

Location:	Piazz Smyth Observatory	Beginning:	01/06/2018 12:00a
Latitude:	52°08'40" N	Ending:	30/06/2018 11:59p
Longitude:	00°27'48" W	LT/UT:	LT
Time Zone:	UTC	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No

Moon
 Fri 01/06 2018
 Rise: 10:35p
 Az: 135°.0
 Set: 06:10a
 Az: 236°.6
 Transit: 01:59a
 Alt: 17°.1

12:00a
 RA: 18h32m12s
 Alt: +12°.1
 Ph: 94.6%
 SA2000: 22
 HB: B-6, C-61
 Dist (Earth): 404028km
 Decl: -21°31'35"
 Az: 152°.5
 Mag:
 U2000: II, 340
 U2000.2: II, 145
 Dist (Sun):
 Con: Sgr
 Size: 29'.68
 MSA: III, 1367
 PSA: 67
 Motion:
 Phase angle: 26°.83
 PA of N pole: -4°.41
 PA of bright limb: 81°.87
 Librations (Lat, Lng)
 Optical: -3°.361, +1°.148
 Physical: +0°.010, -0°.016
 Total: -3°.35, +1°.13

Sat 02/06 2018
 Rise: 11:16p
 Az: 133°.5
 Set: 07:02a
 Az: 237°.5
 Transit: 02:48a
 Alt: 17°.4

12:00a
 RA: 19h23m28s
 Alt: +8°.3
 Ph: 89.6%
 SA2000: 22
 HB: B-6, C-60
 Dist (Earth): 405089km
 Decl: -21°18'42"
 Az: 141°.9
 Mag:
 U2000: II, 341
 U2000.2: II, 144
 Dist (Sun):
 Con: Sgr
 Size: 29'.57
 MSA: III, 1364
 PSA: 67
 Motion: 11°.90
 Phase angle: 37°.64
 PA of N pole: -9°.47
 PA of bright limb: 79°.95
 Librations (Lat, Lng)
 Optical: -2°.106, -0°.178
 Physical: +0°.010, -0°.017
 Total: -2°.10, -0°.19

Sun 03/06 2018
 Rise: 11:50p
 Az: 130°.3
 Set: 07:59a
 Az: 240°.2
 Transit: 03:35a
 Alt: 18°.7

12:00a
 RA: 20h13m59s
 Alt: +4°.5
 Ph: 83.2%
 SA2000: 23
 HB: B-6, C-60
 Dist (Earth): 405269km
 Decl: -20°11'09"
 Az: 131°.6
 Mag:
 U2000: II, 343
 U2000.2: II, 144
 Dist (Sun):
 Con: Cap
 Size: 29'.53
 MSA: III, 1362
 PSA: 66
 Motion: 11°.84
 Phase angle: 48°.43
 PA of N pole: -14°.06
 PA of bright limb: 76°.99
 Librations (Lat, Lng)
 Optical: -0°.766, -1°.583
 Physical: +0°.010, -0°.018
 Total: -0°.76, -1°.60

Mon 04/06 2018
 Rise: None
 Az: (null)
 Set: 09:00a
 Az: 244°.4
 Transit: 04:22a
 Alt: 20°.8

12:00a
 RA: 21h03m28s
 Alt: +0°.5
 Ph: 75.6%
 Decl: -18°13'10"
 Az: 121°.4
 Mag:
 Con: Cap
 Size: 29'.55

Location:	Piazz Smyth Observatory	Beginning:	01/06/2018 12:00a
Latitude:	52°08'40" N	Ending:	30/06/2018 11:59p
Longitude:	00°27'48" W	LT/UT:	LT
Time Zone:	UTC	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No

