



MOON

CALENDAR

How to Read the Moon Calendar

Phase Name: New Moon, Waxing Crescent, First Quarter, Waxing Gibbous, Full Moon, Waning Gibbous, Last Quarter, Waning Crescent.

Moon Rise and Set Times: Based on Kansas in mid-America, your times will vary by up to an hour from these. Find your exact time at timeanddate.com/moon/

Notes: Times of various features: N = New Moon, FQ = First Quarter, F = Full Moon, LQ = Last Quarter. A = Aphelion (furthest distance in current cycle), P = Perihelion (closest approach). Also noted are any eclipses, micromoons & supermoons, and clock changes in spring and fall.

August 2016 Moon Observation Calendar

[Low Light Night Sky](#)

2016 Aug	Phase		Moonrise/Moonset			Distance from Earth		Change on previous day		Illumination	Notes (all times UT)	
	Name	Day	Moonrise	Moonset	Moonrise	km	miles	km	miles			
1	Waning Crescent	28	5:07	19:34	-	378,106	234,944	3,134	1,947	2%		
2	New Moon	0	6:09	20:18	-	381,882	237,290	3,776	2,346	0%	N 20:44	
3	Waxing Crescent	1	7:11	20:57	-	386,112	239,918	4,230	2,628	1%		
4	Waxing Crescent	2	8:12	21:32	-	390,526	242,661	4,414	2,743	4%		
5	Waxing Crescent	3	9:12	22:05	-	394,804	245,319	4,278	2,658	10%		
6	Waxing Crescent	4	10:10	22:36	-	398,608	247,683	3,804	2,364	16%		
7	Waxing Crescent	5	11:07	23:06	-	401,618	249,553	3,010	1,870	24%		
8	Waxing Crescent	6	12:03	23:36	-	403,567	250,764	1,949	1,211	33%		
9	Waxing Crescent	7	12:58	-	-	404,262	251,196	695	432	43%		
10	First Quarter	8	-	0:08	13:53	403,604	250,787	-658	-409	53%	FQ 18:21	A 00:06
11	Waxing Gibbous	9	-	0:43	14:48	401,603	249,544	-2,001	-1,243	62%		
12	Waxing Gibbous	10	-	1:21	15:43	398,377	247,540	-3,226	-2,005	72%		

Phase Day: Runs from day 0 at New Moon to day 28 or 29 (depending on how the moon phases mesh with the calendar) which is the thin sliver of the Waning Crescent.

Distance From Earth: How far the moon is from us at midday UT on each date. This is shown in miles and kilometres.
Change on Previous Day: How much closer or further away the moon is today when compared to yesterday.

Illumination: Shows how much of the moon's surface is lit at midday UT on each date. 0% is New Moon and 100% is full moon. First and Last Quarter days are around 50%.

December 2016 Moon Observation Calendar

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2016	Phase		Moonrise/Moonset			Distance from Earth		Change on previous day		Illumination	Notes (all times UT)	
Dec	Name	Day	Moonrise	Moonset	Moonrise	km	miles	km	miles			
1	Waxing Crescent	2	8:53	19:02	-	401,508	249,485	-2,215	-1,376	5%		
2	Waxing Crescent	3	9:41	19:54	-	398,666	247,719	-2,842	-1,766	10%		
3	Waxing Crescent	4	10:25	20:49	-	395,177	245,551	-3,489	-2,168	17%		
4	Waxing Crescent	5	11:06	21:48	-	391,040	242,981	-4,137	-2,571	26%		
5	Waxing Crescent	6	11:45	22:48	-	386,297	240,033	-4,743	-2,947	35%		
6	Waxing Crescent	7	12:21	23:51	-	381,072	236,787	-5,225	-3,247	46%		
7	First Quarter	8	12:56	-	-	375,589	233,380	-5,483	-3,407	57%	FQ 09:03	
8	Waxing Gibbous	9	-	0:56	13:31	370,183	230,021	-5,406	-3,359	69%		
9	Waxing Gibbous	10	-	2:03	14:07	365,294	226,983	-4,889	-3,038	79%		
10	Waxing Gibbous	11	-	3:12	14:46	361,419	224,575	-3,875	-2,408	88%		
11	Waxing Gibbous	12	-	4:23	15:28	359,037	223,095	-2,382	-1,480	95%		
12	Waxing Gibbous	13	-	5:35	16:16	358,519	222,773	-518	-322	99%	P 23:28	
13	Waxing Gibbous	14	-	6:45	17:10	-	-	-	-	-		
14	Full Moon	15	-	7:52	18:10	360,025	223,709	1,506	936	100%	F 00:05	Supermoon
15	Waning Gibbous	16	-	8:52	19:13	363,453	225,839	3,428	2,130	97%		
16	Waning Gibbous	17	-	9:45	20:18	368,455	228,947	5,002	3,108	92%		
17	Waning Gibbous	18	-	10:30	21:23	374,506	232,707	6,051	3,760	85%		
18	Waning Gibbous	19	-	11:09	22:25	381,017	236,753	6,511	4,046	76%		
19	Waning Gibbous	20	-	11:44	23:26	387,424	240,734	6,407	3,981	66%		
20	Waning Gibbous	21	-	12:16	-	393,252	244,355	5,828	3,621	56%		
21	Last Quarter	22	0:24	12:47	-	398,150	247,398	4,898	3,043	46%	LQ 01:56	
22	Waning Crescent	23	1:21	13:16	-	401,899	249,728	3,749	2,330	36%		
23	Waning Crescent	24	2:17	13:47	-	404,401	251,283	2,502	1,555	27%		
24	Waning Crescent	25	3:12	14:18	-	405,667	252,069	1,266	787	19%		
25	Waning Crescent	26	4:08	14:53	-	405,792	252,147	125	78	12%	A 05:56	
26	Waning Crescent	27	5:02	15:30	-	404,928	251,610	-864	-537	6%		
27	Waning Crescent	28	5:56	16:12	-	403,256	250,571	-1,672	-1,039	3%		
28	Waning Crescent	29	6:48	16:58	-	400,963	249,146	-2,293	-1,425	0%		
29	New Moon	0	7:38	17:49	-	398,213	247,438	-2,750	-1,709	0%	N 06:53	
30	Waxing Crescent	1	8:24	18:44	-	395,132	245,523	-3,081	-1,914	2%		
31	Waxing Crescent	2	9:07	19:42	-	391,802	243,454	-3,330	-2,069	7%		

