren ersten Differenzen. Am Fuß der Seite 37 finden sich die Zeiten für die Anfänge der Jahreszeiten und für das Peri- und Apogäum der Sonne.

Die Seite 38 enthält die Aberration, Parallaxe, mittlere Länge  $L_\odot$  und mittlere Anomalie  $M_\odot$  der Sonne im Intervall von je 10 Tagen.

### Mondephemeride (S. 39–57).

Seite 39 enthält die Zeitangaben für die Phasen und das Peri- und Apogäum des Mondes.

Die Mondephemeride (S. 40–57) gibt auf den linken Seiten für  $0^h$  Welt-Zeit (= Mitternacht Greenwich):

1) Die scheinbare Rektaszension und Deklination des Mondmittelpunktes mit den ersten Differenzen.

2) Die Äquatorial-Horizontalparallaxe  $p_\alpha$  des Mondes.

3) Den geozentrischen Mondhalbmesser  $r_\alpha$ , d. i. der Winkel, unter dem der Mondhalbmesser vom Erdmittelpunkt aus erscheint.

4) Die Länge und Breite des Mondes, abgekürzt auf  $0^\circ.001$ .

Die rechten Seiten enthalten:

1) Für den oberen Durchgang des Mondes durch den Meridian von Greenwich die genäherten Angaben für die Rektaszension, Deklination und Parallaxe des Mondmittelpunktes, sowie die bürgerliche Greenwicher Zeit dieses Durchgangs, nebst den Änderungen für  $1^h$  westlicher Längendifferenz.

2) Die bürgerlichen Ortszeiten des Aufgangs und Untergangs des Mondes für einen Ort des Nullmeridians in  $+50^\circ$  Breite nebst Änderung für  $1^h$  westlicher Längendifferenz; sie sind mit der Horizontalrefraktion



34' berechnet und gelten für den oberen Rand des Mondes. Um daraus für einen beliebigen anderen Ort zwischen  $+30^{\circ}$  und  $+60^{\circ}$  geographischer Breite die entsprechenden Angaben zu erhalten, ist die Tabelle S. 342\*, 343\* zu benutzen.

### Ephemeriden der Großen Planeten

(S. 58—112).

Die geozentrischen Örter der Planeten sind für Merkur, Venus, Mars, Jupiter, Saturn von Tag zu Tag, für Uranus und Neptun von 4 zu 4 Tagen für 0<sup>h</sup> Welt-Zeit (= Mitternacht Greenwich) mit ihren ersten Differenzen gegeben, und zwar in scheinbaren, auf das momentane wahre Äquinoktium bezogenen Koordinaten. Die letzte Spalte gibt die bürgerliche Zeit (Greenwich) der oberen Kulmination in Greenwich.

Für die Reduktion und die Vergleichung der Planetenbeobachtungen mit der Ephemeride ist die Kenntnis der scheinbaren Halbmesser erforderlich. Man kann für dieselben in der Einheit der Entfernung annehmen:

für Merkur Halbmesser	. . . . .	3.34	
» Venus	» . . . . .	8.78	
» Mars	» . . . . .	4.68	
» Jupiter	» (Äquatorial)	99.8,	(Polar) 92.6
» Saturn	» (Äquatorial)	81.4,	(Polar) 73.4
» Uranus	» . . . . .	34.7	
» Neptun	» . . . . .	45	

Die heliozentrischen Ephemeriden der Planeten (S. 109—112) geben den Log. des Radiusvector, die Länge, deren Reduktion auf die Bahn und die Breite bezogen auf das mittlere Äquinoktium 1925.0.

$\Omega$  und  $i$  stellen die Bahnlage für die Epoche 1925.0 und das Normaläquinoktium 1925.0 dar.

Die Genauigkeit und Ausführlichkeit dieser heliozentrischen Angaben sind ihrem Hauptzweck, zur Berechnung der speziellen Störungen zu dienen, angepaßt.

Die beigegeführten Werte der Planetenmassen sind die den Tafeln von Newcomb und von Hill zugrunde liegenden. Für die Erde ist noch besonders zu erwähnen, daß die Masse von »Erde + Mond« gegeben ist, Radiusvector und heliozentrische Länge sich auf den Schwerpunkt des Systems »Erde + Mond« beziehen.

### Mittlere Örter von 925 Fixsternen (S. 2\*—25\*).

Die mittleren Örter der 925 Fixsterne sind aus den Daten der Veröffentlichung Nr. 33 des *Königlichen Astronomischen Rechen-Instituts* mit den daselbst angegebenen Hilfsgrößen für Präzession und Eigenbewegung abgeleitet worden. Nur die mittleren Örter der 20 Polsterne sind durch numerische Integration berechnet.

Ein \* vor dem Namen weist auf eine Anmerkung am Fuß der Seite hin.

Unter Gr. stehen die visuellen Größen, welche aus der »Revised Harvard Photometry« in »Harvard Annals, vol. 50« entnommen sind, sofern nichts Anderes bemerkt ist. Wo für einen Stern zwei Größen gegeben sind, beziehen sich diese auf die Komponenten eines Doppelsterns. Die in den Anmerkungen gegebenen Größen für Doppelsternkomponenten und für die Extrema der Veränderlichen sind dem »Henry Draper Catalogue« entnommen.

Die Spektren sind aus dem Draper Katalog übernommen worden. Zusammengesetzte Spektren sind durch + gekennzeichnet. In anderen Fällen beziehen sich, wo 2 Spektren gegeben sind, diese auf die Komponenten eines Doppelsterns.

### Scheinbare Örter von 579 Fixsternen (S. 26\* — 235\*).

Die scheinbaren Rektaszensionen und Deklinationen der Fixsterne sind für den Moment der oberen Kulmination im Meridian von Greenwich gegeben.

Die Ephemeriden der 555 Sterne mit Deklinationen kleiner als  $80^{\circ}$ , deren scheinbare Örter von 10 zu 10 Sterntagen gegeben sind, enthalten die kurzperiodischen Mondglieder der Nutation nicht. Doch sind auf S. 165\* für die Sterne mit Deklinationen über  $60^{\circ}$  die Größen  $a, b, a', b'$  gegeben, mit deren Hilfe diese Nutationsglieder leicht berechnet werden können. Das Datum des Tages, an welchem zwei Kulminationen stattfinden, ist in kleinem Druck vor der Rektaszensionsspalte angeführt.

Die jährliche Parallaxe ist bei folgenden Sternen berücksichtigt, bei denen sie  $0''.20$  übersteigt und hinreichend verbürgt erscheint, nämlich:

Nr. 59 $\tau$ Ceti	mit $0.31$	Nr. 538 $\alpha$ Centauri	mit $0.75$
Nr. 127 $\varepsilon$ Eridani	» $0.32$	Nr. 745 $\alpha$ Aquilae	» $0.23$
Nr. 257 $\alpha$ Can. maj.	» $0.38$	Nr. 793 $61$ Cygni	» $0.30$
Nr. 291 $\alpha$ Can. min.	» $0.33$		

Von den im B. J. nicht mit Ephemeriden versehenen Sternen des N. F. K. besitzt noch Nr. 825,  $\varepsilon$  Indi, eine Parallaxe von  $0''.25$ .

Die Ephemeriden der auf S. 2\*—24\* eingeklammerten Sterne findet man in »Posiciones medias y aparentes de 350 estrellas«. (Suplemento al Almanaque Nautico.)

Es folgen die scheinbaren Örter von 20 Polsternen für jede obere Kulmination. Sie enthalten die kurzperiodischen Mondglieder nicht, jedoch sind deren Werte in besonderen Spalten gegeben.

Am Fuße der Ephemeriden ist der mittlere Ort eines jeden Sternes für den Anfang des Jahres und die Werte von  $\sec \delta$  und  $\operatorname{tg} \delta$  angegeben, welche bei der Reduktion der Meridianbeobachtungen nach der hierfür am zweckmäßigsten erscheinenden Besselschen Formel gebraucht werden.