	SA2000: 16 HB: B-6, C-59 Dist (Earth): 404426km	U2000: II, 344 U2000.2: II, 123 Dist (Sun):	MSA: III, 1359 PSA: 77 Motion: 11°.84
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	59°.25 -17°.99 73°.86 +0°.609, -3°.001 +0°.010, -0°.019 +0°.62, -3°.02	
Tue 05/06 2018	Rise: 12:18a Az: 114°.8	Set: 10:04a Az: 249°.9	Transit: 05:07a Alt: 23°.7
12:00a	RA: 21h51m53s Alt: -3°.4 Ph: 67.0% SA2000: 17 HB: B-6, C-59 Dist (Earth): 402467km	Decl: -15°30'27" Az: 111°.2 Mag: U2000: II, 301 U2000.2: II, 123 Dist (Sun):	Con: Cap Size: 29'.67 MSA: III, 1333 PSA: 77 Motion: 11°.90
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	70°.14 -21°.08 70°.97 +1°.967, -4°.352 +0°.010, -0°.020 +1°.98, -4°.37	
Wed 06/06 2018	Rise: 12:43a Az: 109°.1	Set: 11:10a Az: 256°.3	Transit: 05:52a Alt: 27°.3
12:00a	RA: 22h39m27s Alt: -7°.1 Ph: 57.7% SA2000: 17 HB: B-4, C-40 Dist (Earth): 399363km	Decl: -12°09'26" Az: 100°.7 Mag: U2000: II, 302 U2000.2: II, 122 Dist (Sun):	Con: Aqr Size: 29'.87 MSA: III, 1331 PSA: 76 Motion: 12°.03
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	81°.18 -23°.23 68°.53 +3°.256, -5°.550 +0°.011, -0°.020 +3°.27, -5°.57	
Thu 07/06 2018	Rise: 01:06a Az: 102°.8	Set: 12:18p Az: 263°.6	Transit: 06:37a Alt: 31°.4
12:00a	RA: 23h26m35s Alt: -10°.7 Ph: 47.9% SA2000: 17 HB: B-4, C-39 Dist (Earth): 395174km	Decl: -08°17'01" Az: 89°.8 Mag: U2000: II, 304 U2000.2: II, 121 Dist (Sun):	Con: Aqr Size: 30'.15 MSA: III, 1304 PSA: 76 Motion: 12°.25
	Phase angle: PA of N pole: PA of bright limb:	92°.44 -24°.35 66°.67	

Location:	Piazz Smyth Observatory	Beginning:	01/06/2018 12:00a
Latitude:	52°08'40" N	Ending:	30/06/2018 11:59p
Longitude:	00°27'48" W	LT/UT:	LT
Time Zone:	UTC	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No

	Librations (Lat, Lng)		
	Optical:	+4°.422, -6°.505	
	Physical:	+0°.011, -0°.021	
	Total:	+4°.43, -6°.53	
Fri 08/06 2018	Rise: 01:27a Az: 95°.8	Set: 01:28p Az: 271°.5	Transit: 07:22a Alt: 35°.9
12:00a	RA: 00h13m53s Alt: -13°.9 Ph: 37.9% SA2000: 17 HB: B-4, C-39 Dist (Earth): 390059km	Decl: -04°00'40" Az: 78°.4 Mag: U2000: I,II, 215 U2000.2: I,II, 101 Dist (Sun):	Con: Psc Size: 30'.52 MSA: I, 294 PSA: 7 Motion: 12°.55
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng)	104°.01 -24°.38 65°.48	
	Optical: Physical: Total:	+5°.408, -7°.128 +0°.012, -0°.021 +5°.42, -7°.15	
Sat 09/06 2018	Rise: 01:49a Az: 88°.5	Set: 02:41p Az: 280°.0	Transit: 08:08a Alt: 40°.7
12:00a	RA: 01h02m06s Alt: -16°.7 Ph: 28.1% SA2000: 10 HB: B-3, C-56 Dist (Earth): 384287km	Decl: +00°30'58" Az: 66°.3 Mag: U2000: I,II, 217 U2000.2: I,II, 120 Dist (Sun):	Con: Cet Size: 30'.95 MSA: I, 267 PSA: 5 Motion: 12°.91
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng)	115°.95 -23°.27 65°.00	
	Optical: Physical: Total:	+6°.151, -7°.345 +0°.012, -0°.021 +6°.16, -7°.37	
Sun 10/06 2018	Rise: 02:11a Az: 81°.1	Set: 03:57p Az: 288°.8	Transit: 08:57a Alt: 45°.5
12:00a	RA: 01h52m00s Alt: -18°.9 Ph: 19.0% SA2000: 10 HB: B-3, C-56 Dist (Earth): 378226km	Decl: +05°07'13" Az: 53°.6 Mag: U2000: I, 173 U2000.2: I, 99 Dist (Sun):	Con: Psc Size: 31'.42 MSA: I, 241 PSA: 4 Motion: 13°.34
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng)	128°.31 -20°.99 65°.23	
	Optical: Physical: Total:	+6°.590, -7°.106 +0°.013, -0°.021 +6°.60, -7°.13	
Mon 11/06 2018	Rise: 02:37a Az: 74°.0	Set: 05:15p Az: 297°.6	Transit: 09:49a Alt: 50°.0