January 2017 Moon Observation Calendar

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2017	Phase		Moonrise/Moonset			Distance from Earth		Change on previous day		Illumination	Notes (all times UT)
Jan	Name	Day	Moonrise	Moonset	Moonrise	km	miles	km	miles		
1	Waxing Crescent	3	9:47	20:42	-	388,266	241,257	-3,536	-2,197	13%	
2	Waxing Crescent	4	10:24	21:44	-	384,547	238,946	-3,719	-2,311	21%	
3	Waxing Crescent	5	10:59	22:47	-	380,677	236,541	-3,870	-2,405	30%	
4	Waxing Crescent	6	11:33	23:52	-	376,726	234,086	-3,951	-2,455	41%	
5	First Quarter	7	12:07	-	-	372,833	231,667	-3,893	-2,419	52%	FQ 19:47
6	Waxing Gibbous	8	-	0:58	12:43	369,219	229,422	-3,614	-2,246	64%	
7	Waxing Gibbous	9	-	2:05	13:22	366,186	227,537	-3,033	-1,885	75%	
8	Waxing Gibbous	10	-	3:14	14:06	364,082	226,230	-2,104	-1,307	85%	
9	Waxing Gibbous	11	-	4:23	14:55	363,243	225,708	-839	-521	93%	
10	Waxing Gibbous	12	-	5:30	15:50	363,916	226,126	673	418	98%	P 06:08
11	Waxing Gibbous	13	-	6:33	16:51	-	-	-	-	-	
12	Full Moon	14	-	7:30	17:55	366,189	227,539	2,273	1,412	100%	F 11:34
13	Waning Gibbous	15	-	8:19	19:01	369,945	229,873	3,756	2,334	99%	
14	Waning Gibbous	16	-	9:03	20:06	374,879	232,939	4,934	3,066	96%	
15	Waning Gibbous	17	-	9:41	21:10	380,547	236,460	5,668	3,522	90%	
16	Waning Gibbous	18	-	10:15	22:11	386,444	240,125	5,897	3,664	82%	
17	Waning Gibbous	19	-	10:47	23:09	392,074	243,623	5,630	3,498	74%	
18	Waning Gibbous	20	-	11:18	-	397,002	246,685	4,928	3,062	64%	
19	Last Quarter	21	0:07	11:48	-	400,891	249,102	3,889	2,417	54%	LQ 22:13
20	Waning Crescent	22	1:03	12:19	-	403,520	250,735	2,629	1,634	44%	
21	Waning Crescent	23	1:58	12:52	-	404,788	251,523	1,268	788	35%	
22	Waning Crescent	24	2:53	13:28	-	404,708	251,473	-80	-50	26%	A 00:15
23	Waning Crescent	25	3:47	14:08	-	403,395	250,658	-1,313	-816	18%	
24	Waning Crescent	26	4:40	14:52	-	401,050	249,200	-2,345	-1,457	11%	
25	Waning Crescent	27	5:31	15:41	-	397,930	247,262	-3,120	-1,939	6%	
26	Waning Crescent	28	6:19	16:35	-	394,323	245,020	-3,607	-2,241	2%	
27	Waning Crescent	29	7:04	17:33	-	390,511	242,652	-3,812	-2,369	0%	
28	New Moon	0	7:46	18:33	-	386,738	240,307	-3,773	-2,344	1%	N 00:07
29	Waxing Crescent	1	8:25	19:36	-	383,188	238,102	-3,550	-2,206	4%	
30	Waxing Crescent	2	9:01	20:40	-	379,970	236,102	-3,218	-2,000	9%	
31	Waxing Crescent	3	9:36	21:45	-	377,129	234,337	-2,841	-1,765	16%	

February 2017 Moon Observation Calendar

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2017 Feb	Phase		Moonrise/Moonset			Distance from Earth		Change on previous day		Illumination	Notes (all times UT)	
	Name	Day	Moonrise	Moonset	Moonrise	km	miles	km	miles			
1	Waxing Crescent	4	10:10	22:50	-	374,667	232,807	-2,462	-1,530	26%		
2	Waxing Crescent	5	10:46	23:57	-	372,575	231,507	-2,092	-1,300	37%		
3	Waxing Crescent	6	11:23	-	-	370,867	230,446	-1,708	-1,061	48%		
4	First Quarter	7	-	1:04	12:04	369,605	229,661	-1,262	-784	60%	FQ 04:19	
5	Waxing Gibbous	8	-	2:11	12:49	368,906	229,227	-699	-434	71%		
6	Waxing Gibbous	9	-	3:16	13:40	368,927	229,240	21	13	82%	P 14:00	
7	Waxing Gibbous	10	-	4:19	14:36	369,829	229,801	902	560	90%		
8	Waxing Gibbous	11	-	5:17	15:37	371,724	230,978	1,895	1,177	96%		
9	Waxing Gibbous	12	-	6:09	16:41	374,630	232,784	2,906	1,806	99%		
10	Waxing Gibbous	13	-	6:54	17:46	-	-	-	-	-		
11	Full Moon	14	-	7:35	18:51	378,443	235,153	3,813	2,369	100%	F 00:33	Pen Eclipse
12	Waning Gibbous	15	-	8:11	19:53	382,934	237,944	4,491	2,791	98%		
13	Waning Gibbous	16	-	8:45	20:54	387,778	240,954	4,844	3,010	94%		
14	Waning Gibbous	17	-	9:16	21:53	392,589	243,943	4,811	2,989	88%		
15	Waning Gibbous	18	-	9:47	22:51	396,973	246,667	4,384	2,724	80%		
16	Waning Gibbous	19	-	10:18	23:47	400,567	248,900	3,594	2,233	72%		
17	Waning Gibbous	20	-	10:51	-	403,071	250,456	2,504	1,556	63%		
18	Last Quarter	21	0:43	11:26	-	404,280	251,207	1,209	751	53%	LQ 19:33	A 21:15
19	Waning Crescent	22	1:37	12:04	-	404,096	251,093	-184	-114	43%		
20	Waning Crescent	23	2:30	12:46	-	402,533	250,122	-1,563	-971	34%		
21	Waning Crescent	24	3:22	13:32	-	399,723	248,376	-2,810	-1,746	25%		
22	Waning Crescent	25	4:11	14:24	-	395,902	246,002	-3,821	-2,374	17%		
23	Waning Crescent	26	4:57	15:19	-	391,397	243,202	-4,505	-2,799	10%		
24	Waning Crescent	27	5:40	16:19	-	386,587	240,214	-4,810	-2,989	4%		
25	Waning Crescent	28	6:21	17:22	-	381,868	237,281	-4,719	-2,932	1%		
26	New Moon	0	6:59	18:26	-	377,605	234,632	-4,263	-2,649	0%	N 14:58	
27	Waxing Crescent	1	7:35	19:33	-	374,081	232,443	-3,524	-2,190	2%		
28	Waxing Crescent	2	8:11	20:40	-	371,473	230,822	-2,608	-1,621	6%		