Auf den Seiten 226\*—235\* sind die scheinbaren, rechtwinkligen Koordinaten von vier polnahen Sternen gegeben. Sie beziehen sich auf ein Koordinatensystem, dessen positive  $x$ -Achse nach dem Frühlingspunkt und dessen positive  $y$ -Achse nach dem Punkt  $\alpha = 6^h$ ,  $\delta = 0^0$  gerichtet ist. Der Zusammenhang zwischen  $x$ ,  $y$  und  $\alpha$ ,  $\delta$  ist gegeben durch die Beziehungen:  $x = \cos \delta \cos \alpha$ ,  $y = \cos \delta \sin \alpha$ . Die Angaben gelten für 12<sup>h</sup> Sternzeit Greenwich und enthalten die kurzperiodischen Mondglieder der Nutation nicht, deren Werte jedoch in der letzten Spalte einer jeden Seite unter der Überschrift »Kurzperiod. Mondgl.« gegeben sind.

Als Quellen für die Koordinaten und Eigenbewegungen dieser vier Sterne sind benutzt worden:

- für BD + 89° 1: L. Courvoisier: Beobachtungen des Sterns BD 89° 1 am großen Meridiankreis der Berliner Sternwarte. *Astron. Nachr.* Bd. **200**, 243,
- für BD + 89° 3: L. Courvoisier: Ephemeriden der Polsterne BD 89°3 und BD 89°37 für 1923. *Astron. Nachr.* Bd. **217**, 319,
- für BD + 89°37: L. Courvoisier: Neue Position und Eigenbewegung des Polsterns BD +89° 37. *Astron. Nachr.* Bd. **230**, 71,
- für CPD - 89°38: Cape Annals Bd. XI, II, 244 für den Ort und eine briefliche Mitteilung für die Eigenbewegung.

Mit den an diesen Stellen gegebenen Werten findet man folgende mittleren Örter für 1929.0:

Name	Gr.	x	Jährliche Veränd. 1929,5	Jährliche Eigenbw.	y	Jährliche Veränd. 1929,5	Jährliche Eigenbw.
	M						
BD + 89° 1	10.56	- 58.95	-20.086	-0.024	+ 79.34	-0.024	-0.008
BD + 89° 3	9.06	+142.46	-20.240	-0.003	+863.55	+0.024	-0.006
BD + 89° 37	10.06	-841.82	-19.979	-0.011	-343.05	-0.175	+0.015
CPD - 89° 38	9.5	-249.32	+20.087	-0.027	-309.23	-0.084	-0.031

### Reduktionsgrößen (S. 236\*—286\*).

Auf die scheinbaren Örter der Sterne folgt S. 236\* eine Zusammenstellung der Werte, mit welchen die Reduktionsgrößen der darauf folgenden Tafeln berechnet sind, und der Formeln für die Reduktion auf den scheinbaren Ort.

Die Größen zur »Reduktion auf den scheinbaren Ort« sind in ihrer ersten Form:  $A, B, C, D, E; A', B'$  gegeben für 12<sup>h</sup> Sternzeit des Meridians von Greenwich:

1) Auf S. 237\* im Intervall von 10 Sterntagen.

Diese Tafel soll zur Berechnung von Sternephemeriden für die Epochen der Meridiandurchgänge dienen. Wegen ihrer logarithmischen Form und des großen Intervalls ist die Tafel zur Interpolation nicht geeignet. Man wird deshalb zweckmäßig die Interpolation erst nach der Summierung der einzelnen unmittelbar für die Epochen der Tafel berechneten Glieder vornehmen.

2) Auf S. 256\*—264\* für jeden Sterntag. Hier sind die numerischen Werte von  $A, B, C$  und  $D$  mit ihren Differenzen gegeben und die kurzperiodischen Mondglieder  $A'$  und  $B'$  mit angeführt.

Beiden Tafeln ist in einer Spalte die dem festen Sternzeitmoment jedesmal entsprechende Welt-Zeit (bürgerliche Zeit Greenwich) vorangestellt; man wird hiernach auf jeden beliebigen Zeitpunkt, gegeben durch Datum, Sternzeit und Längendifferenz gegen Greenwich, übergehen können. Eine weitere Spalte gibt die seit Beginn des annus fictus verfllossene Zeit in Bruchteilen des tropischen Jahres.

Die Reduktionsgrößen der zweiten Form:  $f, \log g, G, \log h, H, \log i$  und  $i$ , sowie  $f', g'$  und  $G'$  sind S. 238\*—255\* von Tag zu Tag für 0<sup>h</sup> Welt-Zeit (= Mitternacht Greenwich) gegeben.

Auch hier findet sich eine Spalte,  $t$  überschrieben, welche die seit Beginn des annus fictus verfllossene Zeit in Bruchteilen des tropischen Jahres gibt. Ferner ist die Sternzeit Greenwich für 0<sup>h</sup> Welt-Zeit gegeben.

Die Seiten mit ungerader Seitenzahl enthalten außer den schon erwähnten  $f', g', G'$  noch folgende Größen:

- a)  $\psi$  = Allgemeine Präzession seit Jahresanfang.
- b)  $\Delta\psi$  = Langperiodische Glieder der Nutation in Länge.
- c)  $\Delta\psi'$  = Kurzperiodische Glieder der Nutation in Länge.
- d)  $\varepsilon$  = Wahre Schiefe der Ekliptik.
- e)  $\Delta\varepsilon$  = Langperiodische Glieder der Nutation in Schiefe.
- f)  $\Delta\varepsilon'$  = Kurzperiodische Glieder der Nutation in Schiefe.

Die mittlere Schiefe der Epoche erhält man durch Subtraktion der Gesamtnutation ( $\Delta\varepsilon + \Delta\varepsilon'$ ) von der wahren Schiefe.

Auf S. 265\* findet sich eine Tafel der Hilfsgrößen zur Berechnung der Präzession von verschiedenen mittleren Äquinoktien bis 1929.0.

S. 266\* enthält eine Tafel der Hilfsgrößen zur Übertragung der Polsternörter von verschiedenen mittleren Äquinoktien auf das mittlere Äquinoktium 1929.0.

Die Tafeln auf Seite 268\*–279\* enthalten, in Einheiten der vierten Dezimale, die Größen  $p$ ,  $q$ ,  $r$ , welche die Bedeutung haben:

$$\begin{aligned} p &= [-g \cos(G + \alpha) \sin \delta - h \cos(H + \alpha)] \cdot \text{arc } 1' \\ q &= [-g \sin(G + \alpha) - h \sin(H + \alpha) \sin \delta] \cdot \text{arc } 1' \\ r &= [-h \cos(H + \alpha) \cos \delta + i \sin \delta] \cdot \text{arc } 1' \end{aligned}$$

Sie dienen dazu, bei Anschlußbeobachtungen die gemessenen scheinbaren Rektaszensions- und Deklinationsdifferenzen in mittlere, für den Jahresanfang geltende zu verwandeln. Es ist:

$$\begin{aligned} \text{Red. der Rektaszensionsdiff. a. d. Jahresanf.} &= p \cdot \Delta \alpha^m \cdot \sec \delta + q \cdot \Delta \delta' \cdot \frac{1}{15} \sec^2 \delta, \\ \text{» » Deklinationsdiff. » » »} &= -q \cdot 15 \cdot \Delta \alpha^m + r \Delta \delta', \end{aligned}$$

worin  $\Delta \alpha^m$  die Rektaszensionsdifferenz in Zeitminuten,  $\Delta \delta'$  die Deklinationsdifferenz in Bogenminuten bezeichnet. Die Reduktion der gemessenen Rektaszensionsdifferenz ergibt sich in Zeitsekunden die Reduktion der gemessenen Deklinationsdifferenz in Bogensekunden.

Ein ausführliches Beispiel für die Benutzung dieser Tafeln ist im Jahrgang 1927, S. 472 enthalten.

