Siding Spring Observatory

January 2024

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	19:16	20:13	20:50		22:41	03:25	04:01	04:58	06:35	03:28	10:05	0·73	18 46·3 –23 01	11 01·8 +09 35
02–03 Tu	19:16	20:13	20:50		23:06	03:26	04:02	04:59	06:36	03:32	10:09	0·65	18 50·7 –22 55	11 44·1 +04 09
03–04 We	19:17	20:13	20:50	—	23:31	03:27	04:03	05:00	06:36	03:36	10:14	0·55	18 55·1 –22 50	12 26·1 –01 27
04–05 Th	19:17	20:13	20:50		23:56	03:28	04:04	05:00	06:37	03:40	10:19	0·46	18 59·5 –22 44	13 08·7 –07 04
05–06 Fr	19:17	20:13	20:50		00:24	03:28	04:05	05:01	06:38	03:44	10:24	0·36	19 03·9 –22 37	13 53·2 –12 32
06–07 Sa	19:17	20:13	20:50		00:54	03:29	04:06	05:02	06:39	03:48	10:29	0·27	19 08·3 –22 30	14 40·6 –17 38
07–08 Su	19:17	20:13	20:49		01:30	03:30	04:06	05:03	06:41	03:52	10:34	0·18	19 12·7 –22 23	15 32·2 –22 06
08–09 Mo	19:17	20:13	20:49		02:14	03:31	04:07	05:04	06:42	03:55	10:39	0·11	19 17·1 –22 15	16 28·5 –25 35
09–10 Tu	19:17	20:13	20:49		03:07	03:33	04:08	05:05	06:43	03:59	10:44	0·05	19 21·4 –22 07	17 29·5 –27 42
10–11 We	19:17	20:13	20:49			03:34	04:09	05:05	06:44	04:03	10:49	0·01	19 25·8 –21 58	18 33·7 –28 06
11–12 Th	19:17	20:13	20:49			03:35	04:10	05:06	06:46	04:07	10:54	0·00	19 30·1 –21 49	19 38·7 –26 34
12–13 Fr	19:17	20:13	20:48			03:36	04:11	05:07	06:47	04:10	10:59	0·02	19 34·5 –21 40	20 42·1 –23 12
13–14 Sa	19:17	20:13	20:48	21:01		03:37	04:12	05:08	06:48	04:14	11:04	0·06	19 38·8 –21 30	21 42·0 –18 18
14–15 Su	19:17	20:12	20:48	21:38		03:38	04:13	05:09	06:50	04:17	11:09	0·13	19 43·1 –21 19	22 38·2 –12 19
15–16 Mo	19:16	20:12	20:47	22:12		03:39	04:14	05:10	06:52	04:21	11:14	0·22	19 47·4 –21 09	23 31·2 –05 44
16–17 Tu	19:16	20:12	20:47	22:43		03:40	04:15	05:11	06:53	04:24	11:19	0·33	19 51·7 –20 57	00 22·1 +01 03
17–18 We	19:16	20:11	20:46	23:14	—	03:41	04:16	05:12	06:55	04:28	11:24	0·44	19 56·0 –20 46	01 12·2 +07 39
18–19 Th	19:16	20:11	20:46	23:46		03:43	04:17	05:13	06:57	04:31	11:29	0·55	20 00·3 –20 34	02 02·7 +13 45
19–20 Fr	19:16	20:10	20:45	00:20		03:44	04:19	05:13	06:58	04:35	11:35	0·65	20 04·5 –20 22	02 54·6 +19 04
20–21 Sa	19:15	20:10	20:45	00:59		03:45	04:20	05:14	07:00	04:38	11:40	0·75	20 08·8 –20 09	03 48·4 +23 21
21–22 Su	19:15	20:10	20:44	01:44		03:46	04:21	05:15	07:02	04:41	11:45	0·83	20 13·0 –19 56	04 44·3 +26 23
22–23 Mo	19:14	20:09	20:43	02:34		03:47	04:22	05:16	07:04	04:45	11:50	0·90	20 17·2 –19 42	05 41·4 +27 59
23–24 Tu	19:14	20:08	20:43	03:29		03:49	04:23	05:17	07:06	04:48	11:55	0·95	20 21·4 –19 28	06 38·5 +28 05
24–25 We	19:14	20:08	20:42			03:50	04:24	05:18	07:08	04:51	12:00	0·99	20 25·6 –19 14	07 34·2 +26 45
25–26 Th	19:13	20:07	20:41			03:51	04:25	05:19	07:10	04:54	12:06	1·00	20 29·8 –19 00	08 27·2 +24 08
26–27 Fr	19:13	20:07	20:40			03:52	04:26	05:20	07:11	04:58	12:11	0·99	20 33·9 –18 45	09 17·2 +20 29
27–28 Sa	19:12	20:06	20:40			03:54	04:27	05:21	07:14	05:01	12:16	0·97	20 38·1 –18 29	10 04·1 +16 01
28–29 Su	19:12	20:05	20:39		20:42	03:55	04:28	05:22	07:16	05:04	12:21	0·93	20 42·2 –18 14	10 48·5 +11 00
29–30 Mo	19:11	20:05	20:38		21:08	03:56	04:29	05:23	07:18	05:07	12:26	0·87	20 46·4 –17 58	11 31·1 +05 36
30–31 Tu	19:11	20:04	20:37		21:33	03:57	04:30	05:24	07:20	05:10	12:31	0·80	20 50·5 –17 42	12 12·9 +00 02
31–01 We	19:10	20:03	20:36		21:58	03:58	04:31	05:25	07:22	05:13	12:37	0·72	20 54·6 –17 25	12 54·8 –05 34

Siding Spring Observatory

February 2024

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	19:09	20:02	20:35		22:24	04:00	04:33	05:26	07:24	05:16	12:42	0·63	20 58·7 –17 08	13 37·9 –11 02
02–03 Fr	19:09	20:01	20:34	—	22:52	04:01	04:34	05:26	07:26	05:19	12:47	0·54	21 02·7 –16 51	14 23·4 –16 11
03–04 Sa	19:08	20:01	20:33		23:25	04:02	04:35	05:27	07:28	05:22	12:52	0·44	21 06·8 –16 33	15 12·3 –20 47
04–05 Su	19:07	20:00	20:32		00:03	04:03	04:36	05:28	07:31	05:25	12:57	0·34	21 10·8 –16 16	16 05·4 –24 35
05–06 Mo	19:07	19:59	20:31		00:50	04:04	04:37	05:29	07:33	05:28	13:02	0·24	21 14·9 –15 58	17 03·2 –27 12
06–07 Tu	19:06	19:58	20:30		01:47	04:06	04:38	05:30	07:35	05:31	13:07	0·15	21 18·9 –15 39	18 05·0 –28 18
07–08 We	19:05	19:57	20:29		02:54	04:07	04:39	05:31	07:37	05:34	13:13	0·08	21 22·9 –15 21	19 09·2 –27 36
08–09 Th	19:04	19:56	20:28		04:07	04:08	04:40	05:32	07:39	05:37	13:18	0·03	21 26·9 –15 02	20 13·5 –24 59
09–10 Fr	19:03	19:55	20:27			04:09	04:41	05:33	07:42	05:39	13:23	0·00	21 30·9 –14 43	21 15·7 –20 37
10–11 Sa	19:03	19:54	20:26			04:10	04:42	05:34	07:44	05:42	13:28	0·01	21 34·8 –14 23	22 14·6 –14 53
11–12 Su	19:02	19:53	20:25			04:12	04:43	05:35	07:46	05:45	13:33	0·04	21 38·8 –14 04	23 10·4 –08 14
12–13 Mo	19:01	19:52	20:24	20:41		04:13	04:44	05:35	07:49	05:48	13:38	0·10	21 42·7 –13 44	00 03·7 –01 12
13–14 Tu	19:00	19:51	20:22	21:13		04:14	04:45	05:36	07:51	05:51	13:43	0·18	21 46·7 –13 24	00 55·8 +05 47
14–15 We	18:59	19:50	20:21	21:45		04:15	04:46	05:37	07:53	05:53	13:48	0·28	21 50·6 –13 04	01 47·8 +12 18
15–16 Th	18:58	19:49	20:20	22:20	—	04:16	04:47	05:38	07:55	05:56	13:53	0·39	21 54·5 –12 43	02 40·7 +18 02
16–17 Fr	18:57	19:48	20:19	22:58		04:17	04:48	05:39	07:58	05:59	13:58	0·50	21 58·4 –12 23	03 35·1 +22 41
17–18 Sa	18:56	19:47	20:18	23:41		04:18	04:49	05:40	08:00	06:02	14:03	0·60	22 02·3 –12 02	04 31·1 +26 02
18–19 Su	18:55	19:46	20:16	00:30		04:19	04:50	05:41	08:02	06:04	14:08	0·70	22 06·1 –11 41	05 28·1 +27 56
19–20 Mo	18:54	19:45	20:15	01:24		04:20	04:51	05:41	08:05	06:07	14:13	0·79	22 10·0 –11 19	06 25·2 +28 21
20–21 Tu	18:53	19:43	20:14	02:21		04:21	04:52	05:42	08:07	06:10	14:18	0·86	22 13·8 –10 58	07 20·9 +27 19
21–22 We	18:52	19:42	20:13	03:20		04:22	04:53	05:43	08:09	06:12	14:23	0·92	22 17·7 –10 36	08 14·2 +24 59
22–23 Th	18:51	19:41	20:11	04:19		04:23	04:54	05:44	08:11	06:15	14:28	0·97	22 21·5 –10 15	09 04·5 +21 33
23–24 Fr	18:50	19:40	20:10			04:24	04:55	05:45	08:14	06:18	14:33	0·99	22 25·3 –09 53	09 51·9 +17 16
24–25 Sa	18:49	19:39	20:09			04:25	04:56	05:45	08:16	06:20	14:38	1·00	22 29·1 –09 31	10 36·7 +12 20
25–26 Su	18:48	19:38	20:08			04:26	04:57	05:46	08:18	06:23	14:43	0·99	22 32·9 –09 08	11 19·6 +07 00
26–27 Mo	18:47	19:36	20:06			04:27	04:57	05:47	08:21	06:26	14:48	0·96	22 36·7 –08 46	12 01·5 +01 25
27–28 Tu	18:46	19:35	20:05			04:28	04:58	05:48	08:23	06:28	14:53	0·92	22 40·4 –08 23	12 43·3 –04 13
28–29 We	18:45	19:34	20:04		20:26	04:29	04:59	05:49	08:25	06:31	14:58	0·86	22 44·2 –08 01	13 25·9 –09 45
29–01 Th	18:43	19:33	20:02		20:53	04:30	05:00	05:49	08:27	06:34	15:03	0·79	22 47·9 –07 38	14 10·3 –14 59