March 2017 Moon Observation Calendar

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2017	Phase		Moonrise/Moonset			Distance from Earth		Change on previous day		Illumination	Notes (all times UT)
Mar	Name	Day	Moonrise	Moonset	Moonrise	km	miles	km	miles		
1	Waxing Crescent	3	8:46	21:48	-	369,835	229,804	-1,638	-1,018	13%	
2	Waxing Crescent	4	9:24	22:56	-	369,118	229,359	-717	-446	22%	
3	Waxing Crescent	5	10:04	-	-	369,200	229,410	82	51	33%	P 07:25
4	Waxing Crescent	6	-	0:03	10:48	369,938	229,868	738	459	45%	
5	First Quarter	7	-	1:10	11:36	371,206	230,656	1,268	788	57%	FQ 11:32
6	Waxing Gibbous	8	-	2:12	12:30	372,918	231,720	1,712	1,064	68%	
7	Waxing Gibbous	9	-	3:10	13:28	375,041	233,039	2,123	1,319	78%	
8	Waxing Gibbous	10	-	4:03	14:30	377,575	234,614	2,534	1,575	87%	
9	Waxing Gibbous	11	-	4:50	15:33	380,525	236,447	2,950	1,833	94%	
10	Waxing Gibbous	12	-	5:31	16:36	383,868	238,524	3,343	2,077	98%	
11	Waxing Gibbous	13	-	6:08	17:39	-	-	-	-	-	
12	Full Moon	14	-	7:42	19:40	387,529	240,799	3,661	2,275	100%	F14:54 / Clocks forward 1hr
13	Waning Gibbous	15	-	8:14	20:40	391,363	243,181	3,834	2,382	100%	
14	Waning Gibbous	16	-	8:46	21:38	395,160	245,541	3,797	2,359	97%	
15	Waning Gibbous	17	-	9:17	22:36	398,660	247,715	3,500	2,175	93%	
16	Waning Gibbous	18	-	9:49	23:32	401,579	249,529	2,919	1,814	86%	
17	Waning Gibbous	19	-	10:23	-	403,639	250,809	2,060	1,280	79%	
18	Waning Gibbous	20	0:27	10:59	-	404,602	251,408	963	598	71%	A 17:26
19	Waning Gibbous	21	1:21	11:40	-	404,294	251,216	-308	-191	61%	
20	Last Quarter	22	2:13	12:24	-	402,629	250,182	-1,665	-1,035	52%	LQ 15:58
21	Waning Crescent	23	3:02	13:12	-	399,635	248,321	-2,994	-1,860	42%	
22	Waning Crescent	24	3:49	14:05	-	395,453	245,723	-4,182	-2,599	32%	
23	Waning Crescent	25	4:33	15:03	-	390,352	242,553	-5,101	-3,170	23%	
24	Waning Crescent	26	5:14	16:03	-	384,704	239,044	-5,648	-3,509	14%	
25	Waning Crescent	27	5:53	17:07	-	378,967	235,479	-5,737	-3,565	8%	
26	Waning Crescent	28	6:30	18:13	-	373,632	232,164	-5,335	-3,315	3%	
27	Waning Crescent	29	7:06	19:21	-	369,165	229,388	-4,467	-2,776	0%	
28	New Moon	0	7:42	20:31	-	365,941	227,385	-3,224	-2,003	1%	N 02:57
29	Waxing Crescent	1	8:20	21:41	-	364,183	226,292	-1,758	-1,092	4%	
30	Waxing Crescent	2	9:00	22:52	-	363,934	226,138	-249	-155	11%	P 12:40
31	Waxing Crescent	3	9:44	-	-	365,066	226,841	1,132	703	19%	

April 2017 Moon Observation Calendar

[Love the Night Sky](#)

