

Location:	Piazz Smyth	Beginning:	01 Jan 2018 00:00
Latitude:	52°02'00" N	Ending:	31 Jan 2018 23:59
Longitude:	00°03'00" W	LT/UT:	UT
Time Zone:	GMT Standard Time	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No

Moon

Mon 01 Jan 2018
 Rise: 15:46
 Az: 65°.7
 Set: 07:01
 Az: 306°.3
 Transit: 23:57
 Alt: 58°.0

00:00
 RA: 05h37m18s
 Alt: +54°.4
 Ph: 98.0%
 SA2000: 5
 HB: B-13, C-35
 Dist (Earth): 357401km
 Decl: +18°45'21"
 Az: 207°.0
 Mag:
 U2000: I, 136
 U2000.2: I, 77
 Dist (Sun):
 Con: Tau
 Size: 33'.93
 MSA: I, 182
 PSA: 14
 Motion:

Phase angle: 16°.16
 PA of N pole: -1°.25
 PA of bright limb: 253°.83
 Librations (Lat, Lng)
 Optical: +5°.232, -1°.666
 Physical: +0°.002, -0°.009
 Total: +5°.23, -1°.67

Tue 02 Jan 2018
 Rise: 16:52
 Az: 66°.0
 Set: 08:07
 Az: 307°.6
 Transit: None
 Alt: (null)

00:00
 RA: 06h42m58s
 Alt: +57°.5
 Ph: 99.9%
 SA2000: 5
 HB: B-11, C-34
 Dist (Earth): 356575km
 Decl: +19°30'33"
 Az: 181°.4
 Mag:
 U2000: I, 138
 U2000.2: I, 76
 Dist (Sun):
 Con: Gem
 Size: 34'.03
 MSA: I, 178
 PSA: 25
 Motion: 15°.30

Phase angle: 3°.32
 PA of N pole: +5°.47
 PA of bright limb: 209°.75
 Librations (Lat, Lng)
 Optical: +3°.924, +0°.454
 Physical: +0°.002, -0°.008
 Total: +3°.93, +0°.45

Wed 03 Jan 2018
 Rise: 18:06
 Az: 68°.9
 Set: 09:02
 Az: 305°.8
 Transit: 01:00
 Alt: 57°.2

00:00
 RA: 07h48m35s
 Alt: +54°.8
 Ph: 98.7%
 SA2000: 5
 HB: B-11, C-33
 Dist (Earth): 357771km
 Decl: +18°45'11"
 Az: 155°.5
 Mag:
 U2000: I, 140
 U2000.2: I, 75
 Dist (Sun):
 Con: Gem
 Size: 33'.89
 MSA: I, 175
 PSA: 24
 Motion: 15°.29

Phase angle: 12°.90
 PA of N pole: +11°.81
 PA of bright limb: 108°.16
 Librations (Lat, Lng)
 Optical: +2°.339, +2°.506
 Physical: +0°.003, -0°.006
 Total: +2°.34, +2°.50

Thu 04 Jan 2018
 Rise: 19:25
 Az: 73°.9
 Set: 09:45
 Az: 301°.4
 Transit: 02:02
 Alt: 54°.9

00:00
 RA: 08h52m10s
 Alt: +47°.6
 Ph: 94.6%
 SA2000: 12
 HB: B-11, C-32
 Dist (Earth): 360863km
 Decl: +16°36'07"
 Az: 135°.5
 Mag:
 U2000: I, 142
 U2000.2: I, 94
 Dist (Sun):
 Con: Cnc
 Size: 33'.55
 MSA: II, 712
 PSA: 24
 Motion: 15°.09

