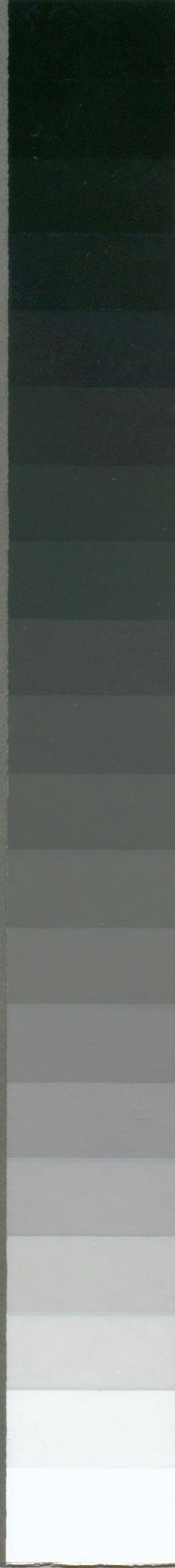


Kodak Gray Scale



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A 1 2 3 4 5 6 M 8 9 10 11 12 13 14 15 B 17 18 19



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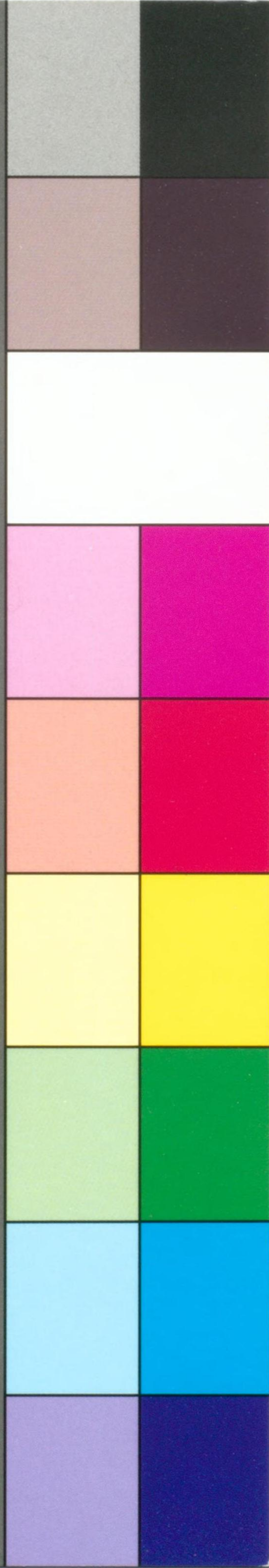
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Kodak Color Control Patches

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Blue Cyan Green Yellow Red Magenta White 3/Color Black



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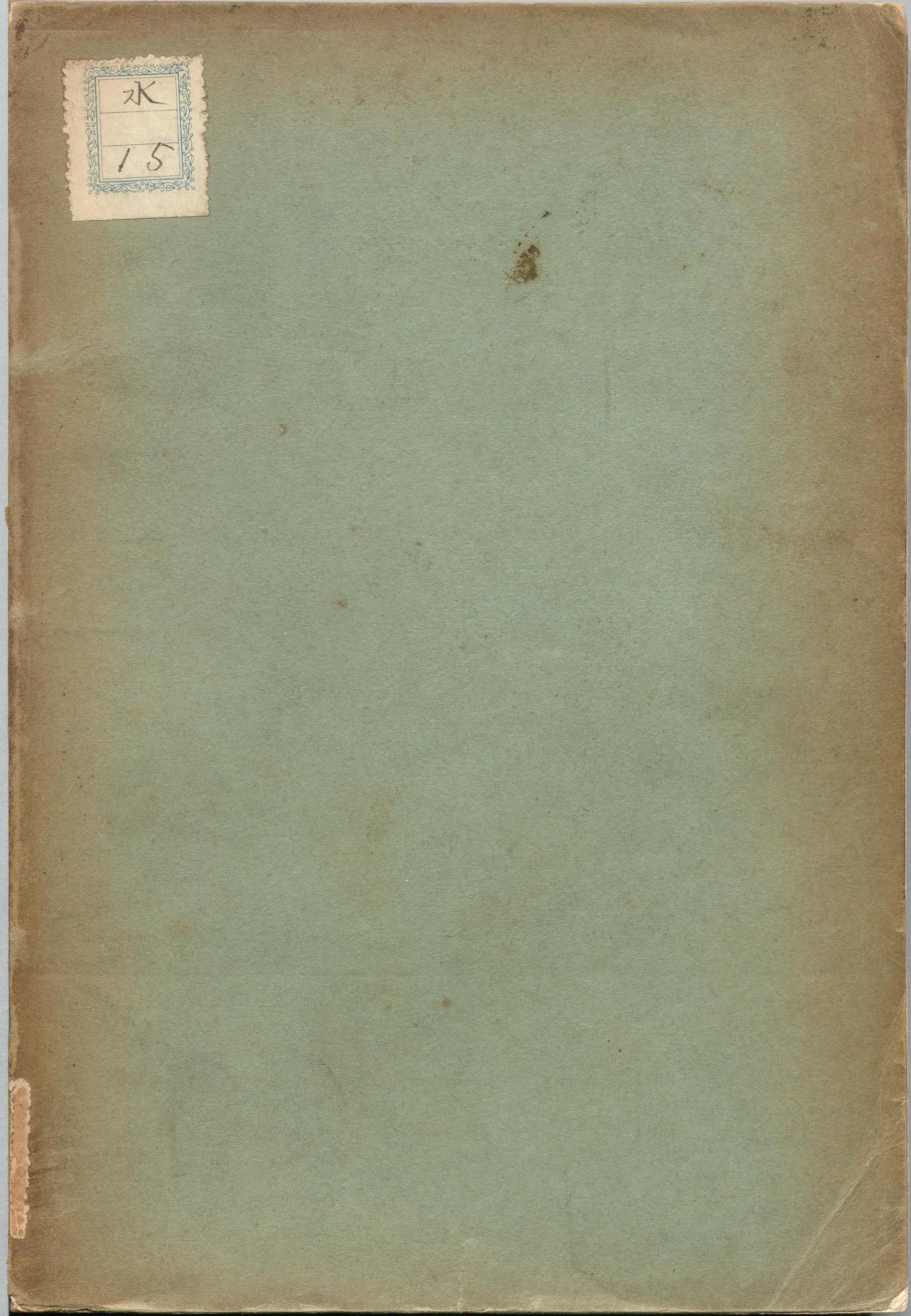
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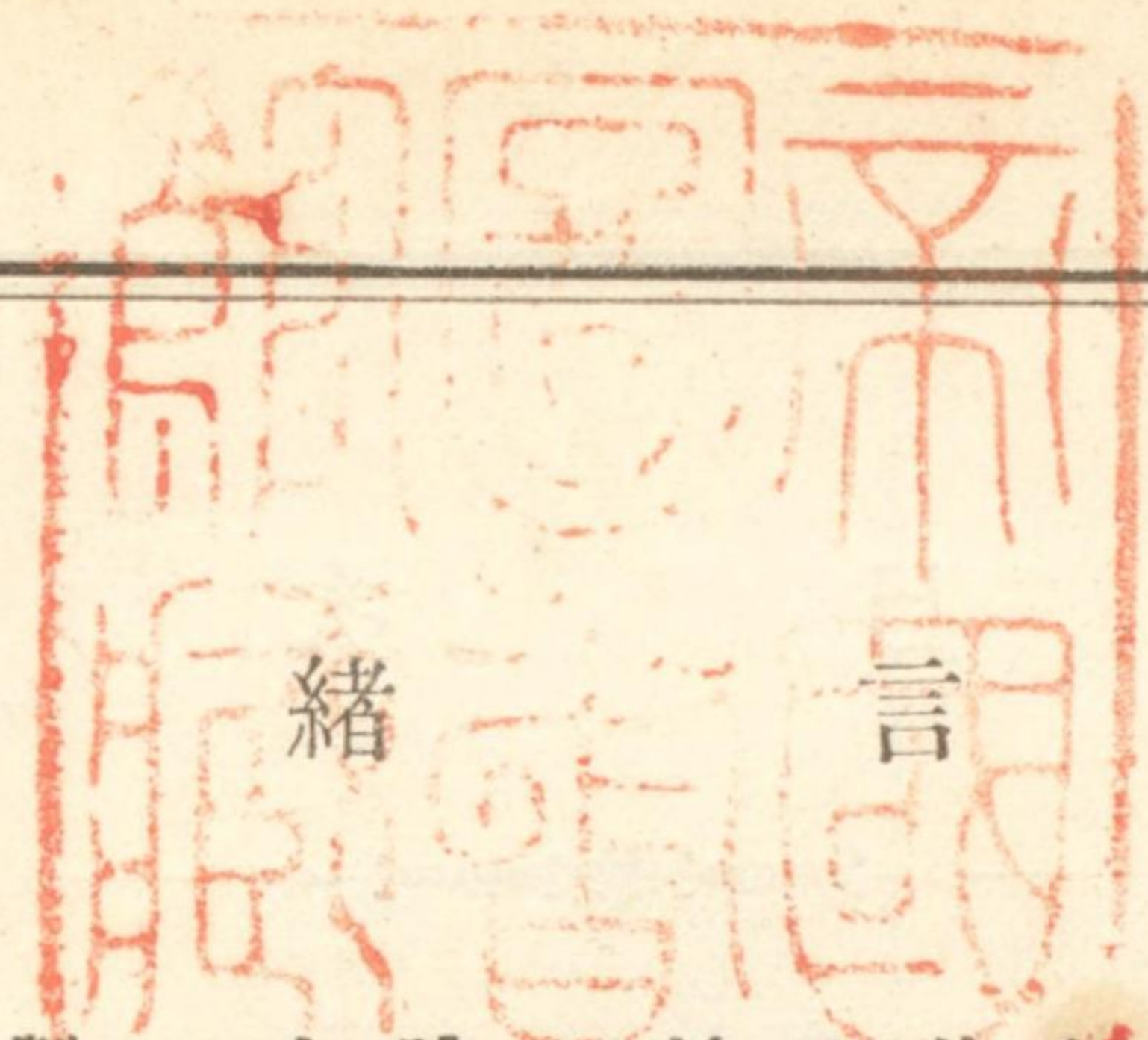
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水
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本年表ノ編製ハ大體ニ於テ前年分ト異ラサル

モ零碎ノ點ニ於テ多少改良セル所アリ

然レトモ本表ハ創製ヨリ僅ニ第三次ノ編纂ニ

過キサルヲ以テ改補ノ餘地甚タ多カル可シ使

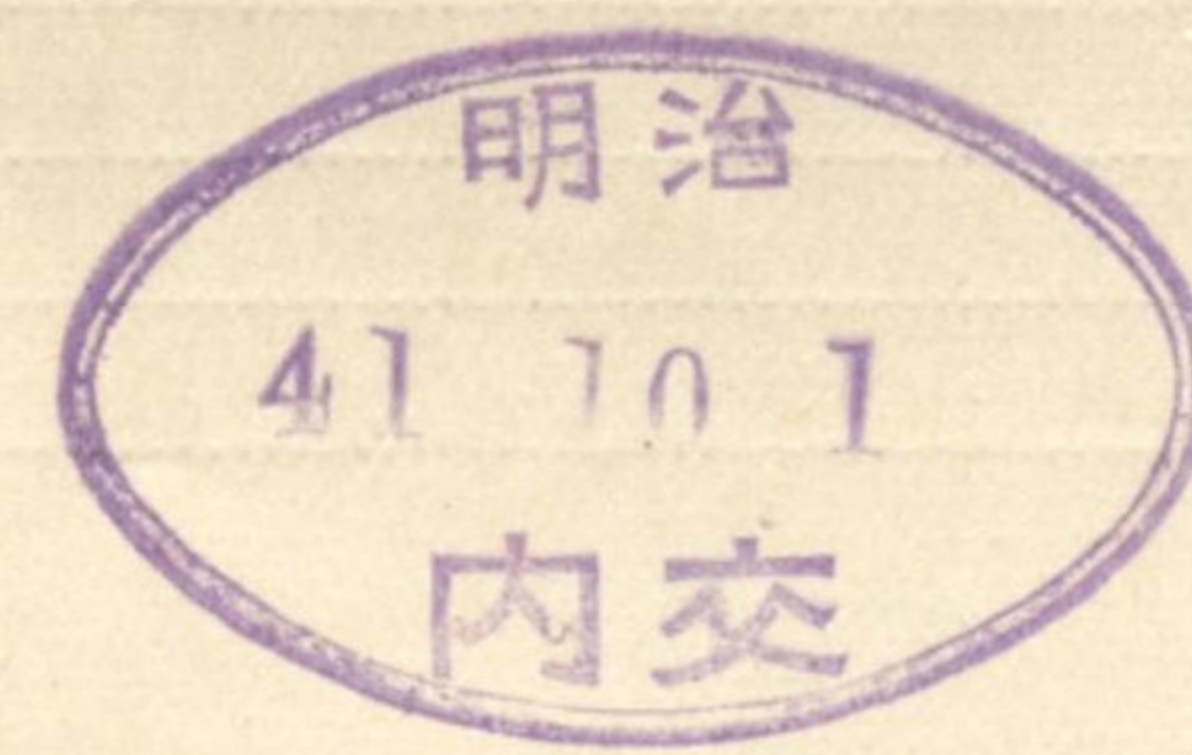
用者ハ之ニ留意シ實驗上改補ヲ要スト認ムル

點アルヲ發見シタルトキハ速ニ當部ニ報告ア

ランコトヲ望ム

明治四十一年九月

水路部



目次

	Page.
Nutation in R. A.	
Horizontal Parallax of the Sun.	
Aberration of the Sun.	
Mean Longitude of the Sun.	
Mean Longitude of the Moon.	1
Mean Longitude of the Moon's Ascending Node.	
Mean Longitude of the Moon's Perigee.	
Mean Obliquity of the Ecliptic.	
Precession in Longitude.	
Ephemeris of the Sun.....	2 to 25
Equation of Time.	I. and II.
Sidereal Time at Greenwich Mean Noon.....	II.
Ephemeris of the Moon.....	26 to 73
Phases of the Moon.	29 to 73
Apogee and Perigee of the Moon.	29 to 73
Ephemeris of Venus at Greenwich Mean Noon.....	74 to 79
" Mars " " 	80 to 85
" Jupiter " " 	86 to 91
" Saturn " " 	92 to 97
Mean Places of Stars.	98 to 104
Apparent Places of Polaris.	105 and 106
" of Stars.	107 to 139
Tables to find the Latitude by the Pole-Star.....	140 to 142
Tables of Time Equivalents.	143 to 146
高潮時表.....	147 to 243
潮信表.....	244 to 275
日出沒時表.....	276 to 360
經緯度表.....	361 to 390
標準時表.....	391
報時信號表.....	392 to 397

Mean Noon.	Nutation in R.A. (in time.)	The Sun's			The Moon's			
		Horizontal Parallax.	Aberration.	Mean Longitude.	Mean Longitude.	Mean Longitude Ascending Node.	Mean Longitude Perigee.	
Jan. 1	- 1'02	8'95	20'82	280'49942	34'4383	85'0679	340'6235	
11	- 0'99	8'95	20'81	290'35589	166'2023	84'5383	341'7375	
21	- 0'97	8'94	20'79	300'21237	297'9663	84'0088	342'8516	
31	- 0'96	8'93	20'77	310'06884	69'7303	83'4793	343'9656	
Feb. 10	- 0'96	8'92	20'74	319'92531	201'4942	82'9497	345'0796	
20	- 0'97	8'90	20'70	329'78179	333'2582	82'4202	346'1937	
31	- 0'96	8'93	20'77	310'06884	69'7303	83'4793	343'9656	
Mar. 12	- 1'00	8'85	20'60	349'49473	236'7861	81'3611	348'4218	
22	- 1'03	8'83	20'54	359'35121	8'5501	80'8316	349'5358	
31	- 0'96	8'93	20'77	310'06884	69'7303	83'4793	343'9656	
Apr. 1	- 1'06	8'80	20'48	9'20768	140'3141	80'3021	350'6498	
11	- 1'08	8'78	20'42	19'06415	272'0780	79'7725	351'7639	
21	- 1'09	8'75	20'36	28'92063	43'8420	79'2430	352'8779	
31	- 1'10	8'73	20'31	38'77710	175'6060	78'7134	353'9920	
May 11	- 1'09	8'71	20'26	48'63357	307'3700	78'1839	355'1060	
21	- 1'08	8'69	20'22	58'49005	79'1339.	77'6543	356'2200	
31	- 1'07	8'68	20'19	68'34652	210'8979	77'1248	357'3341	
June 10	- 1'05	8'67	20'16	78'20299	342'6619	76'5952	358'4481	
20	- 1'02	8'66	20'14	88'05947	114'4258	76'0657	359'5622	
30	- 0'99	8'66	20'13	97'91594	246'1898	75'5361	0'6762	
July 10	- 0'97	8'66	20'13	107'77241	17'9538	75'0066	1'7902	
20	- 0'95	8'66	20'15	117'62889	149'7177	74'4771	2'9043	
30	- 0'94	8'67	20'17	127'48536	281'4817	73'9475	4'0183	
Aug. 9	- 0'93	8'68	20'19	137'34183	53'2457	73'4180	5'1324	
19	- 0'93	8'70	20'23	147'19831	185'0097	72'8884	6'2464	
29	- 0'94	8'72	20'27	157'05478	316'7736	72'3589	7'3604	
Sept. 8	- 0'96	8'74	20'32	166'91126	88'5376	71'8294	8'4745	
18	- 0'98	8'76	20'38	176'76773	220'3016	71'2998	9'5885	
28	- 1'01	8'78	20'43	186'62420	352'0655	70'7703	10'7026	
Oct. 8	- 1'03	8'81	20'49	196'48068	123'8295	70'2408	11'8166	
18	- 1'05	8'83	20'55	206'33715	255'5935	69'7112	12'9306	
28	- 1'06	8'86	20'61	216'19362	27'3574	69'1816	14'0447	
Nov. 7	- 1'06	8'88	20'66	226'05010	159'1214	68'6521	15'1587	
17	- 1'05	8'90	20'71	235'90657	290'8854	68'1226	16'2728	
27	- 1'03	8'92	20'75	245'76304	62'6493	67'5930	17'3868	
Dec. 7	- 1'00	8'93	20'78	255'61952	194'4133	67'0635	18'5008	
17	- 0'97	8'94	20'80	265'47599	326'1773	66'5340	19'6149	
27	- 0'94	8'95	20'82	275'33246	97'9413	66'0044	20'7289	
37	- 0'91	8'95	20'82	285'18894	229'7052	65'4749	21'8430	
				° / //	Daily Motion			
Mean Obliquity, 1909'0.....				23 27 4'04	° +	° +	° -	° +
Precession for the Year 1909.....				50'2584	0'9856473	13'176397	0'052954	0'111404
Precession for 1 Day.....				0'1376				

AT GREENWICH APPARENT NOON.

Date.	THE SUN'S					Equation of Time, to be added to Apperent Time.	Var. in 1 hour.
	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Semi-diameter.*		
Frid. 1	h m s	s	° / "	"	' "	m s	s
Sat. 2	18 45 33.23	11.044	S. 23 2 17.8	12.02	16 17.57	3 33.80	1.185
Sun. 3	18 49 58.14	11.030	22 57 15.5	13.17	16 17.57	4 2.08	1.170
	18 54 22.68	11.014	22 51 45.8	14.31	16 17.58	4 29.98	1.155
Mon. 4	18 58 46.83	10.998	22 45 48.8	15.44	16 17.57	4 57.50	1.138
Tues. 5	19 3 10.57	10.980	22 39 24.7	16.56	16 17.56	5 24.60	1.120
Wed. 6	19 7 33.87	10.961	22 32 33.7	17.67	16 17.54	5 51.27	1.102
Thur. 7	19 11 56.71	10.941	22 25 16.0	18.79	16 17.52	6 17.48	1.082
Frid. 8	19 16 19.06	10.921	22 17 31.8	19.89	16 17.49	6 43.21	1.061
Sat. 9	19 20 40.90	10.899	22 9 21.4	20.98	16 17.45	7 8.42	1.040
Sun. 10	19 25 2.22	10.877	22 0 44.9	22.06	16 17.41	7 33.11	1.017
Mon. 11	19 29 22.98	10.853	21 51 42.6	23.13	16 17.36	7 57.25	0.994
Tues. 12	19 33 43.17	10.829	21 42 14.8	24.18	16 17.31	8 20.81	0.970
Wed. 13	19 38 2.76	10.804	21 32 21.8	25.23	16 17.25	8 43.79	0.945
Thur. 14	19 42 21.74	10.778	21 22 3.8	26.26	16 17.18	9 6.15	0.919
Frid. 15	19 46 40.09	10.751	21 11 21.1	27.29	16 17.11	9 27.88	0.892
Sat. 16	19 50 57.78	10.723	21 0 13.9	28.30	16 17.04	9 48.96	0.864
Sun. 17	19 55 14.80	10.695	20 48 42.7	29.30	16 16.96	10 9.37	0.836
Mon. 18	19 59 31.13	10.666	20 36 47.7	30.28	16 16.88	10 29.09	0.807
Tues. 19	20 3 46.76	10.636	20 24 29.1	31.25	16 16.79	10 48.10	0.777
Wed. 20	20 8 1.66	10.605	20 11 47.5	32.21	16 16.70	11 6.40	0.747
Thur. 21	20 12 15.82	10.574	19 58 43.1	33.15	16 16.60	11 23.95	0.716
Frid. 22	20 16 29.22	10.542	19 45 16.3	34.08	16 16.50	11 40.75	0.684
Sat. 23	20 20 41.84	10.509	19 31 27.5	34.98	16 16.40	11 56.76	0.651
Sun. 24	20 24 53.66	10.476	19 17 17.0	35.88	16 16.30	12 11.99	0.618
Mon. 25	20 29 4.68	10.442	19 2 45.1	36.76	16 16.19	12 26.41	0.584
Tues. 26	20 33 14.88	10.408	18 47 52.4	37.62	16 16.08	12 40.02	0.550
Wed. 27	20 37 24.25	10.373	18 32 39.2	38.47	16 15.97	12 52.80	0.515
Thur. 28	20 41 32.78	10.338	18 17 5.9	39.30	16 15.85	13 4.74	0.480
Frid. 29	20 45 40.48	10.303	18 1 12.9	40.11	16 15.72	13 15.85	0.446
Sat. 30	20 49 47.34	10.268	17 45 0.7	40.90	16 15.59	13 26.13	0.411
Sun. 31	20 53 53.36	10.233	17 28 29.5	41.69	16 15.46	13 35.57	0.376
Mon. 32	20 57 58.53	10.198	S. 17 11 39.8	42.45	16 15.32	13 44.16	0.341

* The Semidiameter for Mean Noon may be assumed the same as that for Apparent Noon.

AT GREENWICH MEAN NOON.

Date.	THE SUN'S Apparent				Equation of Time, to be subtracted from Mean Time.	Sidereal Time.
	Right Ascension.	Declination.	Longitude.	Latitude.		
1	h m s	° / "	° / "	"	m s	h m s
1	18 45 32.58	S. 23 2 18.5	280 28 1.1	S. 0.71	3 33.74	18 41 58.84
2	18 49 57.40	22 57 16.4	281 29 10.1	0.61	4 2.00	18 45 55.40
3	18 54 21.85	22 51 46.8	282 30 18.8	0.47	4 29.89	18 49 51.96
4	18 58 45.92	22 45 50.0	283 31 27.4	0.33	4 57.40	18 53 48.52
5	19 3 9.58	22 39 26.2	284 32 35.7	0.19	5 24.50	18 57 45.08
6	19 7 32.80	22 32 35.4	285 33 43.9	S. 0.06	5 51.17	19 1 41.63
7	19 11 55.56	22 25 17.9	286 34 51.9	N. 0.06	6 17.37	19 5 38.19
8	19 16 17.84	22 17 34.0	287 35 59.8	0.16	6 43.09	19 9 34.75
9	19 20 39.61	22 9 23.8	288 37 7.5	0.25	7 8.30	19 13 31.31
10	19 25 0.85	22 0 47.6	289 38 15.1	0.32	7 32.99	19 17 27.87
11	19 29 21.54	21 51 45.7	290 39 22.6	0.35	7 57.12	19 21 24.42
12	19 33 41.66	21 42 18.2	291 40 30.0	0.36	8 20.68	19 25 20.98
13	19 38 1.19	21 32 25.5	292 41 37.2	0.35	8 43.65	19 29 17.54
14	19 42 20.10	21 22 7.8	293 42 44.2	0.30	9 6.01	19 33 14.10
15	19 46 38.39	21 11 25.4	294 43 51.0	0.23	9 27.74	19 37 10.65
16	19 50 56.03	21 0 18.6	295 44 57.6	0.14	9 48.82	19 41 7.21
17	19 55 12.99	20 48 47.6	296 46 4.0	N. 0.03	10 9.22	19 45 3.77
18	19 59 29.27	20 36 52.9	297 47 10.0	S. 0.10	10 28.95	19 49 0.33
19	20 3 44.85	20 24 34.7	298 48 15.7	0.24	10 47.97	19 52 56.88
20	20 7 59.70	20 11 53.5	299 49 20.9	0.38	11 6.27	19 56 53.44
21	20 12 13.81	19 58 49.4	300 50 25.5	0.50	11 23.82	20 0 50.00
22	20 16 27.17	19 45 23.0	301 51 29.4	0.61	11 40.61	20 4 46.55
23	20 20 39.75	19 31 34.5	302 52 32.5	0.70	11 56.63	20 8 43.11
24	20 24 51.53	19 17 24.3	303 53 34.8	0.75	12 11.86	20 12 39.67
25	20 29 2.51	19 2 52.7	304 54 36.0	0.76	12 26.29	20 16 36.22
26	20 33 12.68	18 48 0.3	305 55 36.1	0.76	12 39.90	20 20 32.78
27	20 37 22.02	18 32 47.5	306 56 35.1	0.72	12 52.69	20 24 29.34
28	20 41 30.53	18 17 14.5	307 57 32.8	0.64	13 4.64	20 28 25.89
29	20 45 38.20	18 1 21.8	308 58 29.2	0.55	13 15.76	20 32 22.45
30	20 49 45.04	17 45 9.8	309 59 24.4	0.43	13 26.04	20 36 19.00
31	20 53 51.04	17 28 38.9	311 0 18.2	0.29	13 35.48	20 40 15.56
32	20 57 56.20	S. 17 11 49.5	312 1 10.8	S. 0.16	13 44.08	20 44 12.12

AT GREENWICH APPARENT NOON.

Date.	THE SUN'S					Equation of Time, to be added to Apparent Time.	Var. in 1 hour.
	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Semi-diameter.*		
Mon. 1	h m s 20 57 58.53	s 10.198	° / ' / '' S. 17 11 39.8	'' 42.45	' / '' 16 15.32	m s 13 44.16	s 0.341
Tues. 2	21 2 2.87	10.164	16 54 32.1	43.19	16 15.18	13 51.92	0.306
Wed. 3	21 6 6.38	10.129	16 37 6.7	43.92	16 15.03	13 58.86	0.272
Thur. 4	21 10 9.06	10.095	16 19 24.0	44.63	16 14.88	14 4.97	0.238
Frid. 5	21 14 10.92	10.061	16 1 24.4	45.33	16 14.72	14 10.26	0.204
Sat. 6	21 18 11.97	10.027	15 43 8.3	46.01	16 14.55	14 14.74	0.170
Sun. 7	21 22 12.22	9.994	15 24 36.1	46.67	16 14.38	14 18.42	0.137
Mon. 8	21 26 11.67	9.961	15 5 48.3	47.31	16 14.21	14 21.30	0.104
Tues. 9	21 30 10.33	9.928	14 46 45.2	47.94	16 14.03	14 23.40	0.071
Wed. 10	21 34 8.21	9.896	14 27 27.2	48.55	16 13.84	14 24.73	0.039
Thur. 11	21 38 5.32	9.864	14 7 54.8	49.15	16 13.65	14 25.28	0.007
Frid. 12	21 42 1.67	9.833	13 48 8.2	49.72	16 13.46	14 25.07	0.024
Sat. 13	21 45 57.28	9.802	13 28 8.0	50.28	16 13.26	14 24.13	0.054
Sun. 14	21 49 52.16	9.771	13 7 54.6	50.83	16 13.06	14 22.46	0.085
Mon. 15	21 53 46.31	9.741	12 47 28.2	51.36	16 12.86	14 20.06	0.115
Tues. 16	21 57 39.74	9.712	12 26 49.4	51.87	16 12.65	14 16.95	0.144
Wed. 17	22 1 32.47	9.682	12 5 58.6	52.36	16 12.44	14 13.13	0.174
Thur. 18	22 5 24.50	9.654	11 44 56.2	52.83	16 12.23	14 8.62	0.202
Frid. 19	22 9 15.85	9.625	11 23 42.6	53.29	16 12.01	14 3.43	0.230
Sat. 20	22 13 6.52	9.597	11 2 18.2	53.73	16 11.80	13 57.57	0.258
Sun. 21	22 16 56.52	9.570	10 40 43.5	54.15	16 11.58	13 51.04	0.286
Mon. 22	22 20 45.87	9.542	10 18 58.9	54.55	16 11.36	13 43.85	0.313
Tues. 23	22 24 34.57	9.516	9 57 4.9	54.94	16 11.14	13 36.01	0.340
Wed. 24	22 28 22.64	9.490	9 35 1.9	55.30	16 10.92	13 27.54	0.366
Thur. 25	22 32 10.08	9.464	9 12 50.3	55.65	16 10.70	13 18.46	0.391
Frid. 26	22 35 56.91	9.439	8 50 30.6	55.98	16 10.47	13 8.77	0.416
Sat. 27	22 39 43.16	9.415	8 28 3.1	56.30	16 10.24	12 58.49	0.440
Sun. 28	22 43 28.84	9.392	8 5 28.2	56.60	16 10.01	12 47.64	0.463
Mon. 29	22 47 13.96	9.369	S. 7 42 46.4	56.88	16 9.78	12 36.25	0.486

* The Semidiameter for Mean Noon may be assumed the same as that for Apparent Noon.

AT GREENWICH MEAN NOON.

Date.	THE SUN'S Apparent				Equation of Time, to be subtracted from Mean Time.	Sidereal Time.
	Right Ascension.	Declination.	Longitude.	Latitude.		
1	h m s 20 57 56.20	° / ' / '' S. 17 11 49.5	° / ' / '' 312 1 10.8	'' S. 0.16	m s 13 44.08	h m s 20 44 12.12
2	21 2 0.53	16 54 42.0	313 2 2.1	S. 0.03	13 51.85	20 48 8.67
3	21 6 4.02	16 37 16.9	314 2 52.1	N. 0.09	13 58.80	20 52 5.23
4	21 10 6.69	16 19 34.4	315 3 40.9	0.20	14 4.91	20 56 1.78
5	21 14 8.55	16 1 35.1	316 4 28.4	0.30	14 10.21	20 59 58.34
6	21 18 9.60	15 43 19.2	317 5 14.7	0.37	14 14.70	21 3 54.90
7	21 22 9.84	15 24 47.3	318 5 59.9	0.41	14 18.39	21 7 51.45
8	21 26 9.28	15 5 59.6	319 6 43.9	0.44	14 21.28	21 11 48.01
9	21 30 7.94	14 46 56.7	320 7 26.7	0.42	14 23.38	21 15 44.56
10	21 34 5.83	14 27 38.9	321 8 8.3	0.37	14 24.71	21 19 41.12
11	21 38 2.95	14 8 6.6	322 8 48.8	0.32	14 25.28	21 23 37.67
12	21 41 59.31	13 48 20.2	323 9 28.1	0.23	14 25.08	21 27 34.23
13	21 45 54.92	13 28 20.1	324 10 6.4	0.12	14 24.14	21 31 30.78
14	21 49 49.81	13 8 6.7	325 10 43.5	N. 0.01	14 22.48	21 35 27.34
15	21 53 43.98	12 47 40.5	326 11 19.4	S. 0.12	14 20.09	21 39 23.89
16	21 57 37.43	12 27 1.8	327 11 54.1	0.25	14 16.98	21 43 20.44
17	22 1 30.17	12 6 11.0	328 12 27.5	0.37	14 13.17	21 47 17.00
18	22 5 22.22	11 45 8.6	329 12 59.6	0.48	14 8.67	21 51 13.55
19	22 9 13.59	11 23 55.0	330 13 30.3	0.57	14 3.49	21 55 10.11
20	22 13 4.29	11 2 30.7	331 13 59.4	0.63	13 57.63	21 59 6.66
21	22 16 54.31	10 40 56.0	332 14 26.9	0.65	13 51.10	22 3 3.22
22	22 20 43.69	10 19 11.4	333 14 52.7	0.66	13 43.92	22 6 59.77
23	22 24 32.41	9 57 17.4	334 15 16.6	0.62	13 36.09	22 10 56.32
24	22 28 20.50	9 35 14.3	335 15 38.6	0.55	13 27.63	22 14 52.88
25	22 32 7.98	9 13 2.6	336 15 58.7	0.46	13 18.55	22 18 49.43
26	22 35 54.84	8 50 42.8	337 16 16.8	0.34	13 8.86	22 22 45.99
27	22 39 41.12	8 28 15.2	338 16 32.8	0.21	12 58.58	22 26 42.54
28	22 43 26.83	8 5 40.3	339 16 46.7	S. 0.07	12 47.74	22 30 39.09
29	22 47 11.99	S. 7 42 58.3	340 16 58.6	N. 0.06	12 36.35	22 34 35.65

AT GREENWICH APPARENT NOON.

Date.	THE SUN'S					Equation of Time, to be added to Apparent Time.	Var. in 1 hour.
	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Semi-diameter.*		
Mon. 1	h m s 22 47 13.96	s 9.369	° ' " S. 7 42 46.4	" 56.88	' " 16 9.78	m s 12 36.25	s 0.486
Tues. 2	22 50 58.56	9.347	7 19 58.1	57.14	16 9.54	12 24.32	0.508
Wed. 3	22 54 42.64	9.326	6 57 3.6	57.39	16 9.30	12 11.88	0.528
Thur. 4	22 58 26.23	9.307	6 34 3.3	57.62	16 9.05	11 58.96	0.548
Frid. 5	23 2 9.36	9.288	6 10 57.6	57.84	16 8.80	11 45.57	0.567
Sat. 6	23 5 52.04	9.269	5 47 46.9	58.04	16 8.55	11 31.73	0.585
Sun. 7	23 9 34.29	9.252	5 24 31.6	58.23	16 8.30	11 17.47	0.603
Mon. 8	23 13 16.15	9.236	5 1 12.0	58.40	16 8.04	11 2.81	0.619
Tues. 9	23 16 57.62	9.221	4 37 48.4	58.56	16 7.78	10 47.77	0.634
Wed. 10	23 20 38.74	9.206	4 14 21.2	58.70	16 7.52	10 32.38	0.648
Thur. 11	23 24 19.53	9.193	3 50 50.9	58.82	16 7.25	10 16.66	0.661
Frid. 12	23 28 0.00	9.180	3 27 17.8	58.93	16 6.98	10 0.63	0.674
Sat. 13	23 31 40.19	9.169	3 3 42.1	59.03	16 6.71	9 44.31	0.686
Sun. 14	23 35 20.11	9.158	2 40 4.3	59.11	16 6.44	9 27.72	0.696
Mon. 15	23 38 59.79	9.149	2 16 24.7	59.18	16 6.17	9 10.89	0.706
Tues. 16	23 42 39.24	9.140	1 52 43.8	59.23	16 5.90	8 53.84	0.715
Wed. 17	23 46 18.49	9.131	1 29 1.7	59.27	16 5.62	8 36.58	0.723
Thur. 18	23 49 57.55	9.124	1 5 19.0	59.29	16 5.34	8 19.14	0.730
Frid. 19	23 53 36.45	9.118	0 41 35.9	59.29	16 5.07	8 1.53	0.737
Sat. 20	23 57 15.20	9.112	S. 0 17 52.9	59.28	16 4.79	7 43.77	0.743
Sun. 21	0 0 53.81	9.106	N. 0 5 49.6	59.25	16 4.52	7 25.88	0.748
Mon. 22	0 4 32.30	9.102	0 29 31.2	59.21	16 4.25	7 7.87	0.753
Tues. 23	0 8 10.69	9.098	0 53 11.6	59.15	16 3.97	6 49.76	0.756
Wed. 24	0 11 48.99	9.095	1 16 50.4	59.07	16 3.70	6 31.56	0.760
Thur. 25	0 15 27.23	9.092	1 40 27.1	58.98	16 3.43	6 13.29	0.763
Frid. 26	0 19 5.41	9.090	2 4 1.4	58.87	16 3.16	5 54.96	0.764
Sat. 27	0 22 43.55	9.089	2 27 32.9	58.75	16 2.89	5 36.60	0.765
Sun. 28	0 26 21.68	9.089	2 51 1.3	58.61	16 2.61	5 18.23	0.765
Mon. 29	0 29 59.81	9.089	3 14 26.1	58.45	16 2.34	4 59.86	0.765
Tues. 30	0 33 37.97	9.091	3 37 47.1	58.29	16 2.07	4 41.52	0.763
Wed. 31	0 37 16.18	9.094	4 1 3.9	58.11	16 1.80	4 23.23	0.761
Thur. 32	0 40 54.46	9.097	N. 4 24 16.2	57.90	16 1.53	4 5.00	0.758

* The Semidiameter for Mean Noon may be assumed the same as that for Apparent Noon.

AT GREENWICH MEAN NOON.

Date.	THE SUN'S Apparent				Equation of Time, to be subtracted from Mean Time.	Sidereal Time.
	Right Ascension.	Declination.	Longitude.	Latitude.		
1	h m s 22 47 11.99	° ' " S. 7 42 58.3	° ' " 340 16 58.6	" N. 0.06	m s 12 36.35	h m s 22 34 35.65
2	22 50 56.62	7 20 9.9	341 17 8.5	0.18	12 24.42	22 38 32.20
3	22 54 40.74	6 57 15.2	342 17 16.3	0.29	12 11.99	22 42 28.75
4	22 58 24.37	6 34 14.8	343 17 22.1	0.39	11 59.07	22 46 25.31
5	23 2 7.54	6 11 9.0	344 17 25.9	0.45	11 45.68	22 50 21.86
6	23 5 50.25	5 47 58.1	345 17 27.8	0.49	11 31.84	22 54 18.41
7	23 9 32.55	5 24 42.5	346 17 27.8	0.52	11 17.58	22 58 14.97
8	23 13 14.45	5 1 22.7	347 17 25.9	0.50	11 2.93	23 2 11.52
9	23 16 55.96	4 37 58.9	348 17 22.2	0.47	10 47.89	23 6 8.07
10	23 20 37.12	4 14 31.6	349 17 16.6	0.42	10 32.50	23 10 4.63
11	23 24 17.95	3 51 1.0	350 17 9.3	0.34	10 16.77	23 14 1.18
12	23 27 58.47	3 27 27.6	351 17 0.2	0.24	10 0.74	23 17 57.73
13	23 31 38.70	3 3 51.7	352 16 49.4	N. 0.13	9 44.42	23 21 54.29
14	23 35 18.67	2 40 13.6	353 16 36.9	0.00	9 27.83	23 25 50.84
15	23 38 58.39	2 16 33.8	354 16 22.7	S. 0.12	9 11.00	23 29 47.39
16	23 42 37.89	1 52 52.5	355 16 6.8	0.24	8 53.94	23 33 43.94
17	23 46 17.18	1 29 10.2	356 15 49.3	0.35	8 36.69	23 37 40.50
18	23 49 56.29	1 5 27.2	357 15 30.0	0.43	8 19.24	23 41 37.05
19	23 53 35.23	0 41 43.8	358 15 8.9	0.49	8 1.63	23 45 33.60
20	23 57 14.02	S. 0 18 0.6	359 14 46.0	0.53	7 43.87	23 49 30.16
21	0 0 52.68	N. 0 5 42.2	0 14 21.1	0.53	7 25.97	23 53 26.71
22	0 4 31.22	0 29 24.2	1 13 54.3	0.49	7 7.96	23 57 23.26
23	0 8 9.66	0 53 4.9	2 13 25.4	0.42	6 49.84	0 1 19.81
24	0 11 48.01	1 16 43.9	3 12 54.3	0.33	6 31.64	0 5 16.37
25	0 15 26.29	1 40 21.0	4 12 20.9	0.22	6 13.37	0 9 12.92
26	0 19 4.51	2 3 55.6	5 11 45.3	S. 0.10	5 55.04	0 13 9.47
27	0 22 42.70	2 27 27.4	6 11 7.4	N. 0.04	5 36.68	0 17 6.02
28	0 26 20.88	2 50 56.1	7 10 27.1	0.18	5 18.30	0 21 2.58
29	0 29 59.06	3 14 21.3	8 9 44.4	0.31	4 59.93	0 24 59.13
30	0 33 37.26	3 37 42.6	9 8 59.5	0.42	4 41.58	0 28 55.68
31	0 37 15.52	4 0 59.7	10 8 12.3	0.51	4 23.28	0 32 52.24
32	0 40 53.84	N. 4 24 12.3	11 7 22.7	N. 0.58	4 5.05	0 36 48.79

AT GREENWICH APPARENT NOON.

Date.	THE SUN'S					Equation of Time, to be added to subtracted from Apparent Time.	Var. in 1 hour.
	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Semi-diameter.*		
Thur. 1	h m s	s	° / "	"	' "	m s	s
Frid. 2	0 40 54.46	9.097	N. 4 24 16.2	57.90	16 1.53	4 5.00	0.758
Sat. 3	0 44 32.83	9.101	4 47 23.6	57.69	16 1.25	3 46.86	0.753
Sun. 4	0 48 11.31	9.106	5 10 25.7	57.47	16 0.98	3 28.84	0.748
Mon. 5	0 51 49.91	9.112	5 33 22.4	57.24	16 0.70	3 10.94	0.743
Tues. 6	0 55 28.67	9.119	5 56 13.1	56.99	16 0.43	2 53.20	0.736
Wed. 7	0 59 7.61	9.126	6 18 57.7	56.72	16 0.15	2 35.63	0.728
Thur. 8	1 2 46.75	9.135	6 41 35.8	56.44	15 59.88	2 18.27	0.719
Frid. 9	1 6 26.11	9.145	7 4 7.0	56.15	15 59.60	2 1.12	0.710
Sat. 10	1 10 5.70	9.155	7 26 31.1	55.85	15 59.32	1 44.20	0.699
Sun. 11	1 13 45.56	9.166	7 48 47.7	55.53	15 59.04	1 27.55	0.688
Mon. 12	1 17 25.69	9.178	8 10 56.5	55.20	15 58.76	1 11.17	0.676
Tues. 13	1 21 6.12	9.191	8 32 57.3	54.86	15 58.49	0 55.09	0.663
Wed. 14	1 24 46.87	9.205	8 54 49.6	54.50	15 58.21	0 39.33	0.650
Thur. 15	1 28 27.96	9.219	9 16 33.1	54.13	15 57.94	0 23.91	0.635
Frid. 16	1 32 9.39	9.234	9 38 7.6	53.74	15 57.66	0 8.83	0.621
Sat. 17	1 35 51.19	9.250	9 59 32.7	53.34	15 57.39	0 5.88	0.605
Sun. 18	1 39 33.37	9.266	10 20 48.0	52.93	15 57.12	0 20.22	0.589
Mon. 19	1 43 15.94	9.282	10 41 53.1	52.50	15 56.85	0 34.17	0.573
Tues. 20	1 46 58.91	9.299	11 2 47.8	52.05	15 56.58	0 47.72	0.556
Wed. 21	1 50 42.28	9.316	11 23 31.6	51.59	15 56.32	1 0.86	0.539
Thur. 22	1 54 26.08	9.334	11 44 4.2	51.12	15 56.07	1 13.58	0.521
Frid. 23	1 58 10.30	9.352	12 4 25.2	50.63	15 55.81	1 25.88	0.503
Sat. 24	2 1 54.96	9.370	12 24 34.3	50.12	15 55.56	1 37.74	0.485
Sun. 25	2 5 40.06	9.389	12 44 31.1	49.60	15 55.31	1 49.16	0.466
Mon. 26	2 9 25.62	9.408	13 4 15.3	49.07	15 55.06	2 0.13	0.447
Tues. 27	2 13 11.65	9.428	13 23 46.5	48.52	15 54.82	2 10.63	0.428
Wed. 28	2 16 58.14	9.447	13 43 4.4	47.96	15 54.57	2 20.67	0.408
Thur. 29	2 20 45.12	9.468	14 2 8.7	47.39	15 54.33	2 30.22	0.388
Frid. 30	2 24 32.59	9.489	14 20 59.1	46.80	15 54.09	2 39.27	0.367
Sat. 31	2 28 20.57	9.510	14 39 35.2	46.20	15 53.86	2 47.82	0.346
Sat. 31	2 32 9.07	9.531	N. 14 57 56.8	45.59	15 53.62	2 55.86	0.324

* The Semidiameter for Mean Noon may be assumed the same as that for Apparent Noon.

AT GREENWICH MEAN NOON.

Date.	THE SUN'S Apparent				Equation of Time, to be subtracted from added to Mean Time.	Sidereal Time.
	Right Ascension.	Declination.	Longitude.	Latitude.		
1	h m s	° / "	° / "	"	m s	h m s
2	0 40 53.84	N. 4 24 12.3	11 7 22.7	N. 0.58	4 5.05	0 36 48.79
3	0 44 32.25	4 47 19.9	12 6 30.9	0.63	3 46.91	0 40 45.34
4	0 48 10.78	5 10 22.4	13 5 37.0	0.65	3 28.88	0 44 41.89
5	0 51 49.43	5 33 19.3	14 4 40.9	0.65	3 10.98	0 48 38.45
6	0 55 28.24	5 56 10.4	15 3 42.7	0.62	2 53.24	0 52 35.00
7	0 59 7.22	6 18 55.2	16 2 42.4	0.57	2 35.67	0 56 31.55
8	1 2 46.40	6 41 33.6	17 1 40.1	0.49	2 18.29	1 0 28.11
9	1 6 25.80	7 4 5.1	18 0 35.8	0.39	2 1.14	1 4 24.66
10	1 10 5.44	7 26 29.5	18 59 29.7	0.28	1 44.22	1 8 21.21
11	1 13 45.33	7 48 46.3	19 58 21.7	0.15	1 27.57	1 12 17.77
12	1 17 25.51	8 10 55.4	20 57 12.0	N. 0.02	1 11.19	1 16 14.32
13	1 21 5.98	8 32 56.4	21 56 0.5	S. 0.10	0 55.10	1 20 10.88
14	1 24 46.17	8 54 49.0	22 54 47.3	0.21	0 39.34	1 24 7.43
15	1 28 27.89	9 16 32.8	23 53 32.4	0.30	0 23.91	1 28 3.98
16	1 32 9.37	9 38 7.5	24 52 15.9	0.36	0 8.83	1 32 0.54
17	1 35 51.21	9 59 32.7	25 50 57.6	0.39	0 5.89	1 35 57.09
18	1 39 33.42	10 20 48.2	26 49 37.7	0.40	0 20.22	1 39 53.65
19	1 43 16.03	10 41 53.6	27 48 16.0	0.38	0 34.17	1 43 50.20
20	1 46 59.03	11 2 48.4	28 46 52.5	0.32	0 47.73	1 47 46.76
21	1 50 42.44	11 23 32.4	29 45 27.2	0.23	1 0.87	1 51 43.31
22	1 54 26.27	11 44 5.2	30 43 59.9	S. 0.13	1 13.59	1 55 39.86
23	1 58 10.53	12 4 26.4	31 42 30.6	0.00	1 25.89	1 59 36.42
24	2 1 55.22	12 24 35.7	32 40 59.3	N. 0.14	1 37.76	2 3 32.97
25	2 5 40.35	12 44 32.6	33 39 25.9	0.28	1 49.18	2 7 29.53
26	2 9 25.94	13 4 16.9	34 37 50.4	0.41	2 0.14	2 11 26.08
27	2 13 11.99	13 23 48.3	35 36 12.8	0.53	2 10.65	2 15 22.64
28	2 16 58.51	13 43 6.3	36 34 33.0	0.62	2 20.68	2 19 19.19
29	2 20 45.51	14 2 10.7	37 32 51.2	0.70	2 30.23	2 23 15.74
30	2 24 33.01	14 21 1.2	38 31 7.3	0.75	2 39.29	2 27 12.30
31	2 28 21.02	14 39 37.4	39 29 21.4	0.77	2 47.84	2 31 8.85
31	2 32 9.53	N. 14 57 59.0	40 27 33.5	N. 0.77	2 55.88	2 35 5.41

AT GREENWICH APPARENT NOON.

Date.	THE SUN'S					Equation of Time, to be subtracted from Apparent Time.	Var. in 1 hour.
	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Semi-diameter.*		
	h m s	s	° / ' "	"	' "	m s	s
Sat. 1	2 32 9.07	9.531	N. 14 57 56.8	45.59	15 53.62	2 55.86	0.324
Sun. 2	2 35 58.09	9.554	15 16 3.5	44.96	15 53.39	3 3.38	0.302
Mon. 3	2 39 47.64	9.576	15 33 55.0	44.32	15 53.16	3 10.36	0.280
Tues. 4	2 43 37.74	9.599	15 51 31.0	43.67	15 52.93	3 16.80	0.257
Wed. 5	2 47 28.38	9.621	16 8 51.4	43.01	15 52.70	3 22.69	0.234
Thur. 6	2 51 19.59	9.645	16 25 55.7	42.34	15 52.47	3 28.03	0.210
Frid. 7	2 55 11.36	9.669	16 42 43.6	41.65	15 52.24	3 32.79	0.186
Sat. 8	2 59 3.72	9.694	16 59 14.9	40.95	15 52.02	3 36.98	0.163
Sun. 9	3 2 56.65	9.718	17 15 29.3	40.24	15 51.80	3 40.60	0.139
Mon. 10	3 6 50.17	9.742	17 31 26.6	39.52	15 51.57	3 43.63	0.114
Tues. 11	3 10 44.28	9.767	17 47 6.4	38.79	15 51.35	3 46.06	0.090
Wed. 12	3 14 38.99	9.792	18 2 28.4	38.04	15 51.14	3 47.90	0.064
Thur. 13	3 18 34.30	9.817	18 17 32.5	37.29	15 50.93	3 49.15	0.040
Frid. 14	3 22 30.20	9.842	18 32 18.2	36.52	15 50.72	3 49.80	0.015
Sat. 15	3 26 26.70	9.866	18 46 45.3	35.74	15 50.51	3 49.87	0.010
Sun. 16	3 30 23.78	9.891	19 0 53.5	34.94	15 50.31	3 49.34	0.034
Mon. 17	3 34 21.45	9.915	19 14 42.5	34.14	15 50.11	3 48.23	0.058
Tues. 18	3 38 19.69	9.939	19 28 12.0	33.32	15 49.92	3 46.55	0.082
Wed. 19	3 42 18.50	9.962	19 41 21.7	32.49	15 49.73	3 44.30	0.105
Thur. 20	3 46 17.86	9.985	19 54 11.4	31.65	15 49.54	3 41.51	0.128
Frid. 21	3 50 17.77	10.007	20 6 40.8	30.79	15 49.36	3 38.17	0.150
Sat. 22	3 54 18.21	10.029	20 18 49.5	29.93	15 49.19	3 34.29	0.172
Sun. 23	3 58 19.17	10.050	20 30 37.3	29.05	15 49.02	3 29.90	0.194
Mon. 24	4 2 20.63	10.071	20 42 4.0	28.17	15 48.85	3 25.00	0.214
Tues. 25	4 6 22.60	10.092	20 53 9.3	27.27	15 48.69	3 19.61	0.235
Wed. 26	4 10 25.05	10.112	21 3 53.0	26.37	15 48.53	3 13.73	0.255
Thur. 27	4 14 27.97	10.131	21 14 14.9	25.45	15 48.38	3 7.38	0.274
Frid. 28	4 18 31.36	10.151	21 24 14.7	24.53	15 48.23	3 0.57	0.293
Sat. 29	4 22 35.20	10.169	21 33 52.2	23.60	15 48.08	2 53.31	0.312
Sun. 30	4 26 39.48	10.187	21 43 7.3	22.66	15 47.93	2 45.61	0.330
Mon. 31	4 30 44.18	10.204	21 51 59.9	21.71	15 47.80	2 37.49	0.347
Tues. 32	4 34 49.29	10.221	N. 22 0 29.6	20.76	15 47.66	2 28.96	0.364

* The Semidiameter for Mean Noon may be assumed the same as that for Apparent Noon.

AT GREENWICH MEAN NOON.

Date.	THE SUN'S Apparent				Equation of Time, to be added to Mean Time.	Sidereal Time.
	Right Ascension.	Declination.	Longitude.	Latitude.		
	h m s	° / ' "	° / ' "	"	m s	h m s
1	2 32 9.53	N. 14 57 59.0	40 27 33.5	N. 0.77	2 55.88	2 35 5.41
2	2 35 58.57	15 16 5.8	41 25 43.7	0.74	3 3.39	2 39 1.96
3	2 39 48.15	15 33 57.3	42 23 52.1	0.69	3 10.37	2 42 58.52
4	2 43 38.26	15 51 33.4	43 21 58.6	0.62	3 16.81	2 46 55.07
5	2 47 28.93	16 8 53.8	44 20 3.4	0.52	3 22.70	2 50 51.63
6	2 51 20.15	16 25 58.1	45 18 6.5	0.40	3 28.04	2 54 48.19
7	2 55 11.94	16 42 46.0	46 16 8.0	0.28	3 32.80	2 58 44.74
8	2 59 4.30	16 59 17.4	47 14 8.0	0.15	3 36.99	3 2 41.30
9	3 2 57.25	17 15 31.8	48 12 6.5	N. 0.02	3 40.60	3 6 37.85
10	3 6 50.78	17 31 29.0	49 10 3.7	S. 0.10	3 43.63	3 10 34.41
11	3 10 44.90	17 47 8.8	50 7 59.6	0.21	3 46.07	3 14 30.96
12	3 14 39.62	18 2 30.8	51 5 54.2	0.29	3 47.90	3 18 27.52
13	3 18 34.93	18 17 34.9	52 3 47.6	0.32	3 49.15	3 22 24.08
14	3 22 30.83	18 32 20.5	53 1 39.8	0.34	3 49.80	3 26 20.63
15	3 26 27.33	18 46 47.5	53 59 30.8	0.33	3 49.87	3 30 17.19
16	3 30 24.41	19 0 55.7	54 57 20.6	0.27	3 49.34	3 34 13.75
17	3 34 22.08	19 14 44.7	55 55 9.2	0.19	3 48.23	3 38 10.30
18	3 38 20.32	19 28 14.1	56 52 56.6	S. 0.09	3 46.54	3 42 6.86
19	3 42 19.12	19 41 23.8	57 50 42.6	N. 0.04	3 44.30	3 46 3.42
20	3 46 18.47	19 54 13.4	58 48 27.3	0.17	3 41.50	3 49 59.97
21	3 50 18.37	20 6 42.6	59 46 10.6	0.31	3 38.16	3 53 56.53
22	3 54 18.80	20 18 51.2	60 43 52.5	0.45	3 34.28	3 57 53.09
23	3 58 19.75	20 30 39.0	61 41 32.9	0.58	3 29.89	4 1 49.64
24	4 2 21.21	20 42 5.6	62 39 11.8	0.69	3 24.99	4 5 46.20
25	4 6 23.16	20 53 10.8	63 36 49.3	0.77	3 19.60	4 9 42.76
26	4 10 25.60	21 3 54.4	64 34 25.3	0.82	3 13.72	4 13 39.31
27	4 14 28.50	21 14 16.2	65 31 59.9	0.85	3 7.37	4 17 35.87
28	4 18 31.87	21 24 15.9	66 29 33.0	0.86	3 0.56	4 21 32.43
29	4 22 35.69	21 33 53.4	67 27 4.8	0.84	2 53.30	4 25 28.99
30	4 26 39.95	21 43 8.4	68 24 35.3	0.78	2 45.60	4 29 25.54
31	4 30 44.62	21 52 0.8	69 22 4.5	0.71	2 37.48	4 33 22.10
32	4 34 49.71	N. 22 0 30.4	70 19 32.5	N. 0.62	2 28.95	4 37 18.66

AT GREENWICH APPARENT NOON.

Date.	THE SUN'S					Equation of Time, to be subtracted from added to Apparent Time.	Var. in 1 hour.	
	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Semi-diameter.*			
	h m s	s	° / "	"	' "	m s	s	
Tues.	1	4 34 49.29	10.221	N. 22 0 29.6	20.76	15 47.66	2 28.96	0.364
Wed.	2	4 38 54.80	10.238	22 8 36.2	19.79	15 47.53	2 20.03	0.380
Thur.	3	4.43 0.70	10.253	22 16 19.7	18.83	15 47.39	2 10.72	0.396
Frid.	4	4 47 6.96	10.269	22 23 39.9	17.85	15 47.26	2 1.04	0.411
Sat.	5	4 51 13.59	10.283	22 30 36.7	16.88	15 47.14	1 51.00	0.426
Sun.	6	4 55 20.56	10.297	22 37 9.9	15.89	15 47.02	1 40.61	0.440
Mon.	7	4 59 27.86	10.311	22 43 19.4	14.90	15 46.90	1 29.80	0.453
Tues.	8	5 3 35.48	10.324	22 49 5.0	13.90	15 46.77	1 18.86	0.466
Wed.	9	5 7 43.40	10.336	22 54 26.7	12.90	15 46.66	1 7.54	0.478
Thur.	10	5 11 51.59	10.347	22 59 24.3	11.90	15 46.55	0 55.93	0.489
Frid.	11	5 16 0.05	10.358	23 3 57.7	10.89	15 46.45	0 44.06	0.500
Sat.	12	5 20 8.75	10.367	23 8 6.8	9.87	15 46.34	0 31.95	0.509
Sun.	13	5 24 17.66	10.375	23 11 51.5	8.85	15 46.25	0 19.63	0.517
Mon.	14	5 28 26.77	10.383	23 15 11.8	7.83	15 46.15	0 7.12	0.525
Tues.	15	5 32 36.04	10.389	23 18 7.5	6.81	15 46.07	0 5.56	0.531
Wed.	16	5 36 45.45	10.394	23 20 38.5	5.78	15 45.99	0 18.38	0.536
Thur.	17	5 40 54.97	10.399	23 22 44.8	4.75	15 45.91	0 31.31	0.540
Frid.	18	5 45 4.58	10.401	23 24 26.4	3.71	15 45.84	0 44.32	0.543
Sat.	19	5 49 14.24	10.403	23 25 43.1	2.68	15 45.77	0 57.39	0.545
Sun.	20	5 53 23.93	10.404	23 26 35.0	1.65	15 45.71	1 10.49	0.546
Mon.	21	5 57 33.62	10.403	23 27 2.1	0.61	15 45.66	1 23.58	0.545
Tues.	22	6 1 43.29	10.402	23 27 4.3	0.43	15 45.61	1 36.65	0.544
Wed.	23	6 5 52.90	10.399	23 26 41.7	1.46	15 45.57	1 49.67	0.541
Thur.	24	6 10 2.43	10.395	23 25 54.3	2.49	15 45.53	2 2.61	0.537
Frid.	25	6 14 11.85	10.390	23 24 42.0	3.53	15 45.50	2 15.44	0.532
Sat.	26	6 18 21.15	10.384	23 23 5.0	4.55	15 45.47	2 28.14	0.526
Sun.	27	6 22 30.30	10.378	23 21 3.4	5.58	15 45.44	2 40.70	0.520
Mon.	28	6 26 39.27	10.370	23 18 37.1	6.61	15 45.42	2 53.08	0.512
Tues.	29	6 30 48.05	10.361	23 15 46.2	7.63	15 45.40	3 5.27	0.503
Wed.	30	6 34 56.62	10.352	23 12 30.9	8.65	15 45.39	3 17.24	0.494
Thur.	31	6 39 4.95	10.342	N. 23 8 51.2	9.66	15 45.38	3 28.98	0.484

* The Semidiameter for Mean Noon may be assumed the same as that for Apparent Noon.

AT GREENWICH MEAN NOON.

Date.	THE SUN'S Apparent				Equation of Time, to be added to subtracted from Mean Time.	Sidereal Time.
	Right Ascension.	Declination.	Longitude.	Latitude.		
	h m s	° / "	° / "	"	m s	h m s
1	4 34 49.71	N. 22 0 30.4	70 19 32.5	N. 0.62	2 28.95	4 37 18.66
2	4 38 55.20	22 8 37.0	71 16 59.3	0.51	2 20.02	4 41 15.22
3	4 43 1.07	22 16 20.4	72 14 25.1	0.39	2 10.71	4 45 11.77
4	4 47 7.31	22 23 40.5	73 11 49.8	0.26	2 1.02	4 49 8.33
5	4 51 13.01	22 30 37.2	74 9 13.7	N. 0.13	1 50.98	4 53 4.89
6	4 55 20.85	22 37 10.3	75 6 36.8	0.00	1 40.60	4 57 1.45
7	4 59 28.12	22 43 19.7	76 3 59.2	S. 0.12	1 29.88	5 0 58.00
8	5 3 35.71	22 49 5.3	77 1 20.9	0.20	1 18.85	5 4 54.56
9	5 7 43.59	22 54 27.0	77 58 42.1	0.25	1 7.53	5 8 51.12
10	5 11 51.76	22 59 24.5	78 56 2.8	0.28	0 55.92	5 12 47.68
11	5 16 0.18	23 3 57.8	79 53 23.1	0.28	0 44.06	5 16 44.23
12	5 20 8.84	23 8 6.9	80 50 43.0	0.23	0 31.95	5 20 40.79
13	5 24 17.72	23 11 51.6	81 48 2.5	0.16	0 19.63	5 24 37.35
14	5 28 26.79	23 15 11.8	82 45 21.6	S. 0.06	0 7.12	5 28 33.91
15	5 32 36.02	23 18 7.5	83 42 40.3	N. 0.06	0 5.56	5 32 30.47
16	5 36 45.40	23 20 38.5	84 39 58.6	0.20	0 18.38	5 36 27.02
17	5 40 54.89	23 22 44.8	85 37 16.4	0.34	0 31.31	5 40 23.58
18	5 45 4.46	23 24 26.4	86 34 33.7	0.48	0 44.32	5 44 20.14
19	5 49 14.08	23 25 43.1	87 31 50.5	0.60	0 57.38	5 48 16.70
20	5 53 23.73	23 26 35.0	88 29 6.7	0.71	1 10.48	5 52 13.25
21	5 57 33.38	23 27 2.1	89 26 22.4	0.80	1 23.57	5 56 9.81
22	6 1 43.01	23 27 4.3	90 23 37.5	0.86	1 36.64	6 0 6.37
23	6 5 52.58	23 26 41.7	91 20 52.0	0.90	1 49.65	6 4 2.93
24	6 10 2.07	23 25 54.3	92 18 5.9	0.92	2 2.59	6 7 59.49
25	6 14 11.46	23 24 42.1	93 15 19.3	0.91	2 15.42	6 11 56.04
26	6 18 20.72	23 23 5.2	94 12 32.1	0.87	2 28.12	6 15 52.60
27	6 22 29.84	23 21 3.6	95 9 44.4	0.80	2 40.68	6 19 49.16
28	6 26 38.78	23 18 37.4	96 6 56.3	0.71	2 53.06	6 23 45.72
29	6 30 47.52	23 15 46.6	97 4 7.8	0.60	3 5.25	6 27 42.28
30	6 34 56.05	23 12 31.4	98 1 18.9	0.48	3 17.22	6 31 38.83
31	6 39 4.35	N. 23 8 51.8	98 58 29.8	N. 0.35	3 28.95	6 35 35.39

AT GREENWICH APPARENT NOON.

Date.	THE SUN'S					Equation of Time, to be added to Apparent Time.	Var. in 1 hour.
	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Semi-diameter.*		
Thur. 1	h m s	s	° / "	"	' "	m s	s
Thur. 1	6 39 4'95	10'342	N. 23 8 51'2	9'66	15 45'38	3 28'98	0'484
Frid. 2	6 43 13'02	10'331	23 4 47'2	10'67	15 45'37	3 40'47	0'473
Sat. 3	6 47 20'82	10'319	23 0 19'1	11'67	15 45'37	3 51'68	0'461
Sun. 4	6 51 28'34	10'307	22 55 26'9	12'67	15 45'37	4 2'61	0'449
Mon. 5	6 55 35'55	10'294	22 50 10'8	13'67	15 45'37	4 13'24	0'436
Tues. 6	6 59 42'45	10'280	22 44 30'8	14'66	15 45'38	4 23'55	0'423
Wed. 7	7 3 49'01	10'266	22 38 27'2	15'64	15 45'39	4 33'52	0'408
Thur. 8	7 7 55'23	10'251	22 32 0'1	16'62	15 45'40	4 43'15	0'394
Frid. 9	7 12 1'08	10'236	22 25 9'5	17'59	15 45'42	4 52'42	0'378
Sat. 10	7 16 6'55	10'220	22 17 55'8	18'55	15 45'44	5 1'31	0'362
Sun. 11	7 20 11'62	10'203	22 10 19'0	19'51	15 45'46	5 9'80	0'345
Mon. 12	7 24 16'28	10'185	22 2 19'2	20'46	15 45'49	5 17'88	0'328
Tues. 13	7 28 20'50	10'166	21 53 56'7	21'41	15 45'53	5 25'52	0'309
Wed. 14	7 32 24'26	10'147	21 45 11'7	22'34	15 45'57	5 32'71	0'290
Thur. 15	7 36 27'56	10'128	21 36 4'3	23'27	15 45'61	5 39'44	0'270
Frid. 16	7 40 30'38	10'107	21 26 34'8	24'19	15 45'66	5 45'68	0'249
Sat. 17	7 44 32'69	10'085	21 16 43'4	25'09	15 45'72	5 51'41	0'228
Sun. 18	7 48 34'47	10'063	21 6 30'3	25'99	15 45'78	5 56'63	0'206
Mon. 19	7 52 35'72	10'041	20 55 55'7	26'88	15 45'85	6 1'31	0'183
Tues. 20	7 56 36'42	10'017	20 44 59'9	27'76	15 45'93	6 5'43	0'160
Wed. 21	8 0 36'55	9'994	20 33 43'0	28'63	15 46'01	6 9'00	0'137
Thur. 22	8 4 36'11	9'969	20 22 5'5	29'49	15 46'09	6 11'99	0'113
Frid. 23	8 8 35'08	9'945	20 10 7'5	30'34	15 46'18	6 14'40	0'088
Sat. 24	8 12 33'46	9'920	19 57 49'2	31'18	15 46'27	6 16'22	0'063
Sun. 25	8 16 31'24	9'895	19 45 11'0	32'00	15 46'37	6 17'44	0'038
Mon. 26	8 20 28'41	9'869	19 32 13'2	32'81	15 46'47	6 18'05	0'013
Tues. 27	8 24 24'97	9'844	19 18 55'9	33'62	15 46'58	6 18'05	0'013
Wed. 28	8 28 20'91	9'818	19 5 19'5	34'41	15 46'69	6 17'43	0'038
Thur. 29	8 32 16'23	9'792	18 51 24'3	35'19	15 46'80	6 16'20	0'064
Frid. 30	8 36 10'94	9'767	18 37 10'5	35'96	15 46'92	6 14'36	0'090
Sat. 31	8 40 5'03	9'741	18 22 38'4	36'71	15 47'04	6 11'90	0'115
Sun. 32	8 43 58'50	9'715	N. 18 7 48'3	37'46	15 47'16	6 8'83	0'141

* The Semidiameter for Mean Noon may be assumed the same as that for Apparent Noon.

AT GREENWICH MEAN NOON.

Date.	THE SUN'S Apparent				Equation of Time, to be subtracted from Mean Time.	Sidereal Time.
	Right Ascension.	Declination.	Longitude.	Latitude.		
	h m s	° / "	° / "	"	m s	h m s
1	6 39 4'35	N. 23 8 51'8	98 58 29'8	N. 0'35	3 28'95	6 35 35'39
2	6 43 12'39	23 4 47'9	99 55 40'4	0'21	3 40'44	6 39 31'95
3	6 47 20'16	23 0 19'8	100 52 50'9	N. 0'08	3 51'65	6 43 28'51
4	6 51 27'64	22 55 27'7	101 50 1'4	S. 0'04	4 2'58	6 47 25'07
5	6 55 34'83	22 50 11'7	102 47 12'0	0'14	4 13'21	6 51 21'62
6	6 59 41'70	22 44 31'9	103 44 22'8	0'21	4 23'52	6 55 18'18
7	7 3 48'23	22 38 28'4	104 41 33'9	0'25	4 33'49	6 59 14'74
8	7 7 54'42	22 32 1'4	105 38 45'4	0'25	4 43'12	7 3 11'30
9	7 12 0'24	22 25 11'0	106 35 57'3	0'22	4 52'39	7 7 7'86
10	7 16 5'69	22 17 57'3	107 33 9'6	0'16	5 1'28	7 11 4'41
11	7 20 10'74	22 10 20'6	108 30 22'5	S. 0'08	5 9'77	7 15 0'97
12	7 24 15'38	22 2 21'0	109 27 36'0	N. 0'03	5 17'85	7 18 57'53
13	7 28 19'58	21 53 58'7	110 24 49'9	0'16	5 25'49	7 22 54'08
14	7 32 23'33	21 45 13'8	111 22 4'4	0'30	5 32'69	7 26 50'64
15	7 36 26'61	21 36 6'5	112 19 19'5	0'43	5 39'41	7 30 47'20
16	7 40 29'41	21 26 37'1	113 16 35'0	0'55	5 45'65	7 34 43'76
17	7 44 31'71	21 16 45'8	114 13 51'0	0'66	5 51'39	7 38 40'32
18	7 48 33'48	21 6 32'8	115 11 7'4	0'76	5 56'61	7 42 36'87
19	7 52 34'72	20 55 58'4	116 8 24'2	0'83	6 1'29	7 46 33'43
20	7 56 35'40	20 45 2'7	117 5 41'4	0'87	6 5'42	7 50 29'99
21	8 0 35'53	20 33 45'9	118 2 59'0	0'88	6 8'99	7 54 26'54
22	8 4 35'08	20 22 8'5	119 0 16'9	0'88	6 11'98	7 58 23'10
23	8 8 34'05	20 10 10'6	119 57 35'3	0'84	6 14'39	8 2 19'66
24	8 12 32'43	19 57 52'5	120 54 54'0	0'77	6 16'21	8 6 16'21
25	8 16 30'20	19 45 14'4	121 52 13'1	0'69	6 17'43	8 10 12'77
26	8 20 27'37	19 32 16'6	122 49 32'6	0'58	6 18'05	8 14 9'33
27	8 24 23'93	19 18 59'4	123 46 52'6	0'46	6 18'05	8 18 5'88
28	8 28 19'88	19 5 23'1	124 44 13'1	0'33	6 17'44	8 22 2'44
29	8 32 15'21	18 51 28'0	125 41 34'1	0'20	6 16'21	8 25 59'00
30	8 36 9'92	18 37 14'2	126 38 55'8	N. 0'07	6 14'37	8 29 55'55
31	8 40 4'02	18 22 42'2	127 36 18'1	S. 0'06	6 11'91	8 33 52'11
32	8 43 57'51	N. 18 7 52'2	128 33 41'2	S. 0'15	6 8'85	8 37 48'66

AT GREENWICH APPARENT NOON.

Date.	THE SUN'S					Equation of Time, to be added to Apparent Time.	Var. in 1 hour.
	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Semi-diameter.*		
	h m s	s	° / ' "	"	' "	m s	s
Sun. 1	8 43 58.50	9.715	N. 18 7 48.3	37.46	15 47.16	6 8.83	0.141
Mon. 2	8 47 51.37	9.690	17 52 40.5	38.19	15 47.29	6 5.15	0.166
Tues. 3	8 51 43.64	9.665	17 37 15.2	38.91	15 47.42	6 0.87	0.191
Wed. 4	8 55 35.31	9.641	17 21 32.7	39.62	15 47.55	5 56.00	0.215
Thur. 5	8 59 26.39	9.616	17 5 33.3	40.32	15 47.68	5 50.54	0.240
Frid. 6	9 3 16.89	9.592	16 49 17.3	41.01	15 47.81	5 44.50	0.264
Sat. 7	9 7 6.82	9.568	16 32 44.9	41.69	15 47.95	5 37.89	0.287
Sun. 8	9 10 56.17	9.544	16 15 56.4	42.35	15 48.10	5 30.71	0.311
Mon. 9	9 14 44.95	9.521	15 58 52.2	43.00	15 48.24	5 22.96	0.335
Tues. 10	9 18 33.18	9.498	15 41 32.4	43.64	15 48.39	5 14.65	0.358
Wed. 11	9 22 20.84	9.474	15 23 57.5	44.26	15 48.55	5 5.78	0.381
Thur. 12	9 26 7.95	9.451	15 6 7.7	44.88	15 48.71	4 56.36	0.404
Frid. 13	9 29 54.51	9.429	14 48 3.4	45.48	15 48.87	4 46.39	0.426
Sat. 14	9 33 40.53	9.406	14 29 44.8	46.06	15 49.04	4 35.89	0.449
Sun. 15	9 37 26.00	9.384	14 11 12.3	46.63	15 49.21	4 24.84	0.471
Mon. 16	9 41 10.94	9.362	13 52 26.2	47.20	15 49.39	4 13.26	0.494
Tues. 17	9 44 55.36	9.340	13 33 26.9	47.74	15 49.57	4 1.15	0.515
Wed. 18	9 48 39.25	9.318	13 14 14.6	48.27	15 49.76	3 48.52	0.537
Thur. 19	9 52 22.63	9.297	12 54 49.8	48.79	15 49.95	3 35.38	0.558
Frid. 20	9 56 5.51	9.276	12 35 12.7	49.29	15 50.15	3 21.74	0.579
Sat. 21	9 59 47.89	9.256	12 15 23.7	49.79	15 50.35	3 7.61	0.599
Sun. 22	10 3 29.79	9.236	11 55 23.0	50.26	15 50.55	2 52.99	0.619
Mon. 23	10 7 11.21	9.216	11 35 11.1	50.72	15 50.76	2 37.90	0.638
Tues. 24	10 10 52.18	9.198	11 14 48.2	51.17	15 50.97	2 22.36	0.657
Wed. 25	10 14 32.70	9.179	10 54 14.8	51.61	15 51.18	2 6.37	0.675
Thur. 26	10 18 12.79	9.162	10 33 31.1	52.03	15 51.40	1 49.95	0.693
Frid. 27	10 21 52.46	9.145	10 12 37.5	52.44	15 51.61	1 33.11	0.710
Sat. 28	10 25 31.74	9.129	9 51 34.2	52.83	15 51.83	1 15.88	0.726
Sun. 29	10 29 10.63	9.113	9 30 21.6	53.21	15 52.06	0 58.27	0.741
Mon. 30	10 32 49.16	9.099	9 9 0.0	53.58	15 52.28	0 40.30	0.756
Tues. 31	10 36 27.36	9.085	8 47 29.7	53.94	15 52.50	0 21.99	0.770
Wed. 32	10 40 5.23	9.072	N. 8 25 50.9	54.28	15 52.73	0 3.36	0.783

* The Semidiameter for Mean Noon may be assumed the same as that for Apparent Noon.

AT GREENWICH MEAN NOON.

Date.	THE SUN'S Apparent				Equation of Time, to be subtracted from Mean Time.	Sidereal Time.
	Right Ascension.	Declination.	Longitude.	Latitude.		
	h m s	° / ' "	° / ' "	"	m s	h m s
1	8 43 57.51	N. 18 7 52.2	128 33 41.2	S. 0.15	6 8.85	8 37 48.66
2	8 47 50.39	17 52 44.4	129 31 5.1	0.23	6 5.17	8 41 45.22
3	8 51 42.67	17 37 19.1	130 28 30.0	0.28	6 0.89	8 45 41.78
4	8 55 34.36	17 21 36.6	131 25 56.0	0.30	5 56.03	8 49 38.33
5	8 59 25.45	17 5 37.2	132 23 23.2	0.28	5 50.57	8 53 34.89
6	9 3 15.97	16 49 21.2	133 20 51.6	0.24	5 44.53	8 57 31.44
7	9 7 5.92	16 32 48.8	134 18 21.4	0.17	5 37.92	9 1 28.00
8	9 10 55.29	16 16 0.3	135 15 52.5	S. 0.06	5 30.74	9 5 24.55
9	9 14 44.10	15 58 56.0	136 13 25.0	N. 0.06	5 22.99	9 9 21.11
10	9 18 32.35	15 41 36.2	137 10 59.0	0.18	5 14.68	9 13 17.67
11	9 22 20.03	15 24 1.3	138 8 34.4	0.31	5 5.81	9 17 14.22
12	9 26 7.17	15 6 11.4	139 6 11.2	0.44	4 56.40	9 21 10.78
13	9 29 53.76	14 48 7.0	140 3 49.3	0.55	4 46.43	9 25 7.33
14	9 33 39.81	14 29 48.3	141 1 28.9	0.65	4 35.92	9 29 3.89
15	9 37 25.32	14 11 15.8	141 59 9.8	0.72	4 24.88	9 33 0.44
16	9 41 10.29	13 52 29.6	142 56 52.0	0.77	4 13.29	9 36 57.00
17	9 44 54.73	13 33 30.1	143 54 35.4	0.78	4 1.18	9 40 53.55
18	9 48 38.66	13 14 17.7	144 52 20.1	0.78	3 48.55	9 44 50.11
19	9 52 22.08	12 54 52.7	145 50 6.1	0.75	3 35.41	9 48 46.66
20	9 56 4.99	12 35 15.4	146 47 53.3	0.69	3 21.77	9 52 43.22
21	9 59 47.41	12 15 26.2	147 45 41.8	0.61	3 7.64	9 56 39.77
22	10 3 29.34	11 55 25.4	148 43 31.4	0.51	2 53.02	10 0 36.32
23	10 7 10.81	11 35 13.3	149 41 22.2	0.40	2 37.93	10 4 32.88
24	10 10 51.82	11 14 50.3	150 39 14.3	0.27	2 22.38	10 8 29.43
25	10 14 32.38	10 54 16.6	151 37 7.5	0.14	2 6.39	10 12 25.99
26	10 18 12.51	10 33 32.7	152 35 2.0	N. 0.01	1 49.97	10 16 22.54
27	10 21 52.23	10 12 38.8	153 32 57.8	S. 0.11	1 33.13	10 20 19.09
28	10 25 31.55	9 51 35.3	154 30 54.9	0.22	1 15.90	10 24 15.65
29	10 29 10.48	9 30 22.4	155 28 53.5	0.30	0 58.28	10 28 12.20
30	10 32 49.06	9 9 0.6	156 26 53.5	0.36	0 40.31	10 32 8.76
31	10 36 27.30	8 47 30.0	157 24 55.1	0.38	0 21.99	10 36 5.31
32	10 40 5.22	N. 8 25 51.0	158 22 58.3	S. 0.37	0 3.36	10 40 1.86

AT GREENWICH APPARENT NOON.

Date.	THE SUN'S					Equation of Time, to be added to subtracted from Apparent Time.	Var. in 1 hour.
	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Semi-diameter.*		
Wed. 1	10 40 5 ^h 23 ^m	9 ^o 072	N. 8 25 50 ^o 9 [']	54 ['] 28	15 52 ['] 73	0 3 ^m 36 ^s	0 ^o 783
Thur. 2	10 43 42 ^h 81 ^m	9 ^o 060	8 4 4 ^o 0 [']	54 ['] 62	15 52 ['] 96	0 15 ^m 57 ^s	0 ^o 794
Frid. 3	10 47 20 ^h 11 ^m	9 ^o 049	7 42 9 ^o 3 [']	54 ['] 94	15 53 ['] 19	0 34 ^m 77 ^s	0 ^o 805
Sat. 4	10 50 57 ^h 16 ^m	9 ^o 039	7 20 7 ^o 1 [']	55 ['] 24	15 53 ['] 42	0 54 ^m 22 ^s	0 ^o 815
Sun. 5	10 54 33 ^h 97 ^m	9 ^o 030	6 57 57 ^o 6 [']	55 ['] 54	15 53 ['] 65	1 13 ^m 91 ^s	0 ^o 825
Mon. 6	10 58 10 ^h 57 ^m	9 ^o 021	6 35 41 ^o 1 [']	55 ['] 82	15 53 ['] 88	1 33 ^m 81 ^s	0 ^o 833
Tues. 7	11 1 46 ^h 97 ^m	9 ^o 013	6 13 18 ^o 1 [']	56 ['] 09	15 54 ['] 12	1 53 ^m 91 ^s	0 ^o 841
Wed. 8	11 5 23 ^h 19 ^m	9 ^o 006	5 50 48 ^o 8 [']	56 ['] 35	15 54 ['] 35	2 14 ^m 18 ^s	0 ^o 848
Thur. 9	11 8 59 ^h 25 ^m	9 ^o 000	5 28 13 ^o 5 [']	56 ['] 59	15 54 ['] 59	2 34 ^m 62 ^s	0 ^o 855
Frid. 10	11 12 35 ^h 16 ^m	8 ^o 994	5 5 32 ^o 5 [']	56 ['] 82	15 54 ['] 84	2 55 ^m 21 ^s	0 ^o 861
Sat. 11	11 16 10 ^h 94 ^m	8 ^o 989	4 42 46 ^o 2 [']	57 ['] 03	15 55 ['] 08	3 15 ^m 93 ^s	0 ^o 866
Sun. 12	11 19 46 ^h 61 ^m	8 ^o 984	4 19 55 ^o 0 [']	57 ['] 23	15 55 ['] 33	3 36 ^m 76 ^s	0 ^o 870
Mon. 13	11 23 22 ^h 18 ^m	8 ^o 980	3 56 59 ^o 2 [']	57 ['] 41	15 55 ['] 59	3 57 ^m 68 ^s	0 ^o 874
Tues. 14	11 26 57 ^h 66 ^m	8 ^o 977	3 33 59 ^o 1 [']	57 ['] 59	15 55 ['] 84	4 18 ^m 69 ^s	0 ^o 877
Wed. 15	11 30 33 ^h 09 ^m	8 ^o 975	3 10 55 ^o 1 [']	57 ['] 74	15 56 ['] 10	4 39 ^m 76 ^s	0 ^o 879
Thur. 16	11 34 8 ^h 46 ^m	8 ^o 973	2 47 47 ^o 5 [']	57 ['] 88	15 56 ['] 36	5 0 ^m 88 ^s	0 ^o 881
Frid. 17	11 37 43 ^h 80 ^m	8 ^o 972	2 24 36 ^o 7 [']	58 ['] 01	15 56 ['] 62	5 22 ^m 03 ^s	0 ^o 882
Sat. 18	11 41 19 ^h 13 ^m	8 ^o 972	2 1 23 ^o 1 [']	58 ['] 12	15 56 ['] 89	5 43 ^m 20 ^s	0 ^o 882
Sun. 19	11 44 54 ^h 47 ^m	8 ^o 973	1 38 7 ^o 0 [']	58 ['] 22	15 57 ['] 16	6 4 ^m 36 ^s	0 ^o 881
Mon. 20	11 48 29 ^h 83 ^m	8 ^o 974	1 14 48 ^o 7 [']	58 ['] 30	15 57 ['] 43	6 25 ^m 50 ^s	0 ^o 880
Tue. 21	11 52 5 ^h 22 ^m	8 ^o 976	0 51 28 ^o 7 [']	58 ['] 36	15 57 ['] 70	6 46 ^m 59 ^s	0 ^o 878
Wed. 22	11 55 40 ^h 68 ^m	8 ^o 979	N. 0 28 7 ^o 2 [']	58 ['] 42	15 57 ['] 97	7 7 ^m 62 ^s	0 ^o 875
Thur. 23	11 59 16 ^h 22 ^m	8 ^o 983	0 4 44 ^o 6 [']	58 ['] 46	15 58 ['] 25	7 28 ^m 58 ^s	0 ^o 871
Frid. 24	12 2 51 ^h 86 ^m	8 ^o 988	S. 0 18 38 ^o 7 [']	58 ['] 48	15 58 ['] 53	7 49 ^m 44 ^s	0 ^o 866
Sat. 25	12 6 27 ^h 62 ^m	8 ^o 993	0 42 2 ^o 4 [']	58 ['] 49	15 58 ['] 80	8 10 ^m 17 ^s	0 ^o 861
Sun. 26	12 10 3 ^h 53 ^m	8 ^o 999	1 5 26 ^o 1 [']	58 ['] 48	15 59 ['] 08	8 30 ^m 76 ^s	0 ^o 855
Mon. 27	12 13 39 ^h 60 ^m	9 ^o 007	1 28 49 ^o 6 [']	58 ['] 46	15 59 ['] 35	8 51 ^m 19 ^s	0 ^o 847
Tues. 28	12 17 15 ^h 86 ^m	9 ^o 015	1 52 12 ^o 4 [']	58 ['] 43	15 59 ['] 63	9 11 ^m 43 ^s	0 ^o 839
Wed. 29	12 20 52 ^h 34 ^m	9 ^o 025	2 15 34 ^o 3 [']	58 ['] 39	15 59 ['] 91	9 31 ^m 45 ^s	0 ^o 829
Thur. 30	12 24 29 ^h 06 ^m	9 ^o 035	2 38 55 ^o 1 [']	58 ['] 33	16 0 ['] 18	9 51 ^m 23 ^s	0 ^o 819
Frid. 31	12 28 6 ^h 04 ^m	9 ^o 047	S. 3 2 14 ^o 2 [']	58 ['] 26	16 0 ['] 46	10 10 ^m 75 ^s	0 ^o 807

*The Semidiameter for Mean Noon may be assumed the same as that for Apparent Noon.

AT GREENWICH MEAN NOON.

Date.	THE SUN'S Apparent				Equation of Time, to be subtracted from added to Mean Time.	Sidereal Time.
	Right Ascension.	Declination.	Longitude.	Latitude.		
1	10 40 5 ^h 22 ^m	N. 8 25 51 ^o 0 [']	158 22 58 ^o 3 [']	S. 0 ^o 37 [']	0 3 ^m 36 ^s	10 40 1 ^h 86 ^m
2	10 43 42 ^h 85 ^m	8 4 3 ^o 8 [']	159 21 3 ^o 4 [']	0 ^o 33 [']	0 15 ^m 57 ^s	10 43 58 ^h 42 ^m
3	10 47 20 ^h 20 ^m	7 42 8 ^o 8 [']	160 19 10 ^o 3 [']	0 ^o 27 [']	0 34 ^m 77 ^s	10 47 54 ^h 97 ^m
4	10 50 57 ^h 30 ^m	7 20 6 ^o 2 [']	161 17 19 ^o 1 [']	0 ^o 17 [']	0 54 ^m 23 ^s	10 51 51 ^h 53 ^m
5	10 54 34 ^h 16 ^m	6 57 56 ^o 4 [']	162 15 29 ^o 9 [']	S. 0 ^o 05 [']	1 13 ^m 92 ^s	10 55 48 ^h 08 ^m
6	10 58 10 ^h 81 ^m	6 35 39 ^o 7 [']	163 13 42 ^o 8 [']	N. 0 ^o 07 [']	1 33 ^m 83 ^s	10 59 44 ^h 63 ^m
7	11 1 47 ^h 25 ^m	6 13 16 ^o 3 [']	164 11 57 ^o 8 [']	0 ^o 19 [']	1 53 ^m 93 ^s	11 3 41 ^h 19 ^m
8	11 5 23 ^h 52 ^m	5 50 46 ^o 7 [']	165 10 14 ^o 8 [']	0 ^o 32 [']	2 14 ^m 21 ^s	11 7 37 ^h 74 ^m
9	11 8 59 ^h 63 ^m	5 28 11 ^o 0 [']	166 8 33 ^o 9 [']	0 ^o 44 [']	2 34 ^m 66 ^s	11 11 34 ^h 29 ^m
10	11 12 35 ^h 60 ^m	5 5 29 ^o 7 [']	167 6 55 ^o 1 [']	0 ^o 54 [']	2 55 ^m 25 ^s	11 15 30 ^h 85 ^m
11	11 16 11 ^h 43 ^m	4 42 43 ^o 1 [']	168 5 18 ^o 3 [']	0 ^o 60 [']	3 15 ^m 97 ^s	11 19 27 ^h 40 ^m
12	11 19 47 ^h 15 ^m	4 19 51 ^o 5 [']	169 3 43 ^o 4 [']	0 ^o 64 [']	3 36 ^m 81 ^s	11 23 23 ^h 95 ^m
13	11 23 22 ^h 77 ^m	3 56 55 ^o 4 [']	170 2 10 ^o 6 [']	0 ^o 66 [']	3 57 ^m 74 ^s	11 27 20 ^h 51 ^m
14	11 26 58 ^h 31 ^m	3 33 54 ^o 9 [']	171 0 39 ^o 7 [']	0 ^o 66 [']	4 18 ^m 75 ^s	11 31 17 ^h 06 ^m
15	11 30 33 ^h 78 ^m	3 10 50 ^o 6 [']	171 59 10 ^o 6 [']	0 ^o 62 [']	4 39 ^m 83 ^s	11 35 13 ^h 61 ^m
16	11 34 9 ^h 21 ^m	2 47 42 ^o 6 [']	172 57 43 ^o 5 [']	0 ^o 56 [']	5 0 ^m 96 ^s	11 39 10 ^h 17 ^m
17	11 37 44 ^h 61 ^m	2 24 31 ^o 5 [']	173 56 18 ^o 1 [']	0 ^o 48 [']	5 22 ^m 11 ^s	11 43 6 ^h 72 ^m
18	11 41 19 ^h 99 ^m	2 1 17 ^o 5 [']	174 54 54 ^o 5 [']	0 ^o 38 [']	5 43 ^m 28 ^s	11 47 3 ^h 27 ^m
19	11 44 55 ^h 38 ^m	1 38 1 ^o 1 [']	175 53 32 ^o 7 [']	0 ^o 27 [']	6 4 ^m 45 ^s	11 50 59 ^h 82 ^m
20	11 48 30 ^h 79 ^m	1 14 42 ^o 5 [']	176 52 12 ^o 7 [']	0 ^o 15 [']	6 25 ^m 59 ^s	11 54 56 ^h 38 ^m
21	11 52 6 ^h 24 ^m	0 51 22 ^o 1 [']	177 50 54 ^o 3 [']	N. 0 ^o 01 [']	6 46 ^m 69 ^s	11 58 52 ^h 93 ^m
22	11 55 41 ^h 75 ^m	0 28 0 ^o 2 [']	178 49 37 ^o 6 [']	S. 0 ^o 12 [']	7 7 ^m 73 ^s	12 2 49 ^h 48 ^m
23	11 59 17 ^h 35 ^m	N. 0 4 37 ^o 3 [']	179 48 22 ^o 7 [']	0 ^o 24 [']	7 28 ^m 69 ^s	12 6 46 ^h 04 ^m
24	12 2 53 ^h 04 ^m	S. 0 18 46 ^o 4 [']	180 47 9 ^o 4 [']	0 ^o 35 [']	7 49 ^m 55 ^s	12 10 42 ^h 59 ^m
25	12 6 28 ^h 85 ^m	0 42 10 ^o 4 [']	181 45 57 ^o 8 [']	0 ^o 43 [']	8 10 ^m 29 ^s	12 14 39 ^h 14 ^m
26	12 10 4 ^h 81 ^m	1 5 34 ^o 4 [']	182 44 48 ^o 0 [']	0 ^o 50 [']	8 30 ^m 89 ^s	12 18 35 ^h 70 ^m
27	12 13 40 ^h 93 ^m	1 28 58 ^o 2 [']	183 43 40 ^o 0 [']	0 ^o 53 [']	8 51 ^m 32 ^s	12 22 32 ^h 25 ^m
28	12 17 17 ^h 24 ^m	1 52 21 ^o 4 [']	184 42 33 ^o 8 [']	0 ^o 53 [']	9 11 ^m 56 ^s	12 26 28 ^h 80 ^m
29	12 20 53 ^h 77 ^m	2 15 43 ^o 6 [']	185 41 29 ^o 6 [']	0 ^o 48 [']	9 31 ^m 58 ^s	12 30 25 ^h 36 ^m
30	12 24 30 ^h 54 ^m	2 39 4 ^o 6 [']	186 40 27 ^o 4 [']	0 ^o 42 [']	9 51 ^m 37 ^s	12 34 21 ^h 91 ^m
31	12 28 7 ^h 58 ^m	S. 3 2 24 ^o 0 [']	187 39 27 ^o 2 [']	S. 0 ^o 33 [']	10 10 ^m 88 ^s	12 38 18 ^h 46 ^m

AT GREENWICH APPARENT NOON.