2017	Phase		Moonrise/Moonset			Distance from Earth		Change on previous day		Illumination	Notes (all times UT)
Apr	Name	Day	Moonrise	Moonset	Moonrise	km	miles	km	miles		
1	Waxing Crescent	4	-	0:00	10:32	367,322	228,243	2,256	1,402	30%	
2	Waxing Crescent	5	-	1:06	11:25	370,384	230,146	3,062	1,903	41%	
3	First Quarter	6	-	2:07	12:23	373,937	232,353	3,553	2,208	53%	FQ 18:39
4	Waxing Gibbous	7	-	3:01	13:23	377,719	234,703	3,782	2,350	64%	
5	Waxing Gibbous	8	-	3:49	14:25	381,547	237,082	3,828	2,379	75%	
6	Waxing Gibbous	9	-	4:31	15:28	385,312	239,421	3,765	2,339	84%	
7	Waxing Gibbous	10	-	5:09	16:29	388,954	241,684	3,642	2,263	91%	
8	Waxing Gibbous	11	-	5:43	17:30	392,439	243,850	3,485	2,165	96%	
9	Waxing Gibbous	12	-	6:15	18:30	-	-	-	-	-	
10	Waxing Gibbous	13	-	6:46	19:28	395,727	245,893	3,288	2,043	99%	
11	Full Moon	14	-	7:17	20:26	398,749	247,771	3,022	1,878	100%	F 06:08
12	Waning Gibbous	15	-	7:48	21:23	401,397	249,416	2,648	1,645	99%	
13	Waning Gibbous	16	-	8:21	22:19	403,520	250,735	2,123	1,319	96%	
14	Waning Gibbous	17	-	8:57	23:13	404,942	251,619	1,422	884	91%	
15	Waning Gibbous	18	-	9:35	-	405,474	251,949	532	331	85%	A 10:06
16	Waning Gibbous	19	0:06	10:18	-	404,946	251,621	-528	-328	77%	
17	Waning Gibbous	20	0:56	11:04	-	403,229	250,554	-1,717	-1,067	69%	
18	Waning Gibbous	21	1:44	11:55	-	400,268	248,715	-2,961	-1,840	59%	
19	Last Quarter	22	2:28	12:49	-	396,104	246,127	-4,164	-2,587	49%	LQ 09:57
20	Waning Crescent	23	3:09	13:47	-	390,894	242,890	-5,210	-3,237	39%	
21	Waning Crescent	24	3:48	14:48	-	384,921	239,178	-5,973	-3,711	29%	
22	Waning Crescent	25	4:25	15:52	-	378,590	235,244	-6,331	-3,934	19%	
23	Waning Crescent	26	5:00	16:58	-	372,403	231,400	-6,187	-3,844	11%	
24	Waning Crescent	27	5:36	18:07	-	366,914	227,989	-5,489	-3,411	5%	
25	Waning Crescent	28	6:13	19:18	-	362,656	225,344	-4,258	-2,646	1%	
26	New Moon	0	6:52	20:30	-	360,054	223,727	-2,602	-1,617	0%	N 12:16
27	Waxing Crescent	1	7:35	21:42	-	359,344	223,286	-710	-441	3%	P 16:19
28	Waxing Crescent	2	8:22	22:52	-	360,526	224,020	1,182	734	8%	
29	Waxing Crescent	3	9:15	23:58	-	363,373	225,789	2,847	1,769	17%	
30	Waxing Crescent	4	10:13	-	-	367,487	228,345	4,114	2,556	27%	

May 2017 Moon Observation Calendar

[Love the Night Sky](#)

2017	Phase		Moonrise/Moonset			Distance from Earth		Change on previous day		Illumination	Notes (all times UT)	
May	Name	Day	Moonrise	Moonset	Moonrise	km	miles	km	miles			
1	Waxing Crescent	5	-	0:56	11:15	372,395	231,395	4,908	3,050	38%		
2	Waxing Crescent	6	-	1:48	12:18	377,641	234,655	5,246	3,260	49%		
3	First Quarter	7	-	2:32	13:21	382,845	237,888	5,204	3,234	60%	FQ 02:37	
4	Waxing Gibbous	8	-	3:12	14:23	387,735	240,927	4,890	3,038	71%		
5	Waxing Gibbous	9	-	3:46	15:24	392,143	243,666	4,408	2,739	80%		
6	Waxing Gibbous	10	-	4:19	16:23	395,984	246,053	3,841	2,387	87%		
7	Waxing Gibbous	11	-	4:49	17:22	399,230	248,070	3,246	2,017	93%		
8	Waxing Gibbous	12	-	5:19	18:19	-	-	-	-	-		
9	Waxing Gibbous	13	-	5:50	19:16	401,879	249,716	2,649	1,646	97%		
10	Full Moon	14	-	6:22	20:12	403,928	250,989	2,049	1,273	99%	F 21:42	Micromoon
11	Waning Gibbous	15	-	6:56	21:07	405,356	251,876	1,428	887	100%		
12	Waning Gibbous	16	-	7:33	22:01	406,110	252,345	754	469	98%	A 19:52	
13	Waning Gibbous	17	-	8:14	22:52	406,109	252,344	-1	-1	95%		
14	Waning Gibbous	18	-	8:59	23:41	405,253	251,812	-856	-532	89%		
15	Waning Gibbous	19	-	9:48	-	403,443	250,687	-1,810	-1,125	83%		
16	Waning Gibbous	20	0:26	10:41	-	400,605	248,924	-2,838	-1,763	75%		
17	Waning Gibbous	21	1:08	11:37	-	396,716	246,507	-3,889	-2,417	65%		
18	Waning Gibbous	22	1:46	12:35	-	391,838	243,476	-4,878	-3,031	55%		
19	Last Quarter	23	2:23	13:36	-	386,135	239,933	-5,703	-3,544	45%	LQ 00:33	
20	Waning Crescent	24	2:58	14:39	-	379,894	236,055	-6,241	-3,878	34%		
21	Waning Crescent	25	3:32	15:45	-	373,522	232,095	-6,372	-3,959	24%		
22	Waning Crescent	26	4:07	16:53	-	367,533	228,374	-5,989	-3,721	15%		
23	Waning Crescent	27	4:43	18:04	-	362,491	225,241	-5,042	-3,133	7%		
24	Waning Crescent	28	5:24	19:17	-	358,939	223,034	-3,552	-2,207	2%		
25	New Moon	0	6:09	20:29	-	357,293	222,011	-1,646	-1,023	0%	N 19:44	Supermoon
26	Waxing crescent	1	6:59	21:39	-	357,752	222,296	459	285	2%	P 01:24	
27	Waxing crescent	2	7:56	22:43	-	360,244	223,845	2,492	1,548	6%		
28	Waxing crescent	3	8:59	23:40	-	364,441	226,453	4,197	2,608	14%		
29	Waxing crescent	4	10:04	-	-	369,844	229,810	5,403	3,357	23%		
30	Waxing crescent	5	-	0:29	11:10	375,889	233,566	6,045	3,756	34%		
31	Waxing crescent	6	-	1:12	12:14	382,050	237,394	6,161	3,828	45%		

June 2017 Moon Observation Calendar

[Love the Night Sky](#)