Phase angle: 26°.77

Location:	Piazz Smyth	Beginning:	01 Jan 2018 00:00
Latitude:	52°02'00" N	Ending:	31 Jan 2018 23:59
Longitude:	00°03'00" W	LT/UT:	UT
Time Zone:	GMT Standard Time	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No
<p>PA of N pole: +17°:17 PA of bright limb: 106°:52 Librations (Lat, Lng) Optical: +0°:610, +4°:330 Physical: +0°:002, -0°:005 Total: +0°:61, +4°:33</p>			
Fri 05 Jan 2018	Rise: 20:44 Az: 80°:3	Set: 10:20 Az: 295°:3	Transit: 03:00 Alt: 51°:5
00:00	RA: 09h52m27s Alt: +38°:0 Ph: 88.1% SA2000: 13 HB: B-11, C-32 Dist (Earth): 365515km	Decl: +13°20'39" Az: 121°:6 Mag: U2000: I, 188 U2000.2: I, 93 Dist (Sun):	Con: Leo Size: 33'.05 MSA: II, 733 PSA: 35 Motion: 14°:75
<p>Phase angle: 40°:41 PA of N pole: +21°:15 PA of bright limb: 108°:59 Librations (Lat, Lng) Optical: -1°:124, +5°:802 Physical: +0°:002, -0°:004 Total: -1°:12, +5°:80</p>			
Sat 06 Jan 2018	Rise: 22:00 Az: 87°:4	Set: 10:49 Az: 288°:2	Transit: 03:53 Alt: 47°:3
00:00	RA: 10h49m01s Alt: +27°:4 Ph: 79.6% SA2000: 13 HB: B-9, C-49 Dist (Earth): 371243km	Decl: +09°20'32" Az: 111°:6 Mag: U2000: I, 190 U2000.2: I, 92 Dist (Sun):	Con: Leo Size: 32'.45 MSA: II, 730 PSA: 34 Motion: 14°:31
<p>Phase angle: 53°:65 PA of N pole: +23°:60 PA of bright limb: 110°:63 Librations (Lat, Lng) Optical: -2°:739, +6°:852 Physical: +0°:002, -0°:003 Total: -2°:74, +6°:85</p>			
Sun 07 Jan 2018	Rise: 23:13 Az: 95°:0	Set: 11:14 Az: 280°:8	Transit: 04:44 Alt: 42°:8
00:00	RA: 11h42m11s Alt: +16°:7 Ph: 70.0% SA2000: 13 HB: B-9, C-48 Dist (Earth): 377512km	Decl: +04°56'32" Az: 103°:7 Mag: U2000: I, 192 U2000.2: I, 91 Dist (Sun):	Con: Vir Size: 31'.81 MSA: II, 752 PSA: 34 Motion: 13°:83
<p>Phase angle: 66°:42 PA of N pole: +24°:57 PA of bright limb: 111°:98 Librations (Lat, Lng) Optical: -4°:141, +7°:455 Physical: +0°:001, -0°:003 Total: -4°:14, +7°:45</p>			
Mon 08 Jan 2018	Rise: None Az: (null)	Set: 11:37 Az: 273°:4	Transit: 05:31 Alt: 38°:1
00:00	RA: 12h32m38s Alt: +6°:0	Decl: +00°25'54" Az: 97°:1	Con: Vir

