Siding Spring Observatory

January 2022

DATE	EVENING SUN			MOON		MORNING SUN			HOURS	TWILIGHTS		MOON	SUN	MOON
	set	–12˚	–18˚	set	rise	–18˚	–12˚	rise	twi–twi	sidereal time		phase	(apparent)	(apparent)
01–02 Sa	19:16	20:13	20:50			03:25	04:02	04:59	06:35	03:30	10:07	0·02	18 48·5 –22 58	17 34·9 –25 21
02–03 Su	19:16	20:13	20:50			03:26	04:03	04:59	06:36	03:34	10:12	0·00	18 52·9 –22 53	18 42·3 –26 18
03–04 Mo	19:17	20:13	20:50			03:27	04:03	05:00	06:37	03:38	10:17	0·01	18 57·3 –22 47	19 49·3 –25 18
04–05 Tu	19:17	20:13	20:50	20:56		03:28	04:04	05:01	06:38	03:42	10:21	0·05	19 01·7 –22 41	20 53·1 –22 30
05–06 We	19:17	20:13	20:50	21:42		03:29	04:05	05:02	06:39	03:46	10:26	0·11	19 06·1 –22 34	21 52·2 –18 21
06–07 Th	19:17	20:13	20:49	22:20		03:30	04:06	05:02	06:40	03:50	10:31	0·19	19 10·5 –22 27	22 46·5 –13 18
07–08 Fr	19:17	20:13	20:49	22:53		03:31	04:07	05:03	06:41	03:54	10:36	0·28	19 14·8 –22 19	23 36·7 –07 46
08–09 Sa	19:17	20:13	20:49	23:23		03:32	04:08	05:04	06:42	03:57	10:41	0·38	19 19·2 –22 11	00 23·8 –02 05
09–10 Su	19:17	20:13	20:49	23:52	—	03:33	04:09	05:05	06:44	04:01	10:46	0·48	19 23·6 –22 03	01 09·3 +03 32
10–11 Mo	19:17	20:13	20:49	00:20		03:34	04:10	05:06	06:45	04:05	10:51	0·58	19 27·9 –21 54	01 54·0 +08 51
11–12 Tu	19:17	20:13	20:48	00:49		03:35	04:11	05:07	06:46	04:08	10:56	0·67	19 32·2 –21 45	02 39·1 +13 45
12–13 We	19:17	20:13	20:48	01:21		03:36	04:12	05:08	06:48	04:12	11:01	0·76	19 36·6 –21 35	03 25·4 +18 03
13–14 Th	19:17	20:12	20:48	01:56		03:37	04:13	05:08	06:49	04:16	11:06	0·83	19 40·9 –21 25	04 13·4 +21 37
14–15 Fr	19:17	20:12	20:47	02:36		03:39	04:14	05:09	06:51	04:19	11:12	0·90	19 45·2 –21 14	05 03·5 +24 16
15–16 Sa	19:16	20:12	20:47	03:21		03:40	04:15	05:10	06:52	04:23	11:17	0·95	19 49·5 –21 03	05 55·3 +25 52
16–17 Su	19:16	20:11	20:46			03:41	04:16	05:11	06:54	04:26	11:22	0·98	19 53·8 –20 52	06 48·5 +26 18
17–18 Mo	19:16	20:11	20:46			03:42	04:17	05:12	06:56	04:30	11:27	1·00	19 58·1 –20 40	07 41·9 +25 29
18–19 Tu	19:16	20:11	20:45			03:43	04:18	05:13	06:57	04:33	11:32	1·00	20 02·3 –20 28	08 34·7 +23 27
19–20 We	19:15	20:10	20:45			03:44	04:19	05:14	06:59	04:36	11:37	0·98	20 06·6 –20 15	09 26·1 +20 18
20–21 Th	19:15	20:10	20:44		20:52	03:46	04:20	05:15	07:01	04:40	11:42	0·94	20 10·8 –20 03	10 15·8 +16 12
21–22 Fr	19:15	20:09	20:44		21:25	03:47	04:21	05:16	07:03	04:43	11:47	0·88	20 15·0 –19 49	11 04·0 +11 20
22–23 Sa	19:14	20:09	20:43	—	21:55	03:48	04:22	05:17	07:05	04:46	11:53	0·80	20 19·2 –19 36	11 51·3 +05 54
23–24 Su	19:14	20:08	20:42		22:25	03:49	04:23	05:18	07:07	04:49	11:58	0·71	20 23·4 –19 22	12 38·4 +00 07
24–25 Mo	19:13	20:08	20:41	—	22:56	03:50	04:24	05:19	07:08	04:53	12:03	0·61	20 27·6 –19 07	13 26·5 –05 46
25–26 Tu	19:13	20:07	20:41	—	23:28	03:52	04:25	05:19	07:10	04:56	12:08	0·50	20 31·8 –18 52	14 16·6 –11 32
26–27 We	19:12	20:06	20:40		00:04	03:53	04:27	05:20	07:12	04:59	12:13	0·39	20 36·0 –18 37	15 09·8 –16 50
27–28 Th	19:12	20:06	20:39		00:46	03:54	04:28	05:21	07:15	05:02	12:18	0·28	20 40·1 –18 22	16 07·1 –21 19
28–29 Fr	19:11	20:05	20:38		01:36	03:55	04:29	05:22	07:17	05:05	12:24	0·18	20 44·2 –18 06	17 08·6 –24 35
29–30 Sa	19:11	20:04	20:37		02:34	03:57	04:30	05:23	07:19	05:08	12:29	0·10	20 48·4 –17 50	18 13·4 –26 14
30–31 Su	19:10	20:03	20:37		03:41	03:58	04:31	05:24	07:21	05:11	12:34	0·04	20 52·5 –17 34	19 19·5 –26 01
31–01 Mo	19:10	20:03	20:36			03:59	04:32	05:25	07:23	05:14	12:39	0·01	20 56·6 –17 17	20 24·3 –23 57

Siding Spring Observatory

February 2022

DATE	EVENING SUN			MOON		MORNING SUN			HOURS	TWILIGHTS		MOON	SUN	MOON
	set	–12˚	–18˚	set	rise	–18˚	–12˚	rise	twi–twi	sidereal time		phase	(apparent)	(apparent)
01–02 Tu	19:09	20:02	20:35			04:00	04:33	05:26	07:25	05:17	12:44	0·00	21 00·6 –17 00	21 25·7 –20 19
02–03 We	19:08	20:01	20:34			04:01	04:34	05:27	07:27	05:20	12:49	0·02	21 04·7 –16 42	22 22·7 –15 30
03–04 Th	19:08	20:00	20:33	20:48		04:03	04:35	05:28	07:29	05:23	12:55	0·07	21 08·8 –16 25	23 15·5 –09 59
04–05 Fr	19:07	19:59	20:32	21:20		04:04	04:36	05:29	07:32	05:26	13:00	0·14	21 12·8 –16 07	00 05·0 –04 08
05–06 Sa	19:06	19:58	20:31	21:50		04:05	04:37	05:30	07:34	05:29	13:05	0·22	21 16·8 –15 49	00 52·2 +01 42
06–07 Su	19:05	19:58	20:30	22:19		04:06	04:38	05:31	07:36	05:32	13:10	0·31	21 20·8 –15 30	01 38·2 +07 18
07–08 Mo	19:05	19:57	20:29	22:49	—	04:07	04:39	05:31	07:38	05:35	13:15	0·40	21 24·8 –15 12	02 24·0 +12 27
08–09 Tu	19:04	19:56	20:28	23:20		04:09	04:41	05:32	07:41	05:38	13:20	0·50	21 28·8 –14 53	03 10·5 +17 02
09–10 We	19:03	19:55	20:26	23:54		04:10	04:42	05:33	07:43	05:41	13:25	0·60	21 32·8 –14 33	03 58·4 +20 51
10–11 Th	19:02	19:54	20:25	00:32		04:11	04:43	05:34	07:45	05:44	13:30	0·69	21 36·8 –14 14	04 48·1 +23 47
11–12 Fr	19:01	19:53	20:24	01:15		04:12	04:44	05:35	07:47	05:46	13:35	0·77	21 40·7 –13 54	05 39·5 +25 41
12–13 Sa	19:00	19:52	20:23	02:04		04:13	04:45	05:36	07:50	05:49	13:41	0·84	21 44·6 –13 34	06 32·3 +26 26
13–14 Su	18:59	19:51	20:22	02:57		04:14	04:46	05:37	07:52	05:52	13:46	0·91	21 48·6 –13 14	07 25·7 +25 57
14–15 Mo	18:59	19:50	20:21	03:54		04:15	04:47	05:38	07:54	05:55	13:51	0·96	21 52·5 –12 54	08 18·9 +24 14
15–16 Tu	18:58	19:48	20:20			04:17	04:48	05:38	07:56	05:57	13:56	0·99	21 56·4 –12 33	09 11·1 +21 20
16–17 We	18:57	19:47	20:18			04:18	04:49	05:39	07:59	06:00	14:01	1·00	22 00·3 –12 12	10 01·8 +17 23
17–18 Th	18:56	19:46	20:17			04:19	04:50	05:40	08:01	06:03	14:06	0·99	22 04·1 –11 52	10 51·1 +12 36
18–19 Fr	18:55	19:45	20:16			04:20	04:50	05:41	08:03	06:06	14:11	0·96	22 08·0 –11 30	11 39·2 +07 09
19–20 Sa	18:54	19:44	20:15		20:28	04:21	04:51	05:42	08:06	06:08	14:16	0·91	22 11·8 –11 09	12 26·9 +01 19
20–21 Su	18:53	19:43	20:13	—	20:58	04:22	04:52	05:43	08:08	06:11	14:21	0·84	22 15·7 –10 47	13 15·1 –04 40
21–22 Mo	18:52	19:42	20:12		21:30	04:23	04:53	05:43	08:10	06:14	14:26	0·75	22 19·5 –10 26	14 04·8 –10 31
22–23 Tu	18:51	19:41	20:11	—	22:04	04:24	04:54	05:44	08:13	06:16	14:31	0·65	22 23·3 –10 04	14 56·9 –15 56
23–24 We	18:49	19:39	20:10		22:43	04:25	04:55	05:45	08:15	06:19	14:36	0·54	22 27·1 –09 42	15 52·3 –20 34
24–25 Th	18:48	19:38	20:08		23:29	04:26	04:56	05:46	08:17	06:22	14:41	0·43	22 30·9 –09 20	16 51·4 –24 05
25–26 Fr	18:47	19:37	20:07		00:23	04:27	04:57	05:47	08:19	06:24	14:46	0·32	22 34·7 –08 57	17 53·6 –26 08
26–27 Sa	18:46	19:36	20:06		01:25	04:28	04:58	05:47	08:22	06:27	14:51	0·21	22 38·5 –08 35	18 57·6 –26 28
27–28 Su	18:45	19:35	20:04		02:32	04:29	04:59	05:48	08:24	06:30	14:55	0·13	22 42·3 –08 13	20 01·1 –25 02
28–01 Mo	18:44	19:33	20:03		03:42	04:30	05:00	05:49	08:26	06:32	15:00	0·06	22 46·0 –07 50	21 02·3 –21 58