Die Seite 280\* enthält eine Tafel zur Übertragung von Rektaszensions- und Deklinationsdifferenzen vom mittleren Äquinoktium 1929.0 auf das Normaläquinoktium 1925.0. Man findet die auf das Normaläquinoktium 1925.0 bezogene Koordinatendifferenz, indem man an der auf das mittlere Äquinoktium 1929.0 bezogenen Rektaszensionsdifferenz die differentielle Präzession  $\Delta p_\alpha^0$  und an der Deklinationsdifferenz die differentielle Präzession  $\Delta p_\delta^0$  anbringt:

$$\begin{aligned} \Delta p_\alpha^0 &= a_1 \text{tg } \delta \cdot \Delta \alpha^m + a_2 \frac{1}{15} \sec^2 \delta \cdot \Delta \delta', \\ \Delta p_\delta^0 &= d_1 \cdot \Delta \alpha^m. \end{aligned}$$

Die Koeffizienten  $a_1$ ,  $a_2$  und  $d_1$  sind in der Tafel auf S. 280\* enthalten und haben die Bedeutung

$$\begin{aligned} a_1 &= 60(n) \text{ arc } 1'' \cos \alpha \\ a_2 &= 60(n) \text{ arc } 1'' \sin \alpha \\ d_1 &= -900(n) \text{ arc } 1'' \sin \alpha. \end{aligned}$$

$\Delta \alpha^m$  und  $\Delta \delta'$  ist die auf das mittlere Äquinoktium 1929.0 bezogene Rektaszensions- und Deklinationsdifferenz in Zeit- bez. Bogenminuten. Nach den angegebenen Formeln findet man die differentielle Präzession für Rektaszension in Zeitsekunden, diejenige für Deklination in Bogensekunden.

Die auf den Seiten 281\*–282\* gegebenen Größen  $f$ ,  $\log g$  und  $G$  dienen zur Übertragung der Örter von dem *mittleren* Normaläquinoktium 1925.0 auf das jedesmalige *wahre* Äquinoktium. Die Berücksichtigung des Einflusses der Variatio saecularis bei dieser Übertragung ist durch die Tafel auf S. 283\* gegeben.

Eine Tafel zur Übertragung von Sternörterern vom mittleren Äquinoktium 1929.0 auf das Normaläquinoktium 1925.0 befindet sich auf den Seiten 284\*—286\*.

Die hier tabulierten Größen sind gerechnet nach den Formeln:

$$A = (m) + \frac{v^2}{4} \sin 2a$$

$$A_1 = v \sin a$$

$$A_2 = \frac{v^2}{2} \sin 2a$$

$$D = v \cos a$$

$$D_1 = -\frac{v^2}{2} \sin^2 a,$$

wobei  $v = \sin(n)$ ,  $a = \alpha_{1929.0} + 90^\circ - (N)$ . Betreffs der Größen  $(m)$ ,  $(n)$  und  $90^\circ - (N)$  vgl. S. 266\*.

### Sonnenfinsternisse (S. 288\*—292\*).

Die bei den Sonnenfinsternissen gegebenen Besselschen Elemente dienen in der folgenden Weise zur Vorausberechnung der Phasenzeiten und der Positionswinkel der Kontakte:

Mit einer Ausgangszeit  $T$  (siehe weiter unten) entnimmt man der Elemententabelle die Werte:

$x, y, \log \sin d, \log \cos d, \mu, l(l^{(a)}$  für äußere,  $l^{(i)}$  für innere Berührung),  $\log \operatorname{tang} f$  ( $f^{(a)}$  für äußere,  $f^{(i)}$  für innere Berührung),  $x'$  und  $y'$ .

Mit ihnen rechnet man das folgende Formelsystem durch:

$$(1) \begin{cases} \xi = c \cos \varphi \sin(\mu - \lambda) \\ \eta = s \sin \varphi \cos d - c \cos \varphi \sin d \cos(\mu - \lambda) \\ \zeta = s \sin \varphi \sin d + c \cos \varphi \cos d \cos(\mu - \lambda) \\ \xi' = [7.6398 - 10] c \cos \varphi \cos(\mu - \lambda) \\ \eta' = [7.6398 - 10] \xi \sin d, \end{cases}$$

worin  $\varphi$  die geographische Breite,  $\lambda$  die westliche Länge (von Greenwich) des Beobachtungsortes bezeichnen,  $s$  und  $c$  aus der Tafel auf S. 354\* zu entnehmen sind.

Alsdann:

$$(2) \begin{cases} m \sin M = x - \xi \\ m \cos M = y - \eta \end{cases} \left. \vphantom{\begin{matrix} m \sin M \\ m \cos M \end{matrix}} \right\} m > 0 \\ \begin{cases} n \sin N = x' - \xi' \\ n \cos N = y' - \eta' \end{cases} \left. \vphantom{\begin{matrix} n \sin N \\ n \cos N \end{matrix}} \right\} n > 0$$

Nun berechnet man aus:

$$(3) \quad L = l - \zeta \operatorname{tang} f$$

$L^{(a)}$  mit  $l^{(a)}$  und  $f^{(a)}$ ,  $L^{(i)}$  mit  $l^{(i)}$  und  $f^{(i)}$ ; dann aus:

$$(4) \quad \sin \psi = \frac{m \sin (M - N)^{1)} }{L}$$

mit  $L^{(a)}$  und  $L^{(i)}$  je zwei Werte  $\psi^{(a_1)}$ ,  $\psi^{(a_2)}$  und  $\psi^{(i_1)}$ ,  $\psi^{(i_2)}$ , von denen der eine zum Eintritt der Erde in den Halb- oder Kernschatten-Kegel, der andere zu ihrem Austritt aus ihm gehört. Diesen vier Werten  $\psi^{(a_1)}$ ,  $\psi^{(a_2)}$  und  $\psi^{(i_1)}$ ,  $\psi^{(i_2)}$  entsprechen vier Werte  $\tau^{(a_1)}$ ,  $\tau^{(a_2)}$  und  $\tau^{(i_1)}$ ,  $\tau^{(i_2)}$  (in Zeitminuten) nach

$$(5) \quad \tau = - \frac{m \cos (M - N)}{n} + \frac{L \cos \psi}{n},$$

um welche die Ausgangszeit  $T$  zu verbessern ist, um die Zeit der gesuchten Phase zu erhalten. Ist  $T$  die gesuchte Phasenzeit, so wird  $\tau = 0$  werden. Man muß daher das Formelsystem (1) bis (5) mit steigenden Näherungen solange durchrechnen, bis dieser Fall eintritt, d. h. bis das Formelsystem sich schließt. Zu diesem Zweck beginnt man mit einem Näherungswert  $T_1$ , für den man, wenn kein besserer bekannt sein sollte, eine beliebige Zeit nahe der Mitte der Finsternis nehmen mag, und rechnet die erste genäherte Korrektion  $\tau_1$ ; dann wiederholt man die Rechnung mit  $T_2 = T_1 + \tau_1$ , dann mit  $T_3 = T_2 + \tau_2 = T_1 + \tau_1 + \tau_2$  u. s. f. bis  $\tau_n = 0$  sich ergibt.  $T_n$  ist dann die gesuchte Welt-Zeit des Kontaktes, die durch Hinzufügung der Längendifferenz in mittlere Ortszeit zu verwandeln ist. Die Rechnung ist für jede Berührung gesondert durchzuführen.