Location:	Piazz Smyth Observatory	Beginning:	01/06/2018 12:00a
Latitude:	52°08'40" N	Ending:	30/06/2018 11:59p
Longitude:	00°27'48" W	LT/UT:	LT
Time Zone:	UTC	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No

12:00a	RA: 02h44m23s Alt: -20°.3 Ph: 11.1% SA2000: 10 HB: B-13, C-55 Dist (Earth): 372329km	Decl: +09°34'26" Az: 40°.0 Mag: U2000: I, 175 U2000.2: I, 99 Dist (Sun):	Con: Cet Size: 31'.91 MSA: I, 214 PSA: 4 Motion: 13°.79
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	141°.12 -17°.50 65°.98 +6°.665, -6°.394 +0°.014, -0°.020 +6°.68, -6°.41	
Tue 12/06 2018	Rise: 03:07a Az: 67°.4	Set: 06:34p Az: 305°.6	Transit: 10:44a Alt: 53°.9
12:00a	RA: 03h39m52s Alt: -20°.8 Ph: 4.9% SA2000: 11 HB: B-13, C-36 Dist (Earth): 367090km	Decl: +13°35'33" Az: 25°.9 Mag: U2000: I, 177 U2000.2: I, 98 Dist (Sun):	Con: Tau Size: 32'.35 MSA: I, 212 PSA: 15 Motion: 14°.24
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	154°.34 -12°.86 66°.44 +6°.335, -5°.242 +0°.015, -0°.018 +6°.35, -5°.26	
Wed 13/06 2018	Rise: 03:45a Az: 62°.2	Set: 07:51p Az: 312°.0	Transit: 11:43a Alt: 56°.8
12:00a	RA: 04h38m40s Alt: -20°.3 Ph: 1.1% SA2000: 11 HB: B-13, C-36 Dist (Earth): 362981km	Decl: +16°50'45" Az: 11°.4 Mag: U2000: I, 134 U2000.2: I, 78 Dist (Sun):	Con: Tau Size: 32'.72 MSA: I, 185 PSA: 14 Motion: 14°.63
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	167°.75 -7°.20 61°.77 +5°.586, -3°.729 +0°.015, -0°.017 +5°.60, -3°.75	
Thu 14/06 2018	Rise: 04:33a Az: 59°.1	Set: 09:01p Az: 315°.6	Transit: 12:45p Alt: 58°.4
12:00a	RA: 05h40m24s Alt: -18°.8 Ph: 0.1% SA2000: 5 HB: B-13, C-35 Dist (Earth): 360379km	Decl: +19°00'05" Az: 356°.7 Mag: U2000: I, 136 U2000.2: I, 77 Dist (Sun):	Con: Tau Size: 32'.97 MSA: I, 181 PSA: 14 Motion: 14°.91

Location:	Piazz Smyth Observatory	Beginning:	01/06/2018 12:00a
Latitude:	52°08'40" N	Ending:	30/06/2018 11:59p
Longitude:	00°27'48" W	LT/UT:	LT
Time Zone:	UTC	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No