Siding Spring Observatory

March 2022

DATE	EVENING SUN			MOON		MORNING SUN			HOURS	TWILIGHTS		MOON	SUN	MOON
	set	–12˚	–18˚	set	rise	–18˚	–12˚	rise	twi–twi	sidereal time		phase	(apparent)	(apparent)
01–02 Tu	18:43	19:32	20:02			04:31	05:00	05:50	08:29	06:35	15:05	0·02	22 49·8 –07 27	21 59·9 –17 35
02–03 We	18:42	19:31	20:00			04:32	05:01	05:50	08:31	06:37	15:10	0·00	22 53·5 –07 04	22 53·8 –12 18
03–04 Th	18:41	19:30	19:59			04:33	05:02	05:51	08:33	06:40	15:15	0·01	22 57·2 –06 41	23 44·5 –06 29
04–05 Fr	18:39	19:28	19:58			04:34	05:03	05:52	08:35	06:43	15:20	0·04	23 01·0 –06 18	00 32·9 –00 31
05–06 Sa	18:38	19:27	19:56	20:17		04:34	05:04	05:53	08:38	06:45	15:25	0·09	23 04·7 –05 55	01 19·9 +05 20
06–07 Su	18:37	19:26	19:55	20:46	—	04:35	05:05	05:53	08:40	06:48	15:29	0·16	23 08·4 –05 32	02 06·4 +10 48
07–08 Mo	18:36	19:25	19:54	21:17		04:36	05:05	05:54	08:42	06:50	15:34	0·24	23 12·1 –05 08	02 53·4 +15 43
08–09 Tu	18:35	19:23	19:52	21:50		04:37	05:06	05:55	08:44	06:53	15:39	0·33	23 15·8 –04 45	03 41·5 +19 54
09–10 We	18:33	19:22	19:51	22:27	—	04:38	05:07	05:56	08:46	06:56	15:44	0·42	23 19·5 –04 21	04 31·0 +23 11
10–11 Th	18:32	19:21	19:50	23:09		04:39	05:08	05:56	08:49	06:58	15:49	0·51	23 23·2 –03 58	05 22·2 +25 26
11–12 Fr	18:31	19:19	19:48	23:55		04:40	05:08	05:57	08:51	07:01	15:53	0·61	23 26·9 –03 34	06 14·6 +26 34
12–13 Sa	18:30	19:18	19:47	00:46		04:40	05:09	05:58	08:53	07:03	15:58	0·70	23 30·6 –03 11	07 07·8 +26 28
13–14 Su	18:28	19:17	19:46	01:42		04:41	05:10	05:58	08:55	07:06	16:03	0·78	23 34·2 –02 47	08 01·0 +25 08
14–15 Mo	18:27	19:16	19:44	02:40		04:42	05:11	05:59	08:57	07:09	16:08	0·86	23 37·9 –02 24	08 53·4 +22 36
15–16 Tu	18:26	19:14	19:43	03:40		04:43	05:11	06:00	08:59	07:11	16:12	0·92	23 41·6 –02 00	09 44·6 +18 57
16–17 We	18:25	19:13	19:42	04:41		04:44	05:12	06:00	09:01	07:14	16:17	0·97	23 45·2 –01 36	10 34·5 +14 21
17–18 Th	18:23	19:12	19:40			04:44	05:13	06:01	09:03	07:16	16:22	0·99	23 48·9 –01 12	11 23·3 +09 00
18–19 Fr	18:22	19:10	19:39			04:45	05:14	06:02	09:06	07:19	16:27	1·00	23 52·5 –00 49	12 11·8 +03 07
19–20 Sa	18:21	19:09	19:38			04:46	05:14	06:02	09:08	07:22	16:31	0·98	23 56·2 –00 25	13 00·7 –03 02
20–21 Su	18:20	19:08	19:36			04:47	05:15	06:03	09:10	07:24	16:36	0·94	23 59·8 –00 01	13 50·9 –09 07
21–22 Mo	18:18	19:07	19:35	—	20:04	04:47	05:16	06:04	09:12	07:27	16:41	0·87	00 03·5 +00 23	14 43·4 –14 50
22–23 Tu	18:17	19:05	19:34		20:42	04:48	05:16	06:04	09:14	07:29	16:45	0·79	00 07·1 +00 46	15 38·9 –19 49
23–24 We	18:16	19:04	19:32	—	21:26	04:49	05:17	06:05	09:16	07:32	16:50	0·68	00 10·7 +01 10	16 37·7 –23 40
24–25 Th	18:15	19:03	19:31		22:18	04:49	05:18	06:06	09:18	07:35	16:55	0·57	00 14·4 +01 33	17 39·4 –26 04
25–26 Fr	18:13	19:01	19:30		23:17	04:50	05:18	06:06	09:20	07:37	16:59	0·46	00 18·0 +01 57	18 42·6 –26 47
26–27 Sa	18:12	19:00	19:28		00:22	04:51	05:19	06:07	09:22	07:40	17:04	0·35	00 21·7 +02 21	19 45·3 –25 45
27–28 Su	18:11	18:59	19:27		01:29	04:51	05:20	06:08	09:24	07:43	17:08	0·24	00 25·3 +02 44	20 45·9 –23 07
28–29 Mo	18:10	18:58	19:26		02:37	04:52	05:20	06:08	09:26	07:45	17:13	0·15	00 29·0 +03 08	21 43·0 –19 09
29–30 Tu	18:08	18:56	19:25		03:43	04:53	05:21	06:09	09:28	07:48	17:18	0·08	00 32·6 +03 31	22 36·7 –14 11
30–31 We	18:07	18:55	19:23		04:46	04:53	05:22	06:10	09:30	07:51	17:22	0·03	00 36·2 +03 54	23 27·3 –08 34
31–01 Th	18:06	18:54	19:22			04:54	05:22	06:10	09:32	07:53	17:27	0·01	00 39·9 +04 18	00 15·6 –02 39