Siding Spring Observatory

March 2024

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	18:42	19:31	20:01		21:24	04:31	05:01	05:50	08:30	06:36	15:08	0·70	22 51·7 –07 15	14 57·4 –19 43
02–03 Sa	18:41	19:30	20:00	—	21:59	04:32	05:02	05:51	08:32	06:39	15:13	0·61	22 55·4 –06 52	15 48·2 –23 43
03–04 Su	18:40	19:29	19:58		22:41	04:33	05:03	05:52	08:34	06:41	15:17	0·51	22 59·2 –06 29	16 43·0 –26 40
04–05 Mo	18:39	19:28	19:57		23:32	04:34	05:03	05:52	08:36	06:44	15:22	0·40	23 02·9 –06 06	17 41·7 –28 17
05–06 Tu	18:38	19:26	19:56		00:32	04:35	05:04	05:53	08:39	06:47	15:27	0·30	23 06·6 –05 43	18 43·3 –28 16
06–07 We	18:36	19:25	19:54		01:40	04:36	05:05	05:54	08:41	06:49	15:32	0·20	23 10·3 –05 20	19 46·0 –26 28
07–08 Th	18:35	19:24	19:53		02:53	04:37	05:06	05:55	08:43	06:52	15:37	0·11	23 14·0 –04 56	20 47·8 –22 53
08–09 Fr	18:34	19:23	19:52		04:07	04:37	05:07	05:55	08:45	06:54	15:42	0·05	23 17·7 –04 33	21 47·4 –17 45
09–10 Sa	18:33	19:21	19:50			04:38	05:07	05:56	08:47	06:57	15:46	0·01	23 21·4 –04 09	22 44·4 –11 27
10–11 Su	18:32	19:20	19:49			04:39	05:08	05:57	08:50	07:00	15:51	0·00	23 25·1 –03 46	23 39·2 –04 25
11–12 Mo	18:30	19:19	19:48			04:40	05:09	05:57	08:52	07:02	15:56	0·02	23 28·8 –03 22	00 32·8 +02 50
12–13 Tu	18:29	19:17	19:46			04:41	05:10	05:58	08:54	07:05	16:01	0·07	23 32·4 –02 59	01 26·3 +09 50
13–14 We	18:28	19:16	19:45	20:15		04:42	05:10	05:59	08:56	07:07	16:05	0·14	23 36·1 –02 35	02 20·6 +16 09
14–15 Th	18:27	19:15	19:44	20:53		04:42	05:11	05:59	08:58	07:10	16:10	0·23	23 39·8 –02 11	03 16·4 +21 24
15–16 Fr	18:25	19:14	19:42	21:36	—	04:43	05:12	06:00	09:00	07:12	16:15	0·33	23 43·4 –01 48	04 13·8 +25 19
16–17 Sa	18:24	19:12	19:41	22:24		04:44	05:13	06:01	09:02	07:15	16:20	0·44	23 47·1 –01 24	05 12·3 +27 43
17–18 Su	18:23	19:11	19:40	23:17		04:45	05:13	06:01	09:05	07:18	16:24	0·54	23 50·8 –01 00	06 10·5 +28 32
18–19 Mo	18:22	19:10	19:38	00:15		04:45	05:14	06:02	09:07	07:20	16:29	0·64	23 54·4 –00 36	07 07·3 +27 50
19–20 Tu	18:20	19:08	19:37	01:14		04:46	05:15	06:03	09:09	07:23	16:34	0·73	23 58·1 –00 13	08 01·5 +25 47
20–21 We	18:19	19:07	19:36	02:13		04:47	05:15	06:03	09:11	07:26	16:38	0·81	00 01·7 +00 11	08 52·5 +22 35
21–22 Th	18:18	19:06	19:34	03:10		04:48	05:16	06:04	09:13	07:28	16:43	0·88	00 05·4 +00 35	09 40·4 +18 28
22–23 Fr	18:17	19:05	19:33	04:06		04:48	05:17	06:05	09:15	07:31	16:48	0·94	00 09·0 +00 58	10 25·6 +13 41
23–24 Sa	18:15	19:03	19:32			04:49	05:17	06:05	09:17	07:33	16:52	0·97	00 12·6 +01 22	11 08·8 +08 25
24–25 Su	18:14	19:02	19:30			04:50	05:18	06:06	09:19	07:36	16:57	1·00	00 16·3 +01 46	11 50·8 +02 51
25–26 Mo	18:13	19:01	19:29			04:50	05:19	06:07	09:21	07:39	17:02	1·00	00 19·9 +02 09	12 32·6 –02 49
26–27 Tu	18:12	19:00	19:28			04:51	05:19	06:07	09:23	07:41	17:06	0·98	00 23·6 +02 33	13 15·1 –08 26
27–28 We	18:10	18:58	19:26			04:52	05:20	06:08	09:25	07:44	17:11	0·95	00 27·2 +02 56	13 59·1 –13 48
28–29 Th	18:09	18:57	19:25		19:26	04:52	05:21	06:09	09:27	07:47	17:15	0·90	00 30·8 +03 20	14 45·6 –18 42
29–30 Fr	18:08	18:56	19:24		19:59	04:53	05:21	06:09	09:29	07:49	17:20	0·84	00 34·5 +03 43	15 35·3 –22 53
30–31 Sa	18:07	18:55	19:23		20:39	04:54	05:22	06:10	09:31	07:52	17:25	0·76	00 38·1 +04 06	16 28·6 –26 07
31–01 Su	18:05	18:53	19:21	—	21:26	04:54	05:23	06:11	09:33	07:55	17:29	0·66	00 41·8 +04 29	17 25·5 –28 05

