

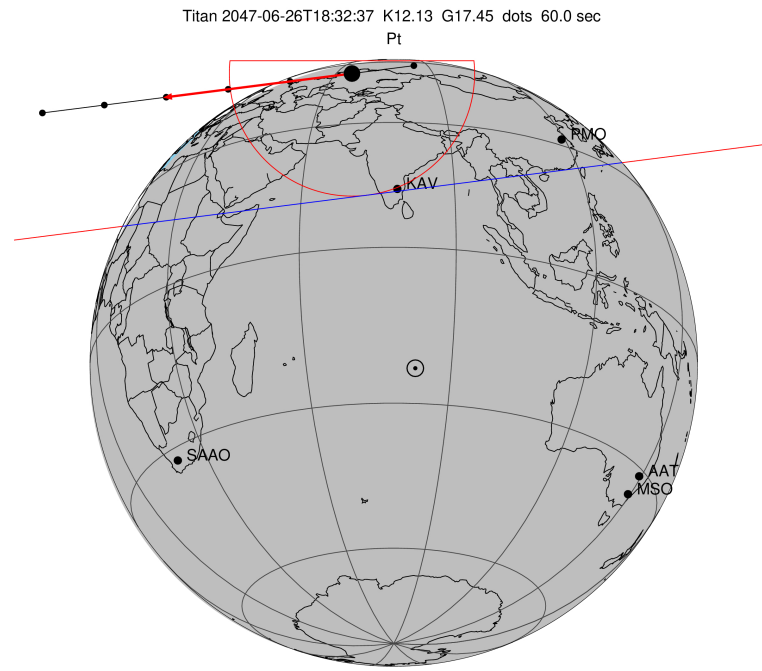
target : Titan
 target radius (km) : 2575.15
 C/A epoch : 2047-06-26T18:32:37.440
 Event type : Pt
 : Titan occs: topocentric, not geocentric
 : Not a ringed target
 Gaia source ID : 4069868987735020544
 2Mass ID (if available) : 18014312-2222452

ICRS Star Coord at Epoch: 18h 01m 43.10121s -22:22:45.39400s
 RUWE (>1.4 is poor) : 1.06
 K magnitude : 12.127
 G magnitude : 17.449
 RP magnitude : 16.063
 BP magnitude : 19.441
 DUPflag : 0
 Distance (au) : 9.030
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : -21.83
 Sun-Target sep (deg) : 175.82
 Sun-Moon sep (deg) : 136.35
 B (ring opening deg) : 26.42
 PA of pole (deg) : 5.70
 Pole direction: RA (deg): 39.48270
 Dec (deg): 83.42790
 C/A sky separation (") : 0.936
 C/A sky separation (km) : 6127.4
 NAIF SPICE kernels : RAJobs_U111+rgf16.spk

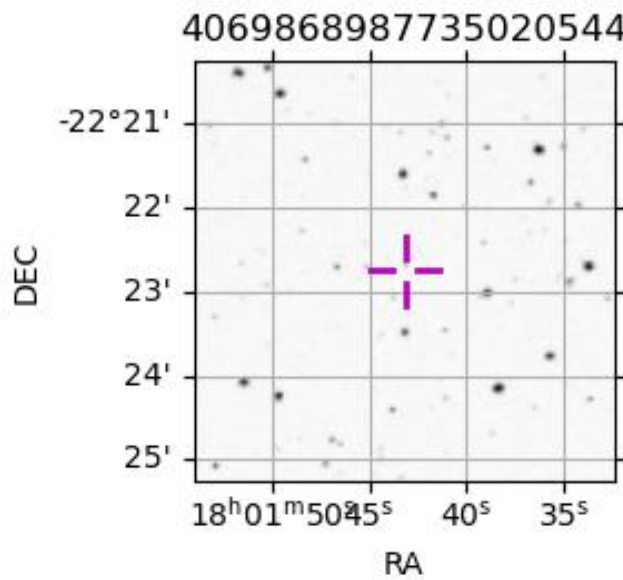
URKALLv1.spk
 naif0012.tls
 nep097.bsp
 nep101.bsp
 sat4401.bsp