Siding Spring Observatory

April 2022

DATE	EVENING SUN			MOON		MORNING SUN			HOURS	TWILIGHTS		MOON	SUN	MOON
	set	–12˚	–18˚	set	rise	–18˚	–12˚	rise	twi–twi	sidereal time		phase	(apparent)	(apparent)
01–02 Fr	18:05	18:53	19:21			04:55	05:23	06:11	09:33	07:56	17:31	0·00	00 43·5 +04 41	01 02·6 +03 16
02–03 Sa	18:03	18:51	19:20			04:55	05:24	06:12	09:35	07:59	17:36	0·02	00 47·2 +05 04	01 49·1 +08 57
03–04 Su	18:02	18:50	19:18			04:56	05:24	06:12	09:37	08:01	17:41	0·06	00 50·8 +05 27	02 36·1 +14 09
04–05 Mo	18:01	18:49	19:17	19:47		04:57	05:25	06:13	09:39	08:04	17:45	0·11	00 54·5 +05 50	03 24·1 +18 40
05–06 Tu	18:00	18:48	19:16	20:23		04:57	05:25	06:14	09:41	08:07	17:50	0·18	00 58·1 +06 12	04 13·5 +22 20
06–07 We	17:59	18:47	19:15	21:02		04:58	05:26	06:14	09:43	08:10	17:54	0·26	01 01·8 +06 35	05 04·5 +25 00
07–08 Th	17:57	18:45	19:14	21:47	—	04:59	05:27	06:15	09:44	08:12	17:59	0·34	01 05·5 +06 58	05 56·8 +26 32
08–09 Fr	17:56	18:44	19:12	22:36		04:59	05:27	06:15	09:46	08:15	18:04	0·43	01 09·1 +07 20	06 49·8 +26 51
09–10 Sa	17:55	18:43	19:11	23:30		05:00	05:28	06:16	09:48	08:18	18:08	0·53	01 12·8 +07 43	07 42·8 +25 56
10–11 Su	17:54	18:42	19:10	00:27		05:00	05:28	06:17	09:50	08:21	18:13	0·62	01 16·5 +08 05	08 35·0 +23 49
11–12 Mo	17:53	18:41	19:09	01:25		05:01	05:29	06:17	09:52	08:23	18:17	0·72	01 20·1 +08 27	09 26·0 +20 34
12–13 Tu	17:52	18:40	19:08	02:25		05:02	05:30	06:18	09:53	08:26	18:22	0·80	01 23·8 +08 49	10 15·8 +16 19
13–14 We	17:50	18:39	19:07	03:26		05:02	05:30	06:19	09:55	08:29	18:26	0·88	01 27·5 +09 11	11 04·6 +11 14
14–15 Th	17:49	18:38	19:06	04:27		05:03	05:31	06:19	09:57	08:32	18:31	0·94	01 31·2 +09 32	11 53·0 +05 30
15–16 Fr	17:48	18:36	19:05			05:03	05:31	06:20	09:58	08:35	18:35	0·98	01 34·9 +09 54	12 41·9 –00 39
16–17 Sa	17:47	18:35	19:03			05:04	05:32	06:21	10:00	08:38	18:40	1·00	01 38·6 +10 15	13 32·2 –06 55
17–18 Su	17:46	18:34	19:02			05:05	05:33	06:21	10:02	08:41	18:44	0·99	01 42·3 +10 36	14 24·9 –12 59
18–19 Mo	17:45	18:33	19:01			05:05	05:33	06:22	10:03	08:44	18:49	0·96	01 46·0 +10 57	15 20·8 –18 25
19–20 Tu	17:44	18:32	19:00		19:21	05:06	05:34	06:23	10:05	08:46	18:53	0·90	01 49·8 +11 18	16 20·3 –22 48
20–21 We	17:43	18:31	18:59		20:11	05:06	05:34	06:23	10:06	08:49	18:58	0·81	01 53·5 +11 38	17 23·0 –25 44
21–22 Th	17:42	18:30	18:58	—	21:09	05:07	05:35	06:24	10:08	08:52	19:02	0·71	01 57·2 +11 59	18 27·4 –26 55
22–23 Fr	17:40	18:29	18:57		22:14	05:07	05:36	06:24	10:10	08:55	19:07	0·60	02 01·0 +12 19	19 31·3 –26 17
23–24 Sa	17:39	18:28	18:56		23:21	05:08	05:36	06:25	10:11	08:58	19:11	0·49	02 04·7 +12 39	20 32·8 –23 58
24–25 Su	17:38	18:27	18:56		00:29	05:09	05:37	06:26	10:13	09:01	19:16	0·38	02 08·5 +12 59	21 30·5 –20 16
25–26 Mo	17:37	18:26	18:55		01:35	05:09	05:37	06:26	10:14	09:04	19:21	0·27	02 12·3 +13 18	22 24·3 –15 33
26–27 Tu	17:36	18:25	18:54		02:38	05:10	05:38	06:27	10:16	09:07	19:25	0·18	02 16·0 +13 38	23 14·7 –10 08
27–28 We	17:35	18:25	18:53		03:38	05:10	05:39	06:28	10:17	09:10	19:30	0·11	02 19·8 +13 57	00 02·6 –04 21
28–29 Th	17:34	18:24	18:52		04:37	05:11	05:39	06:28	10:18	09:13	19:34	0·05	02 23·6 +14 16	00 48·9 +01 31
29–30 Fr	17:34	18:23	18:51			05:11	05:40	06:29	10:20	09:17	19:39	0·02	02 27·4 +14 34	01 34·8 +07 14
30–01 Sa	17:33	18:22	18:50			05:12	05:40	06:30	10:21	09:20	19:43	0·00	02 31·2 +14 53	02 21·1 +12 35

Siding Spring Observatory

May 2022

DATE	EVENING SUN			MOON		MORNING SUN			HOURS	TWILIGHTS		MOON	SUN	MOON
	set	–12˚	–18˚	set	rise	–18˚	–12˚	rise	twi–twi	sidereal time		phase	(apparent)	(apparent)
01–02 Su	17:32	18:21	18:49			05:13	05:41	06:30	10:23	09:23	19:48	0·01	02 35·1 +15 11	03 08·5 +17 20
02–03 Mo	17:31	18:20	18:49			05:13	05:42	06:31	10:24	09:26	19:52	0·03	02 38·9 +15 29	03 57·4 +21 19
03–04 Tu	17:30	18:19	18:48	18:58		05:14	05:42	06:32	10:25	09:29	19:57	0·07	02 42·7 +15 47	04 48·1 +24 20
04–05 We	17:29	18:19	18:47	19:41		05:14	05:43	06:32	10:27	09:32	20:01	0·13	02 46·6 +16 04	05 40·2 +26 15
05–06 Th	17:28	18:18	18:46	20:28		05:15	05:43	06:33	10:28	09:36	20:06	0·19	02 50·4 +16 21	06 33·0 +26 58
06–07 Fr	17:27	18:17	18:46	21:20		05:15	05:44	06:34	10:29	09:39	20:10	0·27	02 54·3 +16 38	07 26·0 +26 27
07–08 Sa	17:27	18:16	18:45	22:16	—	05:16	05:45	06:34	10:30	09:42	20:15	0·36	02 58·2 +16 55	08 18·1 +24 43
08–09 Su	17:26	18:16	18:44	23:13		05:16	05:45	06:35	10:32	09:45	20:19	0·46	03 02·1 +17 11	09 08·9 +21 52
09–10 Mo	17:25	18:15	18:44	00:11		05:17	05:46	06:36	10:33	09:49	20:24	0·56	03 06·0 +17 27	09 58·2 +18 01
10–11 Tu	17:24	18:14	18:43	01:10		05:18	05:46	06:36	10:34	09:52	20:28	0·66	03 09·9 +17 43	10 46·4 +13 18
11–12 We	17:24	18:14	18:42	02:10		05:18	05:47	06:37	10:35	09:55	20:33	0·75	03 13·8 +17 58	11 33·9 +07 54
12–13 Th	17:23	18:13	18:42	03:11		05:19	05:47	06:38	10:36	09:59	20:37	0·84	03 17·7 +18 13	12 21·7 +01 58
13–14 Fr	17:22	18:13	18:41	04:14		05:19	05:48	06:38	10:37	10:02	20:42	0·91	03 21·6 +18 28	13 10·7 –04 15
14–15 Sa	17:22	18:12	18:41			05:20	05:49	06:39	10:38	10:05	20:46	0·96	03 25·6 +18 43	14 02·2 –10 27
15–16 Su	17:21	18:11	18:40			05:20	05:49	06:40	10:39	10:09	20:50	0·99	03 29·5 +18 57	14 57·1 –16 16
16–17 Mo	17:20	18:11	18:40			05:21	05:50	06:40	10:41	10:12	20:55	1·00	03 33·5 +19 11	15 56·3 –21 14
17–18 Tu	17:20	18:10	18:39			05:21	05:50	06:41	10:42	10:16	20:59	0·97	03 37·5 +19 25	16 59·5 –24 52
18–19 We	17:19	18:10	18:39		18:56	05:22	05:51	06:42	10:43	10:19	21:04	0·92	03 41·4 +19 38	18 05·6 –26 45
19–20 Th	17:19	18:09	18:38		20:01	05:22	05:51	06:42	10:43	10:23	21:08	0·84	03 45·4 +19 51	19 12·1 –26 42
20–21 Fr	17:18	18:09	18:38	—	21:10	05:23	05:52	06:43	10:44	10:26	21:13	0·74	03 49·4 +20 03	20 16·3 –24 47
21–22 Sa	17:18	18:09	18:38	—	22:20	05:23	05:52	06:43	10:45	10:30	21:17	0·63	03 53·4 +20 15	21 16·5 –21 20
22–23 Su	17:17	18:08	18:37		23:28	05:24	05:53	06:44	10:46	10:33	21:22	0·52	03 57·4 +20 27	22 12·1 –16 45
23–24 Mo	17:17	18:08	18:37		00:32	05:24	05:54	06:45	10:47	10:37	21:26	0·41	04 01·5 +20 39	23 03·5 –11 25
24–25 Tu	17:16	18:07	18:37		01:33	05:25	05:54	06:45	10:48	10:40	21:31	0·31	04 05·5 +20 50	23 51·9 –05 42
25–26 We	17:16	18:07	18:36		02:32	05:25	05:55	06:46	10:49	10:44	21:35	0·22	04 09·5 +21 01	00 38·2 +00 08
26–27 Th	17:15	18:07	18:36		03:29	05:26	05:55	06:46	10:49	10:48	21:40	0·14	04 13·6 +21 11	01 23·6 +05 51
27–28 Fr	17:15	18:06	18:36		04:26	05:26	05:56	06:47	10:50	10:51	21:44	0·08	04 17·7 +21 21	02 09·2 +11 15
28–29 Sa	17:15	18:06	18:35		05:24	05:27	05:56	06:48	10:51	10:55	21:48	0·03	04 21·7 +21 31	02 55·7 +16 08
29–30 Su	17:14	18:06	18:35			05:27	05:57	06:48	10:52	10:59	21:53	0·01	04 25·8 +21 40	03 43·9 +20 18
30–31 Mo	17:14	18:06	18:35			05:28	05:57	06:49	10:52	11:03	21:57	0·00	04 29·9 +21 49	04 33·8 +23 35
31–01 Tu	17:14	18:05	18:35			05:28	05:58	06:49	10:53	11:06	22:02	0·01	04 34·0 +21 58	05 25·5 +25 49