Siding Spring Observatory

April 2024

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	18:04	18:52	19:20		22:21	04:55	05:23	06:11	09:34	07:57	17:34	0·56	00 45·4 +04 53	18 24·9 –28 32
02–03 Tu	18:03	18:51	19:19		23:24	04:56	05:24	06:12	09:36	08:00	17:38	0·45	00 49·1 +05 16	19 25·6 –27 20
03–04 We	18:02	18:50	19:18		00:33	04:56	05:24	06:13	09:38	08:03	17:43	0·34	00 52·7 +05 39	20 25·7 –24 26
04–05 Th	18:00	18:48	19:17		01:44	04:57	05:25	06:13	09:40	08:06	17:48	0·24	00 56·4 +06 01	21 24·1 –20 00
05–06 Fr	17:59	18:47	19:15		02:55	04:58	05:26	06:14	09:42	08:08	17:52	0·14	01 00·0 +06 24	22 20·4 –14 17
06–07 Sa	17:58	18:46	19:14		04:06	04:58	05:26	06:14	09:44	08:11	17:57	0·07	01 03·7 +06 47	23 14·8 –07 39
07–08 Su	17:57	18:45	19:13			04:59	05:27	06:15	09:45	08:14	18:01	0·02	01 07·3 +07 09	00 08·1 –00 31
08–09 Mo	17:56	18:44	19:12			04:59	05:28	06:16	09:47	08:17	18:06	0·00	01 11·0 +07 32	01 01·4 +06 40
09–10 Tu	17:54	18:43	19:11			05:00	05:28	06:16	09:49	08:19	18:10	0·01	01 14·7 +07 54	01 55·9 +13 25
10–11 We	17:53	18:41	19:09			05:01	05:29	06:17	09:51	08:22	18:15	0·05	01 18·4 +08 16	02 52·1 +19 18
11–12 Th	17:52	18:40	19:08	19:26	—	05:01	05:29	06:18	09:52	08:25	18:19	0·11	01 22·0 +08 38	03 50·5 +23 57
12–13 Fr	17:51	18:39	19:07	20:13		05:02	05:30	06:18	09:54	08:28	18:24	0·19	01 25·7 +09 00	04 50·5 +27 03
13–14 Sa	17:50	18:38	19:06	21:06	—	05:02	05:31	06:19	09:56	08:31	18:29	0·28	01 29·4 +09 22	05 50·8 +28 28
14–15 Su	17:49	18:37	19:05	22:04		05:03	05:31	06:20	09:58	08:33	18:33	0·38	01 33·1 +09 43	06 49·8 +28 14
15–16 Mo	17:48	18:36	19:04	23:04		05:04	05:32	06:20	09:59	08:36	18:38	0·48	01 36·8 +10 05	07 46·0 +26 32
16–17 Tu	17:46	18:35	19:03	00:04		05:04	05:32	06:21	10:01	08:39	18:42	0·58	01 40·5 +10 26	08 38·6 +23 35
17–18 We	17:45	18:34	19:02	01:03		05:05	05:33	06:22	10:02	08:42	18:47	0·67	01 44·2 +10 47	09 27·7 +19 40
18–19 Th	17:44	18:33	19:01	01:59		05:05	05:34	06:22	10:04	08:45	18:51	0·76	01 48·0 +11 08	10 13·6 +15 02
19–20 Fr	17:43	18:32	19:00	02:54		05:06	05:34	06:23	10:06	08:48	18:56	0·83	01 51·7 +11 28	10 57·3 +09 53
20–21 Sa	17:42	18:31	18:59	03:48		05:07	05:35	06:24	10:07	08:51	19:00	0·90	01 55·4 +11 49	11 39·5 +04 23
21–22 Su	17:41	18:30	18:58	04:41		05:07	05:35	06:24	10:09	08:54	19:05	0·95	01 59·2 +12 09	12 21·3 –01 16
22–23 Mo	17:40	18:29	18:57			05:08	05:36	06:25	10:10	08:57	19:09	0·98	02 02·9 +12 29	13 03·6 –06 56
23–24 Tu	17:39	18:28	18:56			05:08	05:37	06:25	10:12	09:00	19:14	1·00	02 06·7 +12 49	13 47·4 –12 25
24–25 We	17:38	18:27	18:55			05:09	05:37	06:26	10:13	09:03	19:18	1·00	02 10·4 +13 09	14 33·5 –17 29
25–26 Th	17:37	18:26	18:54			05:09	05:38	06:27	10:15	09:06	19:23	0·98	02 14·2 +13 28	15 22·8 –21 55
26–27 Fr	17:36	18:25	18:53			05:10	05:38	06:27	10:16	09:09	19:27	0·93	02 18·0 +13 48	16 15·7 –25 25
27–28 Sa	17:35	18:24	18:52		19:23	05:11	05:39	06:28	10:18	09:12	19:32	0·87	02 21·8 +14 07	17 12·1 –27 42
28–29 Su	17:34	18:23	18:52		20:16	05:11	05:40	06:29	10:19	09:15	19:36	0·80	02 25·6 +14 25	18 11·0 –28 31
29–30 Mo	17:33	18:22	18:51	—	21:17	05:12	05:40	06:29	10:21	09:18	19:41	0·70	02 29·4 +14 44	19 11·0 –27 43
30–01 Tu	17:32	18:21	18:50		22:23	05:12	05:41	06:30	10:22	09:21	19:45	0·60	02 33·2 +15 02	20 10·3 –25 17

Siding Spring Observatory

May 2024

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	17:31	18:21	18:49		23:31	05:13	05:41	06:31	10:23	09:24	19:50	0·49	02 37·0 +15 20	21 07·8 –21 20
02–03 Th	17:30	18:20	18:48		00:40	05:13	05:42	06:31	10:25	09:28	19:54	0·37	02 40·9 +15 38	22 03·0 –16 08
03–04 Fr	17:29	18:19	18:48		01:49	05:14	05:42	06:32	10:26	09:31	19:59	0·27	02 44·7 +15 56	22 56·1 –09 59
04–05 Sa	17:29	18:18	18:47		02:56	05:14	05:43	06:33	10:27	09:34	20:03	0·17	02 48·6 +16 13	23 47·9 –03 13
05–06 Su	17:28	18:18	18:46		04:04	05:15	05:44	06:33	10:28	09:37	20:08	0·09	02 52·4 +16 30	00 39·7 +03 48
06–07 Mo	17:27	18:17	18:45		05:13	05:16	05:44	06:34	10:30	09:40	20:12	0·03	02 56·3 +16 47	01 32·5 +10 38
07–08 Tu	17:26	18:16	18:45			05:16	05:45	06:35	10:31	09:44	20:17	0·00	03 00·2 +17 03	02 27·4 +16 52
08–09 We	17:25	18:15	18:44			05:17	05:45	06:35	10:32	09:47	20:21	0·00	03 04·1 +17 19	03 24·9 +22 04
09–10 Th	17:25	18:15	18:43			05:17	05:46	06:36	10:33	09:50	20:26	0·03	03 08·0 +17 35	04 24·9 +25 52
10–11 Fr	17:24	18:14	18:43	18:52		05:18	05:47	06:37	10:35	09:54	20:30	0·08	03 11·9 +17 51	05 26·3 +28 01
11–12 Sa	17:23	18:13	18:42	19:49		05:18	05:47	06:37	10:36	09:57	20:35	0·14	03 15·8 +18 06	06 27·3 +28 25
12–13 Su	17:23	18:13	18:42	20:50		05:19	05:48	06:38	10:37	10:00	20:39	0·23	03 19·7 +18 21	07 26·0 +27 12
13–14 Mo	17:22	18:12	18:41	21:52	—	05:19	05:48	06:39	10:38	10:04	20:44	0·32	03 23·7 +18 36	08 21·1 +24 36
14–15 Tu	17:21	18:12	18:41	22:52		05:20	05:49	06:39	10:39	10:07	20:48	0·41	03 27·6 +18 50	09 12·1 +20 55
15–16 We	17:21	18:11	18:40	23:50		05:21	05:49	06:40	10:40	10:11	20:53	0·51	03 31·6 +19 04	09 59·5 +16 26
16–17 Th	17:20	18:11	18:40	00:46		05:21	05:50	06:41	10:41	10:14	20:57	0·60	03 35·5 +19 18	10 44·1 +11 23
17–18 Fr	17:19	18:10	18:39	01:40		05:22	05:51	06:41	10:42	10:17	21:02	0·69	03 39·5 +19 31	11 26·7 +05 58
18–19 Sa	17:19	18:10	18:39	02:34		05:22	05:51	06:42	10:43	10:21	21:06	0·78	03 43·5 +19 44	12 08·5 +00 22
19–20 Su	17:18	18:09	18:38	03:28		05:23	05:52	06:43	10:44	10:24	21:11	0·85	03 47·5 +19 57	12 50·5 –05 18
20–21 Mo	17:18	18:09	18:38	04:23		05:23	05:52	06:43	10:45	10:28	21:15	0·91	03 51·5 +20 10	13 33·8 –10 50
21–22 Tu	17:17	18:08	18:37	05:21		05:24	05:53	06:44	10:46	10:32	21:20	0·96	03 55·5 +20 22	14 19·4 –16 03
22–23 We	17:17	18:08	18:37			05:24	05:53	06:44	10:47	10:35	21:24	0·99	03 59·5 +20 33	15 08·1 –20 42
23–24 Th	17:16	18:08	18:37			05:25	05:54	06:45	10:47	10:39	21:29	1·00	04 03·6 +20 45	16 00·6 –24 31
24–25 Fr	17:16	18:07	18:36			05:25	05:54	06:46	10:48	10:42	21:33	0·99	04 07·6 +20 56	16 56·9 –27 10
25–26 Sa	17:16	18:07	18:36			05:26	05:55	06:46	10:49	10:46	21:37	0·96	04 11·6 +21 06	17 56·1 –28 22
26–27 Su	17:15	18:07	18:36		19:10	05:26	05:55	06:47	10:50	10:50	21:42	0·90	04 15·7 +21 16	18 56·7 –27 56
27–28 Mo	17:15	18:06	18:36		20:15	05:27	05:56	06:47	10:51	10:53	21:46	0·83	04 19·7 +21 26	19 56·9 –25 49
28–29 Tu	17:15	18:06	18:35		21:24	05:27	05:56	06:48	10:51	10:57	21:51	0·73	04 23·8 +21 36	20 54·9 –22 11
29–30 We	17:14	18:06	18:35	—	22:32	05:28	05:57	06:48	10:52	11:01	21:55	0·63	04 27·9 +21 45	21 50·2 –17 16
30–31 Th	17:14	18:06	18:35		23:39	05:28	05:57	06:49	10:53	11:05	21:59	0·52	04 32·0 +21 54	22 42·9 –11 24
31–01 Fr	17:14	18:05	18:35		00:46	05:28	05:58	06:50	10:53	11:08	22:04	0·40	04 36·1 +22 02	23 33·8 –04 55

