

2003 - August

Calendar for Mauna Kea - Hawai'i

2003 - August

Longitude: W 155 28
Latitude : N 19 50

Height: 4215m
Time Zone: -10h 00m

Zone Time = UT - 10h 00m

Date	J.D. at Oh UT 245	LMST at Oh UT h m s	Moon		Moon Transit Dec. Phase o ' o	Morning			Sun		Evening			
			Rise	Set		Astr. Twil.	Naut. Twil.	Civil Twil.	Rise	Set	Civil Twil.	Naut. Twil.	Astr. Twil.	
			h m	h m		h m	h m	h m	h m	h m	h m	h m	h m	h m
Fri 1	2852.5	10 14 54	09 05	22 03	+04 56	0.16	04 38	05 06	05 34	05 47	19 09	19 22	19 50	20 18
Sat 2	2853.5	10 18 50	10 02	22 41	-01 34	0.26	04 38	05 07	05 34	05 48	19 08	19 22	19 49	20 17
Sun 3	2854.5	10 22 47	11 00	23 21	-08 04	0.37	04 39	05 07	05 35	05 48	19 08	19 21	19 49	20 17
Mon 4	2855.5	10 26 44	11 59	-14 12	0.48	04 39	05 08	05 35	05 48	19 07	19 20	19 48	20 16
Tues 5	2856.5	10 30 40	13 00	00 02	-19 34	0.60	04 40	05 08	05 36	05 49	19 07	19 20	19 47	20 15
Wed 6	2857.5	10 34 37	14 03	00 48	-23 46	0.72	04 40	05 09	05 36	05 49	19 06	19 19	19 47	20 15
Thur 7	2858.5	10 38 33	15 07	01 39	-26 25	0.82	04 41	05 09	05 36	05 49	19 06	19 19	19 46	20 14
Fri 8	2859.5	10 42 30	16 11	02 36	-27 15	0.90	04 41	05 09	05 37	05 50	19 05	19 18	19 45	20 13
Sat 9	2860.5	10 46 26	17 11	03 37	-26 12	0.96	04 42	05 10	05 37	05 50	19 04	19 17	19 45	20 12
Sun 10	2861.5	10 50 23	18 06	04 40	-23 27	0.99	04 42	05 10	05 37	05 50	19 04	19 17	19 44	20 12
Mon 11	2862.5	10 54 19	18 54	05 42	04 43	05 11	05 38	05 51	19 03	19 16	19 43	20 11
Tues 12	2863.5	10 58 16	19 36	06 42	-19 21	1.00	04 43	05 11	05 38	05 51	19 03	19 15	19 42	20 10
Wed 13	2864.5	11 02 13	20 15	07 38	-14 19	0.98	04 44	05 11	05 38	05 51	19 02	19 15	19 42	20 09
Thur 14	2865.5	11 06 09	20 50	08 31	-08 45	0.94	04 44	05 12	05 39	05 52	19 01	19 14	19 41	20 08
Fri 15	2866.5	11 10 06	21 23	09 22	-02 57	0.88	04 45	05 12	05 39	05 52	19 00	19 13	19 40	20 07
Sat 16	2867.5	11 14 02	21 56	10 12	+02 49	0.81	04 45	05 13	05 39	05 52	19 00	19 12	19 39	20 07
Sun 17	2868.5	11 17 59	22 29	11 01	+08 22	0.72	04 46	05 13	05 40	05 52	18 59	19 12	19 39	20 06
Mon 18	2869.5	11 21 55	23 04	11 51	+13 30	0.63	04 46	05 13	05 40	05 53	18 58	19 11	19 38	20 05
Tues 19	2870.5	11 25 52	23 42	12 42	+18 05	0.54	04 47	05 14	05 40	05 53	18 58	19 10	19 37	20 04
Wed 20	2871.5	11 29 48	13 35	+21 53	0.44	04 47	05 14	05 41	05 53	18 57	19 09	19 36	20 03
Thur 21	2872.5	11 33 45	00 24	14 29	+24 44	0.34	04 47	05 14	05 41	05 54	18 56	19 09	19 35	20 02
Fri 22	2873.5	11 37 42	01 10	15 23	+26 24	0.25	04 48	05 15	05 41	05 54	18 55	19 08	19 34	20 01
Sat 23	2874.5	11 41 38	02 02	16 17	+26 42	0.17	04 48	05 15	05 42	05 54	18 54	19 07	19 34	20 00
Sun 24	2875.5	11 45 35	02 57	17 08	+25 29	0.10	04 49	05 15	05 42	05 54	18 54	19 06	19 33	19 59
Mon 25	2876.5	11 49 31	03 56	17 56	+22 45	0.04	04 49	05 16	05 42	05 55	18 53	19 05	19 32	19 58
Tues 26	2877.5	11 53 28	04 56	18 40	+18 38	0.01	04 49	05 16	05 42	05 55	18 52	19 05	19 31	19 58
Wed 27	2878.5	11 57 24	05 56	19 22	+13 20	0.00	04 50	05 16	05 43	05 55	18 51	19 04	19 30	19 57
Thur 28	2879.5	12 01 21	06 56	20 01	+07 12	0.02	04 50	05 17	05 43	05 55	18 50	19 03	19 29	19 56
Fri 29	2880.5	12 05 17	07 54	20 40	+00 34	0.07	04 50	05 17	05 43	05 56	18 50	19 02	19 28	19 55
Sat 30	2881.5	12 09 14	08 53	21 20	-06 10	0.14	04 51	05 17	05 44	05 56	18 49	19 01	19 27	19 54
Sun 31	2882.5	12 13 11	09 53	22 01	-12 36	0.23	04 51	05 18	05 44	05 56	18 48	19 00	19 26	19 53