	Phase angle:	175°.77	
	PA of N pole:	-0°.82	
	PA of bright limb:	321°.70	
	Librations (Lat, Lng)		
	Optical:	+4°.447, -1°.980	
	Physical:	+0°.016, -0°.014	
	Total:	+4°.46, -1°.99	
Fri 15/06 2018	Rise: 05:32a Az: 58°.6	Set: 10:01p Az: 315°.9	Transit: 01:48p Alt: 58°.4
12:00a	RA: 06h43m53s Alt: -16°.3 Ph: 2.1% SA2000: 5 HB: B-11, C-34 Dist (Earth): 359501km	Decl: +19°48'08" Az: 342°.2 Mag: U2000: I, 138 U2000.2: I, 76 Dist (Sun):	Con: Gem Size: 33'.08 MSA: I, 178 PSA: 25 Motion: 15°.06
	Phase angle:	163°.23	
	PA of N pole:	+5°.77	
	PA of bright limb:	282°.02	
	Librations (Lat, Lng)		
	Optical:	+2°.992, -0°.138	
	Physical:	+0°.016, -0°.012	
	Total:	+3°.01, -0°.15	
Sat 16/06 2018	Rise: 06:43a Az: 61°.1	Set: 10:48p Az: 313°.1	Transit: 02:50p Alt: 56°.8
12:00a	RA: 07h47m26s Alt: -13°.1 Ph: 7.0% SA2000: 5 HB: B-11, C-33 Dist (Earth): 360367km	Decl: +19°08'42" Az: 328°.0 Mag: U2000: I, 140 U2000.2: I, 75 Dist (Sun):	Con: Gem Size: 33'.03 MSA: I, 175 PSA: 24 Motion: 15°.04
	Phase angle:	149°.30	
	PA of N pole:	+11°.96	
	PA of bright limb:	282°.16	
	Librations (Lat, Lng)		
	Optical:	+1°.331, +1°.648	
	Physical:	+0°.016, -0°.010	
	Total:	+1°.35, +1°.64	
Sun 17/06 2018	Rise: 08:00a Az: 66°.0	Set: 11:25p Az: 307°.8	Transit: 03:49p Alt: 53°.9
12:00a	RA: 08h49m21s Alt: -9°.4 Ph: 14.4% SA2000: 12 HB: B-11, C-32 Dist (Earth): 362803km	Decl: +17°06'58" Az: 314°.3 Mag: U2000: I, 142 U2000.2: I, 74 Dist (Sun):	Con: Cnc Size: 32'.85 MSA: II, 712 PSA: 24 Motion: 14°.88
	Phase angle:	135°.41	
	PA of N pole:	+17°.20	
	PA of bright limb:	285°.33	
	Librations (Lat, Lng)		
	Optical:	-0°.403, +3°.255	
	Physical:	+0°.016, -0°.007	

Location:	Piazz Smyth Observatory	Beginning:	01/06/2018 12:00a
Latitude:	52°08'40" N	Ending:	30/06/2018 11:59p
Longitude:	00°27'48" W	LT/UT:	LT
Time Zone:	UTC	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No

	Total:	-0°.39, +3°.25	
Mon 18/06 2018	Rise: 09:19a Az: 72°.6	Set: 11:56p Az: 301°.0	Transit: 04:45p Alt: 49°.9
12:00a	RA: 09h48m30s Alt: -5°.4 Ph: 23.7% SA2000: 13 HB: B-11, C-32 Dist (Earth): 366487km	Decl: +13°57'18" Az: 301°.1 Mag: U2000: I, 188 U2000.2: I, 93 Dist (Sun):	Con: Leo Size: 32'.55 MSA: II, 733 PSA: 35 Motion: 14°.61
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	121°.78 +21°.10 288°.63 -2°.083, +4°.595 +0°.016, -0°.005 -2°.07, +4°.59	
Tue 19/06 2018	Rise: 10:37a Az: 80°.2	Set: None Az: (null)	Transit: 05:37p Alt: 45°.4
12:00a	RA: 10h44m29s Alt: -1°.5 Ph: 34.1% SA2000: 13 HB: B-9, C-49 Dist (Earth): 371018km	Decl: +09°58'39" Az: 288°.4 Mag: U2000: I, 190 U2000.2: I, 92 Dist (Sun):	Con: Leo Size: 32'.20 MSA: II, 730 PSA: 34 Motion: 14°.26
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	108°.49 +23°.50 291°.27 -3°.596, +5°.617 +0°.015, -0°.003 -3°.58, +5°.61	
Wed 20/06 2018	Rise: 11:53a Az: 88°.3	Set: 12:21a Az: 280°.2	Transit: 06:26p Alt: 40°.5
12:00a	RA: 11h37m36s Alt: +2°.3 Ph: 45.1% SA2000: 13 HB: B-9, C-48 Dist (Earth): 375987km	Decl: +05°30'14" Az: 276°.0 Mag: U2000: I, 192 U2000.2: I, 91 Dist (Sun):	Con: Vir Size: 31'.81 MSA: II, 751 PSA: 34 Motion: 13°.88
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	95°.57 +24°.43 293°.02 -4°.859, +6°.306 +0°.015, -0°.002 -4°.84, +6°.30	
Thu 21/06 2018	Rise: 01:07p Az: 96°.5	Set: 12:44a Az: 272°.6	Transit: 07:13p Alt: 35°.7
12:00a	RA: 12h28m30s Alt: +5°.8	Decl: +00°49'07" Az: 263°.8	Con: Vir

