

# Astronomical Almanac for 2020 October

Blackpool, Lancs

Latitude: 53°49'08" N Longitude: 3°02'01" W

Elevation: 10 metres

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
				SR: 06:15	SR: 06:16	SR: 06:18
				SS: 17:48	SS: 17:45	SS: 17:43
				MR: 18:13	MR: 18:25	MR: 18:38
				MS: 05:21	MS: 06:30	MS: 07:40
				FM: 21:07		
4	5	6	7	8	9	10
SR: 06:20	SR: 06:22	SR: 06:24	SR: 06:26	SR: 06:27	SR: 06:29	SR: 06:31
SS: 17:40	SS: 17:38	SS: 17:36	SS: 17:33	SS: 17:31	SS: 17:28	SS: 17:26
MR: 18:53	MR: 19:10	MR: 19:32	MR: 20:01	MR: 20:40	MR: 21:32	MR: 22:36
MS: 08:50	MS: 10:00	MS: 11:11	MS: 12:20	MS: 13:26	MS: 14:23	MS: 15:11
						LQ: 00:41
11	12	13	14	15	16	17
SR: 06:33	SR: 06:35	SR: 06:37	SR: 06:39	SR: 06:40	SR: 06:42	SR: 06:44
SS: 17:24	SS: 17:21	SS: 17:19	SS: 17:17	SS: 17:14	SS: 17:12	SS: 17:10
MR: 23:53	MR: None	MR: 01:16	MR: 02:44	MR: 04:14	MR: 05:45	MR: 07:17
MS: 15:48	MS: 16:17	MS: 16:39	MS: 16:58	MS: 17:16	MS: 17:33	MS: 17:51
		Mar Opp			NM: 19:32	
18	19	20	21	22	23	24
SR: 06:46	SR: 06:48	SR: 06:50	SR: 06:52	SR: 06:54	SR: 06:56	SR: 06:58
SS: 17:07	SS: 17:05	SS: 17:03	SS: 17:01	SS: 16:59	SS: 16:56	SS: 16:54
MR: 08:50	MR: 10:22	MR: 11:48	MR: 13:02	MR: 14:01	MR: 14:44	MR: 15:14
MS: 18:13	MS: 18:41	MS: 19:18	MS: 20:06	MS: 21:08	MS: 22:18	MS: 23:32
					FQ: 13:24	
25	26	27	28	29	30	31
SR: 06:59	SR: 07:01	SR: 07:03	SR: 07:05	SR: 07:07	SR: 07:09	SR: 07:11
SS: 16:52	SS: 16:50	SS: 16:48	SS: 16:46	SS: 16:44	SS: 16:42	SS: 16:40
MR: 15:37	MR: 15:55	MR: 16:09	MR: 16:22	MR: 16:34	MR: 16:46	MR: 17:00
MS: None	MS: 00:46	MS: 01:59	MS: 03:10	MS: 04:20	MS: 05:30	MS: 06:39
	Mer ICon					FM: 14:51

## Meteor Showers Report for 2020-10-01 to 2020-10-31

Date	Meteor Shower	ZHR	RA	DEC	Illum. Frac.	Longitude
2020-10-22	Orionids	25	6h24m	15°	0.34	209°

## Planet View Info Report for 2020-10-01 to 2020-10-31

## Mercury

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2020-10-01	09:00	18:08	14h02m55s	-15°26'48"	25°48'53"	0.612	1.00136
2020-10-08	09:09	17:46	14h24m47s	-17°51'25"	24°44'25"	0.469	0.88150
2020-10-15	08:51	17:22	14h32m27s	-18°25'04"	19°46'24"	0.267	0.76044
2020-10-22	07:49	16:55	14h17m07s	-15°56'11"	8°32'51"	0.049	0.67620
2020-10-29	06:23	16:29	13h48m01s	-10°56'21"	7°02'55"	0.040	0.69766

## Venus

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2020-10-01	02:18	16:45	10h00m25s	12°28'13"	40°26'40"	0.716	1.07287
2020-10-08	02:37	16:34	10h32m11s	9°55'35"	39°09'28"	0.740	1.12040
2020-10-15	02:57	16:22	11h03m46s	7°07'10"	37°48'04"	0.763	1.16640
2020-10-22	03:18	16:09	11h35m12s	4°06'29"	36°23'15"	0.785	1.21075
2020-10-29	03:39	15:55	12h06m36s	0°57'19"	34°55'26"	0.806	1.25345

## Mars

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2020-10-01	18:28	07:46	1h38m20s	6°14'37"	162°49'51"	0.989	0.41727
2020-10-08	17:54	07:08	1h30m06s	5°49'08"	171°29'51"	0.997	0.41505
2020-10-15	17:20	06:29	1h21m09s	5°23'29"	176°46'48"	1.000	0.42051
2020-10-22	16:46	05:52	1h12m37s	5°02'40"	169°19'21"	0.996	0.43400
2020-10-29	16:13	05:16	1h05m30s	4°51'05"	160°48'57"	0.987	0.45530

## Jupiter

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2020-10-01	15:01	22:32	19h17m51s	-22°40'04"	99°37'26"	0.991	4.86539
2020-10-08	14:35	22:07	19h19m52s	-22°36'30"	93°12'09"	0.990	4.97233
2020-10-15	14:10	21:42	19h22m31s	-22°31'37"	86°53'32"	0.990	5.08006
2020-10-22	13:45	21:19	19h25m43s	-22°25'24"	80°41'16"	0.991	5.18721
2020-10-29	13:20	20:56	19h29m28s	-22°17'50"	74°35'03"	0.991	5.29243

## Saturn

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2020-10-01	15:23	23:13	19h49m29s	-21°22'29"	107°04'01"	0.998	9.67889
2020-10-08	14:56	22:45	19h49m45s	-21°22'08"	100°14'10"	0.998	9.79160
2020-10-15	14:29	22:19	19h50m22s	-21°20'53"	93°27'19"	0.998	9.90684
2020-10-22	14:02	21:52	19h51m18s	-21°18'44"	86°43'31"	0.998	10.02295
2020-10-29	13:35	21:27	19h52m35s	-21°15'40"	80°02'55"	0.998	10.13823

## Uranus

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2020-10-01	18:33	09:26	2h30m26s	14°19'15"	148°25'23"	1.000	18.92621
2020-10-08	18:05	08:57	2h29m28s	14°14'37"	155°33'36"	1.000	18.87122
2020-10-15	17:37	08:28	2h28m27s	14°09'37"	162°44'47"	1.000	18.82973
2020-10-22	17:09	07:59	2h27m22s	14°04'20"	169°58'23"	1.000	18.80258
2020-10-29	16:41	07:30	2h26m15s	13°58'54"	177°12'29"	1.000	18.79029