Date.	THE SUN'S					Equation of Time, to be subtracted from Apparent Time.	Var. in 1 hour.
	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Semi-diameter.*		
	h m s	s	° / "	"	' "	m s	s
Frid. 1	12 28 6.04	9.047	S. 3 2 14.2	58.26	16 0.46	10 10.75	0.807
Sat. 2	12 31 43.32	9.060	3 25 31.4	58.17	16 0.73	10 29.97	0.794
Sun. 3	12 35 20.91	9.073	3 48 46.5	58.07	16 1.00	10 48.88	0.781
Mon. 4	12 38 58.84	9.088	4 11 59.0	57.96	16 1.27	11 7.46	0.766
Tues. 5	12 42 37.13	9.103	4 35 8.6	57.84	16 1.54	11 25.67	0.751
Wed. 6	12 46 15.80	9.120	4 58 15.1	57.70	16 1.81	11 43.50	0.736
Thur. 7	12 49 54.87	9.137	5 21 18.0	57.54	16 2.08	12 0.94	0.718
Frid. 8	12 53 34.36	9.155	5 44 16.9	57.36	16 2.35	12 17.95	0.700
Sat. 9	12 57 14.29	9.173	6 7 11.5	57.18	16 2.63	12 34.53	0.681
Sun. 10	13 0 54.67	9.192	6 30 1.4	56.97	16 2.90	12 50.66	0.662
Mon. 11	13 4 35.52	9.212	6 52 46.2	56.75	16 3.17	13 6.32	0.642
Tues. 12	13 8 16.86	9.233	7 15 25.6	56.52	16 3.44	13 21.49	0.621
Wed. 13	13 11 58.71	9.255	7 37 59.1	56.26	16 3.72	13 36.16	0.600
Thur. 14	13 15 41.08	9.276	8 0 26.3	55.99	16 3.99	13 50.31	0.578
Frid. 15	13 19 23.98	9.299	8 22 46.8	55.71	16 4.27	14 3.92	0.556
Sat. 16	13 23 7.43	9.322	8 45 0.3	55.41	16 4.55	14 16.99	0.533
Sun. 17	13 26 51.44	9.346	9 7 6.3	55.09	16 4.82	14 29.50	0.509
Mon. 18	13 30 36.04	9.371	9 29 4.4	54.75	16 5.10	14 41.42	0.484
Tues. 19	13 34 21.23	9.396	9 50 54.2	54.39	16 5.37	14 52.75	0.460
Wed. 20	13 38 7.03	9.421	10 12 35.3	54.02	16 5.65	15 3.48	0.434
Thur. 21	13 41 53.46	9.448	10 34 7.3	53.64	16 5.93	15 13.58	0.408
Frid. 22	13 45 40.52	9.475	10 55 29.8	53.23	16 6.20	15 23.05	0.381
Sat. 23	13 49 28.24	9.502	11 16 42.4	52.81	16 6.47	15 31.86	0.353
Sun. 24	13 53 16.62	9.530	11 37 44.7	52.37	16 6.74	15 40.01	0.325
Mon. 25	13 57 5.69	9.559	11 58 36.3	51.92	16 7.01	15 47.48	0.297
Tues. 26	14 0 55.45	9.588	12 19 16.8	51.45	16 7.28	15 54.25	0.267
Wed. 27	14 4 45.93	9.619	12 39 45.8	50.96	16 7.54	16 0.30	0.237
Thur. 28	14 8 37.15	9.650	13 0 3.0	50.46	16 7.80	16 5.62	0.206
Frid. 29	14 12 29.12	9.681	13 20 8.0	49.95	16 8.06	16 10.20	0.175
Sat. 30	14 16 21.86	9.714	13 40 0.4	49.42	16 8.31	16 14.00	0.142
Sun. 31	14 20 15.38	9.747	13 59 40.0	48.87	16 8.56	16 17.02	0.109
Mon. 32	14 24 9.70	9.780	S. 14 19 6.2	48.30	16 8.81	16 19.25	0.076

* The Semidiameter for Mean Noon may be assumed the same as that for Apparent Noon.

AT GREENWICH MEAN NOON.

Date.	THE SUN'S Apparent				Equation of Time, to be added to Mean Time.	Sidereal Time.
	Right Ascension.	Declination.	Longitude.	Latitude.		
	h m s	° / "	° / "	"	m s	h m s
1	12 28 7.58	S. 3 2 24.0	187 39 27.2	S. 0.33	10 10.88	12 38 18.46
2	12 31 44.91	3 25 41.6	188 38 29.3	0.21	10 30.11	12 42 15.02
3	12 35 22.55	3 48 56.9	189 37 33.6	S. 0.09	10 49.02	12 46 11.57
4	12 39 0.53	4 12 9.7	190 36 40.2	N. 0.04	11 7.60	12 50 8.12
5	12 42 38.86	4 35 19.7	191 35 49.2	0.17	11 25.81	12 54 4.68
6	12 46 17.58	4 58 26.4	192 35 0.5	0.28	11 43.65	12 58 1.23
7	12 49 56.70	5 21 29.5	193 34 14.1	0.37	12 1.08	13 1 57.78
8	12 53 36.24	5 44 28.7	194 33 30.0	0.45	12 18.10	13 5 54.33
9	12 57 16.21	6 7 23.5	195 32 48.3	0.49	12 34.68	13 9 50.89
10	13 0 56.64	6 30 13.6	196 32 8.8	0.51	12 50.80	13 13 47.44
11	13 4 37.54	6 52 58.6	197 31 31.5	0.51	13 6.46	13 17 44.00
12	13 8 18.92	7 15 38.1	198 30 56.4	0.50	13 21.63	13 21 40.55
13	13 12 0.81	7 38 11.8	199 30 23.5	0.43	13 36.30	13 25 37.10
14	13 15 43.22	8 0 39.2	200 29 52.6	0.34	13 50.44	13 29 33.66
15	13 19 26.16	8 22 59.9	201 29 23.8	0.23	14 4.05	13 33 30.21
16	13 23 9.65	8 45 13.5	202 28 56.9	N. 0.11	14 17.12	13 37 26.76
17	13 26 53.70	9 7 19.6	203 28 32.0	S. 0.02	14 29.62	13 41 23.32
18	13 30 38.33	9 29 17.8	204 28 8.9	0.15	14 41.54	13 45 19.87
19	13 34 23.56	9 51 7.7	205 27 47.7	0.29	14 52.86	13 49 16.43
20	13 38 9.40	10 12 48.9	206 27 28.2	0.42	15 3.58	13 53 12.98
21	13 41 55.86	10 34 20.9	207 27 10.4	0.53	15 13.68	13 57 9.53
22	13 45 42.95	10 55 43.5	208 26 54.4	0.62	15 23.14	14 1 6.09
23	13 49 30.70	11 16 56.1	209 26 40.0	0.69	15 31.95	14 5 2.64
24	13 53 19.11	11 37 58.4	210 26 27.3	0.73	15 40.09	14 8 59.20
25	13 57 8.20	11 58 50.0	211 26 16.3	0.73	15 47.55	14 12 55.75
26	14 0 57.99	12 19 30.5	212 26 7.0	0.70	15 54.31	14 16 52.31
27	14 4 48.50	12 39 59.5	213 25 59.5	0.64	16 0.36	14 20 48.86
28	14 8 39.74	13 0 16.6	214 25 53.8	0.55	16 5.67	14 24 45.42
29	14 12 31.73	13 20 21.5	215 25 49.9	0.43	16 10.24	14 28 41.97
30	14 16 24.48	13 40 13.8	216 25 48.0	0.30	16 14.04	14 32 38.52
31	14 20 18.02	13 59 53.2	217 25 48.1	0.17	16 17.06	14 36 35.08
32	14 24 12.36	S. 14 19 19.3	218 25 50.3	S. 0.04	16 19.28	14 40 31.63

AT GREENWICH APPARENT NOON.

Date.	THE SUN'S						Equation of Time, to be subtracted from Apparent Time.	Var. in 1 hour.
	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Semi-diameter.*			
	h m s	s	° / ' "	"	' "	m s	s	
Mon. 1	14 24 9.70	9.780	S. 14 19 6.2	48.30	16 8.81	16 19.25	0.076	
Tues. 2	14 28 4.83	9.814	14 38 18.6	47.73	16 9.05	16 20.67	0.042	
Wed. 3	14 32 0.79	9.849	14 57 17.0	47.13	16 9.29	16 21.27	0.008	
Thur. 4	14 35 57.58	9.884	15 16 0.9	46.52	16 9.53	16 21.04	0.027	
Frid. 5	14 39 55.21	9.919	15 34 29.9	45.89	16 9.77	16 19.97	0.062	
Sat. 6	14 43 53.68	9.954	15 52 43.5	45.24	16 10.00	16 18.05	0.098	
Sun. 7	14 47 53.01	9.990	16 10 41.4	44.58	16 10.23	16 15.29	0.133	
Mon. 8	14 51 53.19	10.026	16 28 23.1	43.89	16 10.46	16 11.67	0.169	
Tues. 9	14 55 54.24	10.061	16 45 48.3	43.20	16 10.69	16 7.19	0.204	
Wed. 10	14 59 56.14	10.097	17 2 56.5	42.48	16 10.92	16 1.86	0.240	
Thur. 11	15 3 58.89	10.133	17 19 47.3	41.74	16 11.14	15 55.68	0.275	
Frid. 12	15 8 2.51	10.169	17 36 20.2	40.99	16 11.36	15 48.64	0.311	
Sat. 13	15 12 6.98	10.204	17 52 34.9	40.22	16 11.58	15 40.75	0.346	
Sun. 14	15 16 12.30	10.239	18 8 30.9	39.44	16 11.80	15 32.01	0.382	
Mon. 15	15 20 18.46	10.274	18 24 7.9	38.64	16 12.02	15 22.43	0.417	
Tues. 16	15 24 25.47	10.309	18 39 25.4	37.81	16 12.23	15 12.00	0.452	
Wed. 17	15 28 33.31	10.344	18 54 22.9	36.98	16 12.45	15 0.75	0.486	
Thur. 18	15 32 41.98	10.378	19 9 0.2	36.12	16 12.66	14 48.68	0.520	
Frid. 19	15 36 51.46	10.412	19 23 16.8	35.25	16 12.86	14 35.79	0.554	
Sat. 20	15 41 1.74	10.445	19 37 12.3	34.37	16 13.07	14 22.10	0.587	
Sun. 21	15 45 12.83	10.478	19 50 46.4	33.47	16 13.27	14 7.62	0.620	
Mon. 22	15 49 24.70	10.511	20 3 58.7	32.55	16 13.47	13 52.34	0.653	
Tues. 23	15 53 37.35	10.543	20 16 48.8	31.62	16 13.66	13 36.29	0.685	
Wed. 24	15 57 50.77	10.575	20 29 16.4	30.68	16 13.85	13 19.48	0.716	
Thur. 25	16 2 4.94	10.606	20 41 21.2	29.72	16 14.03	13 1.90	0.748	
Frid. 26	16 6 19.87	10.638	20 53 2.8	28.75	16 14.21	12 43.58	0.779	
Sat. 27	16 10 35.54	10.668	21 4 21.0	27.76	16 14.38	12 24.53	0.809	
Sun. 28	16 14 51.94	10.698	21 15 15.5	26.77	16 14.55	12 4.74	0.839	
Mon. 29	16 19 9.05	10.728	21 25 45.9	25.76	16 14.71	11 44.24	0.869	
Tues. 30	16 23 26.87	10.757	21 35 52.0	24.74	16 14.87	11 23.04	0.898	
Wed. 31	16 27 45.37	10.785	S. 21 45 33.4	23.70	16 15.02	11 1.15	0.926	

* The Semidiameter for Mean Noon may be assumed the same as that for Apparent Noon.

AT GREENWICH MEAN NOON.

Date.	THE SUN'S.				Equation of Time, to be added to Mean Time.	Sidereal Time.
	Apparent					
	Right Ascension.	Declination.	Longitude.	Latitude.		
	h m s	° / ' "	° / ' "	"	m s	h m s
1	14 24 12.36	S. 14 19 19.3	218 25 50.3	S. 0.04	16 19.28	14 40 31.63
2	14 28 7.50	14 38 31.6	219 25 54.6	N. 0.08	16 20.69	14 44 28.19
3	14 32 3.47	14 57 29.9	220 26 1.0	0.19	16 21.27	14 48 24.74
4	14 36 0.27	15 16 13.6	221 26 9.5	0.27	16 21.03	14 52 21.30
5	14 39 57.90	15 34 42.3	222 26 20.1	0.32	16 19.95	14 56 17.86
6	14 43 56.38	15 52 55.7	223 26 32.7	0.36	16 18.03	15 0 14.41
7	14 47 55.71	16 10 53.4	224 26 47.4	0.35	16 15.25	15 4 10.97
8	14 51 55.90	16 28 34.9	225 27 4.1	0.32	16 11.63	15 8 7.52
9	14 55 56.94	16 45 59.9	226 27 22.8	0.27	16 7.14	15 12 4.08
10	14 59 58.83	17 3 7.8	227 27 43.3	0.19	16 1.80	15 16 0.64
11	15 4 1.58	17 19 58.3	228 28 5.6	N. 0.10	15 55.61	15 19 57.19
12	15 8 5.19	17 36 31.0	229 28 29.8	S. 0.02	15 48.56	15 23 53.75
13	15 12 9.64	17 52 45.4	230 28 55.6	0.15	15 40.66	15 27 50.30
14	15 16 14.95	18 8 41.1	231 29 23.0	0.29	15 31.91	15 31 46.86
15	15 20 21.10	18 24 17.8	232 29 52.0	0.43	15 22.32	15 35 43.42
16	15 24 28.08	18 39 35.0	233 30 22.4	0.57	15 11.89	15 39 39.97
17	15 28 35.90	18 54 32.2	234 30 54.2	0.68	15 0.63	15 43 36.53
18	15 32 44.54	19 9 9.1	235 31 27.3	0.78	14 48.55	15 47 33.09
19	15 36 53.99	19 23 25.3	236 32 1.7	0.85	14 35.66	15 51 29.64
20	15 41 4.24	19 37 20.5	237 32 37.3	0.90	14 21.96	15 55 26.20
21	15 45 15.29	19 50 54.3	238 33 14.0	0.91	14 7.47	15 59 22.76
22	15 49 27.13	20 4 6.2	239 33 51.9	0.90	13 52.19	16 3 19.32
23	15 53 39.74	20 16 55.9	240 34 30.9	0.84	13 36.14	16 7 15.87
24	15 57 53.11	20 29 23.2	241 35 11.0	0.75	13 19.32	16 11 12.43
25	16 2 7.25	20 41 27.6	242 35 52.3	0.64	13 1.74	16 15 8.99
26	16 6 22.13	20 53 8.9	243 36 34.7	0.51	12 43.42	16 19 5.55
27	16 10 37.75	21 4 26.8	244 37 18.4	0.37	12 24.36	16 23 2.10
28	16 14 54.09	21 15 20.9	245 38 3.4	S. 0.23	12 4.57	16 26 58.66
29	16 19 11.15	21 25 50.9	246 38 49.7	0.11	11 44.07	16 30 55.22
30	16 23 28.91	21 35 56.6	247 39 37.3	0.00	11 22.87	16 34 51.78
31	16 27 47.35	S. 21 45 37.7	248 40 26.3	N. 0.10	11 0.98	16 38 48.33

AT GREENWICH APPARENT NOON.

Date.	THE SUN'S					Equation of Time, to be subtracted from added to Apparent Time.	Var. in 1 hour.
	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Semi-diameter.*		
Wed. 1	h m s	s	° / '	'	' / ''	m s	s
Thur. 2	16 27 45.37	10.785	S. 21 45 33.4	23.70	16 15.02	11 1.15	0.926
Frid. 3	16 32 4.55	10.813	21 54 49.9	22.66	16 15.16	10 38.59	0.953
Sat. 4	16 36 24.37	10.839	22 3 41.2	21.61	16 15.30	10 15.39	0.980
Sun. 5	16 40 44.83	10.865	22 12 7.1	20.54	16 15.44	9 51.56	1.006
Mon. 6	16 45 5.89	10.890	22 20 7.2	19.46	16 15.57	9 27.12	1.030
Tues. 7	16 49 27.53	10.913	22 27 41.3	18.37	16 15.70	9 2.11	1.054
Wed. 8	16 53 49.72	10.936	22 34 49.1	17.28	16 15.82	8 36.54	1.076
Thur. 9	16 58 12.44	10.957	22 41 30.5	16.17	16 15.94	8 10.46	1.097
Frid. 10	17 2 35.65	10.977	22 47 45.2	15.05	16 16.06	7 43.88	1.117
Sat. 11	17 6 59.33	10.996	22 53 33.0	13.93	16 16.17	7 16.83	1.136
Sun. 12	17 11 23.44	11.013	22 58 53.6	12.79	16 16.28	6 40.36	1.153
Mon. 13	17 15 47.95	11.029	23 3 47.0	11.65	16 16.39	6 21.48	1.169
Tues. 14	17 20 12.83	11.043	23 8 12.8	10.50	16 16.49	5 53.24	1.184
Wed. 15	17 24 38.03	11.056	23 12 11.0	9.34	16 16.59	5 24.67	1.196
Thur. 16	17 29 3.52	11.068	23 15 41.3	8.18	16 16.68	4 55.81	1.208
Frid. 17	17 33 29.27	11.078	23 18 43.8	7.02	16 16.77	4 26.70	1.217
Sat. 18	17 37 55.25	11.086	23 21 18.3	5.84	16 16.86	3 57.37	1.226
Sun. 19	17 42 21.40	11.093	23 23 24.6	4.68	16 16.95	3 27.85	1.233
Mon. 20	17 46 47.70	11.098	23 25 2.8	3.50	16 17.03	2 58.19	1.238
Tues. 21	17 51 14.11	11.102	23 26 12.7	2.32	16 17.10	2 28.42	1.242
Wed. 22	17 55 40.60	11.105	23 26 54.2	1.14	16 17.17	1 58.58	1.244
Thur. 23	18 0 7.13	11.106	23 27 7.5	0.03	16 17.24	1 28.69	1.246
Frid. 24	18 4 33.67	11.105	23 26 52.5	1.21	16 17.30	0 58.79	1.245
Sat. 25	18 9 0.18	11.104	23 26 9.2	2.39	16 17.35	0 28.91	1.244
Sun. 26	18 13 26.65	11.101	23 24 57.6	3.57	16 17.40	0 0.91	1.241
Mon. 27	18 17 53.03	11.097	23 23 17.8	4.75	16 17.44	0 30.65	1.237
Tues. 28	18 22 19.30	11.092	23 21 9.8	5.92	16 17.47	1 0.28	1.232
Wed. 29	18 26 45.43	11.085	23 18 33.6	7.09	16 17.50	1 29.78	1.226
Thur. 30	18 31 11.40	11.078	23 15 29.4	8.26	16 17.52	1 59.11	1.218
Frid. 31	18 35 37.17	11.069	23 11 57.3	9.42	16 17.53	2 28.24	1.209
Sat. 32	18 40 2.71	11.059	23 7 57.3	10.58	16 17.54	2 57.14	1.199
Sat. 32	18 44 28.00	11.048	S. 23 3 29.5	11.73	16 17.54	3 25.79	1.188

* The Semidiameter for Mean Noon may be assumed the same as that for Apparent Noon.

AT GREENWICH MEAN NOON.

Date.	THE SUN'S Apparent				Equation of Time, to be added to subtracted from Mean Time.	Sidereal Time.
	Right Ascension.	Declination.	Longitude.	Latitude.		
1	h m s	° / '	° / '	'	m s	h m s
1	16 27 47.35	S. 21 45 37.7	248 40 26.3	N. 0.10	11 0.98	16 38 48.33
2	16 32 6.47	21 54 53.9	249 41 16.7	0.17	10 38.42	16 42 44.89
3	16 36 26.23	22 3 44.9	250 42 8.5	0.21	10 15.22	16 46 41.45
4	16 40 46.61	22 12 10.4	251 43 1.6	0.22	9 51.39	16 50 38.01
5	16 45 7.60	22 20 10.2	252 43 56.1	0.20	9 26.96	16 54 34.57
6	16 49 29.17	22 27 44.0	253 44 51.9	0.16	9 1.95	16 58 31.12
7	16 53 51.29	22 34 51.6	254 45 48.9	N. 0.10	8 36.39	17 2 27.68
8	16 58 13.93	22 41 32.7	255 46 47.0	0.00	8 10.31	17 6 24.24
9	17 2 37.07	22 47 47.2	256 47 46.3	S. 0.11	7 43.73	17 10 20.80
10	17 7 0.66	22 53 34.7	257 48 46.7	0.23	7 16.69	17 14 17.36
11	17 11 24.69	22 58 55.1	258 49 48.0	0.36	6 49.22	17 18 13.92
12	17 15 49.12	23 3 48.2	259 50 50.2	0.50	6 21.36	17 22 10.47
13	17 20 13.91	23 8 13.8	260 51 53.2	0.63	5 53.12	17 26 7.03
14	17 24 39.03	23 12 11.8	261 52 56.9	0.75	5 24.57	17 30 3.59
15	17 29 4.43	23 15 42.0	262 54 1.2	0.85	4 55.72	17 34 0.15
16	17 33 30.10	23 18 44.3	263 55 6.1	0.92	4 26.61	17 37 56.71
17	17 37 55.98	23 21 18.7	264 56 11.4	0.98	3 57.29	17 41 53.27
18	17 42 22.04	23 23 24.9	265 57 17.0	1.01	3 27.78	17 45 49.83
19	17 46 48.25	23 25 2.9	266 58 22.9	0.98	2 58.13	17 49 46.38
20	17 51 14.57	23 26 12.7	267 59 29.1	0.94	2 28.37	17 53 42.94
21	17 55 40.97	23 26 54.3	269 0 35.4	0.86	1 58.54	17 57 39.50
22	18 0 7.40	23 27 7.5	270 1 41.8	0.75	1 28.66	18 1 36.06
23	18 4 33.85	23 26 52.5	271 2 48.4	0.63	0 58.77	18 5 32.62
24	18 9 0.27	23 26 9.2	272 3 55.2	0.49	0 28.91	18 9 29.18
25	18 13 26.64	23 24 57.6	273 5 2.1	0.35	0 0.91	18 13 25.74
26	18 17 52.93	23 23 17.8	274 6 9.3	0.22	0 30.64	18 17 22.29
27	18 22 19.12	23 21 9.9	275 7 16.7	S. 0.10	1 0.26	18 21 18.85
28	18 26 45.16	23 18 33.8	276 8 24.3	N. 0.01	1 29.75	18 25 15.41
29	18 31 11.03	23 15 29.7	277 9 32.3	0.09	1 59.07	18 29 11.97
30	18 35 36.71	23 11 57.7	278 10 40.6	0.14	2 28.19	18 33 8.53
31	18 40 2.17	23 7 57.8	279 11 49.1	0.17	2 57.08	18 37 5.09
32	18 44 27.37	S. 23 3 30.2	280 12 58.0	N. 0.16	3 25.72	18 41 1.65

GREENWICH MEAN TIME.

Day.	THE MOON'S						
	Longitude.		Latitude.		Age.	Meridian Passage.	
	Noon.	Midnight.	Noon.	Midnight.	Noon.	Uppr.	Lower.
	° / ' / "	° / ' / "	° / ' / "	° / ' / "	d	h m	h m
1	39 26 6.6	46 11 3.4	S. 3 49 44.7	S. 3 22 34.9	9.01	8 7.1	20 32.0
2	52 52 39.1	59 30 56.6	2 52 51.5	2 21 2.5	10.01	8 57.2	21 22.8
3	66 5 59.0	72 37 49.2	1 47 36.4	1 13 2.2	11.01	9 48.9	22 15.3
4	79 6 30.6	85 32 6.0	S. 0 37 48.6	S. 0 2 23.9	12.01	10 41.9	23 8.7
5	91 54 38.5	98 14 11.1	N. 0 32 44.5	N. 1 7 10.7	13.01	11 35.5	* *
6	104 30 47.7	110 44 32.9	1 40 30.3	2 12 20.8	14.01	12 28.5	0 2.2
7	116 55 32.5	123 3 53.5	2 42 21.8	3 10 15.2	15.01	13 19.6	0 54.3
8	129 9 44.8	135 13 17.2	3 35 45.0	3 58 37.6	16.01	14 8.2	1 44.3
9	141 14 43.9	147 14 20.5	4 18 41.6	4 35 47.7	17.01	14 54.1	2 31.4
10	153 12 24.9	159 9 17.6	4 49 48.6	5 0 38.2	18.01	15 37.4	3 16.0
11	165 5 22.0	171 1 3.8	5 8 12.4	5 12 27.9	19.01	16 19.1	3 58.4
12	176 56 51.2	182 53 14.5	5 13 23.0	5 10 56.8	20.01	16 59.7	4 39.4
13	188 50 46.0	194 49 59.6	5 5 9.2	4 56 1.0	21.01	17 40.4	5 20.0
14	200 51 30.4	206 55 54.7	4 43 34.1	4 27 51.1	22.01	18 22.1	6 1.0
15	213 3 48.4	219 15 47.2	4 8 56.0	3 46 54.5	23.01	19 6.1	6 43.8
16	225 32 25.5	231 54 15.9	3 21 54.1	2 54 4.4	24.01	19 53.4	7 29.3
17	238 21 47.6	244 55 25.9	2 23 38.0	1 50 50.7	25.01	20 44.9	8 18.6
18	251 35 30.2	258 22 13.0	1 16 2.5	N. 0 39 37.1	26.01	21 40.9	9 12.3
19	265 15 38.9	272 15 43.4	N. 0 2 2.9	S. 0 36 7.0	27.01	22 41.0	10 10.6
20	279 22 11.6	286 34 37.7	S. 1 14 15.9	1 51 43.4	28.01	23 43.3	11 12.0
21	293 52 25.3	301 14 47.4	2 27 46.8	3 1 42.6	29.01	* *	12 14.6
22	308 40 48.0	316 9 23.3	3 32 48.6	4 0 25.1	0.49	0 45.5	13 15.8
23	323 39 25.2	331 9 42.9	4 23 56.7	4 42 55.4	1.49	1 45.4	14 14.1
24	338 39 6.7	346 6 30.9	4 57 0.2	5 5 58.2	2.49	2 42.0	15 9.0
25	353 30 56.2	0 51 31.6	5 9 44.6	5 8 22.8	3.49	3 35.3	16 1.0
26	8 7 36.1	15 18 39.2	5 2 2.9	4 51 1.0	4.49	4 26.2	16 51.0
27	22 24 20.4	29 24 29.2	4 35 38.1	4 16 18.3	5.49	5 15.6	17 40.2
28	36 19 3.6	43 8 9.3	3 53 28.3	3 27 36.0	6.49	6 4.8	18 29.5
29	49 51 57.2	56 30 43.3	2 59 9.9	2 28 39.0	7.49	6 54.5	19 19.8
30	63 4 46.4	69 34 27.2	1 56 31.5	1 23 15.0	8.49	7 45.4	20 11.3
31	76 0 7.1	82 22 7.6	S. 0 49 16.4	S. 0 15 1.7	9.49	8 37.4	21 3.8
32	88 40 49.3	94 56 31.6	N. 0 19 4.5	N. 0 52 38.4	10.49	9 30.2	21 56.5

GREENWICH MEAN TIME.

Day.	THE MOON'S								
	Semidiameter.		Horizontal Parallax.		RIGHT ASCENSION AND DECLINATION.				
	Noon.	Midnight.	Noon.	Midnight.	Hour.	Right Ascension.	Var. in 10 ^m .	Declination.	Var. in 10 ^m .
	' / "	' / "	' / "	' / "		h m s	s	° / ' / "	"
1	15 48.69	15 44.79	57 55.74	57 41.48					
2	15 40.88	15 36.94	57 27.14	57 12.70					
3	15 32.98	15 29.02	56 58.20	56 43.69					
4	15 25.06	15 21.10	56 29.17	56 14.69					
5	15 17.17	15 13.31	56 0.31	55 46.13					
6	15 9.53	15 5.86	55 32.26	55 18.82					
7	15 2.34	14 59.04	55 5.97	54 53.85					
8	14 55.99	14 53.24	54 42.66	54 32.58					
9	14 50.84	14 48.87	54 23.82	54 16.60					
10	14 47.36	14 46.36	54 11.07	54 7.42					
11	14 45.93	14 46.11	54 5.83	54 6.47					
12	14 46.92	14 48.40	54 9.45	54 14.85					
13	14 50.56	14 53.43	54 22.77	54 33.28					
14	14 57.00	15 1.27	54 46.38	55 2.02					
15	15 6.20	15 11.77	55 20.09	55 40.49					
16	15 17.91	15 24.55	56 2.99	56 27.35					
17	15 31.61	15 38.97	56 53.20	57 20.15					
18	15 46.49	15 54.02	57 47.70	58 15.29					
19	16 1.41	16 8.47	58 42.36	59 8.25					
20	16 15.05	16 20.93	59 32.34	59 53.94					
21	16 25.99	16 30.08	60 12.46	60 27.46					
22	16 33.11	16 34.99	60 38.52	60 45.39					
23	16 35.68	16 35.22	60 47.95	60 46.26					
24	16 33.65	16 31.07	60 40.51	60 31.07					
25	16 27.60	16 23.37	60 18.35	60 2.87					
26	16 18.54	16 13.24	59 45.13	59 25.70					
27	16 7.62	16 1.80	59 5.10	58 43.82					
28	15 55.92	15 50.07	58 22.26	58 0.81					
29	15 44.32	15 38.73	57 39.73	57 19.25					
30	15 33.35	15 28.23	56 59.58	56 40.82					
31	15 23.38	15 18.80	56 23.03	56 6.27					
32	15 14.51	15 10.50	55 50.52	55 35.81					
FRIDAY 1.									
0	2 33 3.47	21.352	N. 11 0 20.0	126.25					
4	2 41 36.78	21.425	11 50 18.7	123.61					
8	2 50 11.94	21.506	12 39 12.2	120.82					
12	2 58 49.10	21.592	13 26 56.5	117.85					
16	3 7 28.38	21.682	14 13 27.5	114.71					
20	3 16 9.92	21.778	N. 14 58 41.3	111.41					
SATURDAY 2.									
0	3 24 53.79	21.878	N. 15 42 34.1	107.96					
4	3 33 40.10	21.981	16 25 2.0	104.34					
8	3 42 28.88	22.084	17 6 1.5	100.58					
12	3 51 20.16	22.190	17 45 28.7	96.67					
16	4 0 13.97	22.295	18 23 20.3	92.60					
20	4 9 10.28	22.398	N. 18 59 32.8	88.42					
SUNDAY 3.									
0	4 18 9.05	22.499	N. 19 34 2.9	84.07					
4	4 27 10.23	22.598	20 6 47.5	79.62					
8	4 36 13.72	22.692	20 37 43.5	75.02					
12	4 45 19.41	22.781	21 6 48.2	70.34					
16	4 54 27.17	22.864	21 33 58.9	65.53					
20	5 3 36.83	22.939	N. 21 59 13.2	60.63					
MONDAY 4.									
0	5 12 48.20	23.007	N. 22 22 28.9	55.66					
4	5 22 1.09	23.065	22 43 43.9	50.58					
8	5 31 15.26	23.113	23 2 56.6	45.45					
12	5 40 30.46	23.152	23 20 5.2	40.27					
16	5 49 46.45	23.178	23 35 8.7	35.02					
20	5 59 2.94	23.193	N. 23 48 6.1	29.75					
TUESDAY 5.									
0	6 8 19.64	23.196	N. 23 58 56.6	24.46					
4	6 17 36.25	23.186	24 7 39.9	19.15					
8	6 26 52.46	23.163	24 14 15.8	13.84					
12	6 36 7.98	23.127	24 18 44.5	8.54					
16	6 45 22.49	23.079	24 21 6.3	3.28					
20	6 54 35.68	23.018	N. 24 21 22.1	1.95					
WEDNESDAY 6.									
0	7 3 47.26	22.945	N. 24 19 32.9	7.14					
4	7 12 56.92	22.858	24 15 39.8	12.27					
8	7 22 4.38	22.762	24 9 44.3	17.33					
12	7 31 9.37	22.652	24 1 48.3	22.32					
16	7 40 11.62	22.533	23 51 53.6	27.22					
20	7 49 10.91	22.405	N. 23 40 2.5	32.02					

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days: THURSDAY 7, THURSDAY 14, FRIDAY 8, FRIDAY 15, SATURDAY 9, SATURDAY 16, SUNDAY 10, SUNDAY 17, MONDAY 11, MONDAY 18, TUESDAY 12, TUESDAY 19, WEDNESDAY 13, WEDNESDAY 20.

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days: THURSDAY 21, THURSDAY 28, FRIDAY 22, FRIDAY 29, SATURDAY 23, SATURDAY 30, SUNDAY 24, SUNDAY 31, MONDAY 25, MONDAY, FEB. 1, TUESDAY 26, TUESDAY 27. Includes PHASES OF THE MOON section at the bottom.

GREENWICH MEAN TIME.

THE MOON'S

Day.	Longitude.		Latitude.		Age.	Meridian Passage.	
	Noon.	Midnight.	Noon.	Midnight.		Upper.	Lower.
	° / ' / "	° / ' / "	° / ' / "	° / ' / "	d	h m	h m
1	88 40 49.3	94 56 31.6	N. 0 19 4.5	N. 0 52 38.4	10.49	9 30.2	21 56.5
2	101 9 32.0	107 20 6.3	1 25 17.5	1 56 40.8	11.49	10 22.7	22 48.6
3	113 28 28.8	119 34 51.6	2 26 28.4	2 54 22.3	12.49	11 14.0	23 38.9
4	125 39 26.0	131 42 21.6	3 20 5.9	3 43 24.5	13.49	12 3.2	* *
5	137 43 47.5	143 43 52.6	4 4 5.1	4 21 56.6	14.49	12 49.8	0 26.8
6	149 42 46.0	155 40 37.5	4 36 49.7	4 48 37.2	15.49	13 34.0	1 12.2
7	161 37 37.9	167 33 59.2	4 57 13.5	5 2 35.2	16.49	14 16.2	1 55.3
8	173 29 55.8	179 25 44.2	5 4 39.8	5 3 26.7	17.49	14 57.0	2 36.7
9	185 21 43.3	191 18 14.5	4 58 56.8	4 51 12.4	18.49	15 37.3	3 17.2
10	197 15 42.0	203 14 32.7	4 40 16.8	4 26 14.3	19.49	16 18.1	3 57.6
11	209 15 16.3	215 18 24.6	4 9 10.5	3 49 12.0	20.49	17 0.3	4 39.0
12	221 24 31.6	227 34 12.6	3 26 26.8	3 1 4.3	21.49	17 45.0	5 22.3
13	233 48 3.9	240 6 42.1	2 33 15.5	2 3 13.5	22.49	18 33.1	6 8.6
14	246 30 43.2	253 0 41.1	1 31 13.8	N. 0 57 34.5	23.49	19 25.4	6 58.7
15	259 37 6.4	266 20 24.9	N. 0 22 36.7	S. 0 13 14.6	24.49	20 22.0	7 53.2
16	273 10 56.2	280 8 51.0	S. 0 49 30.9	1 25 39.9	25.49	21 22.1	8 51.7
17	287 14 9.8	294 26 41.4	2 1 5.5	2 35 8.8	26.49	22 23.9	9 52.9
18	301 46 1.0	309 11 29.8	3 7 8.8	3 36 23.9	27.49	23 25.2	10 54.7
19	316 42 15.2	324 17 11.6	4 2 13.4	4 23 59.9	28.49	* *	11 55.1
20	331 55 2.5	339 34 23.7	4 41 11.3	4 53 22.6	0.05	0 24.4	12 53.0
21	347 13 47.5	354 51 46.3	5 0 17.7	5 1 49.6	1.05	1 20.8	13 48.0
22	2 26 56.8	9 58 4.4	4 58 0.8	4 49 3.2	2.05	2 14.6	14 40.8
23	17 24 5.9	24 44 10.9	4 35 16.3	4 17 6.1	3.05	3 6.7	15 32.3
24	31 57 43.0	39 4 20.1	3 55 2.5	3 29 38.3	4.05	3 57.8	16 23.4
25	46 3 52.8	52 56 23.4	3 1 27.8	2 31 5.1	5.05	4 49.1	17 14.9
26	59 42 3.7	66 21 13.0	1 59 3.1	1 25 53.0	6.05	5 40.9	18 7.1
27	72 54 16.5	79 21 43.3	S. 0 52 4.4	S. 0 18 4.6	7.05	6 33.5	19 0.0
28	85 44 5.1	92 1 54.3	N. 0 15 41.6	N. 0 48 51.2	8.05	7 26.5	19 53.0
29	98 15 43.3	104 26 3.7	N. 1 21 2.9	N. 1 51 57.3	9.05	8 19.3	20 45.2

GREENWICH MEAN TIME.

THE MOON'S

Day.	Semidiameter.		Horizontal Parallax.		RIGHT ASCENSION AND DECLINATION.				
	Noon.	Midnight.	Noon.	Midnight.	Hour.	Right Ascension.	Var. in 10 ^m .	Declination.	Var. in 10 ^m .
	' / "	' / "	' / "	' / "		° / ' / "		° / ' / "	
1	15 14.51	15 10.50	55 50.52	55 35.81	MONDAY 1.				
2	15 6.75	15 3.27	55 22.09	55 9.35	0	5 54 11.73	22.872	N. 23 45 42.8	31.41
3	15 0.06	14 57.11	54 57.58	54 46.77	4	6 3 20.75	22.878	23 57 14.9	26.26
4	14 51.42	14 52.01	54 36.93	54 28.09	8	6 12 29.82	22.876	24 6 43.1	21.08
5	14 49.88	14 48.04	54 20.28	54 13.55	12	6 21 38.70	22.862	24 14 7.1	15.92
6	14 46.52	14 45.34	54 7.99	54 3.67	16	6 30 47.12	22.837	24 19 27.1	10.75
7	14 44.54	14 44.14	54 0.73	53 59.27	20	6 39 54.82	22.802	N. 24 22 43.1	5.60
8	14 44.18	14 44.69	53 59.42	54 1.30	TUESDAY 2.				
9	14 45.72	14 47.28	54 5.05	54 10.79	0	6 49 1.54	22.755	N. 24 23 55.8	0.46
10	14 49.43	14 52.18	54 18.65	54 28.70	4	6 58 7.00	22.697	24 23 5.7	4.63
11	14 55.54	14 59.55	54 41.03	54 55.70	8	7 7 10.95	22.629	24 20 13.9	9.68
12	15 4.19	15 9.47	55 12.70	55 32.02	12	7 16 13.13	22.551	24 15 21.4	14.67
13	15 15.34	15 21.78	55 53.55	56 17.18	16	7 25 13.30	22.462	24 8 29.8	19.62
14	15 28.75	15 36.15	56 42.70	57 9.80	20	7 34 11.20	22.362	N. 23 59 40.5	24.47
15	15 43.88	15 51.83	57 38.16	58 7.29	WEDNESDAY 3.				
16	15 59.85	16 7.78	58 36.66	59 5.69	0	7 43 6.63	22.254	N. 23 48 55.5	29.26
17	16 15.41	16 22.56	59 33.68	59 59.88	4	7 51 59.35	22.137	23 36 16.6	33.96
18	16 29.02	16 34.61	60 23.56	60 44.04	8	8 0 49.16	22.012	23 21 46.1	38.57
19	16 39.14	16 42.45	61 0.62	61 12.73	12	8 9 35.90	21.880	23 5 26.1	43.07
20	16 44.45	16 45.07	61 20.07	61 22.35	16	8 18 19.38	21.742	22 47 19.3	47.47
21	16 44.30	16 42.20	61 19.53	61 11.81	20	8 26 59.46	21.597	N. 22 27 28.2	51.76
22	16 38.84	16 34.36	60 59.51	60 43.11	THURSDAY 4.				
23	16 28.93	16 22.74	60 23.23	60 0.54	0	8 35 36.02	21.447	N. 22 5 55.6	55.93
24	16 15.98	16 8.83	59 35.75	59 9.54	4	8 44 8.93	21.293	21 42 44.3	59.98
25	16 1.45	15 54.03	58 42.53	58 15.35	8	8 52 38.09	21.137	21 17 57.3	63.92
26	15 46.70	15 39.58	57 48.48	57 22.38	12	9 1 3.45	20.977	20 51 37.5	67.72
27	15 32.75	15 26.30	56 57.38	56 33.73	16	9 9 24.95	20.814	20 23 48.1	71.38
28	15 20.27	15 14.71	56 11.66	55 51.26	20	9 17 42.55	20.652	N. 19 54 32.2	74.92
29	15 9.63	15 5.03	55 32.63	55 15.78	FRIDAY 5.				
1	15 14.51	15 10.50	55 50.52	55 35.81	0	9 25 56.25	20.489	N. 19 23 52.9	78.33
2	15 6.75	15 3.27	55 22.09	55 9.35	4	9 34 6.04	20.327	18 51 53.5	81.60
3	15 0.06	14 57.11	54 57.58	54 46.77	8	9 42 11.94	20.166	18 18 37.1	84.73
4	14 51.42	14 52.01	54 36.93	54 28.09	12	9 50 14.00	20.007	17 44 7.1	87.73
5	14 49.88	14 48.04	54 20.28	54 13.55	16	9 58 12.26	19.849	17 8 26.6	90.61
6	14 46.52	14 45.34	54 7.99	54 3.67	20	10 6 6.80	19.696	N. 16 31 38.9	93.35
7	14 44.54	14 44.14	54 0.73	53 59.27	SATURDAY 6.				
8	14 44.18	14 44.69	53 59.42	54 1.30	0	10 13 57.71	19.547	N. 15 53 47.1	95.95
9	14 45.72	14 47.28	54 5.05	54 10.79	4	10 21 45.07	19.401	15 14 54.4	98.42
10	14 49.43	14 52.18	54 18.65	54 28.70	8	10 29 29.01	19.261	14 35 3.9	100.76
11	14 55.54	14 59.55	54 41.03	54 55.70	12	10 37 9.64	19.126	13 54 18.7	102.97
12	15 4.19	15 9.47	55 12.70	55 32.02	16	10 44 47.10	18.996	13 12 42.1	105.06
13	15 15.34	15 21.78	55 53.55	56 17.18	20	10 52 21.53	18.873	N. 12 30 16.9	107.02

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days SUNDAY 7 through SATURDAY 20.

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days SUNDAY 21 through SATURDAY 27. Includes a section for PHASES OF THE MOON with moon symbols and dates.

GREENWICH MEAN TIME.

THE MOON'S

Day.	Longitude.		Latitude.		Age.	Meridian Passage.	
	Noon.	Midnight.	Noon.	Midnight.		Upper.	Lower.
	° / ' / "	° / ' / "	° / ' / "	° / ' / "	d	h m	h m
1	98 15 43.3	104 26 3.7	N. 1 21 2.9	N. 1 51 57.3	9.05	8 19.3	20 45.2
2	110 33 25.5	116 38 16.5	2 21 16.8	2 48 45.0	10.05	9 10.7	21 35.8
3	122 41 2.0	128 42 4.6	3 14 6.9	3 37 9.1	11.05	10 0.2	22 24.1
4	134 41 44.3	140 40 18.7	3 57 39.1	4 15 26.3	12.05	10 47.3	23 10.0
5	146 38 2.8	152 35 9.8	4 30 21.2	4 42 16.0	13.05	11 32.0	23 53.6
6	158 31 51.1	164 28 16.8	4 51 4.1	4 56 41.0	14.05	12 14.7	* *
7	170 24 36.2	176 20 58.7	4 59 3.5	4 58 10.4	15.05	12 55.8	0 35.4
8	182 17 33.9	188 14 32.2	4 54 1.9	4 46 40.1	16.05	13 36.2	1 16.1
9	194 12 5.4	200 10 26.6	4 36 8.8	4 22 33.1	17.05	14 16.8	1 56.4
10	206 9 51.6	212 10 38.3	4 5 59.8	3 46 37.1	18.05	14 58.2	2 37.3
11	218 13 7.5	224 17 42.3	3 24 34.7	3 0 3.6	19.05	15 41.6	3 19.6
12	230 24 48.7	236 34 55.2	2 33 16.3	2 4 26.6	20.05	16 27.7	4 4.2
13	242 48 32.4	249 6 12.2	1 33 50.1	N. 1 1 44.0	21.05	17 17.2	4 52.0
14	255 28 27.7	261 55 52.1	N. 0 28 27.4	S. 0 5 38.5	22.05	18 10.5	5 43.4
15	268 28 57.2	275 8 12.5	S. 0 40 9.8	1 14 40.5	23.05	19 7.3	6 38.5
16	281 54 3.2	288 46 49.2	1 48 41.7	2 21 42.0	24.05	20 6.4	7 36.6
17	295 46 42.3	302 53 44.6	2 53 7.8	3 22 23.4	25.05	21 6.2	8 36.3
18	310 7 46.5	317 28 25.1	3 48 52.3	4 11 58.2	26.05	22 5.1	9 35.8
19	324 55 3.6	332 26 50.6	4 31 6.6	4 45 46.1	27.05	23 2.2	10 33.9
20	340 2 41.6	347 41 20.4	4 55 31.2	5 0 3.4	28.05	23 57.3	11 30.0
21	355 21 22.9	3 1 19.9	4 59 12.7	4 52 58.8	29.05	* *	12 24.3
22	10 39 42.2	18 15 4.8	4 41 30.9	4 25 7.4	0.66	0 50.9	13 17.4
23	25 46 10.7	33 11 53.9	4 4 14.6	3 39 25.1	1.66	1 43.8	14 10.2
24	40 31 21.9	47 43 56.4	3 11 15.7	2 40 25.4	2.66	2 36.8	15 3.5
25	54 49 13.4	61 47 2.4	2 7 33.6	1 33 18.4	3.66	3 30.3	15 57.4
26	68 37 25.1	75 20 33.6	S. 0 58 16.0	S. 0 22 59.7	4.66	4 24.7	16 52.1
27	81 56 48.1	88 26 35.5	N. 0 12 0.6	N. 0 46 18.3	5.66	5 19.4	17 46.7
28	94 50 26.8	101 8 56.9	1 19 30.0	1 51 15.2	6.66	6 13.7	18 40.4
29	107 22 41.9	113 32 18.7	2 21 16.0	2 49 16.9	7.66	7 6.6	19 32.2
30	119 38 23.3	125 41 30.9	3 15 4.0	3 38 25.4	8.66	7 57.2	20 21.5
31	131 42 15.1	137 41 7.1	3 59 10.7	4 17 10.5	9.66	8 45.1	21 8.1
32	143 38 35.6	149 35 6.8	N. 4 32 16.8	N. 4 44 22.6	10.66	9 30.4	21 52.2

GREENWICH MEAN TIME.

THE MOON'S

Day.	Semidiameter.		Horizontal Parallax.		RIGHT ASCENSION AND DECLINATION.				
	Noon.	Midnight.	Noon.	Midnight.	Hour.	Right Ascension.	Var. in 10m.	Declination.	Var. in 10m.
	' / "	' / "	' / "	' / "		h m s	s	° / ' / "	' / "
1	15 9.63	15 5.03	55 32.63	55 15.78					
2	15 0.91	14 57.28	55 0.71	54 47.41					
3	14 54.12	14 51.39	54 35.80	54 25.82					
4	14 49.08	14 47.19	54 17.38	54 10.43					
5	14 45.69	14 44.56	54 4.93	54 0.80					
6	14 43.79	14 43.37	53 57.98	53 56.46					
7	14 43.31	14 43.61	53 56.24	53 57.32					
8	14 44.26	14 45.29	53 59.72	54 3.48					
9	14 46.71	14 48.54	54 8.68	54 15.37					
10	14 50.79	14 53.49	54 23.63	54 33.53					
11	14 56.67	15 0.34	54 45.16	54 58.60					
12	15 4.50	15 9.19	55 13.87	55 31.02					
13	15 14.38	15 20.07	55 50.05	56 10.91					
14	15 26.24	15 32.84	56 33.51	56 57.72					
15	15 39.83	15 47.12	57 23.31	57 49.99					
16	15 54.59	16 2.16	58 17.41	58 45.11					
17	16 9.64	16 16.89	59 12.53	59 39.09					
18	16 23.71	16 29.92	60 4.10	60 26.84					
19	16 35.32	16 39.74	60 46.64	61 2.81					
20	16 43.00	16 44.99	61 14.75	61 22.02					
21	16 45.60	16 44.82	61 24.30	61 21.44					
22	16 42.67	16 39.21	61 13.56	61 0.88					
23	16 34.55	16 28.87	60 43.82	60 23.01					
24	16 22.34	16 15.16	59 59.09	59 32.75					
25	16 7.53	15 59.62	59 4.77	58 35.83					
26	15 51.64	15 43.76	58 6.61	57 37.70					
27	15 36.09	15 28.77	57 9.61	56 42.77					
28	15 21.88	15 15.50	56 17.54	55 54.15					
29	15 9.68	15 4.44	55 32.80	55 13.62					
30	14 59.81	14 55.81	54 56.68	54 42.01					
31	14 52.42	14 49.63	54 29.59	54 19.36					
32	14 47.41	14 45.75	54 11.24	54 5.15					
MONDAY 1.									
0	6 36 18.58	22.789	N. 24 32 30.8	6.82					
4	6 45 24.79	22.727	24 34 12.6	1.67					
8	6 54 29.39	22.655	24 33 51.4	3.43					
12	7 3 32.15	22.574	24 31 28.2	8.49					
16	7 12 32.86	22.484	24 27 4.6	13.47					
20	7 21 31.31	22.386	N. 24 20 41.9	18.40					
TUESDAY 2.									
0	7 30 27.31	22.279	N. 24 12 21.8	23.26					
4	7 39 20.66	22.165	24 2 6.2	28.02					
8	7 48 11.18	22.044	23 49 57.1	32.71					
12	7 56 58.72	21.917	23 35 56.7	37.30					
16	8 5 43.12	21.783	23 20 7.2	41.80					
20	8 14 24.25	21.644	N. 23 2 31.1	46.20					
WEDNESDAY 3.									
0	8 23 1.99	21.500	N. 22 43 10.7	50.47					
4	8 31 36.24	21.352	22 22 8.9	54.65					
8	8 40 6.90	21.202	21 59 28.1	58.72					
12	8 48 33.92	21.049	21 35 11.2	62.67					
16	8 56 57.23	20.894	21 9 21.1	66.49					
20	9 5 16.82	20.738	N. 20 42 0.5	70.20					
THURSDAY 4.									
0	9 13 32.65	20.582	N. 20 13 12.5	73.78					
4	9 21 44.73	20.425	19 43 0.0	77.23					
8	9 29 53.66	20.269	19 11 26.1	80.57					
12	9 37 57.67	20.116	18 38 33.8	83.77					
16	9 45 58.61	19.963	18 4 26.1	86.85					
20	9 53 55.94	19.814	N. 17 29 6.1	89.79					
FRIDAY 5.									
0	10 1 49.72	19.668	N. 16 52 36.9	92.62					
4	10 9 40.04	19.526	16 15 1.5	95.31					
8	10 17 26.98	19.387	15 36 23.0	97.87					
12	10 25 10.66	19.253	14 56 44.4	100.32					
16	10 32 51.19	19.124	14 16 8.7	102.63					
20	10 40 28.69	19.002	N. 13 34 38.9	104.82					
SATURDAY 6.									
0	10 48 3.30	18.884	N. 12 52 18.0	106.90					
4	10 55 35.16	18.772	12 9 8.9	108.84					
8	11 3 4.42	18.667	11 25 14.6	110.67					
12	11 10 31.23	18.568	10 40 38.0	112.37					
16	11 17 55.76	18.477	9 55 21.9	113.95					
20	11 25 18.18	18.392	N. 9 9 29.4	115.42					

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days SUNDAY 7 through SATURDAY 13, and SUNDAY 14 through SATURDAY 20.

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days SUNDAY 21 through SATURDAY 27, and SUNDAY 28 through THURSDAY, APRIL 1. Includes a section for PHASES OF THE MOON with dates and times for Full Moon, Last Quarter, New Moon, and First Quarter.

GREENWICH MEAN TIME.

THE MOON'S

Day.	Longitude.		Latitude.		Age.	Meridian Passage.	
	Noon.	Midnight.	Noon.	Midnight.		Upper.	Lower.
	° / ' / "	° / ' / "	° / ' / "	° / ' / "	d	h m	h m
1	143 38 35.6	149 35 6.8	N. 4 32 16.8	N. 4 44 22.6	10.66	9 30.4	21 52.2
2	155 31 4.1	161 26 48.1	4 53 22.0	4 59 10.6	11.66	10 13.5	22 34.4
3	167 22 36.6	173 18 45.2	5 1 44.8	5 1 2.7	12.66	10 54.9	23 15.3
4	179 15 27.8	185 12 56.0	4 57 4.0	4 49 49.8	13.66	11 35.5	23 55.7
5	191 11 20.2	197 10 50.0	4 39 23.1	4 25 48.4	14.66	12 16.0	* *
6	203 11 34.6	209 13 43.2	4 9 12.3	3 49 43.1	15.66	12 57.3	0 36.5
7	215 17 25.4	221 22 52.1	3 27 31.0	3 2 48.2	16.66	13 40.1	1 18.4
8	227 30 15.6	233 39 49.5	2 35 48.5	2 6 47.5	17.66	14 25.4	2 2.4
9	239 51 49.8	246 6 34.1	1 36 2.4	N. 1 3 52.1	18.66	15 13.8	2 49.2
10	252 24 22.2	258 45 35.6	N. 0 30 36.9	S. 0 3 21.3	19.66	16 5.5	3 39.3
11	265 10 37.2	271 39 50.5	S. 0 37 38.9	1 11 51.2	20.66	17 0.3	4 32.6
12	278 13 38.9	284 52 25.1	1 45 31.6	2 18 12.6	21.66	17 57.2	5 28.6
13	291 36 29.8	298 26 10.0	2 49 25.1	3 18 38.8	22.66	18 55.0	6 26.1
14	305 21 37.9	312 22 59.1	3 45 23.0	4 9 6.8	23.66	19 52.2	7 23.8
15	319 30 10.9	326 43 1.4	4 29 20.0	4 45 33.8	24.66	20 48.1	8 20.4
16	334 1 7.9	341 23 56.6	4 57 22.1	5 4 23.2	25.66	21 42.2	9 15.3
17	348 50 42.5	356 20 29.9	5 6 20.6	5 3 5.0	26.66	22 35.1	10 8.8
18	3 52 14.8	11 24 46.1	4 54 34.5	4 40 55.9	27.66	23 27.6	11 1.4
19	18 56 49.4	26 27 10.3	4 22 24.7	3 59 24.2	28.66	* *	11 54.0
20	33 54 37.5	41 18 5.5	3 32 25.1	3 2 3.5	0.30	0 20.5	12 47.3
21	48 36 37.7	55 49 28.1	2 28 59.0	1 53 53.4	1.30	1 14.5	13 42.0
22	62 56 1.7	69 55 55.4	1 17 28.3	S. 0 40 24.1	2.30	2 9.8	14 37.9
23	76 48 57.4	83 35 6.5	S. 0 3 17.9	N. 0 33 16.3	3.30	3 6.2	15 34.5
24	90 14 30.7	96 47 26.0	N. 1 8 48.4	1 42 52.4	4.30	4 2.6	16 30.5
25	103 14 14.9	109 35 24.8	2 15 6.1	2 45 11.3	5.30	4 57.9	17 24.7
26	115 51 27.1	122 2 55.5	3 12 52.6	3 37 57.4	6.30	5 50.8	18 16.1
27	128 10 25.6	134 14 33.5	4 0 15.4	4 19 38.2	7.30	6 40.6	19 4.3
28	140 15 55.0	146 15 5.4	4 35 58.9	4 49 12.3	8.30	7 27.3	19 49.6
29	152 12 38.9	158 9 7.9	4 59 13.7	5 5 59.9	9.30	8 11.3	20 32.4
30	164 5 2.9	170 0 52.1	5 9 28.4	5 9 37.8	10.30	8 53.2	21 13.6
31	175 57 1.6	181 53 54.7	N. 5 6 27.6	N. 4 59 58.3	11.30	9 33.9	21 54.0

GREENWICH MEAN TIME.

THE MOON'S

Day.	Semidiameter.		Horizontal Parallax.		RIGHT ASCENSION AND DECLINATION.				
	Noon.	Midnight.	Noon.	Midnight.	Hour.	Right Ascension.	Var. in 10 ^m .	Declination.	Var. in 10 ^m .
	° / ' / "	° / ' / "	° / ' / "	° / ' / "		h m s	s	° / ' / "	''
1	14 47.41	14 45.75	54 11.24	54 5.15	THURSDAY 1.				
2	14 44.60	14 43.96	54 0.97	53 58.58	h m s s ° / ' / "				
3	14 43.77	14 44.01	53 57.91	53 58.80	0	9 50 7.82	19.830	N. 17 55 38.2	89.18
4	14 44.65	14 45.68	54 1.16	54 4.90	4	9 58 1.89	19.677	17 19 23.2	92.05
5	14 47.05	14 48.75	54 9.91	54 16.15	8	10 5 52.35	19.529	16 42 0.9	94.79
6	14 50.77	14 53.11	54 23.57	54 32.12	12	10 13 39.31	19.386	16 3 34.1	97.42
7	14 55.75	14 58.68	54 41.77	54 52.53	16	10 21 22.91	19.248	15 24 5.9	99.92
8	15 1.92	15 5.47	55 4.41	55 17.39	20	10 29 3.28	19.117	N. 14 43 39.2	102.29
9	15 9.33	15 13.50	55 31.52	55 46.82	FRIDAY 2.				
10	15 17.99	15 22.81	56 3.30	56 20.95	0	10 36 40.57	18.992	N. 14 2 16.8	104.55
11	15 27.94	15 33.36	56 39.74	56 59.61	4	10 44 14.92	18.872	13 20 1.7	106.69
12	15 39.05	15 44.98	57 20.46	57 42.13	8	10 51 46.50	18.760	12 36 56.6	108.72
13	15 51.06	15 57.24	58 4.45	58 27.12	12	10 59 15.47	18.656	11 53 4.3	110.62
14	16 3.44	16 9.52	58 49.80	59 12.08	16	11 6 42.01	18.557	11 8 27.6	112.42
15	16 15.37	16 20.83	59 33.51	59 53.57	20	11 14 6.30	18.468	N. 10 23 9.3	114.09
16	16 25.78	16 30.05	60 11.70	60 27.34	SATURDAY 3.				
17	16 33.50	16 35.97	60 39.95	60 49.00	0	11 21 28.52	18.385	N. 9 37 11.9	115.66
18	16 37.37	16 37.61	60 54.13	60 55.01	4	11 28 48.84	18.310	8 50 38.5	117.11
19	16 36.65	16 34.48	60 51.49	60 43.57	8	11 36 7.47	18.243	8 3 31.6	118.45
20	16 31.17	16 26.79	60 31.43	60 15.36	12	11 43 24.58	18.185	7 15 53.9	119.67
21	16 21.45	16 15.31	59 55.80	59 33.31	16	11 50 40.39	18.134	6 27 48.2	120.78
22	16 8.55	16 1.33	59 8.52	58 42.06	20	11 57 55.08	18.092	N. 5 39 17.2	121.78
23	15 53.82	15 46.22	58 14.57	57 46.71	SUNDAY 4.				
24	15 38.67	15 31.32	57 19.05	56 52.11	0	12 5 8.86	18.058	N. 4 50 23.5	122.67
25	15 24.29	15 17.69	56 26.36	56 2.17	4	12 12 21.93	18.032	4 1 9.8	123.45
26	15 11.60	15 6.09	55 39.85	55 19.65	8	12 19 34.50	18.016	3 11 38.9	124.11
27	15 1.19	14 56.96	55 1.73	54 46.22	12	12 26 46.78	18.008	2 21 53.5	124.66
28	14 53.40	14 50.52	54 33.18	54 22.64	16	12 33 58.96	18.009	1 31 56.3	125.08
29	14 48.32	14 46.78	54 14.57	54 8.93	20	12 41 11.27	18.018	N. 0 41 50.0	125.41
30	14 45.88	14 45.59	54 5.63	54 4.56	MONDAY 5.				
31	14 45.87	14 46.69	54 5.60	54 8.60	0	12 48 23.90	18.037	S. 0 8 22.5	125.62
					4	12 55 37.08	18.063	0 58 38.6	125.70
					8	13 2 51.01	18.099	1 48 55.3	125.67
					12	13 10 5.91	18.144	2 39 9.8	125.52
					16	13 17 21.99	18.197	3 29 19.3	125.25
					20	13 24 39.46	18.260	S. 4 19 20.8	124.86
					TUESDAY 6.				
					0	13 31 58.54	18.331	S. 5 9 11.5	124.34
					4	13 39 19.43	18.411	5 58 48.2	123.70
					8	13 46 42.36	18.500	6 48 8.1	122.92
					12	13 54 7.53	18.599	7 37 7.8	122.02
					16	14 1 35.14	18.704	8 25 44.3	120.99
					20	14 9 5.41	18.819	S. 9 13 54.3	119.82

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Hour.	Right Ascension.	Var. in 10 ^m .	Declination.	Var. in 10 ^m .	Hour.	Right Ascension.	Var. in 10 ^m .	Declination.	Var. in 10 ^m .
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WEDNESDAY 7.

h	m	s	s	°	'	"	"	
0	14	16	38.53	18.942	S.	10	1 34.7	118.52
4	14	24	14.70	19.074		10	48 42.1	117.07
8	14	31	54.13	19.213		11	35 13.1	115.48
12	14	39	37.01	19.361		12	21 4.3	113.76
16	14	47	23.52	19.516		13	6 12.2	111.87
20	14	55	13.83	19.678	S.	13	50 33.1	109.84

THURSDAY 8.

0	15	3	8.13	19.847	S.	14	34 3.6	107.67
4	15	11	6.57	20.024		15	16 39.9	105.32
8	15	19	9.32	20.207		15	58 18.1	102.83
12	15	27	16.52	20.394		16	38 54.6	100.17
16	15	35	28.30	20.588		17	18 25.4	97.36
20	15	43	44.80	20.787	S.	17	56 46.7	94.38

FRIDAY 9.

0	15	52	6.09	20.989	S.	18	33 54.4	91.23
4	16	0	32.28	21.195		19	9 44.5	87.92
8	16	9	3.45	21.403		19	44 13.1	84.43
12	16	17	39.65	21.613		20	17 16.1	80.78
16	16	26	20.92	21.825		20	48 49.3	76.96
20	16	35	7.27	22.037	S.	21	18 48.7	72.96

SATURDAY 10.

0	16	43	58.70	22.248	S.	21	47 10.4	68.80
4	16	52	55.18	22.457		22	13 50.1	64.48
8	17	1	56.64	22.664		22	38 43.9	59.98
12	17	11	3.03	22.867		23	1 48.0	55.32
16	17	20	14.23	23.065		23	22 58.3	50.50
20	17	29	30.11	23.257	S.	23	42 11.1	45.53

SUNDAY 11.

0	17	38	50.52	23.442	S.	23	59 22.8	40.42
4	17	48	15.27	23.618		24	14 29.8	35.15
8	17	57	44.15	23.786		24	27 28.9	29.75
12	18	7	16.94	23.944		24	38 16.8	24.22
16	18	16	53.37	24.090		24	46 50.4	18.57
20	18	26	33.19	24.225	S.	24	53 7.2	12.81

MONDAY 12.

0	18	36	16.08	24.347	S.	24	57 4.6	6.95
4	18	46	1.73	24.455		24	58 40.3	1.01
8	18	55	49.83	24.549		24	57 52.4	5.01
12	19	5	40.02	24.631		24	54 39.1	11.10
16	19	15	31.96	24.696		24	48 59.2	17.23
20	19	25	25.30	24.746	S.	24	40 51.7	23.40

TUESDAY 13.

0	19	35	19.68	24.782	S.	24	30 15.8	29.59
4	19	45	14.75	24.803		24	17 11.2	35.78
8	19	55	10.16	24.812		24	1 38.1	41.97
12	20	5	5.57	24.803		23	43 36.8	48.13
16	20	15	0.66	24.784		23	23 7.9	54.26
20	20	24	55.11	24.752	S.	23	0 12.8	60.32

WEDNESDAY 14.

h	m	s	s	°	'	"	"	
0	20	34	48.63	24.707	S.	22	34 52.7	66.33
4	20	44	40.93	24.651		22	7 9.6	72.24
8	20	54	31.77	24.584		21	37 5.8	78.05
12	21	4	20.92	24.510		21	4 43.8	83.76
16	21	14	8.17	24.427		20	30 6.4	89.32
20	21	23	53.35	24.337	S.	19	53 16.8	94.77

THURSDAY 15.

0	21	33	36.32	24.242	S.	19	14 18.6	100.05
4	21	43	16.95	24.142		18	33 15.6	105.17
8	21	52	55.15	24.040		17	50 11.8	110.12
12	22	2	30.85	23.935		17	5 11.5	114.87
16	22	12	4.02	23.829		16	18 19.5	119.42
20	22	21	34.65	23.723	S.	15	29 40.6	123.78

FRIDAY 16.

0	22	31	2.75	23.619	S.	14	39 19.9	127.90
4	22	40	28.38	23.517		13	47 22.8	131.81
8	22	49	51.60	23.417		12	53 54.8	135.48
12	22	59	12.48	23.323		11	59 1.5	138.91
16	23	8	31.13	23.232		11	2 49.0	142.08
20	23	17	47.69	23.147	S.	10	5 23.2	145.01

SATURDAY 17.

0	23	27	2.28	23.069	S.	9	6 50.5	147.67
4	23	36	15.07	22.968		8	7 17.2	150.06
8	23	45	26.24	22.933		7	6 49.9	152.17
12	23	54	35.95	22.877		6	5 35.1	154.01
16	0	3	44.41	22.829		5	3 39.6	155.57
20	0	12	51.82	22.790	S.	4	1 10.2	156.83

SUNDAY 18.

0	0	21	58.39	22.758	S.	2	58 13.8	157.82
4	0	31	4.32	22.737		1	54 57.4	158.50
8	0	40	9.84	22.724	S.	0	51 28.0	158.89
12	0	49	15.15	22.720	N.	0	12 7.2	158.99
16	0	58	20.47	22.725		1	15 41.2	158.79
20	1	7	26.03	22.739	N.	2	19 7.0	158.30

MONDAY 19.

0	1	16	32.03	22.762	N.	3	22 17.4	157.52
4	1	25	38.68	22.793		4	25 5.4	156.43
8	1	34	46.19	22.833		5	27 24.0	155.07
12	1	43	54.73	22.880		6	29 6.3	153.41
16	1	53	4.49	22.935		7	30 5.3	151.45
20	2	2	15.66	22.996	N.	8	30 14.1	149.23

TUESDAY 20.

0	2	11	28.36	23.064	N.	9	29 26.2	146.72
4	2	20	42.75	23.137		10	27 34.9	143.95
8	2	29	58.96	23.214		11	24 33.8	140.91
12	2	39	17.07	23.296		12	20 16.8	137.62
16	2	48	37.20	23.382		13	14 37.6	134.07
20	2	57	59.39	23.468	N.	14	7 30.5	130.29

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Hour.	Right Ascension.	Var. in 10 ^m .	Declination.	Var. in 10 ^m .	Hour.	Right Ascension.	Var. in 10 ^m .	Declination.	Var. in 10 ^m .
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WEDNESDAY 21.

h	m	s	s	°	'	"	"	
0	3	7	23.69	23.557	N.	14	58 49.7	126.27
4	3	16	50.13	23.646		15	48 29.8	122.03
8	3	26	18.68	23.734		16	36 25.5	117.57
12	3	35	49.32	23.819		17	22 32.0	112.92
16	3	45	22.01	23.902		18	6 44.6	108.08
20	3	54	56.64	23.982	N.	18	48 59.0	103.07

THURSDAY 22.

0	4	4	33.11	24.056	N.	19	29 11.1	97.90
4	4	14	11.29	24.124		20	7 17.1	92.57
8	4	23	51.00	24.184		20	43 13.6	87.11
12	4	33	32.07	24.237		21	16 57.6	81.53
16	4	43	14.29	24.279		21	48 26.5	75.85
20	4	52	57.41	24.312	N.	22	17 37.9	70.08

FRIDAY 23.

0	5	2	41.20	24.334	N.	22	41 30.0	64.24
4	5	12	25.37	24.344		23	9 1.0	58.33
8	5	22	9.63	24.342		23	31 9.8	52.39
12	5	31	53.69	24.327		23	50 55.5	46.42
16	5	41	37.23	24.298		24	8 17.6	40.42
20	5	51	19.92	24.257	N.	24	23 15.9	34.43

SATURDAY 24.

0	6	1	1.45	24.201	N.	24	35 50.7	28.47
4	6	10	41.49	24.132		24	46 2.7	22.53
8	6	20	19.72	24.051		24	53 52.6	16.64
12	6	29	55.82	23.956		24	59 21.8	10.79
16	6	39	29.48	23.847		25	2 31.5	5.02
20	6	49	0.40	23.727	N.	25	3 23.8	0.66

SUNDAY 25.

0	6	58	28.28	23.595	N.	25	2 0.6	6.26
4	7	7	52.87	23.452		24	58 24.1	11.76
8	7	17	13.90	23.299		24	52 37.0	17.15
12	7	26	31.16	23.137		24	44 41.9	22.42
16	7	35	44.42	22.967		24	34 41.6	27.58
20	7	44	53.51	22.788	N.	24	22 39.1	32.60

MONDAY 26.

0	7	53	58.25	22.605	N.	24	8 37.5	37.51
4	8	2	58.50	22.415		23	52 40.0	42.27
8	8	11	54.15	22.221		23	34 50.0	46.88
12	8	20	45.11	22.025		23	15 10.8	51.36
16	8	29	31.30	21.825		22	53 45.9	55.68
20	8	38	12.69	21.623	N.	22	30 38.7	59.88

TUESDAY 27.

0	8	46	49.25	21.422	N.	22	5 52.6	63.93
4	8	55	20.98	21.222		21	39 31.2	67.83
8	9	3						

GREENWICH MEAN TIME.

THE MOON'S

Day.	Longitude.		Latitude.		Age.	Meridian Passage.	
	Noon.	Midnight.	Noon.	Midnight.		Upper.	Lower.
	° / ' / "	° / ' / "	° / ' / "	° / ' / "	d	h m	h m
1	175 57 1'6	181 53 54'7	N. 5 6 27'6	N. 4 59 58'3	11'30	9 33'9	21 54'0
2	187 51 52'5	193 51 13'3	4 50 12'2	4 37 12'5	12'30	10 14'2	22 34'6
3	199 52 13'1	205 55 5'9	4 21 4'6	4 1 55'6	13'30	10 55'2	23 16'2
4	212 0 3'6	218 7 16'2	3 39 54'3	3 15 12'0	14'30	11 37'7	23 59'8
5	224 16 52'4	230 29 0'0	2 48 2'0	2 18 39'9	15'30	12 22'6	* *
6	236 43 45'8	243 1 16'4	1 47 23'7	1 14 33'3	16'30	13 10'4	0 46'1
7	249 21 38'5	255 44 58'5	N. 0 40 30'7	N. 0 5 39'8	17'30	14 1'7	1 35'7
8	262 11 23'5	268 41 1'2	S. 0 29 34'0	S. 1 4 43'9	18'30	14 56'0	2 28'5
9	275 13 59'3	281 50 26'4	1 39 22'0	2 12 59'8	19'30	15 52'6	3 24'1
10	288 30 30'6	295 14 19'8	2 45 8'3	3 15 18'4	20'30	16 49'9	4 21'2
11	302 2 0'5	308 53 37'7	3 43 1'5	4 7 49'5	21'30	17 46'4	5 18'3
12	315 49 13'7	322 48 47'4	4 29 15'5	4 46 54'5	22'30	18 41'3	6 14'1
13	329 52 13'1	336 59 20'2	5 0 24'0	5 9 24'8	23'30	19 34'2	7 8'0
14	344 9 52'3	351 23 26'5	5 13 41'4	5 13 2'8	24'30	20 25'6	8 0'0
15	358 39 33'5	5 57 38'0	5 7 23'7	4 56 45'1	25'30	21 16'3	8 51'0
16	13 16 58'8	20 36 50'0	4 41 14'7	4 21 7'0	26'30	22 7'4	9 41'7
17	27 56 22'6	35 14 45'9	3 56 42'8	3 28 29'1	27'30	22 59'7	10 33'3
18	42 31 9'6	49 44 45'0	2 56 58'6	2 22 48'0	28'30	23 53'9	11 26'5
19	56 54 47'3	64 0 37'0	1 46 36'8	S. 1 9 5'5	29'30	* *	12 21'7
20	71 1 40'9	77 57 33'0	S. 0 30 54'6	N. 0 7 17'1	0'93	0 50'0	13 18'6
21	84 47 54'6	91 32 34'9	N. 0 44 53'3	1 21 21'3	1'93	1 47'3	14 16'0
22	98 11 30'8	104 44 46'1	1 56 12'3	2 29 1'3	2'93	2 44'5	15 12'5
23	111 12 31'1	117 35 1'5	2 59 27'9	3 27 15'3	3'93	3 39'9	16 6'5
24	123 52 38'1	130 5 45'8	3 52 9'9	4 14 1'7	4'93	4 32'2	16 57'1
25	136 14 52'9	142 20 30'0	4 32 42'9	4 48 7'9	5'93	5 21'1	17 44'3
26	148 23 9'9	154 23 26'2	5 0 13'0	5 8 55'7	6'93	6 6'7	18 28'4
27	160 21 53'3	166 19 5'6	5 14 14'8	5 16 10'1	7'93	6 49'6	19 10'3
28	172 15 37'4	178 12 2'2	5 14 42'1	5 9 52'2	8'93	7 30'7	19 50'9
29	184 8 52'3	190 6 38'2	5 1 42'7	4 50 16'7	9'93	8 11'0	20 31'2
30	196 5 49'0	202 6 51'7	4 35 38'5	4 17 53'5	10'93	8 51'6	21 12'2
31	208 10 10'4	214 16 7'1	3 57 9'0	3 33 33'9	11'93	9 33'3	21 54'9
32	220 25 0'7	226 37 7'3	N. 3 7 19'4	N. 2 38 38'7	12'93	10 17'2	22 40'3

GREENWICH MEAN TIME.

THE MOON'S

Day.	Semidiameter.		Horizontal Parallax.		RIGHT ASCENSION AND DECLINATION.				
	Noon.	Midnight.	Noon.	Midnight.	Hour.	Right Ascension.	Var. in 10 ^m .	Declination.	Var. in 10 ^m .
	' / "	' / "	' / "	' / "		° / ' / "	s	° / ' / "	"
1	14 45'87	14 46'69	54 5'60	54 8'60					
2	14 48'00	14 49'76	54 13'39	54 19'84					
3	14 51'92	14 54'44	54 27'76	54 36'99					
4	14 57'27	15 0'37	54 47'36	54 58'74					
5	15 3'71	15 7'25	55 10'97	55 23'91					
6	15 10'94	15 14'77	55 37'44	55 51'48					
7	15 18'71	15 22'76	56 5'94	56 20'76					
8	15 26'89	15 31'09	56 35'89	56 51'29					
9	15 35'36	15 39'68	57 6'91	57 22'73					
10	15 44'03	15 48'41	57 38'69	57 54'74					
11	15 52'79	15 57'14	58 10'80	58 26'73					
12	16 1'41	16 5'54	58 42'36	58 57'53					
13	16 9'50	16 13'17	59 11'99	59 25'46					
14	16 16'49	16 19'35	59 37'62	59 48'15					
15	16 21'68	16 23'37	59 56'68	60 2'87					
16	16 24'34	16 24'51	60 6'42	60 7'04					
17	16 23'83	16 22'27	60 4'54	59 58'84					
18	16 19'83	16 16'54	59 49'91	59 37'82					
19	16 12'44	16 7'61	59 22'77	59 5'08					
20	16 2'16	15 56'22	58 45'13	58 23'36					
21	15 49'92	15 43'39	58 0'26	57 36'33					
22	15 36'77	15 30'19	57 12'08	56 48'01					
23	15 23'80	15 17'69	56 24'58	56 2'20					
24	15 11'98	15 6'74	55 41'25	55 22'05					
25	15 2'04	14 57'95	55 4'85	54 49'86					
26	14 54'50	14 51'75	54 37'24	54 27'13					
27	14 49'69	14 48'33	54 19'59	54 14'61					
28	14 47'67	14 47'70	54 12'19	54 12'31					
29	14 48'40	14 49'73	54 14'87	54 19'75					
30	14 51'66	14 54'13	54 26'80	54 35'86					
31	14 57'10	15 0'51	54 46'75	54 59'22					
32	15 4'28	15 8'36	55 13'05	55 28'00					
SATURDAY 1.									
	h	m	s	s	N.	° / ' / "	"		
0	11	53	15'62	18'085	N.	6 17 57'9	121'85		
4	12	0	29'18	18'047		5 29 1'4	122'83		
8	12	7	41'94	18'019		4 39 42'6	123'71		
12	12	14	54'13	17'998		3 50 4'0	124'48		
16	12	22	5'97	17'989		3 0 8'2	125'15		
20	12	29	17'68	17'989	N.	2 9 57'8	125'70		
SUNDAY 2.									
0	12	36	29'51	17'998	N.	1 19 35'4	126'15		
4	12	43	41'67	18'017	N.	0 29 3'7	126'47		
8	12	50	54'40	18'046	S.	0 21 34'8	126'71		
12	12	58	7'93	18'083		1 12 17'4	126'82		
16	13	5	22'48	18'132		2 3 1'2	126'81		
20	13	12	38'29	18'188	S.	2 53 43'3	126'68		
MONDAY 3.									
0	13	19	55'59	18'255	S.	3 44 21'0	126'43		
4	13	27	14'60	18'330		4 34 51'3	126'07		
8	13	34	35'54	18'417		5 25 11'3	125'57		
12	13	41	58'64	18'511		6 15 17'9	124'95		
16	13	49	24'13	18'615		7 5 8'0	124'19		
20	13	56	52'21	18'728	S.	7 54 38'4	123'31		
TUESDAY 4.									
0	14	4	23'12	18'849	S.	8 43 45'7	122'27		
4	14	11	57'05	18'980		9 32 26'7	121'11		
8	14	19	34'22	19'120		10 20 37'7	119'78		
12	14	27	14'84	19'267		11 8 15'4	118'32		
16	14	34	59'09	19'422		11 55 16'1	116'70		
20	14	42	47'16	19'585	S.	12 41 36'0	114'93		
WEDNESDAY 5.									
0	14	50	39'25	19'757	S.	13 27 11'4	112'99		
4	14	58	35'51	19'934		14 11 58'4	110'90		
8	15	6	36'11	20'117		14 55 53'1	108'62		
12	15	14	41'20	20'307		15 38 51'5	106'20		
16	15	22	50'92	20'502		16 20 49'4	103'59		
20	15	31	5'39	20'704	S.	17 1 42'6	100'81		
THURSDAY 6.									
0	15	39	24'74	20'909	S.	17 41 27'0	97'85		
4	15	47	49'05	21'117		18 19 58'2	94'72		
8	15	56	18'40	21'328		18 57 12'1	91'40		
12	16	4	52'83	21'541		19 33 4'1	87'90		
16	16	13	32'39	21'755		20 7 30'0	84'22		
20	16	22	17'08	21'969	S.	20 40 25'4	80'36		

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days: FRIDAY 7, 14, SATURDAY 8, 15, SUNDAY 9, 16, MONDAY 10, 17, TUESDAY 11, 18, WEDNESDAY 12, 19, THURSDAY 13, 20.

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days: FRIDAY 21, 28, SATURDAY 22, 29, SUNDAY 23, 30, MONDAY 24, 31, TUESDAY 25, JUNE 1, PHASES OF THE MOON, WEDNESDAY 26, 27, THURSDAY 27.

GREENWICH MEAN TIME.

THE MOON'S

Day.	Longitude.		Latitude.		Age.	Meridian Passage.	
	Noon.	Midnight.	Noon.	Midnight.		Upper.	Lower.
	° / ' / "	° / ' / "	° / ' / "	° / ' / "	d	h m	h m
1	220 25 0'7	226 37 7'3	N. 3 7 19'4	N. 2 38 38'7	12'93	10 17'2	22 40'3
2	232 52 40'0	239 11 48'7	2 7 47'5	1 35 4'2	13'93	11 4'3	23 29'1
3	245 34 40'4	252 1 18'8	N. 1 0 50'2	N. 0 25 29'0	14'93	11 54'9	* *
4	258 31 44'8	265 5 56'6	S. 0 10 33'1	S. 0 46 47'8	15'93	12 40'2	0 21'7
5	271 43 49'8	278 25 18'1	1 22 45'0	1 57 53'3	16'93	13 46'2	1 17'4
6	285 10 13'0	291 58 24'4	2 31 40'8	3 3 35'6	17'93	14 44'5	2 15'3
7	298 49 40'6	305 43 48'9	3 33 6'5	3 59 43'8	18'93	15 42'1	3 13'5
8	312 40 35'8	319 39 47'1	4 23 0'0	4 42 30'3	19'93	16 37'8	4 10'3
9	326 41 7'5	333 44 21'2	4 57 53'1	5 8 50'8	20'93	17 31'0	5 4'7
10	340 49 12'0	347 55 22'5	5 15 10'2	5 16 42'7	21'93	18 22'0	5 56'8
11	355 2 34'6	2 10 29'1	5 13 24'3	5 5 16'3	22'93	19 11'7	6 46'9
12	9 18 45'8	16 27 3'3	4 52 25'3	4 35 2'9	23'93	20 0'9	7 36'3
13	23 34 59'1	30 42 9'4	4 13 26'3	3 47 56'9	24'93	20 51'1	8 25'8
14	37 48 9'6	44 52 34'8	3 19 0'7	2 47 7'6	25'93	21 42'9	9 16'7
15	51 54 59'4	58 54 58'5	2 12 50'7	1 36 45'4	26'93	22 37'1	10 9'7
16	65 52 7'9	72 46 5'1	S. 0 59 28'2	S. 0 21 36'0	27'93	23 33'2	11 4'9
17	79 36 29'1	86 23 2'2	N. 0 16 15'2	N. 0 53 30'5	28'93	* *	12 1'8
18	93 5 29'6	99 43 40'1	1 29 37'9	2 4 8'2	0'52	0 30'4	12 58'9
19	106 17 26'8	112 46 46'8	2 36 35'4	3 6 37'6	1'52	1 27'0	13 54'5
20	119 11 41'9	125 32 18'0	3 33 56'4	3 58 17'3	2'52	2 21'4	14 47'4
21	131 48 45'7	138 1 19'3	4 19 28'6	4 37 22'2	3'52	3 12'5	15 36'7
22	144 10 17'2	150 16 1'6	4 51 52'4	5 2 56'1	4'52	4 0'0	16 22'6
23	156 18 57'3	162 19 32'0	5 10 31'7	5 14 39'5	5'52	4 44'4	17 5'6
24	168 18 16'0	174 15 41'3	5 15 20'9	5 12 38'3	6'52	5 26'4	17 46'8
25	180 12 21'5	186 8 50'7	5 6 34'9	4 57 14'7	7'52	6 6'9	18 27'0
26	192 5 44'0	198 3 36'7	4 44 42'6	4 29 4'1	8'52	6 47'1	19 7'3
27	204 3 3'7	210 4 38'8	4 10 25'9	3 48 55'4	9'52	7 27'9	19 48'9
28	216 8 54'9	222 16 22'6	3 24 41'5	2 57 55'0	10'52	8 10'4	20 32'7
29	228 27 30'2	234 42 43'3	2 28 48'5	1 57 36'9	11'52	8 55'8	21 19'8
30	241 2 23'6	247 26 48'4	1 24 37'6	N. 0 50 10'7	12'52	9 44'9	22 10'9
31	253 56 10'4	260 30 37'1	N. 0 14 39'6	S. 0 21 29'5	13'52	10 37'9	23 5'9

GREENWICH MEAN TIME.

THE MOON'S

Day.	Semidiameter.		Horizontal Parallax.		RIGHT ASCENSION AND DECLINATION.				
	Noon.	Midnight.	Noon.	Midnight.	Hour.	Right Ascension.	Var. in 10 ^m .	Declination.	Var. in 10 ^m .
	' / "	' / "	' / "	' / "		h m s	s	° / ' / "	' / "
1	15 4'28	15 8'36	55 13'05	55 28'00					
2	15 12'68	15 17'15	55 43'82	56 0'23					
3	15 21'73	15 26'33	56 16'99	56 33'84					
4	15 30'89	15 35'35	56 50'55	57 6'90					
5	15 39'67	15 43'80	57 22'72	57 37'85					
6	15 47'71	15 51'36	57 52'16	58 5'56					
7	15 54'75	15 57'87	58 17'08	58 29'39					
8	16 0'71	16 3'26	58 39'80	58 49'14					
9	16 5'52	16 7'50	58 57'44	59 4'69					
10	16 9'18	16 10'56	59 10'85	59 15'89					
11	16 11'61	16 12'31	59 19'74	59 22'31					
12	16 12'64	16 12'57	59 23'52	59 23'26					
13	16 12'06	16 11'08	59 21'40	59 17'82					
14	16 9'61	16 7'63	59 12'42	59 5'15					
15	16 5'12	16 2'09	58 55'96	58 44'86					
16	15 58'55	15 54'54	58 31'91	58 17'23					
17	15 50'13	15 45'34	58 1'02	57 43'47					
18	15 40'26	15 34'98	57 24'86	57 5'53					
19	15 29'60	15 24'21	56 45'82	56 26'06					
20	15 18'89	15 13'77	56 6'61	55 47'82					
21	15 8'92	15 4'42	55 30'03	55 13'55					
22	15 0'36	14 56'81	54 58'68	54 45'65					
23	14 53'81	14 51'42	54 34'67	54 25'94					
24	14 49'69	14 48'64	54 19'60	54 15'73					
25	14 48'27	14 48'62	54 14'41	54 15'69					
26	14 49'68	14 51'44	54 19'57	54 26'00					
27	14 53'87	14 56'94	54 34'91	54 46'16					
28	15 0'61	15 4'82	54 59'59	55 15'01					
29	15 9'51	15 14'59	55 32'17	55 50'80					
30	15 19'97	15 25'59	56 10'57	56 31'15					
31	15 31'33	15 37'07	56 52'15	57 13'18					

TUESDAY 1.					
h	m	s	° / ' / "	' / "	
0	14 35	57'74	19'492	S. 11 58 58'8	117'27
4	14 43	47'65	19'670	12 45 33'1	115'56
8	14 51	41'98	19'858	13 31 24'1	113'67
12	14 59	40'90	20'053	14 16 27'8	111'61
16	15 7	44'60	20'256	15 0 40'1	109'37
20	15 15	53'26	20'466	S. 15 43 56'7	106'97

WEDNESDAY 2.					
h	m	s	° / ' / "	' / "	
0	15 24	7'02	20'682	S. 16 26 13'5	104'38
4	15 32	26'04	20'904	17 7 25'9	101'61
8	15 40	50'43	21'130	17 47 29'4	98'65
12	15 49	20'29	21'359	18 26 19'5	95'49
16	15 57	55'71	21'592	19 3 51'4	92'13
20	16 6	36'75	21'827	S. 19 40 0'5	88'58

THURSDAY 3.					
h	m	s	° / ' / "	' / "	
0	16 15	23'43	22'062	S. 20 14 42'0	84'83
4	16 24	15'76	22'298	20 47 51'2	80'89
8	16 33	13'73	22'532	21 19 23'2	76'74
12	16 42	17'26	22'762	21 49 13'5	72'41
16	16 51	26'29	22'989	22 17 17'2	67'87
20	17 0	40'69	23'210	S. 22 43 29'8	63'14

FRIDAY 4.					
h	m	s	° / ' / "	' / "	
0	17 10	0'30	23'423	S. 23 7 46'6	58'22
4	17 19	24'96	23'629	23 30 3'4	53'14
8	17 28	54'44	23'826	23 50 15'9	47'87
12	17 38	28'49	24'010	24 8 20'2	42'45
16	17 48	6'82	24'182	24 24 12'4	36'87
20	17 57	49'13	24'340	S. 24 37 49'0	31'15

SATURDAY 5.					
h	m	s	° / ' / "	' / "	
0	18 7	35'06	24'484	S. 24 49 6'8	25'31
4	18 17	24'25	24'612	24 58 2'8	19'34
8	18 27	16'31	24'722	25 4 34'6	13'28
12	18 37	10'82	24'816	25 8 39'8	7'14
16	18 47	7'35	24'892	25 10 16'7	0'92
20	18 57	5'46	24'947	S. 25 9 23'9	5'34

SUNDAY 6.					
h	m	s	° / ' / "	' / "	
0	19 7	4'71	24'987	S. 25 6 0'2	11'63
4	19 17	4'64	25'005	25 0 5'3	17'94
8	19 27	4'80	25'005	24 51 38'9	24'25
12	19 37	4'75	24'987	24 40 41'4	30'53
16	19 47	4'05	24'952	24 27 13'5	36'78
20	19 57	2'30	24'899	S. 24 11 16'4	42'97

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days Monday 7 through Sunday 13, with sub-headers for each day and time intervals (0, 4, 8, 12, 16, 20 hours).

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days Monday 21 through Sunday 27, with sub-headers for each day and time intervals (0, 4, 8, 12, 16, 20 hours). Includes a section for PHASES OF THE MOON at the bottom right.

GREENWICH MEAN TIME.

THE MOON'S

Day.	Longitude.		Latitude.		Age.	Meridian Passage.	
	Noon.	Midnight.	Noon.	Midnight.		Upper.	Lower.
	° / ' / "	° / ' / "	° / ' / "	° / ' / "	d	h m	h m
1	253 56 10.4	260 30 37.1	N. 0 14 39.6	S. 0 21 29.5	13.52	10 37.9	23 5.9
2	267 10 10.5	273 54 45.7	S. 0 57 47.4	1 33 42.6	14.52	11 34.7	* *
3	280 44 12.0	287 38 12.9	2 8 41.7	2 42 9.9	15.52	12 33.9	0 4.1
4	294 36 25.7	301 38 22.6	3 13 32.1	3 42 14.0	16.52	13 33.4	1 3.7
5	308 43 31.7	315 51 17.5	4 7 43.2	4 29 30.5	17.52	14 31.3	2 2.6
6	323 1 2.3	330 12 7.7	4 47 10.6	5 0 22.9	18.52	15 26.6	2 59.3
7	337 23 56.1	344 35 51.4	5 8 52.7	5 12 30.9	19.52	16 19.1	3 53.2
8	351 47 20.2	358 57 52.4	5 11 14.3	5 5 5.7	20.52	17 9.4	4 44.5
9	6 7 2.1	13 14 27.5	4 54 13.7	4 38 51.7	21.52	17 58.6	5 34.1
10	20 19 51.0	27 22 58.7	4 19 17.7	3 55 53.7	22.52	18 47.8	6 23.1
11	34 23 40.0	41 21 47.1	3 29 5.0	2 59 19.5	23.52	19 38.1	7 12.8
12	48 17 14.0	55 9 56.4	2 27 7.3	1 52 59.9	24.52	20 30.3	8 3.9
13	61 59 50.7	68 46 54.1	1 17 29.5	S. 0 41 9.2	25.52	21 24.5	8 57.1
14	75 31 3.1	82 12 14.3	S. 0 4 31.2	N. 0 31 52.8	26.52	22 20.3	9 52.3
15	88 50 24.2	95 25 28.7	N. 1 7 32.1	1 41 58.3	27.52	23 16.5	10 48.5
16	101 57 24.0	108 26 6.7	2 14 44.8	2 45 28.0	28.52	* *	11 44.2
17	114 51 33.9	121 13 44.2	3 13 47.1	3 39 24.1	0.05	0 11.4	12 38.0
18	127 32 37.7	133 48 16.3	4 2 4.1	4 21 35.7	1.05	1 3.8	13 28.8
19	140 0 44.6	146 10 10.2	4 37 50.0	4 50 41.3	2.05	1 52.9	14 16.2
20	152 16 43.5	158 20 37.8	5 0 6.0	5 6 3.0	3.05	2 38.7	15 0.5
21	164 22 10.1	170 21 40.4	5 8 33.1	5 7 38.8	4.05	3 21.7	15 42.5
22	176 19 32.0	182 16 11.1	5 3 23.8	4 55 53.0	5.05	4 2.8	16 22.9
23	188 12 6.4	194 7 49.5	4 45 12.4	4 31 28.3	6.05	4 42.9	17 2.9
24	200 3 54.0	206 0 55.1	4 14 48.2	3 55 20.1	7.05	5 23.0	17 43.5
25	211 59 29.5	218 0 14.8	3 33 13.0	3 8 36.7	8.05	6 4.3	18 25.7
26	224 3 48.5	230 10 48.3	2 41 42.3	2 12 42.2	9.05	6 47.7	19 10.6
27	236 21 50.5	242 37 29.6	1 41 50.6	1 9 23.7	10.05	7 34.4	19 59.2
28	248 58 17.1	255 24 41.1	N. 0 35 40.1	N. 0 1 1.4	11.05	8 25.0	20 51.8
29	261 57 4.1	268 35 42.3	S. 0 34 8.1	S. 1 9 21.4	12.05	9 19.7	21 48.5
30	275 20 45.1	282 12 13.3	1 44 7.9	2 17 54.9	13.05	10 18.0	22 48.0
31	289 9 57.9	296 13 40.5	2 50 7.4	3 20 9.2	14.05	11 18.1	23 48.2
32	303 22 52.2	310 36 54.3	S. 3 47 24.2	S. 4 11 17.6	15.05	12 18.1	* *

GREENWICH MEAN TIME.