Observable events with sun below -5 deg and altitude above 5 deg

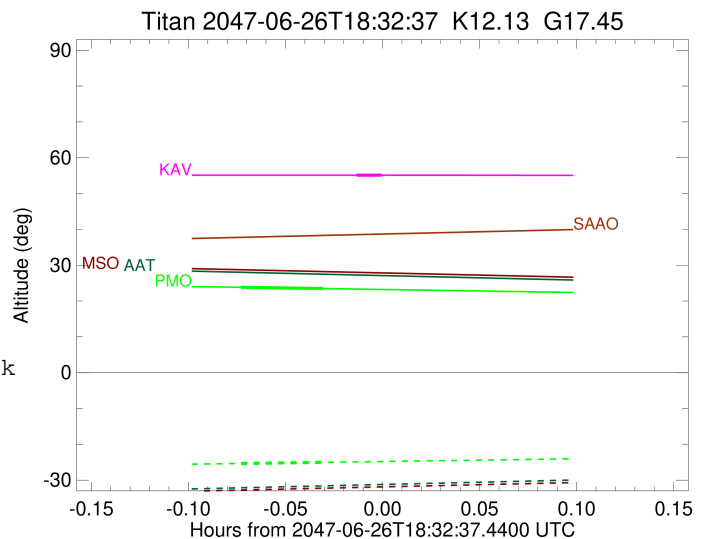
| Obs | Location | lat | Elon | Target | Observed Events Interval | OEcode |
|------|-----------------------------------|-------|-------|--------|-----------------------------|--------|
| PIC | Pic du Midi | 42.9 | 0.1 | | | Pnn |
| PAL | Palomar Mt (200") | 33.4 | 243.1 | | | Pnn |
| PMO | Purple Mtn Obs. Nanking | 32.1 | 118.8 | + + | JUN 26 18:28 - JUN 26 18:30 | Pie |
| KPNO | Kitt Peak Natl Obs | 32.0 | 248.4 | | | Pnn |
| MCD | McDonald Obs. 2.7m | 30.7 | 256.0 | | | Pnn |
| TEN | Teide Obs./Tenerife | 28.3 | 343.5 | | | Pnn |
| IRTF | Mauna Kea/IRTF | 19.8 | 204.5 | | | Pnn |
| KAV | Kavalur Observatory | 12.6 | 78.8 | + + | JUN 26 18:31 - JUN 26 18:32 | Pie |
| RIO | Rio de Janeiro | -22.9 | 316.8 | | | Pnn |
| ESO | European Southern Obs. (3.6m) | -29.3 | 289.3 | | | Pnn |
| AAT | Siding Spring (AAT) | -31.3 | 149.1 | | | Pnn |
| SAAO | So. Afr. Astro. Obs. (Sutherland) | -32.4 | 20.8 | | | Pnn |
| MSO | Mt. Stromlo Observatory | -35.3 | 149.0 | | | Pnn |



2047-06-26T18:32:37.4400 cc: 18 01 43.1012 d: -22 22 45.394 C/A 0.938" PA 352.74 deg v_sky -21.84 km/s D 09.03 AU
 Credit: Styled after SORA/Lucky Star