Siding Spring Observatory

June 2024

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	17:14	18:05	18:35		01:51	05:29	05:58	06:50	10:54	11:12	22:08	0·29	04 40·2 +22 10	00 24·1 +01 51
02–03 Su	17:13	18:05	18:34		02:58	05:29	05:59	06:51	10:54	11:16	22:13	0·19	04 44·3 +22 18	01 15·0 +08 34
03–04 Mo	17:13	18:05	18:34		04:06	05:30	05:59	06:51	10:55	11:20	22:17	0·11	04 48·4 +22 25	02 07·7 +14 50
04–05 Tu	17:13	18:05	18:34		05:15	05:30	06:00	06:52	10:55	11:24	22:21	0·05	04 52·5 +22 32	03 03·0 +20 18
05–06 We	17:13	18:05	18:34			05:31	06:00	06:52	10:56	11:28	22:26	0·01	04 56·6 +22 38	04 01·3 +24 34
06–07 Th	17:13	18:05	18:34			05:31	06:01	06:53	10:56	11:31	22:30	0·00	05 00·7 +22 44	05 02·0 +27 19
07–08 Fr	17:13	18:05	18:34			05:31	06:01	06:53	10:57	11:35	22:34	0·01	05 04·9 +22 50	06 03·5 +28 22
08–09 Sa	17:13	18:05	18:34			05:32	06:01	06:53	10:57	11:39	22:39	0·05	05 09·0 +22 55	07 03·7 +27 43
09–10 Su	17:13	18:05	18:34	19:36		05:32	06:02	06:54	10:58	11:43	22:43	0·11	05 13·2 +23 00	08 00·8 +25 33
10–11 Mo	17:13	18:05	18:34	20:39		05:33	06:02	06:54	10:58	11:47	22:47	0·18	05 17·3 +23 04	08 54·0 +22 10
11–12 Tu	17:13	18:05	18:34	21:39		05:33	06:03	06:55	10:58	11:51	22:52	0·26	05 21·5 +23 08	09 43·3 +17 51
12–13 We	17:13	18:05	18:34	22:36		05:33	06:03	06:55	10:58	11:55	22:56	0·35	05 25·6 +23 12	10 29·1 +12 55
13–14 Th	17:13	18:05	18:34	23:31	—	05:34	06:03	06:55	10:59	11:59	23:00	0·44	05 29·8 +23 15	11 12·5 +07 35
14–15 Fr	17:13	18:05	18:35	00:25		05:34	06:04	06:56	10:59	12:03	23:05	0·53	05 33·9 +23 18	11 54·6 +02 01
15–16 Sa	17:13	18:05	18:35	01:18		05:34	06:04	06:56	10:59	12:07	23:09	0·63	05 38·1 +23 20	12 36·4 –03 37
16–17 Su	17:13	18:05	18:35	02:13		05:34	06:04	06:56	10:59	12:11	23:13	0·72	05 42·2 +23 22	13 19·0 –09 11
17–18 Mo	17:13	18:05	18:35	03:09		05:35	06:04	06:57	10:59	12:16	23:17	0·80	05 46·4 +23 24	14 03·5 –14 28
18–19 Tu	17:13	18:05	18:35	04:09		05:35	06:05	06:57	10:59	12:20	23:21	0·87	05 50·5 +23 25	14 51·0 –19 18
19–20 We	17:13	18:06	18:35	05:11		05:35	06:05	06:57	10:59	12:24	23:26	0·93	05 54·7 +23 26	15 42·3 –23 24
20–21 Th	17:14	18:06	18:35			05:35	06:05	06:57	10:59	12:28	23:30	0·98	05 58·9 +23 26	16 37·8 –26 27
21–22 Fr	17:14	18:06	18:36			05:36	06:05	06:58	10:59	12:32	23:34	1·00	06 03·0 +23 26	17 36·9 –28 07
22–23 Sa	17:14	18:06	18:36			05:36	06:06	06:58	10:59	12:36	23:38	1·00	06 07·2 +23 26	18 38·3 –28 10
23–24 Su	17:14	18:07	18:36			05:36	06:06	06:58	10:59	12:40	23:42	0·97	06 11·3 +23 25	19 39·9 –26 27
24–25 Mo	17:15	18:07	18:36		19:13	05:36	06:06	06:58	10:59	12:45	23:46	0·92	06 15·5 +23 23	20 39·8 –23 06
25–26 Tu	17:15	18:07	18:37		20:23	05:36	06:06	06:58	10:59	12:49	23:50	0·85	06 19·6 +23 22	21 36·8 –18 22
26–27 We	17:15	18:07	18:37		21:32	05:36	06:06	06:58	10:59	12:53	23:54	0·76	06 23·8 +23 19	22 30·7 –12 37
27–28 Th	17:15	18:08	18:37		22:39	05:37	06:06	06:58	10:59	12:57	23:58	0·65	06 27·9 +23 17	23 22·2 –06 11
28–29 Fr	17:16	18:08	18:38	—	23:44	05:37	06:06	06:58	10:59	13:02	00:03	0·54	06 32·1 +23 14	00 12·4 +00 32
29–30 Sa	17:16	18:08	18:38		00:50	05:37	06:06	06:59	10:58	13:06	00:07	0·42	06 36·2 +23 10	01 02·5 +07 12
30–01 Su	17:17	18:09	18:38		01:56	05:37	06:06	06:59	10:58	13:10	00:11	0·31	06 40·4 +23 07	01 53·8 +13 29