Siding Spring Observatory

June 2022

DATE	EVENING SUN			MOON		MORNING SUN			HOURS	TWILIGHTS		MOON	SUN	MOON
	set	–12˚	–18˚	set	rise	–18˚	–12˚	rise	twi–twi	sidereal time		phase	(apparent)	(apparent)
01–02 We	17:14	18:05	18:35			05:29	05:58	06:50	10:54	11:10	22:06	0·04	04 38·1 +22 06	06 18·2 +26 52
02–03 Th	17:13	18:05	18:35	19:14		05:29	05:59	06:50	10:54	11:14	22:10	0·08	04 42·2 +22 14	07 11·2 +26 41
03–04 Fr	17:13	18:05	18:34	20:08		05:30	05:59	06:51	10:55	11:18	22:15	0·14	04 46·3 +22 21	08 03·4 +25 17
04–05 Sa	17:13	18:05	18:34	21:04		05:30	05:59	06:51	10:55	11:22	22:19	0·22	04 50·4 +22 28	08 54·3 +22 46
05–06 Su	17:13	18:05	18:34	22:02		05:30	06:00	06:52	10:56	11:26	22:24	0·30	04 54·5 +22 35	09 43·4 +19 14
06–07 Mo	17:13	18:05	18:34	22:59	—	05:31	06:00	06:52	10:56	11:29	22:28	0·40	04 58·6 +22 41	10 31·1 +14 50
07–08 Tu	17:13	18:05	18:34	23:57		05:31	06:01	06:53	10:57	11:33	22:32	0·50	05 02·8 +22 47	11 17·7 +09 45
08–09 We	17:13	18:05	18:34	00:56		05:32	06:01	06:53	10:57	11:37	22:37	0·60	05 06·9 +22 53	12 04·0 +04 08
09–10 Th	17:13	18:05	18:34	01:56		05:32	06:02	06:54	10:57	11:41	22:41	0·70	05 11·0 +22 58	12 51·2 –01 51
10–11 Fr	17:13	18:05	18:34	02:59		05:32	06:02	06:54	10:58	11:45	22:45	0·80	05 15·2 +23 02	13 40·4 –07 56
11–12 Sa	17:13	18:05	18:34	04:06		05:33	06:02	06:54	10:58	11:49	22:49	0·88	05 19·3 +23 06	14 32·7 –13 51
12–13 Su	17:13	18:05	18:34	05:17		05:33	06:03	06:55	10:58	11:53	22:54	0·95	05 23·5 +23 10	15 29·5 –19 11
13–14 Mo	17:13	18:05	18:34			05:33	06:03	06:55	10:59	11:57	22:58	0·99	05 27·6 +23 14	16 31·0 –23 27
14–15 Tu	17:13	18:05	18:34			05:34	06:03	06:56	10:59	12:01	23:02	1·00	05 31·8 +23 17	17 36·9 –26 09
15–16 We	17:13	18:05	18:35			05:34	06:04	06:56	10:59	12:05	23:07	0·98	05 35·9 +23 19	18 45·0 –26 54
16–17 Th	17:13	18:05	18:35		18:50	05:34	06:04	06:56	10:59	12:09	23:11	0·93	05 40·1 +23 21	19 52·3 –25 39
17–18 Fr	17:13	18:05	18:35		20:02	05:35	06:04	06:57	10:59	12:13	23:15	0·86	05 44·2 +23 23	20 56·1 –22 36
18–19 Sa	17:13	18:05	18:35		21:14	05:35	06:05	06:57	10:59	12:18	23:19	0·77	05 48·4 +23 25	21 55·1 –18 11
19–20 Su	17:13	18:06	18:35		22:22	05:35	06:05	06:57	10:59	12:22	23:23	0·67	05 52·5 +23 26	22 49·3 –12 53
20–21 Mo	17:13	18:06	18:35	—	23:25	05:35	06:05	06:57	10:59	12:26	23:28	0·56	05 56·7 +23 26	23 39·5 –07 06
21–22 Tu	17:14	18:06	18:36		00:26	05:36	06:05	06:58	10:59	12:30	23:32	0·45	06 00·9 +23 26	00 26·9 –01 11
22–23 We	17:14	18:06	18:36		01:24	05:36	06:05	06:58	10:59	12:34	23:36	0·35	06 05·0 +23 26	01 12·8 +04 37
23–24 Th	17:14	18:06	18:36		02:21	05:36	06:06	06:58	10:59	12:38	23:40	0·26	06 09·2 +23 25	01 58·4 +10 07
24–25 Fr	17:14	18:07	18:36		03:19	05:36	06:06	06:58	10:59	12:43	23:44	0·18	06 13·3 +23 24	02 44·5 +15 06
25–26 Sa	17:15	18:07	18:37		04:16	05:36	06:06	06:58	10:59	12:47	23:48	0·11	06 17·5 +23 23	03 32·0 +19 25
26–27 Su	17:15	18:07	18:37		05:13	05:36	06:06	06:58	10:59	12:51	23:52	0·06	06 21·7 +23 21	04 21·3 +22 54
27–28 Mo	17:15	18:08	18:37			05:37	06:06	06:58	10:59	12:55	23:56	0·02	06 25·8 +23 18	05 12·3 +25 22
28–29 Tu	17:16	18:08	18:37			05:37	06:06	06:58	10:59	12:59	00:00	0·00	06 30·0 +23 15	06 04·8 +26 41
29–30 We	17:16	18:08	18:38			05:37	06:06	06:58	10:58	13:04	00:04	0·00	06 34·1 +23 12	06 57·8 +26 48
30–01 Th	17:16	18:09	18:38			05:37	06:06	06:59	10:58	13:08	00:08	0·02	06 38·2 +23 09	07 50·3 +25 40