THE MOON'S

Day.	Semidiameter.		Horizontal Parallax.		RIGHT ASCENSION AND DECLINATION.				
	Noon.	Midnight.	Noon.	Midnight.	Hour.	Right Ascension.	Var. in 10 ^m .	Declination.	Var. in 10 ^m .
	' / "	' / "	' / "	' / "		° / ' / "	' / "	° / ' / "	' / "
1	15 31'33	15 37'07	56 52'15	57 13'18					
2	15 42'71	15 48'15	57 33'86	57 53'80					
3	15 53'28	15 58'02	58 12'61	58 29'96					
4	16 2'28	16 5'98	58 45'54	58 59'12					
5	16 9'10	16 11'60	59 10'54	59 19'70					
6	16 13'47	16 14'72	59 26'55	59 31'13					
7	16 15'37	16 15'46	59 33'51	59 33'84					
8	16 15'03	16 14'14	59 32'27	59 28'99					
9	16 12'81	16 11'12	59 24'16	59 17'96					
10	16 9'10	16 6'79	59 10'56	59 2'08					
11	16 4'22	16 1'41	58 52'65	58 42'36					
12	15 58'38	15 55'14	58 31'27	58 19'43					
13	15 51'71	15 48'11	58 6'87	57 53'65					
14	15 44'34	15 40'39	57 39'80	57 25'35					
15	15 36'30	15 32'11	57 10'38	56 54'99					
16	15 27'82	15 23'47	56 39'28	56 23'38					
17	15 19'12	15 14'83	56 7'46	55 51'70					
18	15 10'63	15 6'58	55 36'30	55 21'48					
19	15 2'75	14 59'22	55 7'47	54 54'49					
20	14 56'02	14 53'22	54 42'77	54 32'52					
21	14 50'88	14 49'06	54 23'96	54 17'30					
22	14 47'81	14 47'15	54 12'70	54 10'30					
23	14 47'13	14 47'79	54 10'24	54 12'64					
24	14 49'13	14 51'18	54 17'55	54 25'02					
25	14 53'91	14 57'33	54 35'05	54 47'60					
26	15 1'43	15 6'15	55 2'60	55 19'89					
27	15 11'45	15 17'26	55 39'31	56 0'63					
28	15 23'52	15 30'11	56 23'55	56 47'72					
29	15 36'94	15 43'87	57 12'73	57 38'12					
30	15 50'77	15 57'47	58 3'37	58 27'96					
31	16 3'86	16 9'77	58 51'36	59 13'01					
32	16 15'05	16 19'57	59 32'37	59 48'96					
THURSDAY 1.									
h m s s ° / ' / "									
0	16 50 23.05	23.097	S. 22 14 24.3	68.59					
4	16 59 40.38	23.346	22 40 54.3	63.88					
8	17 9 3.62	23.589	23 5 29.0	58.97					
12	17 18 32.60	23.825	23 28 3.6	53.87					
16	17 28 7.13	24.051	23 48 33.1	48.56					
20	17 37 46.96	24.266	S. 24 6 53.1	43.07					
FRIDAY 2.									
0	17 47 31.80	24.468	S. 24 22 59.4	37.41					
4	17 57 21.34	24.657	24 36 47.7	31.57					
8	18 7 15.22	24.831	24 48 14.2	25.60					
12	18 17 13.06	24.987	24 57 15.4	19.47					
16	18 27 14.44	25.125	25 3 48.2	13.23					
20	18 37 18.91	25.244	S. 25 7 49.8	6.88					
SATURDAY 3.									
0	18 47 26.00	25.343	S. 25 9 18.0	0.45					
4	18 57 35.22	25.422	25 8 10.7	6.06					
8	19 7 46.07	25.479	25 4 26.7	12.62					
12	19 17 58.05	25.515	24 58 5.0	19.19					
16	19 28 10.63	25.529	24 49 5.2	25.79					
20	19 38 23.30	25.523	S. 24 37 27.5	32.36					
SUNDAY 4.									
0	19 48 35.57	25.495	S. 24 23 12.5	38.88					
4	19 58 46.93	25.448	24 6 21.2	45.37					
8	20 8 56.93	25.382	23 46 55.5	51.77					
12	20 19 5.13	25.297	23 24 57.3	58.07					
16	20 29 11.09	25.197	23 0 29.2	64.24					
20	20 39 14.45	25.081	S. 22 33 34.4	70.30					
MONDAY 5.									
0	20 49 14.84	24.949	S. 22 4 16.3	76.18					
4	20 59 11.94	24.807	21 32 38.6	81.92					
8	21 9 5.49	24.654	20 58 45.7	87.46					
12	21 18 55.26	24.491	20 22 42.1	92.81					
16	21 28 41.03	24.322	19 44 32.6	97.95					
20	21 38 22.67	24.147	S. 19 4 22.2	102.88					
TUESDAY 6.									
0	21 48 0.05	23.967	S. 18 22 16.2	107.58					
4	21 57 33.10	23.787	17 38 20.1	112.05					
8	22 7 1.79	23.604	16 52 39.4	116.29					
12	22 16 26.10	23.422	16 5 20.0	120.28					
16	22 25 46.08	23.243	15 16 27.6	124.03					
20	22 35 1.80	23.067	S. 14 26 8.2	127.54					

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days: WEDNESDAY 7, THURSDAY 8, FRIDAY 9, SATURDAY 10, SUNDAY 11, MONDAY 12, TUESDAY 13, WEDNESDAY 14, THURSDAY 15, FRIDAY 16, SATURDAY 17, SUNDAY 18, MONDAY 19, TUESDAY 20.

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days: WEDNESDAY 21, THURSDAY 22, FRIDAY 23, SATURDAY 24, SUNDAY 25, MONDAY 26, TUESDAY 27, WEDNESDAY 28, THURSDAY 29, FRIDAY 30, SATURDAY 31, SUNDAY, AUG. 1. Includes PHASES OF THE MOON section with moon symbols and dates.

GREENWICH MEAN TIME.

THE MOON'S

Day.	Longitude.		Latitude.		Age.	Meridian Passage.	
	Noon.	Midnight.	Noon.	Midnight.		Upper.	Lower.
	° / ' / "	° / ' / "	° / ' / "	° / ' / "	d	h m	h m
1	303 22 52.2	310 36 54.3	S. 3 47 24.2	S. 4 11 17.6	15.05	12 18.1	* *
2	317 54 59.6	325 16 13.4	4 31 17.4	4 46 56.1	16.05	13 16.0	0 47.4
3	332 39 35.8	340 4 4.8	4 57 51.9	5 3 49.6	17.05	14 11.3	1 44.0
4	347 28 37.6	354 52 14.4	5 4 41.7	5 0 28.5	18.05	15 3.9	2 37.9
5	2 14 0.3	9 33 7.7	4 51 17.4	4 37 22.9	19.05	15 54.7	3 29.5
6	16 48 56.9	24 0 57.0	4 19 5.2	3 56 49.2	20.05	16 44.8	4 19.8
7	31 8 46.1	38 12 10.7	3 31 3.4	3 2 18.8	21.05	17 35.3	5 9.9
8	45 11 5.2	52 5 29.9	2 31 7.5	1 58 2.5	22.05	18 26.9	6 0.9
9	58 55 30.5	65 41 16.3	1 23 36.5	S. 0 48 21.4	23.05	19 20.3	6 53.4
10	72 22 59.0	79 0 51.7	S. 0 12 48.0	N. 0 22 34.2	24.05	20 15.0	7 47.5
11	85 35 8.3	92 6 1.8	N. 0 57 17.2	1 30 55.1	25.05	21 10.4	8 42.7
12	98 33 44.6	104 58 27.6	2 3 3.6	2 33 20.8	26.05	22 5.0	9 37.9
13	111 20 20.4	117 39 30.6	3 1 26.8	3 27 3.9	27.05	22 57.7	10 31.7
14	123 56 4.9	130 10 8.7	3 49 56.7	4 9 52.9	28.05	23 47.5	11 23.0
15	136 21 46.3	142 31 2.4	4 26 41.9	4 40 16.1	29.05	* *	12 11.2
16	148 38 2.1	154 42 50.7	4 50 30.0	4 57 20.7	0.50	0 34.2	12 56.5
17	160 45 35.2	166 46 24.6	5 0 47.5	5 0 51.6	1.50	1 18.1	13 39.1
18	172 45 29.9	178 43 4.3	4 57 36.0	4 51 5.3	2.50	1 59.7	14 20.0
19	184 39 24.3	190 34 49.2	4 41 25.9	4 28 44.9	3.50	2 40.1	15 0.0
20	196 29 41.6	202 24 26.6	4 13 10.9	3 54 53.0	4.50	3 19.9	15 40.0
21	208 19 32.9	214 15 31.6	3 34 1.0	3 10 45.9	5.50	4 0.3	16 21.0
22	220 12 56.7	226 12 24.2	2 45 19.6	2 17 54.3	6.50	4 42.3	17 4.1
23	232 14 31.9	238 19 58.8	1 48 43.6	1 18 2.2	7.50	5 26.7	17 50.2
24	244 29 24.6	250 43 28.6	N. 0 46 6.2	N. 0 13 13.4	8.50	6 14.5	18 39.9
25	257 2 48.8	263 28 1.1	S. 0 20 16.2	S. 0 54 0.3	9.50	7 6.3	19 33.6
26	269 59 37.3	276 38 4.1	1 27 34.0	2 0 30.3	10.50	8 1.8	20 30.8
27	283 23 41.2	290 16 40.4	2 32 19.1	3 2 27.9	11.50	9 0.3	21 30.1
28	297 17 1.9	304 24 34.7	3 30 22.8	3 55 28.8	12.50	10 0.0	22 29.7
29	311 38 54.8	318 59 25.4	4 17 11.1	4 34 57.1	13.50	10 59.1	23 28.0
30	326 25 16.1	333 55 24.9	4 48 17.2	4 56 47.6	14.50	11 56.4	* *
31	341 28 40.3	349 3 44.3	5 0 11.0	4 58 18.4	15.50	12 51.4	0 24.2
32	356 39 15.2	4 13 52.7	S. 4 51 9.9	S. 4 38 54.4	16.50	13 44.6	1 18.2

GREENWICH MEAN TIME.

THE MOON'S

Day.	Semidiameter.		Horizontal Parallax.		RIGHT ASCENSION AND DECLINATION.				
	Noon.	Midnight.	Noon.	Midnight.	Hour.	Right Ascension.	Var. in 10 ^m .	Declination.	Var. in 10 ^m .
	' / "	' / "	' / "	' / "					
1	16 15.05	16 19.57	59 32.37	59 48.96					
2	16 23.25	16 26.01	60 2.44	60 12.53					
3	16 27.80	16 28.61	60 19.09	60 22.04					
4	16 28.46	16 27.39	60 21.49	60 17.61					
5	16 25.50	16 22.87	60 10.68	60 1.03					
6	16 19.59	16 15.82	59 49.05	59 35.15					
7	16 11.61	16 7.09	59 19.73	59 3.18					
8	16 2.36	15 57.50	58 45.85	58 28.07					
9	15 52.59	15 47.70	58 10.09	57 52.13					
10	15 42.85	15 38.08	57 34.35	57 16.88					
11	15 33.42	15 28.89	56 59.81	56 43.21					
12	15 24.49	15 20.25	56 27.12	56 11.57					
13	15 16.16	15 12.24	55 56.59	55 42.20					
14	15 8.48	15 4.91	55 28.43	55 15.33					
15	15 1.53	14 58.37	55 2.96	54 51.41					
16	14 55.47	14 52.84	54 40.76	54 31.13					
17	14 50.52	14 48.54	54 22.62	54 15.37					
18	14 46.94	14 45.77	54 9.53	54 5.25					
19	14 45.06	14 44.86	54 2.66	54 1.91					
20	14 45.20	14 46.12	54 3.15	54 6.50					
21	14 47.64	14 49.80	54 12.09	54 20.01					
22	14 52.61	14 56.09	54 30.31	54 43.04					
23	15 0.23	15 5.04	54 58.22	55 15.80					
24	15 10.47	15 16.49	55 35.69	55 57.77					
25	15 23.05	15 30.07	56 21.82	56 47.56					
26	15 37.47	15 45.12	57 14.65	57 42.68					
27	15 52.88	16 0.62	58 11.14	58 39.47					
28	16 8.14	16 15.28	59 7.05	59 33.20					
29	16 21.84	16 27.65	59 57.26	60 18.54					
30	16 32.54	16 36.36	60 36.43	60 50.44					
31	16 39.00	16 40.40	61 0.12	61 5.23					
32	16 40.53	16 39.41	61 5.71	61 1.62					

SUNDAY 1.					
h	m	s	° / ' / "	' / "	
0	20 26	31.83	25.639 S.	23 5 43.7	64.66
4	20 36	46.17	25.553	22 38 35.1	71.04
8	20 46	58.25	25.452	22 8 54.9	77.27
12	20 57	7.70	25.334	21 36 46.7	83.37
16	21 7	14.17	25.202	21 2 14.5	89.27
20	21 17	17.35	25.060	S. 20 25 22.8	95.00

MONDAY 2.					
h	m	s	° / ' / "	' / "	
0	21 27	16.99	24.907 S.	19 46 16.4	100.50
4	21 37	12.86	24.747	19 5 0.5	105.77
8	21 47	4.79	24.579	18 21 40.7	110.82
12	21 56	52.63	24.407	17 36 22.8	115.62
16	22 6	36.28	24.231	16 49 12.8	120.17
20	22 16	15.70	24.054	S. 16 0 16.9	124.44

TUESDAY 3.					
h	m	s	° / ' / "	' / "	
0	22 25	50.85	23.876 S.	15 9 41.6	128.45
4	22 35	21.75	23.699	14 17 33.4	132.17
8	22 44	48.44	23.526	13 23 59.1	135.62
12	22 54	11.01	23.356	12 29 5.4	138.79
16	23 3	29.55	23.191	11 32 59.1	141.67
20	23 12	44.20	23.032	S. 10 35 47.1	144.27

WEDNESDAY 4.					
h	m	s	° / ' / "	' / "	
0	23 21	55.12	22.880 S.	9 37 36.2	146.58
4	23 31	2.48	22.735	8 38 33.1	148.62
8	23 40	6.50	22.600	7 38 44.7	150.37
12	23 49	7.36	22.473	6 38 17.7	151.83
16	23 58	5.31	22.357	5 37 18.7	153.03
20	0 7	0.59	22.251	S. 4 35 54.1	153.96

THURSDAY 5.					
h	m	s	° / ' / "	' / "	
0	0 15	53.43	22.156 S.	3 34 10.6	154.62
4	0 24	44.12	22.070	2 32 14.5	155.01
8	0 33	32.91	21.997	1 30 11.9	155.15
12	0 42	20.06	21.935	S. 0 28 9.1	155.03
16	0 51	5.86	21.884	N. 0 33 47.9	154.67
20	0 59	50.58	21.844	N. 1 35 33.2	154.06

FRIDAY 6.					
h	m	s	° / ' / "	' / "	
0	1 8	34.49	21.817 N.	2 37 1.0	153.22
4	1 17	17.87	21.800	3 38 5.6	152.13
8	1 26	0.98	21.794	4 38 41.4	150.81
12	1 34	44.08	21.800	5 38 43.0	149.27
16	1 43	27.45	21.816	6 38 5.0	147.52
20	1 52	11.33	21.842	N. 7 36 42.2	145.53

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns for Hour, Right Ascension, Var. in 10m, Declination, and Var. in 10m. Rows are organized by day from Saturday 7 to Friday 20.

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns for Hour, Right Ascension, Var. in 10m, Declination, and Var. in 10m. Rows are organized by day from Saturday 21 to Wednesday, Sept. 1, followed by Phases of the Moon.

PHASES OF THE MOON.

Table listing moon phases: Full Moon, Last Quarter, New Moon, First Quarter, Perigee, Apogee. Includes dates in August and September and times in hours and minutes.

GREENWICH MEAN TIME.

Day.	THE MOON'S						
	Longitude.		Latitude.		Age.	Meridian Passage.	
	Noon.	Midnight.	Noon.	Midnight.	Noon.	Upper.	Lower.
	° / ' / "	° / ' / "	° / ' / "	° / ' / "	d	h m	h m
1	356 39 15.2	4 13 52.7	S. 4 51 9.9	S. 4 38 54.4	16.50	13 44.6	1 18.2
2	11 46 20.9	19 15 31.5	4 21 49.6	4 0 20.2	17.50	14 36.6	2 10.7
3	26 40 26.9	34 0 20.7	3 34 57.1	3 6 15.5	18.50	15 28.7	3 2.6
4	41 14 39.3	48 23 1.2	2 34 52.6	2 1 26.7	19.50	16 21.5	3 54.9
5	55 25 16.2	62 21 24.5	1 26 36.1	S. 0 50 56.8	20.50	17 15.5	4 48.3
6	69 11 33.6	75 55 57.9	S. 0 15 2.7	N. 0 20 34.6	21.50	18 10.7	5 43.0
7	82 34 57.1	89 8 52.9	N. 0 55 26.0	1 29 5.8	22.50	19 6.4	6 38.6
8	95 38 9.3	102 3 11.4	2 1 11.0	2 31 21.4	23.50	20 1.3	7 34.0
9	108 24 23.2	114 42 8.0	2 59 18.7	3 24 47.4	24.50	20 54.3	8 28.1
10	120 56 47.8	127 8 41.8	3 47 33.9	4 7 27.0	25.50	21 44.6	9 19.8
11	133 18 7.4	139 25 19.9	4 24 16.9	4 37 56.5	26.50	22 31.7	10 8.5
12	145 30 32.7	151 33 57.2	4 48 20.0	4 55 24.0	27.50	23 16.1	10 54.3
13	157 35 43.6	163 36 1.0	4 59 6.7	4 59 28.3	28.50	23 58.2	11 37.4
14	169 34 58.2	175 32 44.1	4 56 30.9	4 50 18.4	29.50	* *	12 18.6
15	181 29 28.1	187 25 20.5	4 40 56.0	4 28 30.9	0.87	0 38.7	12 58.7
16	193 20 33.5	199 15 20.8	4 13 11.7	3 55 8.0	1.87	1 18.6	13 38.5
17	205 9 58.7	211 4 45.9	3 34 30.7	3 11 32.2	2.87	1 58.6	14 19.0
18	217 0 4.0	222 56 17.1	2 46 25.1	2 19 23.1	3.87	2 39.8	15 1.0
19	228 53 52.4	234 53 19.9	1 50 41.2	1 20 34.6	4.87	3 22.9	15 45.4
20	240 55 11.9	247 0 3.0	N. 0 49 19.7	N. 0 17 14.2	5.87	4 8.7	16 32.9
21	253 8 29.3	259 21 8.4	S. 0 15 23.4	S. 0 48 13.3	6.87	4 57.9	17 23.9
22	265 38 38.0	272 1 34.9	1 20 54.2	1 53 2.9	7.87	5 50.6	18 18.1
23	278 30 34.2	285 6 7.4	2 24 14.7	2 54 2.7	8.87	6 46.3	19 14.9
24	291 48 41.8	298 38 37.1	3 21 58.1	3 47 31.0	9.87	7 43.8	20 12.8
25	305 36 4.7	312 41 5.5	4 10 10.2	4 29 24.4	10.87	8 41.8	21 10.5
26	319 53 27.9	327 12 47.1	4 44 43.2	4 55 38.3	11.87	9 38.8	22 6.8
27	334 38 23.6	342 9 24.2	5 1 45.5	5 2 46.2	12.87	10 34.4	23 1.6
28	349 44 43.0	357 23 3.2	4 58 29.0	4 48 51.2	13.87	11 28.5	23 55.2
29	5 3 0.9	12 43 8.9	4 33 59.5	4 14 10.4	14.87	12 21.7	* *
30	20 22 0.0	27 58 12.3	3 49 49.2	3 21 28.9	15.87	13 15.1	0 48.3
31	35 30 31.7	42 57 55.4	S. 2 49 48.3	S. 2 15 30.5	16.87	14 9.3	1 42.0

GREENWICH MEAN TIME.

Day.	THE MOON'S								
	Semidiameter.		Horizontal Parallax.		RIGHT ASCENSION AND DECLINATION.				
	Noon.	Midnight.	Noon.	Midnight.	Hour.	Right Ascension.	Var. in 10 ^m .	Declination.	Var. in 10 ^m .
	' / "	' / "	' / "	' / "		h m s	s	° / ' / "	"
1	16 40.53	16 39.41	61 5.71	61 1.62					
2	16 37.12	16 33.74	60 53.22	60 40.86					
3	16 29.44	16 24.33	60 25.07	60 6.38					
4	16 18.61	16 12.44	59 45.40	59 22.78					
5	16 5.97	15 59.35	58 59.08	58 34.82					
6	15 52.69	15 46.14	58 10.45	57 46.41					
7	15 39.76	15 33.62	57 23.02	57 0.54					
8	15 27.79	15 22.29	56 39.17	56 19.02					
9	15 17.15	15 12.40	56 0.20	55 42.78					
10	15 8.02	15 4.02	55 26.75	55 12.09					
11	15 0.39	14 57.12	54 58.79	54 46.82					
12	14 54.21	14 51.63	54 36.14	54 26.72					
13	14 49.40	14 47.50	54 18.53	54 11.57					
14	14 45.94	14 44.71	54 5.85	54 1.38					
15	14 43.86	14 43.36	53 58.22	53 56.39					
16	14 43.24	14 43.53	53 55.97	53 57.05					
17	14 44.27	14 45.46	53 59.73	54 4.10					
18	14 47.14	14 49.34	54 10.26	54 18.31					
19	14 52.08	14 55.38	54 28.35	54 40.44					
20	14 59.27	15 3.74	54 54.67	55 11.06					
21	15 8.80	15 14.44	55 29.60	55 50.26					
22	15 20.63	15 27.33	56 12.95	56 37.50					
23	15 34.48	15 42.00	57 3.70	57 31.24					
24	15 49.78	15 57.69	57 59.74	58 28.75					
25	16 5.59	16 13.32	58 57.72	59 26.01					
26	16 20.66	16 27.44	59 52.94	60 17.77					
27	16 33.45	16 38.49	60 39.78	60 58.26					
28	16 42.41	16 45.06	61 12.61	61 22.32					
29	16 46.34	16 46.21	61 27.00	61 26.54					
30	16 44.69	16 41.82	61 20.96	61 10.46					
31	16 37.73	16 32.56	60 55.47	60 36.52					
WEDNESDAY 1.									
0	23 55 25.67	23 00.8	S. 5 47 12.4	158.40					
4	0 4 36.72	22 9.14	4 43 36.1	159.57					
8	0 13 45.64	22 8.30	3 39 35.3	160.43					
12	0 22 52.65	22 7.56	2 35 17.5	161.00					
16	0 31 57.99	22 6.91	1 30 49.9	161.25					
20	0 41 1.88	22 6.36	S. 0 26 19.8	161.21					
THURSDAY 2.									
0	0 50 4.58	22 5.91	N. 0 38 5.8	160.87					
4	0 59 6.33	22 5.57	1 42 19.8	160.24					
8	1 8 7.37	22 5.32	2 46 15.5	159.33					
12	1 17 7.94	22 5.17	3 49 46.0	158.15					
16	1 26 8.29	22 5.13	4 52 44.7	156.68					
20	1 35 8.65	22.518	N. 5 55 5.2	154.97					
FRIDAY 3.									
0	1 44 9.25	22 5.32	N. 6 56 41.1	152.98					
4	1 53 10.31	22 5.57	7 57 26.2	150.74					
8	2 2 12.05	22 5.89	8 57 14.6	148.25					
12	2 11 14.65	22 6.29	9 56 0.5	145.52					
16	2 20 18.32	22 6.78	10 53 38.1	142.57					
20	2 29 23.24	22 7.33	N. 11 50 2.0	139.38					
SATURDAY 4.									
0	2 38 29.57	22 7.95	N. 12 45 6.9	135.98					
4	2 47 37.43	22 8.62	13 38 47.7	132.37					
8	2 56 46.98	22 9.34	14 30 59.4	128.56					
12	3 5 58.30	23 0.10	15 21 37.1	124.55					
16	3 15 11.49	23 0.90	16 10 36.4	120.36					
20	3 24 26.62	23 1.72	N. 16 57 52.7	115.98					
SUNDAY 5.									
0	3 33 43.74	23 2.55	N. 17 43 22.2	111.44					
4	3 43 2.86	23 3.38	18 27 0.7	106.73					
8	3 52 23.97	23 4.21	19 8 44.5	101.88					
12	4 1 47.04	23 5.02	19 48 30.1	96.88					
16	4 11 12.02	23 5.79	20 26 14.1	91.76					
20	4 20 38.81	23 6.52	N. 21 1 53.6	86.51					
MONDAY 6.									
0	4 30 7.33	23 7.23	N. 21 35 25.7	81.14					
4	4 39 37.43	23 7.85	22 6 47.8	75.67					
8	4 49 8.98	23 8.42	22 35 57.4	70.12					
12	4 58 41.77	23 8.90	23 2 52.6	64.47					
16	5 8 15.63	23 9.29	23 27 31.6	58.76					
20	5 17 50.31	23 9.58	N. 23 49 52.7	53.00					

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days: TUESDAY 7, WEDNESDAY 8, THURSDAY 9, FRIDAY 10, SATURDAY 11, SUNDAY 12, MONDAY 13, TUESDAY 14, WEDNESDAY 15, THURSDAY 16, FRIDAY 17, SATURDAY 18, SUNDAY 19, MONDAY 20.

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days: TUESDAY 21, WEDNESDAY 22, THURSDAY 23, FRIDAY 24, SATURDAY 25, SUNDAY 26, MONDAY 27, TUESDAY 28, WEDNESDAY 29, THURSDAY 30, FRIDAY, OCT. 1.

PHASES OF THE MOON.

Table with columns: Date, Moon Phase, Time (h m). Rows: Sept. 6 (Last Quarter), Sept. 14 (New Moon), Sept. 22 (First Quarter), Sept. 29 (Full Moon), Sept. 15 (Apogee), Sept. 29 (Perigee).

GREENWICH MEAN TIME.

THE MOON'S

Day.	Longitude.		Latitude.		Age.	Meridian Passage.	
	Noon.	Midnight.	Noon.	Midnight.		Upper.	Lower.
	° / ' / "	° / ' / "	° / ' / "	° / ' / "	d	h m	h m
1	35 30 31.7	42 57 55.4	S. 2 49 48.3	S. 2 15 30.5	16.87	14 9.3	1 42.0
2	50 19 32.9	57 34 47.7	1 39 19.8	S. 1 2 0.4	17.87	15 4.9	2 36.9
3	64 43 16.2	71 44 47.3	S. 0 24 14.4	N. 0 13 19.5	18.87	16 1.8	3 33.2
4	78 39 20.7	85 27 5.5	N. 0 50 5.9	1 25 34.4	19.87	16 59.3	4 30.6
5	92 8 18.3	98 43 21.6	1 59 18.5	2 30 55.9	20.87	17 56.0	5 27.8
6	105 12 41.7	111 36 47.3	3 0 8.1	3 26 39.8	21.87	18 50.5	6 23.6
7	117 56 8.5	124 11 16.1	3 50 18.5	4 10 54.9	22.87	19 42.0	7 16.7
8	130 22 40.3	136 30 49.8	4 28 21.1	4 42 31.5	23.87	20 30.1	8 6.5
9	142 36 11.9	148 39 12.1	4 53 22.1	5 0 50.5	24.87	21 15.1	8 53.0
10	154 40 13.9	160 39 38.0	5 4 55.8	5 5 38.3	25.87	21 57.6	9 36.6
11	166 37 43.4	172 34 47.2	5 2 59.9	4 57 3.8	26.87	22 38.3	10 18.1
12	178 31 4.5	184 26 49.1	4 47 55.1	4 35 39.8	27.87	23 18.2	10 58.3
13	190 22 13.7	196 17 30.4	4 20 25.6	4 2 21.9	28.87	23 58.0	11 38.0
14	202 12 51.3	208 8 28.1	3 41 39.2	3 18 29.7	0.16	* *	12 18.3
15	214 4 33.8	220 1 22.1	2 53 6.7	2 25 45.0	1.16	0 38.8	12 59.8
16	225 59 8.2	231 58 8.7	1 56 40.5	1 26 10.0	2.16	1 21.3	13 43.4
17	237 58 42.4	244 1 10.2	N. 0 54 31.7	N. 0 22 4.0	3.16	2 6.2	14 29.8
18	250 5 54.8	256 13 21.2	S. 0 10 53.2	S. 0 43 59.5	4.16	2 54.2	15 19.3
19	262 23 56.2	268 38 8.2	1 16 53.6	1 49 13.2	5.16	3 45.1	16 11.7
20	274 56 26.6	281 19 21.1	2 20 35.3	2 50 36.2	6.16	4 38.9	17 6.4
21	287 47 20.9	294 20 53.6	3 18 50.9	3 44 54.1	7.16	5 34.3	18 2.3
22	301 0 24.5	307 46 14.3	4 8 19.5	4 28 40.6	8.16	6 30.3	18 58.1
23	314 38 37.9	321 37 43.7	4 45 31.0	4 58 25.3	9.16	7 25.7	19 52.9
24	328 43 30.3	335 55 46.5	5 6 59.9	5 10 53.9	10.16	8 19.9	20 46.5
25	343 14 9.6	350 38 4.8	5 9 50.7	5 3 38.7	11.16	9 12.8	21 39.0
26	358 6 45.4	5 39 13.3	4 52 14.1	4 35 40.7	12.16	10 5.1	22 31.3
27	13 14 21.4	20 50 55.5	4 14 10.9	3 48 6.3	13.16	10 57.7	23 24.4
28	28 27 37.4	36 3 8.5	3 17 56.5	2 44 19.1	14.16	11 51.6	* *
29	43 36 13.3	51 5 41.6	2 7 56.9	1 29 36.5	15.16	12 47.4	0 19.2
30	58 30 32.4	65 49 54.6	S. 0 50 6.0	S. 0 10 12.2	16.16	13 45.3	1 16.1
31	73 3 8.6	80 9 46.8	N. 0 29 20.1	N. 1 7 50.4	17.16	14 44.8	2 15.0
32	87 9 32.9	94 2 21.3	N. 1 44 43.1	N. 2 19 28.1	18.16	15 44.2	3 14.6

GREENWICH MEAN TIME.

THE MOON'S

Day.	Semidiameter.		Horizontal Parallax.		RIGHT ASCENSION AND DECLINATION.				
	Noon.	Midnight.	Noon.	Midnight.	Hour.	Right Ascension.	Var. in 10 ^m .	Declination.	Var. in 10 ^m .
	' / "	' / "	' / "	' / "		h m s	s	° / ' / "	"
1	16 37.73	16 32.56	60 55.47	60 36.52					
2	16 26.48	16 19.69	60 14.24	59 49.38					
3	16 12.40	16 4.78	59 22.65	58 54.73					
4	15 57.02	15 49.28	58 26.29	57 57.91					
5	15 41.70	15 34.40	57 30.15	57 3.41					
6	15 27.46	15 20.97	56 38.00	56 14.21					
7	15 14.97	15 9.50	55 52.22	55 32.15					
8	15 4.56	15 0.17	55 14.08	54 58.01					
9	14 56.34	14 53.04	54 43.95	54 31.86					
10	14 50.25	14 47.06	54 21.66	54 13.25					
11	14 46.13	14 44.75	54 6.57	54 1.53					
12	14 43.81	14 43.25	53 58.04	53 56.00					
13	14 43.08	14 43.27	53 55.36	53 56.07					
14	14 43.82	14 44.71	53 58.08	54 1.38					
15	14 45.97	14 47.58	54 5.97	54 11.84					
16	14 49.54	14 51.87	54 19.04	54 27.61					
17	14 54.61	14 57.74	54 37.62	54 49.09					
18	15 1.29	15 5.28	55 2.09	55 16.69					
19	15 9.71	15 14.58	55 32.92	55 50.79					
20	15 19.90	15 25.66	56 10.29	56 31.38					
21	15 31.81	15 38.33	56 53.94	57 17.83					
22	15 45.16	15 52.19	57 42.82	58 8.61					
23	15 59.35	16 6.49	58 34.83	59 0.99					
24	16 13.48	16 20.14	59 26.58	59 51.02					
25	16 26.32	16 31.81	60 13.65	60 33.79					
26	16 36.45	16 40.07	60 50.78	61 4.03					
27	16 42.52	16 43.68	61 13.00	61 17.27					
28	16 43.51	16 41.99	61 16.64	61 11.08					
29	16 39.15	16 35.08	61 0.68	60 45.75					
30	16 29.90	16 23.78	60 26.78	60 4.36					
31	16 16.91	16 9.48	59 39.17	59 11.93					
32	16 1.68	15 53.71	58 43.38	58 14.18					

FRIDAY 1.				
	h m s	s	° / ' / "	"
0	2 16 37.69	23.374	N. 10 41 27.1	149.54
4	2 25 59.58	23.452	11 40 38.0	146.32
8	2 35 23.40	23.534	12 38 28.1	142.82
12	2 44 49.25	23.621	13 34 51.2	139.05
16	2 54 17.21	23.710	14 29 41.0	135.05
20	3 3 47.36	23.802	N. 15 22 51.7	130.80

SATURDAY 2.				
	h m s	s	° / ' / "	"
0	3 13 19.71	23.895	N. 16 14 17.6	126.32
4	3 22 54.30	23.988	17 3 53.3	121.62
8	3 32 31.12	24.079	17 51 33.8	116.72
12	3 42 10.11	24.169	18 37 14.2	111.62
16	3 51 51.21	24.255	19 20 50.2	106.34
20	4 1 34.32	24.337	N. 20 2 17.6	100.91

SUNDAY 3.				
	h m s	s	° / ' / "	"
0	4 11 19.32	24.412	N. 20 41 32.5	95.31
4	4 21 6.05	24.480	21 18 31.6	89.59
8	4 30 54.32	24.541	21 53 11.6	83.73
12	4 40 43.93	24.592	22 25 29.8	77.77
16	4 50 34.65	24.632	22 55 23.8	71.72
20	5 0 26.22	24.663	N. 23 22 51.5	65.58

MONDAY 4.				
	h m s	s	° / ' / "	"
0	5 10 18.35	24.680	N. 23 47 51.4	59.39
4	5 20 10.76	24.684	24 10 22.1	53.15
8	5 30 3.12	24.677	24 30 22.7	46.89
12	5 39 55.12	24.654	24 47 52.9	40.62
16	5 49 46.42	24.617	25 2 52.4	34.34
20	5 59 36.66	24.567	N. 25 15 21.3	28.07

TUESDAY 5.				
	h m s	s	° / ' / "	"
0	6 9 25.50	24.501	N. 25 25 20.4	21.85
4	6 19 12.60	24.421	25 32 50.5	15.67
8	6 28 57.61	24.327	25 37 52.9	9.54
12	6 38 40.20	24.219	25 40 29.2	3.49
16	6 48 20.04	24.098	25 40 41.2	2.47
20	6 57 56.82	23.964	N. 25 38 30.9	8.36

WEDNESDAY 6.				
	h m s	s	° / ' / "	"
0	7 7 30.23	23.817	N. 25 34 0.9	14.12
4	7 17 0.00	23.661	25 27 13.8	10.78
8	7 26 25.86	23.492	25 18 12.4	25.32
12	7 35 47.58	23.316	25 6 59.7	30.72
16	7 45 4.94	23.130	24 53 39.0	35.98
20	7 54 17.76	22.937	N. 24 38 13.5	41.11

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days 7-20, split into two columns.

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days 21-31 and Nov 1, split into two columns. Includes 'PHASES OF THE MOON' section at the bottom.

GREENWICH MEAN TIME.

THE MOON'S

Day.	Longitude.		Latitude.		Age.	Meridian Passage.	
	Noon.	Midnight.	Noon.	Midnight.		Upper.	Lower.
	° / ' / "	° / ' / "	° / ' / "	° / ' / "	d	h m	h m
1	87 9 32.9	94 2 21.3	N. 1 44 43.1	N. 2 19 28.1	18.16	15 44.2	3 14.6
2	100 48 16.0	107 27 28.8	2 51 40.7	3 21 1.3	19.16	16 41.7	4 13.3
3	114 0 18.6	120 27 9.3	3 47 14.7	4 10 10.1	20.16	17 36.0	5 9.3
4	126 48 28.7	133 4 47.7	4 29 40.1	4 45 39.8	21.16	18 26.3	6 1.7
5	139 16 38.4	145 24 34.2	4 58 6.8	5 7 0.8	22.16	19 12.8	6 50.0
6	151 29 8.2	157 30 53.3	5 12 22.6	5 14 14.2	23.16	19 56.3	7 34.9
7	163 30 21.0	169 28 1.5	5 12 38.8	5 7 40.8	24.16	20 37.4	8 17.1
8	175 24 23.7	181 19 54.5	4 59 25.3	4 47 58.3	25.16	21 17.4	8 57.5
9	187 14 58.2	193 9 57.4	4 33 27.3	4 16 0.3	26.16	21 57.1	9 37.2
10	199 5 12.8	205 1 3.2	3 55 47.3	3 32 59.1	27.16	22 37.5	10 17.1
11	210 57 45.4	216 55 35.0	3 7 47.9	2 40 27.7	28.16	23 19.5	10 58.2
12	222 54 46.1	228 55 31.6	2 11 14.0	1 40 23.8	29.16	* *	11 41.3
13	234 58 4.0	241 2 34.9	1 8 15.4	N. 0 35 8.6	0.40	0 3.9	12 27.1
14	247 9 16.2	253 18 19.8	N. 0 1 24.5	S. 0 32 34.8	1.40	0 51.2	13 16.1
15	259 29 57.8	265 44 22.7	S. 1 6 26.3	1 39 46.1	2.40	1 41.7	14 8.0
16	272 1 48.0	278 22 27.6	2 12 10.0	2 43 13.2	3.40	2 34.9	15 2.2
17	284 46 36.3	291 14 28.8	3 12 31.4	3 39 39.7	4.40	3 29.8	15 57.5
18	297 46 20.2	304 22 24.8	4 4 14.0	4 25 50.6	5.40	4 25.2	16 52.6
19	311 2 56.1	317 48 5.5	4 44 6.7	4 58 40.8	6.40	5 19.6	17 46.3
20	324 38 1.9	331 32 50.4	5 9 12.9	5 15 25.6	7.40	6 12.5	18 38.3
21	338 32 31.6	345 37 0.5	5 17 4.2	5 13 57.3	8.40	7 3.8	19 29.1
22	352 46 5.4	359 59 27.6	5 5 58.2	4 53 5.4	9.40	7 54.2	20 19.2
23	7 16 41.2	14 37 12.3	4 35 23.5	4 13 3.3	10.40	8 44.4	21 9.9
24	22 0 19.6	29 25 15.3	3 46 23.1	3 15 48.2	11.40	9 35.8	22 2.2
25	36 51 6.6	44 16 56.8	2 41 50.5	2 5 7.5	12.40	10 29.3	22 57.1
26	51 41 47.2	59 4 40.1	1 26 21.8	S. 0 46 18.7	13.40	11 25.7	23 55.0
27	66 24 39.7	73 40 54.3	S. 0 5 44.5	N. 0 34 34.8	14.40	12 24.8	* *
28	80 52 38.8	87 59 15.3	N. 1 13 56.1	1 51 39.9	15.40	13 25.6	0 55.1
29	95 0 13.5	101 55 12.1	2 27 11.5	3 0 2.0	16.40	14 25.9	1 55.9
30	108 43 58.6	115 26 29.2	3 29 47.8	3 56 11.6	17.40	15 23.6	2 55.2
31	122 2 47.2	128 33 3.5	N. 4 19 0.6	N. 4 38 6.8	18.40	16 17.3	3 51.0

GREENWICH MEAN TIME.

THE MOON'S

Day.	Semidiameter.		Horizontal Parallax.		RIGHT ASCENSION AND DECLINATION.				
	Noon.	Midnight.	Noon.	Midnight.	Hour.	Right Ascension.	Var. in 10 ^m .	Declination.	Var. in 10 ^m .
	' / "	' / "	' / "	' / "					
1	16 1.68	15 53.71	58 43.38	58 14.18					
2	15 45.75	15 37.93	57 44.97	57 16.34					
3	15 30.41	15 23.29	56 48.78	56 22.70					
4	15 16.66	15 10.59	55 58.41	55 36.16					
5	15 5.13	15 0.29	55 16.13	54 58.44					
6	14 56.12	14 52.61	54 43.16	54 30.28					
7	14 49.74	14 47.51	54 19.78	54 11.59					
8	14 45.88	14 44.82	54 5.63	54 1.79					
9	14 44.33	14 44.34	53 59.95	53 59.99					
10	14 44.82	14 45.73	54 1.77	54 5.08					
11	14 47.02	14 48.68	54 9.81	54 15.88					
12	14 50.66	14 52.94	54 23.15	54 31.50					
13	14 55.49	14 58.29	54 40.85	54 51.12					
14	15 1.33	15 4.61	55 2.26	55 14.24					
15	15 8.11	15 11.83	55 27.06	55 40.69					
16	15 15.77	15 19.93	55 55.13	56 10.39					
17	15 24.32	15 28.94	56 26.49	56 43.43					
18	15 33.78	15 38.83	57 1.16	57 19.62					
19	15 44.05	15 49.41	57 38.75	57 58.41					
20	15 54.86	16 0.34	58 18.40	58 38.48					
21	16 5.76	16 11.02	58 58.33	59 17.60					
22	16 16.01	16 20.59	59 35.86	59 52.65					
23	16 24.63	16 28.02	60 7.49	60 19.88					
24	16 30.60	16 32.26	60 29.33	60 35.40					
25	16 32.90	16 32.48	60 37.78	60 36.23					
26	16 30.95	16 28.32	60 30.63	60 20.99					
27	16 24.64	16 20.02	60 7.53	59 50.58					
28	16 14.55	16 8.37	59 30.52	59 7.88					
29	16 1.65	15 54.55	58 43.27	58 17.27					
30	15 47.26	15 39.92	57 50.53	57 23.63					
31	15 32.68	15 25.69	56 57.11	56 31.49					

MONDAY 1.					
h	m	s	° / ' / "	"	
0	5 47	24.42	25.487	N. 25 9 55.0	37.49
4	5 57	35.51	25.434	25 23 33.7	30.74
8	6 7	45.11	25.362	25 34 30.8	24.02
12	6 17	52.76	25.272	25 42 47.3	17.36
16	6 27	58.02	25.162	25 48 24.5	10.77
20	6 38	0.46	25.037	N. 25 51 24.6	4.26

TUESDAY 2.					
h	m	s	° / ' / "	"	
0	6 47	59.66	24.893	N. 25 51 49.7	2.15
4	6 57	55.22	24.734	25 49 42.4	8.43
8	7 7	46.76	24.559	25 45 5.6	14.59
12	7 17	33.95	24.371	25 38 2.7	20.62
16	7 27	16.46	24.169	25 28 37.1	26.49
20	7 36	54.01	23.957	N. 25 16 52.6	32.18

WEDNESDAY 3.					
h	m	s	° / ' / "	"	
0	7 46	26.35	23.735	N. 25 2 53.2	37.72
4	7 55	53.26	23.505	24 46 43.0	43.08
8	8 5	14.55	23.268	24 28 26.4	48.27
12	8 14	30.08	23.026	24 8 7.5	53.27
16	8 23	39.72	22.777	23 45 51.0	58.07
20	8 32	43.40	22.528	N. 23 21 41.2	62.71

THURSDAY 4.					
h	m	s	° / ' / "	"	
0	8 41	41.06	22.277	N. 22 55 42.5	67.14
4	8 50	32.69	22.026	22 27 59.6	71.40
8	8 59	18.30	21.775	21 58 36.8	75.47
12	9 7	57.91	21.526	21 27 38.4	79.36
16	9 16	31.59	21.282	20 55 8.9	83.07
20	9 24	59.44	21.040	N. 20 21 12.6	86.59

FRIDAY 5.					
h	m	s	° / ' / "	"	
0	9 33	21.55	20.804	N. 19 45 53.6	89.96
4	9 41	38.05	20.573	19 9 16.1	93.13
8	9 49	49.10	20.348	18 31 24.1	96.17
12	9 57	54.84	20.132	17 52 21.4	99.03
16	10 5	55.45	19.921	17 12 11.9	101.73
20	10 13	51.12	19.719	N. 16 30 59.2	104.30

SATURDAY 6.					
h	m	s	° / ' / "	"	
0	10 21	42.04	19.525	N. 15 48 46.9	106.70
4	10 29	28.42	19.342	15 5 38.5	108.97
8	10 37	10.48	19.166	14 21 37.4	111.10
12	10 44	48.45	19.000	13 36 46.9	113.09
16	10 52	22.54	18.842	12 51 10.1	114.95
20	10 59	52.99	18.697	N. 12 4 50.3	116.67

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m., Declination, Var. in 10m. for days Sunday 7 through Saturday 13 and Sunday 14 through Saturday 20.

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m., Declination, Var. in 10m. for days Sunday 21 through Saturday 27 and Sunday 28 through Wednesday, Dec. 1. Includes a section for PHASES OF THE MOON with dates and times for Last Quarter, New Moon, First Quarter, and Full Moon.

GREENWICH MEAN TIME.

THE MOON'S

Day.	Longitude.		Latitude.		Age.	Meridian Passage.	
	Noon.	Midnight.	Noon.	Midnight.		Upper.	Lower.
	° / ' / "	° / ' / "	° / ' / "	° / ' / "	d	h m	h m
1	122 2 47.2	128 33 3.5	N. 4 19 0.6	N. 4 38 6.8	18.40	16 17.3	3 51.0
2	134 57 35.2	141 16 44.7	4 53 26.0	5 4 57.4	19.40	17 6.6	4 42.5
3	147 30 58.4	153 40 46.1	5 12 42.6	5 16 45.2	20.40	17 52.0	5 29.8
4	159 46 40.6	165 49 16.0	5 17 10.1	5 14 3.4	21.40	18 34.5	6 13.6
5	171 49 7.6	177 46 50.9	5 7 32.1	4 57 43.8	22.40	19 15.0	6 54.9
6	183 43 1.7	189 38 14.7	4 44 46.7	4 28 49.4	23.40	19 54.6	7 34.8
7	195 33 3.9	201 28 1.6	4 10 1.6	3 48 33.5	24.40	20 34.6	8 14.5
8	207 23 38.6	213 20 23.5	3 24 36.0	2 58 21.5	25.40	21 15.8	8 55.0
9	219 18 42.8	225 19 0.3	2 30 3.6	1 59 57.1	26.40	21 59.3	9 37.2
10	231 21 37.3	237 26 52.2	1 28 19.0	N. 0 55 27.4	27.40	22 45.9	10 22.2
11	243 35 0.6	249 46 15.1	N. 0 21 42.4	S. 0 12 34.3	28.40	23 35.8	11 10.4
12	256 0 45.7	262 18 39.6	S. 0 46 59.0	1 21 6.8	29.40	* *	12 2.1
13	268 40 1.3	275 4 52.7	1 54 31.8	2 26 47.4	0.67	0 29.0	12 56.5
14	281 33 13.9	288 5 3.1	2 57 26.5	3 26 1.9	1.67	1 24.5	13 52.6
15	294 40 16.8	301 18 50.3	3 52 7.5	4 15 18.0	2.67	2 20.7	14 48.5
16	308 0 38.1	314 45 34.1	4 35 10.2	4 51 23.0	3.67	3 16.0	15 43.0
17	321 33 31.7	328 24 23.9	5 3 37.6	5 11 39.0	4.67	4 9.5	16 35.4
18	335 18 4.0	342 14 24.3	5 15 14.8	5 14 16.8	5.67	5 0.8	17 25.7
19	349 13 16.8	356 14 32.6	5 8 40.8	4 58 27.0	6.67	5 50.2	18 14.6
20	3 18 1.6	10 23 32.2	4 43 40.3	4 24 30.1	7.67	6 38.9	19 3.3
21	17 30 50.4	24 39 40.1	4 1 10.9	3 34 1.7	8.67	7 27.9	19 52.9
22	31 49 42.4	39 0 34.9	3 3 27.0	2 29 55.7	9.67	8 18.4	20 44.6
23	46 11 51.9	53 23 5.1	1 54 0.6	S. 1 16 18.1	10.67	9 11.6	21 39.3
24	60 33 43.1	67 43 12.1	S. 0 37 27.3	N. 0 1 51.5	11.67	10 7.9	22 37.1
25	74 50 57.1	81 56 22.8	N. 0 40 57.4	1 19 10.4	12.67	11 7.0	23 37.2
26	88 58 54.2	95 57 58.2	1 55 53.1	2 30 30.8	13.67	12 7.4	* *
27	102 53 4.7	109 43 47.8	3 2 33.3	3 31 35.2	14.67	13 7.0	0 37.4
28	116 29 46.3	123 10 44.7	3 57 15.9	4 19 20.3	15.67	14 3.5	1 35.7
29	129 46 33.5	136 17 9.6	4 37 38.3	4 52 4.0	16.67	14 56.0	2 30.3
30	142 42 36.2	149 3 2.9	5 2 35.5	5 9 14.7	17.67	15 44.1	3 20.5
31	155 18 44.3	161 30 0.6	5 12 5.8	5 11 15.3	18.67	16 28.5	4 6.7
32	167 37 16.7	173 41 1.2	N. 5 6 51.2	N. 4 59 2.8	19.67	17 10.3	4 49.7

GREENWICH MEAN TIME.

THE MOON'S

Day.	Semidiameter.		Horizontal Parallax.		RIGHT ASCENSION AND DECLINATION.				
	Noon.	Midnight.	Noon.	Midnight.	Hour.	Right Ascension.	Var. in 10 ^m .	Declination.	Var. in 10 ^m .
	' / "	' / "	' / "	' / "		° / ' / "		° / ' / "	
1	15 32.68	15 25.69	56 57.11	56 31.49					
2	15 19.05	15 12.89	56 7.19	55 44.59					
3	15 7.27	15 2.24	55 23.97	55 5.58					
4	14 57.88	14 54.20	54 49.59	54 36.11					
5	14 51.22	14 48.96	54 25.20	54 16.91					
6	14 47.40	14 46.53	54 11.21	54 8.05					
7	14 46.34	14 46.77	54 7.32	54 8.90					
8	14 47.80	14 49.37	54 12.65	54 18.42					
9	14 51.44	14 53.95	54 26.00	54 35.20					
10	14 56.85	15 0.06	54 45.81	54 57.61					
11	15 3.56	15 7.26	55 10.39	55 23.95					
12	15 11.11	15 15.07	55 38.08	55 52.58					
13	15 19.08	15 23.13	56 7.30	56 22.10					
14	15 27.15	15 31.14	56 36.85	56 51.46					
15	15 35.07	15 38.93	57 5.86	57 20.01					
16	15 42.71	15 46.41	57 33.86	57 47.39					
17	15 50.01	15 53.52	58 0.60	58 13.47					
18	15 56.92	16 0.20	58 25.94	58 37.97					
19	16 3.35	16 6.32	58 49.50	59 0.38					
20	16 9.07	16 11.56	59 10.46	59 19.57					
21	16 13.72	16 15.48	59 27.47	59 33.91					
22	16 16.77	16 17.52	59 38.64	59 41.39					
23	16 17.66	16 17.15	59 41.93	59 40.05					
24	16 15.94	16 13.99	59 35.59	59 28.45					
25	16 11.30	16 7.90	59 18.61	59 6.16					
26	16 3.83	15 59.16	58 51.26	58 34.15					
27	15 53.98	15 48.39	58 15.15	57 54.64					
28	15 42.49	15 36.42	57 33.05	57 10.80					
29	15 30.30	15 24.25	56 48.38	56 26.23					
30	15 18.39	15 12.83	56 4.75	55 44.35					
31	15 7.66	15 2.95	55 25.40	55 8.20					
32	14 58.81	14 55.27	54 52.99	54 40.03					
WEDNESDAY 1.									
	h m s	s	° / ' / "	° / ' / "					
0	8 21 25.63	23.482	N. 23 55 11.1	58.46					
4	8 30 45.96	23.212	23 30 48.5	63.38					
8	8 39 59.74	22.937	23 4 30.3	68.10					
12	8 49 6.88	22.658	22 36 21.5	72.60					
16	8 58 7.36	22.382	22 6 27.3	76.88					
20	9 7 1.17	22.104	N. 21 34 52.9	80.95					
THURSDAY 2.									
0	9 15 48.38	21.829	N. 21 1 43.1	84.82					
4	9 24 29.04	21.559	20 27 3.1	88.48					
8	9 33 3.24	21.292	19 50 57.6	91.94					
12	9 41 31.11	21.031	19 13 31.4	95.21					
16	9 49 52.79	20.777	18 34 49.3	98.27					
20	9 58 8.46	20.529	N. 17 54 55.5	101.17					
FRIDAY 3.									
0	10 6 18.28	20.291	N. 17 13 54.4	103.89					
4	10 14 22.46	20.060	16 31 50.3	106.42					
8	10 22 21.23	19.839	15 48 47.3	108.80					
12	10 30 14.80	19.627	15 4 49.2	111.02					
16	10 38 3.42	19.426	14 19 59.8	113.08					
20	10 45 47.32	19.234	N. 13 34 22.6	114.99					
SATURDAY 4.									
0	10 53 26.76	19.054	N. 12 48 1.3	116.77					
4	11 1 1.99	18.884	12 0 59.1	118.40					
8	11 8 33.28	18.726	11 13 19.2	119.90					
12	11 16 0.90	18.578	10 25 4.9	121.27					
16	11 23 25.13	18.442	9 36 19.1	122.52					
20	11 30 46.23	18.318	N. 8 47 4.7	123.66					
SUNDAY 5.									
0	11 38 4.48	18.205	N. 7 57 24.5	124.67					
4	11 45 20.16	18.103	7 7 21.4	125.57					
8	11 52 33.53	18.013	6 16 57.8	126.37					
12	11 59 44.87	17.934	5 26 16.5	127.05					
16	12 6 54.47	17.867	4 35 19.9	127.64					
20	12 14 2.59	17.811	N. 3 44 10.5	128.12					
MONDAY 6.									
0	12 21 9.51	17.767	N. 2 52 50.8	128.50					
4	12 28 15.51	17.734	2 1 23.2	128.77					
8	12 35 20.85	17.712	1 9 50.2	128.95					
12	12 42 25.80	17.702	N. 0 18 14.1	129.03					
16	12 49 30.64	17.703	S. 0 33 22.7	129.01					
20	12 56 35.64	17.716	S. 1 24 57.8	128.89					

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days: TUESDAY 7, WEDNESDAY 8, THURSDAY 9, FRIDAY 10, SATURDAY 11, SUNDAY 12, MONDAY 13, TUESDAY 14, WEDNESDAY 15, THURSDAY 16, FRIDAY 17, SATURDAY 18, SUNDAY 19, MONDAY 20.

GREENWICH MEAN TIME.

THE MOON'S RIGHT ASCENSION AND DECLINATION.

Table with columns: Hour, Right Ascension, Var. in 10m, Declination, Var. in 10m. Rows for days: TUESDAY 21, WEDNESDAY 22, THURSDAY 23, FRIDAY 24, SATURDAY 25, SUNDAY 26, MONDAY 27, TUESDAY 28, WEDNESDAY 29, THURSDAY 30, FRIDAY 31, SATURDAY, JAN. 1, 1910. Includes PHASES OF THE MOON section with moon symbols and dates.

GREENWICH MEAN TIME.

JANUARY.						FEBRUARY.							
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.		
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.			
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m		
1	16 42 38.67	13.14	S. 21 2 12.6	30.31	22 1.9	1	19 29 15.24	13.37	S. 22 0 33.6	21.81	22 46.4		
2	16 47 54.40	13.17	21 14 1.9	28.80	22 3.2	2	19 34 35.76	13.34	21 51 30.3	23.46	22 47.8		
3	16 53 11.03	13.21	21 25 14.9	27.27	22 4.5	3	19 39 55.57	13.31	21 41 47.5	25.10	22 49.1		
4	16 58 28.54	13.25	21 35 50.9	25.72	22 5.9	4	19 45 14.63	13.28	21 31 25.5	26.72	22 50.5		
5	17 3 46.89	13.28	21 45 49.4	24.15	22 7.3	5	19 50 32.89	13.24	21 20 24.7	28.33	22 51.9		
6	17 9 6.04	13.31	S. 21 55 10.0	22.56	22 8.7	6	19 55 50.33	13.21	S. 21 8 45.6	29.92	22 53.2		
7	17 14 25.94	13.35	22 3 52.2	20.95	22 10.1	7	20 1 6.89	13.17	20 56 28.6	31.49	22 54.5		
8	17 19 46.56	13.37	22 11 55.5	19.32	22 11.5	8	20 6 22.56	13.13	20 43 34.2	33.04	22 55.8		
9	17 25 7.85	13.40	22 19 19.6	17.68	22 12.9	9	20 11 37.29	13.09	20 30 2.8	34.57	22 57.1		
10	17 30 29.76	13.43	22 26 4.1	16.02	22 14.4	10	20 16 51.07	13.05	20 15 55.1	36.08	22 58.4		
11	17 35 52.24	13.45	S. 22 32 8.6	14.35	22 15.8	11	20 22 3.85	13.01	S. 20 1 11.4	37.56	22 59.6		
12	17 41 15.24	13.47	22 37 32.8	12.66	22 17.3	12	20 27 15.62	12.97	19 45 52.5	39.02	23 0.9		
13	17 46 38.71	13.49	22 42 16.4	10.96	22 18.7	13	20 32 26.35	12.93	19 29 58.8	40.45	23 2.1		
14	17 52 2.59	13.50	22 46 19.0	9.25	22 20.2	14	20 37 36.02	12.88	19 13 31.0	41.86	23 3.3		
15	17 57 26.82	13.52	22 49 40.5	7.54	22 21.6	15	20 42 44.62	12.84	18 56 29.6	43.25	23 4.5		
16	18 2 51.36	13.53	S. 22 52 20.6	5.81	22 23.1	16	20 47 52.12	12.79	S. 18 38 55.2	44.61	23 5.7		
17	18 8 16.13	13.54	22 54 19.2	4.07	22 24.6	17	20 52 58.51	12.74	18 20 48.6	45.94	23 6.8		
18	18 13 41.09	13.54	22 55 36.2	2.33	22 26.1	18	20 58 3.77	12.70	18 2 10.3	47.24	23 7.9		
19	18 19 6.16	13.55	22 56 11.3	0.59	22 27.5	19	21 3 7.89	12.65	17 43 1.0	48.52	23 9.0		
20	18 24 31.29	13.55	22 56 4.5	1.16	22 29.0	20	21 8 10.87	12.60	17 23 21.5	49.77	23 10.1		
21	18 29 56.41	13.55	S. 22 55 15.7	2.90	22 30.5	21	21 13 12.69	12.55	S. 17 3 12.3	50.99	23 11.2		
22	18 35 21.47	13.54	22 53 45.0	4.65	22 32.0	22	21 18 13.36	12.50	16 42 34.3	52.18	23 12.2		
23	18 40 46.39	13.54	22 51 32.5	6.40	22 33.4	23	21 23 12.87	12.46	16 21 28.1	53.34	23 13.3		
24	18 46 11.12	13.53	22 48 38.1	8.14	22 34.9	24	21 28 11.22	12.41	15 59 54.4	54.47	23 14.3		
25	18 51 35.60	13.51	22 45 1.9	9.88	22 36.4	25	21 33 8.42	12.36	15 37 51.0	55.56	23 15.3		
26	18 56 59.77	13.50	S. 22 40 44.1	11.61	22 37.8	26	21 38 4.47	12.31	S. 15 15 27.5	56.63	23 16.3		
27	19 2 23.58	13.48	22 35 44.8	13.33	22 39.3	27	21 42 59.39	12.27	14 52 35.8	57.67	23 17.2		
28	19 7 46.96	13.47	22 30 4.2	15.05	22 40.7	28	21 47 53.19	12.22	14 29 19.5	58.68	23 18.1		
29	19 13 9.87	13.44	22 23 42.5	16.76	22 42.1	29	21 52 45.88	12.17	S. 14 5 39.4	59.66	23 19.1		
30	19 18 32.25	13.42	22 16 40.0	18.45	22 43.6								
31	19 23 54.06	13.40	S. 22 8 56.9	20.14	22 45.0								
32	19 29 15.24	13.37	S. 22 0 33.6	21.81	22 46.4								
Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	5.94	5.84	5.75	5.66	5.59	5.51	Semidiameter.	5.42	5.36	5.30	5.24	5.19	5.14
Hor. Parallax.	6.22	6.12	6.02	5.93	5.85	5.77	Hor. Parallax.	5.68	5.61	5.55	5.49	5.44	5.39

GREENWICH MEAN TIME.

MARCH.						APRIL.							
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.		
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.			
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m		
1	21 52 45.88	12.17	S. 14 5 39.4	59.66	23 19.1	1	0 17 13.16	11.35	N. 0 18 33.9	74.84	23 41.0		
2	21 57 37.47	12.13	13 41 36.1	60.61	23 20.0	2	0 21 45.57	11.35	0 48 30.2	74.84	23 41.6		
3	22 2 27.99	12.08	13 17 10.5	61.52	23 20.9	3	0 26 17.96	11.35	1 18 26.3	74.81	23 42.2		
4	22 7 17.46	12.04	12 52 23.3	62.41	23 21.7	4	0 30 50.38	11.35	1 48 21.4	74.76	23 42.8		
5	22 12 5.89	12.00	12 27 15.1	63.27	23 22.6	5	0 35 22.86	11.36	2 18 14.9	74.68	23 43.4		
6	22 16 53.32	11.96	S. 12 1 46.8	64.09	23 23.4	6	0 39 55.45	11.36	N. 2 48 6.0	74.57	23 44.0		
7	22 21 39.76	11.91	11 35 59.0	64.88	23 24.2	7	0 44 28.19	11.37	3 17 54.2	74.43	23 44.6		
8	22 26 25.25	11.88	11 9 52.5	65.65	23 25.0	8	0 49 1.13	11.38	3 47 38.5	74.26	23 45.2		
9	22 31 9.80	11.84	10 43 28.0	66.39	23 25.8	9	0 53 34.30	11.39	4 17 18.4	74.06	23 45.8		
10	22 35 53.46	11.80	10 16 46.3	67.09	23 26.6	10	0 58 7.75	11.40	4 46 53.1	73.83	23 46.4		
11	22 40 36.25	11.77	S. 9 49 48.0	67.76	23 27.3	11	1 2 41.53	11.41	N. 5 16 22.0	73.57	23 47.1		
12	22 45 18.20	11.73	9 22 33.9	68.40	23 28.1	12	1 7 15.67	11.43	5 45 44.3	73.28	23 47.7		
13	22 49 59.34	11.70	8 55 4.8	69.02	23 28.8	13	1 11 50.21	11.45	6 14 59.3	72.96	23 48.4		
14	22 54 39.71	11.67	8 27 21.3	69.60	23 29.5	14	1 16 25.20	11.47	6 44 6.3	72.61	23 49.0		
15	22 59 19.33	11.64	7 59 24.2	70.15	23 30.2	15	1 21 0.67	11.49	7 13 4.5	72.23	23 49.7		
16	23 3 58.24	11.61	S. 7 31 14.3	70.67	23 30.9	16	1 25 36.66	11.51	N. 7 41 53.3	71.82	23 50.3		
17	23 8 36.48	11.58	7 2 52.2	71.17	23 31.6	17	1 30 13.21	11.54	8 10 31.8	71.39	23 51.0		
18	23 13 14.07	11.55	6 34 18.7	71.63	23 32.3	18	1 34 50.35	11.56	8 38 59.4	70.92	23 51.7		
19	23 17 51.06	11.53	6 5 34.6	72.06	23 33.0	19	1 39 28.11	11.59	9 7 15.4	70.41	23 52.4		
20	23 22 27.47	11.51	5 36 40.5	72.45	23 33.6	20	1 44 6.53	11.62	9 35 18.9	69.88	23 53.1		
21	23 27 3.34	11.48	S. 5 7 37.3	72.81	23 34.2	21	1 48 45.65	11.65	N. 10 3 9.2	69.31	23 53.8		
22	23 31 38.71	11.46	4 38 25.6	73.15	23 34.9	22	1 53 25.49	11.68	10 30 45.6	68.72	23 54.5		
23	23 36 13.61	11.45	4 9 6.2	73.46	23 35.5	23	1 58 6.08	11.71	10 58 7.3	68.09	23 55.3		
24	23 40 48.09	11.43	3 39 39.8	73.73	23 36.1	24	2 2 47.46	11.74	11 25 13.5	67.43	23 56.1		
25	23 45 22.18	11.41	3 10 7.2	73.98	23 36.8	25	2 7 29.65	11.78	11 52 3.5	66.73	23 56.8		
26	23 49 55.91	11.40	S. 2 40 29.1	74.19	23 37.4	26	2 12 12.69	11.81	N. 12 18 36.6	66.01	23 57.6		
27	23 54 29.33	11.39	2 10 45.3	74.37	23 38.0	27	2 16 56.60	11.85	12 44 52.0	65.26	23 58.4		
28	23 59 2.47	11.38	1 40 59.5	74.52	23 38.6	28	2 21 41.41	11.89	13 10 49.0	64.48	23 59.3		
29	0 3 35.38	11.37	1 11 9.4	74.65	23 39.2	29	2 26 27.14	11.93	13 36 26.8	63.67	* *		
30	0 8 8.11	11.36	0 41 16.6	74.74	23 39.8	30	2 31 13.83	11.97	14 1 44.7	62.82	0 0.1		
31	0 12 40.69	11.36	S. 0 11 21.9	74.81	23 40.4	31	2 36 1.49	12.01	N. 14 26 42.1	61.95	0 0.9		
32	0 17 13.16	11.35	N. 0 18 33.9	74.84	23 41.0								
Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	5.11	5.08	5.04	5.00	4.97	4.94	Semidiameter.	4.92	4.90	4.89	4.87	4.86	4.86
Hor. Parallax.	5.36	5.32	5.28	5.24	5.21	5.18	Hor. Parallax.	5.15	5.13	5.12	5.10	5.09	5.09

GREENWICH MEAN TIME.

MAY.

JUNE.

Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.	
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m
1	2 36 1'49	12'01	N.14 26 42.1	61'95	0 0'9	1	5 13 27'40	13'30	N.23 25 22'1	20'65	0 36'2
2	2 40 50'15	12'05	14 51 18'0	61'05	0 1'8	2	5 18 46'94	13'33	23 33 17'2	18'94	0 37'6
3	2 45 39'83	12'09	15 15 31'9	60'11	0 2'7	3	5 24 7'04	13'35	23 40 31'2	17'22	0 39'0
4	2 50 30'56	12'14	15 39 22'9	59'14	0 3'6	4	5 29 27'66	13'37	23 47 3'7	15'49	0 40'4
5	2 55 22'34	12'18	16 2 50'3	58'14	0 4'5	5	5 34 48'74	13'39	23 52 54'5	13'75	0 41'8
6	3 0 15'21	12'23	N.16 25 53'5	57'12	0 5'5	6	5 40 10'24	13'40	N.23 58 3'3	11'99	0 43'2
7	3 5 9'16	12'27	16 48 31'6	56'06	0 6'4	7	5 45 32'10	13'42	24 2 29'9	10'22	0 44'6
8	3 10 4'22	12'32	17 10 44'0	54'97	0 7'4	8	5 50 54'26	13'43	24 6 14'1	8'45	0 46'0
9	3 15 0'40	12'36	17 32 29'9	53'85	0 8'4	9	5 56 16'67	13'44	24 9 15'6	6'67	0 47'5
10	3 19 57'70	12'41	17 53 48'6	52'71	0 9'4	10	6 1 39'26	13'45	24 11 34'4	4'89	0 48'9
11	3 24 56'14	12'46	N.18 14 39'5	51'53	0 10'4	11	6 7 1'99	13'45	N.24 13 10'3	3'10	0 50'4
12	3 29 55'71	12'51	18 35 1'8	50'32	0 11'5	12	6 12 24'79	13'45	24 14 3'2	1'31	0 51'8
13	3 34 56'42	12'55	18 54 54'8	49'09	0 12'6	13	6 17 47'61	13'45	24 14 13'1	0'48	0 53'2
14	3 39 58'27	12'60	19 14 17'9	47'83	0 13'6	14	6 23 10'37	13'45	24 13 39'9	2'28	0 54'7
15	3 45 1'25	12'65	19 33 10'2	46'53	0 14'7	15	6 28 33'02	13'44	24 12 23'6	4'07	0 56'1
16	3 50 5'36	12'69	N.19 51 31'1	45'21	0 15'9	16	6 33 55'49	13'43	N.24 10 24'3	5'86	0 57'5
17	3 55 10'58	12'74	20 9 20'0	43'86	0 17'0	17	6 39 17'73	13'42	24 7 42'0	7'65	0 59'0
18	4 0 16'90	12'79	20 26 36'1	42'48	0 18'2	18	6 44 39'66	13'41	24 4 16'9	9'44	1 0'4
19	4 5 24'31	12'83	20 43 18'8	41'07	0 19'4	19	6 50 1'23	13'39	24 0 9'0	11'22	1 1'8
20	4 10 32'78	12'88	20 59 27'4	39'64	0 20'6	20	6 55 22'38	13'37	23 55 18'5	12'99	1 3'2
21	4 15 42'30	12'92	N.21 15 1'4	38'18	0 21'8	21	7 0 43'04	13'35	N.23 49 45'6	14'75	1 4'6
22	4 20 52'84	12'96	21 30 0'1	36'70	0 23'0	22	7 6 3'15	13'33	23 43 30'6	16'50	1 6'0
23	4 26 4'37	13'00	21 44 22'8	35'19	0 24'3	23	7 11 22'66	13'30	23 36 33'6	18'24	1 7'4
24	4 31 16'86	13'04	21 58 9'0	33'66	0 25'5	24	7 16 41'52	13'27	23 28 55'1	19'97	1 8'8
25	4 36 30'29	13'08	22 11 18'2	32'10	0 26'8	25	7 21 59'66	13'24	23 20 35'3	21'68	1 10'1
26	4 41 44'62	13'12	N.22 23 49'8	30'53	0 28'1	26	7 27 17'05	13'21	N.23 11 34'5	23'38	1 11'5
27	4 46 59'81	13'15	22 35 43'2	28'93	0 29'4	27	7 32 33'63	13'17	23 1 53'1	25'06	1 12'8
28	4 52 15'84	13'18	22 46 58'0	27'31	0 30'8	28	7 37 49'35	13'14	22 51 31'6	26'73	1 14'1
29	4 57 32'65	13'22	22 57 33'8	25'67	0 32'1	29	7 43 4'17	13'10	22 40 30'3	28'38	1 15'4
30	5 2 50'21	13'25	23 7 30'0	24'01	0 33'4	30	7 48 18'06	13'06	22 28 49'7	30'00	1 16'7
31	5 8 8'48	13'28	N.23 16 46'3	22'34	0 34'8	31	7 53 30'96	13'02	N.22 16 30'3	31'61	1 18'0
32	5 13 27'40	13'30	N.23 25 22'1	20'65	0 36'2						

Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	"	"	"	"	"	"	Semidiameter.	"	"	"	"	"	"
Hor. Parallax.	4'85	4'86	4'86	4'87	4'89	4'91	Hor. Parallax.	4'93	4'96	4'99	5'03	5'07	5'11

GREENWICH MEAN TIME.

JULY.

AUGUST.

Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.	
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m
1	7 53 30'96	13'02	N.22 16 30'3	31'61	1 18'0	1	10 25 27'64	11'49	N.11 27 35'5	68'50	1 47'7
2	7 58 42'85	12'97	22 3 32'5	33'20	1 19'3	2	10 30 2'92	11'45	11 0 3'1	69'21	1 48'4
3	8 3 53'69	12'93	21 49 56'9	34'76	1 20'5	3	10 34 37'22	11'41	10 32 13'8	69'90	1 49'0
4	8 9 3'45	12'88	21 35 43'9	36'30	1 21'7	4	10 39 10'56	11'37	10 4 8'4	70'56	1 49'6
5	8 14 12'10	12'84	21 20 54'1	37'82	1 22'9	5	10 43 42'99	11'33	9 35 47'5	71'19	1 50'2
6	8 19 19'63	12'79	N.21 5 28'1	39'32	1 24'1	6	10 48 14'53	11'30	N. 9 7 11'8	71'79	1 50'8
7	8 24 26'01	12'74	20 49 26'5	40'80	1 25'3	7	10 52 45'23	11'26	8 38 22'1	72'36	1 51'3
8	8 29 31'21	12'69	20 32 49'8	42'25	1 26'4	8	10 57 15'11	11'23	8 9 19'0	72'90	1 51'9
9	8 34 35'22	12'64	20 15 38'6	43'67	1 27'5	9	11 1 44'21	11'20	7 40 3'2	73'41	1 52'4
10	8 39 38'03	12'59	19 57 53'6	45'07	1 28'6	10	11 6 12'58	11'17	7 10 35'5	73'90	1 53'0
11	8 44 39'62	12'54	N.19 39 35'4	46'44	1 29'7	11	11 10 40'24	11'14	N. 6 40 56'5	74'36	1 53'5
12	8 49 39'97	12'49	19 20 44'6	47'78	1 30'8	12	11 15 7'24	11'11	6 11 6'9	74'79	1 54'0
13	8 54 39'08	12'44	19 1 21'8	49'11	1 31'8	13	11 19 33'61	11'09	5 41 7'5	75'18	1 54'5
14	8 59 36'95	12'38	18 41 27'8	50'40	1 32'8	14	11 23 59'38	11'06	5 10 58'9	75'54	1 55'0
15	9 4 33'55	12'33	18 21 3'2	51'66	1 33'8	15	11 28 24'60	11'04	4 40 41'9	75'88	1 55'4
16	9 9 28'90	12'28	N.18 0 8'7	52'89	1 34'8	16	11 32 49'29	11'02	N. 4 10 17'1	76'19	1 55'9
17	9 14 22'98	12'23	17 38 45'0	54'09	1 35'8	17	11 37 13'50	11'00	3 39 45'3	76'46	1 56'4
18	9 19 15'81	12'17	17 16 52'8	55'26	1 36'7	18	11 41 37'26	10'98	3 9 7'2	76'71	1 56'8
19	9 24 7'37	12'12	16 54 32'8	56'41	1 37'6	19	11 46 0'62	10'97	2 38 23'6	76'93	1 57'3
20	9 28 57'68	12'07	16 31 45'8	57'52	1 38'5	20	11 50 23'61	10'95	2 7 35'0	77'12	1 57'7
21	9 33 46'74	12'02	N.16 8 32'4	58'60	1 39'4	21	11 54 46'27	10'94	N. 1 36 42'2	77'28	1 58'1
22	9 38 34'55	11'97	15 44 53'4	59'65	1 40'3	22	11 59 8'64	10'93	1 5 45'9	77'41	1 58'6
23	9 43 21'13	11'92	15 20 49'5	60'68	1 41'1	23	12 3 30'75	10'92	0 34 46'8	77'51	1 59'0
24	9 48 6'49	11'86	14 56 21'4	61'67	1 41'9	24	12 7 52'64	10'91	N. 0 3 45'6	77'58	1 59'4
25	9 52 50'64	11'81	14 31 29'9	62'63	1 42'7	25	12 12 14'36	10'90	S. 0 27 16'9	77'63	1 59'9
26	9 57 33'61	11'77	N.14 6 15'8	63'56	1 43'5	26	12 16 35'94	10'90	S. 0 58 20'1	77'65	2 0'3
27	10 2 15'40	11'72	13 40 39'7	64'46	1 44'2	27	12 20 57'43	10'89	1 29 23'3	77'63	2 0'7
28	10 6 56'05	11'67	13 14 42'4	65'33	1 44'9	28	12 25 18'86	10'89	2 0 25'8	77'58	2 1'1
29	10 11 35'57	11'62	12 48 24'6	66'16	1 45'7	29	12 29 40'28	10'89	2 31 26'8	77'51	2 1'5
30	10 16 13'99	11'58	12 21 47'0	66'97	1 46'4	30	12 34 1'73	10'90	3 2 25'7	77'41	2 1'9
31	10 20 51'34	11'53	N.11 54 50'4	67'75	1 47'0	31	12 38 23'25	10'90	S. 3 33 21'9	77'28	2 2'3
32	10 25 27'64	11'49	N.11 27 35'5	68'50	1 47'7	32	12 42 44'88	10'91	S. 4 4 14'7	77'12	2 2'8

Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	"	"	"	"	"	"	Semidiameter.	"	"	"	"	"	"
Hor. Parallax.	5'17	5'23	5'30	5'37	5'44	5'53	Hor. Parallax.	5'63	5'73	5'83	5'95	6'07	6'20

GREENWICH MEAN TIME.

SEPTEMBER.							OCTOBER.						
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.		
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.			
	h m s	s	° / "	"	h m		h m s	s	° / "	"	h m		
1	12 42 44.88	10.91	S. 4 4 14.7	77.12	2 2.8	1	14 57 30.62	11.73	S. 18 6 36.9	58.78	2 19.3		
2	12 47 6.67	10.91	4 35 3.3	76.93	2 3.2	2	15 2 12.65	11.77	18 29 54.7	57.70	2 20.0		
3	12 51 28.65	10.92	5 5 47.2	76.72	2 3.6	3	15 6 55.69	11.81	18 52 46.4	56.59	2 20.8		
4	12 55 50.88	10.93	5 36 25.6	76.48	2 4.0	4	15 11 39.73	11.86	19 15 11.2	55.46	2 21.6		
5	13 0 13.39	10.95	6 6 57.9	76.21	2 4.5	5	15 16 24.79	11.90	19 37 8.5	54.30	2 22.4		
6	13 4 36.23	10.96	S. 6 37 23.3	75.91	2 4.9	6	15 21 10.85	11.94	S. 19 58 37.6	53.11	2 23.3		
7	13 8 59.44	10.98	7 7 41.3	75.58	2 5.4	7	15 25 57.93	11.98	20 19 37.8	51.89	2 24.1		
8	13 13 23.05	10.99	7 37 51.1	75.23	2 5.8	8	15 30 46.01	12.02	20 40 8.5	50.65	2 25.0		
9	13 17 47.11	11.01	8 7 52.1	74.84	2 6.3	9	15 35 35.09	12.07	21 0 9.0	49.38	2 25.8		
10	13 22 11.64	11.03	8 37 43.5	74.43	2 6.7	10	15 40 25.15	12.11	21 19 38.6	48.08	2 26.7		
11	13 26 36.69	11.06	S. 9 7 24.7	73.99	2 7.2	11	15 45 16.19	12.15	S. 21 38 36.6	46.75	2 27.6		
12	13 31 2.29	11.08	9 36 54.9	73.52	2 7.7	12	15 50 8.17	12.19	21 57 2.5	45.39	2 28.6		
13	13 35 28.48	11.10	10 6 13.5	73.02	2 8.2	13	15 55 1.09	12.22	22 14 55.5	44.01	2 29.5		
14	13 39 55.28	11.13	10 35 19.6	72.49	2 8.7	14	15 59 54.90	12.26	22 32 15.1	42.61	2 30.5		
15	13 44 22.73	11.16	11 4 12.6	71.93	2 9.2	15	16 4 49.59	12.30	22 49 0.6	41.18	2 31.4		
16	13 48 50.85	11.19	S. 11 32 51.8	71.34	2 9.7	16	16 9 45.11	12.33	S. 23 5 11.4	39.72	2 32.4		
17	13 53 19.68	11.22	12 1 16.4	70.71	2 10.3	17	16 14 41.44	12.36	23 20 47.0	38.24	2 33.4		
18	13 57 49.25	11.25	12 29 25.6	70.05	2 10.8	18	16 19 38.54	12.39	23 35 46.7	36.74	2 34.4		
19	14 2 19.58	11.28	12 57 18.8	69.37	2 11.4	19	16 24 36.37	12.42	23 50 10.1	35.21	2 35.5		
20	14 6 50.69	11.31	13 24 55.2	68.65	2 12.0	20	16 29 34.87	12.45	24 3 56.6	33.66	2 36.5		
21	14 11 22.61	11.35	S. 13 52 14.1	67.91	2 12.6	21	16 34 34.00	12.48	S. 24 17 5.7	32.09	2 37.5		
22	14 15 55.36	11.38	14 19 14.7	67.13	2 13.2	22	16 39 33.71	12.50	24 29 36.9	30.50	2 38.6		
23	14 20 28.96	11.42	14 45 56.3	66.32	2 13.8	23	16 44 33.94	12.52	24 41 29.8	28.89	2 39.6		
24	14 25 3.44	11.46	15 12 18.1	65.48	2 14.4	24	16 49 34.63	12.54	24 52 43.9	27.27	2 40.7		
25	14 29 38.81	11.49	15 38 19.5	64.62	2 15.1	25	16 54 35.73	12.55	25 3 18.8	25.63	2 41.8		
26	14 34 15.09	11.53	S. 16 3 59.6	63.72	2 15.7	26	16 59 37.17	12.57	S. 25 13 14.2	23.98	2 42.9		
27	14 38 52.29	11.57	16 29 17.8	62.79	2 16.4	27	17 4 38.90	12.58	25 22 29.6	22.31	2 44.0		
28	14 43 30.43	11.61	16 54 13.3	61.83	2 17.1	28	17 9 40.85	12.58	25 31 4.9	20.63	2 45.0		
29	14 48 9.52	11.65	17 18 45.5	60.84	2 17.8	29	17 14 42.95	12.59	25 38 59.7	18.93	2 46.1		
30	14 52 49.58	11.69	17 42 53.6	59.83	2 18.5	30	17 19 45.14	12.59	25 46 13.8	17.23	2 47.2		
31	14 57 30.62	11.73	S. 18 6 36.9	58.78	2 19.3	31	17 24 47.35	12.59	S. 25 52 46.9	15.52	2 48.3		
						32	17 29 49.52	12.59	S. 25 58 39.0	13.81	2 49.4		
Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	6.38	6.53	6.69	6.86	7.05	7.25	Semidiameter.	7.48	7.71	7.97	8.25	8.55	8.87
Hor. Parallax.	6.68	6.84	7.01	7.19	7.39	7.60	Hor. Parallax.	7.83	8.08	8.35	8.64	8.95	9.29

GREENWICH MEAN TIME.

NOVEMBER.						DECEMBER.								
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.			
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.				
	h m s	s	° / "	"	h m		h m s	s	° / "	"	h m			
1	17 29 49.52	12.59	S. 25 58 39.0	13.81	2 49.4	1	19 53 54.47	10.90	S. 23 43 33.5	34.03	3 15.2			
2	17 34 51.58	12.58	26 3 49.9	12.09	2 50.5	2	19 58 14.66	10.79	23 29 41.3	35.29	3 15.5			
3	17 39 53.45	12.57	26 8 19.4	10.37	2 51.6	3	20 2 32.22	10.68	23 15 19.4	36.51	3 15.9			
4	17 44 55.06	12.56	26 12 7.4	8.64	2 52.7	4	20 6 47.08	10.56	23 0 28.6	37.70	3 16.2			
5	17 49 56.34	12.55	26 15 14.0	6.91	2 53.8	5	20 10 59.17	10.45	22 45 9.7	38.85	3 16.4			
6	17 54 57.20	12.53	S. 26 17 39.0	5.18	2 54.8	6	20 15 8.43	10.33	S. 22 29 23.6	39.96	3 16.6			
7	17 59 57.57	12.50	26 19 22.5	3.45	2 55.9	7	20 19 14.77	10.20	22 13 11.1	41.04	3 16.8			
8	18 4 57.37	12.48	26 20 24.4	1.72	2 57.0	8	20 23 18.13	10.08	21 56 33.3	42.08	3 16.9			
9	18 9 56.51	12.45	26 20 45.0	0.00	2 58.0	9	20 27 18.43	9.95	21 39 30.9	43.08	3 17.0			
10	18 14 54.91	12.42	26 20 24.3	1.72	2 59.0	10	20 31 15.61	9.82	21 22 4.8	44.05	3 17.0			
11	18 19 52.48	12.38	S. 26 19 22.5	3.43	3 0.0	11	20 35 9.58	9.68	S. 21 4 16.0	44.97	3 16.9			
12	18 24 49.13	12.34	26 17 39.7	5.13	3 1.0	12	20 39 0.27	9.54	20 46 5.4	45.86	3 16.8			
13	18 29 44.78	12.30	26 15 16.1	6.83	3 2.0	13	20 42 47.60	9.40	20 27 34.1	46.70	3 16.6			
14	18 34 39.34	12.25	26 12 12.0	8.51	3 3.0	14	20 46 31.48	9.26	20 8 43.1	47.50	3 16.4			
15	18 39 32.72	12.20	26 8 27.7	10.17	3 4.0	15	20 50 11.83	9.11	19 49 33.4	48.26	3 16.1			
16	18 44 24.83	12.14	S. 26 4 3.5	11.83	3 4.9	16	20 53 48.56	8.95	S. 19 30 6.0	48.97	3 15.8			
17	18 49 15.57	12.09	25 58 59.8	13.48	3 5.8	17	20 57 21.57	8.80	19 10 22.1	49.64	3 15.4			
18	18 54 4.87	12.02	25 53 16.9	15.10	3 6.6	18	21 0 50.77	8.64	18 50 22.7	50.27	3 14.9			
19	18 58 52.63	11.96	25 46 55.3	16.70	3 7.5	19	21 4 16.05	8.47	18 30 9.0	50.84	3 14.4			
20	19 3 38.76	11.89	25 39 55.3	18.28	3 8.3	20	21 7 37.32	8.30	18 9 42.0	51.37	3 13.8			
21	19 8 23.18	11.81	S. 25 32 17.6	19.84	3 9.1	21	21 10 54.48	8.13	S. 17 49 2.9	51.84	3 13.1			
22	19 13 5.78	11.74	25 24 2.6	21.38	3 9.9	22	21 14 7.40	7.95	17 28 13.0	52.27	3 12.4			
23	19 17 46.49	11.66	25 15 10.9	22.90	3 10.6	23	21 17 15.98	7.77	17 7 13.5	52.65	3 11.6			
24	19 22 25.22	11.57	25 5 43.2	24.40	3 11.3	24	21 20 20.12	7.58	16 46 5.5	52.97	3 10.7			
25	19 27 1.90	11.49	24 55 40.0	25.86	3 12.0	25	21 23 19.69	7.39	16 24 50.4	53.24	3 9.8			
26	19 31 36.43	11.39	S. 24 45 2.0	27.30	3 12.6	26	21 26 14.59	7.19	S. 16 3 29.4	53.46	3 8.7			
27	19 36 8.75	11.30	24 33 49.8	28.71	3 13.2	27	21 29 4.68	6.99	15 42 3.7	53.63	3 7.6			
28	19 40 38.78	11.20	24 22 4.1	30.08	3 13.7	28	21 31 49.86	6.78	15 20 34.6	53.74	3 6.4			
29	19 45 6.46	11.10	24 9 45.7	31.43	3 14.2	29	21 34 29.98	6.57	14 59 3.5	53.80	3 5.1			
30	19 49 31.71	11.00	23 56 55.2	32.75	3 14.7	30	21 37 4.93	6.35	14 37 31.6	53.80	3 3.8			
31	19 53 54.47	10.90	S. 23 43 33.5	34.03	3 15.2	31	21 39 34.57	6.12	S. 14 16 0.3	53.75	3 2.3			
						32	21 41 58.75	5.89	S. 13 54 31.1	53.03	3 0.7			
Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26	31
Semidiameter.	9.30	9.69	10.12	10.60	11.12	11.70	Semidiameter.	12.35	13.07	13.87	14.78	15.80	16.95	18.24
Hor. Parallax.	9.74	10.15	10.60	11.10	11.65	12.26	Hor. Parallax.	12.94	13.69	14.53	15.48	16.55	17.75	19.11

GREENWICH MEAN TIME.

JANUARY.						FEBRUARY.							
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.		
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.			
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m		
1	15 28 42.8	6.73	S. 18 21 39.0	25.66	20 45.0	1	16 54 24.58	7.16	S. 22 26 0.4	13.16	20 9.3		
2	15 30 46.09	6.75	18 31 50.7	25.31	20 43.8	2	16 57 16.60	7.17	22 31 10.6	12.70	20 8.2		
3	15 33 28.27	6.77	18 41 54.0	24.95	20 42.5	3	17 0 8.88	7.18	22 36 9.8	12.24	20 7.2		
4	15 36 10.82	6.78	18 51 48.9	24.60	20 41.3	4	17 3 1.41	7.19	22 40 57.9	11.78	20 6.1		
5	15 38 53.74	6.80	19 1 35.3	24.24	20 40.0	5	17 5 54.18	7.20	22 45 35.0	11.31	20 5.0		
6	15 41 37.04	6.81	S. 19 11 13.0	23.89	20 38.9	6	17 8 47.19	7.21	S. 22 50 0.9	10.84	20 4.0		
7	15 44 20.72	6.83	19 20 42.1	23.53	20 37.7	7	17 11 40.43	7.22	22 54 15.6	10.37	20 2.9		
8	15 47 4.77	6.84	19 30 2.4	23.16	20 36.5	8	17 14 33.90	7.23	22 58 19.1	9.90	20 1.9		
9	15 49 49.19	6.86	19 39 13.8	22.79	20 35.3	9	17 17 27.57	7.24	23 2 11.3	9.43	20 0.9		
10	15 52 33.99	6.87	19 48 16.2	22.41	20 34.1	10	17 20 21.45	7.25	23 5 52.2	8.96	19 59.8		
11	15 55 19.15	6.89	S. 19 57 9.5	22.03	20 32.9	11	17 23 15.53	7.26	S. 23 9 21.7	8.49	19 58.7		
12	15 58 4.68	6.90	20 5 53.6	21.64	20 31.7	12	17 26 9.80	7.27	23 12 39.7	8.01	19 57.7		
13	16 0 50.58	6.92	20 14 28.4	21.25	20 30.6	13	17 29 4.25	7.27	23 15 46.3	7.53	19 56.7		
14	16 3 36.84	6.93	20 22 53.8	20.86	20 29.4	14	17 31 58.87	7.28	23 18 41.4	7.05	19 55.7		
15	16 6 23.45	6.95	20 31 9.8	20.46	20 28.2	15	17 34 53.64	7.29	23 21 24.9	6.57	19 54.6		
16	16 9 10.41	6.96	S. 20 39 16.2	20.06	20 27.0	16	17 37 48.56	7.29	S. 23 23 56.8	6.09	19 53.6		
17	16 11 57.72	6.98	20 47 12.9	19.65	20 25.9	17	17 40 43.61	7.30	23 26 17.1	5.61	19 52.6		
18	16 14 45.37	6.99	20 54 59.8	19.24	20 24.8	18	17 43 38.79	7.30	23 28 25.7	5.12	19 51.6		
19	16 17 33.35	7.01	21 2 36.9	18.83	20 23.6	19	17 46 34.07	7.31	23 30 22.7	4.63	19 50.6		
20	16 20 21.66	7.02	21 10 4.0	18.42	20 22.5	20	17 49 29.45	7.31	23 32 8.0	4.14	19 49.5		
21	16 23 10.28	7.03	S. 21 17 21.0	18.00	20 21.4	21	17 52 24.91	7.31	S. 23 33 41.6	3.66	19 48.5		
22	16 25 59.22	7.05	21 24 27.9	17.58	20 20.3	22	17 55 20.45	7.32	23 35 3.4	3.18	19 47.5		
23	16 28 48.47	7.06	21 31 24.5	17.15	20 19.1	23	17 58 16.05	7.32	23 36 13.5	2.69	19 46.5		
24	16 31 38.02	7.07	21 38 10.7	16.72	20 18.0	24	18 1 11.71	7.32	23 37 11.8	2.20	19 45.5		
25	16 34 27.86	7.08	21 44 46.6	16.28	20 16.9	25	18 4 7.41	7.32	23 37 58.4	1.71	19 44.5		
26	16 37 17.99	7.10	S. 21 51 12.0	15.84	20 15.8	26	18 7 3.15	7.32	S. 23 38 33.2	1.21	19 43.5		
27	16 40 8.41	7.11	21 57 26.8	15.40	20 14.7	27	18 9 58.92	7.32	23 38 56.3	0.72	19 42.4		
28	16 42 59.10	7.12	22 3 31.0	14.96	20 13.6	28	18 12 54.72	7.33	23 39 7.7	0.23	19 41.4		
29	16 45 50.07	7.13	22 9 24.5	14.51	20 12.5	29	18 15 50.53	7.33	S. 23 39 7.3	0.26	19 40.4		
30	16 48 41.31	7.14	22 15 7.3	14.06	20 11.5								
31	16 51 32.81	7.15	S. 22 20 39.3	13.61	20 10.4								
32	16 54 24.58	7.16	S. 22 26 0.4	13.16	20 9.3								
Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	"	"	"	"	"	"	Semidiameter.	"	"	"	"	"	"
Hor. Parallax.	4.16	4.24	4.32	4.41	4.51	4.60	Hor. Parallax.	4.73	4.84	4.95	5.08	5.21	5.34

GREENWICH MEAN TIME.