Siding Spring Observatory

July 2024

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	17:17	18:09	18:39		03:03	05:37	06:06	06:58	10:58	13:14	00:14	0·21	06 44·5 +23 03	02 47·2 +19 03
02–03 Tu	17:17	18:09	18:39		04:11	05:37	06:06	06:58	10:57	13:19	00:18	0·13	06 48·6 +22 58	03 43·5 +23 33
03–04 We	17:18	18:10	18:39		05:18	05:37	06:06	06:58	10:57	13:23	00:22	0·06	06 52·8 +22 53	04 42·4 +26 41
04–05 Th	17:18	18:10	18:40			05:37	06:06	06:58	10:57	13:27	00:26	0·02	06 56·9 +22 48	05 42·8 +28 13
05–06 Fr	17:19	18:11	18:40			05:37	06:06	06:58	10:56	13:32	00:30	0·00	07 01·0 +22 42	06 43·0 +28 05
06–07 Sa	17:19	18:11	18:40			05:37	06:06	06:58	10:56	13:36	00:34	0·00	07 05·1 +22 36	07 41·1 +26 23
07–08 Su	17:20	18:11	18:41			05:37	06:06	06:58	10:55	13:40	00:38	0·03	07 09·2 +22 29	08 35·7 +23 20
08–09 Mo	17:20	18:12	18:41	19:26		05:37	06:06	06:58	10:55	13:45	00:42	0·07	07 13·3 +22 22	09 26·4 +19 16
09–10 Tu	17:21	18:12	18:42	20:25		05:36	06:06	06:58	10:54	13:49	00:46	0·13	07 17·4 +22 15	10 13·6 +14 27
10–11 We	17:21	18:13	18:42	21:21		05:36	06:06	06:57	10:54	13:53	00:49	0·20	07 21·5 +22 07	10 57·9 +09 11
11–12 Th	17:22	18:13	18:43	22:15		05:36	06:05	06:57	10:53	13:58	00:53	0·28	07 25·6 +21 59	11 40·4 +03 38
12–13 Fr	17:22	18:14	18:43	23:09		05:36	06:05	06:57	10:52	14:02	00:57	0·37	07 29·6 +21 50	12 22·1 –02 00
13–14 Sa	17:23	18:14	18:43	00:02		05:36	06:05	06:56	10:52	14:07	01:01	0·47	07 33·7 +21 42	13 04·2 –07 34
14–15 Su	17:23	18:15	18:44	00:58		05:35	06:05	06:56	10:51	14:11	01:04	0·56	07 37·7 +21 32	13 47·6 –12 55
15–16 Mo	17:24	18:15	18:44	01:55	—	05:35	06:04	06:56	10:50	14:15	01:08	0·66	07 41·8 +21 23	14 33·5 –17 52
16–17 Tu	17:24	18:16	18:45	02:56		05:35	06:04	06:55	10:50	14:20	01:12	0·75	07 45·8 +21 13	15 22·9 –22 11
17–18 We	17:25	18:16	18:45	03:58		05:35	06:04	06:55	10:49	14:24	01:15	0·83	07 49·8 +21 02	16 16·4 –25 36
18–19 Th	17:25	18:17	18:46	05:02		05:34	06:03	06:55	10:48	14:29	01:19	0·90	07 53·8 +20 52	17 14·1 –27 46
19–20 Fr	17:26	18:17	18:46			05:34	06:03	06:54	10:47	14:33	01:22	0·96	07 57·8 +20 41	18 15·0 –28 24
20–21 Sa	17:26	18:18	18:47			05:34	06:03	06:54	10:46	14:37	01:26	0·99	08 01·8 +20 29	19 17·4 –27 17
21–22 Su	17:27	18:18	18:47			05:33	06:02	06:53	10:45	14:42	01:30	1·00	08 05·8 +20 18	20 19·0 –24 24
22–23 Mo	17:28	18:19	18:48			05:33	06:02	06:53	10:45	14:46	01:33	0·98	08 09·8 +20 06	21 18·3 –19 57
23–24 Tu	17:28	18:19	18:48		19:18	05:32	06:01	06:52	10:44	14:51	01:37	0·94	08 13·8 +19 53	22 14·5 –14 17
24–25 We	17:29	18:20	18:49		20:28	05:32	06:01	06:51	10:43	14:55	01:40	0·87	08 17·7 +19 40	23 07·9 –07 49
25–26 Th	17:29	18:20	18:49		21:36	05:31	06:00	06:51	10:42	15:00	01:44	0·78	08 21·7 +19 27	23 59·5 –00 57
26–27 Fr	17:30	18:21	18:50		22:42	05:31	06:00	06:50	10:41	15:04	01:47	0·67	08 25·6 +19 14	00 50·4 +05 53
27–28 Sa	17:31	18:21	18:50		23:49	05:30	05:59	06:50	10:40	15:08	01:50	0·56	08 29·5 +19 00	01 41·7 +12 21
28–29 Su	17:31	18:22	18:51		00:56	05:30	05:59	06:49	10:39	15:13	01:54	0·45	08 33·5 +18 46	02 34·7 +18 06
29–30 Mo	17:32	18:22	18:51	—	02:03	05:29	05:58	06:48	10:38	15:17	01:57	0·34	08 37·4 +18 32	03 30·0 +22 49
30–31 Tu	17:32	18:23	18:52		03:10	05:29	05:57	06:48	10:37	15:22	02:01	0·24	08 41·3 +18 17	04 27·7 +26 14
31–01 We	17:33	18:23	18:52		04:14	05:28	05:57	06:47	10:35	15:26	02:04	0·15	08 45·2 +18 02	05 27·0 +28 07