Siding Spring Observatory

July 2022

DATE	EVENING SUN			MOON		MORNING SUN			HOURS	TWILIGHTS		MOON	SUN	MOON
	set	–12˚	–18˚	set	rise	–18˚	–12˚	rise	twi–twi	sidereal time		phase	(apparent)	(apparent)
01–02 Fr	17:17	18:09	18:38	18:59		05:37	06:06	06:59	10:58	13:12	00:12	0·05	06 42·4 +23 05	08 41·6 +23 24
02–03 Sa	17:17	18:09	18:39	19:56		05:37	06:06	06:58	10:58	13:17	00:16	0·11	06 46·5 +23 00	09 31·1 +20 05
03–04 Su	17:18	18:10	18:39	20:53		05:37	06:06	06:58	10:57	13:21	00:20	0·17	06 50·6 +22 56	10 18·7 +15 54
04–05 Mo	17:18	18:10	18:40	21:50		05:37	06:06	06:58	10:57	13:25	00:24	0·25	06 54·8 +22 50	11 05·0 +11 02
05–06 Tu	17:18	18:10	18:40	22:47		05:37	06:06	06:58	10:56	13:29	00:28	0·35	06 58·9 +22 45	11 50·5 +05 38
06–07 We	17:19	18:11	18:40	23:45		05:37	06:06	06:58	10:56	13:34	00:32	0·45	07 03·0 +22 39	12 36·2 –00 08
07–08 Th	17:19	18:11	18:41	00:45	—	05:37	06:06	06:58	10:55	13:38	00:36	0·55	07 07·1 +22 32	13 23·2 –06 02
08–09 Fr	17:20	18:12	18:41	01:48		05:37	06:06	06:58	10:55	13:43	00:40	0·66	07 11·2 +22 26	14 12·8 –11 52
09–10 Sa	17:20	18:12	18:41	02:55		05:36	06:06	06:58	10:54	13:47	00:44	0·76	07 15·3 +22 19	15 06·1 –17 17
10–11 Su	17:21	18:13	18:42	04:06		05:36	06:06	06:57	10:54	13:51	00:47	0·85	07 19·4 +22 11	16 04·3 –21 54
11–12 Mo	17:21	18:13	18:42	05:19		05:36	06:06	06:57	10:53	13:56	00:51	0·93	07 23·4 +22 03	17 07·3 –25 14
12–13 Tu	17:22	18:13	18:43			05:36	06:05	06:57	10:53	14:00	00:55	0·98	07 27·5 +21 55	18 14·2 –26 50
13–14 We	17:22	18:14	18:43			05:36	06:05	06:57	10:52	14:04	00:59	1·00	07 31·6 +21 46	19 22·5 –26 25
14–15 Th	17:23	18:14	18:44			05:36	06:05	06:56	10:51	14:09	01:02	0·99	07 35·6 +21 37	20 29·0 –24 02
15–16 Fr	17:23	18:15	18:44		18:51	05:35	06:05	06:56	10:51	14:13	01:06	0·95	07 39·7 +21 28	21 31·4 –20 00
16–17 Sa	17:24	18:15	18:45		20:03	05:35	06:04	06:56	10:50	14:18	01:10	0·89	07 43·7 +21 18	22 29·0 –14 49
17–18 Su	17:24	18:16	18:45		21:11	05:35	06:04	06:55	10:49	14:22	01:13	0·80	07 47·7 +21 08	23 22·1 –08 58
18–19 Mo	17:25	18:16	18:45		22:15	05:34	06:04	06:55	10:48	14:26	01:17	0·71	07 51·8 +20 57	00 11·8 –02 52
19–20 Tu	17:26	18:17	18:46		23:16	05:34	06:03	06:54	10:48	14:31	01:21	0·60	07 55·8 +20 46	00 59·3 +03 09
20–21 We	17:26	18:17	18:46		00:14	05:34	06:03	06:54	10:47	14:35	01:24	0·50	07 59·8 +20 35	01 45·8 +08 51
21–22 Th	17:27	18:18	18:47	—	01:12	05:33	06:02	06:53	10:46	14:40	01:28	0·40	08 03·8 +20 24	02 32·3 +14 03
22–23 Fr	17:27	18:18	18:47		02:10	05:33	06:02	06:53	10:45	14:44	01:31	0·31	08 07·7 +20 12	03 19·8 +18 35
23–24 Sa	17:28	18:19	18:48		03:08	05:32	06:01	06:52	10:44	14:48	01:35	0·22	08 11·7 +20 00	04 08·8 +22 16
24–25 Su	17:29	18:19	18:48		04:04	05:32	06:01	06:52	10:43	14:53	01:38	0·15	08 15·7 +19 47	04 59·4 +24 58
25–26 Mo	17:29	18:20	18:49		04:59	05:32	06:00	06:51	10:42	14:57	01:42	0·09	08 19·6 +19 34	05 51·5 +26 33
26–27 Tu	17:30	18:20	18:49			05:31	06:00	06:51	10:41	15:02	01:45	0·04	08 23·6 +19 21	06 44·5 +26 55
27–28 We	17:30	18:21	18:50			05:31	05:59	06:50	10:40	15:06	01:49	0·01	08 27·5 +19 07	07 37·3 +26 03
28–29 Th	17:31	18:21	18:50			05:30	05:59	06:49	10:39	15:11	01:52	0·00	08 31·4 +18 54	08 29·0 +24 00
29–30 Fr	17:32	18:22	18:51			05:29	05:58	06:49	10:38	15:15	01:55	0·01	08 35·4 +18 39	09 19·2 +20 53
30–31 Sa	17:32	18:23	18:51			05:29	05:58	06:48	10:37	15:19	01:59	0·03	08 39·3 +18 25	10 07·4 +16 50
31–01 Su	17:33	18:23	18:52	19:45		05:28	05:57	06:47	10:36	15:24	02:02	0·08	08 43·2 +18 10	10 54·0 +12 04

Siding Spring Observatory

August 2022

DATE	EVENING SUN			MOON		MORNING SUN			HOURS	TWILIGHTS		MOON	SUN	MOON
	set	–12˚	–18˚	set	rise	–18˚	–12˚	rise	twi–twi	sidereal time		phase	(apparent)	(apparent)
01–02 Mo	17:33	18:24	18:52	20:42		05:28	05:56	06:46	10:35	15:28	02:05	0·14	08 47·0 +17 55	11 39·5 +06 45
02–03 Tu	17:34	18:24	18:53	21:40		05:27	05:56	06:46	10:34	15:33	02:09	0·21	08 50·9 +17 40	12 24·8 +01 04
03–04 We	17:35	18:25	18:53	22:38		05:26	05:55	06:45	10:33	15:37	02:12	0·30	08 54·8 +17 24	13 10·7 –04 45
04–05 Th	17:35	18:25	18:54	23:38		05:26	05:54	06:44	10:31	15:42	02:15	0·41	08 58·6 +17 08	13 58·5 –10 31
05–06 Fr	17:36	18:26	18:54	00:42		05:25	05:54	06:43	10:30	15:46	02:19	0·51	09 02·5 +16 52	14 49·3 –15 56
06–07 Sa	17:36	18:26	18:55	01:49	—	05:24	05:53	06:43	10:29	15:51	02:22	0·62	09 06·3 +16 36	15 44·2 –20 41
07–08 Su	17:37	18:27	18:55	02:59		05:23	05:52	06:42	10:28	15:55	02:25	0·73	09 10·1 +16 19	16 43·6 –24 22
08–09 Mo	17:38	18:27	18:56	04:09		05:23	05:51	06:41	10:26	16:00	02:28	0·83	09 13·9 +16 02	17 47·4 –26 34
09–10 Tu	17:38	18:28	18:56	05:14		05:22	05:50	06:40	10:25	16:04	02:31	0·91	09 17·7 +15 45	18 53·9 –26 56
10–11 We	17:39	18:28	18:57			05:21	05:50	06:39	10:24	16:08	02:34	0·97	09 21·5 +15 27	20 00·4 –25 20
11–12 Th	17:39	18:29	18:57			05:20	05:49	06:38	10:22	16:13	02:37	1·00	09 25·3 +15 09	21 04·4 –21 56
12–13 Fr	17:40	18:29	18:58			05:19	05:48	06:37	10:21	16:17	02:41	1·00	09 29·1 +14 51	22 04·3 –17 07
13–14 Sa	17:41	18:30	18:58			05:19	05:47	06:36	10:20	16:22	02:44	0·97	09 32·9 +14 33	22 59·9 –11 21
14–15 Su	17:41	18:31	18:59		19:57	05:18	05:46	06:35	10:18	16:26	02:47	0·91	09 36·6 +14 15	23 52·0 –05 08
15–16 Mo	17:42	18:31	18:59		21:01	05:17	05:45	06:34	10:17	16:31	02:50	0·84	09 40·4 +13 56	00 41·4 +01 08
16–17 Tu	17:43	18:32	19:00		22:02	05:16	05:44	06:33	10:15	16:35	02:53	0·75	09 44·1 +13 37	01 29·4 +07 10
17–18 We	17:43	18:32	19:00		23:02	05:15	05:43	06:32	10:14	16:40	02:56	0·66	09 47·8 +13 18	02 17·0 +12 41
18–19 Th	17:44	18:33	19:01		00:01	05:14	05:42	06:31	10:13	16:44	02:59	0·56	09 51·5 +12 59	03 05·1 +17 32
19–20 Fr	17:44	18:33	19:01		01:00	05:13	05:41	06:30	10:11	16:48	03:02	0·46	09 55·3 +12 39	03 54·3 +21 32
20–21 Sa	17:45	18:34	19:02	—	01:58	05:12	05:40	06:29	10:10	16:53	03:05	0·37	09 59·0 +12 19	04 45·0 +24 32
21–22 Su	17:45	18:34	19:02		02:53	05:11	05:39	06:28	10:08	16:57	03:08	0·28	10 02·7 +11 59	05 37·1 +26 25
22–23 Mo	17:46	18:35	19:03		03:46	05:10	05:38	06:27	10:06	17:02	03:11	0·20	10 06·4 +11 39	06 30·0 +27 06
23–24 Tu	17:47	18:35	19:04		04:34	05:09	05:37	06:26	10:05	17:06	03:13	0·13	10 10·0 +11 19	07 23·0 +26 32
24–25 We	17:47	18:36	19:04			05:08	05:36	06:24	10:03	17:11	03:16	0·07	10 13·7 +10 58	08 15·1 +24 45
25–26 Th	17:48	18:36	19:05			05:07	05:35	06:23	10:02	17:15	03:19	0·03	10 17·4 +10 38	09 05·9 +21 51
26–27 Fr	17:48	18:37	19:05			05:06	05:34	06:22	10:00	17:20	03:22	0·01	10 21·0 +10 17	09 54·9 +17 58
27–28 Sa	17:49	18:37	19:06			05:05	05:33	06:21	09:58	17:24	03:25	0·00	10 24·7 +09 56	10 42·2 +13 17
28–29 Su	17:50	18:38	19:06			05:03	05:32	06:20	09:57	17:29	03:28	0·02	10 28·4 +09 35	11 28·3 +07 59
29–30 Mo	17:50	18:39	19:07	19:34		05:02	05:30	06:19	09:55	17:33	03:30	0·05	10 32·0 +09 13	12 13·9 +02 17
30–31 Tu	17:51	18:39	19:07	20:33		05:01	05:29	06:18	09:54	17:38	03:33	0·11	10 35·6 +08 52	12 59·9 –03 37
31–01 We	17:51	18:40	19:08	21:33		05:00	05:28	06:16	09:52	17:42	03:36	0·18	10 39·3 +08 30	13 47·2 –09 27