2017	Phase		Moonrise/Moonset			Distance from Earth		Change on previous day		Illumination	Notes (all times UT)	
Jun	Name	Day	Moonrise	Moonset	Moonrise	km	miles	km	miles			
1	First Quarter	7	-	1:49	13:17	387,894	241,026	5,844	3,631	55%	FQ 12:42	
2	Waxing Gibbous	8	-	2:22	14:17	393,114	244,269	5,220	3,244	66%		
3	Waxing Gibbous	9	-	2:53	15:16	397,519	247,006	4,405	2,737	75%		
4	Waxing Gibbous	10	-	3:23	16:14	401,022	249,183	3,503	2,177	83%		
5	Waxing Gibbous	11	-	3:53	17:10	403,612	250,792	2,590	1,609	90%		
6	Waxing Gibbous	12	-	4:25	18:06	405,328	251,859	1,716	1,066	95%		
7	Waxing Gibbous	13	-	4:58	19:02	-	-	-	-	-		
8	Waxing Gibbous	14	-	5:34	19:56	406,227	252,417	899	559	98%	A 22:22	
9	Ful Moon	15	-	6:13	20:49	406,366	252,504	139	86	100%	F 13:10	Micromoon
10	Waning Gibbous	16	-	6:56	21:39	405,782	252,141	-584	-363	99%		
11	Waning Gibbous	17	-	7:44	22:25	404,486	251,335	-1,296	-805	97%		
12	Waning Gibbous	18	-	8:36	23:08	402,465	250,080	-2,021	-1,256	93%		
13	Waning Gibbous	19	-	9:30	23:48	399,690	248,355	-2,775	-1,724	87%		
14	Waning Gibbous	20	-	10:27	-	396,143	246,151	-3,547	-2,204	80%		
15	Waning Gibbous	21	0:24	11:27	-	391,834	243,474	-4,309	-2,677	71%		
16	Waning Gibbous	22	0:59	12:28	-	386,838	240,370	-4,996	-3,104	61%		
17	Last Quarter	23	1:32	13:30	-	381,314	236,937	-5,524	-3,432	50%	LQ 11:33	
18	Waning Crescent	24	2:05	14:35	-	375,530	233,343	-5,784	-3,594	39%		
19	Waning Crescent	25	2:40	15:43	-	369,866	229,824	-5,664	-3,519	28%		
20	Waning Crescent	26	3:17	16:52	-	364,794	226,672	-5,072	-3,152	18%		
21	Waning Crescent	27	3:58	18:04	-	360,832	224,210	-3,962	-2,462	9%		
22	Waning Crescent	28	4:44	19:15	-	358,459	222,736	-2,373	-1,475	3%		
23	Waning Crescent	29	5:38	20:23	-	358,021	222,464	-438	-272	0%	P 10:50	
24	New Moon	0	6:38	21:25	-	359,632	223,465	1,611	1,001	1%	N 02:31	Supermoon
25	Waxing Crescent	1	7:43	22:19	-	363,141	225,645	3,509	2,180	5%		
26	Waxing Crescent	2	8:50	23:06	-	368,162	228,765	5,021	3,120	11%		
27	Waxing Crescent	3	9:58	23:47	-	374,163	232,494	6,001	3,729	19%		
28	Waxing Crescent	4	11:03	-	-	380,570	236,475	6,407	3,981	29%		
29	Waxing Crescent	5	-	0:23	12:07	386,852	240,378	6,282	3,903	39%		
30	Waxing Crescent	6	-	0:56	13:07	392,577	243,936	5,725	3,557	50%		

July 2017 Moon Observation Calendar

[Love the Night Sky](#)

2017 Jul	Phase		Moonrise/Moonset			Distance from Earth		Change on previous day		Illumination	Notes (all times UT)	
	Name	Day	Moonrise	Moonset	Moonrise	km	miles	km	miles			
1	First Quarter	7	-	1:26	14:06	397,432	246,952	4,855	3,017	60%	FQ 00:51	
2	Waxing Gibbous	8	-	1:57	15:04	401,230	249,312	3,798	2,360	70%		
3	Waxing Gibbous	9	-	2:27	16:00	403,893	250,967	2,663	1,655	78%		
4	Waxing Gibbous	10	-	3:00	16:56	405,435	251,925	1,542	958	86%		
5	Waxing Gibbous	11	-	3:34	17:51	405,934	252,235	499	310	92%		
6	Waxing Gibbous	12	-	4:12	18:44	405,510	251,972	-424	-263	96%	A 04:28	
7	Waxing Gibbous	13	-	4:54	19:35	-	-	-	-	-		
8	Waxing Gibbous	14	-	5:41	20:23	404,297	251,218	-1,213	-754	99%		
9	Full Moon	15	-	6:31	21:08	402,423	250,054	-1,874	-1,164	100%	F 04:07	Micromoon
10	Waning Gibbous	16	-	7:25	21:49	399,991	248,542	-2,432	-1,511	99%		
11	Waning Gibbous	17	-	8:22	22:27	397,075	246,730	-2,916	-1,812	96%		
12	Waning Gibbous	18	-	9:21	23:02	393,719	244,645	-3,356	-2,085	90%		
13	Waning Gibbous	19	-	10:21	23:35	389,952	242,304	-3,767	-2,341	83%		
14	Waning Gibbous	20	-	11:23	-	385,810	239,731	-4,142	-2,574	75%		
15	Waning Gibbous	21	0:08	12:26	-	381,364	236,968	-4,446	-2,763	65%		
16	Last Quarter	22	0:41	13:30	-	376,748	234,100	-4,616	-2,868	54%	LQ 19:26	
17	Waning Crescent	23	1:15	14:37	-	372,177	231,260	-4,571	-2,840	42%		
18	Waning Crescent	24	1:53	15:45	-	367,957	228,637	-4,220	-2,622	31%		
19	Waning Crescent	25	2:35	16:54	-	364,464	226,467	-3,493	-2,170	20%		
20	Waning Crescent	26	3:24	18:02	-	362,106	225,002	-2,358	-1,465	11%		
21	Waning Crescent	27	4:19	19:06	-	361,237	224,462	-869	-540	4%	P 17:11	
22	Waning Crescent	28	5:21	20:04	-	362,081	224,986	844	524	1%		
23	New Moon	0	6:27	20:56	-	364,661	226,589	2,580	1,603	0%	N 09:46	
24	Waxing Crescent	1	7:36	21:40	-	368,778	229,148	4,117	2,558	3%		
25	Waxing Crescent	2	8:44	22:19	-	374,049	232,423	5,271	3,275	8%		
26	Waxing Crescent	3	9:50	22:54	-	379,982	236,109	5,933	3,687	15%		
27	Waxing Crescent	4	10:53	23:26	-	386,052	239,881	6,070	3,772	24%		
28	Waxing Crescent	5	11:54	23:58	-	391,771	243,435	5,719	3,554	34%		
29	Waxing Crescent	6	12:54	-	-	396,738	246,521	4,967	3,086	44%		
30	First Quarter	7	-	0:29	13:51	400,659	248,957	3,921	2,436	54%	FQ 15:23	
31	Waxing Gibbous	8	-	1:00	14:48	403,359	250,635	2,700	1,678	64%		