Die Positionswinkel der einzelnen Phasen, in üblicher Weise vom Punkt größter Deklination gezählt, folgen aus den Werten der letzten Näherung (Größen mit dem Index  $n$ ) nach

$$P = N + \psi.$$

Will man den Winkelabstand  $Q$  vom Punkte der größten Höhe haben, so hat man von  $P$  noch den parallaktischen Winkel  $\gamma$  abzuziehen, der aus

$$\left. \begin{aligned} p \sin \gamma &= \xi \\ p \cos \gamma &= \eta \end{aligned} \right\} p > 0$$

folgt, also

$$Q = P - \gamma.$$

Um die Zeit der größten Phase,  $T_{\max}$ , zu erhalten, hat man die beiden Formelsysteme (1) und (2) mit einem Näherungswerte  $\overline{T_1}$  durchzurechnen,

<sup>1)</sup> Wird der Winkel  $\psi$  bei der ersten Näherungsrechnung imaginär, so rechne man  $\tau$  unter der Annahme  $\psi = 90^\circ$  aus  $\tau = - \frac{m \cos (M - N)}{n}$ ; bleibt  $\psi$  auch in der weiteren Rechnung imaginär, so deutet dies an, daß an dem betreffenden Orte keine Sonnenfinsternis stattfindet.

daraus  $\bar{T}_2 = \bar{T}_1 - \frac{m \cos(M-N)}{n}$  zu entnehmen und die Rechnung solange fortzusetzen, bis die Korrektur der Ausgangszeit 0 wird. Als Näherungswert  $\bar{T}_1$  wählt man zweckmäßig das Mittel der beiden Werte von  $T_2$  für die Berührungszeiten.

Die Größe der Verfinstörung,  $i$ , in Teilen des Sonnendurchmessers ausgedrückt, ergibt sich dann aus:

$$i = \frac{L^{(a)} - m}{2 L^{(a)} - 0,5450}$$

worin  $L^{(a)}$  und  $m$  die zur Zeit  $T_{\max}$  gehörigen Werte bedeuten.

### Sternbedeckungen (S. 293\*—296\*)

Auf den Seiten 293\*—294\* ist ein Verzeichnis von Sternen mit Angabe ihrer genäherten Örter enthalten, für welche im Jahre 1929 in Mitteleuropa Bedeckungen durch den Mond beobachtet werden können. Die Welt-Zeit der Konjunktion in Rektaszension von Mond und Stern ist auf den Seiten 294\*—296\* gegeben. Genauere Angaben zur Berechnung der Sternbedeckungen findet man in der American Ephemeris.

### Mondbewegung und Lage des Mondäquators gegen den Erdäquator (S. 297\*).

Auf S. 297\* finden sich:

$\Omega$ , Aufsteigender Knoten der Mondbahn auf der Ekliptik

$L_G$ , Mittlere Länge des Mondes

$M_G$ , Mittlere Anomalie des Mondes

$i$ , Neigung des Mondäquators gegen den Erdäquator

$\Omega'$ , Aufsteigender Knoten des Mondäquators auf dem Erdäquator

$\Delta$ , Stück des Mondäquators zwischen Ekliptik und Erdäquator

$\mathcal{S}$ , der aufsteigende Knoten des Mondäquators auf der Ekliptik, ist gleich dem absteigenden Knoten der Mondbahn, also

$$\mathcal{S} = \Omega \pm 180^\circ.$$

Vom Jahrgang 1926 ab sind die Brownschen Mondtafeln verwendet.

Die Größen  $i$ ,  $\Delta$  und  $\Omega'$  berechnen sich aus:

$$\sin \frac{1}{2} (\Delta + \Omega') \cos \frac{1}{2} i = \cos \frac{1}{2} (\varepsilon - J) \sin \frac{1}{2} \mathcal{S}$$

$$\cos \frac{1}{2} (\Delta + \Omega') \cos \frac{1}{2} i = \cos \frac{1}{2} (\varepsilon + J) \cos \frac{1}{2} \mathcal{S}$$

$$\sin \frac{1}{2} (\Delta - \Omega') \sin \frac{1}{2} i = \sin \frac{1}{2} (\varepsilon - J) \sin \frac{1}{2} \mathcal{S}$$

$$\cos \frac{1}{2} (\Delta - \Omega') \sin \frac{1}{2} i = \sin \frac{1}{2} (\varepsilon + J) \cos \frac{1}{2} \mathcal{S};$$



dabei ist  $J$ , die Neigung des Mondäquators gegen die Ekliptik, nach F. Hayn (Astr. Nachr. Bd. 199, S. 263) zu  $J = 1^\circ 32' 20''$  angenommen worden. Die Zahlen geben die Lage des mittleren Mondäquators (ohne physische Libration).

Die auf S. 297\* gemachten Angaben über die Elemente der Mondbahn und des Mondäquators werden, teilweise in Verbindung mit den Größen  $L_\odot$  und  $M_\odot$  auf S. 38, zu verschiedenen Zwecken verwendet:

1) Als Argumente für die Berechnung der Reduktionsgrößen  $A, B, C, D, E, A', B'$ .

2) Bei Bestimmung der selenographischen Koordinaten von Punkten der Mondoberfläche (siehe darüber den folgenden Abschnitt).

3) Bei Berechnung der *optischen* und *physischen* Libration des Mondes.

a) Für die Berechnung der *optischen* Libration des Mondes sind alle nötigen Angaben in den Erläuterungen zu den Hilfstafeln unter Nr. 7 (S. 382\*) gemacht.

b) Die Beträge der *physischen* Mondlibration in selenographischer Länge, der Neigung des Mondäquators und seinem aufsteigenden Knoten auf der Ekliptik  $\tau, \varrho, \sigma$  haben die Werte:

$$\tau = -13'' \sin M_\zeta + 65'' \sin M_\odot + 26'' \sin 2(L_\zeta - M_\zeta - \delta)$$

$$\varrho = -106'' \cos M_\zeta + 34'' \cos(2L_\zeta - M_\zeta - 2\delta) - 11'' \cos 2(L_\zeta - \delta)$$

$$\sigma \sin J = -108'' \sin M_\zeta + 34'' \sin(2L_\zeta - M_\zeta - 2\delta) - 11'' \sin 2(L_\zeta - \delta)$$

Diese Zahlenangaben beruhen auf der Annahme  $f = 0.73$ , worüber F. Hayn (Astr. Nachr. Bd. 199, S. 264) einzusehen ist.

## Ephemeride für den Mondkrater Mösting A.

(S. 298\*—302\*).

Die Ephemeride des Mondkraters Mösting A dient zwei verschiedenen Zwecken: erstens zur genauen Bestimmung von Mondörtern am Himmel durch Beobachtung des Kraters, zweitens zur Bestimmung der selenographischen Koordinaten weiterer Punkte der Mondoberfläche durch deren mikrometrischen Anschluß an Mösting A.

Sie gilt für 0<sup>h</sup> Welt-Zeit (= Mitternacht Greenwich) und enthält für die Tage, an welchen Mösting A innerhalb der Beleuchtungsgrenze liegt, die Unterschiede  $\alpha_\zeta - \alpha_k$  in Rektaszension und  $\delta_\zeta - \delta_k$  in Deklination zwischen der Mondmitte und dem Krater, vom Erdmittelpunkt aus gesehen, sowie den Logarithmus des Sinus der Äquatorial-Horizontalparallaxe  $p_k$  des Kraters, welche von der des Mondes  $p_\zeta$  zu unterscheiden ist, mit den zugehörigen Differenzen.

Zur Anwendung der Ephemeride auf Beobachtungen des Kraters interpoliere man  $\alpha_{\zeta} - \alpha_k$ ,  $\delta_{\zeta} - \delta_k$  und  $\log \sin p_k$  mit der Beobachtungszeit. Fügt man alsdann  $\alpha_{\zeta} - \alpha_k$  und  $\delta_{\zeta} - \delta_k$  zum geozentrischen Ort des Kraters (die Parallaxe wird mit  $p_k$  und  $\delta_k$ , der Deklination des Kraters, berechnet), so hat man die geozentrische Rektaszension und Deklination des Mondes für die Beobachtungszeit.