MARCH.						APRIL.							
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.		
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.			
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m		
1	18 15 50.53	7.33	S. 23 39 7.3	0.26	19 40.4	1	19 45 58.37	7.14	S. 22 4 58.0	14.55	19 8.3		
2	18 18 46.35	7.33	23 38 55.2	0.75	19 39.4	2	19 48 49.68	7.13	21 59 3.9	14.96	19 7.2		
3	18 21 42.18	7.33	23 38 31.5	1.24	19 38.4	3	19 51 40.71	7.12	21 52 59.9	15.37	19 6.1		
4	18 24 38.00	7.33	23 37 56.1	1.73	19 37.4	4	19 54 31.46	7.11	21 46 46.2	15.77	19 5.0		
5	18 27 33.81	7.32	23 37 9.1	2.21	19 36.4	5	19 57 21.92	7.10	21 40 22.8	16.17	19 3.9		
6	18 30 29.60	7.32	S. 23 36 10.4	2.69	19 35.4	6	20 0 12.08	7.08	S. 21 33 49.9	16.57	19 2.8		
7	18 33 25.35	7.32	23 35 0.1	3.17	19 34.3	7	20 3 1.94	7.07	21 27 7.5	16.96	19 1.7		
8	18 36 21.07	7.32	23 33 38.2	3.65	19 33.3	8	20 5 51.48	7.06	21 20 15.8	17.35	19 0.6		
9	18 39 16.74	7.32	23 32 4.8	4.13	19 32.3	9	20 8 40.71	7.04	21 13 14.8	17.73	18 59.4		
10	18 42 12.35	7.32	23 30 19.8	4.61	19 31.3	10	20 11 29.61	7.03	21 6 4.7	18.11	18 58.3		
11	18 45 7.89	7.31	S. 23 28 23.4	5.09	19 30.3	11	20 14 18.18	7.02	S. 20 58 45.6	18.48	18 57.2		
12	18 48 3.36	7.31	23 26 15.5	5.57	19 29.3	12	20 17 6.40	7.00	20 51 17.7	18.84	18 56.0		
13	18 50 58.74	7.31	23 23 56.2	6.04	19 28.3	13	20 19 54.27	6.99	20 43 41.0	19.20	18 54.8		
14	18 53 54.01	7.30	23 21 25.5	6.51	19 27.2	14	20 22 41.78	6.97	20 35 55.7	19.56	18 53.7		
15	18 56 49.17	7.30	23 18 43.4	6.98	19 26.2	15	20 25 28.91	6.96	20 28 1.9	19.91	18 52.6		
16	18 59 44.21	7.29	S. 23 15 50.1	7.45	19 25.2	16	20 28 15.66	6.94	S. 20 19 59.7	20.26	18 51.4		
17	19 2 39.11	7.28	23 12 45.6	7.92	19 24.2	17	20 31 2.02	6.92	20 11 49.4	20.60	18 50.2		
18	19 5 33.85	7.28	23 9 29.9	8.38	19 23.1	18	20 33 47.97	6.91	20 3 31.0	20.93	18 49.0		
19	19 8 28.43	7.27	23 6 3.1	8.84	19 22.1	19	20 36 33.50	6.89	19 55 4.7	21.26	18 47.8		
20	19 11 22.83	7.26	23 2 25.2	9.30	19 21.0	20	20 39 18.61	6.87	19 46 30.7	21.58	18 46.6		
21	19 14 17.04	7.25	S. 22 58 36.4	9.76	19 20.0	21	20 42 3.29	6.85	S. 19 37 49.0	21.89	18 45.4		
22	19 17 11.06	7.25	22 54 36.7	10.22	19 18.9	22	20 44 47.53	6.84	19 28 59.9	22.19	18 44.2		
23	19 20 4.87	7.24	22 50 26.2	10.67	19 17.9	23	20 47 31.34	6.82	19 20 3.6	22.49	18 43.0		
24	19 22 58.45	7.23	22 46 4.9	11.11	19 16.9	24	20 50 14.70	6.80	19 11 0.1	22.78	18 41.8		
25	19 25 51.80	7.22	22 41 32.9	11.55	19 15.8	25	20 52 57.62	6.78	19 1 49.6	23.07	18 40.6		
26	19 28 44.92	7.21	S. 22 36 50.4	11.99	19 14.7	26	20 55 40.09	6.76	S. 18 52 32.3	23.36	18 39.3		
27	19 31 37.80	7.20	22 31 57.4	12.43	19 13.7	27	20 58 22.11	6.74	18 43 8.2	23.64	18 38.0		
28	19 34 30.43	7.19	22 26 54.0	12.86	19 12.6	28	21 1 3.67	6.72	18 33 37.5	23.91	18 36.8		
29	19 37 22.81	7.18	22 21 40.3	13.29	19 11.5	29	21 3 44.79	6.70	18 24 0.5	24.18	18 35.6		
30	19 40 14.93	7.17	22 16 16.3	13.71	19 10.5	30	21 6 25.45	6.68	18 14 17.2	24.44	18 34.3		
31	19 43 6.79	7.16	S. 22 10 42.2	14.13	19 9.4	31	21 9 5.66	6.67	S. 18 4 27.7	24.69	18 33.0		
32	19 45 58.37	7.14	S. 22 4 58.0	14.55	19 8.3								
Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	"	"	"	"	"	"	Semidiameter.	"	"	"	"	"	"
Hor. Parallax.	5.43	5.58	5.74	5.91	6.07	6.25	Hor. Parallax.	6.49	6.69	6.91	7.14	7.38	7.63

GREENWICH MEAN TIME.

MAY.						JUNE.							
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.		
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.			
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m		
1	21 9 5'66	6'67	S. 18 4 27'7	24'69	18 33'0	1	22 27 32'82	5'94	S. 12 24 58'2	28'80	17 49'1		
2	21 11 45'41	6'65	17 54 32'3	24'93	18 31'7	2	22 29 55'12	5'92	12 13 26'7	28'81	17 47'5		
3	21 14 24'60	6'63	17 44 31'0	25'17	18 30'4	3	22 32 16'76	5'89	12 1 55'2	28'81	17 45'9		
4	21 17 3'51	6'61	17 34 24'0	25'40	18 29'1	4	22 34 37'74	5'86	11 50 23'8	28'80	17 44'3		
5	21 19 41'85	6'59	17 24 11'6	25'63	18 27'8	5	22 36 58'04	5'83	11 38 52'7	28'79	17 42'7		
6	21 22 19'72	6'57	S. 17 13 53'8	25'85	18 26'5	6	22 39 17'65	5'80	S. 11 27 22'1	28'76	17 41'1		
7	21 24 57'11	6'55	17 3 30'7	26'06	18 25'2	7	22 41 36'56	5'77	11 15 52'3	28'72	17 39'4		
8	21 27 34'02	6'53	16 53 2'6	26'26	18 23'8	8	22 43 54'75	5'74	11 4 23'5	28'67	17 37'7		
9	21 30 10'43	6'51	16 42 29'7	26'46	18 22'5	9	22 46 12'21	5'71	10 52 55'9	28'62	17 36'1		
10	21 32 46'34	6'49	16 31 52'1	26'65	18 21'2	10	22 48 28'92	5'68	10 41 29'7	28'56	17 34'5		
11	21 35 21'74	6'47	S. 16 21 10'0	26'84	18 19'8	11	22 50 44'86	5'65	S. 10 30 5'2	28'48	17 32'8		
12	21 37 56'63	6'44	16 10 23'6	27'02	18 18'4	12	22 53 0'02	5'62	10 18 42'8	28'39	17 31'1		
13	21 40 30'09	6'42	15 59 33'1	27'19	18 17'1	13	22 55 14'37	5'58	10 7 22'6	28'29	17 29'4		
14	21 43 4'81	6'40	15 48 38'6	27'35	18 15'7	14	22 57 27'90	5'55	9 56 4'8	28'18	17 27'6		
15	21 45 38'09	6'38	15 37 40'5	27'50	18 14'3	15	22 59 40'59	5'51	9 44 49'8	28'06	17 25'9		
16	21 48 10'81	6'35	S. 15 26 38'9	27'64	18 12'9	16	23 1 52'42	5'48	S. 9 33 37'8	27'93	17 24'2		
17	21 50 42'96	6'33	15 15 34'0	27'77	18 11'5	17	23 4 3'37	5'44	9 22 29'0	27'79	17 22'4		
18	21 53 14'53	6'30	15 4 26'0	27'89	18 10'1	18	23 6 13'43	5'40	9 11 23'7	27'64	17 20'6		
19	21 55 45'52	6'28	14 53 15'1	28'00	18 8'6	19	23 8 22'58	5'36	9 0 22'0	27'48	17 18'8		
20	21 58 15'91	6'25	14 42 1'5	28'11	18 7'1	20	23 10 30'80	5'32	8 49 24'2	27'32	17 17'0		
21	22 0 45'71	6'23	S. 14 30 45'5	28'21	18 5'7	21	23 12 38'09	5'28	S. 8 38 30'5	27'15	17 15'1		
22	22 3 14'90	6'20	14 19 27'2	28'30	18 4'3	22	23 14 44'43	5'24	8 27 41'2	26'97	17 13'3		
23	22 5 43'48	6'18	14 8 6'8	28'38	18 2'8	23	23 16 49'80	5'20	8 16 56'4	26'78	17 11'5		
24	22 8 11'46	6'15	13 56 44'5	28'45	18 1'3	24	23 18 54'18	5'16	8 6 16'4	26'57	17 9'6		
25	22 10 38'82	6'13	13 45 20'4	28'52	17 59'8	25	23 20 57'57	5'12	7 55 41'4	26'35	17 7'7		
26	22 13 5'56	6'10	S. 13 33 54'7	28'59	17 58'3	26	23 22 59'96	5'08	S. 7 45 11'6	26'13	17 5'7		
27	22 15 31'68	6'08	13 22 27'7	28'65	17 56'8	27	23 25 1'31	5'04	7 34 47'2	25'90	17 3'8		
28	22 17 57'18	6'05	13 10 59'5	28'70	17 55'3	28	23 27 1'62	4'99	7 24 28'4	25'66	17 1'9		
29	22 20 22'04	6'02	12 59 30'2	28'74	17 53'7	29	23 29 0'86	4'95	7 14 15'4	25'42	16 59'9		
30	22 22 46'27	6'00	12 48 0'1	28'77	17 52'2	30	23 30 59'01	4'90	7 4 8'4	25'17	16 57'9		
31	22 25 9'87	5'97	S. 12 36 29'4	28'79	17 50'7	31	23 32 56'05	4'85	S. 6 54 7'6	24'91	16 55'9		
32	22 27 32'82	5'94	S. 12 24 58'2	28'80	17 49'1								
Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	4'20	4'35	4'51	4'67	4'85	5'05	Semidiameter.	5'28	5'50	5'72	5'96	6'21	6'48
Hor. Parallax.	7'90	8'19	8'48	8'80	9'13	9'49	Hor. Parallax.	9'94	10'34	10'76	11'20	11'68	12'18

GREENWICH MEAN TIME.

JULY.						AUGUST.							
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.		
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.			
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m		
1	23 32 56'05	4'85	S. 6 54 7'6	24'91	16 55'9	1	0 21 10'22	2'67	S. 2 58 51'3	11'44	15 41'5		
2	23 34 51'97	4'81	6 44 13'3	24'64	16 53'9	2	0 22 13'04	2'57	2 54 23'7	10'86	15 38'6		
3	23 36 46'73	4'76	6 34 25'7	24'35	16 51'9	3	0 23 13'46	2'47	2 50 10'2	10'27	15 35'6		
4	23 38 40'31	4'71	6 24 45'0	24'05	16 49'8	4	0 24 11'44	2'36	2 46 11'0	9'67	15 32'6		
5	23 40 32'68	4'66	6 15 11'5	23'74	16 47'7	5	0 25 6'91	2'26	2 42 26'2	9'06	15 29'6		
6	23 42 23'80	4'60	S. 6 5 45'4	23'42	16 45'6	6	0 25 59'81	2'15	S. 2 38 56'2	8'44	15 26'5		
7	23 44 13'65	4'55	5 56 27'0	23'09	16 43'5	7	0 26 50'07	2'04	2 35 41'3	7'81	15 23'4		
8	23 46 2'18	4'49	5 47 16'6	22'75	16 41'4	8	0 27 37'63	1'93	2 32 41'7	7'17	15 20'2		
9	23 47 49'36	4'44	5 38 14'6	22'40	16 39'2	9	0 28 22'44	1'81	2 29 57'5	6'52	15 16'9		
10	23 49 35'15	4'38	5 29 21'2	22'04	16 37'0	10	0 29 4'45	1'69	2 27 28'7	5'86	15 13'7		
11	23 51 19'50	4'32	S. 5 20 36'7	21'67	16 34'8	11	0 29 43'61	1'57	S. 2 25 15'7	5'20	15 10'4		
12	23 53 2'37	4'26	5 12 1'5	21'28	16 32'5	12	0 30 19'85	1'45	2 23 18'7	4'54	15 7'0		
13	23 54 43'73	4'19	5 3 35'7	20'88	16 30'2	13	0 30 53'13	1'33	2 21 37'7	3'87	15 3'6		
14	23 56 23'53	4'13	4 55 19'7	20'46	16 27'9	14	0 31 23'40	1'20	2 20 12'7	3'20	15 0'1		
15	23 58 1'74	4'06	4 47 13'8	20'03	16 25'6	15	0 31 50'63	1'07	2 19 3'7	2'53	14 56'6		
16	23 59 38'32	3'99	S. 4 39 18'2	19'59	16 23'3	16	0 32 14'79	0'94	S. 2 18 10'7	1'87	14 53'1		
17	0 1 13'22	3'92	4 31 33'1	19'14	16 20'9	17	0 32 35'85	0'81	2 17 33'7	1'21	14 49'5		
18	0 2 46'42	3'85	4 23 58'9	18'69	16 18'5	18	0 32 53'78	0'68	2 17 12'6	0'55	14 45'8		
19	0 4 17'87	3'77	4 16 35'7	18'23	16 16'1	19	0 33 8'54	0'55	2 17 7'3	0'11	14 42'1		
20	0 5 47'54	3'70	4 9 23'8	17'76	16 13'6	20	0 33 20'13	0'42	2 17 17'7	0'76	14 38'3		
21	0 7 15'39	3'62	S. 4 2 23'4	17'28	16 11'1	21	0 33 28'52	0'28	S. 2 17 43'5	1'40	14 34'5		
22	0 8 41'37	3'54	3 55 34'6	16'79	16 8'6	22	0 33 33'70	0'15	2 18 24'6	2'03	14 30'6		
23	0 10 5'46	3'46	3 48 57'7	16'29	16 6'0	23	0 33 35'67	0'02	2 19 20'8	2'65	14 26'7		
24	0 11 27'62	3'38	3 42 32'8	15'78	16 3'4	24	0 33 34'42	0'12	2 20 31'8	3'26	14 22'7		
25	0 12 47'80	3'30	3 36 20'2	15'26	16 0'8	25	0 33 29'95	0'25	2 21 57'3	3'86	14 18'6		
26	0 14 5'97	3'21	S. 3 30 20'0	14'73	15 58'2	26	0 33 22'27	0'39	S. 2 23 37'0	4'44	14 14'5		
27	0 15 22'08	3'13	3 24 32'5	14'20	15 55'5	27	0 33 11'39	0'52	2 25 30'6	5'01	14 10'4		
28	0 16 36'09	3'04	3 18 57'8	13'66	15 52'8	28	0 32 57'32	0'65	2 27 37'7	5'57	14 6'2		
29	0 17 47'95	2'95	3 13 36'1	13'12	15 50'0	29	0 32 40'08	0'78	2 29 57'9	6'11	14 2'0		
30	0 18 57'62	2'86	3 8 27'7	12'57	15 47'2	30	0 32 19'68	0'91	2 32 30'8	6'63	13 57'7		
31	0 20 5'06	2'76	S. 3 3 32'7	12'01	15 44'4	31	0 31 56'15	1'04	S. 2 35 16'1	7'13	13 53'3		
32	0 21 10'22	2'67	S. 2 58 51'3	11'44	15 41'5	32	0 31 29'53	1'17	S. 2 38 13'3	7'61	13 48'9		
Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	6'76	7'06	7'38	7'72	8'07	8'46	Semidiameter.	8'93	9'33	9'76	10'18	10'59	10'99
Hor. Parallax.	12'72	13'28	13'88	14'52	15'19	15'90	Hor. Parallax.	16'79	17'55	18'35	19'14	19'92	20'66

GREENWICH MEAN TIME.

SEPTEMBER.						OCTOBER.							
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.		
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.			
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m		
1	0 31 29.53	1.17	S. 2 38 13.3	7.61	13 48.9	1	0 2 28.08	2.68	S. 4 35 35.3	6.05	11 21.8		
2	0 30 59.85	1.30	2 41 21.9	8.07	13 44.5	2	0 1 24.49	2.62	4 37 53.0	5.44	11 16.8		
3	0 30 27.14	1.43	2 44 41.5	8.52	13 40.0	3	0 0 22.33	2.56	4 39 55.9	4.81	11 11.9		
4	0 29 51.45	1.55	2 48 11.5	8.94	13 35.4	4	23 59 21.76	2.49	4 41 43.7	4.15	11 6.9		
5	0 29 12.84	1.67	2 51 51.3	9.33	13 30.8	5	23 58 22.91	2.42	4 43 15.8	3.48	11 2.0		
6	0 28 31.37	1.79	S. 2 55 40.4	9.70	13 26.2	6	23 57 25.92	2.34	S. 4 44 31.7	2.80	10 57.2		
7	0 27 47.14	1.90	2 59 38.0	10.04	13 21.5	7	23 56 30.93	2.25	4 45 31.1	2.11	10 52.4		
8	0 27 0.23	2.01	3 3 43.3	10.36	13 16.8	8	23 55 38.06	2.16	4 46 13.6	1.41	10 47.6		
9	0 26 10.75	2.11	3 7 55.5	10.63	13 12.0	9	23 54 47.43	2.06	4 46 38.8	0.70	10 42.8		
10	0 25 18.81	2.21	3 12 13.7	10.86	13 7.2	10	23 53 59.16	1.96	4 46 46.4	0.02	10 38.1		
11	0 24 24.54	2.31	S. 3 16 37.0	11.05	13 2.3	11	23 53 13.36	1.85	S. 4 46 36.2	0.76	10 33.4		
12	0 23 28.09	2.39	3 21 4.3	11.20	12 57.4	12	23 52 30.12	1.74	4 46 7.9	1.52	10 28.8		
13	0 22 29.60	2.48	3 25 34.7	11.31	12 52.5	13	23 51 49.54	1.63	4 45 21.4	2.31	10 24.2		
14	0 21 29.22	2.55	3 30 7.1	11.37	12 47.6	14	23 51 11.68	1.52	4 44 16.7	3.09	10 19.7		
15	0 20 27.12	2.62	3 34 40.5	11.39	12 42.6	15	23 50 36.62	1.40	4 42 53.6	3.87	10 15.2		
16	0 19 23.47	2.68	S. 3 39 13.8	11.36	12 37.6	16	23 50 4.43	1.28	S. 4 41 12.0	4.64	10 10.8		
17	0 18 18.44	2.74	3 43 45.9	11.29	12 32.5	17	23 49 35.15	1.16	4 39 12.1	5.39	10 6.4		
18	0 17 12.23	2.78	3 48 15.7	11.17	12 27.5	18	23 49 8.82	1.04	4 36 53.8	6.14	10 2.0		
19	0 16 5.01	2.82	3 52 42.1	11.01	12 22.5	19	23 48 45.48	0.91	4 34 17.2	6.89	9 57.7		
20	0 14 56.96	2.85	3 57 4.0	10.80	12 17.4	20	23 48 25.16	0.78	4 31 22.5	7.64	9 53.5		
21	0 13 48.29	2.87	S. 4 1 20.4	10.55	12 12.3	21	23 48 7.87	0.66	S. 4 28 9.8	8.38	9 49.3		
22	0 12 39.19	2.88	4 5 30.3	10.26	12 7.3	22	23 47 53.61	0.53	4 24 39.3	9.12	9 45.1		
23	0 11 29.85	2.89	4 9 32.6	9.92	12 2.2	23	23 47 42.39	0.40	4 20 51.2	9.86	9 41.0		
24	0 10 20.45	2.89	4 13 26.3	9.55	11 57.1	24	23 47 34.21	0.28	4 16 45.8	10.58	9 37.0		
25	0 9 11.18	2.88	4 17 10.6	9.14	11 52.0	25	23 47 29.05	0.15	4 12 23.5	11.29	9 33.0		
26	0 8 2.22	2.87	S. 4 20 44.7	8.70	11 47.0	26	23 47 26.89	0.03	S. 4 7 44.5	11.98	9 29.0		
27	0 6 53.76	2.84	4 24 7.7	8.22	11 41.9	27	23 47 27.70	0.09	4 2 40.1	12.65	9 25.1		
28	0 5 45.95	2.81	4 27 18.9	7.71	11 36.8	28	23 47 31.45	0.22	3 57 37.7	13.30	9 21.3		
29	0 4 38.96	2.77	4 30 17.6	7.18	11 31.8	29	23 47 38.10	0.34	3 52 10.6	13.94	9 17.5		
30	0 3 32.95	2.73	4 33 3.3	6.63	11 26.8	30	23 47 47.62	0.46	3 46 28.3	14.57	9 13.7		
31	0 2 28.08	2.68	S. 4 35 35.3	6.05	11 21.8	31	23 47 59.98	0.58	S. 3 40 31.1	15.19	9 10.0		
						32	23 48 15.14	0.69	S. 3 34 19.2	15.80	9 6.3		
Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	11.41	11.69	11.90	12.01	12.00	11.88	Semidiameter.	11.65	11.33	10.94	10.49	10.00	9.51
Hor. Parallax.	21.45	21.99	22.37	22.57	22.56	22.34	Hor. Parallax.	21.91	21.31	20.56	19.72	18.80	17.87

GREENWICH MEAN TIME.

NOVEMBER.						DECEMBER.								
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.			
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.				
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m			
1	23 48 15.14	0.69	S. 3 34 19.2	15.80	9 6.3	1	0 14 21.95	3.38	N. 1 2 42.3	28.65	7 34.8			
2	23 48 33.07	0.81	3 27 53.0	16.39	9 2.7	2	0 15 43.90	3.45	1 14 13.2	28.91	7 32.2			
3	23 48 53.75	0.92	3 21 12.7	16.97	8 59.1	3	0 17 7.32	3.51	1 25 50.1	29.16	7 29.6			
4	23 49 17.13	1.03	3 14 18.6	17.54	8 55.6	4	0 18 32.17	3.56	1 37 32.9	29.40	7 27.1			
5	23 49 43.18	1.14	3 7 10.9	18.10	8 52.1	5	0 19 58.44	3.62	1 49 21.4	29.63	7 24.6			
6	23 50 11.86	1.25	S. 2 59 50.0	18.65	8 48.7	6	0 21 26.09	3.68	N. 2 1 15.4	29.86	7 22.2			
7	23 50 43.15	1.36	2 52 16.1	19.18	8 45.3	7	0 22 55.09	3.74	2 13 14.8	30.08	7 19.7			
8	23 51 17.00	1.46	2 44 29.5	19.70	8 42.0	8	0 24 25.42	3.79	2 25 19.3	30.29	7 17.3			
9	23 51 53.37	1.57	2 36 30.4	20.21	8 38.7	9	0 25 57.06	3.85	2 37 28.8	30.50	7 14.9			
10	23 52 32.23	1.67	2 28 19.1	20.71	8 35.4	10	0 27 29.98	3.90	2 49 43.2	30.70	7 12.5			
11	23 53 13.53	1.77	S. 2 19 55.8	21.21	8 32.1	11	0 29 4.15	3.95	N. 3 2 2.2	30.89	7 10.1			
12	23 53 57.23	1.87	2 11 20.8	21.70	8 28.9	12	0 30 39.55	4.00	3 14 25.7	31.07	7 7.8			
13	23 54 43.29	1.97	2 2 34.4	22.18	8 25.8	13	0 32 16.15	4.05	3 26 53.5	31.25	7 5.5			
14	23 55 31.66	2.06	1 53 36.8	22.65	8 22.7	14	0 33 53.94	4.10	3 39 25.5	31.42	7 3.2			
15	23 56 22.30	2.16	1 44 28.2	23.10	8 19.6	15	0 35 32.88	4.15	3 52 1.4	31.58	7 0.9			
16	23 57 15.17	2.25	S. 1 35 8.9	23.53	8 16.5	16	0 37 12.94	4.19	N. 4 4 41.0	31.73	6 58.6			
17	23 58 10.22	2.34	1 25 39.3	23.95	8 13.5	17	0 38 54.11	4.24	4 17 24.2	31.87	6 56.3			
18	23 59 7.39	2.43	1 15 59.6	24.36	8 10.5	18	0 40 36.35	4.28	4 30 10.7	32.01	6 54.1			
19	0 0 6.65	2.52	1 6 10.1	24.76	8 7.6	19	0 42 19.64	4.33	4 43 0.4	32.14	6 51.9			
20	0 1 7.94	2.60	0 56 11.1	25.15	8 4.7	20	0 44 3.95	4.37	4 55 53.0	32.26	6 49.7			
21	0 2 11.20	2.68	S. 0 46 2.8	25.53	8 1.8	21	0 45 49.27	4.41	N. 5 8 48.4	32.37	6 47.6			
22	0 3 16.30	2.76	0 35 45.6	25.90	7 59.0	22	0 47 35.56	4.45	5 21 46.3	32.46	6 45.4			
23	0 4 23.46	2.83	0 25 19.8	26.26	7 56.2	23	0 49 22.79	4.49	5 34 46.4	32.55	6 43.2			
24	0 5 32.35	2.91	0 14 45.7	26.60	7 53.4	24	0 51 10.95	4.52	5 47 48.6	32.63	6 41.1			
25	0 6 43.02	2.98	S. 0 4 3.6	26.93	7 50.7	25	0 53 0.01	4.56	6 0 52.8	32.70	6 39.0			
26	0 7 55.42	3.05	N. 0 6 46.3	27.24	7 48.0	26	0 54 49.96	4.60	N. 6 13 58.7	32.77	6 36.9			
27	0 9 9.51	3.12	0 17 43.6	27.54	7 45.3	27	0 56 40.77	4.64	6 27 6.0	32.84	6 34.8			
28	0 10 25.25	3.19	0 28 48.1	27.83	7 42.6	28	0 58 32.43	4.67	6 40 14.7	32.89	6 32.7			
29	0 11 42.59	3.26	0 39 59.6	28.11	7 40.0	29	1 0 24.93	4.71	6 53 24.5	32.93	6 30.7			
30	0 13 1.50	3.32	0 51 17.7	28.38	7 37.4	30	1 2 18.25	4.74	7 6 35.3	32.97	6 28.6			
31	0 14 21.95	3.38	N. 1 2 42.3	28.65	7 34.8	31	1 4 12.38	4.77	N. 7 19 47.0	33.00	6 26.6			
						32	1 6 7.30	4.81	N. 7 32 59.5	33.03	6 24.6			
Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26	31
Semidiameter.	8.91	8.42	7.96	7.53	7.12	6.73	Semidiameter.	6.37	6.04	5.73	5.45	5.18	4.94	4.72
Hor. Parallax.	16.75	15.84	14.97	14.15	13.38	12.66	Hor. Parallax.	11.98	11.36	10.78	10.25	9.75	9.29	8.87

GREENWICH MEAN TIME.

JANUARY.						FEBRUARY.					
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.	
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m
1	11 4 49.07	0.04	N. 7 11 49.7	1.00	16 20.1	1	10 58 46.99	0.89	N. 7 57 52.2	6.10	14 12.0
2	11 4 47.78	0.07	7 12 15.8	1.18	16 16.2	2	10 58 25.29	0.91	8 0 20.0	6.22	14 7.7
3	11 4 45.78	0.10	7 12 46.5	1.37	16 12.2	3	10 58 3.08	0.94	8 2 50.6	6.33	14 3.4
4	11 4 43.05	0.13	7 13 21.6	1.56	16 8.2	4	10 57 40.38	0.96	8 5 23.8	6.44	13 59.1
5	11 4 39.61	0.16	7 14 1.1	1.74	16 4.2	5	10 57 17.19	0.98	8 7 59.6	6.54	13 51.8
6	11 4 35.45	0.19	N. 7 14 44.9	1.92	16 0.2	6	10 56 53.54	0.99	N. 8 10 37.9	6.64	13 50.5
7	11 4 30.57	0.22	7 15 33.2	2.11	15 56.2	7	10 56 29.43	1.01	8 13 18.6	6.74	13 46.1
8	11 4 24.98	0.25	7 16 25.9	2.29	15 52.1	8	10 56 4.88	1.03	8 16 1.6	6.83	13 41.8
9	11 4 18.67	0.28	7 17 23.0	2.47	15 48.1	9	10 55 39.91	1.05	8 18 46.8	6.92	13 37.4
10	11 4 11.65	0.31	7 18 24.4	2.65	15 44.0	10	10 55 14.53	1.07	8 21 34.0	7.00	13 33.1
11	11 4 3.92	0.34	N. 7 19 30.1	2.83	15 40.0	11	10 54 48.76	1.08	N. 8 24 23.1	7.08	13 28.7
12	11 3 55.48	0.37	7 20 40.2	3.01	15 35.9	12	10 54 22.63	1.10	8 27 14.1	7.15	13 24.4
13	11 3 46.34	0.40	7 21 54.5	3.19	15 31.8	13	10 53 56.14	1.11	8 30 6.8	7.22	13 20.0
14	11 3 36.50	0.43	7 23 13.1	3.37	15 27.7	14	10 53 29.31	1.12	8 33 1.1	7.29	13 15.6
15	11 3 25.96	0.45	7 24 35.9	3.54	15 23.6	15	10 53 2.17	1.14	8 35 56.8	7.35	13 11.2
16	11 3 14.73	0.48	N. 7 26 2.9	3.71	15 19.5	16	10 52 34.73	1.15	N. 8 38 53.9	7.40	13 6.9
17	11 3 2.81	0.51	7 27 33.9	3.88	15 15.3	17	10 52 7.01	1.16	8 41 52.2	7.45	13 2.5
18	11 2 50.21	0.54	7 29 9.0	4.05	15 11.2	18	10 51 39.03	1.17	8 44 51.5	7.50	12 58.0
19	11 2 36.93	0.57	7 30 48.2	4.22	15 7.0	19	10 51 10.81	1.18	8 47 51.8	7.54	12 53.6
20	11 2 22.99	0.60	7 32 31.3	4.38	15 2.9	20	10 50 42.37	1.19	8 50 52.8	7.57	12 49.2
21	11 2 8.38	0.62	N. 7 34 18.4	4.54	14 58.7	21	10 50 13.74	1.20	N. 8 53 54.5	7.59	12 44.8
22	11 1 53.12	0.65	7 36 9.3	4.70	14 54.5	22	10 49 44.94	1.21	8 56 56.7	7.61	12 40.4
23	11 1 37.22	0.68	7 38 3.9	4.86	14 50.3	23	10 49 15.99	1.21	8 59 59.3	7.62	12 36.0
24	11 1 20.69	0.70	7 40 2.3	5.01	14 46.1	24	10 48 46.91	1.21	9 3 2.2	7.63	12 31.6
25	11 1 3.53	0.73	7 42 4.3	5.16	14 41.9	25	10 48 17.72	1.22	9 6 5.1	7.63	12 27.2
26	11 0 45.76	0.75	N. 7 44 9.8	5.30	14 37.6	26	10 47 48.45	1.22	N. 9 9 8.0	7.62	12 22.8
27	11 0 27.39	0.78	7 46 18.8	5.44	14 33.4	27	10 47 19.11	1.22	9 12 10.7	7.61	12 18.4
28	11 0 8.43	0.80	7 48 31.2	5.58	14 29.1	28	10 46 49.74	1.22	9 15 13.1	7.59	12 13.9
29	10 59 48.90	0.83	7 50 46.8	5.72	14 24.9	29	10 46 20.35	1.23	N. 9 18 15.0	7.57	12 9.5
30	10 59 28.81	0.85	7 53 5.6	5.85	14 20.6						
31	10 59 8.17	0.87	N. 7 55 27.4	5.98	14 16.3						
32	10 58 46.99	0.89	N. 7 57 52.2	6.10	14 12.0						

Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	18.62	18.88	19.15	19.40	19.64	19.86	Semidiameter.	20.10	20.26	20.40	20.51	20.58	20.61
Hor. Parallax.	1.80	1.82	1.85	1.87	1.90	1.92	Hor. Parallax.	1.94	1.96	1.97	1.98	1.99	1.99

GREENWICH MEAN TIME.

MARCH.						APRIL.					
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.	
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m
1	10 46 20.35	1.23	N. 9 18 15.0	7.57	12 9.5	1	10 32 48.13	0.84	N. 10 38 0.0	4.62	9 54.2
2	10 45 50.96	1.23	9 21 16.4	7.54	12 5.1	2	10 32 28.34	0.81	10 39 49.2	4.47	9 50.0
3	10 45 21.59	1.22	9 24 17.1	7.51	12 0.7	3	10 32 9.11	0.79	10 41 34.7	4.32	9 45.7
4	10 44 52.26	1.22	9 27 17.0	7.48	11 56.2	4	10 31 50.46	0.77	10 43 16.5	4.16	9 41.5
5	10 44 22.99	1.22	9 30 15.9	7.44	11 51.8	5	10 31 32.39	0.74	10 44 54.6	4.00	9 37.3
6	10 43 53.81	1.21	N. 9 33 13.7	7.40	11 47.4	6	10 31 14.91	0.72	N. 10 46 28.9	3.85	9 33.1
7	10 43 24.73	1.21	9 36 10.4	7.34	11 43.0	7	10 30 58.03	0.69	10 47 59.4	3.70	9 28.8
8	10 42 55.77	1.20	9 39 5.7	7.28	11 38.6	8	10 30 41.77	0.66	10 49 26.0	3.54	9 24.6
9	10 42 26.96	1.20	9 41 59.6	7.21	11 34.2	9	10 30 26.12	0.64	10 50 48.8	3.38	9 20.5
10	10 41 58.31	1.19	9 44 51.9	7.14	11 29.8	10	10 30 11.10	0.61	10 52 7.6	3.22	9 16.3
11	10 41 29.85	1.18	N. 9 47 42.6	7.07	11 25.4	11	10 29 56.71	0.59	N. 10 53 22.5	3.05	9 12.1
12	10 41 1.59	1.17	9 50 31.5	6.99	11 21.0	12	10 29 42.97	0.56	10 54 33.4	2.88	9 8.0
13	10 40 33.55	1.16	9 53 18.6	6.91	11 16.6	13	10 29 29.87	0.53	10 55 40.3	2.71	9 3.8
14	10 40 5.76	1.15	9 56 3.6	6.83	11 12.2	14	10 29 17.43	0.50	10 56 43.2	2.54	8 59.7
15	10 39 38.22	1.14	9 58 46.6	6.74	11 7.8	15	10 29 5.65	0.48	10 57 42.0	2.37	8 55.6
16	10 39 10.97	1.13	N. 10 1 27.3	6.65	11 3.4	16	10 28 54.54	0.45	N. 10 58 36.8	2.20	8 51.4
17	10 38 44.01	1.12	10 4 5.8	6.55	10 59.1	17	10 28 44.10	0.42	10 59 27.5	2.03	8 47.3
18	10 38 17.38	1.10	10 6 41.8	6.44	10 54.7	18	10 28 34.34	0.39	11 0 14.1	1.86	8 43.3
19	10 37 51.09	1.09	10 9 15.3	6.33	10 50.3	19	10 28 25.27	0.36	11 0 56.5	1.69	8 39.2
20	10 37 25.15	1.07	10 11 46.2	6.22	10 46.0	20	10 28 16.89	0.34	11 1 34.8	1.51	8 35.1
21	10 36 59.59	1.06	N. 10 14 14.4	6.11	10 41.6	21	10 28 9.20	0.31	N. 11 2 8.9	1.34	8 31.1
22	10 36 34.43	1.04	10 16 39.7	5.99	10 37.2	22	10 28 2.21	0.28	11 2 38.8	1.17	8 27.0
23	10 36 9.68	1.02	10 19 2.2	5.87	10 32.9	23	10 27 55.91	0.25	11 3 4.6	1.00	8 23.0
24	10 35 45.36	1.00	10 21 21.6	5.74	10 28.6	24	10 27 50.31	0.22	11 3 26.2	0.82	8 19.0
25	10 35 21.49	0.98	10 23 37.9	5.61	10 24.3	25	10 27 45.42	0.19	11 3 43.7	0.64	8 14.9
26	10 34 58.08	0.97	N. 10 25 51.1	5.48	10 19.9	26	10 27 41.23	0.16	N. 11 3 57.0	0.47	8 10.9
27	10 34 35.15	0.95	10 28 1.1	5.34	10 15.6	27	10 27 37.74	0.13	11 4 6.1	0.29	8 7.0
28	10 34 12.71	0.92	10 30 7.8	5.20	10 11.3	28	10 27 34.95	0.10	11 4 11.1	0.12	8 3.0
29	10 33 50.78	0.90	10 32 11.1	5.06	10 7.0	29	10 27 32.87	0.07	11 4 12.0	0.05	7 59.0
30	10 33 29.36	0.88	10 34 10.9	4.92	10 2.8	30	10 27 31.49	0.04	11 4 8.7	0.22	7 55.1
31	10 33 8.47	0.86	N. 10 36 7.2	4.77	9 58.5	31	10 27 30.80	0.01	N. 11 4 1.3	0.39	7 51.1
32	10 32 48.13	0.84	N. 10 38 0.0	4.62	9 54.2						

Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	20.62	20.60	20.54	20.44	20.32	20.17	Semidiameter.	19.94	19.72	19.50	19.26	19.01	18.75
Hor. Parallax.	1.99	1.99	1.98	1.98	1.96	1.95	Hor. Parallax.	1.93	1.91	1.88	1.86	1.84	1.81

GREENWICH MEAN TIME.

MAY.						JUNE.							
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.		
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.			
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m		
1	10 27 30.80	0.01	N. 11 4 1.3	0.39	7 51.1	1	10 32 40.51	0.82	N. 10 28 0.6	5.26	5 54.5		
2	10 27 30.81	0.02	11 3 49.8	0.56	7 47.2	2	10 33 0.44	0.84	10 25 52.8	5.40	5 50.9		
3	10 27 31.51	0.04	11 3 34.2	0.73	7 43.3	3	10 33 20.93	0.87	10 23 41.7	5.53	5 47.3		
4	10 27 32.91	0.07	11 3 14.6	0.90	7 39.4	4	10 33 41.96	0.89	10 21 27.4	5.66	5 43.7		
5	10 27 34.99	0.10	11 2 50.9	1.07	7 35.5	5	10 34 3.54	0.91	10 19 9.8	5.80	5 40.1		
6	10 27 37.76	0.13	N. 11 2 23.2	1.24	7 31.6	6	10 34 25.65	0.93	N. 10 16 49.1	5.93	5 36.6		
7	10 27 41.22	0.16	11 1 51.6	1.41	7 27.7	7	10 34 48.29	0.95	10 14 25.2	6.06	5 33.0		
8	10 27 45.36	0.19	11 1 16.0	1.58	7 23.9	8	10 35 11.46	0.98	10 11 58.2	6.19	5 29.5		
9	10 27 50.18	0.22	11 0 36.4	1.74	7 20.0	9	10 35 35.15	1.00	10 9 28.0	6.32	5 25.9		
10	10 27 55.67	0.24	10 59 52.9	1.90	7 16.2	10	10 35 59.36	1.02	10 6 54.8	6.45	5 22.4		
11	10 28 1.84	0.27	N. 10 59 5.4	2.06	7 12.4	11	10 36 24.08	1.04	N. 10 4 18.5	6.58	5 18.9		
12	10 28 8.68	0.30	10 58 14.0	2.22	7 8.6	12	10 36 49.31	1.06	10 1 39.2	6.71	5 15.4		
13	10 28 16.19	0.33	10 57 18.7	2.38	7 4.8	13	10 37 15.04	1.08	9 58 56.8	6.83	5 11.9		
14	10 28 24.37	0.36	10 56 19.6	2.54	7 1.0	14	10 37 41.26	1.10	9 56 11.5	6.95	5 8.4		
15	10 28 33.21	0.38	10 55 16.6	2.70	6 57.2	15	10 38 7.96	1.12	9 53 23.3	7.07	5 4.9		
16	10 28 42.71	0.41	N. 10 54 9.8	2.86	6 53.4	16	10 38 35.15	1.14	N. 9 50 32.1	7.19	5 1.4		
17	10 28 52.87	0.44	10 52 59.2	3.02	6 49.6	17	10 39 2.82	1.16	9 47 38.0	7.31	4 57.9		
18	10 29 3.68	0.46	10 51 44.8	3.18	6 45.9	18	10 39 30.95	1.18	9 44 41.1	7.43	4 54.5		
19	10 29 15.13	0.49	10 50 26.6	3.34	6 42.1	19	10 39 59.55	1.20	9 41 41.3	7.55	4 51.0		
20	10 29 27.23	0.52	10 49 4.7	3.50	6 38.4	20	10 40 28.60	1.22	9 38 38.7	7.67	4 47.6		
21	10 29 39.97	0.54	N. 10 47 39.0	3.65	6 34.7	21	10 40 58.10	1.24	N. 9 35 33.4	7.78	4 44.1		
22	10 29 53.34	0.57	10 46 9.7	3.80	6 31.0	22	10 41 28.05	1.26	9 32 25.3	7.89	4 40.7		
23	10 30 7.34	0.60	10 44 36.7	3.95	6 27.3	23	10 41 58.43	1.27	9 29 14.5	8.00	4 37.3		
24	10 30 21.96	0.62	10 43 0.1	4.10	6 23.6	24	10 42 29.23	1.29	9 26 1.1	8.11	4 33.9		
25	10 30 37.20	0.65	10 41 19.8	4.25	6 20.0	25	10 43 0.46	1.31	9 22 45.1	8.22	4 30.4		
26	10 30 53.05	0.67	N. 10 39 36.0	4.40	6 16.3	26	10 43 32.10	1.33	N. 9 19 26.5	8.33	4 27.0		
27	10 31 9.49	0.70	10 37 48.7	4.55	6 12.6	27	10 44 4.15	1.34	9 16 5.4	8.44	4 23.6		
28	10 31 26.53	0.72	10 35 57.9	4.70	6 9.0	28	10 44 36.59	1.36	9 12 41.7	8.54	4 20.2		
29	10 31 44.15	0.75	10 34 3.7	4.84	6 5.3	29	10 45 9.43	1.38	9 9 15.5	8.64	4 16.8		
30	10 32 2.36	0.77	10 32 6.1	4.98	6 1.7	30	10 45 42.66	1.39	9 5 46.9	8.74	4 13.5		
31	10 32 21.15	0.80	N. 10 30 5.0	5.12	5 58.1	31	10 46 16.27	1.41	N. 9 2 15.8	8.84	4 10.1		
32	10 32 40.51	0.82	N. 10 28 0.6	5.26	5 54.5								
Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	18.48	18.20	17.93	17.66	17.40	17.14	Semidiameter.	16.85	16.60	16.38	16.16	15.94	15.74
Hor. Parallax.	1.78	1.76	1.73	1.71	1.68	1.66	Hor. Parallax.	1.63	1.60	1.58	1.56	1.54	1.52

GREENWICH MEAN TIME.

JULY.						AUGUST.							
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.		
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.			
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m		
1	10 46 16.27	1.41	N. 9 2 15.8	8.84	4 10.1	1	11 6 17.62	1.79	N. 6 55 52.0	11.35	2 28.2		
2	10 46 50.26	1.42	8 58 42.3	8.94	4 6.7	2	11 7 0.55	1.79	6 51 19.1	11.41	2 24.9		
3	10 47 24.61	1.44	8 55 6.5	9.04	4 3.4	3	11 7 43.68	1.80	6 46 44.8	11.47	2 21.7		
4	10 47 59.33	1.45	8 51 28.4	9.13	4 0.0	4	11 8 27.01	1.81	6 42 9.1	11.53	2 18.5		
5	10 48 34.41	1.47	8 47 48.0	9.23	3 56.7	5	11 9 10.54	1.82	6 37 32.0	11.59	2 15.3		
6	10 49 9.84	1.48	N. 8 44 5.3	9.33	3 53.3	6	11 9 54.26	1.83	N. 6 32 53.5	11.64	2 12.1		
7	10 49 45.62	1.50	8 40 20.4	9.42	3 50.0	7	11 10 38.16	1.83	6 28 13.8	11.69	2 8.9		
8	10 50 21.74	1.51	8 36 33.3	9.51	3 46.6	8	11 11 22.25	1.84	6 23 32.7	11.74	2 5.7		
9	10 50 58.20	1.53	8 32 44.0	9.60	3 43.3	9	11 12 6.52	1.85	6 18 50.4	11.79	2 2.5		
10	10 51 34.99	1.54	8 28 52.5	9.69	3 40.0	10	11 12 50.96	1.86	6 14 6.8	11.84	1 59.3		
11	10 52 12.11	1.55	N. 8 24 58.9	9.78	3 36.7	11	11 13 35.58	1.86	N. 6 9 22.0	11.89	1 56.1		
12	10 52 49.56	1.57	8 21 3.1	9.87	3 33.4	12	11 14 20.36	1.87	6 4 36.0	11.94	1 52.9		
13	10 53 27.33	1.58	8 17 5.3	9.96	3 30.1	13	11 15 5.31	1.88	5 59 48.8	11.99	1 49.7		
14	10 54 5.41	1.59	8 13 5.4	10.04	3 26.8	14	11 15 50.41	1.88	5 55 0.5	12.04	1 46.5		
15	10 54 43.80	1.61	8 9 3.5	10.12	3 23.5	15	11 16 35.67	1.89	5 50 11.1	12.09	1 43.4		
16	10 55 22.48	1.62	N. 8 4 59.6	10.20	3 20.2	16	11 17 21.07	1.89	N. 5 45 20.6	12.13	1 40.2		
17	10 56 1.46	1.63	8 0 53.7	10.28	3 16.9	17	11 18 6.61	1.90	5 40 29.1	12.17	1 37.0		
18	10 56 40.73	1.64	7 56 45.9	10.36	3 13.6	18	11 18 52.28	1.91	5 35 36.6	12.21	1 33.8		
19	10 57 20.28	1.65	7 52 36.2	10.44	3 10.4	19	11 19 38.09	1.91	5 30 43.1	12.25	1 30.7		
20	10 58 0.11	1.67	7 48 24.6	10.52	3 7.1	20	11 20 24.02	1.92	5 25 48.7	12.29	1 27.5		
21	10 58 40.21	1.68	N. 7 44 11.2	10.60	3 3.8	21	11 21 10.08	1.92	N. 5 20 53.5	12.33	1 24.3		
22	10 59 20.58	1.69	7 39 55.9	10.67	3 0.6	22	11 21 56.25	1.93	5 15 57.4	12.36	1 21.2		
23	11 0 1.21	1.70	7 35 38.9	10.74	2 57.3	23	11 22 42.54	1.93	5 11 0.4	12.39	1 18.0		
24	11 0 42.09	1.71	7 31 20.2	10.81	2 54.0	24	11 23 28.93	1.94	5 6 2.6	12.42	1 14.8		
25	11 1 23.22	1.72	7 26 59.8	10.88	2 50.8	25	11 24 15.43	1.94	5 1 4.1	12.45	1 11.7		
26	11 2 4.59	1.73	N. 7 22 37.7	10.95	2 47.5	26	11 25 2.02	1.94	N. 4 56 4.8	12.48	1 8.5		
27	11 2 46.19	1.74	7 18 14.0	11.02	2 44.3	27	11 25 48.71	1.95	4 51 4.9	12.51	1 5.3		
28	11 3 28.03	1.75	7 13 48.7	11.09	2 41.1	28	11 26 35.49	1.95	4 46 4.4	12.54	1 2.2		
29	11 4 10.10	1.76	7 9 21.8	11.15	2 37.8	29	11 27 22.35	1.96	4 41 3.2	12.57	0 59.0		
30	11 4 52.39	1.77	7 4 53.4	11.22	2 34.6	30	11 28 9.29	1.96	4 36 1.4	12.60	0 55.9		
31	11 5 34.90	1.78	N. 7 0 23.4	11.29	2 31.4	31	11 28 56.31	1.96	N. 4 30 58.9	12.62	0 52.7		
32	11 6 17.62	1.79	N. 6 55 52.0	11.35	2 28.2	32	11 29 43.41	1.96	N. 4 25 55.9	12.64	0 49.6		
Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	15.55	15.38	15.21	15.06	14.92	14.79	Semidiameter.	14.66	14.55	14.46	14.37	14.31	14.25
Hor. Parallax.	1.50	1.49	1.47	1.46	1.44	1.43	Hor. Parallax.	1.42	1.41	1.40	1.39	1.38	1.38

GREENWICH MEAN TIME.

SEPTEMBER.						OCTOBER.							
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.		
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.			
	h m s	s	° / ' / "	"	h m		h m s	s	° / ' / "	"	h m		
1	11 29 43.41	1.96	N. 4 25 55.9	12.64	0 49.6	1	11 53 31.13	1.97	N. 1 52 39.6	12.70	23 12.2		
2	11 30 30.58	1.97	4 20 52.4	12.66	0 46.4	2	11 54 18.49	1.97	1 47 35.1	12.68	23 9.0		
3	11 31 17.82	1.97	4 15 48.3	12.68	0 43.3	3	11 55 5.79	1.97	1 42 31.0	12.66	23 5.9		
4	11 32 5.12	1.97	4 10 43.8	12.70	0 40.1	4	11 55 53.03	1.97	1 37 27.5	12.64	23 2.7		
5	11 32 52.49	1.98	4 5 38.9	12.72	0 37.0	5	11 56 40.21	1.90	1 32 24.5	12.62	22 59.6		
6	11 33 39.91	1.98	N. 4 0 33.5	12.74	0 33.9	6	11 57 27.31	1.96	N. 1 27 22.0	12.59	22 56.4		
7	11 34 27.39	1.98	3 55 27.7	12.75	0 30.7	7	11 58 14.34	1.96	1 22 20.1	12.56	22 53.3		
8	11 35 14.91	1.98	3 50 21.6	12.77	0 27.6	8	11 59 1.29	1.95	1 17 18.8	12.53	22 50.1		
9	11 36 2.48	1.98	3 45 15.1	12.78	0 24.4	9	11 59 48.15	1.95	1 12 18.2	12.50	22 46.9		
10	11 36 50.10	1.99	3 40 8.4	12.79	0 21.3	10	12 0 34.92	1.95	1 7 18.4	12.47	22 43.8		
11	11 37 37.75	1.99	N. 3 35 1.4	12.80	0 18.1	11	12 1 21.60	1.94	N. 1 2 19.3	12.44	22 40.6		
12	11 38 25.43	1.99	3 29 54.1	12.81	0 15.0	12	12 2 8.17	1.94	0 57 21.0	12.41	22 37.5		
13	11 39 13.14	1.99	3 24 46.6	12.81	0 11.9	13	12 2 54.64	1.93	0 52 23.5	12.38	22 34.3		
14	11 40 0.86	1.99	3 19 39.0	12.82	0 8.7	14	12 3 41.00	1.93	0 47 26.9	12.34	22 31.1		
15	11 40 48.60	1.99	3 14 31.2	12.82	0 5.6	15	12 4 27.24	1.92	0 42 31.1	12.30	22 28.0		
16	11 41 36.36	1.99	N. 3 9 23.4	12.83	0 2.4	16	12 5 13.35	1.92	N. 0 37 36.3	12.26	22 24.8		
17	11 42 24.13	1.99	3 4 15.5	12.83	23 59.3	17	12 5 59.35	1.91	0 32 42.5	12.22	22 21.6		
18	11 43 11.89	1.99	2 59 7.7	12.83	23 53.0	18	12 6 45.21	1.91	0 27 49.7	12.18	22 18.4		
19	11 43 59.66	1.99	2 53 59.8	12.83	23 49.9	19	12 7 30.93	1.90	0 22 58.1	12.13	22 15.3		
20	11 44 47.42	1.99	2 48 52.0	12.82	23 46.7	20	12 8 16.51	1.90	0 18 7.5	12.08	22 12.1		
21	11 45 35.17	1.99	N. 2 43 44.3	12.82	23 43.6	21	12 9 1.94	1.89	N. 0 13 18.1	12.03	22 8.9		
22	11 46 22.90	1.99	2 38 36.7	12.81	23 40.5	22	12 9 47.22	1.88	0 8 29.8	11.98	22 5.7		
23	11 47 10.62	1.99	2 33 29.2	12.80	23 37.3	23	12 10 32.34	1.88	N. 0 3 42.7	11.93	22 2.5		
24	11 47 58.31	1.99	2 28 22.0	12.79	23 34.2	24	12 11 17.29	1.87	S. 0 1 3.1	11.88	21 59.4		
25	11 48 45.97	1.98	2 23 15.0	12.78	23 31.0	25	12 12 2.09	1.86	0 5 47.6	11.83	21 56.2		
26	11 49 33.60	1.98	N. 2 18 8.3	12.77	23 27.9	26	12 12 46.71	1.86	S. 0 10 30.8	11.77	21 53.0		
27	11 50 21.20	1.98	2 13 1.9	12.76	23 24.7	27	12 13 31.16	1.85	0 15 12.6	11.71	21 49.8		
28	11 51 8.75	1.98	2 7 55.7	12.75	23 21.6	28	12 14 15.42	1.84	0 19 53.1	11.65	21 46.6		
29	11 51 56.26	1.98	2 2 50.0	12.74	23 18.5	29	12 14 59.50	1.83	0 24 32.1	11.59	21 43.4		
30	11 52 43.72	1.98	1 57 44.6	12.72	23 15.3	30	12 15 43.39	1.82	0 29 9.7	11.53	21 40.2		
31	11 53 31.13	1.97	N. 1 52 39.6	12.70	23 12.2	31	12 16 27.09	1.82	S. 0 33 45.8	11.47	21 36.9		
						32	12 17 10.59	1.81	S. 0 38 20.4	11.41	21 33.7		
Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	14.20	14.16	14.14	14.14	14.14	14.15	Semidiameter.	14.18	14.22	14.27	14.33	14.40	14.50
Hor. Parallax.	1.37	1.37	1.37	1.37	1.37	1.37	Hor. Parallax.	1.37	1.37	1.38	1.38	1.39	1.40

GREENWICH MEAN TIME.

NOVEMBER.						DECEMBER.								
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.			
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.				
	h m s	s	° / ' / "	"	h m		h m s	s	° / ' / "	"	h m			
1	12 17 10.59	1.81	S. 0 38 20.4	11.41	21 33.7	1	12 36 53.34	1.44	S. 2 40 32.9	8.71	19 55.3			
2	12 17 53.89	1.80	0 42 53.4	11.34	21 30.5	2	12 37 27.69	1.42	2 44 0.6	8.60	19 51.9			
3	12 18 36.97	1.79	0 47 24.8	11.27	21 27.3	3	12 38 1.64	1.41	2 47 25.5	8.48	19 48.5			
4	12 19 19.84	1.78	0 51 54.6	11.20	21 24.1	4	12 38 35.19	1.39	2 50 47.6	8.36	19 45.2			
5	12 20 2.49	1.77	0 56 22.8	11.13	21 20.9	5	12 39 8.34	1.37	2 54 6.8	8.24	19 41.8			
6	12 20 44.91	1.76	S. 1 0 49.3	11.06	21 17.6	6	12 39 41.07	1.36	S. 2 57 23.1	8.12	19 38.4			
7	12 21 27.10	1.75	1 5 14.0	10.99	21 14.4	7	12 40 13.38	1.34	3 0 36.5	8.00	19 35.0			
8	12 22 9.05	1.74	1 9 36.9	10.92	21 11.1	8	12 40 45.26	1.32	3 3 46.9	7.87	19 31.6			
9	12 22 50.75	1.73	1 13 58.0	10.84	21 7.9	9	12 41 16.69	1.30	3 6 54.3	7.74	19 28.1			
10	12 23 32.20	1.72	1 18 17.2	10.76	21 4.7	10	12 41 47.68	1.28	3 9 58.6	7.61	19 24.7			
11	12 24 13.39	1.71	S. 1 22 34.5	10.68	21 1.4	11	12 42 18.22	1.26	S. 3 12 59.7	7.48	19 21.3			
12	12 24 54.32	1.70	1 26 49.8	10.60	20 58.2	12	12 42 48.30	1.24	3 15 57.7	7.35	19 17.8			
13	12 25 34.97	1.69	1 31 3.1	10.52	20 54.9	13	12 43 17.91	1.22	3 18 52.4	7.22	19 14.4			
14	12 26 15.35	1.68	1 35 14.3	10.43	20 51.6	14	12 43 47.05	1.20	3 21 43.9	7.08	19 10.9			
15	12 26 55.44	1.66	1 39 23.4	10.34	20 48.4	15	12 44 15.70	1.18	3 24 32.1	6.94	19 7.5			
16	12 27 35.24	1.65	S. 1 43 30.4	10.25	20 45.1	16	12 44 43.87	1.16	S. 3 27 16.9	6.80	19 4.0			
17	12 28 14.75	1.64	1 47 35.3	10.16	20 41.8	17	12 45 11.54	1.14	3 29 58.4	6.66	19 0.5			
18	12 28 53.95	1.63	1 51 37.9	10.07	20 38.5	18	12 45 38.71	1.12	3 32 36.5	6.52	18 57.1			
19	12 29 32.84	1.61	1 55 38.3	9.97	20 35.2	19	12 46 5.38	1.10	3 35 11.1	6.38	18 53.6			
20	12 30 11.42	1.60	1 59 36.3	9.87	20 31.9	20	12 46 31.54	1.08	3 37 42.3	6.23	18 50.1			
21	12 30 49.68	1.59	S. 2 3 31.9	9.77	20 28.6	21	12 46 57.17	1.06	S. 3 40 10.0	6.08	18 46.5			
22	12 31 27.61	1.57	2 7 25.2	9.67	20 25.3	22	12 47 22.28	1.04	3 42 34.1	5.93	18 43.0			
23	12 32 5.21	1.56	2 11 16.1	9.57	20 22.0	23	12 47 46.85	1.01	3 44 54.7	5.78	18 39.5			
24	12 32 42.47	1.55	2 15 4.6	9.47	20 18.7	24	12 48 10.89	0.99	3 47 11.7	5.63	18 36.0			
25	12 33 19.39	1.53	2 18 50.7	9.37	20 15.4	25	12 48 34.38	0.97	3 49 25.0	5.48	18 32.4			
26	12 33 55.95	1.52	S. 2 22 34.2	9.26	20 12.0	26	12 48 57.32	0.94	S. 3 51 34.7	5.33	18 28.9			
27	12 34 32.16	1.50	2 26 15.2	9.15	20 8.7	27	12 49 19.71	0.92	3 53 40.7	5.18	18 25.3			
28	12 35 8.01	1.49	2 29 53.6	9.04	20 5.3	28	12 49 41.54	0.90	3 55 43.0	5.02	18 21.7			
29	12 35 43.50	1.47	2 33 29.4	8.93	20 2.0	29	12 50 2.80	0.87	3 57 41.5	4.86	18 18.1			
30	12 36 18.61	1.46	2 37 2.5	8.82	19 58.6	30	12 50 23.49	0.85	3 59 36.2	4.70	18 14.5			
31	12 36 53.34	1.44	S. 2 40 32.9	8.71	19 55.3	31	12 50 43.59	0.83	S. 4 1 27.1	4.54	18 10.9			
						32	12 51 3.11	0.80	S. 4 3 14.2	4.38	18 7.3			
Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26	31
Semidiameter.	14.61	14.72	14.85	14.98	15.13	15.30	Semidiameter.	15.48	15.67	15.86	16.07	16.30	16.53	16.78
Hor. Parallax.	1.41	1.42	1.43	1.45	1.46	1.48	Hor. Parallax.	1.50	1.51	1.53	1.55	1.57	1.60	1.62

GREENWICH MEAN TIME.

MAY.						JUNE.					
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.	
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m
1	4 20'90	1'11	N. 4 25 34'5	6'59	22 26'0	1	16 55'50	0'90	N. 5 37 54'4	4'93	20 36'6
2	4 47'39	1'10	4 28 12'2	6'55	22 22'5	2	17 16'89	0'89	5 39 51'9	4'86	20 33'0
3	5 13'78	1'10	4 30 48'9	6'51	22 19'0	3	17 38'06	0'88	5 41 47'8	4'80	20 29'4
4	5 40'06	1'09	4 33 24'7	6'47	22 15'5	4	17 59'00	0'87	5 43 42'0	4'73	20 25'8
5	6 6'22	1'09	4 35 59'4	6'43	22 12'0	5	18 19'71	0'86	5 45 34'7	4'66	20 22'2
6	6 32'26	1'08	N. 4 38 33'1	6'39	22 8'5	6	18 40'18	0'85	N. 5 47 25'7	4'59	20 18'6
7	6 58'19	1'08	4 41 5'7	6'34	22 5'0	7	19 0'41	0'84	5 49 15'0	4'52	20 15'0
8	7 23'99	1'07	4 43 37'3	6'29	22 1'5	8	19 20'41	0'83	5 51 2'5	4'45	20 11'4
9	7 49'66	1'07	4 46 7'8	6'25	21 58'0	9	19 40'16	0'82	5 52 48'4	4'38	20 7'8
10	8 15'20	1'06	4 48 37'1	6'20	21 54'5	10	19 59'66	0'81	5 54 32'5	4'31	20 4'2
11	8 40'61	1'06	N. 4 51 5'3	6'15	21 51'0	11	20 18'90	0'80	N. 5 56 14'8	4'23	20 0'6
12	9 5'88	1'05	4 53 32'4	6'10	21 47'5	12	20 37'89	0'79	5 57 55'3	4'15	19 56'9
13	9 31'00	1'04	4 55 58'3	6'05	21 43'9	13	20 56'62	0'77	5 59 34'0	4'08	19 53'3
14	9 55'97	1'04	4 58 23'0	6'00	21 40'4	14	21 15'08	0'76	6 1 10'9	4'00	19 49'7
15	10 20'79	1'03	5 0 46'4	5'95	21 36'9	15	21 33'26	0'75	6 2 45'9	3'92	19 46'0
16	10 45'46	1'03	N. 5 3 8'6	5'90	21 33'3	16	21 51'17	0'74	N. 6 4 19'1	3'84	19 42'4
17	11 9'97	1'02	5 5 29'5	5'85	21 29'8	17	22 8'80	0'73	6 5 50'5	3'76	19 38'8
18	11 34'31	1'01	5 7 49'1	5'79	21 26'3	18	22 26'15	0'72	6 7 20'0	3'68	19 35'1
19	11 58'48	1'00	5 10 7'4	5'74	21 22'7	19	22 43'21	0'71	6 8 47'5	3'60	19 31'5
20	12 22'48	1'00	5 12 24'3	5'68	21 19'2	20	22 59'98	0'69	6 10 13'1	3'52	19 27'8
21	12 46'30	0'99	N. 5 14 39'8	5'62	21 15'7	21	23 16'46	0'68	N. 6 11 36'7	3'44	19 24'2
22	13 9'93	0'98	5 16 53'9	5'56	21 12'1	22	23 32'64	0'67	6 12 58'3	3'36	19 20'5
23	13 33'38	0'97	5 19 6'7	5'50	21 8'6	23	23 48'52	0'66	6 14 18'0	3'28	19 16'8
24	13 56'65	0'97	5 21 18'0	5'44	21 5'1	24	24 4'11	0'64	6 15 35'8	3'20	19 13'2
25	14 19'72	0'96	5 23 27'8	5'38	21 1'5	25	24 19'39	0'63	6 16 51'5	3'12	19 9'5
26	14 42'59	0'95	N. 5 25 36'2	5'32	20 58'0	26	24 34'36	0'62	N. 6 18 5'2	3'03	19 5'8
27	15 5'27	0'94	5 27 43'1	5'26	20 54'4	27	24 49'01	0'60	6 19 16'8	2'94	19 2'1
28	15 27'74	0'93	5 29 48'5	5'19	20 50'9	28	25 3'35	0'59	6 20 26'4	2'86	18 58'4
29	15 50'00	0'92	5 31 52'3	5'13	20 47'3	29	25 17'37	0'58	6 21 33'9	2'78	18 54'7
30	16 12'05	0'91	5 33 54'6	5'06	20 43'7	30	25 31'07	0'57	6 22 39'4	2'69	18 51'0
31	16 33'88	0'91	N. 5 35 55'3	5'00	20 40'2	31	25 44'45	0'55	N. 6 23 42'8	2'60	18 47'3
32	16 55'50	0'90	N. 5 37 54'4	4'93	20 36'6						

Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	7'46	7'49	7'52	7'55	7'59	7'63	Semidiameter.	7'70	7'74	7'79	7'85	7'91	7'97
Hor. Parallax.	0'85	0'86	0'86	0'86	0'87	0'87	Hor. Parallax.	0'88	0'89	0'89	0'90	0'91	0'91

GREENWICH MEAN TIME.

JULY.						AUGUST.					
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.	
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m
1	1 25 44'45	0'55	N. 6 23 42'8	2'60	18 47'3	1	1 29 44'28	0'08	N. 6 38 24'6	0'27	16 49'2
2	1 25 57'51	0'54	6 24 44'1	2'51	18 43'6	2	1 29 46'01	0'07	6 38 17'0	0'36	16 45'3
3	1 26 10'24	0'52	6 25 43'4	2'43	18 39'8	3	1 29 47'35	0'05	6 38 7'1	0'46	16 41'4
4	1 26 22'64	0'51	6 26 40'6	2'34	18 36'1	4	1 29 48'31	0'03	6 37 54'9	0'55	16 37'4
5	1 26 34'70	0'50	6 27 35'6	2'25	18 32'4	5	1 29 48'88	0'02	6 37 40'5	0'65	16 33'5
6	1 26 46'42	0'48	N. 6 28 28'5	2'16	18 28'6	6	1 29 49'06	0'00	N. 6 37 23'9	0'74	16 29'5
7	1 26 57'81	0'47	6 29 19'3	2'07	18 24'9	7	1 29 48'84	0'02	6 37 5'0	0'83	16 25'6
8	1 27 8'85	0'45	6 30 7'9	1'98	18 21'1	8	1 29 48'24	0'03	6 36 43'8	0'93	16 21'6
9	1 27 19'55	0'44	6 30 54'3	1'89	18 17'3	9	1 29 47'25	0'05	6 36 20'4	1'02	16 17'7
10	1 27 29'89	0'42	6 31 38'6	1'80	18 13'6	10	1 29 45'87	0'07	6 35 54'8	1'12	16 13'7
11	1 27 39'88	0'41	N. 6 32 20'7	1'71	18 9'8	11	1 29 44'10	0'08	N. 6 35 27'1	1'21	16 9'8
12	1 27 49'52	0'39	6 33 0'6	1'62	18 6'0	12	1 29 41'94	0'10	6 34 57'0	1'30	16 5'8
13	1 27 58'80	0'38	6 33 38'3	1'53	18 2'3	13	1 29 39'39	0'11	6 34 24'7	1'39	16 1'9
14	1 28 7'72	0'36	6 34 13'7	1'44	17 58'5	14	1 29 36'45	0'13	6 33 50'2	1'48	15 57'9
15	1 28 16'27	0'35	6 34 46'9	1'34	17 54'7	15	1 29 33'13	0'15	6 33 13'6	1'57	15 53'9
16	1 28 24'46	0'33	N. 6 35 17'8	1'25	17 50'9	16	1 29 29'42	0'16	N. 6 32 34'7	1'66	15 49'9
17	1 28 32'28	0'32	6 35 46'5	1'15	17 47'1	17	1 29 25'33	0'18	6 31 53'7	1'75	15 45'9
18	1 28 39'73	0'30	6 36 13'0	1'06	17 43'3	18	1 29 20'86	0'20	6 31 10'5	1'84	15 41'9
19	1 28 46'81	0'29	6 36 37'2	0'96	17 39'4	19	1 29 16'00	0'21	6 30 25'3	1'93	15 37'9
20	1 28 53'51	0'27	6 36 59'1	0'87	17 35'6	20	1 29 10'77	0'23	6 29 37'9	2'02	15 33'9
21	1 28 59'84	0'26	N. 6 37 18'8	0'77	17 31'8	21	1 29 5'17	0'24	N. 6 28 48'4	2'10	15 29'8
22	1 29 5'79	0'24	6 37 36'1	0'67	17 27'9	22	1 28 59'20	0'26	6 27 56'9	2'19	15 25'8
23	1 29 11'36	0'22	6 37 51'2	0'58	17 24'1	23	1 28 52'85	0'27	6 27 3'4	2'28	15 21'8
24	1 29 16'55	0'21	6 38 4'0	0'48	17 20'2	24	1 28 46'14	0'29	6 26 7'8	2'36	15 17'7
25	1 29 21'36	0'19	6 38 14'5	0'39	17 16'3	25	1 28 39'07	0'30	6 25 10'3	2'44	15 13'7
26	1 29 25'78	0'18	N. 6 38 22'8	0'29	17 12'5	26	1 28 31'64	0'32	N. 6 24 10'8	2'52	15 9'6
27	1 29 29'82	0'16	6 38 28'8	0'20	17 8'6	27	1 28 23'86	0'33	6 23 9'4	2'60	15 5'6
28	1 29 33'48	0'15	6 38 32'5	0'11	17 4'7	28	1 28 15'72	0'35	6 22 6'0	2'68	15 1'5
29	1 29 36'76	0'13	6 38 33'9	0'01	17 0'9	29	1 28 7'24	0'36	6 21 0'8	2'76	14 57'4
30	1 29 39'65	0'11	6 38 33'1	0'08	16 57'0	30	1 27 58'42	0'38	6 19 53'7	2'84	14 53'3
31	1 29 42'16	0'10	N. 6 38 30'0	0'18	16 53'1	31	1 27 49'25	0'39	N. 6 18 44'8	2'91	14 49'2
32	1 29 44'28	0'08	N. 6 38 24'6	0'27	16 49'2	32	1 27 39'75	0'40	N. 6 17 34'1	2'99	14 45'1

Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	8'04	8'11	8'18	8'25	8'33	8'41	Semidiameter.	8'50	8'58	8'64	8'72	8'79	8'85
Hor. Parallax.	0'92	0'93	0'94	0'95	0'95	0'96	Hor. Parallax.	0'97	0'98	0'99	1'00	1'01	1'01

GREENWICH MEAN TIME.

SEPTEMBER.						OCTOBER.					
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.	
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m
1	1 27 39.75	0.40	N. 6 17 34.1	2.99	14 45.1	1	1 20 45.20	0.70	N. 5 31 16.5	4.44	12 40.2
2	1 27 29.92	0.42	6 16 21.6	3.06	14 41.0	2	1 20 28.24	0.71	5 29 29.6	4.46	12 36.0
3	1 27 19.76	0.43	6 15 7.4	3.13	14 36.9	3	1 20 11.16	0.71	5 27 42.3	4.48	12 31.8
4	1 27 9.27	0.44	6 13 51.5	3.20	14 32.8	4	1 19 53.98	0.72	5 25 54.8	4.49	12 27.6
5	1 26 58.46	0.46	6 12 33.9	3.27	14 28.7	5	1 19 36.70	0.72	5 24 7.0	4.50	12 23.4
6	1 26 47.34	0.47	N. 6 11 14.7	3.34	14 24.6	6	1 19 19.33	0.73	N. 5 22 19.0	4.50	12 19.2
7	1 26 35.91	0.48	6 9 53.8	3.41	14 20.4	7	1 19 1.87	0.73	5 20 30.8	4.50	12 14.9
8	1 26 24.17	0.50	6 8 31.3	3.48	14 16.3	8	1 18 44.35	0.73	5 18 42.6	4.51	12 10.7
9	1 26 12.13	0.51	6 7 7.2	3.54	14 12.2	9	1 18 26.77	0.73	5 16 54.3	4.51	12 6.5
10	1 25 59.80	0.52	6 5 41.7	3.60	14 8.0	10	1 18 9.14	0.74	5 15 6.0	4.51	12 2.2
11	1 25 47.18	0.53	N. 6 4 14.7	3.66	14 3.9	11	1 17 51.46	0.74	N. 5 13 17.8	4.50	11 58.0
12	1 25 34.26	0.54	6 2 46.2	3.72	13 59.7	12	1 17 33.76	0.74	5 11 29.8	4.49	11 53.8
13	1 25 21.07	0.56	6 1 16.3	3.78	13 55.6	13	1 17 16.04	0.74	5 9 42.0	4.48	11 49.6
14	1 25 7.62	0.57	5 59 45.1	3.83	13 51.4	14	1 16 58.29	0.74	5 7 54.5	4.47	11 45.4
15	1 24 53.91	0.58	5 58 12.6	3.88	13 47.3	15	1 16 40.55	0.74	5 6 7.3	4.45	11 41.1
16	1 24 39.94	0.59	N. 5 56 38.8	3.93	13 43.1	16	1 16 22.83	0.74	N. 5 4 20.6	4.43	11 36.9
17	1 24 25.72	0.60	5 55 3.8	3.98	13 39.0	17	1 16 5.13	0.74	5 2 34.3	4.41	11 32.7
18	1 24 11.27	0.61	5 53 27.7	4.03	13 34.8	18	1 15 47.45	0.74	5 0 48.5	4.39	11 28.4
19	1 23 56.58	0.62	5 51 50.5	4.08	13 30.6	19	1 15 29.81	0.73	4 59 3.3	4.37	11 24.2
20	1 23 41.66	0.63	5 50 12.1	4.12	13 26.4	20	1 15 12.23	0.73	4 57 18.8	4.34	11 20.0
21	1 23 26.53	0.64	N. 5 48 32.8	4.16	13 22.2	21	1 14 54.71	0.73	N. 4 55 35.0	4.31	11 15.8
22	1 23 11.20	0.64	5 46 52.6	4.20	13 18.0	22	1 14 37.25	0.73	4 53 51.9	4.28	11 11.5
23	1 22 55.67	0.65	5 45 11.5	4.24	13 13.8	23	1 14 19.87	0.72	4 52 9.7	4.24	11 7.3
24	1 22 39.94	0.66	5 43 29.5	4.27	13 9.6	24	1 14 2.59	0.72	4 50 28.4	4.20	11 3.1
25	1 22 24.03	0.67	5 41 46.7	4.30	13 5.4	25	1 13 45.41	0.71	4 48 48.0	4.16	10 58.9
26	1 22 7.95	0.67	N. 5 40 3.2	4.33	13 1.2	26	1 13 28.33	0.71	N. 4 47 8.6	4.12	10 54.6
27	1 21 51.70	0.68	5 38 19.0	4.36	12 57.0	27	1 13 11.36	0.70	4 45 30.2	4.08	10 50.4
28	1 21 35.29	0.69	5 36 34.2	4.38	12 52.8	28	1 12 54.53	0.70	4 43 53.0	4.03	10 46.2
29	1 21 18.73	0.69	5 34 48.8	4.40	12 48.6	29	1 12 37.84	0.69	4 42 17.0	3.98	10 42.0
30	1 21 2.03	0.70	5 33 2.9	4.42	12 44.4	30	1 12 21.28	0.69	4 40 42.1	3.93	10 37.8
31	1 20 45.20	0.70	N. 5 31 16.5	4.44	12 40.2	31	1 12 4.87	0.68	N. 4 39 8.5	3.88	10 33.6
						32	1 11 48.63	0.67	N. 4 37 36.2	3.82	10 29.4

Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26
Semidiameter.	8.93	8.99	9.04	9.08	9.12	9.15	Semidiameter.	9.18	9.20	9.20	9.20	9.19	9.18
Hor. Parallax.	1.02	1.03	1.03	1.04	1.04	1.05	Hor. Parallax.	1.05	1.05	1.05	1.05	1.05	1.05

GREENWICH MEAN TIME.

NOVEMBER.						DECEMBER.					
Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.	Day.	Apparent Right Ascension.	Var. in 1 hour.	Apparent Declination.	Var. in 1 hour.	Meridian Passage.
	Noon.	Noon.	Noon.	Noon.			Noon.	Noon.	Noon.	Noon.	
	h m s	s	° / ' "	"	h m		h m s	s	° / ' "	"	h m
1	1 11 48.63	0.67	N. 4 37 36.2	3.82	10 29.4	1	1 5 35.98	0.32	N. 4 5 23.3	1.32	8 25.4
2	1 11 32.56	0.67	4 36 5.3	3.76	10 25.2	2	1 5 28.47	0.31	4 4 52.8	1.22	8 21.3
3	1 11 16.66	0.66	4 34 35.7	3.70	10 21.0	3	1 5 21.34	0.29	4 4 24.7	1.12	8 17.3
4	1 11 0.94	0.65	4 33 7.6	3.64	10 16.9	4	1 5 14.58	0.27	4 3 59.1	1.01	8 13.2
5	1 10 45.43	0.64	4 31 41.1	3.58	10 12.7	5	1 5 8.20	0.26	4 3 36.0	0.91	8 9.2
6	1 10 30.12	0.63	N. 4 30 16.1	3.51	10 8.5	6	1 5 2.21	0.24	N. 4 3 15.4	0.81	8 5.1
7	1 10 15.02	0.63	4 28 52.6	3.44	10 4.4	7	1 4 56.60	0.23	4 2 57.3	0.70	8 1.1
8	1 10 0.14	0.62	4 27 30.8	3.37	10 0.2	8	1 4 51.38	0.21	4 2 41.8	0.60	7 57.1
9	1 9 45.49	0.61	4 26 10.7	3.30	9 56.0	9	1 4 46.56	0.19	4 2 28.9	0.49	7 53.1
10	1 9 31.08	0.60	4 24 52.4	3.23	9 51.8	10	1 4 42.13	0.18	4 2 18.5	0.39	7 49.1
11	1 9 16.91	0.59	N. 4 23 35.9	3.15	9 47.7	11	1 4 38.10	0.16	N. 4 2 10.7	0.28	7 45.1
12	1 9 3.00	0.57	4 22 21.2	3.07	9 43.5	12	1 4 34.46	0.14	4 2 5.5	0.17	7 41.1
13	1 8 49.35	0.56	4 21 8.4	2.99	9 39.3	13	1 4 31.22	0.13	4 2 2.8	0.06	7 37.2
14	1 8 35.98	0.55	4 19 57.6	2.91	9 35.2	14	1 4 28.39	0.11	4 2 2.8	0.05	7 33.2
15	1 8 22.87	0.54	4 18 48.7	2.83	9 31.0	15	1 4 25.97	0.09	4 2 5.4	0.16	7 29.2
16	1 8 10.05	0.53	N. 4 17 41.8	2.75	9 26.8	16	1 4 23.95	0.08	N. 4 2 10.5	0.27	7 25.3
17	1 7 57.53	0.52	4 16 37.0	2.66	9 22.7	17	1 4 22.34	0.06	4 2 18.2	0.38	7 21.3
18	1 7 45.30	0.50	4 15 34.3	2.57	9 18.6	18	1 4 21.14	0.04	4 2 28.6	0.49	7 17.3
19	1 7 33.37	0.49	4 14 33.8	2.48	9 14.4	19	1 4 20.35	0.02	4 2 41.6	0.60	7 13.4
20	1 7 21.75	0.48	4 13 35.4	2.39	9 10.3	20	1 4 19.97	0.01	4 2 57.2	0.71	7 9.4
21	1 7 10.45	0.47	N. 4 12 39.2	2.30	9 6.2	21	1 4 20.00	0.01	N. 4 3 15.3	0.81	7 5.5
22	1 6 59.47	0.45	4 11 45.2	2.21	9 2.1	22	1 4 20.44	0.03	4 3 36.0	0.92	7 1.6
23	1 6 48.83	0.44	4 10 53.5	2.11	8 58.0	23	1 4 21.29	0.04	4 3 59.3	1.03	6 57.7
24	1 6 38.51	0.42	4 10 4.0	2.01	8 53.9	24	1 4 22.55	0.06	4 4 25.2	1.13	6 53.8
25	1 6 28.53	0.41	4 9 16.8	1.92	8 49.8	25	1 4 24.21	0.08	4 4 53.7	1.24	6 49.9
26	1 6 18.89	0.40	N. 4 8 32.0	1.82	8 45.7	26	1 4 26.29	0.10	N. 4 5 24.7	1.35	6 46.0
27	1 6 9.60	0.38	4 7 49.5	1.72	8 41.7	27	1 4 28.77	0.11	4 5 58.2	1.45	6 42.1
28	1 6 0.66	0.37	4 7 9.4	1.62	8 37.6	28	1 4 31.66	0.13	4 6 34.2	1.56	6 38.2
29	1 5 52.08	0.35	4 6 31.6	1.52	8 33.5	29	1 4 34.95	0.15	4 7 12.7	1.66	6 34.4
30	1 5 43.85	0.34	4 5 56.2	1.42	8 29.5	30	1 4 38.65	0.16	4 7 53.7	1.76	6 30.5
31	1 5 35.98	0.32	N. 4 5 23.3	1.32	8 25.4	31	1 4 42.75	0.18	N. 4 8 37.2	1.86	6 26.6
						32	1 4 47.26	0.20	N. 4 9 23.2	1.97	6 22.8

Day.	1	6	11	16	21	26	Day.	1	6	11	16	21	26	31
Semidiameter.	9.15	9.11	9.07	9.02	8.97	8.91	Semidiameter.	8.84	8.78	8.70	8.62	8.55	8.47	8.40
Hor. Parallax.	1.05	1.04	1.04	1.03	1.03	1.02	Hor. Parallax.	1.01	1.00	1.00	0.99	0.98	0.97	0.96

* * These Mean Places cannot be used for accurate determinations of Longitude or Latitude, but serve for ordinary sea observations. The Apparent Places of 133 stars are given on pages 105-139.

FOR JANUARY ^d 0^h49^m3^s

Star's Name.	Mag.	Right Ascension.	Annual Variation.	Declination.	Annual Variation.
		h m s	s	° / "	"
α Andromedæ	2.1	0 3 40.877	+ 3.0951	N. 28 35 16.95	+ 19.880
β Cassiopeïæ	2.4	0 4 18.956	3.1819	N. 58 38 52.39	19.862
γ Pegasi (<i>Algenib</i>)	2.0	0 8 32.904	3.0858	N. 14 40 39.68	20.022
ι Ceti	3.8	0 14 47.503	3.0570	S. 9 19 41.96	19.975
β Hydri	2.9	0 20 59.012	3.2109	S. 77 46 0.32	20.281
α Phœnicis	2.4	0 21 47.334	+ 2.9737	S. 42 48 0.61	+ 19.552
δ Andromedæ	3.5	0 34 27.535	3.2009	N. 30 21 46.81	19.723
α Cassiopeïæ var.	2.2-2.8	0 35 20.186	3.3838	N. 56 2 18.22	19.775
β Ceti	2.2	0 39 1.343	3.0128	S. 18 29 9.21	19.797
γ Cassiopeïæ	2.3	0 51 12.459	3.5941	N. 60 13 26.93	19.542
μ Andromedæ	3.9	0 51 41.896	+ 3.3194	N. 38 0 21.29	+ 19.568
β Phœnicis	3.4	1 2 1.365	2.6808	S. 47 12 22.35	19.291
β Andromedæ	2.4	1 4 37.961	3.3493	N. 35 8 17.80	19.137
θ Ceti	3.8	1 19 28.462	2.9976	S. 8 39 9.74	18.638
δ Cassiopeïæ	2.8	1 19 51.251	3.8963	N. 59 45 45.90	18.803
γ Phœnicis	3.3	1 24 24.851	+ 2.6084	S. 43 47 4.00	+ 18.477
α Ursæ Minoris (<i>Polaris</i>)	2.1	1 26 28.610	27.2423	N. 88 49 14.93	18.632
η Piscium	3.7	1 26 36.691	3.2051	N. 14 52 37.09	18.628
α Eridani (<i>Achernar</i>)	0.5	1 34 19.559	2.2371	S. 57 41 56.27	18.331
ζ Ceti	3.9	1 46 58.103	2.9600	S. 10 47 3.36	17.874
ε Cassiopeïæ	3.5	1 47 50.228	+ 4.2789	N. 63 13 20.47	+ 17.851
β Arietis	2.7	1 49 36.594	3.3073	N. 20 21 48.63	17.685
α Hydri	3.0	1 55 53.789	1.8820	S. 62 0 44.85	17.563
γ ¹ Andromedæ	2.2	1 58 18.500	3.6690	N. 41 53 36.48	17.383
α Arietis	2.2	2 2 2.423	3.3750	N. 23 1 57.06	17.125
β Trianguli	3.1	2 4 7.479	+ 3.5598	N. 34 33 26.01	+ 17.132
φ Eridani	3.7	2 13 15.425	2.1415	S. 51 55 59.61	16.722
γ ² Ceti	3.0	2 38 35.030	3.1055	N. 2 51 9.77	15.284
θ Eridani	3.0	2 54 48.751	2.2767	S. 40 40 8.39	14.514
α Ceti	2.8	2 57 31.259	3.1326	N. 3 43 59.41	14.249
γ Persei	3.1	2 58 11.921	+ 4.3248	N. 53 9 2.63	+ 14.280
β Persei (<i>Algol</i>) var.	2.2-3.7	3 2 14.582	3.8915	N. 40 36 20.29	14.031
α Persei	1.9	3 17 49.191	4.2663	N. 49 32 16.58	13.001
ο Tauri	3.8	3 19 54.862	3.2248	N. 8 42 32.91	12.816
ε Eridani	3.8	3 28 38.541	2.8249	S. 9 45 56.69	12.322
δ Persei	3.2	3 36 26.432	+ 4.2577	N. 47 29 50.11	+ 11.713
δ Eridani	3.7	3 38 53.311	2.8726	S. 10 4 15.92	12.306
17 Tauri	3.8	3 39 28.141	3.5569	N. 23 49 39.93	11.484
η Tauri	3.0	3 42 4.353	3.5606	N. 23 49 27.46	11.297
ζ Persei	3.0	3 48 24.515	+ 3.7643	N. 31 36 50.39	10.872
γ Hydri	3.1	3 48 38.253	- 0.9711	S. 74 31 4.88	+ 10.989
ε Persei	3.0	3 51 44.637	+ 4.0177	N. 39 44 51.47	10.613
γ ¹ Eridani	3.3	3 53 47.003	2.7982	S. 13 46 0.85	10.378
α Horologii	3.8	4 10 59.173	1.9872	S. 42 31 7.21	8.948
α Reticuli	3.4	4 13 14.955	+ 0.7637	S. 62 42 5.34	+ 9.047

* * These Mean Places cannot be used for accurate determinations of Longitude or Latitude, but serve for ordinary sea observations. The Apparent Places of 133 stars are given on pages 105-139.