August 2017 Moon Observation Calendar

[Love the Night Sky](#)

2017	Phase		Moonrise/Moonset			Distance from Earth		Change on previous day		Illumination	Notes (all times UT)	
Aug	Name	Day	Moonrise	Moonset	Moonrise	km	miles	km	miles			
1	Waxing Gibbous	9	-	1:34	15:43	404,776	251,516	1,417	880	73%		
2	Waxing Gibbous	10	-	2:11	16:37	404,951	251,624	175	109	81%	A 17:56	
3	Waxing Gibbous	11	-	2:51	17:29	404,007	251,038	-944	-587	88%		
4	Waxing Gibbous	12	-	3:36	18:18	402,128	249,870	-1,879	-1,168	94%		
5	Waxing Gibbous	13	-	4:25	19:05	-	-	-	-	-		
6	Waxing Gibbous	14	-	5:18	19:47	399,529	248,255	-2,599	-1,615	98%		
7	Full Moon	15	-	6:14	20:27	396,434	246,332	-3,095	-1,923	100%	F 18:11	Partial Eclipse
8	Waning Gibbous	16	-	7:13	21:03	393,046	244,227	-3,388	-2,105	100%		
9	Waning Gibbous	17	-	8:14	21:38	389,527	242,040	-3,519	-2,187	98%		
10	Waning Gibbous	18	-	9:16	22:11	385,995	239,846	-3,532	-2,195	93%		
11	Waning Gibbous	19	-	10:19	22:44	382,519	237,686	-3,476	-2,160	86%		
12	Waning Gibbous	20	-	11:23	23:17	379,145	235,589	-3,374	-2,097	78%		
13	Waning Gibbous	21	-	12:28	23:54	375,915	233,582	-3,230	-2,007	68%		
14	Waning Gibbous	22	-	13:35	-	372,896	231,706	-3,019	-1,876	57%		
15	Last Quarter	23	0:33	14:42	-	370,207	230,036	-2,689	-1,671	45%	LQ 01:15	
16	Waning Crescent	24	1:18	15:48	-	368,028	228,682	-2,179	-1,354	33%		
17	Waning Crescent	25	2:09	16:52	-	366,587	227,786	-1,441	-895	22%		
18	Waning Crescent	26	3:06	17:51	-	366,126	227,500	-461	-286	13%	P 13:16	
19	Waning Crescent	27	4:09	18:44	-	366,847	227,948	721	448	6%		
20	Waning Crescent	28	5:15	19:31	-	368,850	229,192	2,003	1,245	2%		
21	New Moon	0	6:23	20:13	-	372,093	231,207	3,243	2,015	0%	N 18:30	
22	Waxing Crescent	1	7:30	20:50	-	376,382	233,872	4,289	2,665	1%		
23	Waxing Crescent	2	8:35	21:24	-	381,392	236,986	5,010	3,113	5%		
24	Waxing Crescent	3	9:39	21:56	-	386,714	240,292	5,322	3,307	11%		
25	Waxing Crescent	4	10:40	22:27	-	391,910	243,521	5,196	3,229	19%		
26	Waxing Crescent	5	11:39	22:59	-	396,561	246,411	4,651	2,890	28%		
27	Waxing Crescent	6	12:37	23:33	-	400,314	248,743	3,753	2,332	37%		
28	Waxing Crescent	7	13:33	-	-	402,906	250,354	2,592	1,611	47%		
29	First Quarter	8	-	0:08	14:28	404,180	251,145	1,274	792	57%	FQ 08:13	
30	Waxing Gibbous	9	-	0:47	15:21	404,094	251,092	-86	-53	66%	A 11:26	
31	Waxing Gibbous	10	-	1:30	16:11	402,714	250,234	-1,380	-857	75%		

September 2017 Moon Observation Calendar

[Love the Night Sky](#)

2017	Phase		Moonrise/Moonset			Distance from Earth		Change on previous day		Illumination	Notes (all times UT)	
Sep	Name	Day	Moonrise	Moonset	Moonrise	km	miles	km	miles			
1	Waxing Gibbous	11	-	2:17	16:59	400,207	248,677	-2,507	-1,558	83%		
2	Waxing Gibbous	12	-	3:09	17:43	396,823	246,574	-3,384	-2,103	90%		
3	Waxing Gibbous	13	-	4:04	18:24	392,862	244,113	-3,961	-2,461	95%		
4	Waxing Gibbous	14	-	5:02	19:02	-	-	-	-	-		
5	Waxing Gibbous	15	-	6:03	19:37	388,651	241,496	-4,211	-2,617	99%		
6	Full Moon	16	-	7:05	20:11	384,499	238,916	-4,152	-2,580	100%	F 07:03	
7	Waning Gibbous	17	-	8:09	20:45	380,667	236,535	-3,832	-2,381	99%		
8	Waning Gibbous	18	-	9:14	21:19	377,343	234,470	-3,324	-2,065	95%		
9	Waning Gibbous	19	-	10:21	21:55	374,631	232,784	-2,712	-1,685	89%		
10	Waning Gibbous	20	-	11:28	22:33	372,559	231,497	-2,072	-1,287	81%		
11	Waning Gibbous	21	-	12:35	23:16	371,101	230,591	-1,458	-906	71%		
12	Waning Gibbous	22	-	13:41	-	370,214	230,040	-887	-551	59%		
13	Last Quarter	23	0:04	14:45	-	369,866	229,824	-348	-216	47%	LQ 06:25	P 16:05
14	Waning Crescent	24	0:59	15:44	-	370,061	229,945	195	121	36%		
15	Waning Crescent	25	1:58	16:38	-	370,844	230,431	783	487	25%		
16	Waning Crescent	26	3:02	17:26	-	372,283	231,325	1,439	894	15%		
17	Waning Crescent	27	4:07	18:08	-	374,438	232,665	2,155	1,339	8%		
18	Waning Crescent	28	5:13	18:46	-	377,325	234,458	2,887	1,794	3%		
19	Waning Crescent	29	6:19	19:21	-	380,882	236,669	3,557	2,210	0%		
20	New Moon	0	7:22	19:53	-	384,959	239,202	4,077	2,533	0%	N 05:30	
21	Waxing Crescent	1	8:25	20:25	-	389,318	241,911	4,359	2,709	3%		
22	Waxing Crescent	2	9:25	20:57	-	393,655	244,605	4,337	2,695	8%		
23	Waxing Crescent	3	10:25	21:30	-	397,632	247,077	3,977	2,471	14%		
24	Waxing Crescent	4	11:22	22:05	-	400,915	249,117	3,283	2,040	21%		
25	Waxing Crescent	5	12:18	22:43	-	403,208	250,541	2,293	1,425	30%		
26	Waxing Crescent	6	13:12	23:24	-	404,284	251,210	1,076	669	39%		
27	Waxing Crescent	7	14:04	-	-	404,011	251,040	-273	-170	49%	A 06:51	
28	First Quarter	8	-	0:09	14:52	402,360	250,014	-1,651	-1,026	59%	FQ 02:53	
29	Waxing Gibbous	9	-	0:58	15:37	399,422	248,189	-2,938	-1,826	68%		
30	Waxing Gibbous	10	-	1:51	16:19	395,400	245,690	-4,022	-2,499	77%		

