

Astronomical Tables for the Year 1916.

Hector Observatory,
Wellington, N.Z., 22nd March, 1916.

THE following astronomical tables are published for general information. They are interpolated from the Admiralty Nautical Almanac. They give the New Zealand Civil mean time when the sun is on the meridian of the Hector Observatory, Wellington, and the sun's apparent right ascension at apparent noon, Wellington; and by the use of the auxiliary tables* the time when the sun is on any other meridian in New Zealand, and the times of sunrise and sunset, may be approximately obtained.

The adopted position of the transit instrument at the Hector Observatory is longitude 11 h. 39 m. 4.27 s. (= 174° 46' 4") east of Greenwich, latitude 41° 17' 3.8" south, and height 418 ft. above 1909 mean sea-level.

New Zealand mean time is for the meridian 11 h. 30 m. east of Greenwich. As Greenwich mean time is reckoned from noon to noon from 0 h. to 24 h., and New Zealand Civil mean time is reckoned from midnight to midnight, also from 0 h. to 24 h., it follows that New Zealand Civil mean time is 23 h. 30 m. in advance of Greenwich mean time. Hence the following easy rules to convert G.M.T. into N.Z.C.M.T., and conversely:—

$$\begin{aligned} \text{N.Z.C.M.T.} &= \text{G.M.T.} + 1 \text{ d.} - 30 \text{ m.} \\ \text{G.M.T.} &= \text{N.Z.C.M.T.} - 1 \text{ d.} + 30 \text{ m.} \end{aligned}$$

Example.—Required, the N.Z.C.M.T. corresponding to—
October 2 d. 13 h. 40 m. 53 s. G.M.T.
+ 1 d. - 30 m.

= October 3 d. 13 h. 10 m. 53 s. N.Z.C.M.T.
i.e., October 3 d. 1 h. 10 m. 53 s. p.m.

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ASTRONOMICAL TABLES for the Year 1916, for the Meridian of the Hector Observatory, Wellington, New Zealand. Longitude 11 h. 39 m. 4.27 s. East of Greenwich.

AT APPARENT NOON.—1916.

Day of the		The Sun's Apparent			New Zealand		
Month.	Week.	Right Ascension.			Civil Mean Time.		
		h.	m.	s.	h.	m.	s.
JAN.							
1	Sat.	18	40	18.86	11	53	52.76
2	Sun.	44	44.25		54	21.50	
3	Mon.	49	9.34		54	49.96	
4	Tue.	53	34.11		55	18.09	
5	Wed.	18	57	58.52	55	45.87	
6	Thu.	19	2	22.53	56	13.25	
7	Fri.	6	46.11		56	40.19	
8	Sat.	11	9.22		57	6.66	
9	Sun.	15	31.83			32.65	
10	Mon.	19	53.91		57	58.10	
11	Tue.	24	15.44		58	23.00	
12	Wed.	28	36.38		58	47.32	
13	Thu.	32	56.73		59	11.04	
14	Fri.	37	16.44			34.13	
15	Sat.	41	35.51		59	56.59	
16	Sun.	45	53.91		12	0	18.38
17	Mon.	50	11.64			39.48	
18	Tue.	54	28.66		0	59.90	
19	Wed.	19	58	44.98	1	19.60	
20	Thu.	20	3	0.58		38.59	
21	Fri.	7	15.43		1	56.85	
22	Sat.	11	29.54		2	14.35	
23	Sun.	15	42.90			31.11	
24	Mon.	19	55.50		2	47.11	
25	Tue.	24	7.34		3	2.34	
26	Wed.	28	18.40			16.79	
27	Thu.	32	28.67			30.48	
28	Fri.	36	38.16			43.37	
29	Sat.	40	46.86		3	55.48	
30	Sun.	44	54.75		4	6.80	
31	Mon.	49	1.85			17.31	
FEB.							
1	Tue.	53	8.15			27.02	
2	Wed.	20	57	13.64		35.93	
3	Thu.	21	1	18.31		44.02	
4	Fri.	5	22.17			51.30	
5	Sat.	9	25.20		4	57.76	