FOR JANUARY ^d 0^h49^m3^s

Star's Name.	Mag.	Right Ascension.	Annual Variation.	Declination.	Annual Variation.
		h m s	s	° / "	"
υ ⁴ Eridani	3.8	4 14 26.931	+ 2.2669	S. 34 1 11.76	+ 8.907
γ Tauri	3.9	4 14 36.786	3.4110	N. 15 24 30.50	8.869
ε Tauri	3.7	4 23 18.082	3.5001	N. 18 58 45.18	8.173
α Tauri (<i>Aldebaran</i>)	1.1	4 30 41.840	3.4394	N. 16 19 37.05	7.423
α Doradûs	3.5	4 32 1.753	1.2942	S. 55 13 58.78	7.496
π ¹ Orionis	3.3	4 44 53.942	+ 3.2546	N. 6 48 11.09	+ 6.473
ι Aurigæ	2.9	4 51 3.927	3.9030	N. 33 1 21.73	5.915
ι Aurigæ var.	3.0-4.5	4 55 26.214	4.3001	N. 43 41 21.82	5.557
η Aurigæ	3.3	5 0 7.895	4.2032	N. 41 6 43.66	5.102
ε Leporis	3.4	5 1 36.505	2.5383	S. 22 29 34.03	4.987
β Eridani	2.9	5 3 22.555	+ 2.9489	S. 5 12 12.52	+ 4.826
μ Leporis	3.3	5 8 50.610	2.6938	S. 16 18 45.62	4.408
α Aurigæ (<i>Capella</i>)	0.2	5 9 57.879	4.4279	N. 45 54 22.56	3.910
β Orionis (<i>Rigel</i>)	0.3	5 10 9.834	2.8820	S. 8 18 22.31	4.322
η Orionis (mean)	3.4	5 19 54.065	3.0156	S. 2 28 48.99	3.485
γ Orionis (<i>Bellatrix</i>)	1.7	5 20 14.976	+ 3.2167	N. 6 16 4.18	+ 3.440
β Tauri	1.8	5 20 32.306	3.7908	N. 28 31 52.63	3.255
β Leporis	3.0	5 24 20.778	2.5702	S. 20 49 53.21	3.015
δ Orionis var.	2.2-2.7	5 27 21.424	3.0640	S. 0 21 57.29	2.841
α Leporis	2.7	5 28 42.991	2.6455	S. 17 53 12.95	2.725
ι Orionis	3.0	5 30 58.886	+ 2.9340	S. 5 58 8.77	+ 2.527
ε Orionis	1.7	5 31 35.728	3.0433	S. 1 15 33.90	2.477
γ Tauri	3.0	5 32 12.342	3.5846	N. 21 5 15.42	2.390
β Doradûs	3.7	5 32 50.160	0.5181	S. 62 32 58.23	2.344
ζ Orionis (<i>Ist*</i>)	2.0	5 36 10.012	3.0268	S. 1 59 24.87	2.064
α Columbæ	2.7	5 36 21.230	+ 2.1724	S. 34 7 20.11	+ 2.026
κ Orionis	2.2	5 43 26.428	2.8447	S. 9 42 5.08	1.443
β Columbæ	3.1	5 47 45.033	2.1127	S. 35 48 7.98	1.459
α Orionis (<i>Betalguase</i>) var.	1.0-1.4	5 50 14.700	3.2477	N. 7 23 26.57	0.860
β Aurigæ	2.1	5 52 51.250	4.4016	N. 44 56 20.47	0.615
θ Aurigæ	2.7	5 53 30.952	+ 4.0915	N. 37 12 24.94	+ 0.474
η Geminorum var.	3.2-4.2	6 9 23.117	3.6227	N. 22 32 1.78	- 0.840
ζ Canis Majoris	3.2	6 16 49.115	2.3017	S. 30 1 21.97	1.495
μ Geminorum	3.2	6 17 27.340	3.6307	N. 22 33 39.59	1.642
β Canis Majoris	2.0	6 18 41.523	2.6415	S. 17 54 36.52	1.631
α Argûs (<i>Canopus</i>)	- 1.0	6 21 55.910	+ 1.3319	S. 52 38 44.73	- 1.907
γ Geminorum	1.9	6 32 27.327	3.4671	N. 16 28 39.25	2.880
ν Argûs	3.2	6 34 58.689	1.8366	S. 43 6 56.95	3.068
ε Geminorum	3.2	6 38 20.046	3.6931	N. 25 13 18.97	3.358
ξ Geminorum	3.4	6 40 10.949	3.3685	N. 12 59 39.70	3.692
α Canis Majoris (<i>Sirius</i>)	- 1.4	6 41 8.088	+ 2.6435	S. 16 35 26.93	- 4.788
α Pictoris	3.3	6 47 15.534	0.6189	S. 61 50 36.95	3.866
τ Argûs	2.8	6 47 40.678	1.4884	S. 50 30 22.28	4.249
ε Canis Majoris	1.6	6 55 2.958	2.3574	S. 28 50 51.86	4.768
22 Canis Majoris	3.5	6 58 5.633	+ 2.3898	S. 27 48 14.28	- 5.027

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FOR JANUARY ^d 0^h49^m3^s

Star's Name.	Mag.	Right Ascension.	Annual Variation.	Declination.	Annual Variation.
		h m s	s	° / "	"
ζ Geminorum var.	3.7-4.5	6 58 42.762	+ 3.5610	N. 20 42 15.90	- 5.089
ο ² Canis Majoris	3.0	6 59 13.482	2.5048	S. 23 41 59.24	5.119
δ Canis Majoris	2.0	7 4 41.426	2.4381	S. 26 14 53.62	5.582
π Argūs.....	2.7	7 13 55.729	2.1189	S. 36 56 1.94	6.366
δ Geminorum	3.6	7 14 41.392	+ 3.5869	N. 22 9 1.97	6.435
δ Volantis.....	3.9	7 16 53.110	- 0.0180	S. 67 47 26.49	- 6.605
η Canis Majoris	2.4	7 20 29.781	+ 2.3737	S. 29 7 30.39	6.892
β Canis Minoris	3.1	7 22 13.005	3.2557	N. 8 28 23.74	7.087
σ Argūs.....	3.0	7 26 20.586	1.9018	S. 43 7 0.45	7.196
α ² Geminorum (Castor)	2.0	7 28 47.735	3.8340	N. 32 5 20.48	7.659
α ¹ Geminorum	2.8	Δα - 0.282	+ 3.8340	Δδ - 4.03	- 7.659
α Canis Minoris (Procyon)....	0.5	7 34 32.301	3.1424	N. 5 27 30.19	9.077
β Geminorum (Pollux)	1.2	7 39 44.961	3.6764	N. 28 14 47.84	8.509
ε Argūs.....	3.4	7 45 28.026	2.5232	S. 24 37 51.24	8.905
ζ Argūs.....	2.3	8 0 23.119	2.1066	S. 39 44 47.63	10.059
15 Argūs.....	2.9	8 3 40.100	+ 2.5546	S. 24 2 29.11	- 10.250
γ Argūs.....	1.9	8 6 43.748	1.8498	S. 47 4 5.38	10.540
β Cancri.....	3.7	8 11 34.869	3.2560	N. 9 27 59.58	10.942
ε Argūs.....	1.7	8 20 38.843	1.2341	S. 59 12 59.22	11.537
30 Monocerotis	3.9	8 21 6.870	2.9998	S. 3 36 32.53	11.599
ο Ursæ Majoris.....	3.5	8 22 42.821	+ 5.0164	N. 61 1 23.39	- 11.806
α Mali.....	3.7	8 39 56.096	2.4109	S. 32 51 28.64	12.872
δ Hydræ.....	3.5	8 41 57.501	3.1801	N. 6 45 11.58	13.067
ε Argūs.....	2.0	8 42 11.288	1.6518	S. 54 22 29.37	13.132
ζ Hydræ.....	3.3	8 50 35.106	3.1749	N. 6 17 32.50	13.575
ι Ursæ Majoris	3.1	8 52 58.970	+ 4.1251	N. 48 23 58.24	- 13.984
λ Argūs.....	2.3	9 4 38.901	2.2060	S. 43 3 54.00	14.467
β Argūs.....	1.7	9 12 12.299	0.6719	S. 69 20 32.29	14.816
ι Argūs.....	2.2	9 14 39.158	1.6041	S. 58 53 35.16	15.046
α Lyncis.....	3.4	9 15 30.892	3.6651	N. 34 46 40.22	15.090
κ Argūs.....	2.6	9 19 17.675	+ 1.8551	S. 54 37 19.15	- 15.335
α Hydræ.....	2.2	9 23 6.961	2.9487	S. 8 15 49.38	15.498
θ Ursæ Majoris	3.3	9 26 46.663	4.0334	N. 52 5 33.40	16.275
ψ Argūs.....	3.5	9 27 6.808	2.3590	S. 40 4 5.73	15.712
N Velorum	3.0	9 28 27.380	1.8208	S. 56 37 57.37	15.818
ο Leonis	3.8	9 36 17.728	+ 3.2056	N. 10 18 24.46	- 16.267
ε Leonis	3.1	9 40 41.303	3.4119	N. 24 11 36.93	16.478
α Leonis (Regulus).....	1.3	10 3 31.634	3.1987	N. 12 24 44.18	17.515
γ Carinæ.....	3.4	10 14 2.548	1.9982	S. 60 52 38.46	17.941
γ ¹ Leonis	2.5	10 14 57.443	3.3124	N. 20 18 7.80	18.129
γ ² Leonis	3.7	Δα + 0.248	+ 3.3124	Δδ - 1.74	- 18.129
μ Ursæ Majoris	3.2	10 16 54.753	3.5879	N. 41 57 27.01	18.027
ρ Leonis	3.8	10 28 1.265	3.1621	N. 9 46 30.64	18.457
θ Argūs.....	3.0	10 39 42.433	2.1312	S. 63 55 4.83	18.856
η Argūs..... var.	1-7½	10 41 31.671	+ 2.3196	S. 59 12 21.41	- 18.892

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FOR JANUARY ^d 0^h49^m3^s

Star's Name.	Mag.	Right Ascension.	Annual Variation.	Declination.	Annual Variation.
		h m s	s	° / "	"
μ Argūs.....	2.8	10 42 51.173	+ 2.5724	S. 48 56 21.88	- 19.003
ν Hydræ.....	3.3	10 45 8.026	2.9579	S. 15 43 1.43	18.776
β Ursæ Majoris.....	2.4	10 56 21.460	3.6441	N. 56 52 13.42	19.253
α Ursæ Majoris (Dubha).....	2.0	10 58 7.291	3.7329	N. 62 14 32.87	19.392
ψ Ursæ Majoris	3.2	11 4 33.151	3.3871	N. 44 59 32.80	19.496
δ Leonis.....	2.6	11 9 16.260	+ 3.1959	N. 21 1 20.62	- 19.698
θ Leonis.....	3.4	11 9 27.955	3.1510	N. 15 55 37.51	19.645
δ Crateris	3.8	11 14 47.397	2.9971	S. 14 17 9.47	19.462
ξ Hydræ.....	3.7	11 28 31.437	2.9453	S. 31 21 14.71	19.912
λ Centauri.....	3.3	11 31 34.649	2.7477	S. 62 30 58.51	19.919
β Leonis (Denebola).....	2.2	11 44 25.152	+ 3.0628	N. 15 4 50.88	- 20.118
γ Virginis	3.8	11 45 57.309	3.1251	N. 2 16 39.43	20.283
γ Ursæ Majoris	2.5	11 49 2.986	3.1723	N. 54 12 2.63	20.018
δ Centauri.....	2.8	12 3 38.231	3.0931	S. 50 12 56.61	20.073
ε Corvi	3.2	12 5 26.559	3.0804	S. 22 6 49.30	20.038
δ Crucis.....	3.1	12 10 18.674	+ 3.1720	S. 58 14 34.82	- 20.064
δ Ursæ Majoris	3.4	12 10 55.732	2.9871	N. 57 32 17.64	20.019
γ Corvi	2.7	12 11 7.453	3.0809	S. 17 2 11.80	20.006
α ¹ Crucis.....	1.0	12 21 31.696	3.3083	S. 62 35 41.47	19.996
α ² Crucis.....	1½	Δα + 0.630	3.3083	Δδ - 3.05	19.996
δ ² Corvi	3.1	12 25 9.257	+ 3.1006	S. 16 0 31.01	- 20.074
γ Crucis	1.6	12 26 6.609	3.3005	S. 56 36 12.85	20.177
β Corvi	3.0	12 29 36.244	3.1445	S. 22 53 36.90	19.940
α Muscæ.....	2.9	12 31 44.757	3.5360	S. 68 38 3.14	19.883
γ Centauri.....	2.4	12 36 29.602	3.2924	S. 48 27 36.61	19.812
γ ¹ Virginis	3.5	12 37 2.859	+ 3.0395	S. 0 56 58.78	- 19.780
γ ² Virginis	3.5	Δα + 0.226	3.0395	Δδ - 5.23	19.780
β Muscæ.....	3.3	12 40 41.291	3.6375	S. 67 36 35.92	19.758
β Crucis	1.5	12 42 23.798	3.4787	S. 59 11 29.27	19.736
ε Ursæ Majoris.....	1.8	12 50 1.746	2.6497	N. 56 27 13.10	19.583
δ Virginis	3.7	12 51 1.143	+ 3.0206	N. 3 53 30.65	- 19.612
α Canum Venaticorum	2.8	12 51 46.369	2.8115	N. 38 48 34.86	19.488
ε Virginis	3.0	12 57 38.822	2.9865	N. 11 26 53.13	19.399
γ Hydræ.....	3.3	13 13 58.297	3.2544	S. 22 41 29.75	19.063
ι Centauri.....	3.0	13 15 28.577	3.3601	S. 36 13 56.93	19.065
ζ ¹ Ursæ Majoris	2.1	13 20 15.869	+ 2.4231	N. 55 24 1.51	- 18.858
α Virginis (Spica)	1.2	13 20 23.835	3.1565	S. 10 41 11.39	18.857
ζ Virginis	3.4	13 30 3.300	3.0541	S. 0 7 50.99	18.478
ε Centauri.....	2.6	13 34 6.896	3.7770	S. 53 0 14.63	18.417
η Ursæ Majoris.....	1.9	13 43 57.396	2.3684	N. 49 46 1.85	18.041
μ Centauri.....	3.3	13 44 7.759	+ 3.5982	S. 42 1 13.86	- 18.032
ζ Centauri.....	2.8	13 49 51.426	3.7230	S. 46 50 26.67	17.850
η Boötis	2.8	13 50 21.114	2.8568	N. 18 51 12.95	18.128
β Centauri.....	0.8	13 57 23.600	4.2011	S. 59 56 3.57	17.504
π Hydræ	3.5	14 1 11.172	+ 3.4082	S. 26 14 39.62	- 17.453

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FOR JANUARY ^d 0^h49^m3^s

Star's Name.	Mag.	Right Ascension.	Annual Variation.	Declination.	Annual Variation.
		h m s	s	° / "	"
θ Centauri	2.1	14 1 19.366	+ 3.5179	S. 35 55 21.31	- 17.825
α Draconis	3.6	14 1 55.559	1.6241	N. 64 48 38.09	17.264
α Boötis (<i>Arcturus</i>)	0.3	14 11 30.617	2.7354	N. 19 39 21.03	18.837
ρ Boötis	3.7	14 27 54.516	2.5866	N. 30 46 13.86	15.900
γ Boötis	3.0	14 28 24.862	2.4173	N. 38 42 21.58	15.842
η Centauri	2.7	14 29 43.455	+ 3.7947	S. 41 45 30.43	- 15.948
α ² Centauri	1	14 33 25.356	4.0507	S. 60 27 28.80	14.993
α ¹ Centauri	3.1	14 33 1.539	4.0507	Δα - 17.02	14.993
α Circini	3.4	14 35 8.370	4.8005	S. 64 34 45.61	15.863
α Lupi	2.5	14 35 52.268	3.9699	S. 46 59 53.01	15.619
ε ² Boötis	2.6	14 41 0.772	+ 2.6202	N. 27 27 26.81	- 15.289
α Libræ	2.9	14 45 50.500	+ 3.3129	S. 15 39 50.52	15.098
β Ursæ Minoris	2.2	14 50 57.713	- 0.2101	N. 74 31 38.58	14.720
β Lupi	2.7	14 52 33.881	+ 3.9109	S. 42 46 4.66	14.688
κ Centauri	3.3	14 53 14.406	3.8910	S. 41 44 21.70	14.611
β Boötis	3.6	14 58 31.102	+ 2.2600	N. 40 44 56.82	- 14.304
20 Libræ	3.4	14 58 44.477	3.5037	S. 24 55 28.91	14.298
ζ Lupi	3.5	15 5 44.494	4.2887	S. 51 45 11.73	13.879
γ Trianguli Australis	3.0	15 10 23.962	5.5459	S. 68 20 38.89	13.555
δ Boötis	3.5	15 11 50.052	2.4193	N. 33 39 13.90	13.548
β Libræ	2.8	15 12 6.496	+ 3.2242	S. 9 2 51.40	- 13.429
γ Ursæ Minoris	3.1	15 20 51.997	- 0.1198	N. 72 9 28.01	12.814
ι Draconis	3.4	15 22 54.328	+ 1.3327	N. 59 17 4.37	12.680
γ Lupi	3.0	15 29 4.340	3.9851	S. 40 51 41.65	12.314
α Coronæ	2.3	15 30 50.077	2.5393	N. 27 1 13.67	12.243
α Serpentis	2.8	15 39 47.079	+ 2.9527	N. 6 42 41.15	- 11.469
μ Serpentis	3.6	15 44 52.180	3.1278	S. 3 9 8.11	11.173
ε Serpentis	3.8	15 46 16.719	2.9880	N. 4 45 4.53	10.973
β Trianguli Australis	3.1	15 47 6.962	5.2523	S. 63 9 2.00	11.387
π Scorpil	3.1	15 53 20.655	3.6227	S. 25 51 9.67	10.569
δ Scorpil	2.5	15 54 56.996	+ 3.5414	S. 22 21 47.83	- 10.436
β ¹ Scorpil	2.7	16 0 8.574	3.4827	S. 19 33 24.82	10.038
δ Ophiuchi	3.0	16 9 34.526	3.1410	S. 3 27 37.87	9.432
ε Ophiuchi	3.3	16 13 30.297	3.1714	S. 4 28 16.40	8.944
σ Scorpil	3.1	16 15 39.291	3.6408	S. 25 22 30.15	8.852
γ Herculis	3.8	16 17 54.313	+ 2.6452	N. 19 21 58.57	- 8.599
η Draconis	2.9	16 22 45.430	0.8068	N. 61 43 11.98	8.194
α Scorpil (<i>Antares</i>)	1.3	16 23 49.532	3.6733	S. 26 13 50.35	8.194
β Herculis	2.8	16 26 18.412	2.5772	N. 21 41 14.34	7.992
λ Ophiuchi	3.8	16 26 19.364	3.0235	N. 2 10 57.18	8.044
τ Scorpil	2.9	16 30 12.908	+ 3.7288	S. 28 1 40.30	- 7.685
ζ Ophiuchi	2.7	16 32 8.789	3.3003	S. 10 23 0.01	7.474
ζ Herculis	3.0	16 37 51.328	2.2612	N. 31 46 1.92	6.641
α Trianguli Australis	1.9	16 39 1.181	6.3188	S. 68 51 41.86	6.982
ε Scorpil	2.3	16 44 15.993	+ 3.8788	S. 34 7 43.74	- 6.764

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FOR JANUARY ^d 0^h49^m3^s

Star's Name.	Mag.	Right Ascension.	Annual Variation.	Declination.	Annual Variation.
		h m s	s	° / "	"
ζ Aræ	3.0	16 51 4.819	+ 4.9526	S. 55 50 50.21	- 5.983
κ Ophiuchi	3.4	16 53 21.610	2.8380	N. 9 30 57.34	5.755
ε Herculis	3.9	16 56 48.449	2.2944	N. 31 3 35.68	5.432
η Ophiuchi	2.6	17 5 9.452	3.4371	S. 15 36 46.12	4.658
ζ Draconis	3.2	17 8 31.295	0.1680	N. 65 49 35.85	4.448
α ¹ Herculis	var. 3.1-3.9	17 10 29.855	+ 2.7343	N. 14 29 36.47	- 4.264
δ Herculis	3.2	17 11 17.591	2.4630	N. 24 56 45.59	4.385
π Herculis	3.3	17 11 52.609	2.0882	N. 36 54 40.48	4.176
θ Ophiuchi	3.4	17 16 25.168	3.6813	S. 24 54 33.71	3.822
β Aræ	2.7	17 17 43.980	4.9758	S. 55 26 40.39	3.699
υ Scorpil	2.8	17 24 34.425	+ 4.0733	S. 37 13 25.90	- 3.118
α Aræ	2.9	17 24 48.312	4.6321	S. 49 48 17.23	3.146
λ Scorpil	1.8	17 27 25.666	4.0705	S. 37 2 16.86	2.864
β Draconis	3.0	17 28 22.560	1.3540	N. 52 22 6.39	2.748
α Ophiuchi	2.1	17 30 42.588	2.7836	N. 12 37 32.33	2.789
θ Scorpil	2.0	17 30 46.648	+ 4.3053	S. 42 56 26.10	- 2.554
κ Scorpil	2.6	17 36 11.545	4.1487	S. 38 59 0.61	2.090
η Pavonis	3.5	17 36 47.872	5.8800	S. 64 40 52.49	2.101
β Ophiuchi	2.9	17 38 58.610	2.9627	N. 4 36 17.10	1.676
ι ¹ Scorpil	3.1	17 41 13.196	4.1944	S. 40 5 32.73	1.645
μ Herculis	3.5	17 42 53.797	+ 2.3468	N. 27 46 24.26	- 2.242
ν Ophiuchi	3.7	17 54 0.980	3.3017	S. 9 45 46.94	0.641
γ Draconis	2.4	17 54 29.578	1.3923	N. 51 29 57.34	0.504
γ ² Sagittarii	3.0	17 59 57.667	3.8519	S. 30 25 33.13	- 0.198
72 Ophiuchi	3.7	18 3 2.102	2.8432	N. 9 33 1.46	+ 0.355
η Sagittarii	3.1	18 11 28.218	+ 4.0597	S. 36 47 22.13	+ 0.853
δ Sagittarii	2.8	18 15 10.098	3.8406	S. 29 52 2.85	1.294
η Serpentis	3.4	18 16 36.026	3.1026	S. 2 55 22.67	0.762
ε Sagittarii	1.9	18 18 7.903	3.9816	S. 34 25 41.44	1.465
α Telescopil	3.7	18 20 13.565	4.4502	S. 46 1 9.48	1.702
λ Sagittarii	2.9	18 22 21.290	+ 3.7028	S. 25 28 21.84	+ 1.756
α Lyræ (<i>Vega</i>)	0.1	18 33 51.444	2.0314	N. 38 41 54.67	3.233
φ Sagittarii	3.3	18 39 58.274	3.7490	S. 27 5 5.75	3.475
β ¹ Lyræ	var. 3.4-4.5	18 46 43.201	2.2147	N. 33 15 23.58	4.054
σ Sagittarii	2.1	18 49 37.353	3.7204	S. 26 24 37.68	4.235
ε ² Sagittarii	3.5	18 52 18.080	+ 3.5804	S. 21 13 36.72	+ 4.514
γ Lyræ	3.3	18 55 32.350	2.2434	N. 32 33 51.20	4.807
ζ Sagittarii	2.7	18 56 49.339	3.8184	S. 30 0 39.64	4.903
ζ Aquilæ	3.0	19 1 13.643	2.7569	N. 13 43 39.46	5.196
τ Sagittarii	3.5	19 1 15.593	3.7477	S. 27 48 14.65	5.044
λ Aquilæ	3.5	19 1 25.182	+ 3.1836	S. 5 1 10.15	+ 5.228
π Sagittarii	3.0	19 4 21.161	3.5692	S. 21 10 7.93	5.521
δ Draconis	3.2	19 12 32.232	0.0236	N. 67 30 5.23	6.327
δ Aquilæ	3.4	19 20 54.619	3.0250	N. 2 55 57.98	7.015
β Cygni	3.1	19 27 3.075	+ 2.4188	N. 27 46 4.92	+ 7.424

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FOR JANUARY ^d 0^h49^m3^s

Star's Name.	Mag.	Right Ascension.			Declination.	Annual Variation.
		h	m	s		
γ Aquilæ	2.8	19	41	56.002	N. 10 23 27.39	+ 8.623
δ Cygni	3.0	19	42	7.889	N. 44 54 29.68	8.686
α Aquilæ (Altaïr)	0.9	19	46	20.607	N. 8 37 38.67	9.351
β Aquilæ	3.9	19	50	50.601	N. 6 10 44.24	8.843
δ Pavonis	3.6	19	59	48.235	S. 66 24 52.43	8.880
θ Aquilæ	3.4	20	6	36.603	S. 1 5 30.80	+ 10.526
α ² Capricorni	3.8	20	13	0.401	S. 12 49 38.67	11.001
β Capricorni	3.2	20	15	54.011	S. 15 4 9.29	11.210
α Pavonis	2.0	20	18	27.214	S. 57 1 38.41	11.297
γ Cygni	2.3	20	18	57.727	N. 39 57 54.00	11.425
α Indi	3.2	20	31	10.116	S. 47 36 34.09	+ 12.339
α Delphini	3.9	20	35	24.693	N. 15 35 26.77	12.593
β Pavonis	3.5	20	36	46.117	S. 66 31 51.41	12.668
α Cygni (Deneb)	1.3	20	38	19.761	N. 44 57 17.16	12.772
ε Cygni	2.6	20	42	31.750	N. 33 37 44.35	13.382
ε Aquarii	3.9	20	42	45.058	S. 9 49 45.59	+ 13.040
ζ Cygni	3.5	21	9	3.760	N. 29 51 11.65	14.664
α Cephei	2.6	21	16	24.542	N. 62 11 59.27	15.203
ζ Capricorni	3.8	21	21	28.448	S. 22 48 21.17	15.461
β Aquarii	3.3	21	26	46.162	S. 5 58 18.96	15.721
β ² Cephei	3.4	21	27	29.438	N. 70 9 40.00	+ 15.775
ε Pegasi	2.5	21	39	42.984	N. 9 27 26.66	16.407
δ Capricorni	3.0	21	42	1.183	S. 16 32 26.14	16.225
γ Gruis	3.2	21	48	25.280	S. 37 47 35.76	16.812
α Aquarii	3.2	22	1	6.638	S. 0 45 43.94	17.408
α Gruis	1.9	22	2	30.119	S. 47 24 7.87	+ 17.296
ι Pegasi	3.9	22	2	46.446	N. 24 54 1.13	17.502
ζ Cephei	3.6	22	7	41.743	N. 57 45 9.03	17.698
α Toucani	2.9	22	12	16.403	S. 60 42 47.83	17.839
γ Aquarii	3.9	22	16	57.392	S. 1 50 45.83	18.069
ζ Pegasi	3.6	22	36	55.395	N. 10 21 21.79	+ 18.730
β Gruis	2.1	22	37	14.265	S. 47 21 38.84	18.728
η Pegasi	3.1	22	38	44.094	N. 29 44 41.92	18.763
ε Gruis	3.7	22	43	3.722	S. 51 47 43.77	18.869
μ Pegasi	3.7	22	45	36.605	N. 24 7 15.13	18.958
λ Aquarii	3.9	22	47	52.064	S. 8 3 50.52	+ 19.098
δ Aquarii	3.5	22	49	49.315	S. 16 18 17.85	19.089
α Piscis Aust. (Fomalhaut)	1.3	22	52	37.478	S. 30 6 17.14	19.015
β Pegasi	2.2-2.7	22	59	21.668	N. 27 35 20.33	19.484
α Pegasi (Markab)	2.6	23	0	13.613	N. 14 42 55.75	19.329
ε ² Aquarii	3.8	23	4	35.758	S. 21 39 59.71	+ 19.504
γ Piscium	3.8	23	12	26.856	N. 2 47 5.83	19.636
γ Cephei	3.4	23	35	36.361	N. 77 7 28.10	+ 20.090

AT UPPER TRANSIT AT GREENWICH.

α Urse Minoris (Polaris). Mag. 2.1

Day.	January.		February.		March.		April.		May.		June.	
	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.
	h m	° /	h m	° /	h m	° /	h m	° /	h m	° /	h m	° /
	I 25	88 49	I 25	88 49	I 25	88 49	I 25	88 49	I 25	88 49	I 25	88 48
1	91.97	28.85	59.51	29.73	34.05	25.40	19.46	16.94	23.36	7.66	44.07	60.95
2	91.07	28.96	58.51	29.68	33.32	25.20	19.17	16.63	23.78	7.36	45.07	60.80
3	90.19	29.09	57.45	29.63	32.55	25.00	18.92	16.30	24.26	7.06	46.07	60.67
4	89.26	29.22	56.36	29.57	31.76	24.78	18.71	15.96	24.81	6.76	47.06	60.56
5	88.28	29.36	55.24	29.48	30.96	24.54	18.57	15.62	25.42	6.48	48.00	60.47
6	87.25	29.49	54.11	29.38	30.17	24.29	18.49	15.27	26.05	6.22	48.88	60.39
7	86.15	29.61	52.98	29.26	29.41	24.02	18.48	14.93	26.70	5.97	49.70	60.31
8	85.01	29.71	51.89	29.12	28.71	23.73	18.54	14.60	27.31	5.75	50.48	60.22
9	83.84	29.80	50.84	28.97	28.06	23.43	18.65	14.27	27.89	5.55	51.26	60.12
10	82.66	29.87	49.85	28.80	27.48	23.14	18.79	13.97	28.40	5.37	52.07	60.00
11	81.48	29.92	48.92	28.63	26.97	22.85	18.93	13.68	28.87	5.18	52.94	59.87
12	80.33	29.95	48.05	28.46	26.52	22.56	19.03	13.42	29.32	4.96	53.90	59.74
13	79.21	29.97	47.23	28.30	26.11	22.28	{19.07}	{13.16}	29.79	4.71	54.93	59.61
14	78.15	29.98	46.43	28.14	25.71	22.02	{19.08}	{12.89}	30.31	4.45	56.03	59.52
15	77.13	29.99	45.62	28.01	25.30	21.77	19.02	12.33	30.92	4.19	57.15	59.45
16	76.16	29.99	44.78	27.89	24.85	21.53	19.03	12.02	31.62	3.93	58.27	59.39
17	75.22	30.01	43.88	27.79	24.34	21.30	19.11	11.69	32.40	3.69	59.35	59.36
18	74.28	30.04	42.92	27.68	23.78	21.06	19.29	11.35	33.22	3.46	60.38	59.34
19	73.31	30.09	41.91	27.53	23.21	20.78	19.56	11.02	34.07	3.26	61.35	59.32
20	72.28	30.15	40.90	27.35	22.65	20.49	19.90	10.70	34.91	3.08	62.27	59.30
21	71.18	30.20	39.91	27.15	22.15	20.19	20.28	10.40	35.70	2.91	63.16	59.27
22	70.01	30.23	38.98	26.93	21.73	19.86	20.68	10.13	36.45	2.76	64.05	59.23
23	68.80	30.24	38.14	26.69	21.40	19.53	21.06	9.87	37.16	2.61	64.95	59.18
24	67.58	30.22	37.37	26.46	21.16	19.20	21.40	9.61	37.83	2.44	65.87	59.13
25	66.40	30.18	36.68	26.23	20.98	18.89	21.60	9.36	38.49	2.26	66.84	59.07
26	65.27	30.12	36.04	26.00	20.83	18.60	21.96	9.10	39.16	2.09	67.86	59.02
27	64.21	30.04	35.40	25.80	20.68	18.32	22.20	8.83	39.85	1.90	68.93	58.98
28	63.23	29.97	34.74	25.60	20.50	18.05	22.45	8.55	40.58	1.71	70.05	58.95
29	62.30	29.90	34.05	25.40	20.28	17.79	22.71	8.26	41.36	1.50	71.21	58.92
30	61.39	29.83			20.03	17.53	23.01	7.96	42.20	1.31	72.39	58.93
31	60.47	29.78			19.75	17.25	23.36	7.66	43.11	1.12	73.55	58.97
32	59.51	29.73			19.46	16.94			44.07	0.95		

Mean R.A. 1^h 26^m 28^s.610 Mean Dec. + 88° 49' 14'' .93 Sec δ 48.593 Tan δ + 48.582

AT UPPER TRANSIT AT GREENWICH.												
α Ursæ Minoris (<i>Polaris</i>). Mag. 2.1												
Day.	July.		August.		September.		October.		November.		December.	
	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.
	h m	° /	h m	° /	h m	° /	h m	° /	h m	° /	h m	° /
	1 26	88 48	1 26	88 49	1 27	88 49	1 27	88 49	1 27	88 49	1 26	88 49
	s	''	s	''	s	''	s	''	s	''	s	''
1	13.55	58.97	45.55	2.15	12.13	9.73	28.40	20.04	31.42	32.01	78.58	42.43
2	14.66	59.03	46.39	2.35	12.84	10.00	28.87	20.40	31.28	32.43	77.80	42.74
3	15.71	59.10	47.22	2.53	13.62	10.28	29.34	20.79	31.05	32.84	76.98	43.03
4	16.70	59.18	48.07	2.71	14.45	10.57	29.76	21.20	30.74	33.24	76.15	43.30
5	17.62	59.23	48.99	2.87	15.29	10.88	30.11	21.62	30.38	33.62	75.33	43.56
6	18.52	59.28	49.97	3.02	16.11	11.21	30.37	22.03	30.00	33.99	74.54	43.81
7	19.43	59.32	51.01	3.19	16.88	11.57	30.57	22.44	29.61	34.35	73.77	44.04
8	20.38	59.35	52.10	3.38	17.58	11.93	30.69	22.85	29.24	34.68	73.05	44.27
9	21.40	59.36	53.19	3.59	18.20	12.29	30.78	23.23	28.88	35.01	72.34	44.49
10	22.50	59.38	54.26	3.83	18.75	12.65	30.85	23.60	28.56	35.34	71.67	44.73
11	23.66	59.42	55.27	4.08	19.25	13.01	30.92	23.97	28.28	35.66	71.01	44.99
12	24.86	59.48	56.21	4.35	19.72	13.35	31.01	24.33	28.01	35.99	70.31	45.25
13	26.06	59.56	57.08	4.62	20.19	13.68	31.13	24.68	27.76	36.33	69.57	45.52
14	27.22	59.67	57.89	4.87	20.67	14.01	31.23	25.03	27.50	36.69	68.76	45.79
15	28.33	59.79	58.67	5.11	21.17	14.32	31.47	25.39	27.21	37.05	67.87	46.07
16	29.37	59.92	59.43	5.35	21.70	14.62	31.67	25.75	26.85	37.44	66.91	46.33
17	30.35	60.05	60.19	5.58	22.28	14.93	31.88	26.13	26.41	37.83	65.89	46.57
18	31.29	60.18	60.98	5.81	22.88	15.25	32.07	26.52	25.89	38.21	64.85	46.79
19	32.21	60.30	61.80	6.03	23.51	15.59	32.22	26.93	25.30	38.58	63.83	46.98
20	33.13	60.40	62.66	6.25	24.13	15.95	32.29	27.36	24.66	38.94	62.86	47.16
21	34.06	60.50	63.56	6.48	24.73	16.33	32.29	27.79	24.01	39.26	61.96	47.32
22	35.02	60.60	64.49	6.72	25.28	16.72	32.19	28.22	23.39	39.55	61.12	47.47
23	36.01	60.69	65.44	6.97	25.75	17.12	32.04	28.64	22.82	39.84	60.33	47.63
24	37.06	60.78	66.38	7.25	26.14	17.52	31.85	29.03	22.32	40.13	59.55	47.82
25	38.15	60.88	67.30	7.56	26.45	17.92	31.68	29.40	21.87	40.43	58.73	48.03
26	39.29	61.01	68.15	7.87	26.72	18.31	31.54	29.76	21.45	40.74	57.86	48.24
27	40.43	61.15	68.93	8.19	26.96	18.67	31.46	30.11	21.01	41.05	56.91	48.45
28	41.56	61.32	69.62	8.53	27.24	19.02	31.44	30.46	20.52	41.41	55.89	48.65
29	42.66	61.50	70.27	8.86	27.57	19.36	31.47	30.81	19.96	41.76	54.80	48.83
30	43.70	61.71	70.87	9.16	27.96	19.69	31.50	31.19	19.31	42.10	53.67	48.99
31	44.66	61.93	71.48	9.45	28.40	20.04	31.49	31.59	18.58	42.43	52.53	49.13
32	45.55	62.15	72.13	9.73			31.42	32.01			51.41	49.24

Mean R.A. 1^h 26^m 28^s. 610 Mean Dec. + 88° 49' 14'' 93 Sec δ 48.593 Tan δ + 48.582

AT UPPER TRANSIT AT GREENWICH.								
Date.	α Andromedæ. Mag. 2.1		β Cassiopeiæ. Mag. 2.4		γ Pegasi. (<i>Algenib</i>) Mag. 2.9		β Hydri. Mag. 2.9	
	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. S.
	h m	° /	h m	° /	h m	° /	h m	° /
	0 3	28 35	0 4	58 38	0 8	14 40	0 20	77 45
	s	''	s	''	s	''	s	''
Jan. 1	39.61	18.70	17.49	62.27	31.69	36.77	57.78	87.06
11	39.47	17.74	17.17	61.46	31.58	35.94	56.92	85.93
21	39.33	16.53	16.86	60.16	31.47	35.00	56.11	84.22
31	39.21	15.13	16.58	58.39	31.37	33.98	55.39	81.99
Feb. 10	39.11	13.59	16.34	56.24	31.28	32.95	54.77	79.28
20	39.03	11.98	16.15	53.80	31.22	31.93	54.28	76.18
Mar. 2	38.99	10.35	16.02	51.16	31.18	31.02	53.91	72.76
12	38.99	8.81	15.96	48.47	31.18	30.24	53.69	69.13
21	39.03	7.29	15.98	45.52	31.22	29.64	53.63	65.33
Apr. 1	39.11	6.16	16.08	43.02	31.30	29.27	53.73	61.06
11	39.24	5.33	16.27	40.77	31.42	29.22	53.99	57.21
21	39.42	4.84	16.52	38.88	31.58	29.48	54.41	53.46
May 1	39.64	4.72	16.85	37.39	31.79	30.05	54.97	49.90
11	39.90	4.99	17.23	36.39	32.03	30.94	55.68	46.62
21	40.20	5.65	17.67	35.90	32.30	32.15	56.51	43.67
31	40.52	6.69	18.14	35.94	32.59	33.61	57.45	41.09
June 10	40.86	8.08	18.64	36.51	32.91	35.32	58.47	38.98
20	41.20	9.78	19.14	37.58	33.23	37.24	59.56	37.36
30	41.54	11.79	19.64	39.14	33.55	39.29	60.68	36.30
July 10	41.87	13.99	20.12	41.16	33.87	41.44	61.81	35.79
20	42.19	16.36	20.58	43.57	34.17	43.63	62.91	35.86
30	42.48	18.85	20.99	46.31	34.45	45.80	63.96	36.51
Aug. 9	42.74	21.38	21.36	49.32	34.70	47.91	64.92	37.72
19	42.96	23.92	21.67	52.54	34.91	49.92	65.77	39.41
29	43.14	26.38	21.92	55.88	35.09	51.79	66.48	41.58
Sept. 8	43.28	28.76	22.11	59.31	35.23	53.48	67.03	44.12
18	43.39	31.00	22.23	62.75	35.34	54.96	67.41	46.91
28	43.45	33.06	22.29	66.14	35.41	56.24	67.60	49.91
Oct. 8	43.47	34.90	22.29	69.36	35.44	57.30	67.59	52.95
18	43.46	36.51	22.24	72.40	35.44	58.12	67.40	55.94
28	43.42	37.86	22.12	75.16	35.41	58.72	67.04	58.74
Nov. 7	43.35	38.92	21.96	77.58	35.36	59.09	66.51	61.25
17	43.26	39.68	21.75	79.63	35.29	59.25	65.85	63.33
27	43.16	40.15	21.51	81.26	35.20	59.19	65.08	64.94
Dec. 7	43.03	40.29	21.23	82.36	35.10	58.95	64.24	65.97
17	42.90	40.12	20.93	82.95	35.00	58.51	63.35	66.42
27	42.76	39.63	20.61	82.99	34.88	57.91	62.45	66.22
37	42.62	38.83	20.30	82.50	34.77	57.17	61.56	65.41
Mean R. A.	0 ^h 3 ^m 40 ^s . 877		0 ^h 4 ^m 18 ^s . 956		0 ^h 8 ^m 32 ^s . 904		0 ^h 20 ^m 59 ^s . 012	
Mean Dec.	+28° 35' 16'' 95		+58° 38' 52'' 39		+14° 40' 39'' 68		-77° 46' 0'' 32	
Sec δ , Tan δ	1.139, + 0.545		1.922, + 1.641		1.034, + 0.262		4.720, - 4.612	

AT UPPER TRANSIT AT GREENWICH.									
Date.	α Phœnicis. Mag. 2.4		α Cassiopeia. Mag. 2.2-2.8		β Ceti. Mag. 2.2		γ Cassiopeia. Mag. 2.3		
	R. A.	Dec. S.	R. A.	Dec. N.	R. A.	Dec. S.	R. A.	Dec. N.	
	h m	° /	h m	° /	h m	° /	h m	° /	
	0 21	42 47	0 35	56 2	0 38	18 28	0 51	60 13	
	s	"	s	"	s	"	s	"	
Jan.	1	46.24	82.08	18.99	27.85	60.36	83.54	11.38	37.54
	11	46.06	81.91	18.70	27.43	60.24	83.99	11.03	37.36
	21	45.89	81.30	18.41	26.49	60.12	84.18	10.69	36.67
	31	45.74	80.26	18.13	25.07	60.01	84.11	10.35	35.47
Feb.	10	45.61	78.81	17.88	23.26	59.91	83.77	10.04	33.81
	20	45.51	76.99	17.67	21.13	59.83	83.15	9.77	31.78
Mar.	2	45.44	74.83	17.50	18.75	59.77	82.27	9.56	29.45
	12	45.41	72.38	17.40	16.25	59.74	81.11	9.41	26.93
Apr.	22	45.42	69.68	17.37	13.73	59.74	79.70	9.33	24.35
	1	45.49	66.49	17.42	11.07	59.79	77.88	9.34	21.77
	11	45.61	63.47	17.54	8.84	59.88	75.98	9.45	19.11
	21	45.78	60.37	17.74	6.88	60.01	73.90	9.64	16.95
May	1	46.00	57.28	18.00	5.33	60.18	71.67	9.90	15.10
	11	46.26	54.26	18.33	4.19	60.39	69.32	10.24	13.69
	21	46.56	51.38	18.72	3.49	60.64	66.91	10.65	12.69
	31	46.90	48.68	19.14	3.31	60.92	64.49	11.10	12.19
June	10	47.27	46.23	19.60	3.62	61.22	62.12	11.59	12.21
	20	47.66	44.11	20.08	4.41	61.54	59.87	12.11	12.70
	30	48.05	42.37	20.56	5.69	61.87	57.78	12.65	13.70
July	10	48.45	41.05	21.03	7.41	62.20	55.89	13.17	15.15
	20	48.83	40.17	21.49	9.53	62.52	54.28	13.68	17.05
	30	49.19	39.76	21.91	11.97	62.82	52.97	14.17	19.32
Aug.	9	49.52	39.83	22.30	14.71	63.10	51.98	14.61	21.92
	19	49.82	40.36	22.64	17.70	63.35	51.36	15.01	24.80
Sept.	29	50.06	41.34	22.93	20.85	63.57	51.09	15.36	27.90
	8	50.26	42.71	23.17	24.09	63.75	51.17	15.64	31.15
	18	50.41	44.41	23.35	27.38	63.89	51.57	15.87	34.48
	28	50.50	46.40	23.47	30.63	63.99	52.26	16.03	37.84
Oct.	8	50.54	48.55	23.53	33.79	64.05	53.20	16.13	41.15
	18	50.53	50.80	23.54	36.82	64.08	54.32	16.17	44.35
	28	50.48	53.04	23.50	39.61	64.08	55.57	16.15	47.37
Nov.	7	50.39	55.16	23.40	42.13	64.05	56.88	16.07	50.15
	17	50.26	57.10	23.26	44.33	63.99	58.18	15.93	52.61
	27	50.11	58.77	23.08	46.12	63.91	59.44	15.74	54.70
Dec.	7	49.95	60.10	22.86	47.48	63.82	60.57	15.50	56.37
	17	49.77	61.03	22.61	48.36	63.71	61.54	15.22	57.54
	27	49.59	61.54	22.34	48.73	63.60	62.32	14.92	58.21
	37	49.41	61.58	22.06	48.56	63.48	62.86	14.59	58.32
Mean R. A.	0 ^h 21 ^m 47 ^s . 334		0 ^h 35 ^m 20 ^s . 186		0 ^h 39 ^m 18 ^s . 343		0 ^h 51 ^m 12 ^s . 459		
Mean Dec.	-42° 48' 0". 61		+56° 2' 18". 22		-18° 29' 9". 21		+60° 13' 26". 93		
Sec δ, Tan δ	1.363, - 0.926		1.790, + 1.485		1.054, - 0.334		2.014, + 1.748		

AT UPPER TRANSIT AT GREENWICH.									
Date.	β Andromeda. Mag. 2.4		δ Cassiopeia. Mag. 2.8		α Eridani. (Achernar) Mag. 0.5		β Arietis. Mag. 2.7		
	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. S.	R. A.	Dec. N.	
	h m	° /	h m	° /	h m	° /	h m	° /	
	1 4	35 8	1 19	59 45	1 34	57 41	1 49	20 21	
	s	"	s	"	s	"	s	"	
Jan.	1	37.03	22.01	50.42	56.43	19.46	79.74	35.94	48.31
	11	36.87	21.58	50.09	56.62	19.15	80.07	35.82	47.94
	21	36.70	20.84	49.75	56.27	18.83	79.81	35.68	47.41
	31	36.53	19.79	49.42	55.42	18.51	79.02	35.54	46.75
Feb.	10	36.37	18.52	49.09	54.11	18.20	77.69	35.40	46.00
	20	36.23	17.05	48.80	52.36	17.93	75.86	35.26	45.17
Mar.	2	36.12	15.47	48.54	50.28	17.68	73.58	35.13	44.34
	12	36.04	13.84	48.35	47.98	17.48	70.91	35.03	43.51
Apr.	22	36.00	12.25	48.23	45.52	17.34	67.89	34.97	42.77
	1	36.02	10.77	48.19	43.02	17.25	64.61	34.94	42.13
	11	36.09	9.35	48.23	40.61	17.23	61.12	34.95	41.67
	21	36.21	8.33	48.37	38.15	17.28	57.14	35.02	41.40
May	1	36.39	7.63	48.59	36.19	17.41	53.49	35.14	41.42
	11	36.61	7.27	48.89	34.58	17.60	49.85	35.30	41.68
	21	36.88	7.26	49.26	33.38	17.87	46.36	35.51	42.24
	31	37.18	7.66	49.68	32.62	18.19	43.06	35.75	43.07
June	10	37.51	8.43	50.15	32.31	18.57	40.00	36.03	44.16
	20	37.87	9.54	50.66	32.50	18.99	37.31	36.33	45.48
	30	38.23	11.00	51.18	33.17	19.45	35.04	36.65	47.01
July	10	38.59	12.74	51.71	34.30	19.93	33.22	36.98	48.69
	20	38.95	14.74	52.24	35.86	20.42	31.90	37.31	50.49
	30	39.29	16.93	52.74	37.81	20.90	31.15	37.63	52.37
Aug.	9	39.61	19.27	53.22	40.10	21.37	30.97	37.94	54.28
	19	39.90	21.69	53.66	42.71	21.81	31.37	38.23	56.16
Sept.	29	40.15	24.16	54.05	45.56	22.21	32.31	38.50	57.98
	8	40.37	26.63	54.39	48.59	22.56	33.78	38.74	59.71
	18	40.55	29.05	54.67	51.77	22.85	35.71	38.95	61.31
	28	40.69	31.38	54.89	55.01	23.07	38.02	39.13	62.77
Oct.	8	40.79	33.58	55.06	58.23	23.22	40.64	39.27	64.07
	18	40.86	35.60	55.16	61.40	23.31	43.46	39.38	65.18
	28	40.89	37.41	55.20	64.46	23.32	46.35	39.46	66.13
Nov.	7	40.88	39.01	55.18	67.32	23.27	49.21	39.51	66.89
	17	40.84	40.34	55.10	69.92	23.15	51.92	39.53	67.47
	27	40.78	41.40	54.97	72.20	22.98	54.38	39.52	67.88
Dec.	7	40.68	42.14	54.78	74.11	22.76	56.47	39.48	68.11
	17	40.56	42.57	54.55	75.56	22.50	58.13	39.42	68.16
	27	40.43	42.66	54.27	76.53	22.22	59.26	39.33	68.04
	37	40.27	42.42	53.97	77.00	21.91	59.84	39.23	67.76
Mean R. A.	1 ^h 4 ^m 37 ^s . 961		1 ^h 19 ^m 51 ^s . 251		1 ^h 34 ^m 19 ^s . 559		1 ^h 40 ^m 36 ^s . 594		
Mean Dec.	+35° 8' 17". 80		+59° 45' 45". 90		-57° 41' 56". 27		+20° 21' 48". 63		
Sec δ, Tan δ	1.223, + 0.704		1.986, + 1.716		1.871, - 1.582		1.067, + 0.371		

AT UPPER TRANSIT AT GREENWICH.								
Date.	γ ¹ Andromedæ. Mag. 2.2		α Arietis. Mag. 2.2		γ ² Ceti. Mag. 3.0		α Ceti. Mag. 2.8	
	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.
	h m	° /	h m	° /	h m	° /	h m	° /
	1 58	41 53	2 2	23 1	2 38	2 51	2 57	3 43
	s	"	s	"	s	"	s	"
Jan. 1	17.89	42.64	1.83	57.65	34.68	4.29	31.00	54.54
11	17.72	42.79	1.71	57.38	34.58	3.65	30.91	53.89
21	17.53	42.60	1.57	56.94	34.47	3.05	30.80	53.30
31	17.33	42.05	1.42	56.35	34.33	2.53	30.67	52.79
Feb. 10	17.12	41.17	1.27	55.64	34.19	2.12	30.52	52.39
20	16.92	40.00	1.12	54.81	34.04	1.82	30.37	52.07
Mar. 2	16.74	38.59	0.99	53.93	33.90	1.65	30.22	51.88
12	16.59	37.03	0.88	53.04	33.78	1.62	30.09	51.83
Apr. 22	16.49	35.37	0.80	52.20	33.68	1.76	29.97	51.93
1	16.43	33.70	0.76	51.44	33.61	2.09	29.89	52.21
11	16.43	32.08	0.76	50.83	33.58	2.62	29.84	52.69
21	16.49	30.62	0.81	50.41	33.58	3.35	29.83	53.37
May 1	16.62	29.24	0.92	50.22	33.64	4.32	29.87	54.23
11	16.80	28.28	1.07	50.29	33.75	5.63	29.96	55.41
21	17.03	27.65	1.27	50.65	33.90	7.01	30.09	56.73
31	17.32	27.35	1.51	51.29	34.09	8.57	30.26	58.21
June 10	17.64	27.43	1.78	52.20	34.31	10.29	30.48	59.83
20	18.00	27.85	2.08	53.34	34.57	12.11	30.72	61.57
30	18.38	28.66	2.40	54.72	34.85	13.97	30.99	63.38
July 10	18.76	29.79	2.74	56.27	35.15	15.84	31.28	65.18
20	19.16	31.24	3.07	57.97	35.45	17.70	31.58	66.98
30	19.55	32.94	3.40	59.78	35.76	19.46	31.89	68.69
Aug. 9	19.92	34.88	3.72	61.65	36.07	21.09	32.20	70.28
19	20.27	37.01	4.02	63.52	36.36	22.54	32.50	71.72
Sept. 29	20.60	39.26	4.30	65.36	36.64	23.76	32.78	72.95
8	20.89	41.62	4.55	67.12	36.90	24.75	33.05	73.93
18	21.15	44.01	4.78	68.79	37.13	25.48	33.30	74.68
28	21.37	46.43	4.97	70.34	37.34	25.95	33.52	75.16
Oct. 8	21.55	48.80	5.13	71.74	37.52	26.16	33.72	75.40
18	21.70	51.08	5.26	72.98	37.68	26.16	33.89	75.42
28	21.80	53.26	5.35	74.07	37.80	25.95	34.03	75.22
Nov. 7	21.86	55.28	5.42	74.98	37.89	25.55	34.15	74.83
17	21.89	57.12	5.45	75.72	37.96	25.02	34.23	74.31
27	21.87	58.71	5.45	76.28	37.99	24.40	34.28	73.71
Dec. 7	21.82	60.04	5.43	76.66	37.99	23.73	34.30	73.05
17	21.73	61.08	5.37	76.86	37.97	23.02	34.29	72.36
27	21.60	61.79	5.29	76.89	37.91	22.31	34.25	71.67
37	21.45	62.15	5.18	76.71	37.83	21.65	34.18	71.00
Mean R. A.	1 ^h 58 ^m 18 ^s . 500		2 ^h 2 ^m 28 ^s . 423		2 ^h 38 ^m 35 ^s . 030		2 ^h 57 ^m 31 ^s . 259	
Mean Dec.	+41° 53' 36" . 48		+23° 1' 57" . 06		+2° 51' 9" . 77		+3° 43' 59" . 41	
Sec δ, Tan δ	1.343, + 0.897		1.087, + 0.425		1.001, + 0.050		1.002, + 0.065	

AT UPPER TRANSIT AT GREENWICH.								
Date.	β Persei. (Algol) Mag. 2.2-3.7		α Persei. Mag. 1.9		α Tauri. (Aldebaran) Mag. 1.1		ι Aurigæ. Mag. 2.9	
	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.
	h m	° /	h m	° /	h m	° /	h m	° /
	3 2	40 36	3 17	49 32	4 30	16 19	4 51	33 1
	s	"	s	"	s	"	s	"
Jan. 1	14.33	25.59	49.11	23.57	41.91	36.49	4.08	23.94
11	14.21	26.21	48.96	24.64	41.88	36.32	4.07	24.66
21	14.04	26.53	48.76	25.37	41.81	36.15	4.01	25.30
31	13.85	26.55	48.53	25.71	41.71	35.99	3.90	25.83
Feb. 10	13.64	26.26	48.28	25.67	41.57	35.83	3.75	26.19
20	13.43	25.66	48.02	25.25	41.41	35.65	3.57	26.38
Mar. 2	13.22	24.81	47.76	24.46	41.24	35.45	3.37	26.41
12	13.03	23.74	47.51	23.38	41.07	35.27	3.17	26.26
Apr. 22	12.87	22.51	47.30	22.01	40.90	35.10	2.97	25.93
1	12.74	21.17	47.13	20.45	40.75	34.96	2.79	25.45
11	12.67	19.80	47.02	18.79	40.63	34.88	2.63	24.87
21	12.65	18.45	46.97	17.07	40.55	34.87	2.52	24.23
May 1	12.69	17.21	46.99	15.39	40.50	34.97	2.45	23.54
11	12.80	16.01	47.07	13.81	40.50	35.17	2.43	22.87
21	12.96	15.16	47.24	12.27	40.55	35.50	2.46	22.24
31	13.18	14.55	47.47	11.13	40.66	36.04	2.55	21.70
June 10	13.45	14.24	47.75	10.24	40.80	36.68	2.70	21.24
20	13.75	14.21	48.08	9.67	40.98	37.44	2.89	20.96
30	14.09	14.48	48.45	9.42	41.20	38.32	3.12	20.82
July 10	14.46	15.03	48.86	9.48	41.46	39.29	3.38	20.85
20	14.84	15.87	49.29	9.89	41.73	40.34	3.68	21.02
30	15.23	16.96	49.73	10.61	42.02	41.39	4.00	21.33
Aug. 9	15.62	18.28	50.17	11.62	42.33	42.44	4.34	21.75
19	16.00	19.79	50.61	12.90	42.64	43.46	4.69	22.27
Sept. 29	16.36	21.45	51.03	14.43	42.95	44.42	5.04	22.88
8	16.70	23.24	51.43	16.16	43.26	45.25	5.39	23.57
18	17.02	25.12	51.82	18.06	43.56	45.98	5.74	24.28
28	17.31	27.04	52.17	20.11	43.85	46.56	6.08	25.03
Oct. 8	17.58	28.97	52.48	22.27	44.13	46.99	6.41	25.81
18	17.80	30.90	52.76	24.49	44.39	47.30	6.72	26.61
28	17.99	32.81	53.00	26.74	44.63	47.47	7.01	27.42
Nov. 7	18.14	34.65	53.20	28.98	44.84	47.54	7.28	28.24
17	18.26	36.38	53.35	31.19	45.03	47.50	7.51	29.09
27	18.33	37.99	53.44	33.28	45.19	47.42	7.71	29.94
Dec. 7	18.35	39.44	53.49	35.23	45.31	47.29	7.87	30.79
17	18.33	40.71	53.48	37.00	45.39	47.14	7.99	31.64
27	18.27	41.74	53.41	38.54	45.43	46.98	8.06	32.47
37	18.17	42.50	53.29	39.78	45.43	46.81	8.07	33.23
Mean R. A.	3 ^h 2 ^m 14 ^s . 582		3 ^h 17 ^m 49 ^s . 191		4 ^h 30 ^m 41 ^s . 840		4 ^h 51 ^m 3 ^s . 927	
Mean Dec.	+40° 36' 20" . 29		+49° 32' 16" . 58		+16° 19' 37" . 05		+33° 1' 21" . 73	
Sec δ, Tan δ	1.317, + 0.857		1.541, + 1.172		1.042, + 0.293		1.193, + 0.650	

AT UPPER TRANSIT AT GREENWICH.

Date.	β Eridani. Mag. 2.9		α Aurigæ. (Capella) Mag. 0.2		β Orionis. (Rigel) Mag. 0.3		γ Orionis. (Bellatrix) Mag. 1.7		
	R. A.	Dec. S.	R. A.	Dec. N.	R. A.	Dec. S.	R. A.	Dec. N.	
	h m	° /	h m	° /	h m	° /	h m	° /	
	5 3	5 11	5 9	45 54	5 10	8 18	5 20	6 15	
	s	"	s	"	s	"	s	"	
Jan.	1	22.83	76.08	58.23	26.04	10.16	26.03	15.21	62.64
	11	22.82	77.35	58.23	27.49	10.15	27.48	15.22	61.89
	21	22.77	78.46	58.16	28.80	10.10	28.74	15.19	61.25
	31	22.68	79.39	58.04	29.91	10.01	29.80	15.11	60.72
Feb.	10	22.55	80.13	57.86	30.81	9.88	30.64	15.00	60.30
	20	22.40	80.62	57.65	31.43	9.73	31.21	14.86	60.00
Mar.	2	22.23	80.92	57.41	31.74	9.56	31.54	14.70	59.82
	12	22.05	80.97	57.16	31.73	9.38	31.62	14.52	59.74
Apr.	22	21.88	80.81	56.91	31.45	9.20	31.44	14.35	59.78
	1	21.71	80.42	56.67	30.88	9.03	31.00	14.19	59.94
	11	21.57	79.79	56.47	30.06	8.88	30.32	14.04	60.21
	21	21.46	78.94	56.31	29.03	8.76	29.39	13.92	60.62
May	1	21.38	77.89	56.20	27.85	8.68	28.22	13.84	61.16
	11	21.34	76.63	56.14	26.60	8.63	26.84	13.80	61.83
	21	21.35	75.19	56.15	25.29	8.63	25.25	13.80	62.65
	31	21.40	73.57	56.22	24.00	8.67	23.52	13.84	63.60
June	10	21.50	71.64	56.36	22.68	8.76	21.43	13.93	64.66
	20	21.63	69.80	56.55	21.59	8.89	19.44	14.07	65.95
	30	21.80	67.91	56.80	20.63	9.06	17.43	14.23	67.19
July	10	22.01	66.04	57.09	19.85	9.25	15.41	14.43	68.46
	20	22.24	64.20	57.42	19.25	9.48	13.47	14.66	69.74
	30	22.50	62.49	57.78	18.84	9.73	11.66	14.91	70.97
Aug.	9	22.77	60.94	58.16	18.65	9.99	10.03	15.18	72.12
	19	23.05	59.62	58.57	18.65	10.27	8.65	15.47	73.15
Sept.	29	23.34	58.58	58.98	18.83	10.56	7.56	15.76	73.99
	8	23.63	57.83	59.40	19.19	10.85	6.79	16.05	74.64
	18	23.92	57.41	59.82	19.73	11.15	6.39	16.35	75.08
	28	24.21	57.33	60.23	20.44	11.43	6.35	16.64	75.27
Oct.	8	24.48	57.60	60.63	21.30	11.71	6.70	16.93	75.24
	18	24.74	58.19	61.02	22.28	11.97	7.38	17.21	74.97
	28	24.99	59.06	61.38	23.41	12.22	8.39	17.47	74.49
Nov.	7	25.21	60.20	61.71	24.67	12.45	9.66	17.72	73.85
	17	25.41	61.53	62.01	26.06	12.65	11.15	17.94	73.07
	27	25.58	62.99	62.27	27.52	12.82	12.80	18.13	72.21
Dec.	7	25.71	64.50	62.48	29.06	12.96	14.49	18.29	71.30
	17	25.81	66.03	62.63	30.63	13.06	16.21	18.41	70.38
	27	25.86	67.48	62.73	32.18	13.12	17.84	18.49	69.52
	37	25.88	68.84	62.76	33.68	13.14	19.38	18.53	68.73
Mean R. A.	5 ^h 3 ^m 22 ^s . 555		5 ^h 9 ^m 57 ^s . 879		5 ^h 10 ^m 9 ^s . 834		5 ^h 20 ^m 14 ^s . 976		
Mean Dec.	- 5° 12' 12" .52		+ 45° 54' 22" .56		- 8° 18' 22" .31		+ 6° 16' 4" .18		
Sec δ, Tan δ	1.004, - 0.091		1.437, + 1.032		1.011, - 0.146		1.006, + 0.110		

AT UPPER TRANSIT AT GREENWICH.

Date.	β Tauri. Mag. 1.8		δ Orionis. Mag. 2.2-2.7		α Leporis. Mag. 2.7		ε Orionis. Mag. 1.7		
	R. A.	Dec. N.	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. S.	
	h m	° /	h m	° /	h m	° /	h m	° /	
	5 20	28 31	5 27	0 21	5 28	17 52	5 31	1 15	
	s	"	s	"	s	"	s	"	
Jan.	1	32.52	53.83	21.71	59.43	43.48	76.89	36.03	36.02
	11	32.53	54.34	21.72	60.57	43.48	78.84	36.04	37.20
	21	32.50	54.82	21.69	61.54	43.43	80.58	36.02	38.24
	31	32.42	55.25	21.62	62.36	43.34	82.06	35.95	39.10
Feb.	10	32.30	55.61	21.51	63.00	43.21	83.22	35.84	39.78
	20	32.14	55.87	21.37	63.47	43.05	84.08	35.70	40.28
Mar.	2	31.96	56.01	21.21	63.77	42.87	84.60	35.54	40.60
	12	31.77	56.02	21.04	63.86	42.67	84.77	35.36	40.72
Apr.	22	31.58	55.91	20.86	63.78	42.48	84.61	35.19	40.64
	1	31.39	55.70	20.69	63.54	42.29	84.12	35.02	40.38
	11	31.23	55.39	20.54	63.10	42.12	83.30	34.87	39.93
	21	31.10	55.03	20.42	62.48	41.98	82.18	34.74	39.30
May	1	31.01	54.62	20.33	61.68	41.87	80.74	34.65	38.46
	11	30.97	54.22	20.27	60.70	41.79	79.05	34.59	37.47
	21	30.97	53.84	20.26	59.56	41.76	77.13	34.57	36.30
	31	31.02	53.52	20.30	58.28	41.77	75.00	34.60	34.98
June	10	31.12	53.26	20.37	56.87	41.83	72.72	34.67	33.54
	20	31.29	53.12	20.50	55.21	41.94	70.09	34.79	31.83
	30	31.48	53.09	20.65	53.64	42.08	67.67	34.95	30.21
July	10	31.71	53.16	20.84	52.04	42.26	65.28	35.13	28.59
	20	31.98	53.33	21.06	50.47	42.47	62.98	35.34	27.00
	30	32.26	53.58	21.30	48.99	42.70	60.85	35.58	25.50
Aug.	9	32.57	53.91	21.56	47.64	42.96	58.96	35.84	24.11
	19	32.90	54.29	21.84	46.46	43.24	57.35	36.11	22.93
Sept.	29	33.23	54.71	22.12	45.50	43.52	56.10	36.40	21.97
	8	33.57	55.14	22.41	44.81	43.81	55.25	36.69	21.26
	18	33.90	55.57	22.70	44.40	44.11	54.85	36.98	20.85
	28	34.24	55.99	23.00	44.27	44.41	54.89	37.27	20.74
Oct.	8	34.57	56.41	23.28	44.46	44.70	55.38	37.55	20.95
	18	34.88	56.81	23.55	44.94	44.97	56.30	37.83	21.46
	28	35.18	57.19	23.82	45.67	45.23	57.62	38.10	22.24
Nov.	7	35.46	57.57	24.06	46.63	45.48	59.27	38.34	23.26
	17	35.72	57.98	24.28	47.77	45.69	61.20	38.57	24.46
	27	35.94	58.40	24.48	49.03	45.87	63.34	38.76	25.76
Dec.	7	36.13	58.86	24.64	50.35	46.02	65.57	38.93	27.13
	17	36.28	59.35	24.76	51.66	46.13	67.82	39.05	28.52
	27	36.38	59.85	24.84	52.93	46.20	70.02	39.14	29.87
	37	36.42	60.36	24.88	54.13	46.22	72.07	39.18	31.09
Mean R. A.	5 ^h 20 ^m 32 ^s . 306		5 ^h 27 ^m 21 ^s . 424		5 ^h 28 ^m 42 ^s . 991		5 ^h 31 ^m 35 ^s . 728		
Mean Dec.	+ 28° 31' 52" .63		- 0° 21' 57" .29		- 17° 53' 12" .95		- 1° 15' 33" .90		
Sec δ, Tan δ	1.138, + 0.543		1.000, - 0.006		1.051, - 0.323		1.000, - 0.022		

AT UPPER TRANSIT AT GREENWICH.								
Date.	ζ Orionis. Mag. 2.0		α Columbæ. Mag. 2.7		κ Orionis. Mag. 2.2		α Orionis. (Betelgeuse) Mag. 1.0-1.4	
	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. N.
	h m	° /	h m	° /	h m	° /	h m	° /
	5 36	1 59	5 36	34 6	5 43	9 41	5 50	7 23
	s	"	s	"	s	"	s	"
Jan. 1	10.33	26.92	22.10	84.86	26.83	67.55	14.97	25.68
11	10.35	28.16	22.07	87.46	26.85	69.20	15.01	24.93
21	10.32	29.24	21.99	89.79	26.82	70.66	15.01	24.30
31	10.25	30.15	21.87	91.79	26.75	71.92	14.95	23.78
Feb. 10	10.15	30.86	21.70	93.39	26.64	72.93	14.86	23.39
20	10.01	31.38	21.50	94.58	26.50	73.68	14.73	23.11
Mar. 2	9.85	31.73	21.27	95.33	26.34	74.17	14.58	22.93
12	9.68	31.86	21.03	95.61	26.16	74.38	14.41	22.87
Apr. 22	9.50	31.80	20.79	95.43	25.98	74.32	14.24	22.92
1	9.33	31.54	20.56	94.82	25.80	74.00	14.07	23.07
11	9.18	31.08	20.34	93.80	25.63	73.41	13.91	23.31
21	9.05	30.43	20.15	92.35	25.49	72.57	13.78	23.67
May 1	8.95	29.60	20.00	90.54	25.39	71.49	13.68	24.14
11	8.89	28.59	19.88	88.37	25.31	70.18	13.61	24.73
21	8.87	27.40	19.81	85.91	25.28	68.65	13.59	25.44
31	8.89	26.06	19.79	83.22	25.29	66.96	13.60	26.26
June 10	8.96	24.57	19.81	80.35	25.34	65.12	13.66	27.17
20	9.07	22.84	19.90	77.07	25.44	62.97	13.78	28.29
30	9.22	21.21	20.02	74.05	25.58	60.97	13.92	29.37
July 10	9.40	19.57	20.19	71.09	25.74	58.97	14.09	30.47
20	9.61	17.94	20.39	68.27	25.94	57.01	14.30	31.59
30	9.84	16.40	20.63	65.66	26.17	55.18	14.53	32.67
Aug. 9	10.10	15.01	20.90	63.36	26.42	53.54	14.79	33.66
19	10.37	13.81	21.18	61.43	26.68	52.12	15.06	34.54
Sept. 29	10.65	12.85	21.49	59.94	26.96	50.99	15.34	35.27
8	10.94	12.14	21.81	58.97	27.25	50.19	15.63	35.80
18	11.23	11.74	22.13	58.52	27.54	49.78	15.93	36.12
28	11.52	11.65	22.45	58.63	27.83	49.73	16.22	36.22
Oct. 8	11.81	11.88	22.77	59.30	28.12	50.07	16.52	36.10
18	12.09	12.41	23.07	60.53	28.40	50.80	16.81	35.76
28	12.35	13.21	23.36	62.23	28.66	51.86	17.09	35.21
Nov. 7	12.60	14.27	23.62	64.36	28.91	53.23	17.36	34.50
17	12.83	15.51	23.85	66.87	29.15	54.81	17.61	33.67
27	13.03	16.88	24.04	69.61	29.35	56.59	17.83	32.75
Dec. 7	13.20	18.31	24.19	72.52	29.52	58.44	18.02	31.81
17	13.33	19.75	24.29	75.47	29.65	60.34	18.17	30.87
27	13.42	21.15	24.35	78.37	29.74	62.19	18.28	29.97
37	13.47	22.45	24.35	81.10	29.78	63.92	18.35	29.16
Mean R. A.	5 ^h 36 ^m 10 ^s . 012		5 ^h 36 ^m 21 ^s . 230		5 ^h 43 ^m 26 ^s . 428		5 ^h 50 ^m 14 ^s . 700	
Mean Dec.	- 1° 59' 24". 87		- 34° 7' 20". 11		- 9° 42' 5". 08		+ 7° 23' 26". 57	
Sec δ, Tan δ	1.001, - 0.035		1.208, - 0.678		1.015, - 0.171		1.008, + 0.130	

AT UPPER TRANSIT AT GREENWICH.								
Date.	β Aurigæ. Mag. 2.1		θ Aurigæ. Mag. 2.7		β Canis Majoris. Mag. 2.0		α Argûs. (Canopus) Mag. - 1.0	
	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. S.	R. A.	Dec. S.
	h m	° /	h m	° /	h m	° /	h m	° /
	5 52	44 56	5 53	37 12	6 18	17 54	6 21	52 38
	s	"	s	"	s	"	s	"
Jan. 1	51.69	22.49	31.28	26.39	42.08	37.69	57.71	45.98
11	51.74	23.97	31.34	27.42	42.12	39.87	57.67	49.31
21	51.73	25.38	31.33	28.40	42.11	41.87	57.57	52.39
31	51.65	26.69	31.27	29.34	42.06	43.63	57.41	55.16
Feb. 10	51.52	27.85	31.16	30.19	41.96	45.09	57.18	57.53
20	51.34	28.78	31.01	30.88	41.83	46.26	56.90	59.45
Mar. 2	51.12	29.46	30.82	31.40	41.66	47.10	56.58	60.91
12	50.88	29.88	30.61	31.72	41.48	47.59	56.24	61.84
Apr. 22	50.63	29.99	30.39	31.82	41.29	47.75	55.88	62.25
1	50.39	29.82	30.18	31.72	41.09	47.57	55.52	62.13
11	50.17	29.38	29.99	31.41	40.90	47.06	55.17	61.50
21	49.98	28.71	29.82	30.94	40.74	46.24	54.84	60.36
May 1	49.83	27.81	29.69	30.33	40.60	45.10	54.55	58.76
11	49.73	26.77	29.61	29.62	40.49	43.69	54.30	56.72
21	49.69	25.65	29.58	28.85	40.42	42.02	54.10	54.30
31	49.71	24.44	29.60	28.05	40.39	40.12	53.95	51.54
June 10	49.78	23.25	29.67	27.27	40.40	38.06	53.87	48.53
20	49.93	21.94	{29.79} {26.52}	{26.52}	40.45	35.85	53.84	45.31
30	50.12	20.85	{29.80} {25.44}	{25.44}	40.55	33.32	53.88	41.64
July 10	50.36	19.84	29.98	25.77	40.68	31.03	53.98	38.29
20	50.64	18.96	30.45	24.70	40.85	28.79	54.14	35.01
30	50.96	18.22	30.74	24.30	41.04	26.66	54.36	31.93
Aug. 9	51.30	17.63	31.05	24.01	41.26	24.73	54.62	29.12
19	51.68	17.18	31.39	23.83	41.51	23.05	54.93	26.66
Sept. 29	52.07	16.91	31.74	23.74	41.77	21.70	55.27	24.67
8	52.47	16.76	32.10	23.72	42.05	20.73	55.64	23.18
18	52.88	16.78	32.47	23.79	42.34	20.17	56.04	22.29
28	53.30	16.95	32.85	23.93	42.64	20.07	56.45	22.02
Oct. 8	53.71	17.29	33.22	24.16	42.93	20.42	56.86	22.40
18	54.12	17.77	33.58	24.49	43.23	21.22	57.26	23.40
28	54.51	18.42	33.94	24.88	43.52	22.47	57.65	25.04
Nov. 7	54.88	19.22	34.27	25.38	43.79	24.06	58.00	27.21
17	55.22	20.15	34.58	25.97	44.05	25.97	58.32	29.88
27	55.53	21.27	34.86	26.66	44.28	28.13	58.59	32.92
Dec. 7	55.80	22.53	35.10	27.46	44.48	30.44	58.81	36.23
17	56.01	23.90	35.30	28.35	44.64	32.84	58.96	39.69
27	56.16	25.34	35.45	29.32	44.75	35.21	59.04	43.18
37	56.25	26.78	35.53	30.33	44.82	37.50	59.05	46.59
Mean R. A.	5 ^h 52 ^m 51 ^s . 250		5 ^h 53 ^m 30 ^s . 952		6 ^h 18 ^m 41 ^s . 523		6 ^h 21 ^m 55 ^s . 910	
Mean Dec.	+ 44° 56' 20". 47		+ 37° 12' 24". 94		- 17° 54' 36". 52		- 52° 38' 44". 73	
Sec δ, Tan δ	1.413, + 0.998		1.256, + 0.759		1.051, - 0.323		1.648, - 1.310	

AT UPPER TRANSIT AT GREENWICH.

Date.	γ Geminorum. Mag. 1.9		α Canis Majoris. (Sirius) Mag. - 1.4		τ Argūs. Mag. 2.8		ε Canis Majoris. Mag. 1.6	
	R. A.	Dec. N.	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. S.
	h m	° /	h m	° /	h m	° /	h m	° /
	6 32	16 28	6 41	16 35	6 47	50 30	6 55	28 50
	s	"	s	"	s	"	s	"
Jan. I	27.61	39.25	8.63	27.09	42.32	21.05	3.73	50.68
II	27.70	38.94	8.69	29.35	42.34	24.47	3.80	53.49
21	27.73	38.75	8.70	31.41	42.28	27.70	3.81	56.12
31	27.72	38.66	8.66	33.23	42.16	30.67	3.77	58.52
Feb. 10	27.66	38.65	8.58	34.78	41.98	33.26	3.68	60.62
20	27.55	38.71	8.45	36.04	41.74	35.45	3.55	62.34
Mar. 2	27.42	38.82	8.30	36.98	41.46	37.21	3.38	63.73
12	27.26	38.97	8.12	37.57	41.15	38.46	3.18	64.70
Apr. 22	27.08	39.13	7.93	37.86	40.82	39.21	2.97	65.26
I	26.91	39.31	7.74	37.80	40.48	39.44	2.75	65.41
11	26.74	39.49	7.55	37.45	40.15	39.15	2.53	65.15
21	26.59	39.68	7.38	36.77	39.84	38.36	2.33	64.49
May I	26.46	39.85	7.24	35.81	39.55	37.11	2.15	63.45
11	26.37	40.08	7.12	34.57	39.29	35.38	2.00	62.04
21	26.32	40.33	7.04	33.08	39.08	33.25	1.88	60.30
31	26.30	40.64	6.99	31.37	38.92	30.75	1.80	58.29
June 10	26.33	40.96	6.99	29.49	38.81	27.97	1.76	56.02
20	26.40	41.34	7.02	27.45	38.76	24.93	1.76	53.57
30	26.52	41.80	7.10	25.33	38.77	21.75	1.80	50.96
July 10	26.67	42.24	7.22	22.98	38.83	18.17	1.89	48.05
20	26.85	42.68	7.37	20.88	38.96	14.92	2.01	45.42
30	27.06	43.11	7.54	18.88	39.13	11.80	2.17	42.89
Aug. 9	27.29	43.50	7.75	17.07	39.35	8.93	2.37	40.55
19	27.55	43.84	7.98	15.49	39.62	6.37	2.59	38.48
Sept. 29	27.82	44.09	8.23	14.21	39.93	4.22	2.84	36.75
8	28.11	44.22	8.50	13.31	40.27	2.56	3.11	35.42
18	28.41	44.23	8.78	12.78	40.64	1.44	3.40	34.56
28	28.72	44.11	9.07	12.70	41.03	0.92	3.71	34.22
Oct. 8	29.04	43.83	9.37	13.08	41.42	1.05	4.02	34.39
18	29.35	43.44	9.67	13.89	41.82	1.82	4.34	35.11
28	29.66	42.94	9.96	15.11	42.21	3.20	4.65	36.35
Nov. 7	29.97	42.36	10.25	16.72	42.58	5.15	4.96	38.06
17	30.25	41.73	10.51	18.64	42.91	7.63	5.25	40.19
27	30.52	41.09	10.76	20.81	43.21	10.53	5.51	42.66
Dec. 7	30.76	40.48	10.97	23.15	43.46	13.73	5.74	45.39
17	30.96	39.90	11.15	25.57	43.65	17.16	5.93	48.26
27	31.12	39.42	11.28	27.99	43.77	20.68	6.08	51.19
37	31.24	39.06	11.37	30.32	43.82	24.18	6.18	54.08
Mean R. A.	6 ^h 32 ^m 27 ^s . 327		6 ^h 41 ^m 8 ^s . 088		6 ^h 47 ^m 40 ^s . 678		6 ^h 55 ^m 2 ^s . 958	
Mean Dec.	+16° 28' 39". 25		-16° 35' 26". 93		-50° 30' 22". 28		-28° 50' 51". 86	
Sec δ, Tan δ	1.043, + 0.296		1.043, - 0.298		1.572, - 1.213		1.142, - 0.551	

AT UPPER TRANSIT AT GREENWICH.

Date.	δ Canis Majoris. Mag. 2.0		π Argūs. Mag. 2.7		η Canis Majoris. Mag. 2.4		α ² Geminorum. (Castor) Mag. 2.0	
	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. N.
	h m	° /	h m	° /	h m	° /	h m	° /
	7 4	26 14	7 13	36 55	7 20	29 7	7 28	32 5
	s	"	s	"	s	"	s	"
Jan. I	42.13	51.87	56.71	58.96	30.53	27.42	48.05	19.71
11	42.21	54.63	56.79	62.14	30.63	30.33	48.21	20.22
21	42.24	57.20	56.81	65.16	30.67	33.09	48.32	20.88
31	42.21	59.55	56.77	67.94	30.65	35.64	48.36	21.65
Feb. 10	42.14	61.60	56.68	70.45	30.59	37.90	48.35	22.50
20	42.02	63.34	56.54	72.59	30.47	39.85	48.28	23.40
Mar. 2	41.86	64.71	56.35	74.33	30.32	41.42	48.17	24.26
12	41.68	65.71	56.14	75.65	30.14	42.62	48.02	25.04
Apr. 22	41.48	66.30	55.90	76.54	29.93	43.41	47.84	25.71
I	41.27	66.51	55.66	76.94	29.72	43.79	47.65	26.27
11	41.06	66.32	55.41	76.90	29.50	43.75	47.46	26.67
21	40.86	65.76	55.18	76.43	29.30	43.33	47.28	26.87
May I	40.68	64.81	54.96	75.51	29.11	42.52	47.11	26.91
11	40.53	63.55	54.77	74.18	28.94	41.32	46.97	26.83
21	40.42	61.94	54.62	72.46	28.81	39.79	46.87	26.58
31	40.33	60.05	54.50	70.40	28.71	37.94	46.81	26.22
June 10	40.29	57.92	54.42	68.05	28.66	35.82	46.78	25.75
20	40.29	55.59	54.38	65.48	28.63	33.49	46.80	25.19
30	40.32	53.14	54.39	62.72	28.64	31.01	46.86	24.59
July 10	40.41	50.37	54.45	59.58	28.70	28.45	46.96	23.96
20	40.52	47.85	54.54	56.71	28.80	25.59	47.12	23.20
30	40.67	45.44	54.68	53.93	28.94	23.07	47.30	22.49
Aug. 9	40.86	43.20	54.86	51.31	29.11	20.72	47.51	21.78
19	41.07	41.19	55.07	48.94	29.31	18.60	47.75	21.03
Sept. 29	41.31	39.50	55.32	46.92	29.53	16.78	48.02	20.27
8	41.57	38.20	55.59	45.32	29.79	15.35	48.32	19.50
18	41.85	37.35	55.89	44.19	30.07	14.35	48.63	18.71
28	42.15	36.98	56.21	43.62	30.36	13.86	48.96	17.93
Oct. 8	42.46	37.13	56.54	43.62	30.68	13.91	49.31	17.17
18	42.78	37.80	56.88	44.19	31.00	14.48	49.67	16.42
28	43.09	38.99	57.22	45.36	31.32	15.58	50.03	15.76
Nov. 7	43.39	40.62	57.55	47.03	31.63	17.19	50.39	15.16
17	43.68	42.66	57.86	49.20	31.94	19.22	50.75	14.66
27	43.95	45.05	58.15	51.80	32.22	21.64	51.09	14.33
Dec. 7	44.19	47.68	58.41	54.70	32.48	24.32	51.41	14.15
17	44.40	50.46	58.62	57.80	32.69	27.21	51.70	14.16
27	44.55	53.31	58.78	61.03	32.87	30.18	51.94	14.38
37	44.66	56.11	58.89	64.25	32.99	33.15	52.13	14.78
Mean R. A.	7 ^h 4 ^m 41 ^s . 426		7 ^h 13 ^m 55 ^s . 729		7 ^h 20 ^m 29 ^s . 781		7 ^h 28 ^m 47 ^s . 735	
Mean Dec.	-26° 14' 53". 62		-36° 56' 1". 94		-29° 7' 30". 39		+32° 5' 20". 48	
Sec δ, Tan δ	1.115, - 0.493		1.251, - 0.752		1.145, - 0.557		1.180, + 0.627	

AT UPPER TRANSIT AT GREENWICH.

Date.	α Canis Minoris. (Procyon) Mag. 0.5		β Geminorum. (Pollux) Mag. 1.2		ζ Argūs. Mag. 2.3		15 Argūs. Mag. 2.9	
	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. S.	R. A.	Dec. S.
	h m	° /	h m	° /	h m	° /	h m	° /
	7 34	5 27	7 39	28 14	8 0	39 44	8 3	24 2
	s	"	s	"	s	"	s	"
Jan. 1	32.58	31.15	45.24	47.10	24.08	40.77	40.65	23.91
11	32.72	29.95	45.41	47.33	24.21	44.13	40.79	26.68
21	32.81	28.91	45.52	47.72	24.29	47.40	40.89	29.39
31	32.85	28.06	45.57	48.25	24.30	50.52	40.93	31.92
Feb. 10	32.83	27.38	45.57	48.90	24.25	53.43	40.91	34.20
20	32.78	26.89	45.52	49.61	24.15	56.01	40.85	36.20
Mar. 2	32.68	26.58	45.42	50.35	24.00	58.25	40.75	37.88
12	32.55	26.41	45.28	51.06	23.81	60.07	40.61	39.24
Apr. 22	32.40	26.37	45.12	51.69	23.59	61.49	40.44	40.24
1	32.24	26.51	44.94	52.24	23.35	62.44	40.26	40.87
11	32.07	26.73	44.75	52.67	23.11	62.95	40.07	41.12
21	31.91	27.06	44.58	52.99	22.86	62.99	39.88	41.01
May 1	31.77	27.50	44.42	53.16	22.62	62.58	39.70	40.55
11	31.64	28.03	44.28	53.20	22.41	61.73	39.54	39.75
21	31.55	28.64	44.17	53.14	22.21	60.44	39.40	38.62
31	31.49	29.32	44.10	52.96	22.05	58.78	39.28	37.19
June 10	31.46	30.09	44.07	52.70	21.93	56.76	39.20	35.52
20	31.47	30.89	44.08	52.37	21.84	54.45	39.15	33.62
30	31.51	31.73	44.13	51.97	21.79	51.91	39.14	31.52
July 10	31.58	32.59	44.22	51.52	21.78	49.18	39.16	29.32
20	31.71	33.52	44.35	50.98	{21.82}	{46.38}	39.21	27.08
30	31.85	34.30	44.51	50.46	{21.83}	{46.10}	39.31	24.61
Aug. 9	32.02	35.00	44.71	49.87	21.91	43.28	39.34	22.49
19	32.21	35.57	44.93	49.25	22.04	40.55	39.44	20.54
29	32.43	35.95	45.18	48.58	22.20	38.01	39.60	20.54
Sept. 8	32.67	36.13	45.45	47.88	22.40	35.75	39.79	18.83
18	32.93	36.12	45.75	47.13	22.65	33.85	40.01	17.43
28	33.21	35.86	46.06	46.33	22.92	32.38	40.25	16.43
Oct. 8	33.50	35.36	46.39	45.52	23.22	31.44	40.52	15.85
18	33.80	34.61	46.73	44.68	23.55	31.05	40.81	15.77
28	34.11	33.61	47.08	43.85	23.89	31.23	41.12	16.17
Nov. 7	34.42	32.44	47.44	43.07	24.24	32.02	41.43	17.09
17	34.72	31.11	47.78	42.36	24.60	33.40	41.75	18.46
27	35.01	29.68	48.12	41.78	24.95	35.30	42.07	20.28
Dec. 7	35.28	28.20	48.44	41.35	25.29	37.68	42.38	22.46
17	35.53	26.73	48.72	41.07	25.59	40.46	42.67	24.94
27	35.73	25.33	48.97	40.98	25.86	43.53	42.92	27.63
37	35.90	24.05	49.16	41.08	26.07	46.82	43.14	30.44
					26.24	50.17	43.31	33.27
Mean R. A.	7 ^h 34 ^m 32 ^s . 301		7 ^h 39 ^m 44 ^s . 061		8 ^h 0 ^m 23 ^s . 119		8 ^h 3 ^m 40 ^s . 100	
Mean Dec.	+ 5° 27' 30". 19		+ 28° 14' 47". 84		- 39° 44' 47". 63		- 24° 2' 29". 11	
Sec δ, Tan δ	1.005, + 0.096		1.135, + 0.537		1.301, - 0.832		1.095, - 0.446	

AT UPPER TRANSIT AT GREENWICH.

Date.	γ Argūs. Mag. 1.9		ε Argūs. Mag. 1.7		δ Argūs. Mag. 2.0		λ Argūs. Mag. 2.3	
	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. S.
	h m	° /	h m	° /	h m	° /	h m	° /
	8 6	47 3	8 20	59 12	8 42	54 22	9 4	43 3
	s	"	s	"	s	"	s	"
Jan. 1	44.98	57.20	40.82	48.53	12.74	17.33	39.67	41.97
11	45.12	60.74	40.99	52.22	12.93	20.98	39.88	45.37
21	45.20	64.24	41.06	55.97	13.06	24.69	40.04	48.84
31	45.20	67.60	41.06	59.64	13.10	28.34	40.14	52.26
Feb. 10	45.14	70.75	40.97	63.11	13.07	31.85	40.17	55.54
20	45.02	73.60	40.79	66.35	12.97	35.14	40.14	58.64
Mar. 2	44.85	76.10	40.55	69.25	12.80	38.12	40.06	61.44
12	44.63	78.18	40.25	71.74	12.58	40.73	39.92	63.92
Apr. 22	44.37	79.84	39.91	73.81	12.32	42.95	39.75	66.02
1	44.10	81.03	39.53	75.38	12.01	44.70	39.55	67.69
11	43.81	81.72	39.13	76.46	11.69	45.97	39.32	68.95
21	43.52	81.93	38.73	77.04	11.35	46.76	39.09	69.75
May 1	43.24	81.65	38.33	77.08	11.02	47.02	38.85	70.09
11	42.98	80.88	37.94	76.60	10.70	46.77	38.61	69.97
21	42.75	79.68	37.58	75.60	10.39	46.03	38.39	69.40
31	42.54	78.01	37.26	74.14	10.11	44.82	38.19	68.40
June 10	42.38	75.99	36.98	72.23	9.86	43.14	38.01	66.98
20	42.25	73.62	36.75	69.91	9.66	41.08	37.85	65.19
30	42.17	70.98	36.58	67.27	9.50	38.66	37.74	63.07
July 10	42.13	68.15	36.46	64.38	9.38	35.94	37.66	60.71
20	42.15	65.17	36.41	61.28	9.32	33.04	37.61	58.14
30	42.22	61.87	36.43	57.77	9.32	30.01	37.61	55.44
Aug. 9	42.34	58.96	36.52	54.63	9.38	26.65	37.66	52.45
19	42.50	56.18	36.68	51.59	9.50	23.69	37.75	49.78
29	42.71	53.71	36.90	48.79	9.68	20.93	37.88	47.30
Sept. 8	42.96	51.59	37.19	46.33	9.91	18.45	38.06	45.07
18	43.25	49.90	37.53	44.30	10.19	16.38	38.28	43.20
28	43.58	48.74	37.92	42.77	10.53	14.75	38.54	41.74
Oct. 8	43.93	48.13	38.36	41.82	10.91	13.71	38.84	40.78
18	44.31	48.17	38.83	41.51	11.32	13.25	39.18	40.39
28	44.70	48.82	39.31	41.87	11.75	13.46	39.54	40.60
Nov. 7	45.09	50.10	39.80	42.88	12.20	14.30	39.91	41.40
17	45.47	51.96	40.28	44.52	12.64	15.78	40.30	42.78
27	45.83	54.33	40.73	46.75	13.07	17.83	40.68	44.72
Dec. 7	46.16	57.15	41.14	49.47	13.47	20.41	41.04	47.14
17	46.45	60.30	41.49	52.61	13.83	23.42	41.38	49.97
27	46.68	63.70	41.78	56.10	14.13	26.78	41.67	53.11
37	46.85	67.25	41.99	59.77	14.37	30.35	41.92	56.46
Mean R. A.	8 ^h 6 ^m 43 ^s . 748		8 ^h 20 ^m 38 ^s . 843		8 ^h 42 ^m 11 ^s . 288		9 ^h 4 ^m 38 ^s . 901	
Mean Dec.	- 47° 4' 5". 38		- 59° 12' 59". 22		- 54° 22' 29". 37		- 43° 3' 54". 00	
Sec δ, Tan δ	1.468, - 1.075		1.954, - 1.679		1.717, - 1.396		1.369, - 0.935	

AT UPPER TRANSIT AT GREENWICH.

Date.	β Argūs. Mag. 1.7		ι Argūs. Mag. 2.2		κ Argūs. Mag. 2.6		α Hydræ. Mag. 2.2	
	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. S.
	h m	° /	h m	° /	h m	° /	h m	° /
	9 12	69 20	9 14	58 53	9 19	54 37	9 23	8 15
	s	"	s	"	s	"	s	"
Jan. 1	15.06	16.00	40.66	19.92	18.85	4.19	7.03	43.70
11	15.39	19.56	40.93	23.52	19.11	7.73	7.26	45.92
21	15.59	23.36	41.11	27.24	19.30	11.41	7.45	48.00
31	15.68	27.20	41.21	31.01	19.41	15.11	7.58	49.95
Feb. 10	15.65	31.02	41.23	34.72	19.44	18.75	7.67	51.67
20	15.51	34.72	41.17	38.27	19.41	22.24	7.71	53.17
Mar. 2	15.26	38.18	41.03	41.60	19.30	25.47	7.70	54.39
12	14.92	41.36	40.83	44.61	19.13	28.41	7.65	55.36
Apr. 22	14.50	44.17	40.57	47.25	18.92	31.00	7.56	56.10
1	14.01	46.59	40.26	49.46	18.66	33.16	7.45	56.57
11	13.48	48.54	39.92	51.24	18.37	34.88	7.32	56.81
21	12.91	50.00	39.56	52.52	18.06	36.14	7.18	56.82
May 1	12.32	50.94	39.19	53.30	17.74	36.88	7.04	56.62
11	11.73	51.35	38.82	53.56	17.42	37.13	6.90	56.21
21	11.15	51.20	38.46	53.30	17.11	36.85	6.78	55.63
31	10.60	50.55	38.12	52.53	16.82	36.11	6.67	54.85
June 10	10.09	49.37	37.80	51.28	16.55	34.88	6.57	53.93
20	9.62	47.69	37.53	49.57	16.32	33.21	6.50	52.88
30	9.22	45.61	37.29	47.45	16.12	31.15	6.45	51.71
July 10	8.89	43.14	37.10	45.00	15.96	28.77	6.43	50.50
20	8.65	40.36	36.97	42.27	15.85	26.08	6.43	49.26
30	8.49	37.34	36.90	39.33	15.79	23.23	6.46	48.02
Aug. 9	8.43	33.87	36.89	35.99	15.79	20.30	6.51	46.83
19	8.49	30.71	36.95	32.94	15.85	17.03	6.61	45.64
Sept. 29	8.64	27.62	37.08	30.01	15.97	14.21	6.73	44.75
8	8.90	24.76	37.28	27.31	16.15	11.60	6.88	44.06
18	9.26	22.18	37.55	24.91	16.39	9.28	7.05	43.65
28	9.71	20.03	37.87	22.96	16.68	7.39	7.26	43.54
Oct 8	10.24	18.39	38.26	21.50	17.03	6.01	7.50	43.78
18	10.84	17.33	38.69	20.62	17.42	5.19	7.76	44.36
28	11.48	16.88	39.15	20.38	17.84	4.99	8.05	45.30
Nov. 7	12.15	17.12	39.64	20.78	18.28	5.42	8.36	46.60
17	12.83	18.01	40.14	21.83	18.74	6.50	8.68	48.19
27	13.50	19.56	40.63	23.50	19.20	8.19	9.01	50.07
Dec. 7	14.12	21.70	41.10	25.76	19.63	10.46	9.33	52.15
17	14.68	24.39	41.53	28.51	20.03	13.19	9.63	54.37
27	15.15	27.52	41.90	31.70	20.39	16.33	9.92	56.63
37	15.53	30.99	42.20	35.18	20.68	19.76	10.17	58.89
Mean R. A.	9 ^h 12 ^m 12 ^s . 299		9 ^h 14 ^m 39 ^s . 158		9 ^h 19 ^m 17 ^s . 675		9 ^h 23 ^m 6 ^s . 961	
Mean Dec.	-69° 20' 32". 29		-58° 53' 35". 16		-54° 37' 19". 15		-8° 15' 49". 38	
Sec δ, Tan δ	2.834, - 2.652		1.936, - 1.657		1.727, - 1.408		1.010, - 0.145	

AT UPPER TRANSIT AT GREENWICH.

Date.	α Leonis. (Regulus) Mag. 1.3		γ ¹ Leonis. Mag. 2.5		η Argūs. Mag. 1-7½		μ Argūs. Mag. 2.8	
	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. S.	R. A.	Dec. S.
	h m	° /	h m	° /	h m	° /	h m	° /
	10 3	12 24	10 14	20 17	10 41	59 12	10 42	48 56
	s	"	s	"	s	"	s	"
Jan. 1	31.47	45.17	57.23	66.68	32.19	0.72	51.33	3.22
11	31.74	43.80	57.53	65.62	32.60	3.77	51.68	6.26
21	31.98	42.68	57.79	64.86	32.95	7.15	51.98	9.56
31	32.17	41.83	58.00	64.43	33.23	10.73	52.22	13.01
Feb. 10	32.31	41.25	58.15	64.29	33.43	14.45	52.40	16.50
20	32.40	40.94	58.26	64.43	33.55	18.17	52.52	19.99
Mar. 2	32.44	40.87	58.32	64.83	33.59	21.83	52.57	23.36
12	32.43	41.01	58.33	65.43	33.56	25.34	52.56	26.55
Apr. 22	32.39	41.33	58.30	66.16	33.46	28.61	52.51	29.50
1	32.31	41.77	58.23	67.01	33.30	31.62	52.40	32.15
11	32.21	42.31	58.13	67.91	33.09	34.27	52.26	34.45
21	32.10	42.92	58.02	68.79	32.84	36.53	52.08	36.37
May 1	31.97	43.56	57.89	69.64	32.56	38.36	51.88	37.89
11	31.85	44.20	57.76	70.41	32.26	39.71	51.66	38.94
21	31.73	44.80	57.64	71.08	31.93	40.58	51.43	39.58
31	31.61	45.37	57.52	71.62	31.60	40.95	51.20	39.74
June 10	31.51	45.89	57.41	72.03	31.28	40.82	50.97	39.45
20	31.43	46.34	57.32	72.31	30.96	40.18	50.75	38.73
30	31.37	46.72	57.25	72.43	30.66	39.06	50.55	37.55
July 10	31.33	47.02	57.20	72.39	30.38	37.52	50.36	35.99
20	31.31	47.20	57.17	72.20	30.14	35.56	50.20	34.11
30	31.31	47.27	57.17	71.86	29.94	33.27	50.07	31.94
Aug. 9	31.35	47.23	57.20	71.35	29.79	30.70	49.98	29.54
19	31.40	47.02	57.25	70.66	29.70	27.96	49.92	27.02
Sept. 29	31.50	46.60	57.34	69.70	29.68	25.12	49.92	24.43
8	31.62	46.03	57.45	68.64	29.73	22.01	49.98	21.66
18	31.77	45.26	57.59	67.38	29.85	19.32	50.09	19.29
28	31.95	44.28	57.77	65.96	30.04	16.87	50.25	17.18
Oct. 8	32.17	43.10	57.99	64.37	30.31	14.76	50.48	15.42
18	32.41	41.71	58.23	62.63	30.65	13.10	50.76	14.12
28	32.69	40.13	58.51	60.78	31.05	11.94	51.09	13.31
Nov. 7	32.99	38.41	58.82	58.85	31.50	11.37	51.46	13.04
17	33.31	36.59	59.15	56.91	31.99	11.43	51.86	13.38
27	33.65	34.70	59.50	54.97	32.51	12.11	52.29	14.31
Dec. 7	33.99	32.83	59.86	53.14	33.04	13.42	52.72	15.83
17	34.33	31.04	60.21	51.45	33.55	15.31	53.15	17.86
27	34.65	29.36	60.55	49.96	34.03	17.75	53.56	20.35
37	34.94	27.84	60.86	48.75	34.48	20.62	53.94	23.25
Mean R. A.	10 ^h 3 ^m 31 ^s . 634		10 ^h 14 ^m 57 ^s . 443		10 ^h 41 ^m 31 ^s . 671		10 ^h 42 ^m 51 ^s . 173	
Mean Dec.	+12° 24' 44". 18		+20° 18' 7". 80		-59° 12' 21". 41		-48° 56' 21". 88	
Sec δ, Tan δ	1.024, + 0.220		1.066, + 0.370		1.953, - 1.678		1.522, - 1.148	

AT UPPER TRANSIT AT GREENWICH.