Siding Spring Observatory

August 2024

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	17:34	18:24	18:53		05:11	05:27	05:56	06:46	10:34	15:31	02:07	0·09	08 49·0 +17 47	06 26·5 +28 23
02–03 Fr	17:34	18:24	18:53			05:27	05:55	06:45	10:33	15:35	02:10	0·04	08 52·9 +17 32	07 24·5 +27 04
03–04 Sa	17:35	18:25	18:54			05:26	05:55	06:45	10:32	15:40	02:14	0·01	08 56·8 +17 16	08 19·6 +24 22
04–05 Su	17:36	18:25	18:54			05:25	05:54	06:44	10:31	15:44	02:17	0·00	09 00·6 +17 00	09 11·1 +20 33
05–06 Mo	17:36	18:26	18:55			05:25	05:53	06:43	10:29	15:48	02:20	0·01	09 04·5 +16 44	09 59·1 +15 55
06–07 Tu	17:37	18:27	18:55	19:12		05:24	05:52	06:42	10:28	15:53	02:23	0·04	09 08·3 +16 27	10 44·1 +10 44
07–08 We	17:37	18:27	18:56	20:07		05:23	05:52	06:41	10:27	15:57	02:27	0·09	09 12·1 +16 10	11 27·1 +05 13
08–09 Th	17:38	18:28	18:56	21:01		05:22	05:51	06:40	10:26	16:02	02:30	0·15	09 15·9 +15 53	12 09·0 –00 26
09–10 Fr	17:39	18:28	18:57	21:54		05:22	05:50	06:39	10:24	16:06	02:33	0·22	09 19·7 +15 36	12 50·7 –06 03
10–11 Sa	17:39	18:29	18:57	22:48	—	05:21	05:49	06:38	10:23	16:11	02:36	0·31	09 23·5 +15 18	13 33·3 –11 28
11–12 Su	17:40	18:29	18:58	23:44		05:20	05:48	06:38	10:22	16:15	02:39	0·40	09 27·3 +15 00	14 17·8 –16 31
12–13 Mo	17:40	18:30	18:58	00:43		05:19	05:47	06:37	10:20	16:20	02:42	0·49	09 31·0 +14 42	15 05·2 –21 01
13–14 Tu	17:41	18:30	18:59	01:43		05:18	05:46	06:36	10:19	16:24	02:45	0·59	09 34·8 +14 24	15 56·4 –24 42
14–15 We	17:42	18:31	18:59	02:46	—	05:17	05:46	06:35	10:18	16:29	02:48	0·69	09 38·6 +14 05	16 51·5 –27 18
15–16 Th	17:42	18:31	19:00	03:47		05:16	05:45	06:34	10:16	16:33	02:51	0·78	09 42·3 +13 46	17 50·4 –28 30
16–17 Fr	17:43	18:32	19:00	04:44		05:15	05:44	06:33	10:15	16:37	02:54	0·87	09 46·0 +13 27	18 51·7 –28 04
17–18 Sa	17:43	18:32	19:01			05:14	05:43	06:32	10:13	16:42	02:57	0·93	09 49·8 +13 08	19 53·5 –25 52
18–19 Su	17:44	18:33	19:01			05:13	05:42	06:31	10:12	16:46	03:00	0·98	09 53·5 +12 49	20 54·1 –21 59
19–20 Mo	17:45	18:33	19:02			05:12	05:41	06:29	10:10	16:51	03:03	1·00	09 57·2 +12 29	21 52·2 –16 39
20–21 Tu	17:45	18:34	19:02			05:11	05:40	06:28	10:09	16:55	03:06	0·99	10 00·9 +12 09	22 47·8 –10 16
21–22 We	17:46	18:35	19:03		19:19	05:10	05:39	06:27	10:07	17:00	03:09	0·95	10 04·6 +11 49	23 41·3 –03 16
22–23 Th	17:46	18:35	19:03		20:28	05:09	05:38	06:26	10:06	17:04	03:12	0·89	10 08·3 +11 29	00 33·9 +03 52
23–24 Fr	17:47	18:36	19:04		21:37	05:08	05:36	06:25	10:04	17:09	03:15	0·80	10 11·9 +11 08	01 26·5 +10 43
24–25 Sa	17:48	18:36	19:04		22:46	05:07	05:35	06:24	10:03	17:13	03:18	0·70	10 15·6 +10 48	02 20·4 +16 52
25–26 Su	17:48	18:37	19:05		23:55	05:06	05:34	06:23	10:01	17:18	03:21	0·59	10 19·3 +10 27	03 16·3 +21 59
26–27 Mo	17:49	18:37	19:05		01:03	05:05	05:33	06:22	09:59	17:22	03:23	0·48	10 22·9 +10 06	04 14·1 +25 46
27–28 Tu	17:49	18:38	19:06	—	02:08	05:04	05:32	06:20	09:58	17:27	03:26	0·37	10 26·6 +09 45	05 13·5 +28 00
28–29 We	17:50	18:38	19:06		03:07	05:03	05:31	06:19	09:56	17:31	03:29	0·27	10 30·2 +09 24	06 13·0 +28 36
29–30 Th	17:50	18:39	19:07		03:59	05:02	05:30	06:18	09:54	17:35	03:32	0·19	10 33·9 +09 02	07 11·0 +27 38
30–31 Fr	17:51	18:39	19:07		04:43	05:01	05:29	06:17	09:53	17:40	03:35	0·11	10 37·5 +08 41	08 06·3 +25 14
31–01 Sa	17:52	18:40	19:08			04:59	05:27	06:16	09:51	17:44	03:37	0·06	10 41·1 +08 19	08 58·1 +21 41

Siding Spring Observatory

September 2024

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	17:52	18:40	19:09			04:58	05:26	06:14	09:49	17:49	03:40	0·02	10 44·8 +07 57	09 46·5 +17 15
02–03 Mo	17:53	18:41	19:09			04:57	05:25	06:13	09:47	17:53	03:43	0·00	10 48·4 +07 36	10 32·0 +12 11
03–04 Tu	17:53	18:42	19:10			04:56	05:24	06:12	09:46	17:58	03:46	0·00	10 52·0 +07 13	11 15·3 +06 43
04–05 We	17:54	18:42	19:10			04:55	05:23	06:11	09:44	18:02	03:48	0·02	10 55·6 +06 51	11 57·2 +01 04
05–06 Th	17:55	18:43	19:11	19:48		04:53	05:21	06:10	09:42	18:07	03:51	0·06	10 59·2 +06 29	12 38·9 –04 36
06–07 Fr	17:55	18:43	19:11	20:42		04:52	05:20	06:08	09:40	18:11	03:54	0·11	11 02·8 +06 07	13 21·1 –10 05
07–08 Sa	17:56	18:44	19:12	21:37		04:51	05:19	06:07	09:39	18:16	03:57	0·17	11 06·4 +05 44	14 04·8 –15 15
08–09 Su	17:56	18:44	19:12	22:34		04:50	05:18	06:06	09:37	18:20	03:59	0·25	11 10·0 +05 22	14 50·9 –19 54
09–10 Mo	17:57	18:45	19:13	23:33		04:48	05:17	06:04	09:35	18:25	04:02	0·34	11 13·6 +04 59	15 40·1 –23 48
10–11 Tu	17:57	18:45	19:14	00:33		04:47	05:15	06:03	09:33	18:29	04:05	0·43	11 17·2 +04 36	16 33·0 –26 43
11–12 We	17:58	18:46	19:14	01:33		04:46	05:14	06:02	09:31	18:34	04:07	0·53	11 20·8 +04 13	17 29·3 –28 23
12–13 Th	17:59	18:47	19:15	02:31	—	04:45	05:13	06:01	09:29	18:39	04:10	0·64	11 24·4 +03 50	18 28·3 –28 34
13–14 Fr	17:59	18:47	19:15	03:23		04:43	05:11	05:59	09:27	18:43	04:12	0·74	11 28·0 +03 27	19 28·6 –27 05
14–15 Sa	18:00	18:48	19:16	04:10		04:42	05:10	05:58	09:25	18:48	04:15	0·83	11 31·6 +03 04	20 28·5 –23 55
15–16 Su	18:00	18:48	19:17			04:41	05:09	05:57	09:24	18:52	04:18	0·91	11 35·1 +02 41	21 26·8 –19 13
16–17 Mo	18:01	18:49	19:17			04:39	05:08	05:55	09:22	18:57	04:20	0·97	11 38·7 +02 18	22 23·1 –13 15
17–18 Tu	18:01	18:49	19:18			04:38	05:06	05:54	09:20	19:01	04:23	1·00	11 42·3 +01 55	23 17·7 –06 25
18–19 We	18:02	18:50	19:18			04:37	05:05	05:53	09:18	19:06	04:26	1·00	11 45·9 +01 32	00 11·3 +00 51
19–20 Th	18:03	18:51	19:19			04:35	05:04	05:52	09:16	19:10	04:28	0·97	11 49·5 +01 08	01 05·2 +08 04
20–21 Fr	18:03	18:51	19:20		20:27	04:34	05:02	05:50	09:14	19:15	04:31	0·91	11 53·1 +00 45	02 00·2 +14 46
21–22 Sa	18:04	18:52	19:20		21:39	04:33	05:01	05:49	09:12	19:20	04:33	0·83	11 56·6 +00 22	02 57·2 +20 29
22–23 Su	18:04	18:53	19:21		22:50	04:31	05:00	05:48	09:10	19:24	04:36	0·73	12 00·2 –00 02	03 56·4 +24 52
23–24 Mo	18:05	18:53	19:22		23:59	04:30	04:58	05:46	09:08	19:29	04:38	0·63	12 03·8 –00 25	04 57·2 +27 39
24–25 Tu	18:06	18:54	19:22		01:02	04:28	04:57	05:45	09:06	19:33	04:41	0·52	12 07·4 –00 48	05 58·0 +28 42
25–26 We	18:06	18:54	19:23		01:57	04:27	04:56	05:44	09:04	19:38	04:44	0·42	12 11·0 –01 12	06 57·3 +28 05
26–27 Th	18:07	18:55	19:24	—	02:43	04:26	04:54	05:43	09:01	19:43	04:46	0·32	12 14·6 –01 35	07 53·6 +25 59
27–28 Fr	18:07	18:56	19:24		03:22	04:24	04:53	05:41	08:59	19:47	04:49	0·23	12 18·2 –01 58	08 46·3 +22 40
28–29 Sa	18:08	18:56	19:25		03:55	04:23	04:52	05:40	08:57	19:52	04:51	0·15	12 21·8 –02 22	09 35·2 +18 25
29–30 Su	18:09	18:57	19:26			04:22	04:50	05:39	08:55	19:57	04:54	0·09	12 25·4 –02 45	10 21·1 +13 30
30–01 Mo	18:09	18:58	19:27			04:20	04:49	05:37	08:53	20:01	04:56	0·04	12 29·1 –03 08	11 04·6 +08 08