Siding Spring Observatory

September 2022

DATE	EVENING SUN			MOON		MORNING SUN			HOURS	TWILIGHTS		MOON	SUN	MOON
	set	–12˚	–18˚	set	rise	–18˚	–12˚	rise	twi–twi	sidereal time		phase	(apparent)	(apparent)
01–02 Th	17:52	18:40	19:08	22:35		04:59	05:27	06:15	09:50	17:47	03:39	0·27	10 42·9 +08 09	14 37·0 –14 58
02–03 Fr	17:53	18:41	19:09	23:41		04:58	05:26	06:14	09:48	17:51	03:42	0·37	10 46·5 +07 47	15 30·1 –19 51
03–04 Sa	17:53	18:41	19:09	00:48		04:56	05:25	06:13	09:47	17:56	03:44	0·48	10 50·1 +07 25	16 27·2 –23 46
04–05 Su	17:54	18:42	19:10	01:57		04:55	05:23	06:11	09:45	18:00	03:47	0·59	10 53·7 +07 03	17 28·3 –26 20
05–06 Mo	17:54	18:42	19:10	03:02	—	04:54	05:22	06:10	09:43	18:05	03:50	0·70	10 57·4 +06 41	18 32·2 –27 13
06–07 Tu	17:55	18:43	19:11	04:01		04:53	05:21	06:09	09:41	18:09	03:52	0·81	11 01·0 +06 18	19 37·0 –26 17
07–08 We	17:55	18:43	19:12			04:52	05:20	06:08	09:40	18:14	03:55	0·89	11 04·6 +05 56	20 40·3 –23 32
08–09 Th	17:56	18:44	19:12			04:50	05:18	06:06	09:38	18:18	03:58	0·95	11 08·2 +05 33	21 40·6 –19 15
09–10 Fr	17:57	18:45	19:13			04:49	05:17	06:05	09:36	18:23	04:01	0·99	11 11·8 +05 11	22 37·1 –13 50
10–11 Sa	17:57	18:45	19:13			04:48	05:16	06:04	09:34	18:27	04:03	1·00	11 15·3 +04 48	23 30·2 –07 44
11–12 Su	17:58	18:46	19:14			04:46	05:15	06:03	09:32	18:32	04:06	0·98	11 18·9 +04 25	00 20·8 –01 21
12–13 Mo	17:58	18:46	19:14		19:45	04:45	05:13	06:01	09:30	18:36	04:08	0·94	11 22·5 +04 02	01 09·9 +04 56
13–14 Tu	17:59	18:47	19:15		20:47	04:44	05:12	06:00	09:28	18:41	04:11	0·88	11 26·1 +03 39	01 58·3 +10 49
14–15 We	17:59	18:47	19:16		21:48	04:43	05:11	05:59	09:26	18:45	04:14	0·80	11 29·7 +03 16	02 47·2 +16 05
15–16 Th	18:00	18:48	19:16		22:48	04:41	05:09	05:57	09:25	18:50	04:16	0·72	11 33·3 +02 53	03 36·9 +20 29
16–17 Fr	18:01	18:49	19:17		23:47	04:40	05:08	05:56	09:23	18:54	04:19	0·63	11 36·9 +02 30	04 28·0 +23 54
17–18 Sa	18:01	18:49	19:17		00:45	04:39	05:07	05:55	09:21	18:59	04:22	0·53	11 40·4 +02 07	05 20·3 +26 11
18–19 Su	18:02	18:50	19:18		01:39	04:37	05:06	05:54	09:19	19:03	04:24	0·44	11 44·0 +01 44	06 13·5 +27 15
19–20 Mo	18:02	18:50	19:19	—	02:29	04:36	05:04	05:52	09:17	19:08	04:27	0·34	11 47·6 +01 20	07 06·7 +27 03
20–21 Tu	18:03	18:51	19:19		03:14	04:35	05:03	05:51	09:15	19:13	04:29	0·26	11 51·2 +00 57	07 59·2 +25 36
21–22 We	18:03	18:52	19:20		03:54	04:33	05:02	05:50	09:13	19:17	04:32	0·18	11 54·8 +00 34	08 50·3 +23 00
22–23 Th	18:04	18:52	19:21		04:29	04:32	05:00	05:48	09:11	19:22	04:35	0·11	11 58·4 +00 11	09 39·9 +19 22
23–24 Fr	18:05	18:53	19:21			04:30	04:59	05:47	09:09	19:26	04:37	0·06	12 02·0 –00 13	10 27·7 +14 52
24–25 Sa	18:05	18:53	19:22			04:29	04:58	05:46	09:07	19:31	04:40	0·02	12 05·6 –00 36	11 14·5 +09 39
25–26 Su	18:06	18:54	19:23			04:28	04:56	05:44	09:05	19:36	04:42	0·00	12 09·2 –01 00	12 00·6 +03 56
26–27 Mo	18:06	18:55	19:23			04:26	04:55	05:43	09:03	19:40	04:45	0·01	12 12·8 –01 23	12 47·0 –02 03
27–28 Tu	18:07	18:55	19:24	19:25		04:25	04:54	05:42	09:00	19:45	04:47	0·03	12 16·4 –01 46	13 34·6 –08 04
28–29 We	18:08	18:56	19:25	20:28		04:24	04:52	05:41	08:58	19:50	04:50	0·08	12 20·0 –02 10	14 24·5 –13 49
29–30 Th	18:08	18:57	19:25	21:33		04:22	04:51	05:39	08:56	19:54	04:52	0·15	12 23·6 –02 33	15 17·4 –18 58
30–01 Fr	18:09	18:57	19:26	22:41		04:21	04:50	05:38	08:54	19:59	04:55	0·24	12 27·2 –02 56	16 14·0 –23 11