Location:	Piazz Smyth Observatory	Beginning:	01/06/2018 12:00a
Latitude:	52°08'40" N	Ending:	30/06/2018 11:59p
Longitude:	00°27'48" W	LT/UT:	LT
Time Zone:	UTC	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No

	Ph: 56.1%	Mag:	Size: 31'.42
	SA2000: 14	U2000: I,II, 238	MSA: II, 773
	HB: B-9, C-48	U2000.2: I,II, 111	PSA: 45
	Dist (Earth): 381034km	Dist (Sun):	Motion: 13°.51
	Phase angle:	83°.03	
	PA of N pole:	+24°.02	
	PA of bright limb:	293°.83	
	Librations (Lat, Lng)		
	Optical:	-5°.817, +6°.669	
	Physical:	+0°.015, -0°.001	
	Total:	-5°.80, +6°.67	
Fri 22/06 2018	Rise: 02:19p Az: 104°.6	Set: 01:06a Az: 265°.0	Transit: 07:59p Alt: 31°.1
12:00a	RA: 13h17m56s Alt: +8°.9 Ph: 66.4%	Decl: -03°50'16" Az: 251°.8 Mag:	Con: Vir Size: 31'.05
	SA2000: 14 HB: B-10, C-47 Dist (Earth): 385881km	U2000: I,II, 240 U2000.2: I,II, 110 Dist (Sun):	MSA: II, 794 PSA: 47 Motion: 13°.17
	Phase angle:	70°.83	
	PA of N pole:	+22°.43	
	PA of bright limb:	293°.75	
	Librations (Lat, Lng)		
	Optical:	-6°.440, +6°.725	
	Physical:	+0°.014, -0°.000	
	Total:	-6°.43, +6°.72	
Sat 23/06 2018	Rise: 03:29p Az: 112°.4	Set: 01:28a Az: 257°.8	Transit: 08:45p Alt: 26°.9
12:00a	RA: 14h06m44s Alt: +11°.5 Ph: 75.8%	Decl: -08°15'50" Az: 239°.9 Mag:	Con: Vir Size: 30'.72
	SA2000: 14 HB: B-8, C-46 Dist (Earth): 390336km	U2000: II, 287 U2000.2: II, 129 Dist (Sun):	MSA: II, 792 PSA: 46 Motion: 12°.87
	Phase angle:	58°.94	
	PA of N pole:	+19°.82	
	PA of bright limb:	292°.87	
	Librations (Lat, Lng)		
	Optical:	-6°.720, +6°.502	
	Physical:	+0°.014, +0°.000	
	Total:	-6°.71, +6°.50	
Sun 24/06 2018	Rise: 04:37p Az: 119°.5	Set: 01:51a Az: 251°.2	Transit: 09:31p Alt: 23°.3
12:00a	RA: 14h55m32s Alt: +13°.6 Ph: 83.9%	Decl: -12°17'04" Az: 228°.1 Mag:	Con: Lib Size: 30'.43
	SA2000: 14 HB: B-8, C-46 Dist (Earth): 394291km	U2000: II, 288 U2000.2: II, 129 Dist (Sun):	MSA: II, 814 PSA: 46 Motion: 12°.62
	Phase angle:	47°.32	
	PA of N pole:	+16°.33	

Location:	Piazz Smyth Observatory	Beginning:	01/06/2018 12:00a
Latitude:	52°08'40" N	Ending:	30/06/2018 11:59p
Longitude:	00°27'48" W	LT/UT:	LT
Time Zone:	UTC	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No