Hat man einen Punkt der Mondoberfläche mikrometrisch an Mösting A angeschlossen, so bestimme man zunächst die topozentrischen, d. h. mit Parallaxe behafteten Koordinatendifferenzen  $\alpha'_{\zeta} - \alpha'_k$  und  $\delta'_{\zeta} - \delta'_k$  zwischen Mondmittelpunkt und Mösting A aus folgenden Identitäten:

$$\begin{aligned}\alpha'_{\zeta} - \alpha'_k &= \alpha_{\zeta} - \alpha_k + (\alpha'_{\zeta} - \alpha_{\zeta}) - (\alpha'_k - \alpha_k) \\ \delta'_{\zeta} - \delta'_k &= \delta_{\zeta} - \delta_k + (\delta'_{\zeta} - \delta_{\zeta}) - (\delta'_k - \delta_k).\end{aligned}$$

Verbindet man die so erhaltenen topozentrischen Abstände zwischen der Mondmitte und Mösting A mit den mikrometrischen Messungen zwischen Mösting A und einem zweiten Krater, so erhält man die topozentrische Lage des letzteren gegen die Mondmitte und kann hieraus mit Hilfe von  $\alpha'_{\zeta}$  und  $\delta'_{\zeta}$  und den Angaben auf Seite 297\* die selenographische Länge und Breite des zweiten Kraters berechnen. Hierzu dienen die im folgenden angeführten Formeln.

Bezeichnet man mit  $\alpha'$  und  $\delta'$  die topozentrische AR. und Dekl. des an Mösting A angeschlossenen Kraters, so hat man:

$$\begin{aligned}s \sin \pi_m &= (\alpha' - \alpha'_{\zeta}) \cos \frac{1}{2}(\delta' + \delta'_{\zeta}) \\ s \cos \pi_m &= \delta' - \delta'_{\zeta} \\ \pi &= \pi_m - \frac{1}{2}(\alpha' - \alpha'_{\zeta}) \sin \frac{1}{2}(\delta' + \delta'_{\zeta}) \\ \sin(K + s) &= \sin s \operatorname{cosec} h'.\end{aligned}$$

$h'$  ist der Abstand des Kraters vom Mondschwerpunkt, gesehen vom Beobachtungsort aus, der aus  $h$ , dem vom Erdmittelpunkt aus gesehenen Abstand, durch Anbringen der Parallaxe gewonnen wird. Ist die Entfernung des Kraters vom Mondschwerpunkt gänzlich unbekannt, so möge für  $h$  der aus Sternbedeckungen folgende Wert des Mondhalbmessers  $15' 32''.59$  (nach J. Peters, Astr. Nachr. Bd. 138, S. 147) eingesetzt werden.

$$\begin{aligned}\sin d &= -\sin \delta'_{\zeta} \cos K + \cos \delta'_{\zeta} \sin K \cos \pi \\ \cos d \cos(a - \alpha'_{\zeta}) &= -\cos \delta'_{\zeta} \cos K - \sin \delta'_{\zeta} \sin K \cos \pi \\ \cos d \sin(a - \alpha'_{\zeta}) &= \sin K \sin \pi \\ \sin \beta &= \sin d \cos i - \cos d \sin i \sin(a - \Omega') \\ \cos \beta \sin \lambda' &= \sin d \sin i + \cos d \cos i \sin(a - \Omega') \\ \cos \beta \cos \lambda' &= \cos d \cos(a - \Omega') \\ \lambda &= \lambda' - 180^{\circ} - L_{\zeta} - (\Delta - \mathcal{U}).\end{aligned}$$

Die so erhaltenen Werte von  $\lambda$  und  $\beta$  beziehen sich auf den mittleren (vom Einfluß der physischen Libration freien) Mondäquator; die Transformation auf den wahren erfolgt durch die Korrekturen:

$$d\lambda = +13'' \sin M_{\odot} - 65'' \sin M_{\ominus} - 26'' \sin 2(L_{\odot} - M_{\odot} - \delta\delta) \\ + \operatorname{tg} \beta [-106'' \cos(L_{\odot} - M_{\odot} - \delta\delta + \lambda) + 34'' \cos(L_{\odot} - M_{\odot} - \delta\delta - \lambda) \\ - 11'' \cos(L_{\odot} - \delta\delta - \lambda)] \\ d\beta = +108'' \sin(L_{\odot} - M_{\odot} - \delta\delta + \lambda) + 34'' \sin(L_{\odot} - M_{\odot} - \delta\delta - \lambda) \\ - 11'' \sin(L_{\odot} - \delta\delta - \lambda)$$

Bringt man diese Korrekturen  $d\lambda$  und  $d\beta$  an  $\lambda$  und  $\beta$  an, so erhält man die selenographischen Koordinaten des Kraters:

$$\lambda_0 = \lambda + d\lambda, \quad \beta_0 = \beta + d\beta$$

Der Berechnung der Ephemeride des Kraters Mösting A liegen folgende von F. H a y n ermittelten Konstanten (Astr. Nachr. Bd. 199. S. 263) zugrunde:

$$\lambda_0 = -5^{\circ} 10' 7'', \quad \beta_0 = -3^{\circ} 11' 2'' \\ h = 15' 33''.4$$

Für die Reduktion auf den mittleren Mondäquator wurden die Werte angenommen:

$$d\lambda = -13'' \sin M_{\odot} + 65'' \sin M_{\ominus} + 26'' \sin 2(L_{\odot} - M_{\odot} - \delta\delta) \\ d\beta = -108'' \sin(L_{\odot} - M_{\odot} - \delta\delta + \lambda_0) - 34'' \sin(L_{\odot} - M_{\odot} - \delta\delta - \lambda_0) \\ + 11'' \sin(L_{\odot} - \delta\delta - \lambda_0),$$

so daß die auf den mittleren Mondäquator bezogenen selenographischen Koordinaten des Kraters Mösting A sind:

$$\lambda = \lambda_0 + d\lambda, \quad \beta = \beta_0 + d\beta.$$

Die Formeln zur Berechnung der Ephemeride siehe in den Erläuterungen zum Jahrbuch 1916.

### Jupitertrabanten (S. 303\*—304\*).

Die Seiten 303\* und 304\* enthalten die Zeitangaben (in Weltzeit) für die Verfinsterungen der vier hellen Jupitertrabanten in dem Schattenkegel des Jupiter; Ein- und Austritte sind durch beigefügtes E. und A. unterschieden.

### Saturnsring (S. 305\*—308\*, 319\*).

Die Angaben für die scheinbare Größe des Saturn und für die Lage und Größe des Saturnsrings haben die folgende Bedeutung:

$\alpha$  Große Achse des Saturn.

$\beta$  Kleine Achse des Saturn.

$p_a$  Phase; positiv, wenn der Ostrand, negativ, wenn der Westrand verdunkelt ist.

$a$  Große Achse der Ringellipse.

- b* Kleine Achse der Ringellipse; positiv, wenn die nördliche, negativ, wenn die südliche Fläche des Ringes sichtbar ist.
- U'* Heliozentrische Länge des Saturn, gezählt auf der Ringebene vom aufsteigenden Knoten des Ringes in der Ekliptik an.
- B'* Erhöhungswinkel der Sonne über der Ringebene vom Saturn aus gesehen; nördlich positiv, südlich negativ.
- P'* Winkel der kleinen Achse der Ringellipse mit dem durch den Saturnsmittelpunkt gehenden Längenkreise; östlich positiv, westlich negativ.
- U* Geozentrische Länge des Saturn, gezählt auf der Ringebene vom aufsteigenden Knoten des Ringes im Erdäquator an.
- B* Erhöhungswinkel der Erde über der Ringebene vom Saturn aus gesehen; nördlich positiv, südlich negativ.
- P* Winkel der kleinen Achse der Ringellipse mit dem durch den Saturnsmittelpunkt gehenden Stundenkreise; östlich positiv, westlich negativ.
- N* Aufsteigender Knoten der Ringebene im Erdäquator, gezählt vom Äquinoktium an.
- J* Neigung der Ringebene gegen den Erdäquator.
- $\omega$  Entfernung der Ekliptik vom Erdäquator, gemessen auf der Ringebene.