Location:	Piazz Smyth	Beginning:	01 Jan 2018 00:00
Latitude:	52°02'00" N	Ending:	31 Jan 2018 23:59
Longitude:	00°03'00" W	LT/UT:	UT
Time Zone:	GMT Standard Time	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No
Ph: 59.8%	Mag:	Size: 31'.19	
SA2000: 14	U2000: I,II, 238	MSA: II, 773	
HB: B-9, C-48	U2000.2: I,II, 111	PSA: 45	
Dist (Earth): 383808km	Dist (Sun):	Motion: 13°.35	
Phase angle:	78°.73		
PA of N pole:	+24°.21		
PA of bright limb:	112°.48		
Librations (Lat, Lng)			
Optical:	-5°.270, +7°.628		
Physical:	+0°.001, -0°.003		
Total:	-5°.27, +7°.63		
Tue 09 Jan 2018	Rise: 00:24 Az: 95°.7	Set: 11:59 Az: 266°.2	Transit: 06:17 Alt: 33°.6
00:00	RA: 13h21m14s Alt: -4°.3 Ph: 49.5%	Decl: -03°58'05" Az: 91°.0 Mag:	Con: Vir Size: 30'.63
	SA2000: 14 HB: B-10, C-47 Dist (Earth): 389705km	U2000: I,II, 240 U2000.2: I,II, 110 Dist (Sun):	MSA: II, 795 PSA: 47 Motion: 12°.92
	Phase angle:	90°.62	
	PA of N pole:	+22°.70	
	PA of bright limb:	112°.13	
	Librations (Lat, Lng)		
	Optical:	-6°.093, +7°.412	
	Physical:	+0°.001, -0°.003	
	Total:	-6°.09, +7°.41	
Wed 10 Jan 2018	Rise: 01:32 Az: 103°.1	Set: 12:22 Az: 259°.7	Transit: 07:02 Alt: 29°.4
00:00	RA: 14h08m48s Alt: -14°.2 Ph: 39.5%	Decl: -08°05'16" Az: 84°.9 Mag:	Con: Vir Size: 30'.14
	SA2000: 14 HB: B-8, C-46 Dist (Earth): 394887km	U2000: II, 286 U2000.2: II, 129 Dist (Sun):	MSA: II, 792 PSA: 46 Motion: 12°.56
	Phase angle:	102°.16	
	PA of N pole:	+20°.19	
	PA of bright limb:	110°.99	
	Librations (Lat, Lng)		
	Optical:	-6°.597, +6°.862	
	Physical:	+0°.000, -0°.004	
	Total:	-6°.60, +6°.86	
Thu 11 Jan 2018	Rise: 02:38 Az: 109°.9	Set: 12:47 Az: 253°.8	Transit: 07:47 Alt: 25°.7
00:00	RA: 14h56m02s Alt: -23°.7 Ph: 30.1%	Decl: -11°47'31" Az: 78°.5 Mag:	Con: Lib Size: 29'.75
	SA2000: 14 HB: B-8, C-46 Dist (Earth): 399158km	U2000: II, 288 U2000.2: II, 129 Dist (Sun):	MSA: II, 814 PSA: 46 Motion: 12°.27
	Phase angle:	113°.41	
	PA of N pole:	+16°.83	
	PA of bright limb:	109°.14	
	Librations (Lat, Lng)		
	Optical:	-6°.782, +6°.040	
	Physical:	+0°.000, -0°.005	
	Total:	-6°.78, +6°.04	

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Longitude:	00°03'00" W	LT/UT:	UT
Time Zone:	GMT Standard Time	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No

Fri 12 Jan 2018	Rise: 03:43 Az: 115°.9	Set: 13:14 Az: 248°.8	Transit: 08:32 Alt: 22°.6
00:00	RA: 15h43m30s Alt: -32°.7 Ph: 21.7% SA2000: 15 HB: B-8, C-63 Dist (Earth): 402426km	Decl: -14°57'56" Az: 71°.1 Mag: U2000: II, 289 U2000.2: II, 128 Dist (Sun):	Con: Lib Size: 29'.44 MSA: II, 811 PSA: 57 Motion: 12°.06
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	124°.46 +12°.78 106°.66 -6°.659, +5°.007 -0°.000, -0°.006 -6°.66, +5°.00	

Sat 13 Jan 2018	Rise: 04:45 Az: 120°.9	Set: 13:47 Az: 245°.1	Transit: 09:18 Alt: 20°.2
00:00	RA: 16h31m34s Alt: -41°0 Ph: 14.4% SA2000: 15 HB: B-8, C-63 Dist (Earth): 404687km	Decl: -17°30'16" Az: 62°3 Mag: U2000: II, 291 U2000.2: II, 127 Dist (Sun):	Con: Oph Size: 29'.23 MSA: III, 1373 PSA: 57 Motion: 11°92
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	135°37 +8°17 103°71 -6°.246, +3°.820 -0°.001, -0°.008 -6°.25, +3°.81	