Date.	β Ursæ Majoris. Mag. 2.4		α Ursæ Majoris. (Dubhe) Mag. 2.0		δ Leonis. Mag. 2.6		β Leonis. (Denebola) Mag. 2.2		
	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.	
	h m	° /	h m	° /	h m	° /	h m	° /	
	10 56	56 51	10 58	62 14	11 9	21 0	11 44	15 4	
	s	"	s	"	s	"	s	"	
Jan.	I	21.40	63.62	7.38	22.28	15.79	78.89	24.49	50.76
	11	21.89	63.78	7.94	22.62	16.12	77.54	24.82	49.04
	21	22.33	64.48	8.44	23.50	16.42	76.52	25.12	47.60
	31	22.71	65.66	8.87	24.90	16.67	75.86	25.39	46.50
Feb.	10	23.02	67.31	9.22	26.76	16.88	75.56	25.63	45.73
	20	23.25	69.31	9.48	28.97	17.05	75.59	25.82	45.31
Mar.	2	23.39	71.58	9.64	31.45	17.16	75.94	25.96	45.22
	12	23.45	74.05	9.71	34.11	17.23	76.54	26.06	45.44
Apr.	22	23.43	76.55	9.68	36.77	17.25	77.36	26.12	45.89
	I	23.35	79.00	9.58	39.36	17.23	78.33	26.14	46.56
	11	23.21	81.30	9.40	41.79	17.18	79.39	26.12	47.38
	21	23.01	83.37	9.16	43.95	17.10	80.48	26.08	48.29
May	I	22.78	85.12	8.88	45.74	17.01	81.55	26.01	49.25
	11	22.53	86.51	8.57	47.16	16.90	82.55	25.93	50.22
	21	22.26	87.50	8.24	48.12	16.79	83.46	25.83	51.12
	31	22.00	88.03	7.91	48.61	16.67	84.23	25.73	51.98
June	10	21.74	88.11	7.59	48.62	16.56	84.84	25.63	52.73
	20	21.50	87.76	7.29	48.14	16.45	85.28	25.52	53.35
	30	21.28	86.94	7.02	47.18	16.36	85.55	25.42	53.82
July	10	21.10	85.72	6.78	45.79	16.27	85.62	25.33	54.15
	20	20.94	84.12	6.58	44.00	16.20	85.49	25.24	54.32
	30	20.83	82.16	6.43	41.83	16.15	85.16	25.17	54.29
Aug.	9	20.76	79.88	6.33	39.33	16.13	84.62	25.11	54.08
	19	20.74	77.30	6.29	36.56	16.12	83.87	25.07	53.68
Sept.	29	20.77	74.52	6.31	33.55	16.14	82.92	25.06	53.05
	8	20.86	71.24	6.40	30.05	16.19	81.73	25.07	52.21
	18	21.00	68.13	6.55	26.77	16.28	80.20	^{25.11} _{13.12}	^{51.15} _{51.03}
	28	21.20	64.96	6.77	23.43	16.41	78.59	25.20	49.71
Oct.	8	21.46	61.80	7.06	20.12	16.57	76.79	25.32	48.18
	18	21.78	58.69	7.42	16.88	16.77	74.82	25.48	46.41
	28	22.16	55.72	7.84	13.84	17.01	72.71	25.68	44.47
Nov.	7	22.59	52.95	8.33	11.03	17.28	70.52	25.92	42.35
	17	23.06	50.46	8.87	8.55	17.59	68.26	26.19	40.12
	27	23.57	48.34	9.44	6.46	17.92	66.02	26.50	37.83
Dec.	7	24.10	46.64	10.05	4.82	18.27	63.86	26.83	35.54
	17	24.64	45.41	10.67	3.70	18.63	61.86	27.17	33.32
	27	25.18	44.72	11.28	3.15	18.98	60.06	27.52	31.23
	37	25.69	44.57	11.86	3.14	19.32	58.54	27.86	29.36
Mean R. A.	10 ^h 56 ^m 21 ^s . 460		10 ^h 58 ^m 7 ^s . 291		11 ^h 9 ^m 16 ^s . 260		11 ^h 44 ^m 25 ^s . 152		
Mean Dec.	+56° 52' 13". 42		+62° 14' 32". 87		+21° 1' 20". 62		+15° 4' 50". 88		
Sec δ, Tan δ	1.830, + 1.532		2.147, + 1.900		1.071, + 0.384		1.036, + 0.269		

AT UPPER TRANSIT AT GREENWICH.

Date.	γ Ursæ Majoris. Mag. 2.5		δ Centauri. Mag. 2.8		γ Corvi. Mag. 2.7		α ² Crucis. Mag. 1.0		
	R. A.	Dec. N.	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. S.	
	h m	° /	h m	° /	h m	° /	h m	° /	
	11 49	54 11	12 3	50 12	12 11	17 2	12 21	62 35	
	s	"	s	"	s	"	s	"	
Jan.	I	2.51	52.15	37.53	35.62	6.62	0.86	30.82	17.66
	11	3.00	51.58	37.96	37.95	6.95	3.17	31.38	19.67
	21	3.46	51.58	38.36	40.66	7.26	5.50	31.92	22.14
	31	3.87	52.14	38.71	43.63	7.54	7.84	32.40	24.98
Feb.	10	4.23	53.24	39.02	46.82	7.79	10.08	32.81	28.13
	20	4.52	54.82	39.26	50.10	7.99	12.18	33.16	31.51
Mar.	2	4.74	56.78	39.45	53.41	8.16	14.11	33.44	35.03
	12	4.88	59.02	39.59	56.67	8.28	15.83	33.63	38.59
Apr.	22	4.96	61.47	39.66	59.83	8.36	17.32	33.76	42.15
	I	4.96	63.98	39.69	62.81	8.41	18.59	33.81	45.59
	11	4.90	66.48	39.66	65.56	8.42	19.62	33.80	48.86
	21	4.79	68.87	39.60	68.05	8.40	20.42	33.72	51.89
May	I	4.63	71.02	39.49	70.20	8.36	21.00	33.59	54.65
	11	4.44	72.90	39.36	72.01	8.30	21.34	33.40	57.07
	21	4.23	74.41	39.19	73.44	8.23	21.49	33.17	59.10
	31	4.00	75.53	39.01	74.48	8.14	21.44	32.89	60.71
June	10	3.76	76.22	38.80	75.07	8.04	21.19	32.59	61.86
	20	3.52	76.46	38.59	75.23	7.93	20.77	32.26	62.53
	30	3.29	76.24	38.37	74.95	7.82	20.19	31.91	62.71
July	10	3.08	75.60	38.14	74.28	7.71	19.46	31.56	62.39
	20	2.88	74.50	37.93	73.21	7.61	18.61	31.21	61.59
	30	2.71	72.99	37.73	71.74	7.51	17.66	30.88	60.33
Aug.	9	2.57	71.09	37.55	69.97	7.42	16.66	30.57	58.67
	19	2.47	68.84	37.40	67.92	7.35	15.62	30.30	56.63
Sept.	29	2.41	66.29	37.29	65.69	7.30	14.61	30.09	54.32
	8	2.39	63.47	37.22	63.35	7.28	13.67	29.94	51.76
	18	2.42	60.43	37.21	61.00	7.29	12.86	29.86	49.11
	28	2.52	56.86	37.27	58.49	7.34	12.21	29.87	46.42
Oct.	8	2.67	53.54	37.39	56.41	7.43	11.84	29.98	43.58
	18	2.89	50.18	37.57	54.61	7.57	11.76	30.18	41.23
	28	3.16	46.85	37.82	53.19	7.75	12.01	30.46	39.19
Nov.	7	3.49	43.65	38.13	52.20	7.98	12.61	30.84	37.58
	17	3.88	40.65	38.49	51.72	8.24	13.55	31.29	36.45
	27	4.31	37.89	38.90	51.79	8.54	14.84	31.80	35.88
Dec.	7	4.79	35.53	39.34	52.42	8.87	16.46	32.36	35.91
	17	5.28	33.60	39.79	53.59	9.21	18.34	32.94	36.51
	27	5.79	32.17	40.25	55.28	9.56	20.46	33.54	37.70
	37	6.29	31.29	40.70	57.44	9.90	22.73	34.13	39.46
Mean R. A.	11 ^h 49 ^m 2 ^s . 986		12 ^h 3 ^m 38 ^s . 231		12 ^h 11 ^m 7 ^s . 453		12 ^h 21 ^m 31 ^s . 696		
Mean Dec.	+54° 12' 2". 63		-50° 12' 56". 61		-17° 2' 11". 80		-62° 35' 41". 47		
Sec δ, Tan δ	1.710, + 1.387		1.563, - 1.201		1.044, - 0.306		2.173, - 1.929		

AT UPPER TRANSIT AT GREENWICH.								
Date.	γ Crucis. Mag. 1.6		α Muscae. Mag. 2.9		γ Centauri. Mag. 2.4		β Crucis. Mag. 1.5	
	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. S.
	h m	° /	h m	° /	h m	° /	h m	° /
	12 26	56 35	12 31	68 37	12 36	48 27	12 42	59 11
	s	"	s	"	s	"	s	"
Jan. 1	5.65	50.25	43.69	38.28	28.53	15.98	22.60	6.19
11	6.15	52.31	44.40	40.05	28.97	18.02	23.14	7.98
21	6.62	54.77	45.05	42.33	29.38	20.41	23.65	10.25
31	7.04	57.59	45.64	45.04	29.76	23.10	24.12	12.90
Feb. 10	7.41	60.67	46.17	48.11	30.10	26.01	24.53	15.84
20	7.73	63.96	46.62	51.45	30.39	29.06	24.89	19.04
Mar. 2	7.98	67.33	46.97	54.99	30.62	32.18	25.19	22.38
12	8.16	70.74	47.24	58.64	30.80	35.30	25.42	25.77
Apr. 22	8.29	74.11	47.41	62.31	30.94	38.33	25.58	29.16
1	8.35	77.34	47.49	65.92	31.02	41.25	25.68	32.49
11	8.36	80.41	47.49	69.40	31.05	43.98	25.72	35.66
21	8.31	83.24	47.41	72.68	31.04	46.49	25.70	38.63
May 1	8.22	85.81	47.24	75.69	30.99	48.73	25.63	41.36
11	8.08	88.03	47.01	78.38	30.90	50.67	25.50	43.78
21	7.91	89.89	46.72	80.70	30.78	52.26	25.34	45.87
31	7.70	91.35	46.36	82.61	30.64	53.49	25.13	47.54
June 10	7.47	92.36	45.96	84.06	30.47	54.35	24.89	48.80
20	7.21	92.94	45.53	85.01	30.28	54.82	24.62	49.62
30	6.94	93.04	45.07	85.45	30.08	54.86	24.33	49.97
July 10	6.66	92.70	44.60	85.39	29.87	54.49	24.03	49.85
20	6.39	91.91	44.13	84.79	29.66	53.75	23.72	49.27
30	6.13	90.69	43.67	83.71	29.45	52.63	23.42	48.23
Aug 9	5.88	89.08	43.25	82.17	29.26	51.17	23.14	46.79
19	5.67	87.15	42.87	80.21	29.09	49.42	22.89	44.97
Sept. 29	5.50	84.95	42.56	77.89	28.95	47.45	22.68	42.86
8	5.38	82.56	42.33	75.31	28.85	45.34	22.52	40.50
18	5.32	80.09	42.19	72.55	28.80	43.14	22.42	38.01
28	5.33	77.59	42.16	69.75	28.80	40.97	22.39	35.48
Oct. 8	5.42	74.99	42.25	66.72	28.87	38.72	22.46	32.76
18	5.59	72.85	42.46	64.14	29.01	36.89	22.61	30.46
28	5.83	71.04	42.79	61.84	29.21	35.39	22.84	28.45
Nov. 7	6.15	69.63	43.22	59.92	29.47	34.26	23.15	26.82
17	6.54	68.71	43.74	58.49	29.80	33.57	23.54	25.63
27	6.98	68.29	44.35	57.59	30.17	33.40	23.99	24.95
Dec. 7	7.46	68.46	45.02	57.28	30.58	33.75	24.49	24.84
17	7.97	69.20	45.73	57.58	31.02	34.61	25.03	25.29
27	8.49	70.50	46.46	58.49	31.47	35.98	25.58	26.32
37	9.00	72.32	47.17	59.99	31.92	37.81	26.12	27.88
Mean R. A.	12 ^h 26 ^m 6 ^s . 609		12 ^h 31 ^m 44 ^s . 757		12 ^h 36 ^m 29 ^s . 602		12 ^h 42 ^m 23 ^s . 798	
Mean Dec.	-56° 36' 12". 85		-68° 38' 3". 14		-48° 27' 36". 61		-59° 11' 29". 27	
Sec δ, Tan δ	1.817, - 1.517		2.745, - 2.556		1.508, - 1.129		1.953, - 1.677	

AT UPPER TRANSIT AT GREENWICH.								
Date.	ε Ursae Majoris. Mag. 1.8		α Canum Venat. Mag. 2.8		ζ ¹ Ursae Majoris. Mag. 2.1		α Virginis. (Spica) Mag. 1.2	
	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. S.
	h m	° /	h m	° /	h m	° /	h m	° /
	12 50	56 26	12 51	38 48	13 20	55 23	13 20	10 41
	s	"	s	"	s	"	s	"
Jan. 1	0.82	61.55	45.38	27.16	14.71	50.07	22.56	3.20
11	1.34	60.29	45.78	25.50	15.21	48.42	22.90	5.27
21	1.85	59.64	46.16	24.35	15.70	47.39	23.23	7.33
31	2.32	59.62	46.53	23.74	16.18	46.98	23.54	9.36
Feb. 10	2.76	60.21	46.86	23.66	16.63	47.21	23.83	11.26
20	3.14	61.36	47.15	24.10	17.03	48.03	24.09	12.99
Mar. 2	3.46	63.02	47.39	25.01	17.38	49.41	24.32	14.51
12	3.71	65.10	47.59	26.35	17.67	51.25	24.51	15.82
Apr. 22	3.88	67.49	47.73	28.03	17.88	53.48	24.66	16.92
1	3.98	70.10	47.82	29.95	18.03	55.99	24.78	17.76
11	4.02	72.82	47.86	32.03	18.12	58.70	24.86	18.39
21	3.99	75.51	47.87	34.19	18.14	61.45	24.92	18.83
May 1	3.90	78.09	47.83	36.31	18.09	64.16	24.95	19.09
11	3.76	80.48	47.76	38.34	18.00	66.71	24.95	19.18
21	3.58	82.55	47.67	40.18	17.86	69.04	24.93	19.13
31	3.36	84.29	47.55	41.80	17.68	71.06	24.88	18.96
June 10	3.12	85.62	47.41	43.13	17.47	72.71	24.82	18.68
20	2.87	86.51	47.26	44.11	17.23	73.92	24.75	18.31
30	2.60	86.92	47.11	44.74	16.98	74.71	24.66	17.85
July 10	2.33	86.84	46.95	45.01	16.71	75.00	24.55	17.34
20	2.07	86.28	46.79	44.90	16.44	74.78	24.44	16.78
30	1.82	85.28	46.63	44.39	16.18	74.12	24.33	16.18
Aug. 9	1.58	83.80	46.49	43.50	15.92	72.97	24.22	15.56
19	1.38	81.89	46.36	42.26	15.68	71.36	24.11	14.96
Sept. 29	1.20	79.59	46.25	40.66	15.47	69.35	24.01	14.40
8	1.07	76.93	46.17	38.72	15.29	66.92	23.93	13.94
18	0.98	73.95	46.13	36.47	15.16	64.13	23.88	13.58
28	0.95	70.71	46.12	33.94	15.07	61.03	23.86	13.36
Oct. 8	0.99	66.91	46.16	30.89	15.04	57.70	23.88	13.35
18	1.09	63.34	46.25	27.91	15.08	53.80	23.95	13.59
28	1.26	59.69	46.39	24.79	15.19	50.14	24.06	14.09
Nov. 7	1.50	56.09	46.59	21.61	15.37	46.43	24.22	14.86
17	1.81	52.59	46.84	18.43	15.62	42.79	24.43	15.92
27	2.18	49.29	47.13	15.34	15.94	39.31	24.67	17.24
Dec. 7	2.60	46.31	47.47	12.42	16.32	36.05	24.96	18.84
17	3.07	43.72	47.84	9.76	16.75	33.16	25.27	20.63
27	3.57	41.61	48.23	7.45	17.22	30.70	25.60	22.59
37	4.09	40.04	48.63	5.54	17.71	28.75	25.94	24.65
Mean R. A.	12 ^h 50 ^m 1 ^s . 746		12 ^h 51 ^m 46 ^s . 369		13 ^h 20 ^m 15 ^s . 869		13 ^h 20 ^m 23 ^s . 835	
Mean Dec.	+56° 27' 13". 10		+38° 48' 34". 86		+55° 24' 1". 51		-10° 41' 11". 39	
Sec δ, Tan δ	1.810, + 1.508		1.283, + 0.804		1.761, + 1.450		1.018, - 0.189	

AT UPPER TRANSIT AT GREENWICH.

Date.	ε Centauri. Mag. 2.6		η Ursæ Majoris. Mag. 1.9		ζ Centauri. Mag. 2.8		η Boötis. Mag. 2.8	
	R. A.	Dec. S.	R. A.	Dec. N.	R. A.	Dec. S.	R. A.	Dec. N.
	h m	° /	h m	° /	h m	° /	h m	° /
	13 34	52 59	13 43	49 45	13 49	46 50	13 50	18 50
	s	"	s	"	s	"	s	"
Jan. 1	5.11	53.87	56.08	51.55	49.60	7.89	19.76	70.79
11	5.60	55.16	56.52	49.56	50.04	9.15	20.10	68.54
21	6.08	56.88	56.96	48.12	50.48	10.79	20.44	66.62
31	6.54	58.98	57.40	47.30	50.90	12.74	20.77	65.07
Feb. 10	6.97	61.39	57.81	47.09	51.30	14.98	21.08	63.92
20	7.36	64.05	58.19	47.49	51.67	17.42	21.36	63.21
Mar. 2	7.70	66.87	58.53	48.46	51.99	19.98	21.62	62.93
12	7.99	69.80	58.81	49.95	52.28	22.64	21.84	63.06
Apr. 22	8.23	72.77	59.04	51.86	52.52	25.31	22.02	63.57
1	8.41	75.73	59.21	54.13	52.71	27.96	22.17	64.41
11	8.55	78.61	59.33	56.63	52.86	30.53	22.28	65.52
21	8.64	81.36	59.39	59.26	52.97	32.95	22.36	66.83
May 1	8.67	83.95	59.39	61.90	53.03	35.25	22.40	68.26
11	8.66	86.32	59.35	64.47	53.06	37.36	22.42	69.75
21	8.61	88.43	59.26	66.90	53.04	39.22	22.40	71.25
31	8.51	90.26	59.14	69.06	52.99	40.84	22.37	72.67
June 10	8.38	91.74	58.99	70.92	52.90	42.17	22.31	73.99
20	8.21	92.84	58.80	72.40	52.77	43.19	22.23	75.16
30	8.01	93.56	58.60	73.48	52.62	43.85	22.13	76.15
July 10	7.79	93.88	58.38	74.10	52.45	44.18	22.02	76.93
20	7.55	93.80	58.14	74.28	52.25	44.15	21.90	77.46
30	7.30	93.31	57.91	74.00	52.04	43.76	21.77	77.74
Aug. 9	7.05	92.42	57.68	73.25	51.83	43.01	21.64	77.76
19	6.81	91.17	57.45	72.05	51.62	41.94	21.51	77.51
Sept. 29	6.59	89.57	57.25	70.40	51.43	40.59	21.39	76.97
8	6.41	87.74	57.07	68.35	51.26	39.01	21.28	76.14
18	6.27	85.71	56.92	65.91	51.12	37.26	21.19	75.05
28	6.18	83.55	56.81	63.13	51.03	35.39	21.14	73.65
Oct. 8	6.16	81.36	56.76	60.05	51.00	33.50	21.12	71.98
18	^{6.21} 6.22	^{79.25} 79.05	56.75	56.74	51.03	31.69	21.14	70.04
28	6.35	77.13	56.82	52.87	51.14	29.84	21.21	67.63
Nov. 7	6.56	75.47	56.95	49.26	51.31	28.44	21.33	65.22
17	6.84	74.16	57.15	45.64	51.55	27.37	21.50	62.65
27	7.18	73.29	57.41	42.10	51.85	26.66	21.72	59.98
Dec. 7	7.58	72.89	57.73	38.72	52.20	26.38	21.98	57.25
17	8.03	72.97	58.09	35.64	52.59	26.54	22.27	54.57
27	8.51	73.54	58.50	32.90	53.02	27.16	22.59	52.00
37	9.00	74.60	58.94	30.62	53.46	28.22	22.93	49.61
Mean R. A.	13 ^h 34 ^m 6 ^s .896		13 ^h 43 ^m 57 ^s .396		13 ^h 49 ^m 51 ^s .426		13 ^h 50 ^m 21 ^s .114	
Mean Dec.	-53° 0' 14" .63		+49° 46' 1" .85		-46° 50' 26" .67		+18° 51' 12" .95	
Sec δ, Tan δ	1.662, - 1.327		1.548, + 1.182		1.462, - 1.066		1.057, + 0.341	

AT UPPER TRANSIT AT GREENWICH.

Date.	β Centauri. Mag. 0.8		θ Centauri. Mag. 2.1		α Boötis. (Arcturus) Mag. 0.3		η Centauri. Mag. 2.7	
	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. N.	R. A.	Dec. S.
	h m	° /	h m	° /	h m	° /	h m	° /
	13 57	59 55	14 1	35 55	14 11	19 38	14 29	41 45
	s	"	s	"	s	"	s	"
Jan. 1	21.30	42.15	17.61	5.88	29.15	78.48	41.37	14.55
11	21.87	42.97	18.00	7.29	29.48	76.13	41.77	15.52
21	22.44	44.28	18.39	9.00	29.82	74.08	42.19	16.81
31	22.99	46.03	18.76	10.92	30.15	72.40	42.60	18.38
Feb. 10	23.51	48.16	19.12	13.01	30.46	71.12	42.99	20.19
20	23.99	50.61	19.44	15.20	30.76	70.30	43.37	22.19
Mar. 2	24.42	53.32	19.74	17.45	31.03	69.92	43.71	24.31
12	24.80	56.21	20.00	19.68	31.26	69.98	44.02	26.51
Apr. 22	25.13	59.23	20.22	21.88	31.46	70.44	44.29	28.73
1	25.39	62.31	20.41	24.00	31.63	71.27	44.52	30.94
11	25.59	65.38	20.56	26.00	31.76	72.35	44.72	33.11
21	25.73	68.40	20.67	27.88	31.85	73.67	44.88	35.19
May 1	25.81	71.28	20.74	29.61	31.92	75.13	45.00	37.17
11	25.84	74.01	20.78	31.14	31.95	76.68	45.08	39.02
21	25.80	76.50	20.79	32.50	31.95	78.23	45.12	40.69
31	25.71	78.73	20.77	33.63	31.93	79.73	45.13	42.18
June 10	25.57	80.65	20.72	34.55	31.88	81.13	45.10	43.45
20	25.38	82.22	20.64	35.21	31.81	82.38	45.03	44.49
30	25.14	83.37	20.53	35.63	31.72	83.43	44.93	45.28
July 10	24.87	84.12	20.40	35.76	31.61	84.27	44.79	45.77
20	24.57	84.42	20.25	35.65	31.48	84.89	44.64	45.98
30	24.25	84.27	20.09	35.27	31.35	85.22	44.46	45.87
Aug. 9	23.93	83.68	19.92	34.64	31.20	85.28	44.27	45.48
19	23.61	82.64	19.75	33.78	31.06	85.06	44.07	44.80
Sept. 29	23.31	81.22	19.59	32.70	30.92	84.54	43.88	43.87
8	23.05	79.46	19.44	31.49	30.80	83.71	43.70	42.70
18	22.84	77.43	19.33	30.16	30.69	82.61	43.54	41.33
28	22.68	75.18	19.25	28.79	30.61	81.20	43.43	39.87
Oct. 8	22.60	72.83	19.21	27.44	30.57	79.50	43.35	38.32
18	22.61	70.46	19.23	26.19	30.56	77.51	43.33	36.80
28	22.72	67.96	19.32	25.00	^{30.60} 30.61	^{75.28} 75.04	43.38	35.37
Nov. 7	22.91	65.90	19.46	24.16	30.71	72.57	43.50	33.99
17	23.20	64.14	19.65	23.66	30.85	69.92	43.67	33.01
27	23.57	62.74	19.91	23.46	31.04	67.15	43.91	32.31
Dec. 7	24.00	61.81	20.21	23.64	31.28	64.34	44.21	31.97
17	24.50	61.34	20.55	24.20	31.56	61.53	44.55	32.00
27	25.04	61.41	20.91	25.11	31.86	58.85	44.93	32.43
37	25.61	61.98	21.30	26.39	32.19	56.34	45.34	33.21
Mean R. A.	13 ^h 57 ^m 23 ^s .600		14 ^h 1 ^m 19 ^s .366		14 ^h 11 ^m 30 ^s .617		14 ^h 29 ^m 43 ^s .455	
Mean Dec.	-59° 56' 3" .57		-35° 55' 21" .31		+19° 39' 21" .03		-41° 45' 30" .43	
Sec δ, Tan δ	1.996, - 1.728		1.235, - 0.725		1.062, + 0.357		1.341, - 0.893	

AT UPPER TRANSIT AT GREENWICH.

Date.	α^2 Centauri. Mag. 1		α Lupi. Mag. 2.5		ϵ^2 Boötis. Mag. 2.6		α Libræ. Mag. 2.9	
	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. N.	R. A.	Dec. S.
	h m	° /	h m	° /	h m	° /	h m	° /
	14 33	60 27	14 35	46 59	14 40	27 27	14 45	15 39
	s	"	s	"	s	"	s	"
Jan. 1	22.63	8.89	49.99	36.14	59.16	21.99	48.68	42.67
11	23.19	9.30	50.43	36.87	59.49	19.49	49.01	44.32
21	23.76	10.18	50.88	37.97	59.83	17.37	49.34	46.02
31	24.33	11.53	51.32	39.42	60.18	15.68	49.68	47.74
Feb. 10	24.87	13.26	51.74	41.15	60.52	14.45	50.00	49.42
20	25.38	15.35	52.15	43.11	60.84	13.73	50.31	50.99
Mar. 2	25.85	17.72	52.52	45.25	61.13	13.53	50.60	52.44
12	26.28	20.31	52.86	47.53	61.40	13.84	50.86	53.73
Apr. 22	26.64	23.05	53.16	49.88	61.63	14.60	51.09	54.84
1	26.95	25.90	53.42	52.25	61.83	15.77	51.30	55.78
11	27.21	28.80	53.64	54.62	62.00	17.26	51.47	56.55
21	27.40	31.70	53.82	56.91	62.13	19.02	51.62	57.14
May 1	27.53	34.51	53.96	59.16	62.22	20.95	51.73	57.58
11	27.60	37.22	54.05	61.27	62.28	22.98	51.82	57.88
21	27.60	39.76	54.10	63.24	62.30	25.02	51.88	58.07
31	27.55	42.09	54.11	65.01	62.29	26.99	51.91	58.14
June 10	27.44	44.14	54.07	66.55	62.26	28.84	51.91	58.11
20	27.27	45.89	54.00	67.86	62.19	30.51	51.88	58.02
30	27.05	47.28	53.89	68.88	62.10	31.94	51.83	57.86
July 10	26.79	48.28	53.74	69.59	61.98	33.09	51.75	57.61
20	26.49	48.88	53.56	69.97	61.85	33.95	51.65	57.29
30	26.16	49.04	53.36	70.02	61.70	34.49	51.53	56.92
Aug. 9	25.82	48.79	53.14	69.72	61.54	34.68	51.40	56.52
19	25.47	48.07	52.92	69.09	61.37	34.52	51.25	56.09
Sept. 29	25.13	46.94	52.70	68.15	61.20	34.00	51.11	55.61
8	24.82	45.45	52.49	66.94	61.05	33.12	50.98	55.15
18	24.56	43.65	52.31	65.49	60.91	31.89	50.86	54.73
28	24.35	41.57	52.17	63.87	60.79	30.32	50.76	54.38
Oct. 8	24.20	39.32	52.08	62.15	60.71	28.42	50.70	54.12
18	24.14	36.98	52.05	60.39	60.66	26.21	50.68	54.01
28	24.18	34.69	52.08	58.69	60.67	23.71	50.70	54.07
Nov. 7	24.32	32.29	52.20	57.00	60.73	20.70	50.78	54.39
17	24.55	30.36	52.38	55.69	60.84	17.76	50.91	54.93
27	24.87	28.73	52.63	54.68	61.01	14.73	51.09	55.70
Dec. 7	25.27	27.49	52.94	54.01	61.22	11.65	51.32	56.72
17	25.73	26.69	53.30	53.73	61.48	8.63	51.59	57.95
27	26.25	26.36	53.70	53.88	61.77	5.73	51.89	59.39
37	26.81	26.55	54.13	54.42	62.10	3.07	52.21	60.98
Mean R. A.	14 ^h 33 ^m 25 ^s .356		14 ^h 35 ^m 52 ^s .268		14 ^h 41 ^m 0 ^s .772		14 ^h 45 ^m 50 ^s .500	
Mean Dec.	-60° 27' 28".80		-46° 59' 53".01		+27° 27' 26".81		-15° 39' 50".52	
Sec δ , Tan δ	2.028, -1.765		1.466, -1.072		1.127, +0.520		1.039, -0.280	

AT UPPER TRANSIT AT GREENWICH.

Date.	β Ursæ Minoris. Mag. 2.2		β Lupi. Mag. 2.7		β Libræ. Mag. 2.8		α Coronæ. Mag. 2.3	
	R. A.	Dec. N.	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. N.
	h m	° /	h m	° /	h m	° /	h m	° /
	14 50	74 31	14 52	42 45	15 12	9 2	15 30	27 0
	s	"	s	"	s	"	s	"
Jan. 1	55.12	26.10	31.58	49.65	4.60	46.33	48.23	60.06
11	55.90	23.70	31.99	50.35	4.90	48.05	48.53	66.36
21	56.76	21.91	32.40	51.37	5.22	49.78	48.85	63.97
31	57.65	20.75	32.82	52.70	5.55	51.46	49.18	61.99
Feb. 10	58.56	20.27	33.23	54.28	5.87	53.01	49.52	60.47
20	59.44	20.47	33.62	56.05	6.18	54.40	49.85	59.45
Mar. 2	60.27	21.35	33.99	57.95	6.47	55.63	50.16	58.95
12	61.02	22.83	34.32	59.96	6.74	56.60	50.45	58.98
Apr. 22	61.66	24.84	34.62	62.05	6.99	57.38	50.72	59.49
1	62.19	27.30	34.89	64.14	7.21	57.91	50.96	60.48
11	62.58	30.08	35.12	66.22	7.41	58.24	51.17	61.85
21	62.83	33.08	35.31	68.26	7.57	58.38	51.35	63.53
May 1	62.94	36.20	35.46	70.23	7.71	58.36	51.50	65.47
11	62.91	39.29	35.58	72.10	7.82	58.21	51.61	67.55
21	62.74	42.27	35.65	73.84	7.90	57.96	51.68	69.73
31	62.45	45.02	35.68	75.42	7.95	57.63	51.72	71.88
June 10	62.04	47.47	35.68	76.81	7.97	57.25	51.73	73.97
20	61.53	49.56	35.63	78.00	7.97	56.84	51.70	75.90
30	60.94	51.20	35.55	78.94	7.93	56.41	51.64	77.65
July 10	60.27	52.36	35.43	79.62	7.87	55.97	51.55	79.15
20	59.55	53.01	35.28	80.03	7.78	55.54	51.43	80.36
30	58.80	53.14	35.10	80.15	7.67	55.13	51.29	81.25
Aug. 9	58.02	52.72	34.91	79.98	7.54	54.75	51.12	81.81
19	57.25	51.79	34.70	79.49	7.40	54.40	50.95	82.04
Sept. 29	56.50	50.34	34.49	78.73	7.25	54.10	50.76	81.87
8	55.78	48.42	34.30	77.72	7.11	53.85	50.58	81.35
18	55.12	46.02	34.12	76.49	6.98	53.70	50.41	80.45
28	54.54	43.22	33.98	75.11	6.87	53.65	50.25	79.20
Oct. 8	54.05	40.05	33.88	73.64	6.78	53.74	50.12	77.58
18	53.68	36.56	33.83	72.13	6.73	54.01	50.03	75.62
28	53.43	32.83	33.85	70.66	6.73	54.44	49.98	73.33
Nov. 7	{53.31}	{28.96}	33.92	69.30	6.78	55.07	49.97	70.78
	{53.31}	{28.58}						
17	53.36	24.64	34.09	68.06	6.88	56.03	{50.02}	{67.99}
27	53.57	20.74	34.30	67.19	7.03	57.12	{50.03}	{67.71}
Dec. 7	53.92	17.01	34.58	66.63	7.23	58.41	50.14	64.74
17	54.42	13.50	34.90	66.43	7.47	59.89	50.30	61.66
27	55.05	10.36	35.27	66.60	7.74	61.49	50.51	58.56
37	55.78	7.68	35.67	67.11	8.05	63.21	50.76	55.57
Mean R. A.	14 ^h 50 ^m 57 ^s .713		14 ^h 52 ^m 33 ^s .881		15 ^h 12 ^m 6 ^s .496		15 ^h 30 ^m 50 ^s .077	
Mean Dec.	+74° 31' 38".58		-42° 46' 4".66		-9° 2' 51".40		+27° 1' 13".67	
Sec δ , Tan δ	3.748, +3.612		1.362, -0.925		1.013, -0.159		1.123, +0.510	

AT UPPER TRANSIT AT GREENWICH.								
Date.	α Serpentis. Mag. 2.8		δ Scorpil. Mag. 2.5		β ¹ Scorpil. Mag. 2.7		η Draconis. Mag. 2.9	
	R. A.	Dec. N.	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. N.
	h m	° /	h m	° /	h m	° /	h m	° /
	15 39	6 42	15 54	22 21	16 0	19 33	16 22	61 42
	s	"	s	"	s	"	s	"
Jan. 1	45.16	41.31	54.74	41.06	6.33	18.95	42.82	63.31
11	45.44	39.14	55.04	42.04	6.63	20.03	43.18	60.01
21	45.75	37.10	55.37	43.14	6.95	21.20	43.60	57.10
31	46.06	35.27	55.71	44.33	7.28	22.42	44.07	54.71
Feb. 10	46.37	33.70	56.05	45.55	7.61	23.65	44.58	52.92
20	46.68	32.48	56.38	46.76	7.94	24.83	45.10	51.76
Mar. 2	46.98	31.58	56.70	47.92	8.26	25.95	45.62	51.27
12	47.26	31.06	57.01	49.03	8.57	26.97	46.14	51.47
Apr. 22	47.52	30.90	57.30	50.03	8.86	27.86	46.62	52.33
1	47.75	31.08	57.57	50.92	9.12	28.62	47.06	53.80
11	47.96	31.57	57.82	51.72	9.37	29.27	47.46	55.79
21	48.14	32.31	58.04	52.40	9.59	29.79	47.79	58.23
May 1	48.30	33.27	58.24	52.99	9.78	30.20	48.05	61.00
11	48.43	34.39	58.40	53.49	9.95	30.53	48.25	64.02
21	48.52	35.61	58.53	53.93	10.09	30.79	48.37	67.16
31	48.59	36.86	58.63	54.30	10.19	30.97	48.41	70.33
June 10	48.63	38.11	58.70	54.61	10.26	31.11	48.38	73.42
20	48.63	39.32	58.73	54.86	10.30	31.20	48.28	76.32
30	48.61	40.45	58.72	55.05	10.30	31.24	48.10	78.99
July 10	48.55	41.44	58.68	55.18	10.26	31.24	47.86	81.32
20	48.47	42.33	58.61	55.22	10.20	31.21	47.57	83.27
30	48.36	43.04	58.51	55.20	10.10	31.13	47.22	84.80
Aug. 9	48.23	43.58	58.38	55.10	9.97	30.99	46.83	85.86
19	48.09	43.93	58.23	54.90	9.83	30.78	46.41	86.41
Sept. 29	47.94	44.06	58.07	54.64	9.67	30.54	45.97	86.48
8	47.78	43.99	57.90	54.31	9.51	30.25	45.52	86.00
18	47.63	43.69	57.74	53.93	9.35	29.94	45.07	85.01
28	47.50	43.18	57.60	53.52	9.20	29.63	44.64	83.51
Oct. 8	47.39	42.41	57.48	53.10	9.08	29.33	44.25	81.54
18	47.31	41.39	57.39	52.72	8.99	29.09	43.90	79.10
28	47.28	40.14	57.35	52.40	8.94	28.92	43.61	76.24
Nov. 7	47.29	38.66	57.35	52.20	8.94	28.88	43.40	73.04
17	47.34	36.92	57.41	52.14	9.00	29.00	43.26	69.52
27	47.46	34.77	57.54	52.29	9.12	29.34	43.22	65.81
Dec. 7	47.62	32.69	57.71	52.63	9.28	29.83	43.27	61.57
17	47.83	30.48	57.93	53.17	9.49	30.51	43.42	57.74
27	48.07	28.22	58.19	53.90	9.74	31.37	43.65	54.04
37	48.35	25.99	58.49	54.82	10.03	32.38	43.97	50.55
Mean R. A.	15 ^h 39 ^m 47 ^s .079		15 ^h 54 ^m 56 ^s .996		16 ^h 0 ^m 8 ^s .574		16 ^h 22 ^m 45 ^s .430	
Mean Dec.	+ 6° 42' 41".15		-22° 21' 47".83		-19° 33' 24".82		+61° 43' 11".98	
Sec δ, Tan δ	1.007, + 0.118		1.081, - 0.411		1.061, - 0.355		2.111, + 1.859	

AT UPPER TRANSIT AT GREENWICH.								
Date.	α Scorpil. (Antares) Mag. 1.3		β Herculis. Mag. 2.8		τ Scorpil. Mag. 2.9		ζ Ophiuchi. Mag. 2.7	
	R. A.	Dec. S.	R. A.	Dec. N.	R. A.	Dec. S.	R. A.	Dec. S.
	h m	° /	h m	° /	h m	° /	h m	° /
	16 23	26 13	16 26	21 40	16 30	28 1	16 32	10 22
	s	"	s	"	s	"	s	"
Jan. 1	47.07	44.36	16.36	70.91	10.39	34.37	6.54	57.53
11	47.37	44.96	16.61	68.23	10.68	34.83	6.80	58.86
21	47.69	45.70	16.89	65.77	11.00	35.44	7.09	60.21
31	48.03	46.55	17.19	63.62	11.34	36.19	7.39	61.54
Feb. 10	48.37	47.49	17.50	61.85	11.69	37.01	7.70	62.76
20	48.72	48.44	17.82	60.53	12.04	37.89	8.02	63.86
Mar. 2	49.06	49.39	18.13	59.68	12.38	38.79	8.33	64.79
12	49.39	50.33	18.43	59.31	12.72	39.69	8.63	65.50
Apr. 22	49.70	51.22	18.72	59.46	13.04	40.55	8.92	66.04
1	50.00	52.04	18.99	60.09	13.35	41.37	9.20	66.35
11	50.27	52.81	19.23	61.11	13.63	42.16	9.45	66.45
21	50.52	53.52	19.46	62.50	13.90	42.90	9.69	66.41
May 1	50.75	54.16	19.65	64.18	14.13	43.62	9.90	66.21
11	50.95	54.77	19.82	66.09	14.34	44.28	10.08	65.91
21	51.12	55.33	19.95	68.13	14.52	44.92	10.24	65.52
31	51.25	55.85	20.05	70.24	14.66	45.53	10.37	65.08
June 10	51.35	56.33	20.11	72.33	14.77	46.11	10.47	64.62
20	51.41	56.78	20.14	74.36	14.83	46.65	10.53	64.14
30	51.43	57.17	20.13	76.24	14.86	47.15	10.56	63.68
July 10	51.42	57.51	20.08	77.96	14.85	47.60	10.54	63.27
20	51.36	57.79	20.00	79.43	14.80	47.96	10.50	62.87
30	51.27	57.99	19.89	80.64	14.71	48.23	10.42	62.53
Aug. 9	51.15	58.08	19.75	81.57	14.59	48.40	10.31	62.23
19	51.00	58.07	19.59	82.21	14.44	48.46	10.18	61.96
Sept. 29	50.83	57.96	19.41	82.50	14.27	48.39	10.03	61.74
8	50.65	57.73	19.23	82.44	14.09	48.21	9.87	61.59
18	50.48	57.42	19.04	82.04	13.91	47.90	9.71	61.50
28	50.31	57.03	18.86	81.33	13.74	47.51	9.55	61.49
Oct. 8	50.17	56.58	18.70	80.23	13.59	47.03	9.41	61.57
18	50.06	56.11	18.57	78.81	13.47	46.51	9.31	61.76
28	49.99	55.65	18.48	77.05	13.39	45.98	9.23	62.06
Nov. 7	49.97	55.25	18.42	74.98	13.36	45.48	9.20	62.52
17	50.00	54.94	18.42	72.66	13.39	45.06	9.22	63.14
27	50.08	54.76	18.46	70.09	13.46	44.76	9.29	63.92
Dec. 7	50.24	54.75	18.57	67.07	13.62	44.60	9.42	64.96
17	50.44	54.92	18.73	64.24	13.81	44.63	9.59	66.06
27	50.68	55.27	18.92	61.42	14.05	44.84	9.80	67.30
37	50.97	55.79	19.16	58.65	14.33	45.23	10.05	68.61
Mean R. A.	16 ^h 23 ^m 49 ^s .532		16 ^h 26 ^m 18 ^s .412		16 ^h 30 ^m 12 ^s .908		16 ^h 32 ^m 8 ^s .789	
Mean Dec.	-26° 13' 50".35		+21° 41' 14".34		-28° 1' 40".30		-10° 23' 0".01	
Sec δ, Tan δ	1.115, - 0.493		1.076, + 0.398		1.133, - 0.532		1.017, - 0.183	

AT UPPER TRANSIT AT GREENWICH.

Date.	α Trianguli Aust. Mag. 1.9		ε Scorpil. Mag. 2.3		η Ophiuchi. Mag. 2.6		β Arae. Mag. 2.7	
	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. S.
	h m	° /	h m	° /	h m	° /	h m	° /
	16 38	68 51	16 44	34 7	17 5	15 36	17 17	55 26
	s	"	s	"	s	"	s	"
Jan. I	55.85	30.81	13.27	37.69	7.04	44.23	40.11	34.44
II	56.45	29.27	13.57	37.74	7.28	45.15	40.47	33.12
21	57.12	28.13	13.90	37.97	7.55	46.11	40.88	32.04
31	57.84	27.38	14.25	38.37	7.85	47.07	41.34	31.25
Feb. 10	58.60	27.05	14.61	38.92	8.15	48.00	41.82	30.76
20	59.37	27.15	14.98	39.59	8.47	48.84	42.33	30.56
Mar. 2	60.15	27.67	15.34	40.32	8.79	49.57	42.84	30.62
12	60.92	28.55	15.70	41.12	9.10	50.15	43.35	30.96
Apr. 22	61.66	29.80	16.04	41.96	9.41	50.59	43.86	31.58
I	62.36	31.37	16.38	42.82	9.70	50.88	44.35	32.44
11	63.01	33.23	16.69	43.71	9.98	51.03	44.82	33.52
21	63.61	35.35	16.98	44.62	10.25	51.05	45.27	34.81
May I	64.14	37.70	17.24	45.54	10.49	50.96	45.68	36.28
11	64.60	40.20	17.48	46.45	10.71	50.78	46.05	37.92
21	64.97	42.83	17.68	47.38	10.91	50.56	46.37	39.71
31	65.25	45.52	17.84	48.30	11.07	50.32	46.64	41.59
June 10	65.43	48.20	17.97	49.21	11.20	50.06	46.85	43.56
20	65.52	50.85	18.05	50.08	11.30	49.81	47.01	45.54
30	65.50	53.36	18.09	50.92	11.36	49.58	47.09	47.49
July 10	65.38	55.69	18.09	51.70	11.37	49.37	47.11	49.37
20	65.17	57.77	18.04	52.38	11.35	49.20	47.06	51.12
30	64.87	59.52	17.95	52.94	11.29	49.06	46.94	52.70
Aug. 9	64.50	60.90	17.83	53.37	11.20	48.93	46.77	54.02
19	64.06	61.87	17.67	53.64	11.07	48.82	46.54	55.08
Sept. 29	63.57	62.38	17.49	53.72	10.93	48.73	46.27	55.80
8	63.06	62.42	17.29	53.65	10.77	48.64	45.98	56.16
18	62.56	61.98	17.09	53.40	10.60	48.57	45.67	56.17
28	62.08	61.07	16.90	52.96	10.43	48.52	45.37	55.79
Oct. 8	61.64	59.71	16.73	52.38	10.28	48.49	45.08	55.05
18	61.27	57.98	16.59	51.72	10.15	48.52	44.83	53.99
28	61.00	55.93	16.49	50.96	10.05	48.59	44.63	52.61
Nov. 7	60.83	53.61	16.45	50.17	9.99	48.76	44.49	51.01
17	60.79	51.17	16.45	49.42	9.98	49.04	44.43	49.25
27	60.87	48.69	16.52	48.74	10.02	49.44	44.45	47.40
Dec. 7	61.11	46.02	16.66	48.13	10.11	49.96	44.55	45.55
17	61.45	43.75	16.85	47.73	10.27	50.69	44.76	43.58
27	61.91	41.73	17.09	47.50	10.46	51.47	45.03	41.95
37	62.47	40.02	17.37	47.47	10.68	52.35	45.36	40.50
Mean R. A.	16 ^h 39 ^m 1 ^s .181		16 ^h 44 ^m 15 ^s .993		17 ^h 5 ^m 9 ^s .452		17 ^h 17 ^m 43 ^s .980	
Mean Dec.	-68° 51' 41" .86		-34° 7' 43" .74		-15° 36' 46" .12		-55° 26' 40" .39	
Sec δ, Tan δ	2.773, - 2.586		1.208, - 0.678		1.038, - 0.279		1.763, - 1.452	

AT UPPER TRANSIT AT GREENWICH.

Date.	ν Scorpil. Mag. 2.8		α Arae. Mag. 2.9		λ Scorpil. Mag. 1.8		α Ophiuchi. Mag. 2.1	
	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. N.
	h m	° /	h m	° /	h m	° /	h m	° /
	17 24	37 13	17 24	49 48	17 27	37 2	17 30	12 37
	s	"	s	"	s	"	s	"
Jan. I	31.48	22.45	44.80	12.48	22.72	13.67	40.35	29.86
11	31.75	22.04	45.12	11.39	22.99	13.23	40.55	27.55
21	32.06	21.78	45.49	10.51	23.29	12.98	40.78	25.36
31	32.39	21.69	45.89	9.87	23.62	12.85	41.04	23.37
Feb. 10	32.75	21.72	46.32	9.49	23.98	12.87	41.31	21.64
20	33.12	21.88	46.76	9.32	24.34	12.99	41.60	20.26
Mar. 2	33.50	22.16	47.21	9.37	24.72	13.24	41.90	19.24
12	33.87	22.53	47.67	9.65	25.10	13.59	42.19	18.64
Apr. 22	34.24	22.97	48.13	10.15	25.47	14.01	42.49	18.47
I	34.61	23.49	48.57	10.84	25.83	14.49	42.78	18.72
11	34.96	24.07	48.99	11.72	26.18	15.04	43.05	19.38
21	35.29	24.73	49.39	12.76	26.52	15.66	43.31	20.39
May I	35.60	25.45	49.77	13.95	26.83	16.34	43.56	21.68
11	35.88	26.23	50.11	15.31	27.11	17.10	43.78	23.22
21	36.14	27.08	50.41	16.77	27.37	17.91	43.97	24.92
31	36.36	27.98	50.66	18.34	27.59	18.79	44.14	26.75
June 10	36.53	28.93	50.87	19.99	27.77	19.72	44.27	28.62
20	36.67	29.91	51.02	21.66	27.91	20.67	44.37	30.47
30	36.75	30.89	51.11	23.32	28.00	21.63	44.42	32.24
July 10	36.79	31.85	51.14	24.94	28.04	22.57	44.44	33.91
20	36.78	32.76	51.12	26.47	28.03	23.49	44.42	35.41
30	36.72	33.60	51.04	27.85	27.98	24.33	44.36	36.72
Aug. 9	36.62	34.33	50.90	29.04	27.88	25.06	44.27	37.81
19	36.48	34.90	50.71	30.00	27.74	25.66	44.14	38.66
Sept. 29	36.30	35.31	50.49	30.67	27.56	26.08	43.99	39.27
8	36.11	35.54	50.24	31.06	27.37	26.32	43.82	39.61
18	35.90	35.56	49.97	31.11	27.16	26.35	43.64	39.65
28	35.69	35.38	49.70	30.81	26.95	26.19	43.46	39.41
Oct. 8	35.49	35.01	49.45	30.24	26.75	25.82	43.29	38.89
18	35.32	34.46	49.23	29.37	26.58	25.29	43.14	38.08
28	35.19	33.76	49.06	28.23	26.45	24.61	43.01	36.99
Nov. 7	35.10	32.94	48.94	26.90	26.36	23.82	42.92	35.62
17	35.06	32.07	48.88	25.43	26.32	22.98	42.86	33.98
27	35.08	31.20	48.90	23.88	26.34	22.12	42.86	32.11
Dec. 7	35.17	30.36	48.98	22.34	26.42	21.29	42.90	30.04
17	35.33	29.54	49.16	20.69	26.57	20.47	43.00	27.57
27	35.53	28.90	49.40	19.31	26.77	19.83	43.14	25.26
37	35.78	28.43	49.69	18.11	27.02	19.34	43.32	22.94
Mean R. A.	17 ^h 24 ^m 34 ^s .425		17 ^h 24 ^m 48 ^s .312		17 ^h 27 ^m 25 ^s .666		17 ^h 30 ^m 42 ^s .588	
Mean Dec.	-37° 13' 25" .90		-49° 48' 17" .23		-37° 2' 16" .86		+12° 37' 32" .33	
Sec δ, Tan δ	1.256, - 0.760		1.550, - 1.184		1.253, - 0.755		1.025, + 0.224	

AT UPPER TRANSIT AT GREENWICH.

Date.	θ Scorp.ii. Mag. 2.0		κ Scorp.ii. Mag. 2.6		β Ophiuchi. Mag. 2.9		γ Draconis. Mag. 2.4	
	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. N.	R. A.	Dec. N.
	h m	° /	h m	° /	h m	° /	h m	° /
	17 30	42 56	17 36	38 58	17 38	4 36	17 54	51 29
	s	"	s	"	s	"	s	"
Jan. 1	43'47	22'57	8'51	57'92	56'33	15'28	26'98	52'82
11	43'75	21'80	8'77	57'32	56'52	13'38	27'15	49'27
21	44'07	21'20	9'08	56'89	56'75	11'58	27'38	45'92
31	44'43	20'78	9'41	56'61	57'00	9'92	27'66	42'88
Feb. 10	44'81	20'55	9'77	56'47	57'27	8'46	27'99	40'26
20	45'21	20'49	10'14	56'45	57'56	7'25	28'35	38'15
Mar. 2	45'61	20'59	10'52	56'56	57'85	6'36	28'74	36'64
12	46'02	20'84	10'91	56'78	58'14	5'82	29'14	35'77
Apr. 22	46'42	21'24	11'29	57'10	58'44	5'62	29'55	35'53
1	46'82	21'77	11'66	57'52	58'73	5'77	29'95	35'95
11	47'20	22'42	12'03	58'03	59'01	6'26	30'33	37'00
21	47'56	23'19	12'38	58'63	59'27	7'05	30'69	38'62
May 1	47'90	24'07	12'70	59'30	59'52	8'08	31'02	40'73
11	48'21	25'07	13'00	60'07	59'75	9'31	31'31	43'26
21	48'49	26'16	13'27	60'93	59'95	10'70	31'56	46'10
31	48'73	27'33	13'51	61'85	60'13	12'15	31'75	49'15
June 10	48'93	28'57	13'70	62'85	60'27	13'65	31'88	52'32
20	49'08	29'85	13'85	63'90	60'38	15'13	31'96	55'52
30	49'18	31'14	13'95	64'96	60'46	16'55	31'98	58'67
July 10	49'22	32'40	14'00	66'01	60'49	17'88	31'94	61'66
20	49'21	33'62	14'00	67'03	60'48	19'09	31'84	64'44
30	49'15	34'74	13'96	67'99	60'44	20'13	31'68	66'93
Aug. 9	49'04	35'71	13'86	68'83	60'36	21'00	31'47	69'05
19	48'88	36'51	13'72	69'53	60'25	21'69	31'22	70'78
Sept. 29	48'69	37'07	13'55	70'05	60'11	22'17	30'93	72'10
8	48'48	37'42	13'35	70'39	59'95	22'45	30'61	72'95
18	48'25	37'51	13'14	70'50	59'78	22'53	30'27	73'29
28	48'02	37'33	12'92	70'39	59'60	22'39	29'92	73'14
Oct. 8	47'80	36'91	12'71	70'05	59'44	22'04	29'58	72'47
18	47'61	36'23	12'53	69'52	59'29	21'47	29'26	71'30
28	47'45	35'36	12'38	68'82	59'16	20'67	28'97	69'62
Nov. 7	47'35	34'34	12'28	67'99	59'07	19'65	28'72	67'48
17	47'30	33'21	12'23	67'08	59'02	18'42	28'51	64'90
27	47'31	32'03	12'24	66'11	59'02	16'98	28'37	61'92
Dec. 7	47'39	30'86	12'31	65'16	59'06	15'36	28'30	58'68
17	47'55	29'62	12'46	64'18	{59'15}	{13'61}	28'29	55'20
27	47'75	28'62	12'65	63'38	59'30	11'57	28'36	51'24
37	48'01	27'76	12'89	62'73	59'47	9'69	28'50	47'63
Mean R. A.	17 ^h 30 ^m 46 ^s .648		17 ^h 36 ^m 11 ^s .545		17 ^h 38 ^m 58 ^s .610		17 ^h 54 ^m 29 ^s .578	
Mean Dec.	-42° 56' 26".10		-38° 59' 0".61		+ 4° 36' 17".10		+51° 29' 57".34	
Sec δ, Tan δ	1.366, - 0.931		1.286, - 0.809		1.003, + 0.081		1.606, + 1.257	

AT UPPER TRANSIT AT GREENWICH.

Date.	δ Sagittarii. Mag. 2.8		ε Sagittarii. Mag. 1.9		λ Sagittarii. Mag. 2.9		α Lyrae. (Vega) Mag. 0.1	
	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. N.
	h m	° /	h m	° /	h m	° /	h m	° /
	18 15	29 52	18 18	34 25	18 22	25 28	18 33	38 41
	s	"	s	"	s	"	s	"
Jan. 1	7'29	3'88	4'97	42'45	18'58	23'55	49'04	51'62
11	7'49	3'60	5'17	41'88	18'76	23'52	49'16	48'40
21	7'73	3'39	5'41	41'41	18'99	23'53	49'32	45'28
31	8'00	3'23	5'69	40'99	19'24	23'56	49'53	42'36
Feb. 10	8'29	3'10	6'00	40'65	19'52	23'60	49'78	39'76
20	8'61	3'01	6'33	40'37	19'82	23'63	50'06	37'58
Mar. 2	8'94	2'95	6'68	40'14	20'14	23'62	50'37	35'93
12	9'28	2'90	7'03	39'97	20'46	23'58	50'69	34'80
Apr. 22	9'63	2'83	7'39	39'85	20'79	23'49	51'02	34'27
1	9'97	2'78	7'75	39'79	21'12	23'37	51'36	34'37
11	10'31	2'72	8'11	39'78	21'45	23'21	51'70	35'03
21	10'65	2'69	8'46	39'83	21'78	23'03	52'03	36'24
May 1	10'97	2'70	8'80	39'96	22'09	22'83	52'34	37'97
11	11'27	2'76	9'12	40'18	22'38	22'66	52'63	40'11
21	11'55	2'87	9'41	40'49	22'66	22'53	52'89	42'59
31	11'80	3'08	9'68	40'91	22'91	22'46	53'12	45'35
June 10	12'02	3'36	9'91	41'43	23'12	22'47	53'30	48'26
20	12'20	3'73	10'10	42'05	23'30	22'55	53'44	51'26
30	12'33	4'18	10'25	42'76	23'44	22'71	53'53	54'27
July 10	12'43	4'68	10'34	43'53	23'54	22'95	53'57	57'19
20	12'47	5'24	10'39	44'33	23'59	23'27	53'56	59'96
30	12'46	5'82	10'39	45'15	23'59	23'63	53'50	62'51
Aug. 9	12'41	6'40	10'33	45'95	23'55	24'02	53'40	64'78
19	12'32	6'94	10'24	46'70	23'46	24'41	53'25	66'73
Sept. 29	12'19	7'42	10'10	47'34	23'34	24'78	53'06	68'31
8	12'03	7'81	9'93	47'86	23'19	25'11	52'84	69'49
18	11'84	8'12	9'74	48'23	23'02	25'37	52'60	70'25
28	11'65	8'29	9'54	48'43	22'83	25'56	52'34	70'56
Oct. 8	11'46	8'32	9'34	48'46	22'65	25'66	52'09	70'39
18	11'29	8'22	9'15	48'32	22'48	25'68	51'84	69'77
28	11'14	8'02	8'99	48'00	22'33	25'62	51'61	68'68
Nov. 7	11'02	7'70	8'86	47'54	22'21	25'50	51'40	67'15
17	10'94	7'32	8'77	46'99	22'14	25'34	51'24	65'17
27	10'92	6'90	8'74	46'34	22'11	25'16	51'12	62'81
Dec. 7	10'94	6'48	8'76	45'64	22'13	25'00	51'05	60'12
17	11'02	6'06	8'84	44'95	22'19	24'85	51'03	57'17
27	11'17	5'65	8'99	44'22	{22'31}	{24'73}	51'06	54'01
37	11'35	5'34	9'17	43'61	{22'33}	{24'73}	51'16	50'46
Mean R. A.	18 ^h 15 ^m 10 ^s .098		18 ^h 18 ^m 7 ^s .903		18 ^h 22 ^m 21 ^s .290		18 ^h 33 ^m 51 ^s .444	
Mean Dec.	-29° 52' 2".85		-34° 25' 41".44		-25° 28' 21".84		+38° 41' 54".67	
Sec δ, Tan δ	1.153, - 0.574		1.212, - 0.685		1.108, - 0.476		1.281, + 0.801	

AT UPPER TRANSIT AT GREENWICH.

Date.	σ Sagittarii. Mag. 2.1		ζ Sagittarii. Mag. 2.7		γ Aquilæ. Mag. 2.8		α Aquilæ. (Altaïr) Mag. 0.9	
	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. N.	R. A.	Dec. N.
	h m	° /	h m	° /	h m	° /	h m	° /
	18 49	26 24	18 56	30 0	19 41	10 23	19 46	8 37
	s	"	s	"	s	"	s	"
Jan. 1	{34 ⁶¹ } {34 ⁶² }	{41 ²² } {41 ²⁰ }	3 46.51	43.70	53.73	23.76	18.33	34.82
11	34.78	40.98	46.68	43.21	53.80	21.94	18.40	33.10
21	34.98	40.78	46.88	42.75	53.91	19.95	18.51	31.24
31	35.21	40.60	47.11	42.30	54.05	18.24	18.65	29.65
Feb. 10	35.47	40.40	47.37	41.86	54.23	16.70	18.82	28.21
20	35.75	40.18	47.66	41.43	54.43	15.38	19.02	27.00
Mar. 2	36.05	39.93	47.96	40.99	54.65	14.36	19.24	26.07
12	36.37	39.64	48.29	40.56	54.90	13.69	19.49	25.49
Apr. 22	36.70	39.32	48.62	40.11	55.16	13.39	19.75	25.23
1	37.03	38.96	48.96	39.65	55.44	13.49	20.03	25.37
11	37.36	38.57	49.31	39.22	55.74	13.98	20.32	25.89
21	37.70	38.17	49.66	38.83	56.03	14.84	20.62	26.77
May 1	38.03	37.79	50.00	38.46	56.33	16.03	20.92	27.95
11	38.34	37.46	50.33	38.20	56.62	17.52	21.22	29.42
21	38.64	37.16	50.64	38.00	56.91	19.24	21.50	31.12
31	38.91	36.96	50.92	37.92	57.17	21.14	21.77	32.99
June 10	39.15	36.87	51.18	37.96	57.42	23.15	22.02	34.96
20	39.36	36.87	51.40	38.13	57.63	25.22	22.24	36.97
30	39.53	36.99	51.58	38.43	57.81	27.28	22.42	38.96
July 10	39.65	37.22	51.71	38.84	57.95	29.27	22.57	40.89
20	39.73	37.53	51.80	39.36	58.04	31.17	22.67	42.72
30	39.76	37.93	51.84	39.95	58.10	32.91	22.73	44.39
Aug. 9	39.74	38.40	51.82	40.60	58.11	34.48	22.75	45.90
19	39.67	38.88	51.76	41.26	58.07	35.84	22.72	47.20
Sept. 29	39.57	39.35	51.66	41.90	58.00	36.96	22.65	48.27
8	39.43	39.81	51.52	42.50	57.89	37.84	22.55	49.11
18	39.26	40.22	51.35	43.01	57.76	38.47	22.42	49.71
28	39.08	40.55	51.17	43.40	57.60	38.83	22.27	50.05
Oct. 8	38.90	40.78	50.98	43.68	57.43	38.94	22.10	50.16
18	38.72	40.91	50.79	43.83	57.26	38.78	21.93	50.01
28	38.56	40.94	50.62	43.83	57.09	38.36	21.77	49.61
Nov. 7	38.43	40.87	50.48	43.70	56.94	37.66	21.62	48.97
17	38.33	40.75	50.38	43.46	56.81	36.75	21.50	48.11
27	38.28	40.56	50.31	43.10	56.71	35.58	21.40	47.02
Dec. 7	38.27	40.34	50.30	42.69	56.65	34.19	21.33	45.72
17	38.31	40.10	50.33	42.25	56.62	32.62	21.31	44.26
27	38.40	39.86	50.42	41.77	56.63	30.92	21.32	42.66
37	38.55	39.61	50.56	41.26	56.68	29.12	21.37	41.00
Mean R. A.	18 ^h 49 ^m 37 ^s .353		18 ^h 56 ^m 49 ^s .339		19 ^h 41 ^m 56 ^s .002		19 ^h 46 ^m 20 ^s .607	
Mean Dec.	-26° 24' 37".68		-30° 0' 39".64		+10° 23' 27".39		+8° 37' 38".67	
Sec δ, Tan δ	1.117, - 0.497		1.155, - 0.578		1.017, + 0.183		1.011, + 0.152	

AT UPPER TRANSIT AT GREENWICH.

Date.	α Pavonis. Mag. 2.0		γ Cygni. Mag. 2.3		α Cygni. (Deneb) Mag. 1.3		ε Cygni. Mag. 2.6	
	R. A.	Dec. S.	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. N.
	h m	° /	h m	° /	h m	° /	h m	° /
	20 18	57 1	20 18	39 57	20 38	44 56	20 42	33 37
	s	"	s	"	s	"	s	"
Jan. 1	23.40	50.49	55.40	54.36	17.40	78.83	29.54	44.34
11	23.45	48.32	55.38	51.51	17.35	75.94	29.52	41.84
21	23.58	46.03	55.41	48.54	17.34	72.94	29.53	39.19
31	23.79	43.42	55.49	45.28	17.39	69.58	29.60	36.27
Feb. 10	24.05	41.07	55.62	42.46	17.49	66.61	29.70	33.70
20	24.36	38.76	55.79	39.88	17.64	63.83	29.84	31.34
Mar. 2	24.72	36.55	56.00	37.64	17.84	61.38	30.02	29.29
12	25.12	34.46	56.25	35.85	18.08	59.34	30.24	27.63
Apr. 22	25.56	32.57	56.54	34.56	18.37	57.77	30.49	26.41
1	26.04	30.89	56.85	33.83	18.68	56.76	30.77	25.69
11	26.54	29.47	57.18	33.64	19.02	56.33	31.07	25.51
21	27.06	28.32	57.52	34.05	19.38	56.49	31.39	25.87
May 1	27.58	27.49	57.87	35.02	19.76	57.23	31.72	26.75
11	28.11	26.98	58.22	36.50	20.13	58.52	32.06	28.12
21	28.63	26.82	58.55	38.44	20.49	60.33	32.39	29.91
31	29.13	27.00	58.87	40.79	20.84	62.57	32.71	32.10
June 10	29.59	27.55	59.16	43.46	21.15	65.18	33.00	34.60
20	30.01	28.43	59.41	46.38	21.43	68.11	33.27	37.36
30	30.38	29.64	59.62	49.45	21.67	71.23	33.50	40.26
July 10	30.69	31.13	59.79	52.60	21.86	74.47	33.69	43.24
20	30.93	32.85	59.90	55.76	22.00	77.77	33.83	46.25
30	31.10	34.76	59.96	58.86	22.08	81.04	33.93	49.19
Aug. 9	31.18	36.79	59.97	61.81	22.10	84.22	33.98	52.02
19	31.19	38.88	59.92	64.55	22.06	87.22	33.97	54.67
Sept. 29	31.11	40.93	59.83	67.04	21.98	89.99	33.92	57.07
8	30.97	42.86	59.69	69.21	21.84	92.47	33.82	59.22
18	30.77	44.62	59.51	71.04	21.66	94.62	33.69	61.04
28	30.52	46.13	59.30	72.49	21.44	96.39	33.52	62.49
Oct. 8	30.23	47.30	59.07	73.49	21.20	97.70	33.33	63.56
18	29.92	48.09	58.82	74.04	20.94	98.59	33.13	64.24
28	29.61	48.48	58.58	74.12	20.67	98.97	32.92	64.49
Nov. 7	29.31	48.45	58.34	73.75	20.41	98.86	32.71	64.28
17	29.04	47.98	58.12	72.88	20.15	98.25	32.52	63.66
27	28.81	47.08	57.92	71.55	19.92	97.13	32.34	62.58
Dec. 7	28.64	45.83	57.76	69.78	19.72	95.52	32.19	61.10
17	28.53	44.24	57.63	67.61	19.56	93.50	32.07	59.27
27	28.48	42.35	57.55	65.11	19.43	91.09	31.99	57.12
37	28.51	40.26	57.51	62.37	19.35	88.38	31.95	54.72
Mean R. A.	20 ^h 18 ^m 27 ^s .214		20 ^h 18 ^m 57 ^s .727		20 ^h 38 ^m 19 ^s .761		20 ^h 42 ^m 31 ^s .750	
Mean Dec.	-57° 1' 38".41		+39° 57' 54".00		+44° 57' 17".16		+33° 37' 44".35	
Sec δ, Tan δ	1.837, - 1.541		1.305, + 0.838		1.413, + 0.998		1.201, + 0.665	

AT UPPER TRANSIT AT GREENWICH.

Date.	α Cephei. Mag. 2.6		ε Pegasi. Mag. 2.5		α Gruis. Mag. 1.9		α Toucani. Mag. 2.9	
	R. A.	Dec. N.	R. A.	Dec. N.	R. A.	Dec. S.	R. A.	Dec. S.
	h m	° /	h m	° /	h m	° /	h m	° /
	21 16	62 11	21 39	9 27	22 2	47 23	22 12	60 42
	s	"	s	"	s	"	s	"
Jan. 1	21.78	64.81	41.04	21.96	27.63	86.47	13.41	68.89
11	21.56	62.07	41.00	20.63	27.55	85.09	13.25	66.98
21	21.41	59.03	40.99	19.26	27.51	83.42	13.15	64.71
31	21.34	55.81	41.02	17.93	27.52	81.46	13.11	62.15
Feb. 10	21.35	52.17	41.07	16.68	27.57	79.31	13.14	59.34
20	21.45	48.97	41.16	15.47	27.68	76.73	13.24	56.06
Mar. 2	21.63	45.97	41.28	14.60	27.82	74.26	13.40	52.97
12	21.89	43.28	41.44	13.99	28.01	71.72	13.63	49.86
Apr. 22	22.22	41.02	41.62	13.69	28.25	69.16	13.92	46.79
1	22.62	39.26	41.84	13.73	28.53	66.62	14.27	43.80
11	23.07	38.09	42.08	14.12	28.85	64.18	14.67	41.00
21	23.55	37.52	42.35	14.86	29.21	61.85	15.12	38.41
May 1	24.06	37.58	42.63	15.93	29.59	59.70	15.62	36.09
11	24.58	38.25	42.94	17.33	30.00	57.79	16.15	34.09
21	25.09	39.50	43.25	18.98	30.43	56.15	16.70	32.48
31	25.59	41.31	43.56	20.84	30.87	54.82	17.27	31.27
June 10	26.05	43.61	43.86	22.88	31.30	53.85	17.84	30.50
20	26.46	46.31	44.15	25.02	31.72	53.25	18.38	30.20
30	26.81	49.37	44.42	27.19	32.12	53.05	18.90	30.37
July 10	27.10	52.69	44.66	29.36	32.49	53.22	19.39	30.98
20	27.32	56.18	44.86	31.47	32.81	53.78	19.82	32.03
30	27.45	59.78	45.03	33.46	33.08	54.70	20.18	33.48
Aug. 9	27.51	63.38	45.15	35.29	33.29	55.95	20.47	35.28
19	27.48	66.92	45.23	36.95	33.45	57.48	20.67	37.36
Sept. 29	27.38	70.33	45.26	38.42	33.54	59.23	20.80	39.67
8	27.20	73.52	45.26	39.63	33.56	61.11	20.83	42.09
18	26.95	76.43	45.21	40.63	33.53	63.05	20.78	44.56
28	26.64	79.02	45.13	41.37	33.44	64.99	20.65	46.95
Oct. 8	26.29	81.20	45.03	41.87	33.30	66.81	20.46	49.18
18	25.90	82.92	44.90	42.13	33.13	68.46	20.21	51.14
28	25.48	84.14	44.76	42.15	32.93	69.87	19.91	52.77
Nov. 7	25.04	84.82	44.62	41.94	32.71	70.96	19.59	53.99
17	24.61	84.94	44.49	41.50	32.49	71.70	19.26	54.72
27	24.19	84.49	44.36	40.84	32.28	72.05	18.93	54.96
Dec. 7	23.79	83.47	44.24	40.00	32.09	71.99	18.62	54.71
17	23.43	81.89	44.15	38.98	31.92	71.53	18.34	53.93
27	23.12	79.83	44.08	37.83	31.79	70.68	18.10	52.67
37	22.87	77.30	44.05	36.56	31.69	69.46	17.91	50.95
Mean R. A.	21 ^h 16 ^m 24 ^s .542		21 ^h 39 ^m 42 ^s .984		22 ^h 2 ^m 30 ^s .119		22 ^h 12 ^m 16 ^s .403	
Mean Dec.	+62° 11' 59".27		+ 9° 27' 26".66		-47° 24' 7".87		-60° 42' 47".83	
Sec δ, Tan δ	2.144, + 1.897		1.014, + 0.167		1.477, - 1.088		2.044, - 1.783	

AT UPPER TRANSIT AT GREENWICH.

Date.	β Gruis. Mag. 2.1		α Piscis Australis. (Fomalhaut) Mag. 1.3		β Pegasi. Mag. 2.2 - 2.7		α Pegasi. (Markab) Mag. 2.6	
	R. A.	Dec. S.	R. A.	Dec. S.	R. A.	Dec. N.	R. A.	Dec. N.
	h m	° /	h m	° /	h m	° /	h m	° /
	22 37	47 21	22 52	30 6	22 59	27 35	23 0	14 42
	s	"	s	"	s	"	s	"
Jan. 1	12.09	59.09	35.70	34.02	20.06	21.10	12.04	52.53
11	11.97	57.93	35.61	33.64	19.94	19.70	11.94	51.39
21	11.89	56.40	35.55	32.99	19.84	18.07	11.87	50.12
31	11.84	54.54	35.51	32.08	19.77	16.29	11.81	48.83
Feb. 10	11.84	52.41	35.50	30.93	19.73	14.43	11.78	47.55
20	11.88	50.05	35.52	29.52	19.72	12.59	11.79	46.33
Mar. 2	11.98	47.24	35.58	27.99	19.74	10.83	11.82	45.25
12	12.12	44.57	35.59	27.73	19.81	9.10	11.89	44.29
Apr. 22	12.30	41.81	35.82	23.90	19.92	7.79	12.00	43.71
1	12.53	39.05	35.99	21.70	20.08	6.80	12.15	43.42
11	12.81	36.32	36.21	19.54	20.27	6.18	12.33	43.45
21	13.13	33.69	36.46	17.27	20.51	5.98	12.56	43.84
May 1	13.48	31.18	36.74	14.99	20.78	6.21	12.81	44.59
11	13.87	28.90	37.05	12.75	21.07	6.87	13.09	45.69
21	14.28	26.88	37.38	10.62	21.39	7.95	13.39	47.08
31	14.71	25.15	37.73	8.63	21.72	9.42	13.70	48.77
June 10	15.14	23.78	38.09	6.84	22.06	11.23	14.02	50.70
20	15.57	22.79	38.45	5.30	22.40	13.33	14.34	52.81
30	15.98	22.22	38.79	4.04	22.72	15.66	14.65	55.03
July 10	16.37	22.06	39.12	3.11	23.02	18.18	14.94	57.33
20	16.73	22.32	39.42	2.52	23.29	20.82	15.20	59.64
30	17.03	22.99	39.69	2.27	23.53	23.51	15.43	61.89
Aug. 9	17.29	24.05	39.91	2.35	23.73	26.19	15.63	64.06
19	17.49	25.42	40.09	2.70	23.88	28.81	15.79	66.12
Sept. 29	17.62	27.07	40.22	3.48	23.99	31.33	15.90	67.97
8	17.69	28.95	40.31	4.46	24.06	33.68	15.97	69.65
18	17.71	30.94	40.34	5.63	24.09	35.86	16.00	71.11
28	17.66	33.01	40.33	6.97	24.07	37.78	16.00	72.32
Oct. 8	17.56	35.03	40.28	8.39	24.02	39.42	15.96	73.29
18	17.43	36.93	40.20	9.78	23.94	40.79	15.89	74.00
28	17.25	38.62	40.09	11.14	23.84	41.83	15.81	74.46
Nov. 7	17.05	40.02	39.96	12.39	23.71	42.56	15.70	74.67
17	16.84	41.08	39.82	13.47	23.58	42.94	15.59	74.63
27	16.63	41.76	39.68	14.33	23.44	42.97	15.47	74.36
Dec. 7	16.43	42.03	39.53	14.94	23.29	42.66	15.34	73.86
17	16.24	41.87	39.40	15.29	23.15	42.01	15.23	73.15
27	16.08	41.29	39.29	15.32	23.01	41.05	15.12	72.25
37	15.94	40.31	39.19	15.09	22.89	39.79	15.02	71.18
Mean R. A.	22 ^h 37 ^m 14 ^s .265		22 ^h 52 ^m 37 ^s .478		22 ^h 59 ^m 21 ^s .668		23 ^h 0 ^m 13 ^s .613	
Mean Dec.	-47° 21' 38".84		-30° 6' 17".14		+27° 35' 20".33		+14° 42' 55".75	
Sec δ, Tan δ	1.476, - 1.086		1.156, - 0.580		1.128, + 0.523		1.034, + 0.263	

USED IN DETERMINING THE LATITUDE BY OBSERVATIONS OF THE POLE STAR OUT OF THE MERIDIAN.

TABLE I.

Containing the *First* Correction.

Argument:—Local Sidereal Time of Observation.

Local Sidereal Time.	Correction.	Local Sidereal Time.	Local Sidereal Time.	Correction.	Local Sidereal Time.
h m	° / "	h m	h m	° / "	h m
0 0	- 1 6 4 +	12 0	6 0	- 0 26 1 +	18 0
10	1 7 8	10	10	0 23 7	10
20	1 8 5	20	20	0 20 10	20
30	1 8 53	30	30	0 17 11	30
40	1 9 34	40	40	0 14 9	40
50	1 10 8	50	50	0 11 6	50
1 0	1 10 33	13 0	7 0	0 8 2	19 0
10	1 10 50	10	10	0 4 57	10
20	1 10 58	20	20	- 0 1 52 +	20
30	1 10 59	30	30	+ 0 1 14 -	30
40	1 10 52	40	40	0 4 20	40
50	1 10 37	50	50	0 7 25	50
2 0	1 10 13	14 0	8 0	0 10 30	20 0
10	1 9 42	10	10	0 13 33	10
20	1 9 2	20	20	0 16 34	20
30	1 8 15	30	30	0 19 34	30
40	1 7 20	40	40	0 22 32	40
50	1 6 17	50	50	0 25 27	50
3 0	1 5 7	15 0	9 0	0 28 19	21 0
10	1 3 49	10	10	0 31 7	10
20	1 2 24	20	20	0 33 53	20
30	1 0 52	30	30	0 36 34	30
40	0 59 12	40	40	0 39 11	40
50	0 57 26	50	50	0 41 44	50
4 0	0 55 34	16 0	10 0	0 44 12	22 0
10	0 53 35	10	10	0 46 35	10
20	0 51 30	20	20	0 48 52	20
30	0 49 19	30	30	0 51 4	30
40	0 47 3	40	40	0 53 11	40
50	0 44 41	50	50	0 55 11	50
5 0	0 42 14	17 0	11 0	0 57 5	23 0
10	0 39 42	10	10	0 58 52	10
20	0 37 6	20	20	1 0 32	20
30	0 34 25	30	30	1 2 6	30
40	0 31 41	40	40	1 3 33	40
50	0 28 53	50	50	1 4 52	50
6 0	- 0 26 1 +	18 0	12 0	+ 1 6 4 -	24 0

TABLE II.

Containing the *Second* Correction. (always to be added.)

Arguments:—Local Sidereal Time and Altitude.

Local Sidereal Time.	Altitude.								Local Sidereal Time.
	0°	5°	10°	15°	20°	25°	30°	35°	
h m	/' "	/' "	/' "	/' "	/' "	/' "	/' "	/' "	h m
0 0	0 0	0 1	0 1	0 2	0 2	0 3	0 3	0 4	12 0
30	0 0	0 0	0 0	0 1	0 1	0 1	0 1	0 2	30
1 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	13 0
30	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	30
2 0	0 0	0 0	0 0	0 0	0 0	0 0	0 1	0 1	14 0
30	0 0	0 0	0 1	0 1	0 1	0 2	0 2	0 2	30
3 0	0 0	0 1	0 1	0 2	0 3	0 3	0 4	0 5	15 0
30	0 0	0 1	0 2	0 3	0 4	0 5	0 7	0 8	30
4 0	0 0	0 1	0 2	0 3	0 5	0 6	0 8	0 10	16 0
30	0 0	0 2	0 4	0 6	0 8	0 11	0 13	0 16	30
5 0	0 0	0 2	0 5	0 8	0 10	0 13	0 16	0 20	17 0
30	0 0	0 3	0 6	0 9	0 12	0 16	0 19	0 24	30
6 0	0 0	0 3	0 7	0 10	0 14	0 18	0 22	0 27	18 0
30	0 0	0 4	0 7	0 11	0 15	0 19	0 24	0 29	30
7 0	0 0	0 4	0 8	0 12	0 16	0 20	0 25	0 30	19 0
30	0 0	0 4	0 8	0 12	0 16	0 21	0 25	0 31	30
8 0	0 0	0 4	0 8	0 12	0 16	0 20	0 25	0 30	20 0
30	0 0	0 4	0 7	0 11	0 15	0 19	0 23	0 28	30
9 0	0 0	0 3	0 7	0 10	0 14	0 17	0 21	0 26	21 0
30	0 0	0 3	0 6	0 9	0 12	0 15	0 19	0 23	30
10 0	0 0	0 2	0 5	0 7	0 10	0 13	0 16	0 19	22 0
30	0 0	0 2	0 4	0 6	0 8	0 10	0 12	0 15	30
11 0	0 0	0 1	0 3	0 4	0 6	0 7	0 9	0 11	23 0
30	0 0	0 1	0 2	0 3	0 4	0 5	0 6	0 7	30
12 0	0 0	0 0	0 1	0 2	0 2	0 3	0 3	0 4	24 0

TABLE III. (for 1909.)

Containing the *Third* Correction. (always to be added.)

Arguments:—Local Sidereal Time and Date.

Local Sidereal Time.	Jan. 1.	Feb. 1.	March 1.	April 1.	May 1.	June 1.	July 1.
h	/' "	/' "	/' "	/' "	/' "	/' "	/' "
0	1 31	1 28	1 21	1 11	1 3	1 0	1 1
2	1 27	1 29	1 26	1 18	1 9	1 2	0 59
4	1 17	1 24	1 25	1 21	1 13	1 4	0 57
6	1 1	1 11	1 17	1 18	1 13	1 5	0 56
8	0 46	0 56	1 4	1 10	1 10	1 5	0 56
10	0 34	0 42	0 51	1 0	1 4	1 3	0 57
12	0 29	0 32	0 39	0 49	0 57	1 0	0 59
14	0 33	0 31	0 34	0 42	0 51	0 58	1 1
16	0 43	0 36	0 35	0 39	0 47	0 56	1 3
18	0 59	0 49	0 43	0 42	0 47	0 55	1 4
20	1 14	1 4	0 56	0 50	0 50	0 55	1 4
22	1 26	1 18	1 9	1 0	0 56	0 57	1 3
24	1 31	1 28	1 21	1 11	1 3	1 0	1 1

TABLE II.

Containing the *Second* Correction. (always to be added.)
Arguments:—Local Sidereal Time and Altitude.

Local Sidereal Time.	Altitude.								Local Sidereal Time.
	35°	40°	45°	50°	55°	60°	65°	70°	
h m	' "	' "	' "	' "	' "	' "	' "	' "	h m
0 0	0 4	0 5	0 6	0 7	0 8	0 10	0 13	0 16	12 0
30	0 2	0 2	0 3	0 3	0 4	0 4	0 5	0 7	30
1 0	0 0	0 0	0 1	0 1	0 1	0 1	0 1	0 1	13 0
30	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	30
2 0	0 1	0 1	0 1	0 1	0 1	0 2	0 2	0 3	14 0
30	0 2	0 3	0 3	0 4	0 5	0 6	0 7	0 9	30
3 0	0 5	0 6	0 7	0 8	0 10	0 12	0 15	0 19	15 0
30	0 8	0 10	0 12	0 14	0 17	0 20	0 25	0 32	30
4 0	0 12	0 14	0 17	0 20	0 24	0 29	0 36	0 47	16 0
30	0 16	0 19	0 23	0 27	0 33	0 39	0 49	1 3	30
5 0	0 20	0 24	0 28	0 34	0 41	0 49	1 1	1 18	17 0
30	0 24	0 28	0 34	0 40	0 48	0 58	1 12	1 33	30
6 0	0 27	0 32	0 38	0 45	0 54	1 6	1 22	1 45	18 0
30	0 29	0 35	0 41	0 49	0 59	1 12	1 29	1 54	30
7 0	0 30	0 36	0 43	0 52	1 2	1 15	1 33	1 59	19 0
30	0 31	0 37	0 44	0 53	1 3	1 16	1 34	2 1	30
8 0	0 30	0 36	0 43	0 51	1 1	1 14	1 32	1 58	20 0
30	0 28	0 34	0 41	0 48	0 58	1 10	1 27	1 52	30
9 0	0 26	0 31	0 37	0 44	0 53	1 4	1 20	1 42	21 0
30	0 23	0 27	0 32	0 38	0 46	0 56	1 9	1 29	30
10 0	0 19	0 23	0 27	0 32	0 38	0 47	0 58	1 14	22 0
30	0 15	0 18	0 21	0 25	0 30	0 37	0 45	0 58	30
11 0	0 11	0 13	0 16	0 19	0 22	0 27	0 33	0 43	23 0
30	0 7	0 9	0 10	0 12	0 15	0 18	0 22	0 28	30
12 0	0 4	0 5	0 6	0 7	0 8	0 10	0 13	0 16	24 0

TABLE III. (for 1909.)

Containing the *Third* Correction. (always to be added.)
Arguments:—Local Sidereal Time and Date.

Local Sidereal Time.	July 1.	Aug. 1.	Sept. 1.	Oct. 1.	Nov. 1.	Dec. 1.	Dec. 31.
h	' "	' "	' "	' "	' "	' "	' "
0	1 1	1 7	1 17	1 29	1 40	1 48	1 52
2	0 59	1 0	1 6	1 16	1 28	1 38	1 46
4	0 57	0 53	0 53	0 59	1 8	1 18	1 28
6	0 56	0 48	0 43	0 42	0 46	0 53	1 3
8	0 56	0 46	0 37	0 30	0 27	0 30	0 37
10	0 57	0 48	0 37	0 26	0 18	0 15	0 17
12	0 59	0 53	0 43	0 31	0 20	0 12	0 8
14	1 1	1 0	0 54	0 44	0 32	0 22	0 14
16	1 3	1 7	1 7	1 1	0 52	0 42	0 32
18	1 4	1 12	1 17	1 18	1 14	1 7	0 57
20	1 4	1 14	1 23	1 30	1 33	1 30	1 23
22	1 3	1 12	1 23	1 34	1 42	1 45	1 43
24	1 1	1 7	1 17	1 29	1 40	1 48	1 52

For converting INTERVALS of MEAN SOLAR Time into Equivalent INTERVALS of SIDEREAL Time.