Es liegen folgende Bestimmungen nach *Struve* zugrunde:

Durchmesser des Saturn in der Entfernung 9,53887

Äquatorial 17".47                      Polar 15".65

Lage des Saturnsringes gegen die Ekliptik und das Äquinoktium  
von 1889.25

$\Omega_1 = 167^\circ 57'.0$       und       $i_1 = 28^\circ 5'.6$ ;

Durchmesser des Ringes in der Entfernung 9,53887

$2R = 39".35$

### Saturnstrabanten (S. 309\*—332\*).

Die Berechnungen über die Saturnstrabanten sind mit den von *H. Struve* in:

I. Beobachtungen der Saturnstrabanten, 1. Abteilung, 1. Supplementheft zu den »*Observations de Poulkova*«;

II. *Publications de l'Observatoire Central Nicolas*, Série II, Vol. XI abgeleiteten, in *Astr. Nachr.* Bd. 162, S. 325 u. ff. und von *G. Struve* in *Veröff. Berlin-Babelsberg VI* 1 weiter verbesserten Elementen durchgeführt. Für die Halbachsen der 6 inneren Trabanten sind die auf Seite 239 der zweiten Abhandlung mittels der Saturnsmasse

$\mu = \frac{1}{3500}$  rechnerisch abgeleiteten Werte angenommen.

Die den Ephemeriden zugrunde liegenden Elemente sind:

MIMAS (II, Seite 195)

Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$$E_0 = 127^{\circ} 19'.0$$

$$n = 381^{\circ}.9945$$

$$\delta l = -44^{\circ}.243 \sin (116^{\circ}.46 + 5^{\circ}.075 t)$$

$$-0^{\circ}.75 \sin 3 (116^{\circ}.46 + 5^{\circ}.075 t)$$

$$l_1 = E_0 + n t_a + \delta l$$

$$\Theta = 54^{\circ}.7 - 365^{\circ}.3 t$$

$$\gamma = 1^{\circ} 36'.5$$

$$H_1 = 107^{\circ}.2 + 365^{\circ}.3 t$$

$$e = 0.0190$$

$$a = 26''.814$$

ENCELADUS (II, Seite 183)

Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$$E_0 = 199^{\circ} 19'.8$$

$$n = 262^{\circ}.73199$$

$$\delta l = +11'.24 \sin (143^{\circ} + 92^{\circ} 4 t)$$

$$+ 20'.0 \sin (75^{\circ} + 29^{\circ}.3 t)$$

$$l_1 = E_0 + n t_a + \delta l$$

$$\Theta = 328^{\circ} - 152^{\circ}.7 t$$

$$\gamma = 1'.4$$

$$H_1 = 308^{\circ}.38 + 123^{\circ}.43 t$$

$$e = 0.0046$$

$$a = 34''.401$$

TETHYS (II, Seite 195)

Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$$E_0 = 284^{\circ} 31'.0$$

$$n = 190^{\circ}.69795$$

$$\delta l = +118'.90 \sin (116^{\circ}.46 + 5^{\circ}.075 t)$$

$$+ 2'.02 \sin 3 (116^{\circ}.46 + 5^{\circ}.075 t)$$

$$l_1 = E_0 + n t_a + \delta l$$

$$\Theta = 110^{\circ}.55 - 72^{\circ}.5 t$$

$$\gamma = 1^{\circ} 4'.36$$

$$e = 0.0000$$

$$a = 42''.586$$

DIONE (II, Seite 183)

Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$$E_0 = 253^{\circ} 51'.4$$

$$n = 131^{\circ}.534955$$

$$\delta l = -1' 21 \sin (143^{\circ} + 92^{\circ} 4 t)$$

$$- 2' 13 \sin (75^{\circ} + 29.3 t)$$

$$l_1 = E_0 + n t_a + \delta l$$

$$\Theta = 276^{\circ} - 31^{\circ}.0 t$$

$$\gamma = 4^{\circ}.0$$

$$H_1 = 165^{\circ} + 31^{\circ}.0 t$$

$$e = 0.0020$$

$$a = 54'' 543$$

RHEA (G. Struve, Berlin-Bbg. VI, 1, Seite 16)

Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$$E_0 = 358^{\circ} 23'.8$$

$$n = 79^{\circ}.690087$$

$$E - E_0 = + 4'.95 \sin (343^{\circ}.4 - 10^{\circ}.1 t)$$

$$l = E_0 + n t a + (E - E_0)$$

$$(\Omega - \delta_1) \sin i_1 = 20'.74 \sin (343^{\circ}.36 - 10^{\circ}.10 t) - 0'.38 + 1'.00 \sin (48^{\circ}.5 - 0^{\circ}.50 t)$$

$$i - i_1 = 20'.74 \cos (343^{\circ}.36 - 10^{\circ}.10 t) - 2'.79 + 1'.00 \cos (48^{\circ}.5 - 0^{\circ}.50 t)$$

$$H = 276^{\circ}.25 + 0^{\circ}.53 t + 17^{\circ}.64 \sin [9^{\circ}.5 (t - 1879.59)]$$

$$e = 0.00098 + 0.00030 \cos [9^{\circ}.5 (t - 1879.59)]$$

$$a = 76'' 170$$

$\Omega_1$  und  $i_1$  bezeichnen die Lage des Saturnsrings.

TITAN (II, Seite 172)

Epoche: 1890 Jan. 0.0 Mittl. Zt. Grw.

$$E_0 = 260^{\circ} 25' 1$$

$$n = 22^{\circ}.577009$$

$$E - E_0 = + 4'.05 \sin (47^{\circ}.8 - 0^{\circ}.51 t)$$

$$l = E_0 + n t a + (E - E_0)$$

$$\Omega = 167^{\circ} 51'.2 + 35'.84 \sin (47^{\circ}.8 - 0^{\circ}.506 t) + 0'.837 t$$

$$i = 27^{\circ} 28'.4 + 16'.88 \cos (47^{\circ}.8 - 0^{\circ}.506 t)$$

$$H = 276^{\circ} 15' + 31'.7 t + 22'.0 (\sin 2g - \sin 2g_0)$$

$$e = 0.02886 + 0.000186 (\cos 2g_0 - \cos 2g)$$

$$g = H - \Omega - 4^{\circ}.5$$

$$g_0 = g \text{ für } t = 0$$

$$a = 176'' 578$$

HYPERION (II, Seite 290)

Epoche: 1890 Jan. 0.0 Mittl. Zt. Grw.

$$E_0 = 304^{\circ} 53$$

$$n = 16^{\circ}.919983$$

$$\delta l = 9^{\circ}.16 \sin (200^{\circ}.5 + 0^{\circ}.56206 t a)$$

$$l = E_0 + n t a + \delta l$$

Äquinoctium 1890.0. Epoche 1890.0 + t

$$\Omega = 167^{\circ} 49'.7 + 42'.4 \sin (47^{\circ}.8 - 0^{\circ}.50 t) + 78'.1 \sin (121^{\circ}.7 - 2^{\circ}.0 t)$$

$$i = 27^{\circ} 20'.8 + 19'.6 \cos (47^{\circ}.8 - 0^{\circ}.50 t) + 36'.2 \cos (121^{\circ}.7 - 2^{\circ}.0 t)$$

Epoche und Äquinoktium: 1888.890 +  $t$

$$II = 276^{\circ}.50 - 18^{\circ}.663t + 14^{\circ}.0 \sin(-0^{\circ}.84 + 19^{\circ}.191t) - 1^{\circ}.5 \sin(-1^{\circ}.68 + 38^{\circ}.382t)$$

$$e = 0.1043 + 0.0230 \cos(-0^{\circ}.84 + 19^{\circ}.191t) + \delta e$$

$$e\delta e = -0.00044 \cos(200^{\circ}.5 + 0^{\circ}.56206t)$$

$$a = 213''.92 + \delta a$$

$$\delta a = -0.00354 a \cos(200^{\circ}.5 + 0^{\circ}.56206t)$$

JAPETUS (I, Seite 87; II, Seite 139)