October 2017 Moon Observation Calendar

[Love the Night Sky](#)

2017	Phase		Moonrise/Moonset			Distance from Earth		Change on previous day		Illumination	Notes (all times UT)
Oct	Name	Day	Moonrise	Moonset	Moonrise	km	miles	km	miles		
1	Waxing Gibbous	11	-	2:48	16:58	390,600	242,707	-4,800	-2,983	85%	
2	Waxing Gibbous	12	-	3:47	17:34	385,408	239,481	-5,192	-3,226	92%	
3	Waxing Gibbous	13	-	4:49	18:08	380,250	236,276	-5,158	-3,205	97%	
4	Waxing Gibbous	14	-	5:53	18:42	-	-	-	-	-	
5	Full Moon	15	-	6:59	19:17	375,548	233,354	-4,702	-2,922	100%	F 18:40
6	Waning Gibbous	16	-	8:06	19:52	371,668	230,943	-3,880	-2,411	100%	
7	Waning Gibbous	17	-	9:15	20:31	368,869	229,204	-2,799	-1,739	97%	
8	Waning Gibbous	18	-	10:24	21:13	367,274	228,213	-1,595	-991	91%	
9	Waning Gibbous	19	-	11:33	22:01	366,865	227,959	-409	-254	83%	P 05:52
10	Waning Gibbous	20	-	12:39	22:54	367,507	228,358	642	399	73%	
11	Waning Gibbous	21	-	13:40	23:52	368,995	229,282	1,488	925	62%	
12	Last Quarter	22	-	14:36	-	371,108	230,595	2,113	1,313	50%	LQ 12:25
13	Waning Crescent	23	0:54	15:25	-	373,656	232,179	2,548	1,583	39%	
14	Waning Crescent	24	1:58	16:08	-	376,503	233,948	2,847	1,769	28%	
15	Waning Crescent	25	3:03	16:46	-	379,575	235,857	3,072	1,909	18%	
16	Waning Crescent	26	4:07	17:21	-	382,833	237,881	3,258	2,024	11%	
17	Waning Crescent	27	5:11	17:53	-	386,253	240,006	3,420	2,125	5%	
18	Waning Crescent	28	6:12	18:24	-	389,788	242,203	3,535	2,197	1%	
19	New Moon	0	7:13	18:56	-	393,350	244,416	3,562	2,213	0%	N 19:12
20	Waxing Crescent	1	8:13	19:28	-	396,798	246,558	3,448	2,142	1%	
21	Waxing Crescent	2	9:11	20:02	-	399,936	248,508	3,138	1,950	4%	
22	Waxing Crescent	3	10:09	20:38	-	402,532	250,121	2,596	1,613	9%	
23	Waxing Crescent	4	11:04	21:18	-	404,342	251,246	1,810	1,125	15%	
24	Waxing Crescent	5	11:57	22:02	-	405,135	251,739	793	493	23%	
25	Waxing Crescent	6	12:46	22:49	-	404,727	251,485	-408	-254	32%	A 02:26
26	Waxing Crescent	7	13:32	23:40	-	403,008	250,417	-1,719	-1,068	41%	
27	First Quarter	8	14:15	-	-	399,966	248,527	-3,042	-1,890	51%	FQ 22:22
28	Waxing Gibbous	9	-	0:35	14:54	395,700	245,876	-4,266	-2,651	61%	
29	Waxing Gibbous	10	-	1:32	15:30	390,436	242,605	-5,264	-3,271	71%	
30	Waxing Gibbous	11	-	2:32	16:05	384,517	238,927	-5,919	-3,678	80%	
31	Waxing Gibbous	12	-	3:34	16:38	378,392	235,121	-6,125	-3,806	88%	

November 2017 Moon Observation Calendar

[Love the Night Sky](#)