Siding Spring Observatory

October 2024

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	18:10	18:58	19:27			04:19	04:48	05:36	08:51	20:06	04:59	0·01	12 32·7 –03 31	11 46·6 +02 31
02–03 We	18:10	18:59	19:28			04:17	04:46	05:35	08:49	20:11	05:01	0·00	12 36·3 –03 55	12 28·2 –03 09
03–04 Th	18:11	19:00	19:29			04:16	04:45	05:34	08:47	20:15	05:04	0·01	12 39·9 –04 18	13 10·2 –08 43
04–05 Fr	18:12	19:00	19:30	19:31		04:15	04:44	05:32	08:44	20:20	05:07	0·03	12 43·6 –04 41	13 53·5 –14 00
05–06 Sa	18:12	19:01	19:30	20:27		04:13	04:42	05:31	08:42	20:25	05:09	0·07	12 47·2 –05 04	14 39·0 –18 49
06–07 Su	18:13	19:02	19:31	21:26		04:12	04:41	05:30	08:40	20:30	05:12	0·12	12 50·9 –05 27	15 27·3 –22 55
07–08 Mo	18:14	19:03	19:32	22:25		04:10	04:40	05:29	08:38	20:34	05:14	0·20	12 54·5 –05 50	16 18·8 –26 05
08–09 Tu	18:14	19:03	19:33	23:25		04:09	04:38	05:27	08:36	20:39	05:17	0·28	12 58·2 –06 13	17 13·5 –28 05
09–10 We	18:15	19:04	19:34	00:23	—	04:08	04:37	05:26	08:34	20:44	05:19	0·38	13 01·9 –06 36	18 10·6 –28 41
10–11 Th	18:16	19:05	19:34	01:16		04:06	04:36	05:25	08:31	20:49	05:22	0·48	13 05·5 –06 58	19 09·0 –27 45
11–12 Fr	18:16	19:06	19:35	02:03	—	04:05	04:35	05:24	08:29	20:53	05:25	0·59	13 09·2 –07 21	20 07·3 –25 14
12–13 Sa	18:17	19:06	19:36	02:44		04:04	04:33	05:23	08:27	20:58	05:27	0·69	13 12·9 –07 43	21 04·3 –21 13
13–14 Su	18:18	19:07	19:37	03:21		04:02	04:32	05:21	08:25	21:03	05:30	0·79	13 16·6 –08 06	21 59·7 –15 54
14–15 Mo	18:19	19:08	19:38	03:55		04:01	04:31	05:20	08:22	21:08	05:32	0·88	13 20·3 –08 28	22 53·5 –09 33
15–16 Tu	18:19	19:09	19:39			04:00	04:30	05:19	08:20	21:13	05:35	0·95	13 24·1 –08 50	23 46·5 –02 32
16–17 We	18:20	19:10	19:40			03:58	04:28	05:18	08:18	21:18	05:37	0·99	13 27·8 –09 12	00 39·9 +04 44
17–18 Th	18:21	19:11	19:41			03:57	04:27	05:17	08:16	21:23	05:40	1·00	13 31·5 –09 34	01 34·7 +11 46
18–19 Fr	18:21	19:11	19:42			03:56	04:26	05:16	08:13	21:27	05:43	0·98	13 35·3 –09 56	02 31·8 +18 06
19–20 Sa	18:22	19:12	19:43		20:27	03:54	04:25	05:15	08:11	21:32	05:45	0·93	13 39·0 –10 17	03 31·8 +23 13
20–21 Su	18:23	19:13	19:44		21:40	03:53	04:23	05:14	08:09	21:37	05:48	0·86	13 42·8 –10 39	04 34·0 +26 46
21–22 Mo	18:24	19:14	19:45		22:48	03:52	04:22	05:13	08:07	21:42	05:51	0·78	13 46·6 –11 00	05 37·1 +28 29
22–23 Tu	18:24	19:15	19:46		23:48	03:50	04:21	05:11	08:04	21:47	05:53	0·68	13 50·4 –11 21	06 39·0 +28 24
23–24 We	18:25	19:16	19:47		00:39	03:49	04:20	05:10	08:02	21:52	05:56	0·58	13 54·2 –11 42	07 37·8 +26 41
24–25 Th	18:26	19:17	19:48		01:22	03:48	04:19	05:09	08:00	21:57	05:59	0·47	13 58·0 –12 03	08 32·4 +23 37
25–26 Fr	18:27	19:18	19:49	—	01:57	03:47	04:18	05:08	07:58	22:02	06:01	0·38	14 01·8 –12 24	09 22·8 +19 33
26–27 Sa	18:28	19:18	19:50		02:27	03:45	04:16	05:07	07:55	22:07	06:04	0·28	14 05·7 –12 44	10 09·6 +14 46
27–28 Su	18:28	19:19	19:51		02:54	03:44	04:15	05:06	07:53	22:12	06:07	0·20	14 09·5 –13 04	10 53·6 +09 30
28–29 Mo	18:29	19:20	19:52		03:19	03:43	04:14	05:05	07:51	22:17	06:09	0·13	14 13·4 –13 24	11 35·9 +03 57
29–30 Tu	18:30	19:21	19:53			03:42	04:13	05:05	07:48	22:22	06:12	0·08	14 17·3 –13 44	12 17·5 –01 43
30–31 We	18:31	19:22	19:54			03:41	04:12	05:04	07:46	22:27	06:15	0·03	14 21·2 –14 04	12 59·3 –07 19
31–01 Th	18:32	19:23	19:55			03:39	04:11	05:03	07:44	22:32	06:18	0·01	14 25·1 –14 23	13 42·3 –12 41

Siding Spring Observatory

November 2024

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	18:32	19:24	19:56			03:38	04:10	05:02	07:42	22:37	06:21	0·00	14 29·0 –14 42	14 27·4 –17 38
02–03 Sa	18:33	19:25	19:57			03:37	04:09	05:01	07:40	22:42	06:23	0·01	14 32·9 –15 01	15 15·3 –21 57
03–04 Su	18:34	19:26	19:58	20:19		03:36	04:08	05:00	07:37	22:47	06:26	0·04	14 36·9 –15 20	16 06·3 –25 22
04–05 Mo	18:35	19:27	19:59	21:19		03:35	04:07	04:59	07:35	22:52	06:29	0·09	14 40·8 –15 38	17 00·5 –27 39
05–06 Tu	18:36	19:28	20:01	22:17		03:34	04:06	04:59	07:33	22:57	06:32	0·15	14 44·8 –15 56	17 57·0 –28 35
06–07 We	18:37	19:29	20:02	23:11		03:33	04:05	04:58	07:31	23:02	06:35	0·23	14 48·8 –16 14	18 54·7 –28 01
07–08 Th	18:38	19:30	20:03	24:00	—	03:32	04:04	04:57	07:29	23:07	06:38	0·32	14 52·8 –16 32	19 52·1 –25 55
08–09 Fr	18:38	19:31	20:04	00:42		03:31	04:04	04:56	07:26	23:13	06:41	0·43	14 56·8 –16 49	20 48·1 –22 23
09–10 Sa	18:39	19:32	20:05	01:19	—	03:30	04:03	04:56	07:24	23:18	06:44	0·54	15 00·9 –17 06	21 42·2 –17 35
10–11 Su	18:40	19:33	20:06	01:52		03:29	04:02	04:55	07:22	23:23	06:47	0·65	15 04·9 –17 23	22 34·5 –11 46
11–12 Mo	18:41	19:34	20:07	02:24		03:28	04:01	04:54	07:20	23:28	06:50	0·75	15 09·0 –17 39	23 25·8 –05 13
12–13 Tu	18:42	19:35	20:09	02:55		03:27	04:00	04:54	07:18	23:33	06:53	0·85	15 13·0 –17 55	00 17·2 +01 45
13–14 We	18:43	19:36	20:10			03:26	04:00	04:53	07:16	23:38	06:56	0·92	15 17·1 –18 11	01 09·9 +08 44
14–15 Th	18:44	19:37	20:11			03:25	03:59	04:53	07:14	23:43	06:59	0·97	15 21·2 –18 27	02 05·1 +15 19
15–16 Fr	18:45	19:38	20:12			03:24	03:58	04:52	07:12	23:48	07:02	1·00	15 25·3 –18 42	03 03·6 +20 59
16–17 Sa	18:45	19:39	20:13			03:24	03:57	04:52	07:10	23:53	07:05	0·99	15 29·4 –18 57	04 05·5 +25 18
17–18 Su	18:46	19:41	20:14		20:25	03:23	03:57	04:51	07:08	23:59	07:08	0·96	15 33·6 –19 11	05 09·6 +27 51
18–19 Mo	18:47	19:42	20:16		21:32	03:22	03:56	04:51	07:06	00:04	07:11	0·90	15 37·7 –19 25	06 13·8 +28 31
19–20 Tu	18:48	19:43	20:17		22:29	03:21	03:56	04:50	07:04	00:09	07:15	0·83	15 41·9 –19 39	07 15·7 +27 21
20–21 We	18:49	19:44	20:18		23:16	03:21	03:55	04:50	07:02	00:14	07:18	0·74	15 46·1 –19 53	08 13·5 +24 39
21–22 Th	18:50	19:45	20:19		23:55	03:20	03:55	04:49	07:00	00:19	07:21	0·64	15 50·3 –20 06	09 06·6 +20 48
22–23 Fr	18:51	19:46	20:20		00:28	03:19	03:54	04:49	06:59	00:24	07:24	0·55	15 54·5 –20 19	09 55·3 +16 07
23–24 Sa	18:52	19:47	20:21	—	00:56	03:19	03:54	04:49	06:57	00:29	07:28	0·45	15 58·7 –20 31	10 40·7 +10 55
24–25 Su	18:53	19:48	20:23		01:22	03:18	03:53	04:48	06:55	00:34	07:31	0·36	16 03·0 –20 43	11 23·6 +05 24
25–26 Mo	18:53	19:49	20:24		01:46	03:18	03:53	04:48	06:54	00:39	07:35	0·27	16 07·2 –20 55	12 05·4 –00 14
26–27 Tu	18:54	19:50	20:25		02:11	03:17	03:52	04:48	06:52	00:45	07:38	0·19	16 11·5 –21 06	12 47·1 –05 50
27–28 We	18:55	19:51	20:26		02:37	03:17	03:52	04:48	06:50	00:50	07:42	0·12	16 15·7 –21 17	13 29·7 –11 16
28–29 Th	18:56	19:52	20:27		03:05	03:16	03:52	04:48	06:49	00:55	07:45	0·07	16 20·0 –21 27	14 14·3 –16 20
29–30 Fr	18:57	19:53	20:28			03:16	03:52	04:47	06:47	01:00	07:49	0·03	16 24·3 –21 37	15 01·5 –20 49
30–01 Sa	18:58	19:54	20:29			03:16	03:51	04:47	06:46	01:05	07:52	0·00	16 28·6 –21 47	15 52·1 –24 30