Epoche: 1885 Sept. 1.0 Mittl. Zt. Grw.

$$E_0 = 75^{\circ} 26'.4$$

$$i = 18^{\circ} 28'.3 - 0'.54t$$

$$n = 4^{\circ} 53'7997$$

$$II = 354^{\circ} 30' + 7'.9t$$

$$l = E_0 + nt$$

$$e = 0.02836 + 0.000015t$$

$$\Omega = 142^{\circ} 12'.4 - 1'.48t$$

$$a = 514''.59$$

Hierin bedeuten:

$l, l$  = Mittlere Länge in der Bahn

$n$  = Tropische mittlere tägliche Bewegung

$\delta l$  = Libration

$t_a$  = Anzahl der Tage seit der Anfangsepoche

$t$  = Anzahl der Jahre seit der Anfangsepoche

$\Theta$  = Knoten auf dem Saturnsäquator

$\Omega$  = Knoten auf der Ekliptik

$\gamma$  = Neigung der Trabantenbahn gegen den Saturnsäquator

$i$  = Neigung der Trabantenbahn gegen die Ekliptik

$II_1, II$  = Perisaturnium

$e$  = Exzentrizität

$a$  = Halbachse der Trabantenbahn in der mittleren Entfernung ( $\mathcal{L}$ ) = 9.53887

$l, II_1$  und  $\Theta$  werden gezählt vom Äquinoktium aus in der Ekliptik, weiter im Saturnsäquator und dann erst in der Trabantenbahn,  $l$  und  $II$  vom Äquinoktium aus in der Ekliptik und weiter in der Trabantenbahn.

Zunächst sind für die sechs inneren Trabanten auf den Seiten 309\* bis 317\* die Hilfsmittel gegeben, um in bequemer Weise ihre Positionen ableiten zu können. Sieht man hierbei von den Neigungen  $\gamma$  ab, so erhält man die rechtwinkligen Koordinaten  $x$  und  $y$  des Trabanten in bezug auf ein Achsenkreuz, dessen Anfangspunkt im Mittelpunkt des Saturn gelegen ist, dessen  $X$ -Achse parallel der großen Achse des Ringes verläuft, positiv, wenn östlich, negativ, wenn westlich vom Saturn, und dessen positive  $Y$ -Achse mit dem durch den Saturnsmittelpunkt gehenden Stundenkreise den Winkel  $P$  einschließt, aus den Gleichungen:

$$x = \frac{a(\mathcal{L})}{A} \frac{1}{1+\xi} \frac{r}{a} \sin(u-U)$$

$$y = \frac{a(\mathcal{L})}{A} \frac{1}{1+\xi} \frac{r}{a} \sin B \cos(u-U).$$

( $\mathcal{J}$ ) = 9.53887 bezeichnet den mittleren Wert der Entfernung Sonne—Saturn,  $\mathcal{J}$  ist die Entfernung Erde—Saturn,  $u = \mathcal{J} + (v-M)$  ist die wahre Länge des Trabanten vom Erdäquator an gezählt. Die Größen  $L$  und  $(v-M)$  sind auf den Seiten 309\*—317\* und 320\*—321\* zu finden.  $\log \frac{1}{1+\zeta}$  ist auf Seite 319\* enthalten.

Ist genaueste Ortsbestimmung erforderlich, so darf man bei Mimas, Tethys und Rhea die Neigungen gegen den Saturnsäquator, da sie schon merklichere Werte annehmen, nicht mehr vernachlässigen;  $x$  und  $y$  ergeben sich dann aus:

$$x = \frac{a(\mathcal{J})}{\mathcal{J}} \frac{1}{1+\zeta} \frac{r}{a} \sin(u-U)$$

$$y = \frac{a(\mathcal{J})}{\mathcal{J}} \frac{1}{1+\zeta} \frac{r}{a} \sin B [\cos(u-U) + \sin \gamma \cotg B \sin(u-\vartheta)].$$

Die Werte von  $\vartheta$ , der Länge des aufsteigenden Knotens der Trabantenbahn auf dem Saturnsäquator, gezählt vom Schnittpunkte des Saturnsäquators mit dem Erdäquator, finden sich auf Seite 319\*; auch ist hier für Rhea  $\gamma$ , weil stärker mit der Zeit veränderlich, in Intervallen von 16 Tagen gegeben.

Will man aus  $x$  und  $y$  die Rektaszensions- und Deklinationsdifferenzen bestimmen, so dienen dazu die Gleichungen:

$$s \sin(p-P) = x$$

$$s \cos(p-P) = y$$

$$\Delta\alpha = \alpha_{tr} - \alpha_{pl} = \frac{1}{15} s \sin p \sec \delta_{tr}$$

$$\Delta\delta = \delta_{tr} - \delta_{pl} = s \cos p.$$

Auf den Seiten 322\*—328\* finden sich für die äußeren Trabanten Hyperion und Japetus, außer den Hilfsgrößen  $U$ ,  $B$  und  $P$ , die Rektaszensions- und Deklinationsunterschiede gegen den Saturn in dem Sinne Trabant minus Planet.

Die aus den Angaben des Berliner Jahrbuchs ermittelten Trabantörter sind auf das mittlere Äquinoktium der Epoche bezogen.

Zum Schluß enthalten die Seiten 329\*—332\* die Zeitangaben (in Welt-Zeit) für die östlichen Elongationen von Mimas, Enceladus, Tethys, Dione, Rhea, ferner für die östlichen und westlichen Elongationen ( $u-U = \pm 90^\circ$ ) und für die oberen und unteren Konjunktionen ( $u-U = 0^\circ, 180^\circ$ ) von Titan, Hyperion und Japetus mit Saturn; diese Zeitangaben für die Elongationen und Konjunktionen sind bereits für Lichtzeit korrigiert, also ohne weiteres mit den Beobachtungen vergleichbar.

### Konstellationen (S. 333\*—334\*).

In der Übersicht der Konstellationen des Jahres 1929 sind die hauptsächlichsten Planeten-Konstellationen gegeneinander und gegen Sonne und Mond, sowie die Angaben der Epochen, zu welchen



sich die Planeten in gewissen Hauptpunkten ihrer Bahn und ihres synodischen Laufes befinden, zusammengestellt. Die Bedeutung der hier verwendeten Zeichen siehe Seite VIII des Vorworts. — Die Konjunktionen der Planeten mit dem Mond und ihre gegenseitigen sind als Konjunktionen in AR. zu verstehen. Die Angaben über Konjunktion und Opposition der Planeten mit der Sonne entsprechen den Zeiten, zu denen der Längenunterschied zwischen Planet und Sonne  $0^\circ$  oder  $180^\circ$  ist.

## Hilfstafeln (S. 335\*—354\*).

Es folgt eine Reihe von häufig gebrauchten Hilfstafeln.

1) Tafeln für Präzessionswerte (S. 335\*—337\*).

a) Präzession in Rektaszension und Deklination (Seite 335\*)

$$p_\alpha = m + \frac{1}{15} n \sin \alpha \operatorname{tg} \delta$$

$$p_\delta = n \cos \alpha$$

b) Präzessionswerte  $m$ ,  $n$ ,  $\psi$ ,  $\pi$ ,  $\Pi$  und  $\epsilon$ , die mittlere Schiefe der Ekliptik (Seite 335\*).

Mit diesen Werten berechnet sich die Präzession für die Elemente einer Bahnebene im System der Ekliptik nach:

$$p_\Omega = \psi - \pi \operatorname{ctg} i \sin (\Pi - \Omega)$$

$$p_i = -\pi \cos (\Pi - \delta)$$

$$p_\omega = \pi \operatorname{cosec} i \sin (\Pi - \delta)$$

und im System des Äquators nach:

$$p' = m - n \operatorname{ctg} i' \cos \delta'$$

$$p_{i'} = -n \sin \delta'$$

$$p_{\omega'} = n \cos \delta' \operatorname{cosec} i'$$

c) Präzession in Länge und Breite (Seite 336\*—337\*)

$$p_\lambda = \psi + \pi \operatorname{tg} \beta \cos (\Pi - \lambda)$$

$$p_\beta = \pi \sin (\Pi - \lambda)$$

Den Tafeln a) und c) liegen die Präzessionswerte für 1925.0 zugrunde. Über die Bedeutung der Bezeichnungen und die Zahlenwerte vergleiche die Erläuterungen zum Jahrbuch für 1916.