Sun 14 Jan 2018	Rise: 05:43 Az: 124°5	Set: 14:24 Az: 242°7	Transit: 10:05 Alt: 18°6
00:00	RA: 17h20m24s Alt: -48°3 Ph: 8.4% SA2000: 22 HB: B-8, C-62 Dist (Earth): 405999km	Decl: -19°18'56" Az: 51°0 Mag: U2000: II, 337 U2000.2: II, 146 Dist (Sun):	Con: Oph Size: 29'.09 MSA: III, 1371 PSA: 56 Motion: 11°84
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	146°21 +3°17 100°51 -5°.566, +2°.530 -0°.001, -0°.010 -5°.57, +2°.52	

Mon 15 Jan 2018	Rise: 06:36 Az: 126°6	Set: 15:09 Az: 241°9	Transit: 10:53 Alt: 17°9
00:00	RA: 18h09m53s Alt: -54°0 Ph: 4.0% SA2000: 22 HB: B-6, C-61 Dist (Earth): 406457km	Decl: -20°19'21" Az: 36°5 Mag: U2000: II, 339 U2000.2: II, 145 Dist (Sun):	Con: Sgr Size: 29'.03 MSA: III, 1368 PSA: 67 Motion: 11°82
	Phase angle:	157°01	

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Latitude:	52°02'00" N	Ending:	31 Jan 2018 23:59
Longitude:	00°03'00" W	LT/UT:	UT
Time Zone:	GMT Standard Time	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No
	PA of N pole: -2°02		
	PA of bright limb: 97°61		
	Librations (Lat, Lng)		
	Optical: -4°650, +1°182		
	Physical: -0°001, -0°011		
	Total: -4°65, +1°17		
Tue 16 Jan 2018	Rise: 07:24 Az: 127°0	Set: 16:00 Az: 242°7	Transit: 11:41 Alt: 18°2
00:00	RA: 18h59m47s Alt: -57°4 Ph: 1.1% SA2000: 22 HB: B-6, C-61 Dist (Earth): 406167km	Decl: -20°28'33" Az: 18°3 Mag: U2000: II, 341 U2000.2: II, 145 Dist (Sun):	Con: Sgr Size: 29'.04 MSA: III, 1366 PSA: 67 Motion: 11°83
	Phase angle: 167°81 PA of N pole: -7°17 PA of bright limb: 96°85 Librations (Lat, Lng)		
	Optical: -3°535, -0°186 Physical: -0°001, -0°013 Total: -3°54, -0°20		
Wed 17 Jan 2018	Rise: 08:04 Az: 125°7	Set: 16:56 Az: 245°3	Transit: 12:29 Alt: 19°4
00:00	RA: 19h49m40s Alt: -57°7 Ph: 0.0% SA2000: 22 HB: B-6, C-60 Dist (Earth): 405224km	Decl: -19°45'42" Az: 358°1 Mag: U2000: II, 342 U2000.2: II, 144 Dist (Sun):	Con: Sgr Size: 29'.10 MSA: III, 1363 PSA: 66 Motion: 11°88
	Phase angle: 177°98 PA of N pole: -12°02 PA of bright limb: 138°54 Librations (Lat, Lng)		
	Optical: -2°264, -1°538 Physical: -0°001, -0°015 Total: -2°26, -1°55		
Thu 18 Jan 2018	Rise: 08:40 Az: 122°8	Set: 17:58 Az: 249°2	Transit: 13:16 Alt: 21°5
00:00	RA: 20h39m11s Alt: -54°8 Ph: 0.7% SA2000: 16 HB: B-6, C-60 Dist (Earth): 403697km	Decl: -18°12'23" Az: 339°1 Mag: U2000: II, 344 U2000.2: II, 144 Dist (Sun):	Con: Cap Size: 29'.22 MSA: III, 1361 PSA: 66 Motion: 11°95
	Phase angle: 170°10 PA of N pole: -16°33 PA of bright limb: 251°40 Librations (Lat, Lng)		
	Optical: -0°886, -2°838 Physical: -0°001, -0°017 Total: -0°89, -2°86		
Fri 19 Jan 2018	Rise: 09:10 Az: 118°5	Set: 19:02 Az: 254°4	Transit: 14:02 Alt: 24°4
00:00	RA: 21h28m03s Alt: -49°2	Decl: -15°52'28" Az: 323°7	Con: Cap

