

FIFTY YEAR ALMANAC OF ASTRONOMICAL EVENTS – 2021 TO 2070

Date	GMT (h:m)	Event	Date	GMT (h:m)	Event
Jul 01	21:11	LAST QUARTER MOON	Oct 06	11:05	NEW MOON
04	20	Mercury at Greatest Elong: 21.6°W	08	04	Mars in Conjunction with Sun
05	14:48	Moon at Apogee: 405342 km	08	17:28	Moon at Perigee: 363388 km
05	23	Earth at Aphelion: 1.01673 AU	09	16	Mercury at Inferior Conjunction
08	04:38	Mercury 3.7°S of Moon	09	18:36	Venus 2.9°S of Moon
10	01:17	NEW MOON	10	06:27	Antares 4.0°S of Moon
12	09:10	Venus 3.3°S of Moon	13	03:25	FIRST QUARTER MOON
12	10:10	Mars 3.8°S of Moon	14	07:12	Saturn 3.9°N of Moon
13	00	Mars at Aphelion: 1.66596 AU	15	09:58	Jupiter 4.1°N of Moon
13	13	Venus 0.5°N of Mars	16	13:24	Venus 1.4°N of Antares
17	10:11	FIRST QUARTER MOON	20	14:57	FULL MOON
21	10:30	Moon at Perigee: 364520 km	21	11	Orionid Meteor Shower
21	21:21	Venus 1.0°N of Regulus	24	15:30	Moon at Apogee: 405616 km
24	02:37	FULL MOON	25	05	Mercury at Greatest Elong: 18.4°W
24	16:42	Saturn 3.8°N of Moon	27	20:40	Pollux 2.6°N of Moon
26	01:17	Jupiter 4.2°N of Moon	28	20:05	LAST QUARTER MOON
28	03	Delta-Aquarid Meteor Shower	29	22	Venus at Greatest Elong: 47.0°E
29	14:09	Mars 0.6°N of Regulus			
31	13:16	LAST QUARTER MOON	Nov 03	18:40	Mercury 1.2°S of Moon: Occn.
Aug 01	14	Mercury at Superior Conjunction	04	21:15	NEW MOON
02	05	Saturn at Opposition	05	00	Uranus at Opposition
02	07:35	Moon at Apogee: 404412 km	05	12	S Taurid Meteor Shower
06	19:42	Pollux 3.1°N of Moon	05	22:23	Moon at Perigee: 358845 km
08	13:50	NEW MOON	06	15:29	Antares 3.9°S of Moon
10	00:42	Mars 4.3°S of Moon	08	05:21	Venus 1.1°S of Moon: Occn.
11	07:00	Venus 4.3°S of Moon	10	14:27	Saturn 4.1°N of Moon
12	19	Perseid Meteor Shower	11	12:46	FIRST QUARTER MOON
15	15:20	FIRST QUARTER MOON	11	17:13	Jupiter 4.4°N of Moon
17	09:23	Moon at Perigee: 369127 km	12	11	N Taurid Meteor Shower
19	03	Mercury 0.1°S of Mars	17	18	Leonid Meteor Shower
19	23	Jupiter at Opposition	19	08:58	FULL MOON
20	22:19	Saturn 3.7°N of Moon	19	09:03	Partial Lunar Eclipse; mag=0.974
22	04:52	Jupiter 4.0°N of Moon	21	02:14	Moon at Apogee: 406276 km
22	12:02	FULL MOON	24	03:22	Pollux 2.5°N of Moon
30	02:22	Moon at Apogee: 404100 km	27	12:28	LAST QUARTER MOON
30	07:13	LAST QUARTER MOON	29	05	Mercury at Superior Conjunction
Sep 03	04:04	Pollux 3.0°N of Moon	Dec 03	00:28	Mars 0.7°S of Moon: Occn.
05	14:32	Venus 1.4°N of Spica	04	07:33	Total Solar Eclipse; mag=1.037
07	00:52	NEW MOON	04	07:43	NEW MOON
10	02:09	Venus 4.1°S of Moon	04	10:01	Moon at Perigee: 356794 km
11	10:05	Moon at Perigee: 368464 km	07	00:48	Venus 1.9°N of Moon
12	23:59	Antares 4.2°S of Moon	08	01:52	Saturn 4.2°N of Moon
13	20:39	FIRST QUARTER MOON	09	06:07	Jupiter 4.5°N of Moon
14	04	Mercury at Greatest Elong: 26.8°E	11	01:36	FIRST QUARTER MOON
14	08	Neptune at Opposition	14	07	Geminid Meteor Shower
17	02:37	Saturn 3.8°N of Moon	18	02:16	Moon at Apogee: 406322 km
18	06:50	Jupiter 4.0°N of Moon	19	04:36	FULL MOON
20	23:55	FULL MOON	21	09:20	Pollux 2.6°N of Moon
21	02:00	Mercury 1.2°S of Spica	21	15:59	Winter Solstice
22	19:21	Autumnal Equinox	22	15	Ursid Meteor Shower
26	21:44	Moon at Apogee: 404641 km	27	02:24	LAST QUARTER MOON
29	01:57	LAST QUARTER MOON	29	05	Mercury 4.2°S of Venus
30	12:44	Pollux 2.8°N of Moon	31	13:54	Antares 3.9°S of Moon
			31	20:13	Mars 1.0°N of Moon: Occn.