Day of the		The Sun's Apparent			New Zealand		
Month.	Week.	Right Ascension.			Civil Mean Time.		
		h.	m.	s.	h.	m.	s.
FEB.							
6	Sun.	21	13	27.39	12	5	3.39
7	Mon.		17	28.77			8.19
8	Tue.		21	29.32			12.17
9	Wed.		25	29.05			15.34
10	Thu.		29	27.96			17.70
11	Fri.		33	26.07			19.24
12	Sat.		37	23.38			19.99
13	Sun.		41	19.89			19.94
14	Mon.		45	15.62			19.11
15	Tue.		48	10.58			17.52
16	Wed.		53	4.78			15.17
17	Thu.	21	56	58.24			12.08
18	Fri.	22	0	50.97			8.27
19	Sat.		4	42.99	5		4.75
20	Sun.		8	34.32	4		58.54
21	Mon.		12	24.96			52.64
22	Tue.		16	14.94			46.08
23	Wed.		20	4.28			38.89
24	Thu.		23	53.00			31.08
25	Fri.		27	41.11			22.66
26	Sat.		31	28.64			13.65
27	Sun.		35	15.59	4		4.06
28	Mon.		39	1.98	3		53.93
29	Tue.		42	47.84			43.27
MAR.							
1	Wed.		46	33.18			32.09
2	Thu.		50	18.01			20.40
3	Fri.		54	2.35	3		8.22
4	Sat.	22	57	46.21	2		55.57
5	Sun.	23	1	29.61			42.45
6	Mon.		5	12.56			28.88
7	Tue.		8	55.07			14.88
8	Wed.		12	37.18	2		0.46
9	Thu.		16	18.88	1		45.65
10	Fri.		20	0.19			30.46
11	Sat.		23	41.15	1		14.91
12	Sun.		27	21.77	0		59.01
13	Mon.		31	2.06			42.79
14	Tue.		34	42.06			26.28
15	Wed.		38	21.77	12	0	9.49
16	Thu.		42	1.23	11	59	52.44
17	Fri.		45	40.45			35.14
18	Sat.		49	19.45	59		17.64
19	Sun.		52	58.26	58		59.94
20	Mon.	23	56	36.90			42.08
21	Tue.	0	0	15.40			24.08
22	Wed.		3	53.79	58		5.96
23	Thu.		7	32.08	57		47.75
24	Fri.		11	10.30			29.46
25	Sat.		14	48.48	57		11.14
26	Sun.		18	26.62	56		52.79
27	Mon.		22	4.77			34.44
28	Tue.		25	42.93	56		16.10
29	Wed.		29	21.14	55		57.79
30	Thu.		32	59.40			39.55
31	Fri.		36	37.73			21.40
APRIL.							
1	Sat.		40	16.15	55		3.29
2	Sun.		43	54.68	54		45.32
3	Mon.		47	33.32			27.46
4	Tue.		50	12.11	54		9.73
5	Wed.		54	51.04	53		52.16
6	Thu.	0	58	30.14			34.76
7	Fri.	1	2	9.42			17.54
8	Sat.		5	48.90	53		0.51
9	Sun.		9	28.59	52		43.69
10	Mon.		13	8.51			27.10
11	Tue.		16	48.68	52		10.76
12	Wed.		20	29.12	51		54.69
13	Thu.		24	9.84			38.89
14	Fri.		27	50.85			23.40
15	Sat.		31	32.17	51		8.21
16	Sun.		35	13.83	50		53.35
17	Mon.		38	55.84			38.85
18	Tue.		42	38.23			24.72
19	Wed.		46	21.00	50		10.97
20	Thu.		50	4.16	49		57.62
21	Fri.		53	47.76			44.70
22	Sat.	1	57	31.80			32.22