Hours of Mean Time.	HOURS.	MINUTES.		SECONDS.					
	Equivalents in Sidereal Time.	Minutes of Mean Time.	Equivalents in Sidereal Time.	Minutes of Mean Time.	Equivalents in Sidereal Time.				
	h m s	m s	m s	m s	s				
1	1 0 9'8565	1	1 0'1643	31	31 5'0925	1	1'0027	31	31'0849
2	2 0 19'7130	2	2 0'3286	32	32 5'2568	2	2'0055	32	32'0876
3	3 0 29'5694	3	3 0'4928	33	33 5'4211	3	3'0082	33	33'0904
4	4 0 39'4259	4	4 0'6571	34	34 5'5853	4	4'0110	34	34'0931
5	5 0 49'2824	5	5 0'8214	35	35 5'7496	5	5'0137	35	35'0958
6	6 0 59'1388	6	6 0'9857	36	36 5'9139	6	6'0164	36	36'0986
7	7 1 8'9953	7	7 1'1499	37	37 6'0782	7	7'0192	37	37'1013
8	8 1 18'8518	8	8 1'3142	38	38 6'2424	8	8'0219	38	38'1040
9	9 1 28'7083	9	9 1'4785	39	39 6'4067	9	9'0246	39	39'1068
10	10 1 38'5647	10	10 1'6428	40	40 6'5710	10	10'0274	40	40'1095
11	11 1 48'4212	11	11 1'8070	41	41 6'7353	11	11'0301	41	41'1123
12	12 1 58'2777	12	12 1'9713	42	42 6'8995	12	12'0329	42	42'1150
13	13 2 8'1342	13	13 2'1356	43	43 7'0638	13	13'0356	43	43'1177
14	14 2 17'9906	14	14 2'2998	44	44 7'2281	14	14'0383	44	44'1205
15	15 2 27'8471	15	15 2'4641	45	45 7'3924	15	15'0411	45	45'1232
16	16 2 37'7036	16	16 2'6284	46	46 7'5566	16	16'0438	46	46'1259
17	17 2 47'5600	17	17 2'7927	47	47 7'7209	17	17'0465	47	47'1287
18	18 2 57'4165	18	18 2'9569	48	48 7'8852	18	18'0493	48	48'1314
19	19 3 7'2730	19	19 3'1212	49	49 8'0495	19	19'0520	49	49'1342
20	20 3 17'1295	20	20 3'2855	50	50 8'2137	20	20'0548	50	50'1369
21	21 3 26'9859	21	21 3'4498	51	51 8'3780	21	21'0575	51	51'1396
22	22 3 36'8424	22	22 3'6140	52	52 8'5423	22	22'0602	52	52'1424
23	23 3 46'6989	23	23 3'7783	53	53 8'7066	23	23'0630	53	53'1451
24	24 3 56'5554	24	24 3'9426	54	54 8'8708	24	24'0657	54	54'1479
		25	25 4'1069	55	55 9'0351	25	25'0685	55	55'1506
		26	26 4'2711	56	56 9'1994	26	26'0712	56	56'1533
		27	27 4'4354	57	57 9'3637	27	27'0739	57	57'1561
		28	28 4'5997	58	58 9'5279	28	28'0767	58	58'1588
		29	29 4'7640	59	59 9'6922	29	29'0794	59	59'1615
		30	30 4'9282	60	60 9'8565	30	30'0821	60	60'1643

明治四十二年 一月

地名	横須賀		下田		清水		鳥羽		(紀伊) 串本		(淡路) 由良		神戸	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	* 0 17	0 36	0 16	0 56	0 30	1 10	0 35	1 15	1 24	2 4	1 57	2 37		
2	0 58	1 36	1 17	1 55	1 37	2 15	1 50	2 28	1 55	2 33	2 44	3 22	3 17	3 55
3	2 10	2 40	2 29	2 59	2 49	3 19	3 2	3 32	3 7	3 37	3 56	4 26	4 29	4 59
4	3 8	3 32	3 27	3 51	3 47	4 11	4 0	4 24	4 5	4 29	4 54	5 18	5 27	5 51
5	3 57	4 19	4 16	4 38	4 36	4 58	4 49	5 11	4 54	5 16	5 43	6 5	6 16	6 38
6	4 40	5 0	4 59	5 19	5 19	5 39	5 32	5 52	5 37	5 57	6 26	6 46	6 59	7 19
7	5 21	5 41	5 40	6 0	6 0	6 20	6 13	6 33	6 18	6 38	7 7	7 27	7 40	8 0
8	6 0	6 19	6 19	6 38	6 39	6 58	6 52	7 11	6 57	7 16	7 46	8 5	8 19	8 38
9	6 38	6 56	6 57	7 15	7 17	7 35	7 29	7 47	7 34	7 52	8 23	8 41	8 56	9 14
10	7 13	7 31	7 32	7 50	7 52	8 10	8 5	8 23	8 10	8 28	8 59	9 17	9 32	9 50
11	7 48	8 5	8 7	8 24	8 27	8 44	8 40	8 57	8 45	9 2	9 34	9 51	10 7	10 24
12	8 23	8 41	8 42	9 0	9 2	9 20	9 14	9 32	9 19	9 37	10 8	10 26	10 41	10 59
13	8 59	9 18	9 18	9 37	9 38	9 57	9 51	10 10	9 56	10 15	10 45	11 4	11 18	11 37
14	9 37	9 58	9 56	10 17	10 16	10 37	10 29	10 50	10 34	10 55	11 23	11 44	11 56	*
15	10 21	10 49	10 40	11 8	11 0	11 28	11 14	11 41	11 19	11 46	*	0 8	0 17	0 41
16	11 18	11 53	11 37	*	11 57	*	*	0 10	*	0 15	0 35	1 4	1 8	1 37
17	* 0 31	0 12	0 50	0 32	1 10	0 46	1 23	0 51	1 28	1 40	2 17	2 13	2 50	
18	1 11	1 50	1 30	2 9	1 50	2 29	2 2	2 42	2 7	2 47	2 56	3 36	3 29	4 9
19	2 27	3 2	2 46	3 21	3 6	3 41	3 19	3 53	3 24	3 58	4 13	4 47	4 46	5 20
20	3 33	4 2	3 52	4 21	4 12	4 41	4 25	4 54	4 30	4 59	5 19	5 48	5 52	6 21
21	4 30	4 54	4 49	5 13	5 9	5 33	5 22	5 46	5 27	5 51	6 16	6 40	6 49	7 13
22	5 18	5 39	5 37	5 58	5 57	6 18	6 10	6 31	6 15	6 36	7 4	7 25	7 37	7 58
23	6 0	6 19	6 19	6 38	6 39	6 58	6 52	7 11	6 57	7 16	7 46	8 5	8 19	8 38
24	6 38	6 57	6 57	7 16	7 17	7 36	7 29	7 49	7 34	7 54	8 23	8 43	8 56	9 16
25	7 16	7 34	7 35	7 53	7 55	8 13	8 7	8 26	8 12	8 31	9 1	9 20	9 34	9 53
26	7 54	8 14	8 13	8 33	8 33	8 53	8 46	9 5	8 51	9 10	9 40	9 59	10 13	10 32
27	8 36	8 59	8 55	9 18	9 15	9 38	9 28	9 51	9 33	9 56	10 22	10 45	10 55	11 18
28	9 24	9 49	9 43	10 8	10 3	10 28	10 15	10 41	10 20	10 46	11 9	11 35	11 42	*
29	10 21	10 56	10 40	11 15	11 0	11 35	11 13	11 48	11 18	11 53	*	0 7	0 8	0 40
30	11 33	*	11 52	*	*	0 12	*	0 25	*	0 30	0 42	1 19	1 15	1 52
31	0 14	0 56	0 33	1 15	0 53	1 35	1 6	1 48	1 11	1 53	2 0	2 42	2 33	3 15

明治四十二年 一月

地名	明石		粟島		(三原瀬戸) 瀬戸田		來島		三津ヶ濱		佐賀ノ關		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	2 57	3 37	6 9	6 48	5 26	6 5	4 51	5 30	4 11	4 50	2 33	3 12	10		
2	4 17	4 55	7 28	8 7	6 45	7 24	6 10	6 49	5 30	6 9	3 52	4 31	11		
3	5 29	5 59	8 41	9 11	7 58	8 28	7 23	7 53	6 43	7 13	5 5	5 35	12		
4	6 27	6 51	9 39	10 3	8 56	9 20	8 21	8 45	7 41	8 5	6 3	6 27	13		
5	7 16	7 38	10 28	10 50	9 45	10 7	9 10	9 32	8 30	8 52	6 52	7 14	14		
6	7 59	8 19	11 11	11 31	10 28	10 48	9 53	10 13	9 13	9 33	7 35	7 55	15	○	N.
7	8 40	9 0	11 52	*	11 9	11 29	10 34	10 54	9 54	10 14	8 16	8 36	16		
8	9 19	9 38	0 12	0 30	11 47	*	11 12	11 31	10 32	10 51	8 54	9 13	17		
9	9 56	10 14	0 49	1 8	0 6	0 25	11 50	*	11 10	11 28	9 32	9 50	18		
10	10 32	10 50	1 26	1 43	0 43	1 0	0 8	0 25	11 45	*	10 7	10 25	19		
11	11 7	11 24	2 1	2 18	1 18	1 35	0 43	1 0	0 3	0 20	10 42	11 0	20		A.
12	11 41	11 59	2 36	2 53	1 53	2 10	1 18	1 35	0 38	0 55	11 17	11 35	21		
13	*	0 18	3 11	3 29	2 28	2 46	1 53	2 11	1 13	1 31	11 53	*	22		
14	0 37	0 56	3 48	4 7	3 5	3 24	2 30	2 49	1 50	2 9	0 12	0 31	23		E.
15	1 17	1 41	4 28	4 52	3 45	4 9	3 10	3 34	2 30	2 54	0 52	1 16	24	○	
16	2 8	2 37	5 20	5 49	4 37	5 6	4 2	4 31	3 22	3 51	1 44	2 13	25		
17	3 13	3 50	6 24	7 3	5 41	6 20	5 6	5 45	4 26	5 5	2 48	3 27	26		
18	4 29	5 9	7 42	8 21	6 59	7 38	6 24	7 3	5 44	6 23	4 6	4 45	27		
19	5 46	6 20	8 58	9 33	8 15	8 50	7 40	8 15	7 0	7 35	5 22	5 57	28		
20	6 52	7 21	10 5	10 32	9 22	9 49	8 47	9 14	8 7	8 34	6 29	6 56	29		
21	7 49	8 13	11 0	11 25	10 17	10 42	9 42	10 7	9 2	9 27	7 24	7 49	30		S.
22	8 37	8 58	11 48	*	11 5	11 27	10 30	10 52	9 50	10 12	8 12	8 34	1	●	P.
23	9 19	9 38	0 10	0 30	11 47	*	11 12	11 32	10 32	10 52	8 54	9 14	2		
24	9 56	10 16	0 50	1 8	0 7	0 25	11 50	*	11 10	11 29	9 32	9 51	3		
25	10 34	10 53	1 27	1 46	0 44	1 3	0 9	0 28	11 48	*	10 10	10 28	4		
26	11 13	11 32	2 4	2 25	1 21	1 42	0 46	1 7	0 6	0 27	10 49	11 8	5		
27	11 55	*	2 44	3 6	2 1	2 23	1 26	1 48	0 46	1 8	11 30	11 53	6		E.
28	0 18	0 42	3 29	3 54	2 46	3 11	2 11	2 36	1 31	1 56	*	0 18	7		
29	1 8	1 40	4 20	4 52	3 37	4 9	3 2	3 34	2 22	2 54	0 44	1 16	8		D.
30	2 15	2 52	5 27	6 5	4 44	5 22	4 9	4 47	3 29	4 7	1 51	2 29	9		
31	3 33	4 15	6 46	7 27	6 3	6 44	5 28	6 9	4 48	5 29	3 10	3 51	10		

明治四十二年一月

地名	吳		門		司		竹		敷		平		戶		佐		世		保		長		崎		三		角		
	日	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	h m	4 25	h m	5 4	h m	4 0	h m	4 40	h m	4 5	h m	4 45	h m	3 39	h m	4 19	h m	3 27	h m	4 7	h m	2 56	h m	3 36	h m	3 54	h m	4 34	
2		5 44		6 23		5 20		5 57		5 25		6 2		4 59		5 36		4 47		5 24		4 16		4 53		5 14		5 51	
3		6 57		7 27		6 32		7 2		6 37		7 7		6 11		6 41		5 59		6 29		5 28		5 58		6 26		6 56	
4		7 55		8 19		7 29		7 54		7 34		7 59		7 8		7 33		6 56		7 21		6 25		6 50		7 23		7 48	
5		8 44		9 6		8 18		8 40		8 23		8 45		7 57		8 19		7 45		8 7		7 14		7 36		8 12		8 34	
6		9 27		9 47		9 1		9 21		9 6		9 26		8 40		9 0		8 28		8 48		7 57		8 17		8 55		9 15	
7		10 8		10 28		9 43		10 2		9 48		10 7		9 22		9 41		9 10		9 29		8 39		8 58		9 37		9 56	
8		10 46		11 5		10 21		10 40		10 26		10 45		10 0		10 19		9 48		10 7		9 17		9 36		10 15		10 34	
9		11 24		11 42		10 58		11 16		11 3		11 21		10 37		10 55		10 25		10 43		9 54		10 12		10 52		11 10	
10		11 59	*	11 34		11 52		11 39		11 57		11 13		11 31		11 1		11 19		10 30		10 48		11 28		11 46			
11		0 17	0 34	*	0 9	*	0 14	11 48	*	11 36	11 53	11 5	11 22	*	0 3														
12		0 52	1 9	0 26	0 43	0 31	0 48	0 5	0 22	*	0 10	11 39	11 58	0 20	0 37														
13		1 27	1 45	1 2	1 20	1 7	1 25	0 41	0 59	0 29	0 47	*	0 16	0 56	1 14														
14		2 4	2 23	1 40	1 58	1 45	2 3	1 19	1 37	1 7	1 25	0 36	0 54	1 34	1 52														
15		2 44	3 8	2 19	2 43	2 24	2 48	1 58	2 22	1 46	2 10	1 15	1 39	2 13	2 37														
16		3 36	4 5	3 11	3 40	3 16	3 45	2 50	3 19	2 38	3 7	2 7	2 36	3 5	3 34														
17		4 40	5 19	4 16	4 53	4 21	4 58	3 55	4 32	3 43	4 20	3 12	3 49	4 10	4 47														
18		5 58	6 37	5 33	6 12	5 38	6 17	5 12	5 51	5 0	5 39	4 29	5 8	5 27	6 6														
19		7 14	7 49	6 49	7 23	6 54	7 28	6 28	7 2	6 16	6 50	5 45	6 19	6 43	7 17														
20		8 21	8 48	7 55	8 23	8 0	8 28	7 34	8 2	7 22	7 50	6 51	7 19	7 49	8 17														
21		9 16	9 41	8 51	9 16	8 56	9 21	8 30	8 55	8 18	8 43	7 47	8 12	8 45	9 10														
22		10 4	10 26	9 39	10 0	9 44	10 5	9 18	9 39	9 6	9 27	8 35	8 56	9 33	9 54														
23		10 46	11 6	10 21	10 40	10 26	10 45	10 0	10 19	9 48	10 7	9 17	9 36	10 15	10 34														
24		11 24	11 43	10 59	11 18	11 4	11 23	10 38	10 57	10 26	10 45	9 55	10 14	10 53	11 12														
25		*	0 2	11 37	11 55	11 42	*	11 16	11 34	11 4	11 22	10 33	10 51	11 31	11 49														
26		0 20	0 41	*	0 15	0 0	0 20	11 54	*	11 42	*	11 11	11 31	*	0 9														
27		1 0	1 22	0 35	0 57	0 40	1 2	0 14	0 36	0 2	0 24	11 53	*	0 29	0 51														
28		1 45	2 10	1 20	1 45	1 25	1 50	0 59	1 24	0 47	1 12	0 16	0 41	1 14	1 39														
29		2 36	3 8	2 11	2 42	2 16	2 47	1 56	2 21	1 38	2 9	1 7	1 38	2 5	2 36														
30		3 43	4 21	3 17	3 55	3 22	4 0	2 56	3 34	2 44	3 22	2 13	2 51	3 11	3 49														
31		5 2	5 43	4 36	5 18	4 41	5 23	4 15	4 57	4 3	4 45	3 32	4 14	4 30	5 12														

明治四十二年一月

地名	(五島)		鹿兒島		油		津		那		霸		基		隆		馬		公		太陰曆日附	太陰盈虛	太陰位置			
	日	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前				午後	d	
1	h m	3 18	h m	3 58	h m	2 5	h m	2 45	h m	0 54	h m	1 34	h m	1 59	h m	2 39	h m	4 6	h m	4 46	h m	6 8	h m	6 48	10	
2		4 38		5 15		3 25		4 2		2 14		2 51		3 19		3 57		5 25		6 3		7 27		8 5	11	
3		5 50		6 20		4 37		5 7		3 26		3 56		4 31		5 1		6 37		7 7		8 39		9 9	12	
4		6 47		7 12		5 34		5 59		4 23		4 48		5 28		5 53		7 34		7 59		9 36		10 1	13	
5		7 36		7 58		6 23		6 45		5 12		5 34		6 17		6 39		8 23		8 45		10 25		10 47	14	
6		8 19		8 39		7 6		7 26		5 55		6 15		7 0		7 20		9 6		9 27		11 8		11 28	15	
7		9 1		9 20		7 48		8 7		6 37		6 56		7 41		8 1		9 47		10 7		11 49	*		16	
8		9 39		9 58		8 26		8 45		7 15		7 34		8 20		8 39		10 26		10 45		0 9	0 28			17
9		10 16		10 34		9 3		9 21		7 52		8 10		8 57		9 15		11 3		11 21		0 47	1 5			18
10		10 52		11 10		9 39		9 57		8 28		8 46		9 33		9 51		11 39		11 56		1 23	1 41			19
11		11 27		11 44		10 14		10 31		9 3		9 20		10 7		10 25	*	0 13		1 58		2 15	2 20			20
12		*		0 1		10 48		11 7		9 37		9 56		10 42		11 0		0 31		0 48		2 33	2 50			21
13		0 20		0 38		11 25		11 45		10 14		10 34		11 18		11 37		1 6		1 24		3 8	3 27			22
14		0 58		1 16		*		0 3		10 52		11 13		11 57	*			1 43		2 3		3 45	4 5			23
15		1 37		2 1		0 24		0 48		11 37	*			0 18		0 42		2 24		2 48		4 26	4 50			24
16		2 29		2 58		1 16		1 45		0 5		0 34		1 10		1 39		3 16		3 45		5 18	5 48			25
17		3 34		4 11		2 21		2 58		1 10		1 47		2 14		2 52		4 21		4 59		6 23	7 1			26
18		4 51		5 30		3 38		4 17		2 27		3 6		3 32		4 11		5 38		6 17		7 41	8 19			27
19		6 7		6 41		4 54		5 28		3 43		4 17		4 48		5 22		6 54		7 29		8 57	9 31			28
20		7 13		7 41		6 0		6 28		4 49		5 17		5 54		6 22		8 0		8 28		10 2	10 30			29
21		8 9		8 34		6 56		7 21		5 45		6 10		6 50		7 14		8 56		9 20		10 58	11 23			30
22		8 57		9 18		7 44		8 5		6 33		6 54		7 38		7 58		9 44		10 5		11 46	*		1	31
23		9 39		9 58		8 26		8 45		7 15		7 34		8 20		8 39		10 26		10 45		0 7	0 28			2
24		10 17		10 36		9 4		9 23		7 53		8 12		8 57		9 17		11 4		11 23		0 47	1 6			3
25		10 55		11 13		9 42		10 0		8 31		8 49		9 35		9 54		11 41	*			1 25	1 43			4
26		11 33		11 53		10 20		10 40		9 9		9 29		10 14		10 33		0 0		0 20		2 2	2 22			5
27		*		0 15		11 2		11 25		9 51		10 14		10 56		11 19		0 39		1 2		2 41	3 4			6
28		0 38		1 3		11 50	*			10 39		11 5		11 44	*			1 25		1 50		3 27	3 52			7
29		1 29		2 0		0 16		0 47		11 36	*			0 10		0 42		2 16		2 48		4 18	4 50			8
30		2 35		3 13		1 22		2 0		0 11		0 49		1 17		1 55		3 23		4 1		5 25				

明治四十二年一月

地名	打		(隱岐) 狗西		境		舞鶴		敦賀		七尾		函館	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
日	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
1	2 45	3 25	9 15	9 55	9 28	10 8	9 34	10 14	9 27	10 7	10 6	10 46	10 49	11 29
2	4 4	4 42	10 33	11 7	10 46	11 20	10 52	11 26	10 45	11 19	11 24	11 58	*	0 8
3	5 16	5 46	11 37	*	11 50	*	11 56	*	11 49	*	*	0 28	0 41	1 12
4	6 13	6 38	0 5	0 29	0 18	0 42	0 24	0 48	0 17	0 41	0 56	1 20	1 40	2 4
5	7 2	7 24	0 54	1 16	1 7	1 29	1 13	1 35	1 6	1 28	1 45	2 7	2 29	2 51
6	7 45	8 6	1 37	1 57	1 50	2 10	1 56	2 16	1 49	2 9	2 28	2 48	3 12	3 32
7	8 26	8 46	2 18	2 38	2 31	2 51	2 37	2 57	2 30	2 50	3 9	3 29	3 53	4 13
8	9 5	9 24	2 57	3 15	3 10	3 28	3 16	3 34	3 9	3 27	3 48	4 6	4 32	4 51
9	9 42	10 0	3 34	3 52	3 47	4 5	3 53	4 11	3 46	4 4	4 25	4 43	5 9	5 27
10	10 18	10 35	4 10	4 28	4 23	4 41	4 29	4 47	4 22	4 40	5 1	5 19	5 45	6 3
11	10 52	11 10	4 44	5 2	4 57	5 15	5 3	5 21	4 56	5 14	5 35	5 53	6 20	6 37
12	11 27	11 45	5 19	5 37	5 32	5 50	5 38	5 56	5 31	5 49	6 10	6 28	6 55	7 13
13	*	0 3	5 55	6 14	6 8	6 27	6 14	6 33	6 7	6 26	6 46	7 5	7 31	7 50
14	0 22	0 42	6 34	6 55	6 47	7 8	6 53	7 14	6 46	7 7	7 25	7 46	8 9	8 30
15	1 3	1 27	7 19	7 46	7 32	7 59	7 38	8 5	7 31	7 58	8 10	8 37	8 54	9 21
16	1 55	2 24	8 15	8 51	8 28	9 4	8 34	9 10	8 27	9 3	9 6	9 42	9 50	10 25
17	3 0	3 38	9 28	10 8	9 41	10 21	9 47	10 27	9 40	10 20	10 19	10 59	11 3	11 43
18	4 17	4 56	10 47	11 25	11 0	11 38	11 6	11 44	10 59	11 37	11 38	*	*	0 22
19	5 33	6 8	11 59	*	*	0 12	*	0 18	*	0 11	0 16	0 50	0 59	1 33
20	6 39	7 7	0 30	0 59	0 43	1 12	0 49	1 18	0 42	1 11	1 21	1 50	2 5	2 34
21	7 35	7 59	1 27	1 51	1 40	2 4	1 46	2 10	1 39	2 3	2 18	2 42	3 2	3 26
22	8 23	8 44	2 15	2 36	2 28	2 49	2 34	2 55	2 27	2 48	3 6	3 27	3 50	4 10
23	9 5	9 24	2 57	3 16	3 10	3 29	3 16	3 35	3 9	3 28	3 48	4 7	4 32	4 52
24	9 43	10 2	3 35	3 53	3 48	4 6	3 54	4 12	3 47	4 5	4 26	4 44	5 10	5 29
25	10 20	10 39	4 12	4 31	4 25	4 44	4 31	4 50	4 24	4 43	5 3	5 22	5 47	6 6
26	10 59	11 18	4 51	5 10	5 4	5 23	5 10	5 29	5 3	5 22	5 42	6 1	6 26	6 45
27	11 41	*	5 33	5 56	5 46	6 9	5 52	6 15	5 45	6 8	6 24	6 47	7 8	7 31
28	0 4	0 29	6 20	6 46	6 33	6 59	6 39	7 5	6 32	6 58	7 11	7 37	7 55	8 21
29	0 55	1 27	7 18	7 53	7 31	8 6	7 37	8 12	7 30	8 5	8 9	8 44	8 53	9 28
30	2 2	2 40	8 30	9 11	8 43	9 24	8 49	9 30	8 42	9 23	9 21	10 2	10 5	10 46
31	3 21	4 3	9 53	10 33	10 6	10 46	10 12	10 52	10 5	10 45	10 44	11 24	11 28	*

明治四十二年一月

地名	大湊		(陸中) 山田		根室		小樽		稚内		(樺太) 大泊		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
日	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	d		
1	10 40	11 20	10 48	11 28	10 28	11 8	10 50	11 30	10 39	11 19	10 25	11 5	10		
2	11 59	*	*	0 7	11 46	*	*	0 9	11 58	*	11 44	*	11		
3	0 32	1 3	0 40	1 11	0 20	0 51	0 42	1 13	0 31	1 2	0 17	0 48	12		
4	1 31	1 55	1 39	2 3	1 19	1 43	1 41	2 5	1 30	1 54	1 16	1 40	13		
5	2 20	2 42	2 28	2 50	2 8	2 30	2 30	2 52	2 19	2 41	2 5	2 27	14		
6	3 3	3 23	3 11	3 31	2 51	3 11	3 13	3 33	3 2	3 22	2 48	3 8	15	○	N.
7	3 44	4 4	3 52	4 12	3 32	3 52	3 54	4 14	3 43	4 3	3 29	3 49	16		
8	4 23	4 42	4 31	4 50	4 11	4 30	4 33	4 52	4 22	4 41	4 8	4 27	17		
9	5 0	5 18	5 8	5 26	4 48	5 6	5 10	5 28	4 59	5 17	4 44	5 3	18		
10	5 36	5 54	5 44	6 2	5 24	5 42	5 46	6 4	5 35	5 53	5 21	5 39	19		
11	6 11	6 28	6 19	6 36	5 59	6 16	6 21	6 38	6 10	6 27	5 56	6 13	20		A.
12	6 46	7 4	6 54	7 12	6 34	6 51	6 56	7 14	6 45	7 3	6 31	6 49	21		
13	7 22	7 41	7 30	7 49	7 10	7 29	7 32	7 51	7 21	7 40	7 7	7 26	22		
14	8 0	8 21	8 8	8 29	7 48	8 9	8 10	8 31	7 59	8 20	7 45	8 6	23		E.
15	8 45	9 12	8 53	9 20	8 32	9 0	8 55	9 22	8 44	9 11	8 30	8 57	24	○	
16	9 41	10 16	9 49	10 24	9 28	10 4	9 51	10 26	9 40	10 15	9 26	10 1	25		
17	10 54	11 34	11 2	11 42	10 41	11 21	11 4	11 44	10 53	11 33	10 39	11 19	26		
18	*	0 13	*	0 21	*	0 0	*	0 23	*	0 12	11 58	*	27		
19	0 50	1 24	0 58	1 32	0 38	1 12	1 0	1 34	0 49	1 23	0 35	1 9	28		
20	1 56	2 25	2 4	2 33	1 44	2 12	2 6	2 35	1 55	2 24	1 41	2 10	29		S.
21	2 53	3 17	3 1	3 25	2 40	3 5	3 3	3 27	2 52	3 16	2 38	3 2	30		
22	3 41	4 1	3 49	4 9	3 28	3 50	3 51	4 11	3 40	4 0	3 26	3 46	1	●	P.
23	4 23	4 43	4 31	4 51	4 10	4 30	4 33	4 53	4 22	4 42	4 8	4 28	2		
24	5 1	5 20	5 9	5 28	4 49	5 8	5 11	5 30	5 0	5 19	4 46	5 5	3		
25	5 38	5 57	5 46	6 5	5 27	5 45	5 48	6 7	5 37	5 56	5 23	5 42	4		
26	6 17	6 36	6 25	6 44	6 5	6 24	6 27	6 46	6 16	6 35	6 2	6 21	5		
27	6 59	7 22	7 7	7 30	6 47	7 9	7 9	7 32	6 58	7 21	6 44	7 7	6		E.
28	7 46	8 12	7 54	8 20	7 34	8 0	7 56	8 22	7 45	8 11	7 31	7 57	7		
29	8 44	9 19	8 52	9 27	8 31	9 6	8 54	9 29	8 43	9 18	8 29	9 4	8		D.
30	9 56	10 37	10 4	10 45	9 43	10 24	10 6	10 47	9 55	10 36	9 41	10 22	9		
31	11 19	11 59	11 27	*	11 6	11 46	11 29	*	11 18	11 58	11 4	11 44	10		

明治四十二年一月

地名	元山		釜山		蛇梁海峡		長直路		長竹水道		木浦		八口浦	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	10 23	11 3	2 36	3 16	3 32	4 12	4 25	5 5	6 41	7 21	9 22	10 2	7 51	8 31
2	11 41	*	3 56	4 34	4 52	5 30	5 45	6 23	8 1	8 39	10 40	11 14	9 9	9 43
3	0 15	0 45	5 8	5 38	6 4	6 34	6 57	7 27	9 13	9 43	11 44	*	10 13	10 40
4	1 12	1 37	6 5	6 30	7 1	7 26	7 54	8 19	10 10	10 35	0 11	0 36	11 5	11 29
5	2 1	2 23	6 54	7 16	7 50	8 12	8 43	9 5	10 59	11 21	1 0	1 22	11 51	*
6	2 44	3 4	7 37	7 57	8 33	8 53	9 26	9 46	11 42	*	1 43	2 3	0 12	0 32
7	3 25	3 45	8 18	8 38	9 14	9 34	10 7	10 27	0 2	0 23	2 24	2 44	0 53	1 13
8	4 4	4 23	8 57	9 16	9 53	10 12	10 46	11 5	0 43	1 2	3 3	3 22	1 32	1 51
9	4 41	4 59	9 34	9 52	10 30	10 48	11 23	11 41	1 21	1 39	3 40	3 58	2 9	2 27
10	5 17	5 35	10 10	10 28	11 6	11 24	11 59	*	1 57	2 15	4 16	4 34	2 45	3 3
11	5 51	6 9	10 44	11 2	11 40	11 58	0 17	0 33	2 33	2 49	4 50	5 8	3 19	3 37
12	6 26	6 44	11 19	11 37	*	0 15	0 51	1 8	3 7	3 24	5 25	5 43	3 54	4 12
13	7 2	7 21	11 55	*	0 33	0 51	1 26	1 44	3 42	4 0	6 1	6 20	4 30	4 49
14	7 41	8 2	0 14	0 34	1 10	1 30	2 3	2 23	4 19	4 39	6 40	7 1	5 9	5 30
15	8 26	8 54	0 55	1 19	1 51	2 15	2 44	3 8	5 0	5 24	7 25	7 53	5 54	6 22
16	9 23	9 58	1 47	2 16	2 43	3 12	3 36	4 5	5 52	6 21	8 22	8 57	6 51	7 26
17	10 36	11 16	2 51	3 29	3 47	4 25	4 40	5 18	6 56	7 34	9 35	10 15	8 4	8 44
18	11 55	*	4 9	4 48	5 5	5 44	5 58	6 37	8 14	8 53	10 54	11 31	9 23	10 0
19	0 32	1 6	5 25	5 59	6 21	6 55	7 14	7 48	9 30	10 4	*	0 5	10 34	11 6
20	1 38	2 6	6 31	6 59	7 27	7 55	8 20	8 48	10 36	11 4	0 37	1 5	11 34	*
21	2 34	2 58	7 27	7 51	8 23	8 47	9 16	9 40	11 32	11 56	1 33	1 57	0 2	0 26
22	3 22	3 42	8 15	8 35	9 11	9 31	10 4	10 24	*	0 20	2 21	2 41	0 50	1 10
23	4 4	4 23	8 57	9 16	9 53	10 12	10 46	11 5	0 40	1 2	3 3	3 22	1 32	1 51
24	4 41	5 1	9 34	9 54	10 30	10 50	11 23	11 43	1 21	1 39	3 40	4 0	2 9	2 29
25	5 19	5 38	10 12	10 31	11 8	11 27	*	0 1	1 59	2 17	4 18	4 37	2 47	3 6
26	5 58	6 17	10 51	11 10	11 47	*	0 20	0 40	2 36	2 56	4 57	5 16	3 26	3 45
27	6 40	7 3	11 33	11 56	0 6	0 29	0 59	1 22	3 15	3 38	5 39	6 2	4 8	4 31
28	7 28	7 54	*	0 21	0 52	1 17	1 45	2 10	4 1	4 26	6 27	6 53	4 56	5 22
29	8 26	9 1	0 47	1 19	1 43	2 15	2 36	3 8	4 52	5 24	7 25	8 0	5 54	6 29
30	9 39	10 19	1 54	2 32	2 50	3 28	3 43	4 21	5 59	6 37	8 38	9 18	7 7	7 47
31	11 2	11 41	3 12	3 55	4 8	4 51	5 1	5 44	7 17	8 0	10 1	10 40	8 30	9 9

明治四十二年一月

地名	古群山群島		濟物浦		(大同江) 漁隱洞		(鴨綠江口) 圓島		大連		旅順		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	10 6	10 46	*	0 12	3 18	3 58	3 48	4 28	4 58	5 38	5 29	6 9	10		
2	11 24	11 58	0 52	1 30	4 38	5 16	5 8	5 46	6 17	6 55	6 48	7 26	11		
3	*	0 28	2 4	2 34	5 50	6 20	6 20	6 50	7 29	7 59	8 0	8 30	12		
4	0 55	1 20	3 1	3 26	6 47	7 11	7 17	7 41	8 26	8 51	8 57	9 22	13		
5	1 44	2 6	3 50	4 12	7 36	7 58	8 6	8 28	9 15	9 37	9 46	10 8	14		
6	2 27	2 47	4 33	4 53	8 19	8 39	8 49	9 9	9 58	10 19	10 29	10 50	15	○	N.
7	3 8	3 28	5 14	5 34	9 0	9 20	9 30	9 50	10 39	10 59	11 10	11 30	16		
8	3 47	4 6	5 53	6 12	9 39	9 57	10 9	10 27	11 18	11 37	11 49	*	17		
9	4 24	4 42	6 30	6 48	10 16	10 34	10 46	11 4	11 55	*	0 8	0 26	18		
10	5 0	5 18	7 6	7 24	10 52	11 10	11 22	11 40	0 13	0 31	0 44	1 2	19		
11	5 34	5 52	7 40	7 58	11 26	11 44	11 56	*	0 48	1 5	1 19	1 36	20		A.
12	6 9	6 27	8 15	8 33	*	0 1	0 14	0 31	1 23	1 40	1 54	2 11	21		
13	6 45	7 4	8 51	9 10	0 19	0 37	0 49	1 7	1 58	2 16	2 29	2 47	22		
14	7 24	7 45	9 30	9 51	0 56	1 16	1 26	1 46	2 35	2 55	3 6	3 26	23		E.
15	8 9	8 37	10 15	10 43	1 37	2 1	2 7	2 31	3 16	3 40	3 47	4 11	24	○	
16	9 6	9 41	11 12	11 47	2 29	2 58	2 59	3 28	4 8	4 37	4 39	5 8	25		
17	10 19	10 59	*	0 25	3 33	4 12	4 3	4 42	5 13	5 51	5 44	6 22	26		
18	11 38	*	1 5	1 44	4 51	5 30	5 21	6 0	6 30	7 9	7 1	7 40	27		
19	0 15	0 49	2 21	2 55	6 7	6 42	6 37	7 12	7 46	8 21	8 17	8 52	28		
20	1 21	1 49	3 27	3 55	7 13	7 41	7 43	8 11	8 52	9 20	9 23	9 51	29		
21	2 17	2 41	4 23	4 47	8 9	8 33	8 39	9 3	9 48	10 12	10 19	10 43	30		S.
22	3 5	3 25	5 11	5 31	8 57	9 17	9 27	9 47	10 36	10 57	11 7	11 28	1	●	P.
23	3 47	4 6	5 53	6 12	9 39	9 58	10 9	10 28	11 18	11 37	11 49	*	2		
24	4 24	4 44	6 30	6 50	10 16	10 35	10 46	11 5	11 56	*	0 8	0 27	3		
25	5 2	5 21	7 8	7 27	10 54	11 13	11 24	11 43	0 15	0 33	0 46	1 4	4		
26	5 41	6 0	7 47	8 6	11 33	11 52	*	0 3	0 52	1 12	1 23	1 43	5		E.
27	6 23	6 46	8 29	8 52	*	0 15	0 22	0 45	1 31	1 54	2 2	2 25	6		
28	7 11	7 37	9 17	9 43	0 38	1 3	1 8	1 33	2 17	2 42	2 48	3 13	7		
29	8 9	8 44	10 15	10 50	1 29	2 1	1 59	2 31	3 8	3 40	3 39	4 11	8		D.
30	9 22	10 2	11 28	*	2 36	3 14	3 6	3 44	4 15	4 53	4 46	5 24	9		
31	10 45	11 24	0 8	0 51	3 55	4 37	4 25	5 7	5 34	6 16	6 5	6 47	10		

明治四十二年 二月

地名	横須賀		下田		清水		鳥羽		(紀伊) 串本		(淡路) 由良		神戸	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	1 36	2 10	1 55	2 29	2 15	2 49	2 28	3 2	2 33	3 7	3 22	3 56	3 55	4 29
2	2 43	3 12	3 2	3 31	3 22	3 51	3 35	4 4	3 40	4 9	4 29	4 58	5 2	5 31
3	3 37	4 1	3 56	4 20	4 16	4 40	4 29	4 53	4 34	4 58	5 23	5 47	5 56	6 20
4	4 23	4 43	4 42	5 2	5 2	5 22	5 15	5 35	5 20	5 40	6 9	6 29	6 42	7 2
5	5 3	5 23	5 22	5 42	5 42	6 2	5 55	6 15	6 0	6 20	6 49	7 9	7 22	7 42
6	5 41	5 58	6 0	6 17	6 20	6 37	6 32	6 50	6 37	6 55	7 26	7 44	7 59	8 17
7	6 15	6 31	6 34	6 50	6 54	7 10	7 6	7 23	7 11	7 28	8 0	8 17	8 33	8 50
8	6 47	7 3	7 6	7 22	7 26	7 42	7 39	7 55	7 44	8 0	8 33	8 49	9 6	9 22
9	7 19	7 35	7 38	7 54	7 58	8 14	8 10	8 26	8 15	8 31	9 4	9 20	9 37	9 53
10	7 50	8 6	8 9	8 25	8 29	8 45	8 41	8 57	8 46	9 2	9 35	9 51	10 8	10 24
11	8 22	8 39	8 41	8 58	9 1	9 18	9 14	9 31	9 19	9 36	10 8	10 25	10 41	10 58
12	8 58	9 17	9 17	9 36	9 37	9 56	9 50	10 8	9 55	10 13	10 44	11 2	11 17	11 35
13	9 37	10 0	9 56	10 19	10 16	10 39	10 29	10 52	10 34	10 57	11 23	11 46	11 56	*
14	10 28	11 1	10 47	11 20	11 7	11 40	11 20	11 53	11 25	11 58	*	0 14	0 19	0 47
15	11 40	*	11 59	*	*	0 19	*	0 32	*	0 37	0 47	1 26	1 20	1 59
16	0 23	1 11	0 42	1 30	1 2	1 50	1 15	2 3	1 20	2 8	2 9	2 57	2 42	3 30
17	1 57	2 39	2 16	2 58	2 36	3 18	2 49	3 31	2 54	3 36	3 43	4 25	4 16	4 58
18	3 17	3 49	3 36	4 8	3 56	4 28	4 9	4 41	4 14	4 46	5 3	5 35	5 36	6 8
19	4 19	4 45	4 38	5 4	4 58	5 24	5 10	5 37	5 15	5 42	6 4	6 31	6 37	7 4
20	5 6	5 28	5 25	5 47	5 45	6 7	5 58	6 20	6 3	6 25	6 52	7 14	7 25	7 47
21	5 47	6 6	6 6	6 25	6 26	6 45	6 39	6 57	6 44	7 2	7 33	7 51	8 6	8 24
22	6 23	6 39	6 42	6 58	7 2	7 18	7 15	7 31	7 20	7 36	8 9	8 25	8 42	8 58
23	6 57	7 15	7 16	7 34	7 36	7 54	7 49	8 7	7 54	8 12	8 43	9 1	9 16	9 34
24	7 34	7 53	7 53	8 12	8 13	8 32	8 25	8 45	8 30	8 50	9 19	9 39	9 52	10 12
25	8 14	8 36	8 33	8 55	8 53	9 15	9 5	9 28	9 10	9 33	9 59	10 22	10 32	10 55
26	9 0	9 26	9 19	9 45	9 39	10 5	9 52	10 18	9 57	10 23	10 46	11 12	11 19	11 45
27	9 54	10 27	10 13	10 46	10 33	11 6	10 46	11 19	10 51	11 24	11 40	*	*	0 13
28	11 3	11 44	11 22	*	11 42	*	11 55	*	*	0 0	0 13	0 49	0 46	1 22

明治四十二年 二月

地名	明石		粟島		(三原瀬戸) 瀬戸田		來島		三津ヶ濱		佐賀ノ關		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	4 55	5 29	8 7	8 41	7 24	7 58	6 49	7 23	6 9	6 43	4 31	5 5	11		
2	6 2	6 31	9 14	9 43	8 31	9 0	7 56	8 25	7 16	7 45	5 38	6 7	12		N.
3	6 56	7 20	10 8	10 32	9 25	9 49	8 50	9 14	8 10	8 34	6 32	6 56	13		
4	7 42	8 2	10 54	11 14	10 11	10 31	9 36	9 56	8 56	9 16	7 18	7 38	14		
5	8 22	8 42	11 34	11 53	10 51	11 10	10 16	10 35	9 36	9 55	7 58	8 17	15		O
6	8 59	9 17	*	0 11	11 28	11 46	10 53	11 11	10 13	10 31	8 35	8 53	16		
7	9 33	9 50	0 29	0 45	*	0 2	11 27	11 43	10 47	11 3	9 9	9 25	17		
8	10 6	10 22	1 1	1 17	0 18	0 34	11 59	*	11 19	11 36	9 41	9 58	18		A.
9	10 37	10 53	1 34	1 49	0 51	1 6	0 16	0 31	11 51	*	10 13	10 29	19		
10	11 8	11 24	2 5	2 20	1 22	1 37	0 47	1 2	0 7	0 22	10 44	11 0	20		E.
11	11 41	11 58	2 36	2 52	1 53	2 9	1 18	1 34	0 38	0 54	11 16	11 34	21		
12	*	0 17	3 10	3 28	2 27	2 45	1 52	2 10	1 12	1 30	11 52	*	22		
13	0 35	0 56	3 47	4 8	3 4	3 25	2 29	2 50	1 49	2 10	0 11	0 32	23		C
14	1 19	1 47	4 31	4 59	3 48	4 16	3 13	3 41	2 33	3 1	0 55	1 23	24		
15	2 20	2 59	5 32	6 11	4 49	5 28	4 14	4 53	3 34	4 13	1 56	2 35	25		
16	3 42	4 30	6 55	7 42	6 12	6 59	5 37	6 24	4 57	5 44	3 19	4 6	26		
17	5 16	5 58	8 28	9 10	7 45	8 27	7 10	7 52	6 30	7 12	4 52	5 34	27		S.
18	6 36	7 8	9 48	10 20	9 5	9 37	8 30	9 2	7 50	8 22	6 12	6 44	28		
19	7 37	8 4	10 49	11 16	10 6	10 33	9 31	9 58	8 51	9 18	7 13	7 40	29		
20	8 25	8 47	11 36	11 58	10 53	11 15	10 18	10 40	9 38	10 0	8 0	8 22	1		P.
21	9 6	9 24	*	0 17	11 34	11 53	10 59	11 18	10 19	10 38	8 41	9 0	2		
22	9 42	9 58	0 36	0 53	*	0 10	11 35	11 52	10 55	11 12	9 17	9 34	3		
23	10 16	10 34	1 10	1 28	0 27	0 45	*	0 10	11 30	11 48	9 52	10 10	4		E.
24	10 52	11 12	1 46	2 4	1 3	1 21	0 28	0 46	*	0 6	10 28	10 48	5		
25	11 32	11 55	2 24	2 44	1 41	2 1	1 6	1 26	0 26	0 46	11 8	11 31	6		
26	*	0 19	3 7	3 31	2 24	2 48	1 49	2 13	1 9	1 33	11 55	*	7		
27	0 45	1 13	3 57	4 25	3 14	3 42	2 39	3 7	1 59	2 27	0 21	0 49	8		D
28	1 46	2 22	4 58	5 34	4 15	4 51	3 40	4 16	3 0	3 36	1 22	1 58	9		

明治四十二年 二月

地名	吳		門		司竹		敷平		戶佐		世保		長崎		三角	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	6 23	6 57	5 58	6 32	6 3	6 37	5 37	6 11	5 25	5 59	4 54	5 28	5 52	6 26		
2	7 30	7 59	7 5	7 33	7 10	7 38	6 44	7 12	6 32	7 0	6 1	6 29	6 59	7 27		
3	8 24	8 48	7 58	8 22	8 3	8 27	7 37	8 1	7 25	7 49	6 54	7 18	7 52	8 16		
4	9 10	9 30	8 44	9 4	8 49	9 9	8 23	8 43	8 11	8 31	7 40	8 0	8 38	8 58		
5	9 50	10 9	9 24	9 44	9 29	9 49	9 3	9 23	8 51	9 11	8 20	8 40	9 18	9 38		
6	10 27	10 45	10 1	10 19	10 6	10 24	9 40	9 58	9 28	9 46	8 57	9 15	9 55	10 13		
7	11 1	11 17	10 36	10 52	10 41	10 57	10 15	10 31	10 3	10 19	9 32	9 48	10 30	10 46		
8	11 33	11 50	11 8	11 24	11 13	11 29	10 47	11 3	10 35	10 51	10 4	10 20	11 2	11 18		
9	*	0 5	11 39	11 55	11 44	*	11 18	11 34	11 6	11 22	10 35	10 51	11 33	11 49		
10	0 21	0 36	*	0 10	0 0	0 15	11 49	*	11 37	11 53	11 6	11 22	*	0 4		
11	0 52	1 8	0 26	0 43	0 31	0 48	0 5	0 22	*	0 10	11 39	11 56	0 20	0 37		
12	1 26	1 44	1 0	1 19	1 5	1 24	0 39	0 58	0 27	0 46	*	0 15	0 54	1 13		
13	2 3	2 24	1 38	1 58	1 43	2 3	1 17	1 37	1 5	1 25	0 34	0 54	1 32	1 52		
14	2 47	3 15	2 22	2 50	2 27	2 55	2 1	2 29	1 49	2 17	1 18	1 46	2 16	2 44		
15	3 48	4 27	3 23	4 2	3 28	4 7	3 2	3 41	2 50	3 29	2 19	2 58	3 17	3 56		
16	5 11	5 58	4 45	5 33	4 50	5 38	4 24	5 12	4 12	5 0	3 41	4 29	4 39	5 27		
17	6 44	7 26	6 19	7 1	6 24	7 6	5 58	6 40	5 46	6 28	5 15	5 57	6 13	6 55		
18	8 4	8 36	7 39	8 10	7 44	8 15	7 18	7 49	7 6	7 37	6 35	7 6	7 33	8 4		
19	9 5	9 32	8 40	9 6	8 45	9 11	8 19	8 45	8 7	8 33	7 36	8 2	8 34	9 0		
20	9 52	10 14	9 27	9 49	9 32	9 54	9 6	9 28	8 54	9 16	8 23	8 45	9 21	9 43		
21	10 33	10 52	10 8	10 26	10 13	10 31	9 47	10 5	9 35	9 53	9 4	9 22	10 2	10 20		
22	11 9	11 26	10 44	11 0	10 49	11 5	10 23	10 39	10 11	10 27	9 40	9 56	10 38	10 54		
23	11 44	*	11 18	11 36	11 23	11 41	10 57	11 15	10 45	11 3	10 14	10 32	11 12	11 30		
24	0 2	0 20	11 55	*	*	0 0	11 34	11 53	11 22	11 41	10 51	11 10	11 49	*		
25	0 40	1 0	0 14	0 34	0 19	0 39	*	0 13	*	0 1	11 30	11 53	0 8	0 28		
26	1 23	1 47	0 57	1 21	1 2	1 26	0 36	1 0	0 24	0 48	*	0 17	0 51	1 15		
27	2 13	2 41	1 47	2 16	1 52	2 21	1 26	1 55	1 14	1 43	0 43	1 12	1 41	2 10		
28	3 14	3 50	2 49	3 25	2 54	3 30	2 28	3 4	2 16	2 52	1 45	2 21	2 43	3 19		

明治四十二年 二月

地名	(五島) 福江		鹿兒島		油津		那霸		基隆		馬公		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	5 16	5 50	4 3	4 37	2 52	3 26	3 57	4 31	6 3	6 38	8 5	8 40	11		N.
2	6 23	6 51	5 10	5 38	3 59	4 27	5 4	5 32	7 10	7 38	9 13	9 41	12		
3	7 16	7 40	6 3	6 27	4 52	5 16	5 57	6 21	8 3	8 27	10 6	10 30	13		
4	8 2	8 22	6 49	7 9	5 38	5 58	6 43	7 3	8 49	9 9	10 51	11 11	14		
5	8 42	9 2	7 29	7 49	6 18	6 38	7 23	7 42	9 29	9 48	11 31	11 51	15		
6	9 19	9 37	8 6	8 24	6 55	7 13	8 0	8 18	10 6	10 24	*	0 8	16		
7	9 54	10 10	8 41	8 57	7 30	7 46	8 34	8 51	10 40	10 57	0 26	0 42	17		
8	10 26	10 42	9 13	9 29	8 2	8 18	9 7	9 23	11 13	11 29	0 59	1 15	18		A.
9	10 57	11 13	9 44	10 0	8 33	8 49	9 38	9 54	11 44	*	1 31	1 46	19		
10	11 28	11 44	10 15	10 31	9 4	9 20	10 9	10 25	0 0	0 15	2 2	2 17	20		E.
11	*	0 1	10 48	11 5	9 37	9 54	10 42	10 59	0 31	0 48	2 33	2 50	21		
12	0 18	0 37	11 24	11 43	10 13	10 32	11 17	11 37	1 5	1 23	3 7	3 26	22		
13	0 56	1 16	*	0 3	10 52	11 16	11 57	*	1 43	2 3	3 45	4 6	23		
14	1 40	2 8	0 27	0 55	11 44	*	0 20	0 49	2 27	2 55	4 29	4 57	24		
15	2 41	3 20	1 28	2 7	0 17	0 56	1 22	2 1	3 28	4 8	5 30	6 10	25		
16	4 3	4 51	2 50	3 38	1 39	2 27	2 45	3 32	4 51	5 39	6 54	7 42	26		
17	5 37	6 19	4 24	5 6	3 13	3 55	4 18	5 0	6 25	7 7	8 27	9 9	27		S.
18	6 57	7 28	5 44	6 15	4 33	5 4	5 38	6 9	7 45	8 16	9 47	10 18	28		
19	7 58	8 24	6 45	7 11	5 34	6 0	6 39	7 5	8 45	9 11	10 47	11 13	29		
20	8 45	9 7	7 32	7 54	6 21	6 43	7 26	7 48	9 32	9 54	11 34	11 56	1		P.
21	9 26	9 44	8 13	8 31	7 2	7 20	8 7	8 25	10 13	10 31	*	0 15	2		
22	10 2	10 18	8 49	9 5	7 38	7 54	8 42	8 59	10 48	11 5	0 34	0 50	3		
23	10 36	10 54	9 23	9 41	8 12	8 30	9 17	9 35	11 23	11 41	1 7	1 25	4		E.
24	11 13	11 32	10 0	10 19	8 49	9 8	9 53	10 13	11 59	*	1 43	2 1	5		
25	11 52	*	10 39	11 2	9 28	9 51	10 33	10 56	0 19	0 39	2 21	2 41	6		
26	0 15	0 39	11 26	11 52	10 15	10 41	11 20	11 46	1 2	1 26	3 4	3 28	7		
27	1 5	1 34	*	0 21	11 10	11 43	*	0 14	1 52	2 21	3 55	4 23	8		D.
28	2 7	2 43	0 54	1 30	*	0 19	0 47	1 24	2 54	3 31	4 56	5 33	9		

明治四十二年 二月

地名	打		(隱岐) 西 郷		境		舞 鶴		敦 賀		七 尾		函 館	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	4 42	5 17	11 7	11 40	11 20	11 53	11 26	11 59	11 19	11 52	11 58	*	0 8	0 42
2	5 49	6 17	*	0 9	*	0 22	*	0 28	*	0 21	0 31	1 0	1 15	1 44
3	6 42	7 6	0 34	0 58	0 47	1 11	0 53	1 17	0 46	1 10	1 25	1 49	2 9	2 33
4	7 28	7 48	1 20	1 40	1 33	1 53	1 39	1 59	1 32	1 52	2 11	2 31	2 55	3 15
5	8 8	8 27	2 0	2 20	2 13	2 33	2 19	2 39	2 12	2 32	2 51	3 11	3 35	3 55
6	8 45	9 3	2 37	2 55	2 50	3 8	2 56	3 14	2 49	3 7	3 28	3 46	4 13	4 30
7	9 19	9 36	3 12	3 28	3 25	3 41	3 31	3 47	3 24	3 40	4 3	4 19	4 47	5 3
8	9 52	10 8	3 44	4 0	3 57	4 13	4 3	4 19	3 56	4 12	4 35	4 51	5 19	5 35
9	10 23	10 39	4 15	4 31	4 28	4 44	4 34	4 50	4 27	4 43	5 6	5 22	5 51	6 7
10	10 54	11 10	4 46	5 2	4 59	5 15	5 5	5 21	4 58	5 14	5 37	5 53	6 22	6 38
11	11 27	11 44	5 19	5 36	5 32	5 49	5 38	5 55	5 31	5 48	6 10	6 27	6 54	7 11
12	*	0 2	5 55	6 14	6 8	6 27	6 14	6 33	6 7	6 26	6 46	7 5	7 30	7 49
13	0 22	0 42	6 34	6 57	6 47	7 10	6 53	7 16	6 46	7 9	7 25	7 48	8 9	8 32
14	1 6	1 34	7 25	7 58	7 38	8 11	7 44	8 17	7 37	8 10	8 16	8 49	9 0	9 33
15	2 7	2 47	8 37	9 21	8 50	9 34	8 56	9 40	8 49	9 33	9 28	10 12	10 12	10 55
16	3 30	4 18	10 8	10 54	10 21	11 7	10 27	11 13	10 20	11 6	10 59	11 45	11 43	*
17	5 4	5 46	11 36	*	11 49	*	11 55	*	11 48	*	0 27	0 29	1 11	1 11
18	6 24	6 55	0 15	0 46	0 28	0 59	0 34	1 5	0 27	0 58	1 6	1 37	1 49	2 21
19	7 24	7 50	1 15	1 42	1 28	1 55	1 34	2 1	1 27	1 54	2 6	2 33	2 51	3 17
20	8 11	8 33	2 3	2 25	2 16	2 38	2 22	2 44	2 15	2 37	2 54	3 16	3 38	4 0
21	8 52	9 10	2 44	3 2	2 57	3 15	3 3	3 21	2 56	3 14	3 35	3 53	4 19	4 38
22	9 27	9 44	3 20	3 36	3 33	3 49	3 39	3 55	3 32	3 48	4 11	4 27	4 55	5 11
23	10 2	10 20	3 54	4 12	4 7	4 25	4 13	4 31	4 6	4 24	4 45	5 3	5 29	5 47
24	10 38	10 58	4 31	4 50	4 44	5 3	4 50	5 9	4 43	5 2	5 22	5 41	6 6	6 25
25	11 18	11 41	5 10	5 33	5 23	5 46	5 29	5 52	5 22	5 45	6 1	6 24	6 46	7 8
26	*	0 5	5 57	6 23	6 10	6 36	6 16	6 42	6 9	6 35	6 48	7 14	7 32	7 58
27	0 31	1 0	6 51	7 24	7 4	7 37	7 10	7 43	7 3	7 36	7 42	8 15	8 26	8 59
28	1 33	2 10	8 1	8 41	8 14	8 54	8 20	9 0	8 13	8 53	8 52	9 32	9 35	10 16

明治四十二年 二月

地名	大 湊		(陸中) 山 田		根 室		小 樽		稚 内		(樺太) 大 泊		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	*	0 32	0 6	0 40	*	0 20	0 8	0 42	*	0 31	*	0 17	11		N.
2	1 6	1 35	1 14	1 43	0 54	1 23	1 16	1 45	1 5	1 34	0 51	1 20	12		
3	2 0	2 24	2 8	2 32	1 48	2 12	2 10	2 34	1 59	2 23	1 45	2 9	13		
4	2 46	3 6	2 54	3 14	2 34	2 54	2 56	3 16	2 45	3 5	2 31	2 51	14		
5	3 26	3 45	3 34	3 53	3 14	3 34	3 36	3 55	3 25	3 44	3 11	3 30	15		
6	4 3	4 21	4 11	4 29	3 52	4 9	4 13	4 31	4 2	4 20	3 48	4 6	16		
7	4 37	4 54	4 45	5 2	4 26	4 42	4 47	5 4	4 36	4 53	4 22	4 39	17		
8	5 10	5 26	5 18	5 34	4 58	5 14	5 20	5 36	5 9	5 25	4 55	5 11	18		A.
9	5 41	5 57	5 49	6 5	5 30	5 46	5 51	6 7	5 40	5 56	5 26	5 42	19		
10	6 12	6 28	6 20	6 36	6 1	6 17	6 22	6 38	6 11	6 27	5 57	6 13	20		E.
11	6 45	7 2	6 53	7 10	6 33	6 50	6 55	7 12	6 44	7 1	6 30	6 47	21		
12	7 20	7 39	7 28	7 47	7 9	7 28	7 30	7 49	7 19	7 38	7 5	7 24	22		
13	8 0	8 23	8 8	8 31	7 48	8 11	8 10	8 33	7 59	8 22	7 45	8 8	23		
14	8 51	9 23	8 59	9 31	8 39	9 12	9 1	9 33	8 50	9 22	8 36	9 8	24		
15	10 2	10 45	10 10	10 53	9 50	10 33	10 12	10 55	10 1	10 44	9 47	10 30	25		
16	11 33	*	11 41	*	11 21	*	11 43	*	11 32	*	11 18	*	26		
17	0 19	1 1	0 27	1 9	0 7	0 49	0 29	1 11	0 18	1 0	0 4	0 46	27		S.
18	1 40	2 11	1 48	2 19	1 28	2 0	1 50	2 21	1 39	2 10	1 25	1 56	28		
19	2 41	3 7	2 49	3 15	2 29	2 56	2 51	3 17	2 40	3 6	2 26	2 52	29		
20	3 28	3 50	3 36	3 58	3 17	3 39	3 38	4 0	3 27	3 49	3 13	3 35	1		P.
21	4 10	4 28	4 18	4 36	3 58	4 17	4 20	4 38	4 9	4 27	3 55	4 13	2		
22	4 45	5 2	4 53	5 10	4 34	4 50	4 55	5 12	4 44	5 1	4 30	4 47	3		
23	5 20	5 38	5 28	5 46	5 8	5 26	5 30	5 48	5 19	5 37	5 5	5 23	4		E.
24	5 56	6 16	6 4	6 24	5 45	6 4	6 6	6 26	5 55	6 15	5 41	6 1	5		
25	6 36	6 58	6 44	7 6	6 24	6 47	6 46	7 8	6 35	6 57	6 21	6 43	6		
26	7 22	7 49	7 30	7 57	7 11	7 37	7 32	7 59	7 21	7 48	7 7	7 34	7		
27	8 16	8 49	8 24	8 57	8 4	8 37	8 26	8 59	8 15	8 48	8 1	8 34	8		
28	9 26	10 6	9 34	10 14	9 14	9 54	9 36	10 16	9 25	10 5	9 11	9 51	9		

高潮時表

明治四十二年 二月

地名	元山		釜山		蛇梁海峽		長直路		長竹水道		木浦		八口浦	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	* 0 15	4 34	5 8	5 30	6 4	6 23	6 57	8 39	9 13	11 14	11 47	9 43	10 16	
2	0 48	1 16	5 41	6 9	6 37	7 5	7 30	7 58	9 46	10 14	* 0 15	10 44	11 9	
3	1 41	2 5	6 34	6 58	7 30	7 54	8 23	8 47	10 39	11 3	0 40	1 4	11 33	
4	2 27	2 47	7 20	7 40	8 16	8 36	9 9	9 29	11 25	11 45	1 26	1 46	* 0 15	
5	3 7	3 26	8 0	8 19	8 56	9 15	9 49	10 8	* 0 5	2 6	2 25	0 35	0 54	
6	3 44	4 2	8 37	8 55	9 33	9 51	10 26	10 44	0 24	0 42	2 43	3 1	1 12	
7	4 18	4 35	9 11	9 28	10 7	10 24	11 0	11 17	1 0	1 16	3 17	3 34	1 46	
8	4 51	5 7	9 44	10 0	10 40	10 56	11 33	11 49	1 33	1 49	3 50	4 6	2 19	
9	5 22	5 38	10 15	10 31	11 11	11 27	* 0 4	2 5	2 20	4 21	4 37	2 50	3 6	
10	5 53	6 9	10 46	11 2	11 42	11 58	0 20	0 35	2 36	2 51	4 52	5 8	3 21	
11	6 26	6 43	11 19	11 36	* 0 15	0 51	1 8	3 7	3 24	5 25	5 42	3 54	4 11	
12	7 1	7 21	11 54	*	0 32	0 50	1 25	1 43	3 41	3 59	6 0	6 20	4 29	
13	7 41	8 4	0 14	0 34	1 10	1 30	2 3	2 23	4 19	4 39	6 40	7 3	5 9	
14	8 33	9 6	0 57	1 26	1 53	2 22	2 46	3 15	5 2	5 31	7 32	8 5	6 1	
15	9 45	10 29	1 59	2 38	2 55	3 34	3 48	4 27	6 4	6 43	8 44	9 28	7 13	
16	11 16	*	3 22	4 9	4 18	5 5	5 11	5 58	7 27	8 14	10 15	11 1	8 44	
17	0 2	0 44	4 55	5 37	5 51	6 33	6 44	7 26	9 0	9 42	11 43	*	10 12	
18	1 22	1 53	6 15	6 46	7 11	7 42	8 4	8 35	10 20	10 51	0 21	0 52	11 21	
19	2 23	2 49	7 16	7 42	8 12	8 38	9 5	9 31	11 21	11 47	1 22	1 48	* 0 17	
20	3 10	3 32	8 3	8 25	8 59	9 21	9 52	10 14	* 0 8	2 9	2 31	0 38	1 0	
21	3 51	4 9	8 44	9 2	9 40	9 58	10 33	10 51	0 30	0 49	2 50	3 8	1 19	
22	4 26	4 43	9 19	9 36	10 15	10 32	11 8	11 25	1 7	1 24	3 25	3 42	1 54	
23	5 1	5 19	9 54	10 12	10 50	11 8	11 43	*	1 41	1 59	4 0	4 18	2 29	
24	5 37	5 57	10 30	10 50	11 26	11 46	0 1	0 19	2 17	2 35	4 36	4 56	3 5	
25	6 17	6 40	11 10	11 33	* 0 6	0 39	0 59	2 55	3 15	5 16	5 39	3 45	4 8	
26	7 4	7 30	11 57	*	0 29	0 53	1 22	1 46	3 38	4 2	6 3	6 29	4 32	
27	7 58	8 31	0 23	0 51	1 19	1 47	2 12	2 40	4 28	4 56	6 57	7 30	5 26	
28	9 8	9 49	1 24	2 1	2 20	2 57	3 13	3 50	5 29	6 6	8 7	8 48	6 36	

高潮時表

明治四十二年 二月

地名	古群山群島		濟物浦		(大同江) 漁隱洞		(鴨綠江口) 圓島		大連		旅順		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	11 58	*	1 30	2 4	5 16	5 50	5 46	6 20	6 55	7 30	7 26	8 1	11		
2	0 31	0 59	2 37	3 5	6 23	6 51	6 53	7 21	8 2	8 30	8 33	9 1	12		N.
3	1 24	1 48	3 30	3 54	7 16	7 40	7 46	8 10	8 55	9 19	9 26	9 50	13		
4	2 10	2 30	4 16	4 36	8 2	8 22	8 32	8 52	9 41	10 1	10 12	10 32	14		
5	2 50	3 9	4 56	5 15	8 42	9 1	9 12	9 31	10 21	10 40	10 52	11 11	15		O
6	3 27	3 45	5 33	5 51	9 19	9 37	9 49	10 7	10 58	11 16	11 29	11 47	16		
7	4 1	4 18	6 7	6 24	9 53	10 10	10 23	10 40	11 32	11 49	*	0 3	17		
8	4 34	4 50	6 40	6 56	10 26	10 42	10 56	11 12	* 0 5	0 20	0 36	1 7	18		A.
9	5 5	5 21	7 11	7 27	10 57	11 13	11 27	11 43	0 21	0 36	0 52	1 7	19		
10	5 36	5 52	7 42	7 58	11 28	11 44	11 58	*	0 52	1 7	1 23	1 38	20		E.
11	6 9	6 26	8 15	8 32	* 0 18	0 36	0 48	1 6	1 23	1 40	1 54	2 11	21		
12	6 44	7 4	8 50	9 10	0 18	0 36	0 48	1 6	1 57	2 15	2 28	2 46	22		
13	7 24	7 47	9 30	9 53	0 55	1 16	1 25	1 46	2 35	2 55	3 6	3 26	23		
14	8 16	8 49	10 22	10 55	1 39	2 8	2 9	2 38	3 19	3 47	3 50	4 18	24		
15	9 28	10 12	11 34	*	2 41	3 20	3 11	3 50	4 20	5 0	4 51	5 31	25		
16	10 59	11 45	0 18	1 5	4 4	4 52	4 34	5 22	5 43	6 31	6 14	7 2	26		
17	*	0 27	1 51	2 33	5 37	6 19	6 7	6 49	7 17	7 59	7 48	8 30	27		S.
18	1 5	1 36	3 11	3 42	6 57	7 28	7 27	7 58	8 37	9 8	9 8	9 39	28		
19	2 6	2 32	4 12	4 38	7 58	8 24	8 28	8 54	9 37	10 3	10 8	10 34	29		
20	2 53	3 15	4 59	5 21	8 45	9 7	9 15	9 37	10 24	10 46	10 55	11 17	1		
21	3 34	3 52	5 40	5 58	9 26	9 44	9 56	10 14	11 5	11 23	11 36	11 54	2		P.
22	4 9	4 26	6 15	6 32	10 1	10 18	10 31	10 48	11 40	11 57	*	0 11	3		
23	4 44	5 2	6 50	7 8	10 36	10 54	11 6	11 24	* 0 15	0 28	0 46	1 4	4		E.
24	5 20	5 40	7 26	7 46	11 12	11 32	11 42	*	0 33	0 51	1 4	1 22	5		
25	6 0	6 23	8 6	8 29	11 52	*	0 2	0 22	1 11	1 31	1 42	2 2	6		
26	6 47	7 13	8 53	9 19	0 15	0 39	0 45	1 9	1 54	2 18	2 25	2 49	7		
27	7 41	8 14	9 47	10 20	1 5	1 34	1 35	2 4	2 44	3 13	3 15	3 44	8		D.
28	8 51	9 32	10 57	11 38	2 7	2 43	2 37	3 13	3 46	4 23	4 17	4 54	9		

明治四十二年 三月

地名	横須賀		下田		清水		鳥羽		(紀伊) 串本		(淡路) 由良		神戸	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	*	0 26	0 3	0 45	0 23	1 5	0 36	1 18	0 41	1 23	1 30	2 12	2 3	2 45
2	1 7	1 45	1 26	2 4	1 46	2 24	1 59	2 37	2 4	2 42	2 53	3 31	3 26	4 4
3	2 19	2 49	2 38	3 8	2 58	3 28	3 11	3 41	3 16	3 46	4 5	4 35	4 38	5 8
4	3 16	3 39	3 35	3 58	3 55	4 18	4 7	4 30	4 12	4 35	5 1	5 24	5 34	5 57
5	4 1	4 20	4 20	4 39	4 40	4 59	4 52	5 12	4 57	5 17	5 46	6 6	6 19	6 39
6	4 38	4 56	4 57	5 15	5 17	5 35	5 30	5 48	5 35	5 53	6 24	6 42	6 57	7 15
7	5 13	5 30	5 32	5 49	5 52	6 9	6 5	6 22	6 10	6 27	6 59	7 16	7 32	7 49
8	5 46	6 2	6 5	6 21	6 25	6 41	6 38	6 53	6 43	6 58	7 32	7 47	8 5	8 20
9	6 17	6 32	6 36	6 51	6 56	7 11	7 8	7 24	7 13	7 29	8 2	8 18	8 35	8 51
10	6 47	7 2	7 6	7 21	7 26	7 41	7 39	7 54	7 44	7 59	8 33	8 48	9 6	9 21
11	7 18	7 34	7 37	7 53	7 57	8 13	8 9	8 25	8 14	8 30	9 3	9 19	9 36	9 52
12	7 50	8 7	8 9	8 26	8 29	8 46	8 42	8 59	8 47	9 4	9 36	9 53	10 9	10 26
13	8 25	8 46	8 44	9 5	9 4	9 25	9 17	9 38	9 22	9 43	10 11	10 32	10 44	11 5
14	9 7	9 31	9 26	9 50	9 46	10 10	9 59	10 22	10 4	10 27	10 53	11 16	11 26	11 49
15	9 58	10 32	10 17	10 51	10 37	11 11	10 49	11 24	10 54	11 29	11 43	*	*	0 16
16	11 10	11 58	11 29	*	11 49	*	*	0 2	*	0 7	0 18	0 56	0 51	1 29
17	*	0 47	0 17	1 6	0 37	1 26	0 50	1 39	0 55	1 44	1 44	2 33	2 17	3 6
18	1 38	2 22	1 57	2 41	2 17	3 1	2 30	3 14	2 35	3 19	3 24	4 8	3 57	4 41
19	3 1	3 34	3 20	3 53	3 40	4 13	3 53	4 26	3 58	4 31	4 47	5 20	5 20	5 53
20	4 2	4 28	4 21	4 47	4 41	5 7	4 54	5 19	4 59	5 24	5 48	6 13	6 21	6 46
21	4 49	5 7	5 8	5 26	5 28	5 46	5 41	5 59	5 46	6 4	6 35	6 53	7 8	7 26
22	5 27	5 45	5 46	6 4	6 6	6 24	6 18	6 36	6 23	6 41	7 12	7 30	7 45	8 3
23	6 2	6 18	6 21	6 37	6 41	6 57	6 54	7 10	6 59	7 15	7 48	8 4	8 21	8 37
24	6 35	6 53	6 54	7 12	7 14	7 32	7 27	7 45	7 32	7 50	8 21	8 39	8 54	9 12
25	7 12	7 31	7 31	7 50	7 51	8 10	8 3	8 23	8 8	8 28	8 57	9 17	9 30	9 50
26	7 53	8 14	8 12	8 33	8 32	8 53	8 45	9 5	8 50	9 10	9 39	9 59	10 12	10 32
27	8 40	9 6	8 59	9 25	9 19	9 45	9 32	9 58	9 37	10 3	10 26	10 52	10 59	11 25
28	9 34	10 5	9 53	10 24	10 13	10 44	10 25	10 57	10 30	11 2	11 19	11 51	11 52	*
29	10 41	11 17	11 0	11 36	11 20	11 56	11 32	*	11 37	*	0 26	0 24	0 59	
30	11 59	*	0 18	*	0 38	0 9	0 9	0 51	0 14	0 56	1 3	1 45	1 36	2 18
31	0 39	1 17	0 58	1 36	1 18	1 56	1 31	2 9	1 36	2 14	2 25	3 3	2 58	3 36

明治四十二年 三月

地名	明石		粟島		(三原瀬戸) 瀬戸田		來島		三津ヶ濱		佐賀ノ關		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	3 3	3 45	6 15	6 57	5 32	6 14	4 57	5 39	4 17	4 59	2 39	3 21	10		
2	4 26	5 4	7 38	8 16	6 55	7 33	6 20	6 58	5 40	6 18	4 2	4 40	11		N.
3	5 38	6 8	8 50	9 20	8 7	8 37	7 32	8 2	6 52	7 22	5 14	5 44	12		
4	6 34	6 57	9 46	10 9	9 3	9 26	8 28	8 51	7 48	8 11	6 10	6 33	13		
5	7 19	7 39	10 31	10 50	9 48	10 7	9 13	9 32	8 33	8 52	6 55	7 14	14		
6	7 57	8 15	11 8	11 26	10 25	10 43	9 50	10 8	9 10	9 28	7 32	7 50	15		
7	8 32	8 49	11 44	*	11 1	11 17	10 26	10 42	9 46	10 2	8 8	8 24	16	○	A.
8	9 5	9 20	0 0	0 16	11 33	11 49	10 58	11 14	10 18	10 34	8 40	8 56	17		E.
9	9 35	9 51	0 32	0 47	*	0 4	11 29	11 44	10 49	11 4	9 11	9 26	18		
10	10 6	10 21	1 2	1 17	0 19	0 34	11 59	*	11 19	11 35	9 41	9 57	19		
11	10 36	10 52	1 33	1 48	0 50	1 5	0 15	0 30	11 50	*	10 12	10 28	20		
12	11 9	11 26	2 4	2 20	1 21	1 37	0 46	1 2	0 6	0 22	10 44	11 1	21		
13	11 44	*	2 37	2 55	1 54	2 12	1 19	1 37	0 39	0 57	11 19	11 41	22		
14	0 5	0 26	3 17	3 38	2 34	2 55	1 59	2 20	1 19	1 40	*	0 2	23		
15	0 49	1 16	4 1	4 28	3 18	3 45	2 43	3 10	2 3	2 30	0 25	0 52	24	○	
16	1 51	2 29	5 3	5 41	4 20	4 58	3 45	4 23	3 5	3 43	1 27	2 5	25		S.
17	3 17	4 6	6 29	7 19	5 46	6 36	5 11	6 1	4 31	5 21	2 53	3 43	26		
18	4 57	5 41	8 9	8 53	7 26	8 10	6 51	7 35	6 11	6 55	4 33	5 17	27		
19	6 20	6 53	9 32	10 5	8 49	9 22	8 14	8 47	7 34	8 7	5 56	6 29	28		
20	7 21	7 46	10 33	10 58	9 50	10 15	9 15	9 40	8 35	9 0	6 57	7 22	29		
21	8 8	8 26	11 19	11 38	10 36	10 55	10 1	10 20	9 21	9 40	7 43	8 2	30		P.
22	8 45	9 3	11 57	*	11 14	11 32	10 39	10 57	9 59	10 17	8 21	8 39	1	●	E.
23	9 21	9 37	0 15	0 32	11 49	*	11 14	11 30	10 34	10 50	8 56	9 12	2		
24	9 54	10 12	0 48	1 5	0 5	0 22	11 47	*	11 7	11 26	9 29	9 48	3		
25	10 30	10 50	1 24	1 42	0 41	0 59	0 6	0 24	11 44	*	10 6	10 26	4		
26	11 12	11 32	2 2	2 23	1 19	1 40	0 44	1 5	0 4	0 25	10 47	11 8	5		
27	11 59	*	2 44	3 11	2 1	2 28	1 26	1 53	0 46	1 13	11 35	*	6		
28	0 25	0 52	3 36	4 4	2 53	3 21	2 18	2 46	1 38	2 6	0 0	0 28	7		
29	1 24	1 59	4 36	5 12	3 53	4 29	3 18	3 54	2 38	3 14	1 0	1 36	8	○	N.
30	2 36	3 18	5 49	6 30	5 6	5 47	4 31	5 12	3 51	4 32	2 13	2 54	9		
31	3 58	4 36	7 10	7 48	6 27	7 5	5 52	6 30	5 12	5 50	3 34	4 12	10		

明治四十二年 三月

地名	打狗		(隱岐) 西郷		境		舞鶴		敦賀		七尾		函館	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	2 51	3 33	9 22	10 4	9 36	10 18	9 42	10 24	9 35	10 17	10 14	10 56	10 57	11 39
2	4 14	4 52	10 42	11 15	10 56	11 29	11 2	11 35	10 55	11 28	11 34	*	*	0 17
3	5 26	5 55	11 45	*	11 59	*	*	0 5	11 58	*	0 7	0 37	0 51	1 21
4	6 21	6 44	0 12	0 35	0 26	0 49	0 32	0 55	0 25	0 48	1 4	1 27	1 47	2 10
5	7 5	7 25	0 56	1 16	1 10	1 30	1 16	1 36	1 9	1 29	1 48	2 8	2 32	2 52
6	7 43	8 1	1 34	1 52	1 48	2 6	1 54	2 12	1 47	2 5	2 26	2 44	3 10	3 27
7	8 18	8 35	2 9	2 26	2 23	2 40	2 29	2 46	2 22	2 39	3 1	3 18	3 45	4 2
8	8 50	9 6	2 42	2 57	2 56	3 11	3 2	3 17	2 55	3 10	3 34	3 49	4 17	4 33
9	9 21	9 36	3 12	3 28	3 26	3 42	3 32	3 48	3 25	3 41	4 4	4 20	4 48	5 4
10	9 51	10 7	3 43	3 58	3 57	4 12	4 3	4 18	3 56	4 11	4 35	4 50	5 19	5 34
11	10 22	10 39	4 14	4 30	4 28	4 44	4 34	4 50	4 27	4 43	5 6	5 22	5 49	6 5
12	10 54	11 12	4 46	5 3	5 0	5 17	5 6	5 23	4 59	5 16	5 38	5 55	6 21	6 39
13	11 30	11 52	5 21	5 42	5 35	5 56	5 41	6 2	5 34	5 55	6 13	6 34	6 56	7 18
14	*	0 13	6 3	6 27	6 17	6 41	6 23	6 47	6 16	6 40	6 55	7 19	7 39	8 2
15	0 36	1 4	6 54	7 28	7 8	7 42	7 14	7 48	7 7	7 41	7 46	8 20	8 29	9 3
16	1 39	2 17	8 6	8 54	8 20	9 8	8 26	9 14	8 19	9 7	8 58	9 46	9 41	10 29
17	3 6	3 55	9 44	10 34	9 58	10 48	10 4	10 54	9 57	10 47	10 36	11 26	11 18	*
18	4 45	5 30	11 18	11 57	11 32	*	11 38	*	11 31	*	*	0 10	0 9	0 53
19	6 7	6 40	*	0 30	0 11	0 44	0 17	0 50	0 10	0 43	0 49	1 22	1 32	2 5
20	7 8	7 33	0 58	1 23	1 12	1 37	1 18	1 43	1 11	1 36	1 50	2 15	2 34	2 59
21	7 54	8 12	1 45	2 3	1 59	2 17	2 5	2 23	1 58	2 16	2 37	2 55	3 21	3 39
22	8 31	8 49	2 22	2 40	2 36	2 54	2 42	3 0	2 35	2 53	3 14	3 32	3 58	4 16
23	9 6	9 22	2 58	3 14	3 12	3 28	3 18	3 34	3 11	3 27	3 50	4 6	4 34	4 50
24	9 40	9 58	3 31	3 49	3 45	4 3	3 51	4 9	3 44	4 2	4 23	4 41	5 7	5 25
25	10 17	10 36	4 8	4 27	4 22	4 41	4 28	4 47	4 21	4 40	5 0	5 19	5 43	6 3
26	10 58	11 18	4 49	5 9	5 3	5 23	5 9	5 29	5 2	5 22	5 41	6 1	6 24	6 45
27	11 46	*	5 36	6 2	5 50	6 16	5 56	6 22	5 49	6 15	6 28	6 54	7 12	7 37
28	0 11	0 39	6 30	7 1	6 44	7 15	6 50	7 21	6 43	7 14	7 22	7 53	8 5	8 36
29	1 11	1 47	7 37	8 14	7 51	8 28	7 57	8 34	7 50	8 27	8 29	9 6	9 12	9 48
30	2 25	3 6	8 55	9 35	9 9	9 49	9 15	9 55	9 8	9 48	9 47	10 27	10 30	11 10
31	3 46	4 24	10 13	10 45	10 27	10 59	10 33	11 5	10 26	10 58	11 5	11 37	11 49	*

明治四十二年 三月

地名	大湊		(陸中) 山田		根室		小樽		稚内		(樺太) 大泊		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	10 48	11 30	10 56	11 38	10 36	11 18	10 58	11 40	10 47	11 29	10 33	11 15	10		N.
2	*	0 8	*	0 16	11 56	*	*	0 18	*	0 7	11 53	*	11		
3	0 42	1 12	0 50	1 20	0 30	1 0	0 52	1 22	0 41	1 11	0 27	0 57	12		
4	1 38	2 1	1 46	2 9	1 26	1 49	1 48	2 11	1 37	2 0	1 23	1 46	13		
5	2 23	2 43	2 31	2 51	2 11	2 31	2 33	2 53	2 22	2 42	2 8	2 28	14		
6	3 1	3 18	3 9	3 26	2 49	3 7	3 11	3 28	3 0	3 17	2 46	3 3	15		
7	3 36	3 53	3 44	4 1	3 24	3 41	3 46	4 3	3 35	3 52	3 21	3 38	16	O	A.
8	4 8	4 24	4 16	4 32	3 57	4 13	4 18	4 34	4 7	4 23	3 53	4 9	17		E.
9	4 39	4 55	4 47	5 3	4 28	4 43	4 49	5 5	4 38	4 54	4 24	4 40	18		
10	5 10	5 25	5 18	5 33	4 58	5 13	5 20	5 35	5 9	5 24	4 55	5 10	19		
11	5 40	5 56	5 48	6 4	5 29	5 44	5 50	6 6	5 39	5 55	5 25	5 41	20		
12	6 12	6 30	6 20	6 38	6 1	6 18	6 22	6 40	6 11	6 29	5 57	6 15	21		
13	6 47	7 9	6 55	7 17	6 36	6 57	6 57	7 19	6 46	7 8	6 32	6 54	22		
14	7 30	7 53	7 38	8 1	7 18	7 41	7 40	8 3	7 29	7 52	7 15	7 38	23		
15	8 20	8 54	8 28	9 2	8 8	8 42	8 30	9 4	8 19	8 53	8 5	8 39	24	C	
16	9 32	10 20	9 40	10 28	9 20	10 8	9 42	10 30	9 31	10 19	9 17	10 5	25		S.
17	11 9	*	11 17	*	10 57	11 48	11 19	*	11 8	11 59	10 54	11 45	26		
18	0 0	0 44	0 8	0 52	*	0 32	0 10	0 54	*	0 43	*	0 29	27		
19	1 23	1 56	1 31	2 4	1 11	1 45	1 33	2 6	1 22	1 55	1 8	1 41	28		
20	2 25	2 50	2 33	2 58	2 13	2 38	2 35	3 0	2 24	2 49	2 10	2 35	29		P.
21	3 12	3 30	3 20	3 38	3 0	3 18	3 22	3 40	3 11	3 29	2 57	3 15	30		
22	3 49	4 7	3 57	4 15	3 38	3 56	3 59	4 17	3 48	4 6	3 34	3 52	1		E.
23	4 25	4 41	4 33	4 49	4 13	4 29	4 35	4 51	4 24	4 40	4 10	4 26	2		
24	4 58	5 16	5 6	5 24	4 46	5 4	5 8	5 26	4 57	5 15	4 43	5 1	3		
25	5 34	5 54	5 42	6 2	5 23	5 42	5 44	6 4	5 33	5 53	5 19	5 39	4		
26	6 15	6 36	6 23	6 44	6 4	6 24	6 25	6 46	6 14	6 35	6 0	6 21	5		
27	7 3	7 28	7 11	7 36	6 51	7 17	7 13	7 38	7 2	7 27	6 48	7 13	6		
28	7 56	8 27	8 4	8 35	7 44	8 15	8 6	8 37	7 55	8 26	7 41	8 12	7		
29	9 3	9 39	9 11	9 47	8 51	9 27	9 13	9 49	9 2	9 38	8 48	9 24	8		N.
30	10 21	11 1	10 29	11 9	10 9	10 49	10 31	11 11	10 20	11 0	10 6	10 46	9		
31	11 40	*	11 48	*	11 28	11 59	11 50	*	11 39	*	11 25	11 56	10		

明治四十二年 三月

地名	元山		釜山		蛇梁海峽		長直路		長竹水道		木浦		八口浦	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	10 31	11 12	2 42	3 24	3 38	4 20	4 31	5 13	6 47	7 29	9 30	10 11	7 59	8 40
2	11 50	*	4 5	4 43	5 1	5 39	5 54	6 32	8 10	8 48	10 49	11 23	9 18	9 52
3	0 24	0 54	5 17	5 47	6 13	6 43	7 6	7 36	9 22	9 52	11 53	*	10 22	10 48
4	1 20	1 43	6 13	6 36	7 9	7 32	8 2	8 25	10 18	10 41	0 19	0 42	11 11	11 32
5	2 4	2 24	6 57	7 17	7 53	8 13	8 46	9 6	11 2	11 22	1 3	1 23	11 52	*
6	2 42	3 0	7 35	7 53	8 31	8 49	9 24	9 42	11 40	11 58	1 41	1 59	0 10	0 28
7	3 17	3 34	8 10	8 27	9 6	9 23	9 59	10 16	*	0 15	2 16	2 33	0 45	1 2
8	3 49	4 5	8 42	8 58	9 38	9 54	10 31	10 47	0 32	0 47	2 48	3 4	1 17	1 33
9	4 20	4 35	9 13	9 28	10 9	10 24	11 2	11 17	1 3	1 18	3 19	3 34	1 48	2 3
10	4 50	5 6	9 43	9 59	10 39	10 55	11 32	11 48	1 33	1 48	3 49	4 5	2 18	2 34
11	5 21	5 38	10 14	10 31	11 10	11 27	*	0 3	2 4	2 19	4 20	4 37	2 49	3 6
12	5 53	6 11	10 46	11 4	11 42	*	0 20	0 35	2 36	2 51	4 52	5 10	3 21	3 39
13	6 29	6 50	11 22	11 43	0 0	0 18	0 53	1 11	3 9	3 27	5 28	5 49	3 57	4 18
14	7 12	7 35	*	0 5	0 39	1 1	1 32	1 54	3 48	4 10	6 11	6 34	4 40	5 3
15	8 2	8 37	0 28	0 55	1 24	1 51	2 17	2 44	4 33	5 0	7 1	7 36	5 30	6 5
16	9 15	10 3	1 30	2 8	2 26	3 4	3 19	3 57	5 35	6 13	8 14	9 2	6 43	7 31
17	10 53	11 43	2 56	3 46	3 52	4 42	4 45	5 35	7 1	7 51	9 52	10 42	8 21	9 11
18	*	0 27	4 36	5 20	5 32	6 16	6 25	7 9	8 41	9 25	11 26	*	9 55	10 33
19	1 5	1 38	5 58	6 31	6 54	7 27	7 47	8 20	10 3	10 36	0 4	0 37	11 6	11 34
20	2 6	2 31	6 59	7 24	7 55	8 20	8 48	9 13	11 4	11 29	1 5	1 30	11 59	*
21	2 53	3 11	7 46	8 4	8 42	9 0	9 35	9 53	11 51	*	1 52	2 10	0 21	0 39
22	3 30	3 48	8 23	8 41	9 19	9 37	10 12	10 30	0 9	0 28	2 29	2 47	0 58	1 16
23	4 5	4 21	8 58	9 14	9 54	10 10	10 47	11 3	0 46	1 3	3 4	3 20	1 33	1 49
24	4 39	4 57	9 32	9 50	10 28	10 46	11 21	11 39	1 19	1 37	3 38	3 56	2 7	2 25
25	5 16	5 35	10 9	10 28	11 5	11 24	11 58	*	1 55	2 14	4 15	4 34	2 44	3 3
26	5 57	6 17	10 50	11 10	11 46	*	0 17	0 39	2 33	2 55	4 56	5 16	3 25	3 45
27	6 44	7 10	11 37	*	0 6	0 33	0 59	1 26	3 15	3 42	5 43	6 9	4 12	4 38
28	7 38	8 9	0 3	0 31	0 59	1 27	1 52	2 20	4 8	4 36	6 37	7 8	5 6	5 37
29	8 46	9 23	1 2	1 39	1 58	2 35	2 51	3 28	5 7	5 44	7 45	8 22	6 14	6 51
30	10 4	10 44	2 16	2 57	3 12	3 53	4 5	4 46	6 21	7 2	9 3	9 43	7 32	8 12
31	11 22	11 53	3 37	4 15	4 33	5 11	5 26	6 4	7 42	8 20	10 21	10 52	8 50	9 21

明治四十二年 三月

地名	古群山群島		濟物浦		(大同江) 漁隱洞		(鴨綠江口) 圓島		大連		旅順		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	10 14	10 55	*	0 20	3 24	4 6	3 54	4 36	5 4	5 46	5 35	6 17	10		N.
2	11 33	*	1 1	1 39	4 48	5 25	5 18	5 55	6 27	7 5	6 58	7 36	11		
3	0 7	0 37	2 13	2 43	5 59	6 29	6 29	6 59	7 38	8 8	8 9	8 39	12		
4	1 3	1 26	3 9	3 32	6 55	7 18	7 25	7 48	8 34	8 57	9 5	9 28	13		
5	1 47	2 7	3 53	4 13	7 39	7 59	8 9	8 29	9 18	9 38	9 49	10 9	14		
6	2 25	2 43	4 31	4 49	8 16	8 35	8 46	9 5	9 55	10 14	10 26	10 45	15		
7	3 0	3 17	5 6	5 23	8 52	9 9	9 22	9 39	10 31	10 48	11 2	11 19	16	○	A.
8	3 32	3 48	5 38	5 54	9 24	9 40	9 54	10 10	11 3	11 19	11 34	11 50	17		E.
9	4 3	4 18	6 9	6 24	9 55	10 10	10 25	10 40	11 34	11 49	*	0 5	18		
10	4 33	4 49	6 39	6 55	10 25	10 41	10 55	11 11	*	0 4	0 20	0 35	19		
11	5 4	5 21	7 10	7 27	10 56	11 13	11 26	11 43	0 20	0 35	0 51	1 6	20		
12	5 36	5 54	7 42	8 0	11 28	11 46	11 58	*	0 52	1 7	1 23	1 38	21		
13	6 12	6 33	8 18	8 39	*	0 4	0 16	0 34	1 25	1 43	1 56	2 14	22		
14	6 55	7 18	9 1	9 24	0 25	0 46	0 55	1 16	2 4	2 26	2 35	2 57	23		
15	7 45	8 20	9 51	10 26	1 10	1 37	1 40	2 7	2 49	3 16	3 20	3 47	24	○	
16	8 58	9 46	11 4	11 52	2 12	2 51	2 42	3 21	3 51	4 30	4 22	5 1	25		S.
17	10 36	11 26	*	0 42	3 39	4 28	4 9	4 58	5 18	6 8	5 49	6 39	26		
18	*	0 10	1 32	2 16	5 18	6 3	5 48	6 33	6 58	7 42	7 29	8 13	27		
19	0 48	1 21	2 54	3 27	6 41	7 13	7 11	7 43	8 20	8 52	8 51	9 23	28		
20	1 49	2 14	3 55	4 20	7 41	8 6	8 11	8 36	9 20	9 45	9 51	10 16	29		
21	2 36	2 54	4 42	5 0	8 27	8 46	8 57	9 16	10 6	10 25	10 37	10 56	30		P.
22	3 13	3 31	5 19	5 37	9 5	9 23	9 35	9 53	10 44	11 2	11 15	11 33	1	●	E.
23	3 48	4 4	5 54	6 10	9 40	9 56	10 10	10 26	11 19	11 35	11 50	*	2		
24	4 22	4 40	6 28	6 46	10 14	10 32	10 44	11 2	11 53	*	0 6	0 24	3		
25	4 59	5 18	7 5	7 24	10 50	11 10	11 20	11 40	0 11	0 30	0 42	1 1	4		
26	5 40	6 0	7 46	8 6	11 31	11 52	*	0 1	0 49	1 11	1 20	1 42	5		
27	6 27	6 53	8 33	8 59	*	0 19	0 22	0 49	1 31	1 59	2 2	2 30	6		
28	7 21	7 52	9 27	9 58	0 45	1 13	1 15	1 43	2 24	2 52	2 55	3 23	7		
29	8 29	9 6	10 35	11 12	1 44	2 21	2 14	2 51	3 24	4 0	3 55	4 31	8	○	N.
30	9 47	10 27	11 53	*	2 58	3 39	3 28	4 9	4 37	5 19	5 8	5 50	9		
31	11 5	11 36	0 33	1 11	4 19	4 57	4 49	5 27	5 59	6 37	6 30	7 8	10		

明治四十二年 四月

地名	横須賀		下田		清水		鳥羽		(紀伊) 串本		(淡路) 由良		神戸	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	1 49	2 19	2 8	2 38	2 28	2 58	2 41	3 11	2 46	3 16	3 35	4 5	4 8	4 38
2	2 45	3 9	3 4	3 28	3 24	3 48	3 37	4 1	3 42	4 6	4 31	4 55	5 4	5 28
3	3 30	3 49	3 49	4 8	4 9	4 28	4 21	4 41	4 26	4 46	5 15	5 35	5 48	6 8
4	4 7	4 24	4 26	4 43	4 46	5 3	4 59	5 16	5 4	5 21	5 53	6 10	6 26	6 43
5	4 40	4 57	4 59	5 16	5 19	5 36	5 32	5 49	5 37	5 54	6 26	6 43	6 59	7 16
6	5 14	5 29	5 33	5 48	5 53	6 8	6 5	6 21	6 10	6 26	6 59	7 15	7 32	7 48
7	5 46	6 0	6 5	6 19	6 25	6 39	6 37	6 52	6 42	6 57	7 31	7 46	8 4	8 19
8	6 16	6 33	6 35	6 52	6 55	7 12	7 8	7 24	7 13	7 29	8 2	8 18	8 35	8 51
9	6 50	7 7	7 9	7 26	7 29	7 46	7 41	7 59	7 46	8 4	8 35	8 53	9 8	9 26
10	7 25	7 43	7 44	8 2	8 4	8 22	8 17	8 35	8 22	8 40	9 11	9 29	9 44	10 2
11	8 2	8 24	8 21	8 43	8 41	9 3	8 54	9 15	8 59	9 20	9 48	10 9	10 21	10 42
12	8 47	9 13	9 6	9 32	9 26	9 52	9 39	10 4	9 44	10 9	10 33	10 58	11 6	11 31
13	9 39	10 15	9 58	10 34	10 18	10 54	10 31	11 7	10 36	11 12	11 25	*	11 58	*
14	10 55	11 42	11 14	*	11 34	*	11 47	*	11 52	*	0 1	0 41	0 34	1 14
15	*	0 31	0 1	0 50	0 21	1 10	0 34	1 23	0 39	1 28	1 28	2 17	2 1	2 50
16	1 20	2 2	1 39	2 21	1 59	2 41	2 12	2 54	2 17	2 59	3 6	3 48	3 39	4 21
17	2 40	3 13	2 59	3 32	3 19	3 52	3 32	4 5	3 37	4 10	4 26	4 59	4 59	5 32
18	3 39	4 3	3 58	4 22	4 18	4 42	4 30	4 55	4 35	5 0	5 24	5 49	5 57	6 22
19	4 26	4 44	4 45	5 3	5 5	5 23	5 17	5 36	5 22	5 41	6 11	6 30	6 44	7 3
20	5 2	5 20	5 21	5 39	5 41	5 59	5 54	6 12	5 59	6 17	6 48	7 6	7 21	7 39
21	5 38	5 56	5 57	6 15	6 17	6 35	6 30	6 47	6 35	6 52	7 24	7 41	7 57	8 14
22	6 13	6 32	6 32	6 51	6 52	7 11	7 5	7 24	7 10	7 29	7 59	8 18	8 32	8 51
23	6 51	7 13	7 10	7 32	7 30	7 52	7 43	8 4	7 48	8 9	8 37	8 58	9 10	9 31
24	7 35	7 57	7 54	8 16	8 14	8 36	8 26	8 49	8 31	8 54	9 20	9 43	9 53	10 16
25	8 21	8 47	8 40	9 6	9 0	9 26	9 13	9 39	9 18	9 44	10 7	10 33	10 40	11 6
26	9 14	9 41	9 33	10 0	9 53	10 20	10 5	10 33	10 10	10 38	10 59	11 27	11 32	*
27	10 13	10 47	10 32	11 6	10 52	11 26	11 5	11 39	11 10	11 44	11 59	*	0 0	0 32
28	11 22	11 59	11 41	*	*	0 1	*	0 14	*	0 19	0 33	1 8	1 6	1 41
29	*	0 34	0 18	0 53	0 38	1 13	0 50	1 26	0 55	1 31	1 44	2 20	2 17	2 53
30	1 8	1 36	1 27	1 55	1 47	2 15	2 0	2 28	2 5	2 33	2 54	3 22	3 27	3 55