target : Titan
 target radius (km) : 2575.15
 C/A epoch : 2047-06-26T18:29:31.100
 Event type : Pt
 : Titan occs: topocentric, not geocentric
 : Not a ringed target
 Observer code : PMO
 Location : Purple Mtn Obs. Nanking
 Latitude (deg) : 32.06667
 E. Longitude (deg) : 118.82089
 Altitude (km) : 0.364
 Gaia source ID : 4069868987735020544
 2Mass ID (if available) : 18014312-2222452
 ICRS Star Coord at Epoch: 18h 01m 43.10121s -22:22:45.39400s
 RUWE (>1.4 is poor) : 1.06
 K magnitude : 12.127
 G magnitude : 17.449
 RP magnitude : 16.063
 BP magnitude : 19.441
 DUPflag : 0
 Distance (au) : 9.030
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : -21.83
 Sun-Target sep (deg) : 175.82
 Sun-Moon sep (deg) : 136.20
 B (ring opening deg) : 26.42
 PA of pole (deg) : 5.70
 Pole direction: RA (deg): 39.48270
 Dec (deg): 83.42790
 C/A sky separation (") : 0.295
 C/A sky separation (km) : 1930.7
 NAIF SPICE kernels : RAJobs_U111+rgf16.spk
 URKALLv1.spk
 naif0012.tls
 nep097.bsp
 nep101.bsp
 sat4401.bsp
 de440.bsp
 earth_720101_070426.bpc
 jup365.bsp
 urall6.bsp
 IAU_SATURN_for_RINGFIT.tpc
 pck00010.tpc
 earth_200101_990628_predict.bpc
 IAU_NEPTUNE_for_RINGFIT.tpc.BECAREFUL
 uranus_ringframes_rfrench20220627_v1.tf
 neptune_ringframes_rfrench20220702a_v1.tf
 earth_flat_IAU.spk



x: target alt < 5.0 deg or sun > -5.0 deg

| Target | I/E | UTC | alt | alt-sun | radius | lat-geo | lat-geodetic |
|--------|-----|-------------------------|-------|---------|--------|---------|--------------|
| Titan | I | 2047-06-26T18:28:14.070 | 23.83 | -25.35 | 2575.1 | -51.69 | -51.71 |
| Titan | E | 2047-06-26T18:30:48.137 | 23.48 | -25.03 | 2575.1 | -31.72 | -31.74 |

target : Titan
 target radius (km) : 2575.15
 C/A epoch : 2047-06-26T18:32:12.330
 Event type : Pt
 : Titan occs: topocentric, not geocentric
 : Not a ringed target
 Observer code : KAV
 Location : Kavalur Observatory
 Latitude (deg) : 12.57556
 E. Longitude (deg) : 78.83167
 Altitude (km) : 0.722
 Gaia source ID : 4069868987735020544
 2Mass ID (if available) : 18014312-2222452
 ICRS Star Coord at Epoch: 18h 01m 43.10121s -22:22:45.39400s
 RUWE (>1.4 is poor) : 1.06
 K magnitude : 12.127
 G magnitude : 17.449
 RP magnitude : 16.063
 BP magnitude : 19.441
 DUPflag : 0
 Distance (au) : 9.030
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : -21.83
 Sun-Target sep (deg) : 175.82
 Sun-Moon sep (deg) : 136.85
 B (ring opening deg) : 26.42
 PA of pole (deg) : 5.70
 Pole direction: RA (deg): 39.48270
 Dec (deg): 83.42790
 C/A sky separation (") : 0.385
 C/A sky separation (km) : 2521.0
 NAIF SPICE kernels : RAJobs_U111+rgf16.spk
 URKALLv1.spk
 naif0012.tls
 nep097.bsp
 nep101.bsp
 sat4401.bsp
 de440.bsp
 earth_720101_070426.bpc
 jup365.bsp
 urall6.bsp
 IAU_SATURN_for_RINGFIT.tpc
 pck00010.tpc
 earth_200101_990628_predict.bpc
 IAU_NEPTUNE_for_RINGFIT.tpc.BECAREFUL
 uranus_ringframes_rfrench20220627_v1.tf
 neptune_ringframes_rfrench20220702a_v1.tf
 earth_flat_IAU.spk

x: target alt < 5.0 deg or sun > -5.0 deg

| Target | I/E | UTC | alt | alt-sun | radius | lat-geo | lat-geodetic |
|--------|-----|-------------------------|-------|---------|--------|---------|--------------|
| Titan | I | 2047-06-26T18:31:48.786 | 55.13 | -53.97 | 2575.1 | -63.56 | -63.58 |
| Titan | E | 2047-06-26T18:32:35.876 | 55.12 | -53.99 | 2575.0 | -54.54 | -54.56 |