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Latitude:	52°02'00" N	Ending:	31 Jan 2018 23:59
Longitude:	00°03'00" W	LT/UT:	UT
Time Zone:	GMT Standard Time	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No
	Ph: 3.3%	Mag:	Size: 29'.40
	SA2000: 16	U2000: II, 300	MSA: III, 1358
	HB: B-6, C-59	U2000.2: II, 123	PSA: 77
	Dist (Earth): 401624km	Dist (Sun):	Motion: 12°.05
	Phase angle:	159°.10	
	PA of N pole:	-19°.88	
	PA of bright limb:	252°.83	
	Librations (Lat, Lng)		
	Optical:	+0°.542, -4°.049	
	Physical:	-0°.001, -0°.019	
	Total:	+0°.54, -4°.07	
Sat 20 Jan 2018	Rise: 09:36	Set: 20:09	Transit: 14:48
	Az: 113°.2	Az: 260°.6	Alt: 27°.9
00:00	RA: 22h16m13s	Decl: -12°51'43"	Con: Aqr
	Alt: -41°.9	Az: 311°.6	
	Ph: 7.6%	Mag:	Size: 29'.63
	SA2000: 17	U2000: II, 302	MSA: III, 1332
	HB: B-4, C-58	U2000.2: II, 122	PSA: 77
	Dist (Earth): 399010km	Dist (Sun):	Motion: 12°.17
	Phase angle:	147°.94	
	PA of N pole:	-22°.52	
	PA of bright limb:	251°.44	
	Librations (Lat, Lng)		
	Optical:	+1°.962, -5°.132	
	Physical:	-0°.000, -0°.020	
	Total:	+1°.96, -5°.15	
Sun 21 Jan 2018	Rise: 10:00	Set: 21:17	Transit: 15:33
	Az: 107°.2	Az: 267°.6	Alt: 31°.9
00:00	RA: 23h03m49s	Decl: -09°17'09"	Con: Aqr
	Alt: -33°.5	Az: 302°.2	
	Ph: 13.7%	Mag:	Size: 29'.92
	SA2000: 17	U2000: II, 303	MSA: III, 1305
	HB: B-4, C-40	U2000.2: II, 122	PSA: 76
	Dist (Earth): 395844km	Dist (Sun):	Motion: 12°.33
	Phase angle:	136°.62	
	PA of N pole:	-24°.12	
	PA of bright limb:	249°.98	
	Librations (Lat, Lng)		
	Optical:	+3°.312, -6°.042	
	Physical:	-0°.000, -0°.022	
	Total:	+3°.31, -6°.06	
Mon 22 Jan 2018	Rise: 10:22	Set: 22:26	Transit: 16:18
	Az: 100°.6	Az: 275°.3	Alt: 36°.3
00:00	RA: 23h51m14s	Decl: -05°16'43"	Con: Aqr
	Alt: -24°.2	Az: 294°.3	
	Ph: 21.2%	Mag:	Size: 30'.27
	SA2000: 17	U2000: I,II, 215	MSA: III, 1303
	HB: B-4, C-39	U2000.2: I,II, 101	PSA: 76
	Dist (Earth): 392119km	Dist (Sun):	Motion: 12°.52
	Phase angle:	125°.10	
	PA of N pole:	-24°.62	
	PA of bright limb:	249°.02	
	Librations (Lat, Lng)		
	Optical:	+4°.528, -6°.731	
	Physical:	+0°.000, -0°.023	
	Total:	+4°.53, -6°.75	