2) Tafel des halben Tagbogens (S. 338\*—339\*), berechnet mit der Horizontalrefraktion  $34'.9$  für geographische Breiten von  $+30^\circ$  bis  $+60^\circ$  und Deklinationen von  $-30^\circ$  bis  $+30^\circ$ .

3) Reduktionstafeln für die Auf- und Untergangszeiten der Sonne und des Mondes (S. 340\*—343\*). Sie geben die Reduktion der für  $+50^\circ$  Breite gültigen Zeiten, wie sie in den Ephemeriden enthalten sind, auf geographische Breiten zwischen  $+30^\circ$  und  $+60^\circ$  und sind mit der Horizontalrefraktion  $34'.9$  für das Erscheinen oder Verschwinden des oberen Gestirnsrandes gerechnet.

4) Eine Tafel für die Ermittlung eines Datums in der Julianischen Periode (Seite 344\*—347\*). Die Tafel besteht aus zwei Teilen: Der erste Teil (S. 344\*—345\*) gibt in vierjährigen Schaltperioden für die Jahre 0 bis 2000 die Anzahl der am 0. Januar, 12<sup>h</sup> Welt-Zeit, seit Anfang der Julianischen Periode verfloßenen Tage. Als Ergänzung gibt die Hilfstafel am Fuß der Seite die Anzahl der am 0. jedes Monats, 12<sup>h</sup> Welt-Zeit, seit Beginn der Schaltperiode verfloßenen Tage. Man gehe bis zum 4. Oktober des Jahres 1582 mit dem Datum des Julianischen, für spätere Jahre mit dem Datum des Gregorianischen Kalenders in die Tafel ein. Der zweite Teil (S. 346\*—347\*) gibt für die Jahre 1860—1939 unmittelbar die Anzahl der im Gregorianischen Kalender am 0. jedes Monats, 12<sup>h</sup> Welt-Zeit, seit Beginn der Julianischen Periode verfloßenen Tage.

5) Hilfstafeln zur Verwandlung von Mittlerer Zeit in Sternzeit (S. 348\*) und von Sternzeit in Mittlere Zeit (S. 349\*).

6) Eine Tafel zur Verwandlung von Stunden, Minuten und Sekunden in Dezimalteile des Tages und umgekehrt (S. 350\*—351\*).

7) Die Tafel zur Berechnung der optischen Mondlibration (S. 352\*—353\*) gibt mit dem Argument  $\lambda - \Omega$  die Werte  $A\lambda$ ,  $a$  und  $B$  entsprechend den Gleichungen:

$$A\lambda = \frac{1}{\arccos r'} \tan^2 \frac{1}{2} J \sin 2(\lambda - \Omega)$$

$$a = -\cos(\lambda - \Omega) \sin J$$

$$\tan B = -\sin(\lambda - \Omega) \tan J$$

$J$  = Neigung des Mondäquators gegen die Ekliptik.

$\Omega$  = Länge des aufsteigenden Knotens der Mondbahn auf der Ekliptik (s. S. 297\*).

$\lambda, \beta$  = Länge und Breite des Mondmittelpunktes, berechnet für den Beobachtungsort.

Bezeichnen noch  $L_G$  die mittlere Länge des Mondes,  $l'$  und  $b'$  die optische Libration der Mondmitte in selenographischer Länge und Breite, so ist:

$$l' = \lambda - L_G + A\lambda - a(B - \beta)$$

$$b' = B - \beta$$

Der Winkel  $C$ , welchen der Mondmeridian des Mittelpunktes der scheinbaren Mondscheibe mit dem Stundenkreise bildet, ergibt sich aus der Gleichung:

$$\sin C = -\sin i \frac{\cos(L_G + l' + A - \vartheta)}{\cos \delta_G} = -\sin i \frac{\cos(\alpha_G - \delta_G')}{\cos \beta'}$$

worin  $\alpha_G, \delta_G$  Rektaszension und Deklination des Mondmittelpunktes, gesehen vom Beobachtungsort aus, bezeichnen; die anderen vorkommenden Größen  $i, A, \vartheta$  und  $\delta_G'$  haben schon auf S. 372\* ihre Erklärung gefunden.

8) Eine Tafel der Hilfsgrößen  $s$  und  $c$  (S. 354\*) zur Berechnung der geozentrischen Breite  $\varphi'$  und der geozentrischen Entfernung  $\varrho$  eines Erdortes, ausgedrückt in Einheiten der großen Halbachse des Erdellipsoids, aus der geographischen Breite  $\varphi$  nach den Formeln:

$$\varrho \sin \varphi' = s \sin \varphi$$

$$\varrho \cos \varphi' = c \cos \varphi$$

Darin haben  $s$  und  $c$  die Bedeutung:

$$s = \frac{1 - e^2}{\sqrt{1 - e^2 \sin^2 \varphi}}, \quad c = \frac{1}{\sqrt{1 - e^2 \sin^2 \varphi}}, \quad e = \sqrt{2\alpha - \alpha^2}$$

Gemäß den Beschlüssen der Pariser Ephemeridenkonferenz von 1911 ist dabei die Abplattung  $\alpha = \frac{1}{297.0}$  angenommen.

### Koordinaten der Sternwarten (S. 355\*—361\*).

Die Seiten 355\*—361\* enthalten die geographischen und geozentrischen Koordinaten der Sternwarten. Das Verzeichnis ist einer durchgreifenden Prüfung unterzogen worden, wobei eine größere Zahl nicht mehr bestehende Observatorien gestrichen und die Lage der angeführten Sternwarten mit den Angaben des »Nautical Almanac for the year 1929« in Übereinstimmung gebracht worden ist.

Die Seehöhen sind in allen Fällen angegeben, wo sie sich einigermaßen sicher ermitteln ließen.

Die geographischen Längen sind auf den Meridian von Greenwich bezogen und dem entsprechend gibt die »Korrektion der Sternzeit« die Differenz: Orts-Sternzeit minus Greenwicher Sternzeit an.

Die geozentrischen Koordinaten sind den Beschlüssen der Pariser Ephemeridenkonferenz vom Oktober 1911 gemäß unter Annahme der Abplattung  $1:297.0$  berechnet.

Bei Berechnung von  $\log \varrho$  ist die Seehöhe berücksichtigt.

### Normalzeiten der wichtigeren Länder (S. 362\*).

Hier sind die in den wichtigeren Ländern eingeführten Normalzeiten in zwei Gruppen zusammengestellt, je nachdem sie an den Meridian von Greenwich angeschlossen sind oder einen eigenen Landes-Meridian zugrunde legen.

### Berichtigungen.

- Jahrbuch 1927, S. 110 Venus, Okt. 20: Die Red. a. d. Bahn ist  $-2.4$  anstatt  $-2.6$ .
- Jahrbuch 1928, S. 109 Merkur, Dez. 33, Helioz. Länge: lies  $309^{\circ} 54'$  anstatt  $309^{\circ} 55'$ .
- S. 112 Saturn, 1929 Jan. 12: Die Red. a. d. Bahn ist  $-1 25.4$  anstatt  $-1 25.1$ .
- S. 380\* Achte Zeile von oben lies S. 388 anstatt S. 338.
- Jahrbuch 1929, S. 6\* Stern 173: Die jährliche Veränderung in Rektaszension ist  $+8.0455$  anstatt  $+8.0355$ .
- S. 25\* Bei  $\gamma$  H. Camel. und  $\xi$  Mensae sind die Klammern zu beseitigen, da für diese Sterne Ephemeriden gegeben werden.

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