Siding Spring Observatory

December 2024

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	18:59	19:55	20:30			03:15	03:51	04:47	06:45	01:10	07:56	0·00	16 33·0 –21 56	16 46·1 –27 06
02–03 Mo	18:59	19:56	20:31			03:15	03:51	04:47	06:43	01:15	08:00	0·02	16 37·3 –22 04	17 42·9 –28 22
03–04 Tu	19:00	19:56	20:32	21:07		03:15	03:51	04:47	06:42	01:20	08:03	0·06	16 41·6 –22 13	18 41·1 –28 08
04–05 We	19:01	19:57	20:33	21:58		03:15	03:51	04:47	06:41	01:25	08:07	0·11	16 46·0 –22 21	19 39·0 –26 20
05–06 Th	19:02	19:58	20:34	22:42		03:15	03:51	04:47	06:40	01:30	08:11	0·19	16 50·3 –22 28	20 35·5 –23 05
06–07 Fr	19:03	19:59	20:35	23:20		03:15	03:51	04:47	06:39	01:34	08:15	0·28	16 54·7 –22 35	21 29·6 –18 34
07–08 Sa	19:03	20:00	20:36	23:54		03:14	03:51	04:47	06:38	01:39	08:19	0·38	16 59·1 –22 42	22 21·4 –13 03
08–09 Su	19:04	20:01	20:37	00:25	—	03:14	03:51	04:48	06:37	01:44	08:23	0·49	17 03·5 –22 48	23 11·6 –06 50
09–10 Mo	19:05	20:02	20:38	00:55		03:14	03:51	04:48	06:36	01:49	08:26	0·61	17 07·8 –22 54	00 01·4 –00 10
10–11 Tu	19:06	20:03	20:39	01:26		03:15	03:51	04:48	06:35	01:54	08:30	0·71	17 12·2 –22 59	00 51·8 +06 35
11–12 We	19:06	20:03	20:40	01:59		03:15	03:51	04:48	06:34	01:59	08:35	0·81	17 16·6 –23 04	01 44·2 +13 06
12–13 Th	19:07	20:04	20:41	02:36		03:15	03:51	04:48	06:34	02:03	08:39	0·90	17 21·1 –23 08	02 39·7 +18 57
13–14 Fr	19:08	20:05	20:41			03:15	03:52	04:49	06:33	02:08	08:43	0·96	17 25·5 –23 12	03 38·9 +23 42
14–15 Sa	19:08	20:05	20:42			03:15	03:52	04:49	06:33	02:13	08:47	0·99	17 29·9 –23 15	04 41·5 +26 57
15–16 Su	19:09	20:06	20:43			03:15	03:52	04:49	06:32	02:17	08:51	1·00	17 34·3 –23 18	05 45·8 +28 23
16–17 Mo	19:10	20:07	20:44			03:16	03:52	04:50	06:32	02:22	08:55	0·98	17 38·7 –23 21	06 49·4 +27 56
17–18 Tu	19:10	20:07	20:44		21:05	03:16	03:53	04:50	06:31	02:27	09:00	0·94	17 43·2 –23 23	07 49·9 +25 46
18–19 We	19:11	20:08	20:45		21:49	03:16	03:53	04:50	06:31	02:31	09:04	0·88	17 47·6 –23 24	08 45·9 +22 14
19–20 Th	19:11	20:09	20:45		22:25	03:17	03:54	04:51	06:31	02:36	09:08	0·80	17 52·0 –23 25	09 37·3 +17 43
20–21 Fr	19:12	20:09	20:46		22:56	03:17	03:54	04:51	06:31	02:40	09:13	0·72	17 56·5 –23 26	10 24·6 +12 33
21–22 Sa	19:12	20:10	20:46		23:23	03:18	03:55	04:52	06:31	02:45	09:17	0·63	18 00·9 –23 26	11 08·9 +07 02
22–23 Su	19:13	20:10	20:47	—	23:48	03:18	03:55	04:52	06:31	02:49	09:22	0·53	18 05·4 –23 26	11 51·4 +01 22
23–24 Mo	19:13	20:11	20:47		00:12	03:19	03:56	04:53	06:31	02:54	09:26	0·44	18 09·8 –23 25	12 33·2 –04 17
24–25 Tu	19:14	20:11	20:48		00:38	03:19	03:56	04:53	06:31	02:58	09:31	0·35	18 14·2 –23 24	13 15·5 –09 46
25–26 We	19:14	20:11	20:48		01:05	03:20	03:57	04:54	06:31	03:02	09:35	0·26	18 18·7 –23 22	13 59·3 –14 55
26–27 Th	19:15	20:12	20:48		01:35	03:21	03:58	04:55	06:32	03:06	09:40	0·18	18 23·1 –23 20	14 45·5 –19 35
27–28 Fr	19:15	20:12	20:49		02:10	03:21	03:58	04:55	06:32	03:11	09:44	0·11	18 27·5 –23 17	15 35·0 –23 31
28–29 Sa	19:15	20:12	20:49		02:52	03:22	03:59	04:56	06:33	03:15	09:49	0·06	18 32·0 –23 14	16 28·1 –26 27
29–30 Su	19:16	20:13	20:49			03:23	04:00	04:57	06:33	03:19	09:54	0·02	18 36·4 –23 10	17 24·5 –28 08
30–31 Mo	19:16	20:13	20:49			03:24	04:00	04:57	06:34	03:23	09:59	0·00	18 40·8 –23 06	18 23·2 –28 19
31–01 Tu	19:16	20:13	20:49			03:25	04:01	04:58	06:35	03:27	10:03	0·00	18 45·2 –23 02	19 22·4 –26 55