Siding Spring Observatory

October 2022

DATE	EVENING SUN			MOON		MORNING SUN			HOURS	TWILIGHTS		MOON	SUN	MOON
	set	–12˚	–18˚	set	rise	–18˚	–12˚	rise	twi–twi	sidereal time		phase	(apparent)	(apparent)
01–02 Sa	18:10	18:58	19:27	23:49		04:19	04:48	05:37	08:52	20:04	04:58	0·34	12 30·8 –03 20	17 14·1 –26 05
02–03 Su	18:10	18:59	19:28	00:55		04:18	04:47	05:36	08:50	20:08	05:00	0·45	12 34·4 –03 43	18 17·0 –27 22
03–04 Mo	18:11	18:59	19:28	01:55		04:17	04:46	05:34	08:48	20:13	05:03	0·57	12 38·1 –04 06	19 20·6 –26 52
04–05 Tu	18:11	19:00	19:29	02:48	—	04:15	04:44	05:33	08:46	20:18	05:05	0·68	12 41·7 –04 29	20 22·9 –24 38
05–06 We	18:12	19:01	19:30	03:33		04:14	04:43	05:32	08:43	20:22	05:08	0·78	12 45·3 –04 52	21 22·4 –20 51
06–07 Th	18:13	19:02	19:31	04:11		04:13	04:42	05:31	08:41	20:27	05:10	0·87	12 49·0 –05 15	22 18·5 –15 51
07–08 Fr	18:13	19:02	19:32			04:11	04:40	05:29	08:39	20:32	05:13	0·94	12 52·6 –05 38	23 11·4 –10 03
08–09 Sa	18:14	19:03	19:32			04:10	04:39	05:28	08:37	20:37	05:15	0·98	12 56·3 –06 01	00 01·8 –03 48
09–10 Su	18:15	19:04	19:33			04:08	04:38	05:27	08:35	20:41	05:18	1·00	13 00·0 –06 24	00 50·8 +02 32
10–11 Mo	18:15	19:05	19:34			04:07	04:37	05:26	08:32	20:46	05:21	0·99	13 03·6 –06 47	01 39·2 +08 38
11–12 Tu	18:16	19:05	19:35			04:06	04:35	05:24	08:30	20:51	05:23	0·97	13 07·3 –07 09	02 28·0 +14 13
12–13 We	18:17	19:06	19:36		20:33	04:04	04:34	05:23	08:28	20:56	05:26	0·92	13 11·0 –07 32	03 17·9 +19 03
13–14 Th	18:17	19:07	19:37		21:34	04:03	04:33	05:22	08:26	21:01	05:28	0·86	13 14·7 –07 54	04 09·1 +22 56
14–15 Fr	18:18	19:08	19:37		22:33	04:02	04:31	05:21	08:24	21:05	05:31	0·78	13 18·4 –08 17	05 01·7 +25 40
15–16 Sa	18:19	19:08	19:38		23:30	04:00	04:30	05:20	08:21	21:10	05:33	0·70	13 22·1 –08 39	05 55·2 +27 11
16–17 Su	18:20	19:09	19:39		00:22	03:59	04:29	05:19	08:19	21:15	05:36	0·61	13 25·9 –09 01	06 48·9 +27 24
17–18 Mo	18:20	19:10	19:40		01:09	03:58	04:28	05:17	08:17	21:20	05:39	0·51	13 29·6 –09 23	07 41·8 +26 22
18–19 Tu	18:21	19:11	19:41	—	01:50	03:56	04:26	05:16	08:15	21:25	05:41	0·42	13 33·3 –09 45	08 33·3 +24 09
19–20 We	18:22	19:12	19:42		02:27	03:55	04:25	05:15	08:12	21:30	05:44	0·33	13 37·1 –10 06	09 23·0 +20 52
20–21 Th	18:23	19:13	19:43		03:00	03:54	04:24	05:14	08:10	21:35	05:47	0·24	13 40·9 –10 28	10 11·1 +16 39
21–22 Fr	18:23	19:14	19:44		03:31	03:52	04:23	05:13	08:08	21:40	05:49	0·16	13 44·6 –10 49	10 57·8 +11 40
22–23 Sa	18:24	19:14	19:45			03:51	04:22	05:12	08:06	21:45	05:52	0·09	13 48·4 –11 10	11 43·9 +06 07
23–24 Su	18:25	19:15	19:46			03:50	04:20	05:11	08:03	21:49	05:55	0·04	13 52·2 –11 31	12 30·3 +00 09
24–25 Mo	18:26	19:16	19:47			03:48	04:19	05:10	08:01	21:54	05:57	0·01	13 56·0 –11 52	13 17·9 –05 59
25–26 Tu	18:26	19:17	19:48			03:47	04:18	05:09	07:59	21:59	06:00	0·00	13 59·9 –12 13	14 07·7 –11 59
26–27 We	18:27	19:18	19:49			03:46	04:17	05:08	07:56	22:04	06:03	0·02	14 03·7 –12 34	15 00·7 –17 31
27–28 Th	18:28	19:19	19:50	20:29		03:45	04:16	05:07	07:54	22:09	06:05	0·06	14 07·6 –12 54	15 57·6 –22 11
28–29 Fr	18:29	19:20	19:51	21:39		03:44	04:15	05:06	07:52	22:14	06:08	0·12	14 11·4 –13 14	16 58·3 –25 34
29–30 Sa	18:30	19:21	19:52	22:48		03:42	04:14	05:05	07:50	22:19	06:11	0·21	14 15·3 –13 34	18 01·9 –27 19
30–31 Su	18:30	19:22	19:53	23:51		03:41	04:13	05:04	07:47	22:24	06:14	0·31	14 19·2 –13 54	19 06·3 –27 14
31–01 Mo	18:31	19:23	19:54	00:46		03:40	04:12	05:03	07:45	22:29	06:16	0·42	14 23·1 –14 13	20 09·3 –25 22

Siding Spring Observatory

November 2022

DATE	EVENING SUN			MOON		MORNING SUN			HOURS	TWILIGHTS		MOON	SUN	MOON
	set	–12˚	–18˚	set	rise	–18˚	–12˚	rise	twi–twi	sidereal time		phase	(apparent)	(apparent)
01–02 Tu	18:32	19:24	19:55	01:33	—	03:39	04:11	05:02	07:43	22:34	06:19	0·54	14 27·0 –14 32	21 09·1 –21 55
02–03 We	18:33	19:25	19:57	02:12	—	03:38	04:10	05:01	07:41	22:39	06:22	0·65	14 30·9 –14 51	22 05·1 –17 14
03–04 Th	18:34	19:26	19:58	02:46		03:37	04:09	05:01	07:38	22:45	06:25	0·75	14 34·9 –15 10	22 57·7 –11 43
04–05 Fr	18:35	19:27	19:59	03:17		03:36	04:08	05:00	07:36	22:50	06:28	0·84	14 38·8 –15 29	23 47·5 –05 41
05–06 Sa	18:35	19:28	20:00			03:34	04:07	04:59	07:34	22:55	06:30	0·91	14 42·8 –15 47	00 35·6 +00 32
06–07 Su	18:36	19:29	20:01			03:33	04:06	04:58	07:32	23:00	06:33	0·96	14 46·8 –16 05	01 23·2 +06 38
07–08 Mo	18:37	19:30	20:02			03:32	04:05	04:57	07:30	23:05	06:36	0·99	14 50·7 –16 23	02 11·1 +12 22
08–09 Tu	18:38	19:31	20:03			03:31	04:04	04:57	07:27	23:10	06:39	1·00	14 54·8 –16 40	03 00·2 +17 28
09–10 We	18:39	19:32	20:04			03:30	04:03	04:56	07:25	23:15	06:42	0·99	14 58·8 –16 57	03 50·8 +21 42
10–11 Th	18:40	19:33	20:06		20:20	03:29	04:02	04:55	07:23	23:20	06:45	0·96	15 02·8 –17 14	04 43·2 +24 52
11–12 Fr	18:41	19:34	20:07		21:19	03:28	04:01	04:55	07:21	23:25	06:48	0·91	15 06·9 –17 31	05 36·8 +26 50
12–13 Sa	18:41	19:35	20:08		22:13	03:27	04:01	04:54	07:19	23:30	06:51	0·84	15 10·9 –17 47	06 30·8 +27 30
13–14 Su	18:42	19:36	20:09		23:03	03:27	04:00	04:53	07:17	23:35	06:54	0·77	15 15·0 –18 03	07 24·2 +26 53
14–15 Mo	18:43	19:37	20:10		23:46	03:26	03:59	04:53	07:15	23:41	06:57	0·68	15 19·1 –18 19	08 16·2 +25 02
15–16 Tu	18:44	19:38	20:12		00:25	03:25	03:59	04:52	07:13	23:46	07:00	0·59	15 23·2 –18 34	09 06·2 +22 07
16–17 We	18:45	19:39	20:13	—	00:59	03:24	03:58	04:52	07:11	23:51	07:03	0·50	15 27·3 –18 49	09 54·3 +18 15
17–18 Th	18:46	19:40	20:14	—	01:30	03:23	03:57	04:51	07:09	23:56	07:07	0·40	15 31·5 –19 04	10 40·7 +13 36
18–19 Fr	18:47	19:41	20:15		01:58	03:23	03:57	04:51	07:07	00:01	07:10	0·31	15 35·6 –19 18	11 26·2 +08 19
19–20 Sa	18:48	19:42	20:16		02:26	03:22	03:56	04:50	07:05	00:06	07:13	0·22	15 39·8 –19 32	12 11·7 +02 34
20–21 Su	18:49	19:43	20:17		02:55	03:21	03:55	04:50	07:03	00:11	07:16	0·14	15 43·9 –19 46	12 58·1 –03 28
21–22 Mo	18:49	19:44	20:19			03:20	03:55	04:50	07:01	00:16	07:19	0·07	15 48·1 –19 59	13 46·7 –09 32
22–23 Tu	18:50	19:45	20:20			03:20	03:54	04:49	07:00	00:22	07:23	0·03	15 52·3 –20 12	14 38·5 –15 19
23–24 We	18:51	19:46	20:21			03:19	03:54	04:49	06:58	00:27	07:26	0·00	15 56·6 –20 25	15 34·6 –20 27
24–25 Th	18:52	19:47	20:22			03:19	03:53	04:49	06:56	00:32	07:29	0·01	16 00·8 –20 37	16 35·3 –24 28
25–26 Fr	18:53	19:48	20:23	20:32		03:18	03:53	04:48	06:54	00:37	07:33	0·04	16 05·0 –20 49	17 40·0 –26 53
26–27 Sa	18:54	19:49	20:24	21:40		03:18	03:53	04:48	06:53	00:42	07:36	0·10	16 09·3 –21 00	18 46·5 –27 26
27–28 Su	18:55	19:50	20:25	22:40		03:17	03:52	04:48	06:51	00:47	07:40	0·18	16 13·6 –21 11	19 52·1 –26 01
28–29 Mo	18:56	19:51	20:27	23:31		03:17	03:52	04:48	06:50	00:52	07:43	0·28	16 17·8 –21 22	20 54·4 –22 52
29–30 Tu	18:56	19:52	20:28	00:13		03:16	03:52	04:47	06:48	00:57	07:47	0·38	16 22·1 –21 32	21 52·4 –18 22
30–01 We	18:57	19:53	20:29	00:49	—	03:16	03:51	04:47	06:47	01:02	07:50	0·50	16 26·4 –21 42	22 46·0 –12 58