Location:	Piazz Smyth	Beginning:	01 Jan 2018 00:00
Latitude:	52°02'00" N	Ending:	31 Jan 2018 23:59
Longitude:	00°03'00" W	LT/UT:	UT
Time Zone:	GMT Standard Time	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No

Tue 23 Jan 2018	Rise: 10:44 Az: 93°8	Set: 23:37 Az: 283°5	Transit: 17:04 Alt: 40°9
00:00	RA: 00h39m02s Alt: -14°4 Ph: 30.2% SA2000: 10 HB: B-4, C-56 Dist (Earth): 387850km	Decl: -00°59'07" Az: 287°5 Mag: U2000: I,II, 216 U2000.2: I,II, 120 Dist (Sun):	Con: Cet Size: 30'.69 MSA: I, 268 PSA: 7 Motion: 12°.75
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	113°35 -23°99 248°77 +5°547, -7°148 +0°001, -0°024 +5°55, -7°17	

Wed 24 Jan 2018	Rise: 11:08 Az: 86°8	Set: None Az: (null)	Transit: 17:52 Alt: 45°4
00:00	RA: 01h27m55s Alt: -4°2 Ph: 40.2% SA2000: 10 HB: B-3, C-56 Dist (Earth): 383110km	Decl: +03°25'50" Az: 281°0 Mag: U2000: I,II, 218 U2000.2: I,II, 120 Dist (Sun):	Con: Psc Size: 31'.16 MSA: I, 242 PSA: 4 Motion: 13°03
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	101°33 -22°20 249°36 +6°305, -7°245 +0°001, -0°025 +6°31, -7°27	

Thu 25 Jan 2018	Rise: 11:34 Az: 80°1	Set: 00:50 Az: 284°3	Transit: 18:43 Alt: 49°7
00:00	RA: 02h18m41s Alt: +6°4 Ph: 50.9% SA2000: 10 HB: B-13, C-55 Dist (Earth): 378047km	Decl: +07°46'42" Az: 274°4 Mag: U2000: I, 174 U2000.2: I, 99 Dist (Sun):	Con: Cet Size: 31'.67 MSA: I, 239 PSA: 4 Motion: 13°36
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	88°98 -19°26 250°89 +6°745, -6°980 +0°002, -0°025 +6°75, -7°01	

Fri 26 Jan 2018	Rise: 12:04 Az: 73°9	Set: 02:05 Az: 291°9	Transit: 19:37 Alt: 53°4
00:00	RA: 03h12m06s Alt: +17°2 Ph: 61.9% SA2000: 10 HB: B-13, C-37 Dist (Earth): 372907km	Decl: +11°49'38" Az: 267°3 Mag: U2000: I, 176 U2000.2: I, 98 Dist (Sun):	Con: Ari Size: 32'.21 MSA: I, 213 PSA: 15 Motion: 13°73
	Phase angle:	76°28	