明治四十二年 四月

地名	明石		粟島		(三原瀬戸) 瀬戸田		來島		三津ヶ濱		佐賀ノ關		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	5 8	5 38	8 20	8 50	7 37	8 7	7 2	7 32	6 22	6 52	4 44	5 14	11		
2	6 4	6 28	9 16	9 39	8 33	8 56	7 58	8 21	7 18	7 41	5 40	6 3	12		
3	6 48	7 8	10 0	10 20	9 17	9 37	8 42	9 2	8 2	8 22	6 24	6 44	13		A.
4	7 26	7 43	10 38	10 54	9 55	10 11	9 20	9 36	8 40	8 56	7 2	7 18	14		
5	7 59	8 16	11 11	11 27	10 28	10 44	9 53	10 9	9 13	9 29	7 35	7 51	15		E.
6	8 32	8 48	11 44	*	11 1	11 17	10 26	10 42	9 46	10 2	8 8	8 24	16	○	
7	9 4	9 19	0 0	0 16	11 33	11 48	10 58	11 13	10 18	10 33	8 40	8 55	17		
8	9 35	9 51	0 31	0 47	*	0 4	11 29	11 45	10 49	11 5	9 11	9 27	18		
9	10 8	10 26	1 3	1 20	0 20	0 37	*	0 2	11 22	11 40	9 44	10 2	19		
10	10 44	11 2	1 38	1 55	0 55	1 12	0 20	0 37	11 57	*	10 19	10 38	20		
11	11 21	11 42	2 14	2 33	1 31	1 50	0 56	1 15	0 16	0 35	10 57	11 18	21		
12	*	0 6	2 54	3 17	2 11	2 34	1 36	1 59	0 56	1 19	11 41	*	22		
13	0 31	0 58	3 43	4 10	3 0	3 27	2 25	2 52	1 45	2 12	0 7	0 34	23	○	S.
14	1 34	2 14	4 46	5 26	4 3	4 43	3 28	4 8	2 48	3 28	1 10	1 50	24		
15	3 1	3 50	6 14	7 3	5 31	6 20	4 56	5 45	4 16	5 5	2 38	3 27	25		
16	4 39	5 21	7 52	8 33	7 9	7 50	6 34	7 15	5 54	6 35	4 16	4 57	26		
17	5 59	6 32	9 11	9 44	8 28	9 1	7 53	8 26	7 13	7 46	5 35	6 8	27		
18	6 57	7 22	10 9	10 34	9 26	9 51	8 51	9 16	8 11	8 36	6 33	6 58	28		
19	7 44	8 3	10 56	11 14	10 13	10 31	9 38	9 56	8 58	9 16	7 20	7 38	29		E.,P.
20	8 21	8 39	11 33	11 50	10 50	11 7	10 15	10 32	9 35	9 52	7 57	8 14	1	●	
21	8 57	9 14	*	0 9	11 26	11 43	10 51	11 8	10 11	10 28	8 33	8 50	2		
22	9 32	9 51	0 26	0 44	*	0 1	11 26	11 45	10 46	11 5	9 8	9 27	3		
23	10 10	10 31	1 3	1 22	0 20	0 39	*	0 4	11 24	11 45	9 46	10 7	4		
24	10 53	11 16	1 43	2 5	1 0	1 22	0 25	0 47	*	0 7	10 29	10 51	5		
25	11 40	*	2 27	2 52	1 44	2 9	1 9	1 34	0 29	0 54	11 16	11 41	6		N.
26	0 6	0 32	3 17	3 44	2 34	3 1	1 59	2 26	1 19	1 46	*	0 8	7		
27	1 0	1 32	4 12	4 44	3 29	4 1	2 54	3 26	2 14	2 46	0 36	1 8	8	○	
28	2 6	2 41	5 18	5 53	4 35	5 10	4 0	4 35	3 20	3 55	1 42	2 17	9		
29	3 17	3 53	6 30	7 5	5 47	6 22	5 12	5 47	4 32	5 7	2 54	3 29	10		
30	4 27	4 55	7 39	8 7	6 56	7 24	6 21	6 49	5 41	6 9	4 3	4 31	11		

明治四十二年 四月

地名	吳		門		司竹		敷平		戶佐		世保		長崎		三角	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	6 36	7 6	6 10	6 41	6 15	6 46	5 49	6 20	5 37	6 8	5 6	5 37	6 4	6 35		
2	7 32	7 55	7 7	7 30	7 12	7 35	6 46	7 9	6 34	6 57	6 3	6 26	7 1	7 24		
3	8 16	8 36	7 51	8 10	7 56	8 15	7 30	7 49	7 18	7 37	6 47	7 6	7 45	8 4		
4	8 54	9 10	8 28	8 45	8 33	8 50	8 7	8 24	7 55	8 12	7 24	7 41	8 22	8 39		
5	9 27	9 43	9 1	9 18	9 6	9 23	8 40	8 57	8 28	8 45	7 57	8 14	8 55	9 12		
6	10 0	10 16	9 35	9 50	9 40	9 55	9 14	9 29	9 2	9 17	8 31	8 40	9 29	9 44		
7	10 32	10 47	10 6	10 21	10 11	10 26	9 45	10 0	9 33	9 48	9 2	9 17	10 0	10 15		
8	11 3	11 19	10 37	10 54	10 42	10 59	10 16	10 33	10 4	10 21	9 33	9 50	10 31	10 48		
9	11 36	11 54	11 11	11 28	11 16	11 33	10 50	11 7	10 38	10 55	10 7	10 24	11 5	11 22		
10	*	0 11	11 46	*	11 51	*	11 25	11 43	11 13	11 31	10 42	11 0	11 40	11 58		
11	0 30	0 49	0 4	0 23	0 9	0 28	*	0 2	11 50	*	11 19	11 41	*	0 17		
12	1 10	1 33	0 45	1 8	0 50	1 13	0 24	0 47	0 12	0 35	*	0 4	0 39	1 2		
13	1 59	2 26	1 34	2 1	1 39	2 6	1 13	1 40	1 1	1 28	0 30	0 57	1 28	1 55		
14	3 2	3 42	2 37	3 17	2 42	3 22	2 16	2 56	2 4	2 44	1 33	2 13	2 31	3 11		
15	4 30	5 19	4 5	4 54	4 10	4 59	3 44	4 33	3 32	4 21	3 1	3 50	3 59	4 48		
16	6 8	6 49	5 43	6 24	5 48	6 29	5 22	6 3	5 10	5 51	4 39	5 20	5 37	6 18		
17	7 27	8 0	7 2	7 34	7 7	7 39	6 41	7 13	6 29	7 1	5 58	6 30	6 56	7 28		
18	8 25	8 50	8 0	8 24	8 5	8 29	7 39	8 3	7 27	7 51	6 56	7 20	7 54	8 18		
19	9 12	9 30	8 47	9 5	8 52	9 10	8 26	8 44	8 14	8 32	7 43	8 1	8 41	8 59		
20	9 49	10 6	9 23	9 41	9 28	9 46	9 2	9 20	8 50	9 8	8 19	8 37	9 17	9 35		
21	10 25	10 42	9 59	10 16	10 4	10 21	9 38	9 55	9 26	9 43	8 55	9 12	9 53	10 10		
22	11 0	11 19	10 34	10 53	10 39	10 58	10 13	10 32	10 1	10 20	9 30	9 49	10 28	10 47		
23	11 38	11 59	11 12	11 33	11 17	11 38	10 51	11 12	10 39	11 0	10 8	10 29	11 6	11 27		
24	*	0 21	11 56	*	*	0 1	11 35	11 57	11 23	11 45	10 52	11 14	11 50	*		
25	0 43	1 8	0 18	0 42	0 23	0 47	*	0 21	*	0 9	11 38	*	0 12	0 36		
26	1 33	2 0	1 8	1 35	1 13	1 40	0 47	1 14	0 35	1 2	0 4	0 31	1 2	1 29		
27	2 28	3 0	2 3	2 35	2 8	2 40	1 42	2 14	1 30	2 2	0 59	1 31	1 57	2 29		
28	3 34	4 9	3 9	3 44	3 14	3 49	2 48	3 23	2 36	3 11	2 5	2 40	3 3	3 38		
29	4 46	5 21	4 20	4 56	4 25	5 1	3 59	4 35	3 47	4 23	3 16	3 52	4 14	4 50		
30	5 55	6 23	5 30	5 58	5 35	6 3	5 9	5 37	4 57	5 25	4 26	4 54	5 24	5 52		

明治四十二年 四月

地名	(五島)		鹿兒島		油津		那覇		基隆		馬公		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	5 28	5 59	4 15	4 46	3 4	3 35	4 9	4 40	6 16	6 46	8 18	8 48	11		
2	6 25	6 48	5 12	5 35	4 1	4 24	5 6	5 29	7 12	7 35	9 14	9 37	12		
3	7 9	7 28	5 56	6 15	4 45	5 4	5 50	6 9	7 56	8 15	9 58	10 17	13		A.
4	7 46	8 3	6 33	6 50	5 22	5 39	6 27	6 44	8 33	8 49	10 35	10 51	14		
5	8 19	8 36	7 6	7 23	5 55	6 12	7 0	7 17	9 6	9 22	11 8	11 24	15		E.
6	8 53	9 8	7 40	7 55	6 29	6 44	7 34	7 49	9 39	9 55	11 41	11 57	16	○	
7	9 24	9 39	8 11	8 26	7 0	7 15	8 5	8 20	10 11	10 26	*	0 13	17		
8	9 55	10 12	8 42	8 59	7 31	7 48	8 36	8 53	10 42	10 58	0 28	0 44	18		
9	10 29	10 46	9 16	9 33	8 5	8 22	9 10	9 27	11 15	11 33	1 0	1 17	19		
10	11 4	11 22	9 51	10 9	8 40	8 58	9 45	10 3	11 50	*	1 35	1 52	20		
11	11 41	*	10 28	10 50	9 17	9 39	10 22	10 44	0 9	0 28	2 11	2 30	21		
12	0 3	0 26	11 13	11 39	10 2	10 28	11 7	11 33	0 50	1 13	2 52	3 15	22		
13	0 52	1 19	*	0 6	10 55	11 31	*	0 0	1 39	2 7	3 41	4 9	23	○	S.
14	1 55	2 35	0 42	1 22	*	0 11	0 36	1 16	2 43	3 23	4 45	5 25	24		
15	3 23	4 12	2 10	2 59	0 59	1 48	2 4	2 53	4 11	5 0	6 13	7 2	25		
16	5 1	5 42	3 48	4 29	2 37	3 18	3 42	4 23	5 49	6 30	7 51	8 32	26		
17	6 20	6 52	5 7	5 39	3 56	4 28	5 1	5 33	7 7	7 40	9 9	9 42	27		
18	7 18	7 42	6 5	6 29	4 54	5 18	5 59	6 23	8 5	8 29	10 7	10 31	28		
19	8 5	8 23	6 52	7 10	5 41	5 59	6 46	7 4	8 51	9 9	10 53	11 11	29		E.P.
20	8 41	8 59	7 28	7 46	6 17	6 35	7 22	7 40	9 28	9 46	11 30	11 48	1	●	
21	9 17	9 34	8 4	8 21	6 53	7 10	7 58	8 15	10 4	10 21	*	0 6	2		
22	9 52	10 11	8 39	8 58	7 28	7 47	8 33	8 52	10 39	10 58	0 23	0 41	3		
23	10 30	10 51	9 17	9 38	8 6	8 27	9 11	9 32	11 17	11 38	1 0	1 19	4		
24	11 14	11 36	10 1	10 23	8 50	9 12	9 55	10 17	*	0 1	1 40	2 3	5		
25	*	0 0	10 47	11 13	9 36	10 2	10 41	11 7	0 23	0 48	2 25	2 50	6		N.
26	0 26	0 53	11 40	*	10 29	10 57	11 34	*	1 13	1 40	3 15	3 42	7		
27	1 21	1 53	0 8	0 40	11 29	*	0 2	0 34	2 8	2 40	4 10	4 42	8	○	
28	2 27	3 2	1 14	1 49	0 3	0 38	1 8	1 43	3 14	3 50	5 16	5 52	9		
29	3 38	4 14	2 25	3 1	1 14	1 50	2 19	2 55	4 26	5 2	6 28	7 4	10		
30	4 48	5 16	3 35	4 3	2 24	2 52	3 29	3 57	5 36	6 3	7 38	8 5	11		

明治四十二年 四月

地名	打		(隱岐) 西 鄉		境		舞 鶴		敦 賀		七 尾		函 館	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	4 55	5 25	11 15	11 41	11 29	11 55	11 35	*	11 28	11 54	*	0 7	0 20	0 51
2	5 51	6 14	*	0 5	*	0 19	0 1	0 25	*	0 18	0 33	0 57	1 17	1 41
3	6 35	6 54	0 25	0 45	0 39	0 59	0 45	1 5	0 38	0 58	1 17	1 37	2 1	2 21
4	7 12	7 28	1 3	1 20	1 17	1 34	1 23	1 40	1 16	1 33	1 55	2 12	2 39	2 56
5	7 45	8 1	1 36	1 53	1 50	2 7	1 56	2 13	1 49	2 6	2 28	2 45	3 12	3 29
6	8 18	8 34	2 10	2 25	2 24	2 39	2 30	2 45	2 23	2 38	3 2	3 17	3 45	4 1
7	8 50	9 5	2 41	2 56	2 55	3 10	3 1	3 16	2 54	3 9	3 33	3 48	4 17	4 32
8	9 21	9 37	3 12	3 29	3 26	3 43	3 32	3 49	3 25	3 42	4 4	4 21	4 48	5 4
9	9 54	10 12	3 45	4 3	3 59	4 17	4 5	4 23	3 58	4 16	4 37	4 55	5 21	5 39
10	10 29	10 48	4 21	4 39	4 35	4 53	4 41	4 59	4 34	4 52	5 13	5 31	5 57	6 15
11	11 7	11 29	4 58	5 20	5 12	5 34	5 18	5 40	5 11	5 33	5 50	6 12	6 34	6 55
12	11 52	*	5 43	6 9	5 57	6 23	6 3	6 29	5 56	6 22	6 35	7 1	7 18	7 44
13	0 18	0 46	6 36	7 12	6 50	7 26	6 56	7 32	6 49	7 25	7 28	8 4	8 11	8 46
14	1 22	2 2	7 51	8 39	8 5	8 53	8 11	8 59	8 4	8 52	8 43	9 31	9 26	10 13
15	2 50	3 39	9 28	10 17	9 42	10 31	9 48	10 37	9 41	10 30	10 20	11 9	11 2	11 51
16	4 28	5 9	10 58	11 36	11 12	11 50	11 18	11 56	11 11	11 49	11 50	*	*	0 33
17	5 46	6 19	*	0 9	*	0 23	*	0 29	*	0 22	0 28	1 1	1 11	1 45
18	6 44	7 8	0 35	0 59	0 49	1 13	0 55	1 19	0 48	1 12	1 27	1 51	2 10	2 35
19	7 30	7 48	1 21	1 40	1 35	1 54	1 41	2 0	1 34	1 53	2 13	2 32	2 57	3 16
20	8 7	8 25	1 58	2 16	2 12	2 30	2 18	2 36	2 11	2 29	2 50	3 8	3 34	3 52
21	8 43	9 0	2 34	2 51	2 48	3 5	2 54	3 11	2 47	3 4	3 26	3 43	4 10	4 27
22	9 18	9 37	3 9	3 28	3 23	3 42	3 29	3 48	3 22	3 41	4 1	4 20	4 45	5 4
23	9 56	10 17	3 47	4 8	4 1	4 22	4 7	4 28	4 0	4 21	4 39	5 0	5 23	5 44
24	10 40	11 2	4 30	4 53	4 44	5 7	4 50	5 13	4 43	5 6	5 22	5 45	6 6	6 28
25	11 27	11 52	5 17	5 43	5 31	5 57	5 37	6 3	5 30	5 56	6 9	6 35	6 53	7 18
26	*	0 19	6 10	6 37	6 24	6 51	6 30	6 57	6 23	6 50	7 2	7 29	7 45	8 13
27	0 47	1 19	7 9	7 43	7 23	7 57	7 29	8 3	7 22	7 56	8 1	8 35	8 44	9 18
28	1 53	2 29	8 18	8 55	8 32	9 9	8 38	9 15	8 31	9 8	9 10	9 47	9 53	10 30
29	3 5	3 41	9 30	10 4	9 44	10 18	9 50	10 24	9 43	10 17	10 22	10 56	11 6	11 39
30	4 15	4 42	10 32	11 1	10 46	11 15	10 52	11 21	10 45	11 14	11 24	11 53	*	0 8

明治四十二年 四月

地名	大 湊		(陸中) 山 田		根 室		小 樽		稚 内		(樺太) 大 泊		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	0 11	0 42	0 19	0 50	*	0 30	0 21	0 52	0 10	0 41	*	0 27	11		
2	1 8	1 32	1 16	1 40	0 56	1 20	1 18	1 42	1 7	1 31	0 53	1 17	12		
3	1 52	2 12	2 0	2 20	1 40	2 0	2 2	2 22	1 51	2 11	1 37	1 57	13	A.	
4	2 30	2 47	2 38	2 55	2 18	2 35	2 40	2 57	2 29	2 46	2 15	2 32	14		
5	3 3	3 20	3 11	3 28	2 51	3 8	3 13	3 30	3 2	3 19	2 48	3 5	15	E.	
6	3 36	3 52	3 44	4 0	3 25	3 40	3 46	4 2	3 35	3 51	3 21	3 37	16	○	
7	4 8	4 23	4 16	4 31	3 57	4 11	4 18	4 33	4 7	4 22	3 53	4 8	17		
8	4 39	4 55	4 47	5 3	4 27	4 44	4 49	5 5	4 38	4 54	4 24	4 40	18		
9	5 12	5 30	5 20	5 38	5 1	5 18	5 22	5 40	5 11	5 29	4 57	5 15	19		
10	5 48	6 6	5 56	6 14	5 36	5 54	5 58	6 16	5 47	6 5	5 33	5 51	20		
11	6 25	6 46	6 33	6 54	6 13	6 34	6 35	6 56	6 24	6 45	6 10	6 31	21		
12	7 9	7 35	7 17	7 43	6 58	7 23	7 19	7 45	7 8	7 34	6 54	7 20	22		
13	8 2	8 37	8 10	8 45	7 50	8 26	8 12	8 47	8 1	8 36	7 47	8 22	23	○	S.
14	9 17	10 4	9 25	10 12	9 5	9 52	9 27	10 14	9 16	10 3	9 2	9 49	24		
15	10 53	11 42	11 1	11 50	10 41	11 31	11 3	11 52	10 52	11 41	10 38	11 27	25		
16	*	0 24	*	0 32	*	0 12	*	0 34	*	0 23	*	0 9	26		
17	1 2	1 36	1 10	1 44	0 51	1 24	1 12	1 46	1 1	1 35	0 47	1 21	27		
18	2 1	2 26	2 9	2 34	1 49	2 14	2 11	2 36	2 0	2 25	1 46	2 11	28		
19	2 48	3 7	2 56	3 15	2 36	2 55	2 58	3 17	2 47	3 6	2 33	2 52	29		
20	3 25	3 43	3 33	3 51	3 13	3 31	3 35	3 53	3 24	3 42	3 10	3 28	1	●	E.,P.
21	4 1	4 18	4 9	4 26	3 49	4 7	4 11	4 28	4 0	4 17	3 46	4 3	2		
22	4 36	4 55	4 44	5 3	4 24	4 43	4 46	5 5	4 35	4 54	4 21	4 40	3		
23	5 14	5 35	5 22	5 43	5 2	5 23	5 24	5 45	5 13	5 34	4 59	5 20	4		
24	5 57	6 19	6 5	6 27	5 45	6 8	6 7	6 29	5 56	6 18	5 42	6 4	5		
25	6 44	7 9	6 52	7 17	6 32	6 58	6 54	7 19	6 43	7 8	6 29	6 54	6		N.
26	7 36	8 4	7 44	8 12	7 24	7 52	7 46	8 14	7 35	8 3	7 21	7 49	7		
27	8 35	9 9	8 43	9 17	8 24	8 58	8 45	9 19	8 34	9 8	8 20	8 54	8	○	
28	9 44	10 21	9 52	10 29	9 32	10 9	9 54	10 31	9 43	10 20	9 29	10 6	9		
29	10 57	11 30	11 5	11 38	10 45	11 18	11 7	11 40	10 56	11 29	10 42	11 15	10		
30	11 59	*	*	0 7	11 47	*	*	0 9	11 58	*	11 44	*	11		

明治四十二年 四月

地名	元山		釜山		蛇梁海峽		長直路		長竹水道		木浦		八口浦	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	*	0 24	4 46	5 17	5 42	6 13	6 35	7 6	8 51	9 22	11 23	11 49	9 52	10 18
2	0 50	1 13	5 43	6 6	6 39	7 2	7 32	7 55	9 48	10 11	*	0 12	10 41	11 1
3	1 33	1 53	6 26	6 46	7 22	7 42	8 15	8 35	10 31	10 51	0 32	0 52	11 21	11 39
4	2 11	2 27	7 4	7 20	8 0	8 16	8 53	9 9	11 9	11 25	1 10	1 26	11 55	*
5	2 44	3 1	7 37	7 54	8 33	8 50	9 26	9 43	11 42	11 59	1 43	2 0	0 12	0 29
6	3 17	3 33	8 10	8 26	9 6	9 22	9 59	10 15	*	0 15	2 16	2 32	0 45	1 1
7	3 49	4 4	8 42	8 57	9 38	9 53	10 31	10 46	0 31	0 47	2 48	3 3	1 17	1 32
8	4 20	4 36	9 13	9 29	10 9	10 25	11 2	11 18	1 2	1 18	3 19	3 35	1 48	2 4
9	4 53	5 11	9 46	10 4	10 42	11 0	11 35	11 53	1 34	1 51	3 52	4 10	2 21	2 39
10	5 28	5 47	10 21	10 40	11 17	11 36	*	0 10	2 9	2 26	4 27	4 46	2 56	3 15
11	6 6	6 28	10 59	11 21	11 55	*	0 29	0 48	2 45	3 4	5 5	5 27	3 34	3 56
12	6 51	7 17	11 44	*	0 17	0 40	1 10	1 33	3 26	3 49	5 50	6 16	4 19	4 45
13	7 44	8 20	0 10	0 37	1 6	1 33	1 59	2 26	4 15	4 42	6 43	7 19	5 12	5 48
14	9 0	9 48	1 13	1 53	2 9	2 49	3 2	3 42	5 18	5 58	7 59	8 47	6 28	7 16
15	10 37	11 26	2 41	3 30	3 37	4 26	4 30	5 19	6 46	7 35	9 36	10 25	8 5	8 54
16	*	0 7	4 19	5 0	5 15	5 56	6 8	6 49	8 24	9 5	11 6	11 44	9 35	10 13
17	0 45	1 17	5 38	6 10	6 34	7 6	7 27	7 59	9 43	10 15	*	0 16	10 45	11 11
18	1 43	2 7	6 36	7 0	7 32	7 56	8 25	8 49	10 41	11 5	0 42	1 6	11 35	11 57
19	2 29	2 47	7 22	7 40	8 18	8 36	9 11	9 29	11 27	11 45	1 28	1 46	*	0 15
20	3 6	3 24	7 59	8 17	8 55	9 13	9 48	10 6	*	0 4	2 5	2 23	0 34	0 52
21	3 42	3 59	8 35	8 52	9 31	9 48	10 24	10 41	0 22	0 40	2 41	2 58	1 10	1 27
22	4 17	4 36	9 10	9 29	10 6	10 25	10 59	11 18	0 57	1 15	3 16	3 35	1 45	2 4
23	4 55	5 16	9 48	10 9	10 44	11 5	11 37	11 58	1 34	1 53	3 54	4 15	2 23	2 44
24	5 38	6 1	10 31	10 54	11 27	11 50	*	0 20	2 14	2 36	4 37	5 0	3 6	3 29
25	6 25	6 51	11 18	11 44	*	0 14	0 43	1 7	2 59	3 23	5 24	5 50	3 53	4 19
26	7 18	7 46	*	0 11	0 40	1 7	1 33	2 0	3 49	4 16	6 17	6 45	4 46	5 14
27	8 18	8 52	0 39	1 11	1 35	2 7	2 28	3 0	4 44	5 16	7 17	7 51	5 46	6 20
28	9 27	10 3	1 45	2 20	2 41	3 16	3 34	4 9	5 50	6 25	8 26	9 2	6 55	7 31
29	10 39	11 13	2 56	3 32	3 52	4 28	4 45	5 21	7 1	7 37	9 38	10 12	8 7	8 41
30	11 41	*	4 6	4 34	5 2	5 30	5 55	6 23	8 11	8 39	10 40	11 8	9 9	9 37

明治四十二年 四月

地名	古群山群島		濟物浦		(大同江) 漁隱洞		(鴨綠江口) 圓島		大連		旅順		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	*	0 7	1 42	2 13	5 28	5 59	5 58	6 29	7 7	7 38	7 38	8 9	11		
2	0 33	0 56	2 39	3 2	6 25	6 48	6 55	7 18	8 4	8 27	8 35	8 58	12		
3	1 16	1 36	3 22	3 42	7 8	7 28	7 38	7 58	8 47	9 7	9 18	9 38	13		A.
4	1 54	2 10	4 0	4 16	7 46	8 2	8 16	8 32	9 25	9 41	9 56	10 12	14		
5	2 27	2 44	4 33	4 50	8 19	8 35	8 49	9 5	9 58	10 14	10 29	10 45	15		E.
6	3 0	3 16	5 6	5 22	8 52	9 8	9 22	9 38	10 31	10 47	11 2	11 18	16	○	
7	3 32	3 47	5 38	5 53	9 24	9 39	9 54	10 9	11 3	11 18	11 34	11 49	17		
8	4 3	4 19	6 9	6 25	9 55	10 11	10 25	10 41	11 34	11 50	*	0 5	18		
9	4 36	4 54	6 42	7 0	10 28	10 46	10 58	11 16	*	0 7	0 21	0 38	19		
10	5 11	5 30	7 17	7 36	11 3	11 22	11 33	11 52	0 25	0 42	0 56	1 13	20		
11	5 49	6 11	7 55	8 17	11 41	*	*	0 11	1 1	1 20	1 32	1 51	21		
12	6 34	7 0	8 40	9 6	0 3	0 26	0 33	0 56	1 42	2 5	2 13	2 36	22		
13	7 27	8 3	9 33	10 9	0 52	1 19	1 22	1 49	2 31	2 59	3 2	3 30	23	○	S.
14	8 43	9 31	10 49	11 37	1 56	2 35	2 26	3 5	3 35	4 15	4 6	4 46	24		
15	10 20	11 9	*	0 26	3 23	4 12	3 53	4 42	5 3	5 52	5 34	6 23	25		
16	11 50	*	1 15	1 56	5 1	5 42	5 31	6 12	6 41	7 22	7 12	7 53	26		
17	0 28	1 0	2 34	3 6	6 20	6 52	6 50	7 22	7 59	8 31	8 30	9 2	27		
18	1 26	1 50	3 32	3 56	7 18	7 42	7 48	8 12	8 57	9 21	9 28	9 52	28		
19	2 12	2 30	4 18	4 36	8 4	8 22	8 34	8 52	9 43	10 1	10 14	10 32	29		E.,P.
20	2 49	3 7	4 55	5 13	8 41	8 58	9 11	9 28	10 20	10 38	10 51	11 9	1	●	
21	3 25	3 42	5 31	5 48	9 17	9 34	9 47	10 4	10 56	11 13	11 27	11 44	2		
22	4 0	4 19	6 6	6 25	9 52	10 11	10 22	10 41	11 31	11 50	*	0 2	3		
23	4 38	4 59	6 44	7 5	10 30	10 51	11 0	11 21	*	0 9	0 21	0 40	4		
24	5 21	5 44	7 27	7 50	11 13	11 36	11 43	*	0 30	0 52	1 1	1 23	5		
25	6 8	6 34	8 14	8 40	*	0 0	0 6	0 30	1 15	1 39	1 46	2 10	6		N.
26	7 1	7 29	9 7	9 35	0 26	0 53	0 56	1 23	2 5	2 32	2 36	3 3	7		
27	8 1	8 35	10 7	10 41	1 21	1 53	1 51	2 23	3 0	3 32	3 31	4 3	8	D	
28	9 10	9 46	11 16	11 52	2 27	3 2	2 57	3 32	4 6	4 42	4 37	5 13	9		
29	10 22	10 56	*	0 28	3 38	4 14	4 8	4 44	5 18	5 53	5 49	6 24	10		
30	11 24	11 52	1 2	1 30	4 48	5 16	5 18	5 46	6 27	6 55	6 58	7 26	11		

明治四十二年 五月

地名	横須賀		下田		清水		鳥羽		(紀伊) 串本		(淡路) 由良		神戸	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	2 5	2 29	2 24	2 48	2 44	3 8	2 56	3 21	3 1	3 26	3 50	4 15	4 23	4 48
2	2 52	3 12	3 11	3 31	3 31	3 51	3 44	4 4	3 49	4 9	4 38	4 58	5 11	5 31
3	3 32	3 50	3 51	4 9	4 11	4 29	4 23	4 42	4 28	4 47	5 17	5 36	5 50	6 9
4	4 7	4 24	4 26	4 43	4 46	5 3	4 59	5 16	5 4	5 21	5 53	6 10	6 26	6 43
5	4 41	4 59	5 0	5 18	5 20	5 38	5 33	5 51	5 38	5 56	6 27	6 45	7 0	7 18
6	5 17	5 35	5 36	5 54	5 56	6 14	6 9	6 26	6 14	6 31	7 3	7 20	7 36	7 53
7	5 52	6 9	6 11	6 28	6 31	6 48	6 43	7 1	6 48	7 6	7 37	7 55	8 10	8 28
8	6 28	6 47	6 47	7 6	7 7	7 26	7 19	7 38	7 24	7 43	8 13	8 32	8 46	9 5
9	7 6	7 27	7 25	7 46	7 45	8 6	7 58	8 18	8 3	8 23	8 52	9 12	9 25	9 45
10	7 48	8 9	8 7	8 28	8 27	8 48	8 40	9 1	8 45	9 6	9 34	9 55	10 7	10 28
11	8 34	9 0	8 53	9 19	9 13	9 39	9 26	9 51	9 31	9 56	10 20	10 45	10 53	11 18
12	9 27	10 0	9 46	10 19	10 6	10 39	10 19	10 52	10 24	10 57	11 13	11 40	11 46	*
13	10 38	11 20	10 57	11 39	11 17	11 59	11 30	*	11 35	*	*	0 24	0 19	0 57
14	*	0 6	*	0 25	*	0 45	0 12	0 58	0 17	1 3	1 6	1 52	1 39	2 25
15	0 51	1 33	1 10	1 52	1 30	2 12	1 43	2 25	1 48	2 30	2 37	3 19	3 10	3 52
16	2 11	2 43	2 30	3 2	2 50	3 22	3 2	3 35	3 7	3 40	3 56	4 29	4 29	5 2
17	3 12	3 36	3 31	3 55	3 51	4 15	4 4	4 27	4 9	4 32	4 58	5 21	5 31	5 54
18	3 58	4 20	4 17	4 39	4 37	4 59	4 50	5 12	4 55	5 17	5 44	6 6	6 17	6 39
19	4 40	4 59	4 59	5 18	5 19	5 38	5 31	5 51	5 36	5 56	6 25	6 45	6 58	7 18
20	5 17	5 37	5 36	5 56	5 56	6 16	6 9	6 29	6 14	6 34	7 3	7 23	7 36	7 56
21	5 57	6 16	6 16	6 35	6 36	6 55	6 48	7 7	6 53	7 12	7 42	8 1	8 15	8 34
22	6 36	6 57	6 55	7 16	7 15	7 36	7 28	7 49	7 33	7 54	8 22	8 43	8 55	9 16
23	7 19	7 41	7 38	8 0	7 58	8 20	8 11	8 33	8 16	8 38	9 5	9 27	9 38	10 0
24	8 3	8 27	8 22	8 46	8 42	9 6	8 54	9 19	8 59	9 24	9 48	10 13	10 21	10 46
25	8 50	9 14	9 9	9 33	9 29	9 53	9 41	10 5	9 46	10 10	10 35	10 59	11 8	11 32
26	9 39	10 6	9 58	10 25	10 18	10 45	10 31	10 58	10 36	11 3	11 25	11 52	11 58	*
27	10 34	11 3	10 53	11 22	11 13	11 42	11 26	11 55	11 31	*	*	0 20	0 25	0 53
28	11 35	*	11 54	*	*	0 14	*	0 27	0 0	0 32	0 49	1 21	1 22	1 54
29	0 7	0 39	0 26	0 58	0 46	1 18	0 59	1 31	1 4	1 36	1 53	2 25	2 26	2 58
30	1 10	1 36	1 29	1 55	1 49	2 15	2 2	2 28	2 7	2 33	2 56	3 22	3 29	3 55
31	2 4	2 29	2 23	2 48	2 43	3 8	2 55	3 21	3 0	3 26	3 49	4 15	4 22	4 48

明治四十二年 五月

地名	明石		粟島		(三原瀬戸) 瀬戸田		來島		三津ヶ濱		佐賀ノ關		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	5 23	5 48	8 35	9 0	7 52	8 17	7 17	7 42	6 37	7 2	4 59	5 24	12		A.
2	6 11	6 31	9 22	9 43	8 39	9 0	8 4	8 25	7 24	7 45	5 46	6 7	13		E.
3	6 50	7 9	10 2	10 20	9 19	9 37	8 44	9 2	8 4	8 22	6 26	6 44	14		
4	7 26	7 43	10 38	10 54	9 55	10 11	9 20	9 36	8 40	8 56	7 2	7 18	15		
5	8 0	8 18	11 12	11 29	10 29	10 46	9 54	10 11	9 14	9 31	7 36	7 53	16	○	
6	8 36	8 53	11 47	*	11 4	11 22	10 29	10 47	9 49	10 7	8 11	8 29	17		
7	9 10	9 28	0 5	0 22	11 39	11 57	11 4	11 22	10 24	10 42	8 46	9 4	18		
8	9 46	10 5	0 40	0 58	*	0 15	11 40	11 59	11 0	11 19	9 22	9 41	19		
9	10 25	10 45	1 17	1 37	0 34	0 54	*	0 19	11 39	11 59	10 1	10 21	20		
10	11 7	11 28	1 57	2 19	1 14	1 36	0 39	1 1	*	0 21	10 43	11 4	21		S.
11	11 53	*	2 40	3 5	1 57	2 22	1 22	1 47	0 42	1 7	11 29	11 54	22		
12	0 18	0 46	3 30	3 58	2 47	3 15	2 12	2 40	1 32	2 0	*	0 22	23		
13	1 19	1 57	4 31	5 9	3 48	4 26	3 13	3 51	2 33	3 11	0 55	1 33	24	○	
14	2 39	3 25	5 52	6 37	5 9	5 54	4 34	5 19	3 54	4 39	2 16	3 1	25		
15	4 10	4 52	7 23	8 4	6 40	7 21	6 5	6 46	5 25	6 6	3 47	4 28	26		
16	5 29	6 2	8 42	9 14	7 59	8 31	7 24	7 56	6 44	7 16	5 6	5 38	27		E.P.
17	6 31	6 54	9 43	10 6	9 0	9 23	8 25	8 48	7 45	8 8	6 7	6 30	28		
18	7 17	7 39	10 29	10 50	9 46	10 7	9 11	9 32	8 31	8 52	6 53	7 14	29		
19	7 58	8 18	11 10	11 29	10 27	10 46	9 52	10 11	9 12	9 31	7 34	7 53	1	●	
20	8 36	8 56	11 48	*	11 5	11 24	10 30	10 49	9 50	10 9	8 12	8 31	2		
21	9 15	9 34	0 7	0 27	11 44	*	11 9	11 28	10 29	10 48	8 51	9 10	3		
22	9 55	10 16	0 46	1 7	0 3	0 24	11 49	*	11 9	11 30	9 31	9 52	4		
23	10 38	11 0	1 28	1 49	0 45	1 6	0 10	0 31	11 51	*	10 13	10 36	5		N.
24	11 21	11 46	2 12	2 33	1 29	1 50	0 54	1 15	0 14	0 35	10 57	11 21	6		
25	*	0 8	2 57	3 20	2 14	2 37	1 39	2 2	0 59	1 22	11 44	*	7		
26	0 32	0 58	3 44	4 9	3 1	3 26	2 26	2 51	1 40	2 11	0 8	0 33	8		
27	1 25	1 53	4 36	5 5	3 53	4 22	3 18	3 47	2 38	3 7	1 0	1 29	9	○	
28	2 22	2 54	5 34	6 6	4 51	5 23	4 16	4 48	3 36	4 8	1 58	2 30	10		
29	3 26	3 58	6 38	7 10	5 55	6 27	5 20	5 52	4 40	5 12	3 2	3 34	11		A.
30	4 29	4 55	7 40	8 7	6 57	7 24	6 22	6 49	5 42	6 9	4 4	4 31	12		E.
31	5 22	5 48	8 34	8 59	7 51	8 16	7 16	7 41	6 36	7 1	4 58	5 23	13		

明治四十二年 五月

地名	吳		門		司竹		敷平		戶佐		保世		長崎		三角	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	6 51	7 16	6 26	6 50	6 31	6 55	6 5	6 29	5 53	6 17	5 22	5 46	6 20	6 44		
2	7 38	7 59	7 13	7 33	7 18	7 38	6 52	7 12	6 40	7 0	6 9	6 29	7 7	7 27		
3	8 18	8 36	7 52	8 11	7 57	8 16	7 31	7 50	7 19	7 38	6 48	7 7	7 46	8 5		
4	8 54	9 10	8 28	8 45	8 33	8 50	8 7	8 24	7 55	8 12	7 24	7 41	8 22	8 39		
5	9 28	9 45	9 2	9 20	9 7	9 25	8 41	8 59	8 29	8 47	7 58	8 16	8 56	9 14		
6	10 3	10 21	9 38	9 56	9 43	10 1	9 17	9 35	9 5	9 23	8 34	8 52	9 32	9 50		
7	10 38	10 56	10 13	10 30	10 18	10 35	9 52	10 9	9 40	9 57	9 9	9 26	10 7	10 24		
8	11 14	11 33	10 49	11 8	10 54	11 13	10 28	10 47	10 16	10 35	9 45	10 4	10 43	11 2		
9	11 53	*	11 27	11 48	11 32	11 53	11 6	11 27	10 54	11 15	10 23	10 44	11 21	11 42		
10	0 13	0 35	*	0 9	*	0 14	11 48	*	11 36	11 57	11 5	11 26	*	0 3		
11	0 56	1 21	0 30	0 56	0 35	1 1	0 9	0 35	*	0 23	11 52	*	0 24	0 50		
12	1 46	2 14	1 21	1 48	1 26	1 53	1 0	1 27	0 48	1 15	0 17	0 44	1 15	1 42		
13	2 47	3 25	2 22	3 0	2 27	3 5	2 1	2 39	1 49	2 27	1 18	1 56	2 16	2 54		
14	4 8	4 53	3 43	4 28	3 48	4 33	3 22	4 7	3 10	3 55	2 39	3 24	3 37	4 22		
15	5 39	6 20	5 14	5 55	5 19	6 0	4 53	5 34	4 41	5 22	4 10	4 51	5 8	5 49		
16	6 58	7 30	6 33	7 4	6 38	7 9	6 12	6 43	6 0	6 31	5 29	6 0	6 27	6 58		
17	7 59	8 22	7 33	7 57	7 38	8 2	7 12	7 36	7 0	7 24	6 29	6 53	7 27	7 51		
18	8 45	9 6	8 19	8 41	8 24	8 46	7 58	8 20	7 46	8 8	7 15	7 37	8 13	8 35		
19	9 26	9 45	9 1	9 20	9 6	9 25	8 40	8 59	8 28	8 47	7 57	8 16	8 55	9 14		
20	10 4	10 23	9 39	9 58	9 44	10 3	9 18	9 37	9 6	9 25	8 35	8 54	9 33	9 52		
21	10 43	11 2	10 18	10 36	10 23	10 41	9 57	10 15	9 45	10 3	9 14	9 32	10 12	10 30		
22	11 23	11 44	10 57	11 19	11 2	11 24	10 36	10 58	10 24	10 46	9 53	10 15	10 51	11 13		
23	*	0 5	11 40	*	11 45	*	11 19	11 41	11 7	11 29	10 36	10 58	11 34	11 56		
24	0 28	0 49	0 2	0 24	0 7	0 29	*	0 3	11 51	*	11 20	11 44	*	0 18		
25	1 13	1 36	0 48	1 11	0 53	1 16	0 27	0 50	0 15	0 38	*	0 7	0 42	1 5		
26	2 0	2 25	1 35	2 0	1 40	2 5	1 14	1 39	1 2	1 27	0 31	0 56	1 29	1 54		
27	2 52	3 21	2 27	2 56	2 32	3 1	2 6	2 35	1 54	2 23	1 23	1 52	2 21	2 50		
28	3 50	4 22	3 25	3 57	3 30	4 2	3 4	3 36	2 52	3 24	2 21	2 53	3 19	3 51		
29	4 54	5 26	4 29	5 1	4 34	5 6	4 8	4 40	3 56	4 28	3 25	3 57	4 23	4 55		
30	5 56	6 23	5 31	5 58	5 36	6 3	5 10	5 37	4 58	5 25	4 27	4 54	5 25	5 52		
31	6 50	7 15	6 25	6 50	6 30	6 55	6 4	6 29	5 52	6 17	5 21	5 46	6 19	6 44		

明治四十二年 五月

地名	(五島)		鹿兒島		油津		那霸		基隆		馬公		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	5 44	6 8	4 31	4 55	3 20	3 44	4 25	4 49	6 31	6 55	8 33	8 57	12		A.
2	6 31	6 51	5 18	5 38	4 7	4 27	5 12	5 32	7 18	7 38	9 20	9 40	13		E.
3	7 10	7 29	5 57	6 16	4 46	5 5	5 51	6 10	7 57	8 16	9 59	10 18	14		
4	7 46	8 3	6 33	6 50	5 22	5 39	6 27	6 44	8 33	8 50	10 35	10 52	15		
5	8 20	8 38	7 7	7 25	5 56	6 14	7 1	7 19	9 7	9 25	11 9	11 27	16	○	
6	8 56	9 14	7 43	8 1	6 32	6 50	7 37	7 55	9 43	10 0	11 45	*	17		
7	9 31	9 48	8 18	8 35	7 7	7 24	8 12	8 29	10 17	10 35	0 2	0 19	18		
8	10 7	10 26	8 54	9 13	7 43	8 2	8 48	9 7	10 54	11 13	0 37	0 56	19		
9	10 45	11 6	9 32	9 53	8 21	8 42	9 26	9 47	11 32	11 53	1 15	1 34	20		
10	11 27	11 48	10 14	10 35	9 3	9 24	10 8	10 29	*	0 14	1 55	2 16	21		S.
11	*	0 14	11 1	11 26	9 50	10 15	10 55	11 20	0 36	1 1	2 38	3 3	22		
12	0 39	1 6	11 53	*	10 42	11 16	11 47	*	1 26	1 54	3 28	3 56	23		
13	1 40	2 18	0 27	1 5	11 54	*	0 21	0 59	2 28	3 6	4 30	5 8	24	○	
14	3 1	3 46	1 48	2 33	0 37	1 22	1 42	2 27	3 49	4 34	5 51	6 36	25		
15	4 32	5 13	3 19	4 0	2 8	2 49	3 13	3 54	5 20	6 1	7 22	8 3	26		
16	5 51	6 22	4 38	5 9	3 27	3 58	4 32	5 3	6 39	7 10	8 41	9 12	27		E.P.
17	6 51	7 15	5 38	6 2	4 27	4 51	5 32	5 56	7 38	8 2	9 40	10 4	28		
18	7 37	7 59	6 24	6 46	5 13	5 35	6 18	6 40	8 24	8 46	10 26	10 48	29		
19	8 19	8 38	7 6	7 25	5 55	6 14	7 0	7 19	9 6	9 25	11 8	11 27	1	●	
20	8 57	9 16	7 44	8 3	6 33	6 52	7 38	7 57	9 44	10 3	11 46	*	2		
21	9 36	9 54	8 23	8 41	7 12	7 30	8 17	8 35	10 23	10 41	0 5	0 25	3		
22	10 15	10 37	9 2	9 24	7 51	8 13	8 56	9 18	11 2	11 24	0 43	1 4	4		N.
23	10 58	11 20	9 45	10 7	8 34	8 56	9 39	10 1	11 45	*	1 26	1 47	5		
24	11 42	*	10 29	10 53	9 18	9 42	10 23	10 47	0 7	0 29	2 9	2 31	6		
25	0 6	0 29	11 16	11 40	10 5	10 29	11 10	11 34	0 53	1 16	2 55	3 18	7		
26	0 53	1 18	*	0 5	10 54	11 21	11 59	*	1 40	2 5	3 42	4 7	8		
27	1 45	2 14	0 32	1 1	11 50	*	0 26	0 55	2 32	3 2	4 34	5 4	9	D	
28	2 43	3 15	1 30	2 2	0 19	0 51	1 24	1 56	3 30	4 2	5 32	6 4	10		
29	3 47	4 19	2 34	3 6	1 23	1 55	2 28	3 0	4 34	5 6	6 36	7 8	11		A.E.
30	4 49	5 16	3 36	4 3	2 25	2 52	3 30	3 57	5 30	6 3	7 38	8 5	12		
31	5 43	6 8	4 30	4 55	3 19	3 44	4 24	4 49	6 30	6 55	8 32	8 57	13		

明治四十二年 五月

地名	打狗		(隱岐) 西郷		境		舞鶴		敦賀		七尾		函館	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	5 10	5 34	11 25	11 48	11 39	*	11 45	*	11 38	*	*	0 17	0 36	1 1
2	5 57	6 17	*	0 8	0 2	0 22	0 8	0 28	0 1	0 21	0 40	1 0	1 23	1 44
3	6 36	6 55	0 27	0 46	0 41	1 0	0 47	1 6	0 40	0 59	1 19	1 38	2 3	2 22
4	7 12	7 29	1 3	1 20	1 17	1 34	1 23	1 40	1 16	1 33	1 55	2 12	2 39	2 56
5	7 46	8 4	1 37	1 55	1 51	2 9	1 57	2 15	1 50	2 8	2 29	2 47	3 13	3 31
6	8 22	8 39	2 13	2 30	2 27	2 44	2 33	2 50	2 26	2 43	3 5	3 22	3 49	4 6
7	8 56	9 14	2 48	3 5	3 2	3 19	3 8	3 25	3 1	3 18	3 40	3 57	4 23	4 41
8	9 33	9 52	3 24	3 42	3 38	3 56	3 44	4 2	3 37	3 55	4 16	4 34	4 59	5 18
9	10 11	10 32	4 2	4 23	4 16	4 37	4 22	4 43	4 15	4 36	4 54	5 15	5 38	5 58
10	10 53	11 15	4 44	5 5	4 58	5 19	5 4	5 25	4 57	5 18	5 36	5 57	6 20	6 40
11	11 40	*	5 30	5 56	5 44	6 10	5 50	6 16	5 43	6 9	6 22	6 48	7 6	7 31
12	0 5	0 33	6 23	6 56	6 37	7 10	6 43	7 16	6 36	7 9	7 15	7 48	7 58	8 31
13	1 7	1 45	7 35	8 17	7 49	8 31	7 55	8 37	7 48	8 30	8 27	9 9	9 9	9 51
14	2 28	3 13	9 2	9 48	9 16	10 2	9 22	10 8	9 15	10 1	9 54	10 40	10 37	11 22
15	3 59	4 40	10 29	11 7	10 43	11 21	10 49	11 27	10 42	11 20	11 21	11 59	*	0 4
16	5 18	5 49	11 39	*	11 53	*	11 59	*	11 52	*	*	0 31	0 42	1 14
17	6 17	6 41	0 8	0 32	0 22	0 46	0 28	0 52	0 21	0 45	1 0	1 24	1 43	2 7
18	7 3	7 25	0 54	1 16	1 8	1 30	1 14	1 36	1 7	1 29	1 46	2 8	2 30	2 51
19	7 45	8 4	1 35	1 55	1 49	2 9	1 55	2 15	1 48	2 8	2 27	2 47	3 11	3 30
20	8 23	8 42	2 13	2 33	2 27	2 47	2 33	2 53	2 26	2 46	3 5	3 25	3 49	4 8
21	9 2	9 20	2 52	3 11	3 6	3 25	3 12	3 31	3 5	3 24	3 44	4 3	4 28	4 47
22	9 41	10 3	3 32	3 53	3 46	4 7	3 52	4 13	3 45	4 6	4 24	4 45	5 8	5 29
23	10 24	10 46	4 15	4 37	4 29	4 51	4 35	4 57	4 28	4 50	5 7	5 29	5 50	6 13
24	11 8	11 32	4 58	5 23	5 12	5 37	5 18	5 43	5 11	5 36	5 50	6 15	6 34	6 58
25	11 55	*	5 45	6 10	5 59	6 24	6 5	6 30	5 58	6 23	6 37	7 2	7 21	7 45
26	0 19	0 44	6 35	7 2	6 49	7 16	6 55	7 22	6 48	7 15	7 27	7 54	8 10	8 37
27	1 11	1 41	7 31	7 59	7 45	8 13	7 51	8 19	7 44	8 12	8 23	8 51	9 6	9 35
28	2 9	2 41	8 31	9 3	8 45	9 17	8 51	9 23	8 44	9 16	9 23	9 55	10 6	10 38
29	3 13	3 45	9 35	10 6	9 49	10 20	9 55	10 26	9 48	10 19	10 27	10 58	11 10	11 41
30	4 15	4 42	10 32	11 0	10 46	11 14	10 52	11 20	10 45	11 13	11 24	11 52	*	0 8
31	5 9	5 34	11 25	11 48	11 39	*	11 45	*	11 38	*	*	0 17	0 35	1 0

明治四十二年 五月

地名	大湊		(陸中) 山田		根室		小樽		稚内		(樺太) 大泊		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	0 27	0 52	0 35	1 0	0 15	0 40	0 37	1 2	0 26	0 51	0 12	0 37	12		A.
2	1 14	1 35	1 22	1 43	1 3	1 23	1 24	1 45	1 13	1 34	0 59	1 20	13		E.
3	1 54	2 13	2 2	2 21	1 42	2 1	2 4	2 23	1 53	2 12	1 39	1 58	14		
4	2 30	2 47	2 38	2 55	2 18	2 35	2 40	2 57	2 29	2 46	2 15	2 32	15		
5	3 4	3 22	3 12	3 30	2 52	3 10	3 14	3 32	3 3	3 21	2 49	3 7	16		C.
6	3 40	3 57	3 48	4 5	3 28	3 46	3 50	4 7	3 39	3 56	3 25	3 42	17		
7	4 14	4 32	4 22	4 40	4 3	4 20	4 24	4 42	4 13	4 31	3 59	4 17	18		
8	4 50	5 9	4 58	5 17	4 39	4 58	5 0	5 19	4 49	5 8	4 35	4 54	19		
9	5 29	5 49	5 37	5 57	5 17	5 38	5 39	5 59	5 28	5 48	5 14	5 34	20		
10	6 11	6 31	6 19	6 39	5 59	6 20	6 21	6 41	6 10	6 30	5 56	6 16	21		S.
11	6 57	7 22	7 5	7 30	6 45	7 10	7 7	7 32	6 56	7 21	6 42	7 7	22		
12	7 49	8 22	7 57	8 30	7 37	8 10	7 59	8 32	7 48	8 21	7 34	8 7	23		
13	9 0	9 42	9 8	9 50	8 49	9 30	9 10	9 52	8 59	9 41	8 45	9 27	24		C.
14	10 28	11 13	10 36	11 21	10 16	11 1	10 38	11 23	10 27	11 12	10 13	10 58	25		
15	11 55	*	*	0 3	11 43	*	*	0 5	11 54	*	11 40	*	26		
16	0 33	1 5	0 41	1 13	0 21	0 53	0 43	1 15	0 32	1 4	0 18	0 50	27		E.
17	1 34	1 58	1 42	2 6	1 23	1 46	1 44	2 8	1 33	1 57	1 19	1 43	28		P.
18	2 21	2 42	2 29	2 50	2 9	2 31	2 31	2 52	2 20	2 41	2 6	2 27	29		
19	3 2	3 21	3 10	3 29	2 51	3 10	3 12	3 31	3 1	3 20	2 47	3 6	1		
20	3 40	3 59	3 48	4 7	3 28	3 48	3 50	4 9	3 39	3 58	3 25	3 44	2		
21	4 19	4 38	4 27	4 46	4 8	4 26	4 29	4 48	4 18	4 37	4 4	4 23	3		
22	4 59	5 20	5 7	5 28	4 47	5 8	5 9	5 30	4 58	5 19	4 44	5 5	4		
23	5 41	6 4	5 49	6 12	5 30	5 52	5 51	6 14	5 40	6 3	5 26	5 49	5		N.
24	6 25	6 49	6 33	6 57	6 13	6 38	6 35	6 59	6 24	6 48	6 10	6 34	6		
25	7 12	7 36	7 20	7 44	7 0	7 24	7 22	7 46	7 11	7 35	6 57	7 21	7		
26	8 1	8 28	8 9	8 36	7 50	8 16	8 11	8 38	8 0	8 27	7 46	8 13	8		
27	8 57	9 26	9 5	9 34	8 45	9 14	9 7	9 36	8 56	9 25	8 42	9 11	9		D.
28	9 57	10 29	10 5	10 37	9 46	10 17	10 7	10 39	9 56	10 28	9 42	10 14	10		
29	11 1	11 32	11 9	11 40	10 49	11 20	11 11	11 42	11 0	11 31	10 46	11 17	11		A.
30	11 59	*	*	0 7	11 47	*	*	0 9	11 58	*	11 44	*	12		E.
31	0 26	0 51	0 34	0 59	0 14	0 40	0 36	1 1	0 25	0 50	0 11	0 36	13		

明治四十二年 五月

地名	元山		釜山		蛇梁海峽		長直路		長竹水道		木浦		八口浦	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	0 9	0 33	5 2	5 26	5 58	6 22	6 51	7 15	9 7	9 31	11 32	11 55	10 1	10 24
2	0 56	1 16	5 49	6 9	6 45	7 5	7 38	7 58	9 54	10 14	*	0 15	10 44	11 3
3	1 35	1 54	6 28	6 47	7 24	7 43	8 17	8 36	10 33	10 52	0 34	0 53	11 22	11 39
4	2 11	2 28	7 4	7 21	8 0	8 17	8 53	9 10	11 9	11 26	1 10	1 27	11 56	*
5	2 45	3 3	7 38	7 56	8 34	8 52	9 27	9 45	11 43	*	1 44	2 2	0 13	0 31
6	3 21	3 38	8 14	8 31	9 10	9 27	10 3	10 20	0 1	0 19	2 20	2 37	0 49	1 6
7	3 55	4 13	8 48	9 6	9 44	10 2	10 37	10 55	0 36	0 53	2 54	3 12	1 23	1 41
8	4 32	4 50	9 25	9 43	10 21	10 39	11 14	11 32	1 11	1 30	3 31	3 49	2 0	2 18
9	5 10	5 31	10 3	10 24	10 59	11 20	11 52	*	1 48	2 8	4 9	4 30	2 38	2 59
10	5 52	6 13	10 45	11 6	11 41	*	0 13	0 34	2 29	2 50	4 51	5 12	3 20	3 41
11	6 38	7 4	11 31	11 57	0 2	0 27	0 55	1 20	3 11	3 36	5 37	6 3	4 6	4 32
12	7 31	8 5	*	0 24	0 53	1 20	1 46	2 13	4 2	4 29	6 30	7 4	4 59	5 33
13	8 43	9 26	0 58	1 36	1 54	2 32	2 47	3 25	5 3	5 41	7 42	8 25	6 11	6 54
14	10 11	10 57	2 19	3 4	3 15	4 0	4 8	4 53	6 24	7 9	9 10	9 56	7 39	8 25
15	11 38	*	3 50	4 31	4 46	5 27	5 39	6 20	7 55	8 36	10 37	11 15	9 6	9 44
16	0 16	0 47	5 9	5 40	6 5	6 36	6 58	7 29	9 14	9 45	11 46	*	10 15	10 44
17	1 16	1 40	6 9	6 33	7 5	7 29	7 58	8 22	10 14	10 38	0 15	0 39	11 8	11 30
18	2 2	2 24	6 55	7 17	7 51	8 13	8 44	9 6	11 0	11 22	1 1	1 23	11 52	*
19	2 43	3 3	7 36	7 56	8 32	8 52	9 25	9 45	11 41	*	1 42	2 2	0 11	0 31
20	3 21	3 41	8 14	8 34	9 10	9 30	10 3	10 23	0 1	0 19	2 20	2 40	0 49	1 9
21	4 0	4 19	8 53	9 12	9 49	10 8	10 42	11 1	0 39	0 58	2 59	3 18	1 28	1 47
22	4 40	5 1	9 33	9 54	10 29	10 50	11 22	11 43	1 17	1 38	3 39	4 0	2 8	2 29
23	5 23	5 45	10 16	10 38	11 12	11 34	*	0 5	1 59	2 21	4 22	4 44	2 51	3 13
24	6 6	6 31	10 59	11 24	11 55	*	0 27	0 48	2 43	3 4	5 5	5 30	3 34	3 59
25	6 54	7 18	11 47	*	0 20	0 43	1 13	1 36	3 29	3 52	5 53	6 17	4 22	4 46
26	7 43	8 10	0 11	0 36	1 7	1 32	2 0	2 25	4 16	4 41	6 42	7 9	5 11	5 38
27	8 39	9 8	1 3	1 32	1 59	2 28	2 52	3 21	5 8	5 37	7 38	8 7	6 7	6 36
28	9 40	10 11	2 1	2 33	2 57	3 29	3 50	4 22	6 6	6 38	8 39	9 10	7 8	7 39
29	10 44	11 14	3 4	3 37	4 0	4 33	4 53	5 26	7 9	7 42	9 43	10 13	8 12	8 42
30	11 41	*	4 7	4 34	5 3	5 30	5 56	6 23	8 12	8 39	10 40	11 7	9 9	9 36
31	0 8	0 33	5 1	5 26	5 57	6 22	6 50	7 15	9 6	9 31	11 32	11 55	10 1	10 24

明治四十二年 五月

地名	古群山群島		濟物浦		(大同江) 漁隱洞		(鴨綠江口) 圓島		大連		旅順		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	*	0 16	1 58	2 22	5 44	6 8	6 14	6 38	7 23	7 47	7 54	8 18	12		A.
2	0 39	0 59	2 45	3 5	6 31	6 51	7 1	7 21	8 10	8 30	8 41	9 1	13		E.
3	1 18	1 37	3 24	3 43	7 10	7 29	7 40	7 59	8 49	9 8	9 20	9 39	14		
4	1 54	2 11	4 0	4 17	7 46	8 3	8 16	8 33	9 25	9 42	9 56	10 13	15		
5	2 28	2 46	4 34	4 52	8 20	8 38	8 50	9 8	9 59	10 17	10 30	10 48	16	○	
6	3 4	3 21	5 10	5 27	8 56	9 13	9 26	9 43	10 35	10 52	11 6	11 23	17		
7	3 38	3 56	5 44	6 2	9 30	9 48	10 0	10 18	11 9	11 27	11 40	11 58	18		
8	4 15	4 33	6 21	6 39	10 6	10 25	10 36	10 55	11 46	*	*	0 17	19		
9	4 53	5 14	6 59	7 20	10 45	11 6	11 15	11 36	0 4	0 24	0 35	0 55	20		
10	5 35	5 56	7 41	8 2	11 27	11 48	11 57	*	0 45	1 6	1 16	1 37	21		S.
11	6 21	6 47	8 27	8 53	*	0 13	0 18	0 43	1 28	1 52	1 59	2 23	22		
12	7 14	7 48	9 20	9 54	0 39	1 6	1 9	1 36	2 18	2 46	2 49	3 17	23		
13	8 26	9 9	10 32	11 15	1 40	2 18	2 10	2 48	3 19	3 58	3 50	4 29	24	○	
14	9 54	10 40	*	0 0	3 1	3 47	3 31	4 17	4 41	5 26	5 12	5 57	25		
15	11 21	11 59	0 46	1 27	4 32	5 13	5 2	5 43	6 12	6 52	6 43	7 23	26		
16	*	0 30	2 5	2 36	5 51	6 22	6 21	6 52	7 30	8 1	8 1	8 32	27		E.
17	0 59	1 23	3 5	3 29	6 51	7 15	7 21	7 45	8 30	8 54	9 1	9 25	28		P.
18	1 45	2 7	3 51	4 13	7 37	7 59	8 7	8 29	9 16	9 38	9 47	10 9	29		
19	2 26	2 46	4 32	4 52	8 18	8 38	8 48	9 8	9 57	10 17	10 28	10 48	1	●	
20	3 4	3 24	5 10	5 30	8 56	9 15	9 26	9 45	10 35	10 55	11 6	11 26	2		
21	3 43	4 2	5 49	6 8	9 35	9 54	10 5	10 24	11 14	11 33	11 45	*	3		
22	4 23	4 44	6 29	6 50	10 15	10 36	10 45	11 6	11 54	*	0 4	0 25	4		
23	5 6	5 28	7 12	7 34	10 57	11 20	11 27	11 50	0 15	0 37	0 46	1 8	5		N.
24	5 49	6 14	7 55	8 20	11 41	*	*	0 11	0 59	1 20	1 30	1 51	6		
25	6 37	7 1	8 43	9 7	0 6	0 29	0 36	0 59	1 45	2 8	2 16	2 39	7		
26	7 26	7 53	9 32	9 59	0 53	1 18	1 23	1 48	2 32	2 57	3 3	3 28	8		
27	8 22	8 51	10 28	10 57	1 45	2 14	2 15	2 44	3 24	3 53	3 55	4 24	9	D	
28	9 23	9 54	11 29	*	2 43	3 15	3 13	3 45	4 22	4 54	4 53	5 25	10		
29	10 27	10 57	0 0	0 33	3 47	4 19	4 17	4 49	5 26	5 58	5 57	6 29	11		A.
30	11 41	*	1 3	1 30	4 49	5 16	5 19	5 46	6 28	6 55	6 59	7 26	12		E.
31	0 8	0 33	1 57	2 22	5 43	6 8	6 13	6 38	7 22	7 47	7 53	8 18	13		

明治四十二年六月

地名	横須賀		下田		清水		鳥羽		(紀伊) 本		(淡路) 良		神戶	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
日	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
1	2 52	3 14	3 11	3 33	3 31	3 53	3 44	4 5	3 49	4 10	4 38	4 59	5 11	5 32
2	3 35	3 56	3 54	4 15	4 14	4 35	4 27	4 48	4 32	4 53	5 21	5 42	5 54	6 15
3	4 16	4 36	4 35	4 55	4 55	5 15	5 8	5 27	5 13	5 32	6 2	6 21	6 35	6 54
4	4 55	5 16	5 14	5 35	5 34	5 55	5 47	6 7	5 52	6 12	6 41	7 1	7 14	7 34
5	5 36	5 56	5 55	6 15	6 15	6 35	6 28	6 47	6 33	6 52	7 22	7 41	7 55	8 14
6	6 15	6 36	6 34	6 55	6 54	7 15	7 7	7 27	7 12	7 32	8 1	8 21	8 34	8 54
7	6 56	7 17	7 15	7 36	7 35	7 56	7 48	8 8	7 53	8 13	8 42	9 2	9 15	9 35
8	7 38	7 59	7 57	8 18	8 17	8 38	8 30	8 51	8 35	8 56	9 24	9 45	9 57	10 18
9	8 22	8 46	8 41	9 5	9 1	9 25	9 14	9 38	9 19	9 43	10 8	10 32	10 41	11 5
10	9 11	9 39	9 30	9 58	9 50	10 18	10 3	10 30	10 8	10 35	10 57	11 24	11 30	11 57
11	10 11	10 47	10 30	11 6	10 50	11 26	11 2	11 39	11 7	11 44	11 56	*	*	0 29
12	11 27	*	11 46	*	*	0 6	*	0 19	*	0 24	0 33	1 13	1 6	1 46
13	0 9	0 51	0 28	1 10	0 48	1 30	1 1	1 43	1 6	1 48	1 55	2 37	2 28	3 10
14	1 32	2 7	1 51	2 26	2 11	2 46	2 23	2 59	2 28	3 4	3 17	3 53	3 50	4 26
15	2 39	3 9	2 58	3 28	3 18	3 48	3 31	4 1	3 36	4 6	4 25	4 55	4 58	5 28
16	3 33	3 56	3 52	4 15	4 12	4 35	4 25	4 48	4 30	4 53	5 19	5 42	5 52	6 15
17	4 20	4 41	4 39	5 0	4 59	5 20	5 11	5 33	5 16	5 38	6 5	6 27	6 38	7 0
18	5 2	5 23	5 21	5 42	5 41	6 2	5 53	6 14	5 58	6 19	6 47	7 8	7 20	7 41
19	5 43	6 3	6 2	6 22	6 22	6 42	6 35	6 55	6 40	7 0	7 29	7 49	8 2	8 22
20	6 23	6 43	6 42	7 2	7 2	7 22	7 15	7 35	7 20	7 40	8 9	8 29	8 42	9 2
21	7 4	7 24	7 23	7 43	7 43	8 3	7 56	8 15	8 1	8 20	8 50	9 9	9 23	9 42
22	7 43	8 2	8 2	8 21	8 22	8 41	8 35	8 54	8 40	8 59	9 29	9 48	10 2	10 21
23	8 22	8 43	8 41	9 2	9 1	9 22	9 14	9 35	9 19	9 40	10 8	10 29	10 41	11 2
24	9 3	9 24	9 22	9 43	9 42	10 3	9 55	10 15	10 0	10 20	10 49	11 9	11 22	11 42
25	9 44	10 7	10 3	10 26	10 23	10 46	10 36	10 59	10 41	11 4	11 30	11 53	*	0 3
26	10 32	10 59	10 51	11 18	11 11	11 38	11 24	11 51	11 29	11 56	*	0 18	0 26	0 51
27	11 28	*	11 47	*	*	0 7	*	0 20	*	0 25	0 45	1 14	1 18	1 47
28	0 0	0 32	0 19	0 51	0 39	1 11	0 52	1 23	0 57	1 28	1 46	2 17	2 19	2 50
29	1 4	1 36	1 23	1 55	1 43	2 15	1 56	2 28	2 1	2 33	2 50	3 22	3 23	3 55
30	2 7	2 36	2 26	2 55	2 46	3 15	2 59	3 28	3 4	3 33	3 53	4 22	4 26	4 55

明治四十二年六月

地名	明石		粟島		(三原瀬戸) 瀬戸田		來島		三津ヶ濱		佐賀ノ關		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
日	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	d		
1	6 11	6 32	9 23	9 44	8 40	9 1	8 5	8 26	7 25	7 46	5 47	6 8	14		
2	6 54	7 15	10 5	10 27	9 22	9 44	8 47	9 9	8 7	8 29	6 29	6 51	15		
3	7 35	7 54	10 46	11 6	10 3	10 23	9 28	9 48	8 48	9 8	7 10	7 30	16		
4	8 14	8 34	11 26	11 46	10 43	11 3	10 8	10 28	9 28	9 48	7 50	8 10	17	○	
5	8 55	9 14	*	0 6	11 23	11 43	10 48	11 8	10 8	10 28	8 30	8 50	18		S.
6	9 34	9 54	0 26	0 46	*	0 3	11 28	11 48	10 48	11 8	9 10	9 30	19		
7	10 15	10 35	1 6	1 27	0 23	0 44	*	0 9	11 29	11 49	9 51	10 11	20		
8	10 57	11 18	1 47	2 9	1 4	1 26	0 29	0 51	*	0 11	10 33	10 54	21		
9	11 41	*	2 30	2 53	1 47	2 10	1 12	1 35	0 32	0 55	11 17	11 41	22		
10	0 5	0 30	3 17	3 42	2 34	2 59	1 59	2 24	1 19	1 44	*	0 6	23		
11	0 57	1 29	4 9	4 42	3 26	3 59	2 51	3 24	2 11	2 44	0 33	1 6	24	○	
12	2 6	2 46	5 18	5 58	4 35	5 15	4 0	4 40	3 20	4 0	1 42	2 22	25		
13	3 28	4 10	6 40	7 22	5 57	6 39	5 22	6 4	4 42	5 24	3 4	3 46	26		E.P.
14	4 50	5 26	8 3	8 38	7 20	7 55	6 45	7 20	6 5	6 40	4 27	5 2	27		
15	5 58	6 28	9 10	9 39	8 27	8 56	7 52	8 21	7 12	7 41	5 34	6 3	28		
16	6 52	7 15	10 3	10 27	9 20	9 44	8 45	9 9	8 5	8 29	6 27	6 51	29		
17	7 38	8 0	10 50	11 12	10 7	10 29	9 32	9 54	8 52	9 14	7 14	7 36	30		
18	8 20	8 41	11 32	11 53	10 49	11 10	10 14	10 35	9 34	9 55	7 56	8 17	1	●	
19	9 2	9 22	*	0 14	11 31	11 51	10 56	11 16	10 16	10 36	8 38	8 58	2		N.
20	9 42	10 2	0 34	0 53	*	0 10	11 35	11 56	10 55	11 16	9 17	9 38	3		
21	10 23	10 42	1 14	1 34	0 31	0 51	*	0 16	11 36	11 56	9 58	10 18	4		
22	11 2	11 21	1 54	2 13	1 11	1 30	0 36	0 55	*	0 15	10 37	10 56	5		
23	11 41	*	2 32	2 52	1 49	2 9	1 14	1 34	0 34	0 54	11 16	11 37	6		
24	0 2	0 22	3 13	3 34	2 30	2 51	1 55	2 16	1 15	1 36	11 58	*	7		
25	0 42	1 3	3 54	4 15	3 11	3 32	2 36	2 57	1 56	2 17	0 18	0 39	8		A.E.
26	1 26	1 51	4 38	5 3	3 55	4 20	3 20	3 45	2 40	3 5	1 2	1 27	9		
27	2 18	2 47	5 30	5 59	4 47	5 16	4 12	4 41	3 32	4 1	1 54	2 23	10		
28	3 19	3 50	6 31	7 3	5 48	6 20	5 13	5 45	4 33	5 5	2 55	3 27	11		
29	4 23	4 55	7 35	8 7	6 52	7 24	6 17	6 49	5 37	6 9	3 59	4 31	12		
30	5 26	5 55	8 38	9 7	7 55	8 24	7 20	7 49	6 40	7 9	5 2	5 31	13		

明治四十二年六月

地名	吳		門		司		竹		敷		平		戶		佐世保		長		崎		三		角					
	日	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	7	39	8	0	7	13	7	35	7	18	7	40	6	52	7	14	6	40	7	2	6	9	6	31	7	7	7	29
2	8	21	8	43	7	56	8	17	8	1	8	22	7	35	7	56	7	23	7	44	6	52	7	13	7	50	8	11
3	9	2	9	22	8	37	8	56	8	42	9	1	8	16	8	35	8	4	8	23	7	33	7	52	8	31	8	50
4	9	42	10	2	9	16	9	37	9	21	9	42	8	55	9	16	8	43	9	4	8	12	8	33	9	10	9	31
5	10	22	10	42	9	57	10	16	10	2	10	21	9	36	9	55	9	24	9	43	8	53	9	12	9	51	10	10
6	11	2	11	22	10	36	10	57	10	41	11	2	10	15	10	36	10	3	10	24	9	32	9	53	10	30	10	51
7	11	43	*		11	17	11	38	11	22	11	43	10	56	11	17	10	44	11	5	10	13	10	34	11	11	11	32
8	0	3	0	25	11	59	*		*	0	4	11	38	11	59	11	26	11	47	10	55	11	16	11	53	*		
9	0	46	1	9	0	20	0	43	0	25	0	48	*		0	22	*	0	10	11	39	*		0	14	0	37	
10	1	33	1	58	1	7	1	32	1	12	1	37	0	46	1	11	0	34	0	59	0	3	0	28	1	1	1	26
11	2	25	2	58	2	0	2	32	2	5	2	37	1	39	2	11	1	27	1	59	0	56	1	28	1	54	2	26
12	3	34	4	14	3	9	3	49	3	14	3	54	2	48	3	28	2	36	3	16	2	5	2	45	3	3	3	43
13	4	56	5	38	4	31	5	13	4	36	5	18	4	10	4	52	3	58	4	40	3	27	4	9	4	25	5	7
14	6	19	6	54	5	53	6	29	5	58	6	34	5	32	6	8	5	20	5	56	4	49	5	25	5	47	6	23
15	7	26	7	55	7	1	7	30	7	6	7	35	6	40	7	9	6	28	6	57	5	57	6	26	6	55	7	24
16	8	19	8	43	7	54	8	18	7	59	8	23	7	33	7	57	7	21	7	45	6	50	7	14	7	48	8	12
17	9	6	9	28	8	41	9	2	8	46	9	7	8	20	8	41	8	8	8	29	7	37	7	58	8	35	8	56
18	9	48	10	9	9	23	9	44	9	28	9	49	9	2	9	23	8	50	9	11	8	19	8	40	9	17	9	38
19	10	30	10	50	10	4	10	24	10	9	10	29	9	43	10	3	9	31	9	51	9	0	9	20	9	58	10	18
20	11	9	11	30	10	44	11	4	10	49	11	9	10	23	10	43	10	11	10	31	9	40	10	0	10	38	10	58
21	11	50	*		11	25	11	45	11	30	11	50	11	4	11	24	10	52	11	12	10	21	10	41	11	19	11	39
22	0	10	0	29	*		0	4	*		0	9	11	43	*		11	31	11	50	11	0	11	19	11	58	*	
23	0	48	1	8	0	23	0	43	0	28	0	48	0	2	0	22	*		0	10	11	39	*		0	17	0	37
24	1	29	1	50	1	4	1	24	1	9	1	29	0	43	1	3	0	31	0	51	0	0	0	20	0	58	1	18
25	2	10	2	31	1	45	2	5	1	50	2	10	1	24	1	44	1	12	1	32	0	41	1	1	1	39	1	59
26	2	54	3	19	2	29	2	54	2	34	2	59	2	8	2	33	1	56	2	21	1	25	1	50	2	23	2	48
27	3	46	4	15	3	20	3	50	3	25	3	55	2	59	3	29	2	47	3	17	2	16	2	46	3	14	3	44
28	4	47	5	19	4	21	4	53	4	26	4	58	4	0	4	32	3	48	4	20	3	17	3	49	4	15	4	47
29	5	51	6	23	5	26	5	58	5	31	6	3	5	5	37	4	53	5	25	4	22	4	54	5	20	5	52	
30	6	54	7	23	6	28	6	57	6	33	7	2	6	7	6	36	5	55	6	24	5	24	5	53	6	22	6	51

明治四十二年六月

地名	(五島) 福江		鹿兒島		油津		那覇		基隆		馬公		太陰曆日附	太陰盈虛	太陰位置														
	日	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前				午後													
1	6	31	6	53	5	18	5	40	4	7	4	29	5	12	5	34	7	18	7	40	9	20	9	42	14				
2	7	14	7	35	6	1	6	22	4	50	5	11	5	55	6	16	8	1	8	22	10	3	10	24	15				
3	7	55	8	14	6	42	7	1	5	31	5	50	6	36	6	55	8	42	9	1	10	44	11	3	16				
4	8	34	8	55	7	21	7	42	6	10	6	31	7	15	7	36	9	21	9	42	11	23	11	44	17	○			
5	9	15	9	34	8	2	8	21	6	51	7	10	7	56	8	15	10	2	10	21	*	0	4	18					
6	9	54	10	15	8	41	9	2	7	30	7	51	8	35	8	56	10	41	11	2	0	23	0	43	19		S.		
7	10	35	10	56	9	22	9	43	8	11	8	32	9	16	9	37	11	22	11	43	1	4	1	24	20				
8	11	17	11	38	10	4	10	25	8	53	9	14	9	58	10	19	*	0	4	1	45	2	6	21					
9	*	0	1		10	48	11	12	9	37	10	1	10	42	11	6	0	25	0	48	2	27	2	50	22				
10	0	25	0	50	11	37	*		10	26	10	54	11	31	11	59	1	13	1	37	3	15	3	39	23				
11	1	18	1	50	0	5	0	37	11	26	*		*	0	31	2	6	2	38	4	8	4	40	24					
12	2	27	3	7	1	14	1	54	0	3	0	43	1	8	1	48	3	15	3	56	5	17	5	58	25				
13	3	49	4	31	2	36	3	18	1	25	2	7	2	30	3	12	4	37	5	20	6	39	7	22	26			E.,P.	
14	5	11	5	47	3	58	4	34	2	47	3	23	3	52	4	28	5	59	6	35	8	1	8	37	27				
15	6	19	6	48	5	6	5	35	3	55	4	24	5	0	5	29	7	6	7	35	9	8	9	37	28				
16	7	12	7	36	5	59	6	23	4	48	5	12	5	53	6	17	7	59	8	23	10	1	10	25	29				
17	7	59	8	20	6	46	7	7	5	35	5	56	6	40	7	1	8	46	9	7	10	48	11	9	30				
18	8	41	9	2	7	28	7	49	6	17	6	38	7	22	7	43	9	28	9	49	11	30	11	51	1			●	
19	9	22	9	42	8	9	8	29	6	58	7	18	8	3	8	23	10	9	10	29	*	0	11	2					
20	10	2	10	22	8	49	9	9	7	38	7	58	8	43	9	3	10	49	11	9	0	31	0	51	3				
21	10	43	11	3	9	30	9	50	8	19	8	39	9	24	9	44	11	30	11	50	1	11	1	32	4				
22	11	22	11	41	10	9	10	28	8	58	9	17	10	3	10	22	*	0	9	1	52	2	11	5					
23	*	0	1		10	48	11	9	9	37	9																		

明治四十二年六月

地名	打狗		(隱岐) 西郷		境		舞鶴		敦賀		七尾		函館	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	5 57	6 19	*	0 9	0 2	0 23	0 8	0 29	0 1	0 22	0 40	1 1	1 24	1 45
2	6 40	7 1	0 31	0 52	0 45	1 6	0 51	1 12	0 44	1 5	1 23	1 44	2 6	2 28
3	7 21	7 40	1 12	1 31	1 26	1 45	1 32	1 51	1 25	1 44	2 4	2 23	2 47	3 7
4	8 0	8 21	1 51	2 12	2 5	2 26	2 11	2 32	2 4	2 25	2 43	3 4	3 27	3 47
5	8 41	9 0	2 32	2 51	2 46	3 5	2 52	3 11	2 45	3 4	3 24	3 43	4 8	4 27
6	9 20	9 41	3 11	3 32	3 25	3 46	3 31	3 52	3 24	3 45	4 3	4 24	4 47	5 7
7	10 1	10 22	3 52	4 13	4 6	4 27	4 12	4 33	4 5	4 26	4 44	5 5	5 28	5 48
8	10 43	11 4	4 34	4 55	4 48	5 9	4 54	5 15	4 47	5 8	5 26	5 47	6 10	6 31
9	11 27	11 52	5 18	5 42	5 32	5 56	5 38	6 2	5 31	5 55	6 10	6 34	6 54	7 17
10	*	0 16	6 7	6 35	6 21	6 49	6 27	6 55	6 20	6 48	6 59	7 27	7 43	8 10
11	0 45	1 17	7 7	7 43	7 21	7 57	7 27	8 3	7 20	7 56	7 59	8 35	8 42	9 18
12	1 54	2 35	8 23	9 5	8 37	9 19	8 43	9 25	8 36	9 18	9 15	9 57	9 58	10 40
13	3 16	3 59	9 47	10 28	10 1	10 42	10 7	10 48	10 0	10 41	10 39	11 20	11 22	*
14	4 38	5 14	11 4	11 35	11 18	11 49	11 24	11 55	11 17	11 48	11 56	*	0 3	0 39
15	5 45	6 14	*	0 5	*	0 19	*	0 25	*	0 18	0 27	0 57	1 10	1 40
16	6 38	7 2	0 29	0 52	0 43	1 6	0 49	1 12	0 42	1 5	1 21	1 44	2 4	2 28
17	7 25	7 46	1 15	1 37	1 29	1 51	1 35	1 57	1 28	1 50	2 7	2 29	2 51	3 13
18	8 7	8 28	1 57	2 19	2 11	2 33	2 17	2 39	2 10	2 32	2 49	3 11	3 33	3 54
19	8 48	9 8	2 39	2 59	2 53	3 13	2 59	3 19	2 52	3 12	3 31	3 51	4 15	4 35
20	9 28	9 48	3 19	3 39	3 33	3 53	3 39	3 59	3 32	3 52	4 11	4 31	4 54	5 15
21	10 9	10 29	4 0	4 19	4 14	4 33	4 20	4 39	4 13	4 32	4 52	5 11	5 35	5 55
22	10 48	11 7	4 39	4 58	4 53	5 12	4 59	5 18	4 52	5 11	5 31	5 50	6 14	6 34
23	11 27	11 48	5 18	5 39	5 32	5 53	5 38	5 59	5 31	5 52	6 10	6 31	6 54	7 14
24	*	0 8	5 59	6 19	6 13	6 33	6 19	6 39	6 12	6 32	6 51	7 11	7 35	7 55
25	0 29	0 49	6 40	7 3	6 54	7 17	7 0	7 23	6 53	7 16	7 32	7 55	8 16	8 39
26	1 13	1 38	7 28	7 55	7 42	8 9	7 48	8 15	7 41	8 8	8 20	8 47	9 4	9 31
27	2 5	2 34	8 24	8 56	8 38	9 10	8 44	9 16	8 37	9 9	9 16	9 48	9 59	10 31
28	3 6	3 38	9 28	10 0	9 42	10 14	9 48	10 20	9 41	10 13	10 20	10 52	11 3	11 36
29	4 11	4 42	10 32	11 3	10 46	11 17	10 52	11 23	10 45	11 16	11 24	11 55	*	0 8
30	5 13	5 42	11 32	11 59	11 46	*	11 52	*	11 45	*	*	0 24	0 38	1 7

明治四十二年六月

地名	大湊		(陸中) 山田		根室		小樽		稚内		(樺太) 大泊		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	1 15	1 36	1 23	1 44	1 3	1 25	1 25	1 46	1 14	1 35	1 0	1 21	14		
2	1 57	2 19	2 5	2 27	1 46	2 7	2 7	2 29	1 56	2 18	1 42	2 4	15		
3	2 38	2 58	2 46	3 6	2 27	2 47	2 48	3 8	2 37	2 57	2 23	2 43	16		
4	3 18	3 38	3 26	3 46	3 6	3 27	3 28	3 48	3 17	3 37	3 3	3 23	17	O	
5	3 59	4 18	4 7	4 26	3 47	4 6	4 9	4 28	3 58	4 17	3 44	4 3	18		S.
6	4 38	4 58	4 46	5 6	4 26	4 47	4 48	5 8	4 37	4 57	4 23	4 43	19		
7	5 19	5 39	5 27	5 47	5 7	5 28	5 29	5 49	5 18	5 38	5 4	5 24	20		
8	6 1	6 22	6 9	6 30	5 49	6 10	6 11	6 32	6 0	6 21	5 46	6 7	21		
9	6 45	7 8	6 53	7 16	6 33	6 57	6 55	7 18	6 44	7 7	6 30	6 53	22		
10	7 34	8 1	7 42	8 9	7 22	7 49	7 44	8 11	7 33	8 0	7 19	7 46	23		
11	8 33	9 9	8 41	9 17	8 21	8 57	8 43	9 19	8 32	9 8	8 18	8 54	24		
12	9 49	10 31	9 57	10 39	9 37	10 19	9 59	10 41	9 48	10 30	9 34	10 16	25		
13	11 13	11 54	11 21	*	11 1	11 42	11 23	*	11 12	11 53	10 58	11 39	26		E.P.
14	*	0 30	0 2	0 38	*	0 18	0 4	0 40	*	0 29	*	0 15	27		
15	1 1	1 31	1 9	1 39	0 50	1 20	1 11	1 41	1 0	1 30	0 46	1 16	28		
16	1 55	2 19	2 3	2 27	1 44	2 7	2 5	2 29	1 54	2 18	1 40	2 4	29		
17	2 42	3 4	2 50	3 12	2 30	2 52	2 52	3 14	2 41	3 3	2 27	2 49	30		
18	3 24	3 45	3 32	3 53	3 13	3 33	3 34	3 55	3 23	3 44	3 9	3 30	1		
19	4 6	4 26	4 14	4 34	3 54	4 14	4 16	4 36	4 5	4 25	3 51	4 11	2		N.
20	4 45	5 6	4 53	5 14	4 34	4 54	4 55	5 16	4 44	5 5	4 30	4 51	3		
21	5 26	5 46	5 34	5 54	5 15	5 35	5 36	5 56	5 25	5 45	5 11	5 31	4		
22	6 5	6 25	6 13	6 33	5 54	6 13	6 15	6 35	6 4	6 24	5 50	6 10	5		
23	6 45	7 5	6 53	7 13	6 33	6 54	6 55	7 15	6 44	7 4	6 30	6 50	6		
24	7 26	7 46	7 34	7 54	7 14	7 34	7 36	7 56	7 25	7 45	7 11	7 31	7		
25	8 7	8 30	8 15	8 38	7 55	8 18	8 17	8 40	8 6	8 29	7 52	8 15	8		A.
26	8 55	9 22	9 3	9 30	8 43	9 10	9 5	9 32	8 54	9 21	8 40	9 7	9		E.
27	9 50	10 22	9 58	10 30	9 38	10 10	10 0	10 32	9 49	10 21	9 35	10 7	10		
28	10 54	11 27	11 2	11 35	10 42	11 15	11 4	11 37	10 53	11 26	10 39	11 12	11		
29	11 59	*	*	0 7	11 47	*	*	0 9	11 58	*	11 44	*	12		
30	0 29	0 58	0 37	1 6	0 17	0 46	0 39	1 8	0 28	0 57	0 14	0 43	13		

明治四十二年六月

地名	元山		釜山		蛇梁海峡		長直路		長竹水道		木浦		八口浦	
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後
1	0 56	1 17	5 49	6 10	6 45	7 6	7 38	7 59	9 54	10 15	*	0 16	10 45	11 7
2	1 39	2 0	6 32	6 53	7 28	7 49	8 21	8 42	10 37	10 58	0 38	0 59	11 28	11 48
3	2 20	2 39	7 13	7 32	8 9	8 28	9 2	9 21	11 18	11 37	1 19	1 38	*	0 7
4	2 59	3 20	7 52	8 13	8 48	9 9	9 41	10 2	11 57	*	1 58	2 19	0 27	0 48
5	3 40	3 59	8 33	8 52	9 29	9 48	10 22	10 41	0 18	0 38	2 39	2 58	1 8	1 27
6	4 19	4 40	9 12	9 33	10 8	10 29	11 1	11 22	0 57	1 17	3 18	3 39	1 47	2 8
7	5 0	5 21	9 53	10 14	10 49	11 10	11 42	*	1 38	1 58	3 59	4 20	2 28	2 49
8	5 42	6 3	10 35	10 56	11 31	11 52	0 3	0 24	2 19	2 40	4 41	5 2	3 10	3 31
9	6 26	6 50	11 19	11 43	*	0 15	0 45	1 8	3 1	3 24	5 25	5 49	3 54	4 18
10	7 15	7 43	*	0 8	0 39	1 4	1 32	1 57	3 48	4 13	6 14	6 42	4 43	5 11
11	8 16	8 52	0 36	1 9	1 32	2 5	2 25	2 58	4 41	5 14	7 15	7 51	5 44	6 20
12	9 32	10 14	1 45	2 25	2 41	3 21	3 34	4 14	5 50	6 30	8 31	9 13	7 0	7 42
13	10 56	11 36	3 7	3 49	4 3	4 45	4 56	5 38	7 12	7 54	9 55	10 35	8 24	9 4
14	*	0 12	4 29	5 5	5 25	6 1	6 18	6 54	8 34	9 10	11 11	11 43	9 40	10 12
15	0 44	1 13	5 37	6 6	6 33	7 2	7 26	7 55	9 42	10 11	*	0 12	10 41	11 5
16	1 37	2 0	6 30	6 53	7 26	7 49	8 19	8 42	10 35	10 58	0 36	0 59	11 28	11 51
17	2 23	2 45	7 16	7 38	8 12	8 34	9 5	9 27	11 21	11 43	1 22	1 44	*	0 13
18	3 5	3 27	7 58	8 20	8 54	9 16	9 47	10 9	*	0 3	2 4	2 26	0 33	0 55
19	3 47	4 7	8 40	9 0	9 36	9 56	10 29	10 49	0 25	0 45	2 46	3 6	1 15	1 35
20	4 26	4 47	9 19	9 40	10 15	10 36	11 8	11 29	1 5	1 24	3 25	3 46	1 54	2 15
21	5 8	5 27	10 1	10 20	10 57	11 16	11 50	*	1 45	2 6	4 7	4 26	2 36	2 55
22	5 47	6 6	10 40	10 59	11 36	11 55	0 9	0 29	2 25	2 45	4 46	5 5	3 15	3 34
23	6 26	6 47	11 19	11 40	*	0 15	0 48	1 8	3 4	3 24	5 25	5 46	3 54	4 15
24	7 7	7 27	*	0 0	0 36	0 56	1 29	1 49	3 45	4 5	6 6	6 26	4 35	4 55
25	7 48	8 11	0 20	0 41	1 16	1 37	2 9	2 30	4 25	4 46	6 47	7 10	5 16	5 39
26	8 37	9 3	1 4	1 30	2 0	2 26	2 53	3 19	5 9	5 35	7 36	8 2	6 5	6 31
27	9 33	10 4	1 56	2 26	2 52	3 22	3 45	4 15	6 1	6 31	8 32	9 3	7 1	7 32
28	10 36	11 9	2 57	3 29	3 53	4 25	4 46	5 18	7 2	7 34	9 35	10 8	8 4	8 37
29	11 41	*	4 2	4 34	4 58	5 30	5 51	6 23	8 7	8 39	10 40	11 10	9 9	9 39
30	0 11	0 40	5 4	5 33	6 0	6 29	6 53	7 22	9 9	9 38	11 39	*	10 8	10 36

明治四十二年六月

地名	古群山群島		濟物浦		(大同江) 漁隱洞		(鴨綠江口) 圓島		大連		旅順		太陰曆日附	太陰盈虛	太陰位置
	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後	午前	午後			
1	0 39	1 0	2 45	3 6	6 31	6 52	7 1	7 22	8 10	8 31	8 41	9 2	14		
2	1 22	1 43	3 28	3 49	7 14	7 35	7 44	8 5	8 53	9 14	9 24	9 45	15		
3	2 3	2 22	4 9	4 28	7 54	8 14	8 24	8 44	9 33	9 53	10 4	10 24	16		
4	2 42	3 3	4 48	5 9	8 34	8 54	9 4	9 24	10 13	10 34	10 44	11 5	17	○	
5	3 23	3 42	5 29	5 48	9 15	9 34	9 45	10 4	10 54	11 13	11 25	11 44	18		
6	4 2	4 23	6 8	6 29	9 54	10 14	10 24	10 44	11 33	11 54	*	0 4	19		S.
7	4 43	5 4	6 49	7 10	10 35	10 55	11 5	11 25	*	0 14	0 25	0 45	20		
8	5 25	5 46	7 31	7 52	11 17	11 38	11 47	*	0 35	0 56	1 6	1 27	21		
9	6 9	6 33	8 15	8 39	*	0 1	0 8	0 31	1 17	1 40	1 48	2 11	22		
10	6 58	7 26	9 4	9 32	0 25	0 50	0 55	1 20	2 4	2 29	2 35	3 0	23		
11	7 59	8 35	10 5	10 41	1 18	1 51	1 48	2 21	2 57	3 30	3 28	4 1	24	○	
12	9 15	9 57	11 21	*	2 27	3 8	2 57	3 38	4 6	4 47	4 37	5 18	25		
13	10 39	11 19	0 3	0 45	3 49	4 32	4 19	5 2	5 29	6 11	6 0	6 42	26		
14	11 55	*	1 25	2 1	5 12	5 47	5 42	6 17	0 51	7 27	7 22	7 58	27		E.P.
15	0 27	0 56	2 33	3 2	6 19	6 48	6 49	7 18	7 58	8 27	8 29	8 58	28		
16	1 20	1 43	3 26	3 49	7 12	7 35	7 42	8 5	8 51	9 15	9 22	9 46	29		
17	2 6	2 28	4 12	4 34	7 58	8 20	8 28	8 50	9 37	9 59	10 8	10 30	30		
18	2 48	3 10	4 54	5 16	8 40	9 2	9 10	9 32	10 19	10 41	10 50	11 12	1	●	
19	3 30	3 50	5 36	5 56	9 22	9 42	9 52	10 12	11 1	11 21	11 32	11 52	2		N.
20	4 9	4 30	6 15	6 36	10 1	10 22	10 31	10 52	11 40	*	*	0 11	3		
21	4 51	5 10	6 57	7 16	10 43	11 2	11 13	11 32	0 1	0 22	0 32	0 53	4		
22	5 30	5 49	7 36	7 55	11 22	11 41	11 52	*	0 41	1 1	1 12	1 32	5		
23	6 9	6 30	8 15	8 36	*	0 1	0 11	0 31	1 20	1 40	1 51	2 11	6		
24	6 50	7 10	8 56	9 16	0 21	0 42	0 51	1 12	2 1	2 21	2 32	2 52	7		
25	7 31	7 54	9 37	10 0	1 2	1 23	1 32	1 53	2 41	3 2	3 12	3 33	8		A.
26	8 20	8 46	10 26	10 52	1 46	2 12	2 16	2 42	3 26	3 51	3 57	4 22	9		E.
27	9 16	9 47	11 22	11 53	2 38	3 8	3 8	3 38	4 18	4 47	4 49	5 18	10		
28	10 19	10 52	*	0 25	3 39	4 11	4 9	4 41	5 19	5 51	5 50	6 22	11		
29	11 24	11 54	0 58	1 30	4 44	5 16	5 14	5 46	6 23	6 55	6 54	7 26	12		
30	*	0 23	2 0	2 29	5 46	6 15	6 16	6 45	7 26	7 54	7 57	8 25	13		