Siding Spring Observatory

December 2022

DATE	EVENING SUN			MOON		MORNING SUN			HOURS	TWILIGHTS		MOON	SUN	MOON
	set	–12˚	–18˚	set	rise	–18˚	–12˚	rise	twi–twi	sidereal time		phase	(apparent)	(apparent)
01–02 Th	18:58	19:54	20:30	01:21		03:16	03:51	04:47	06:45	01:07	07:54	0·61	16 30·7 –21 51	23 36·3 –07 02
02–03 Fr	18:59	19:55	20:31	01:50		03:15	03:51	04:47	06:44	01:12	07:58	0·71	16 35·1 –22 00	00 24·2 –00 54
03–04 Sa	19:00	19:56	20:32	02:19		03:15	03:51	04:47	06:43	01:17	08:01	0·80	16 39·4 –22 09	01 11·2 +05 10
04–05 Su	19:01	19:57	20:33	02:49		03:15	03:51	04:47	06:42	01:22	08:05	0·88	16 43·7 –22 17	01 58·1 +10 54
05–06 Mo	19:01	19:58	20:34			03:15	03:51	04:47	06:40	01:27	08:09	0·94	16 48·1 –22 24	02 46·1 +16 06
06–07 Tu	19:02	19:59	20:35			03:15	03:51	04:47	06:39	01:32	08:13	0·98	16 52·4 –22 32	03 35·6 +20 32
07–08 We	19:03	20:00	20:36			03:15	03:51	04:47	06:38	01:37	08:17	1·00	16 56·8 –22 39	04 27·0 +24 00
08–09 Th	19:04	20:00	20:37			03:14	03:51	04:47	06:37	01:42	08:21	1·00	17 01·2 –22 45	05 20·1 +26 19
09–10 Fr	19:05	20:01	20:38			03:14	03:51	04:48	06:36	01:47	08:24	0·98	17 05·6 –22 51	06 14·1 +27 23
10–11 Sa	19:05	20:02	20:39		20:56	03:14	03:51	04:48	06:35	01:51	08:28	0·95	17 10·0 –22 56	07 07·8 +27 08
11–12 Su	19:06	20:03	20:39		21:42	03:15	03:51	04:48	06:35	01:56	08:32	0·90	17 14·4 –23 01	08 00·4 +25 38
12–13 Mo	19:07	20:04	20:40		22:23	03:15	03:51	04:48	06:34	02:01	08:36	0·83	17 18·8 –23 06	08 51·0 +23 01
13–14 Tu	19:07	20:04	20:41		22:58	03:15	03:51	04:48	06:33	02:06	08:41	0·76	17 23·2 –23 10	09 39·3 +19 26
14–15 We	19:08	20:05	20:42		23:29	03:15	03:52	04:49	06:33	02:10	08:45	0·67	17 27·6 –23 14	10 25·6 +15 03
15–16 Th	19:09	20:06	20:42		23:58	03:15	03:52	04:49	06:32	02:15	08:49	0·58	17 32·0 –23 17	11 10·6 +10 03
16–17 Fr	19:09	20:06	20:43	—	00:26	03:16	03:52	04:49	06:32	02:20	08:53	0·48	17 36·5 –23 20	11 54·9 +04 34
17–18 Sa	19:10	20:07	20:44		00:53	03:16	03:53	04:50	06:32	02:24	08:57	0·38	17 40·9 –23 22	12 39·7 –01 13
18–19 Su	19:10	20:08	20:44		01:22	03:16	03:53	04:50	06:31	02:29	09:02	0·28	17 45·3 –23 24	13 26·0 –07 08
19–20 Mo	19:11	20:08	20:45		01:53	03:17	03:53	04:51	06:31	02:33	09:06	0·19	17 49·8 –23 25	14 15·3 –12 56
20–21 Tu	19:12	20:09	20:46		02:29	03:17	03:54	04:51	06:31	02:38	09:10	0·11	17 54·2 –23 26	15 08·7 –18 19
21–22 We	19:12	20:09	20:46		03:13	03:18	03:54	04:52	06:31	02:42	09:15	0·05	17 58·6 –23 26	16 07·0 –22 50
22–23 Th	19:13	20:10	20:47			03:18	03:55	04:52	06:31	02:47	09:19	0·01	18 03·1 –23 26	17 10·5 –26 01
23–24 Fr	19:13	20:10	20:47			03:19	03:55	04:53	06:31	02:51	09:24	0·00	18 07·5 –23 25	18 17·6 –27 23
24–25 Sa	19:14	20:11	20:48			03:19	03:56	04:53	06:31	02:56	09:28	0·02	18 12·0 –23 24	19 25·8 –26 43
25–26 Su	19:14	20:11	20:48	21:21		03:20	03:57	04:54	06:31	03:00	09:33	0·07	18 16·4 –23 23	20 31·7 –24 05
26–27 Mo	19:14	20:12	20:48	22:08		03:20	03:57	04:54	06:32	03:04	09:37	0·14	18 20·8 –23 21	21 33·5 –19 51
27–28 Tu	19:15	20:12	20:49	22:48	—	03:21	03:58	04:55	06:32	03:08	09:42	0·24	18 25·3 –23 19	22 30·3 –14 29
28–29 We	19:15	20:12	20:49	23:22		03:22	03:59	04:56	06:32	03:13	09:47	0·34	18 29·7 –23 16	23 22·9 –08 28
29–30 Th	19:15	20:12	20:49	23:53	—	03:23	03:59	04:56	06:33	03:17	09:51	0·45	18 34·1 –23 12	00 12·4 –02 13
30–31 Fr	19:16	20:13	20:49	00:22		03:23	04:00	04:57	06:34	03:21	09:56	0·56	18 38·6 –23 08	01 00·0 +03 56
31–01 Sa	19:16	20:13	20:49	00:52		03:24	04:01	04:58	06:34	03:25	10:01	0·66	18 43·0 –23 04	01 47·1 +09 47