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Longitude:	00°03'00" W	LT/UT:	UT
Time Zone:	GMT Standard Time	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No
	PA of N pole: -15°.17		
	PA of bright limb: 253°.42		
	Librations (Lat, Lng)		
	Optical: +6°.813, -6°.331		
	Physical: +0°.002, -0°.025		
	Total: +6°.82, -6°.36		
Sat 27 Jan 2018	Rise: 12:42 Az: 68°.9	Set: 03:22 Az: 298°.6	Transit: 20:34 Alt: 56°.2
00:00	RA: 04h08m46s Alt: +27°.9 Ph: 72.6% SA2000: 11 HB: B-13, C-36 Dist (Earth): 368030km	Decl: +15°18'03" Az: 258°.8 Mag: U2000: I, 178 U2000.2: I, 98 Dist (Sun):	Con: Tau Size: 32'.74 MSA: I, 186 PSA: 15 Motion: 14°.12
	Phase angle: 63°.19		
	PA of N pole: -10°.04		
	PA of bright limb: 256°.95		
	Librations (Lat, Lng)		
	Optical: +6°.475, -5°.299		
	Physical: +0°.003, -0°.025		
	Total: +6°.48, -5°.32		
Sun 28 Jan 2018	Rise: 13:29 Az: 65°.6	Set: 04:36 Az: 303°.7	Transit: 21:35 Alt: 57°.8
00:00	RA: 05h08m51s Alt: +38°.2 Ph: 82.3% SA2000: 5 HB: B-13, C-35 Dist (Earth): 363830km	Decl: +17°53'13" Az: 248°.0 Mag: U2000: I, 135 U2000.2: I, 77 Dist (Sun):	Con: Tau Size: 33'.21 MSA: I, 183 PSA: 14 Motion: 14°.49
	Phase angle: 49°.73		
	PA of N pole: -4°.04		
	PA of bright limb: 261°.39		
	Librations (Lat, Lng)		
	Optical: +5°.720, -3°.920		
	Physical: +0°.003, -0°.024		
	Total: +5°.72, -3°.94		
Mon 29 Jan 2018	Rise: 14:27 Az: 64°.6	Set: 05:45 Az: 306°.5	Transit: 22:37 Alt: 57°.8
00:00	RA: 06h11m49s Alt: +47°.3 Ph: 90.5% SA2000: 5 HB: B-11, C-34 Dist (Earth): 360740km	Decl: +19°17'00" Az: 233°.3 Mag: U2000: I, 137 U2000.2: I, 76 Dist (Sun):	Con: Ori Size: 33'.56 MSA: I, 180 PSA: 25 Motion: 14°.81
	Phase angle: 35°.95		
	PA of N pole: +2°.45		
	PA of bright limb: 266°.46		
	Librations (Lat, Lng)		
	Optical: +4°.570, -2°.266		
	Physical: +0°.004, -0°.023		
	Total: +4°.57, -2°.29		
Tue 30 Jan 2018	Rise: 15:36 Az: 66°.3	Set: 06:45 Az: 306°.3	Transit: 23:40 Alt: 56°.4
00:00	RA: 07h16m24s Alt: +53°.7	Decl: +19°16'32" Az: 213°.1	Con: Gem

Location:	Piazz Smyth	Beginning:	01 Jan 2018 00:00
Latitude:	52°02'00" N	Ending:	31 Jan 2018 23:59
Longitude:	00°03'00" W	LT/UT:	UT
Time Zone:	GMT Standard Time	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No

Ph: 96.4%	Mag:	Size: 33'.76
SA2000: 5	U2000: I, 139	MSA: I, 177
HB: B-11, C-34	U2000.2: I, 76	PSA: 25
Dist (Earth): 359147km	Dist (Sun):	Motion: 15°.04

Phase angle:	21°.96
PA of N pole:	+8°.92
PA of bright limb:	271°.64
Librations (Lat, Lng)	
Optical:	+3°.095, -0°.445
Physical:	+0°.004, -0°.022
Total:	+3°.10, -0°.47

Wed 31 Jan 2018	Rise: 16:53 Az: 70°.4	Set: 07:34 Az: 303°.4	Transit: None Alt: (null)
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00:00	RA: 08h20m48s Alt: +55°.6 Ph: 99.5%	Decl: +17°48'59" Az: 188°.3 Mag:	Con: Cnc Size: 33'.75 MSA: II, 713 PSA: 24 Motion: 15°.11
	SA2000: 12 HB: B-11, C-33 Dist (Earth): 359309km	U2000: I, 141 U2000.2: I, 75 Dist (Sun):	

Phase angle:	7°.89
PA of N pole:	+14°.76
PA of bright limb:	275°.50
Librations (Lat, Lng)	
Optical:	+1°.400, +1°.410
Physical:	+0°.004, -0°.020
Total:	+1°.40, +1°.39

31 times calculated for each of 1 objects