	PA of bright limb:	291°.34	
	Librations (Lat, Lng)		
	Optical:	-6°.663, +6°.028	
	Physical:	+0°.014, -0°.000	
	Total:	-6°.65, +6°.03	
Mon 25/06 2018	Rise: 05:43p Az: 125°.6	Set: 02:17a Az: 245°.4	Transit: 10:18p Alt: 20°.4
12:00a	RA: 15h44m52s Alt: +15°.1 Ph: 90.5% SA2000: 15 HB: B-8, C-63 Dist (Earth): 397695km	Decl: -15°44'34" Az: 216°.3 Mag: U2000: II, 290 U2000.2: II, 128 Dist (Sun):	Con: Lib Size: 30'.18 MSA: II, 811 PSA: 57 Motion: 12°.41
	Phase angle:	35°.91	
	PA of N pole:	+12°.12	
	PA of bright limb:	289°.40	
	Librations (Lat, Lng)		
	Optical:	-6°.290, +5°.333	
	Physical:	+0°.014, -0°.001	
	Total:	-6°.28, +5°.33	
Tue 26/06 2018	Rise: 06:45p Az: 130°.4	Set: 02:48a Az: 240°.8	Transit: 11:06p Alt: 18°.3
12:00a	RA: 16h34m59s Alt: +16°.1 Ph: 95.4% SA2000: 15 HB: B-8, C-63 Dist (Earth): 400536km	Decl: -18°29'57" Az: 204°.5 Mag: U2000: II, 336 U2000.2: II, 147 Dist (Sun):	Con: Oph Size: 29'.97 MSA: III, 1373 PSA: 56 Motion: 12°.24
	Phase angle:	24°.70	
	PA of N pole:	+7°.36	
	PA of bright limb:	287°.66	
	Librations (Lat, Lng)		
	Optical:	-5°.631, +4°.441	
	Physical:	+0°.014, -0°.001	
	Total:	-5°.62, +4°.44	
Wed 27/06 2018	Rise: 07:42p Az: 133°.5	Set: 03:24a Az: 237°.6	Transit: 11:55p Alt: 17°.3
12:00a	RA: 17h25m52s Alt: +16°.5 Ph: 98.6% SA2000: 22 HB: B-8, C-62 Dist (Earth): 402811km	Decl: -20°26'08" Az: 192°.8 Mag: U2000: II, 338 U2000.2: II, 146 Dist (Sun):	Con: Oph Size: 29'.80 MSA: III, 1370 PSA: 56 Motion: 12°.10
	Phase angle:	13°.70	
	PA of N pole:	+2°.23	
	PA of bright limb:	288°.37	
	Librations (Lat, Lng)		
	Optical:	-4°.725, +3°.380	
	Physical:	+0°.014, -0°.002	
	Total:	-4°.71, +3°.38	
Thu 28/06	Rise: 08:33p	Set: 04:06a	Transit: None

Location:	Piazz Smyth Observatory	Beginning:	01/06/2018 12:00a
Latitude:	52°08'40" N	Ending:	30/06/2018 11:59p
Longitude:	00°27'48" W	LT/UT:	LT
Time Zone:	UTC	Days to Skip:	1
Objects:	Moon	Apply Horizon:	No

2018	Az: 134°.6	Az: 236°.0	Alt: (null)
12:00a	RA: 18h17m15s Alt: +16°.4 Ph: 99.9% SA2000: 22 HB: B-6, C-61 Dist (Earth): 404512km	Decl: -21°28'06" Az: 181°.2 Mag: U2000: II, 339 U2000.2: II, 145 Dist (Sun):	Con: Sgr Size: 29'.68 MSA: III, 1368 PSA: 67 Motion: 11°.99
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	3°.55 -3°.02 319°.40 -3°.619, +2°.174 +0°.013, -0°.003 -3°.61, +2°.17	
Fri 29/06 2018	Rise: 09:16p Az: 133°.7	Set: 04:55a Az: 236°.3	Transit: 12:43a Alt: 17°.2
12:00a	RA: 19h08m39s Alt: +15°.7 Ph: 99.4% SA2000: 22 HB: B-6, C-61 Dist (Earth): 405610km	Decl: -21°33'29" Az: 169°.8 Mag: U2000: II, 341 U2000.2: II, 145 Dist (Sun):	Con: Sgr Size: 29'.59 MSA: III, 1365 PSA: 67 Motion: 11°.91
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	8°.86 -8°.15 71°.70 -2°.362, +0°.857 +0°.013, -0°.004 -2°.35, +0°.85	
Sat 30/06 2018	Rise: 09:52p Az: 131°.2	Set: 05:50a Az: 238°.4	Transit: 01:31a Alt: 18°.1
12:00a	RA: 19h59m33s Alt: +14°.6 Ph: 97.1% SA2000: 22 HB: B-6, C-60 Dist (Earth): 406049km	Decl: -20°42'56" Az: 158°.4 Mag: U2000: II, 342 U2000.2: II, 144 Dist (Sun):	Con: Sgr Size: 29'.55 MSA: III, 1363 PSA: 66 Motion: 11°.86
	Phase angle: PA of N pole: PA of bright limb: Librations (Lat, Lng) Optical: Physical: Total:	19°.52 -12°.89 76°.53 -1°.009, -0°.536 +0°.013, -0°.006 -1°.00, -0°.54	

30 times calculated for each of 1 objects