2017	Phase		Moonrise/Moonset			Distance from Earth		Change on previous day		Illumination	Notes (all times UT)	
Nov	Name	Day	Moonrise	Moonset	Moonrise	km	miles	km	miles			
1	Waxing Gibbous	13	-	4:38	17:12	372,576	231,508	-5,816	-3,614	94%		
2	Waxing Gibbous	14	-	5:44	17:47	-	-	-	-	-		
3	Waxing Gibbous	15	-	6:53	18:24	367,594	228,412	-4,982	-3,096	98%		
4	Full Moon	16	-	8:04	19:05	363,909	226,122	-3,685	-2,290	100%	F 05:23	
5	Waning Gibbous	17	-	8:16	18:52	361,844	224,839	-2,065	-1,283	98%	Clocks backwards 1hr	
6	Waning Gibbous	18	-	9:26	19:44	361,524	224,640	-320	-199	94%	P 00:10	
7	Waning Gibbous	19	-	10:32	20:43	362,857	225,468	1,333	828	86%		
8	Waning Gibbous	20	-	11:32	21:45	365,570	227,154	2,713	1,686	77%		
9	Waning Gibbous	21	-	12:24	22:50	369,275	229,456	3,705	2,302	66%		
10	Last Quarter	22	-	13:09	23:56	373,567	232,123	4,292	2,667	54%	LQ 20:36	
11	Waning Crescent	23	-	13:49	-	378,083	234,929	4,516	2,806	43%		
12	Waning Crescent	24	1:00	14:24	-	382,552	237,706	4,469	2,777	32%		
13	Waning Crescent	25	2:03	14:56	-	386,799	240,345	4,247	2,639	22%		
14	Waning Crescent	26	3:05	15:27	-	390,731	242,789	3,932	2,443	14%		
15	Waning Crescent	27	4:05	15:58	-	394,308	245,011	3,577	2,223	8%		
16	Waning Crescent	28	5:04	16:29	-	397,515	247,004	3,207	1,993	3%		
17	Waning Crescent	29	6:03	17:01	-	400,330	248,753	2,815	1,749	1%		
18	New Moon	0	7:00	17:37	-	402,705	250,229	2,375	1,476	0%	N 11:42	Micromoon
19	Waxing Crescent	1	7:56	18:15	-	404,551	251,376	1,846	1,147	2%		
20	Waxing Crescent	2	8:50	18:57	-	405,743	252,117	1,192	741	5%		
21	Waxing Crescent	3	9:42	19:43	-	406,129	252,356	386	240	10%	A 18:53	
22	Waxing Crescent	4	10:29	20:32	-	405,552	251,998	-577	-359	17%		
23	Waxing Crescent	5	11:13	21:25	-	403,878	250,958	-1,674	-1,040	25%		
24	Waxing Crescent	6	11:53	22:21	-	401,023	249,184	-2,855	-1,774	33%		
25	Waxing Crescent	7	12:29	23:18	-	396,983	246,673	-4,040	-2,510	43%		
26	First Quarter	8	13:03	-	-	391,857	243,488	-5,126	-3,185	53%	FQ 17:03	
27	Waxing Gibbous	9	-	0:17	13:36	385,870	239,768	-5,987	-3,720	64%		
28	Waxing Gibbous	10	-	1:19	14:08	379,372	235,730	-6,498	-4,038	74%		
29	Waxing Gibbous	11	-	2:22	14:41	372,841	231,672	-6,531	-4,058	83%		
30	Waxing Gibbous	12	-	3:29	15:16	366,840	227,943	-6,001	-3,729	91%		

December 2017 Moon Observation Calendar

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2017	Phase		Moonrise/Moonset			Distance from Earth		Change on previous day		Illumination	Notes (all times UT)	
Dec	Name	Day	Moonrise	Moonset	Moonrise	km	miles	km	miles			
1	Waxing Gibbous	13	-	4:38	15:55	361,960	224,911	-4,880	-3,032	97%		
2	Waxing Gibbous	14	-	5:50	16:38	358,727	222,902	-3,233	-2,009	100%		
3	Full Moon	15	-	7:02	17:28	-	-	-	-	-	F 15:47	Supermoon
4	Waning Gibbous	16	-	8:12	18:25	357,499	222,139	-1,228	-763	99%	P 08:43	
5	Waning Gibbous	17	-	9:18	19:29	358,381	222,687	882	548	96%		
6	Waning Gibbous	18	-	10:16	20:36	361,203	224,441	2,822	1,754	89%		
7	Waning Gibbous	19	-	11:06	21:44	365,561	227,149	4,358	2,708	81%		
8	Waning Gibbous	20	-	11:49	22:51	370,930	230,485	5,369	3,336	70%		
9	Waning Gibbous	21	-	12:27	23:56	376,766	234,111	5,836	3,626	59%		
10	Last Quarter	22	-	13:00	-	382,596	237,734	5,830	3,623	48%	LQ 07:51	
11	Waning Crescent	23	0:58	13:32	-	388,058	241,128	5,462	3,394	37%		
12	Waning Crescent	24	1:59	14:02	-	392,914	244,145	4,856	3,017	28%		
13	Waning Crescent	25	2:58	14:32	-	397,038	246,708	4,124	2,563	19%		
14	Waning Crescent	26	3:57	15:04	-	400,389	248,790	3,351	2,082	12%		
15	Waning Crescent	27	4:54	15:38	-	402,982	250,401	2,593	1,611	6%		
16	Waning Crescent	28	5:50	16:14	-	404,857	251,566	1,875	1,165	2%		
17	Waning Crescent	29	6:45	16:55	-	406,051	252,308	1,194	742	0%		
18	New Moon	0	7:37	17:39	-	406,577	252,635	526	327	0%	N 06:30	Micromoon
19	Waxing Crescent	1	8:26	18:27	-	406,416	252,535	-161	-100	2%	A 01:28	
20	Waxing Crescent	2	9:12	19:19	-	405,514	251,974	-902	-560	6%		
21	Waxing Crescent	3	9:53	20:14	-	403,796	250,907	-1,718	-1,068	11%		
22	Waxing Crescent	4	10:31	21:10	-	401,186	249,285	-2,610	-1,622	18%		
23	Waxing Crescent	5	11:05	22:08	-	397,631	247,076	-3,555	-2,209	26%		
24	Waxing Crescent	6	11:38	23:07	-	393,136	244,283	-4,495	-2,793	36%		
25	Waxing Crescent	7	12:09	-	-	387,788	240,960	-5,348	-3,323	46%		
26	First Quarter	8	-	0:08	12:40	381,787	237,231	-6,001	-3,729	57%	FQ 09:20	
27	Waxing Gibbous	9	-	1:11	13:12	375,461	233,300	-6,326	-3,931	68%		
28	Waxing Gibbous	10	-	2:16	13:47	369,265	229,450	-6,196	-3,850	78%		
29	Waxing Gibbous	11	-	3:24	14:27	363,748	226,022	-5,517	-3,428	87%		
30	Waxing Gibbous	12	-	4:34	15:12	359,498	223,381	-4,250	-2,641	94%		
31	Waxing Gibbous	13	-	5:45	16:04	357,036	221,851	-2,462	-1,530	99%		