



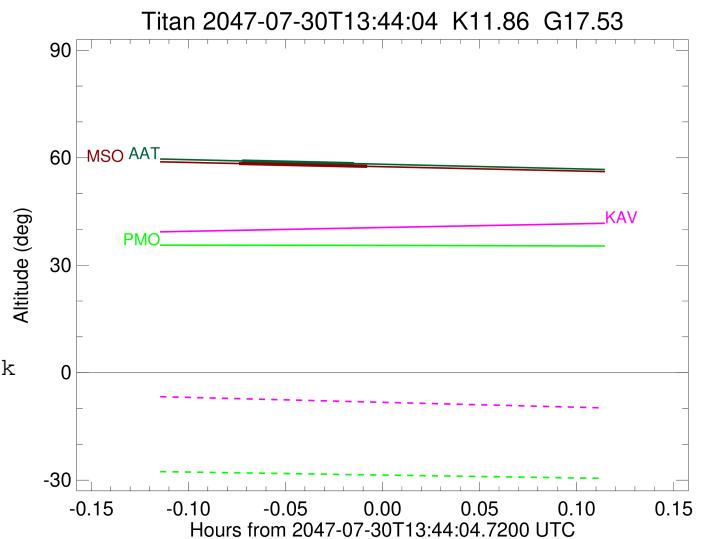
```

target                : Titan
target radius (km)   : 2575.15
C/A epoch            : 2047-07-30T13:41:28.620
Event type           : Pt
: Titan occs: topocentric, not geocentric
: Not a ringed target
Observer code        : AAT
Location             : Siding Spring (AAT)
Latitude (deg)       : -31.27703
E. Longitude (deg)   : 149.06608
Altitude (km)        : 1.164
Gaia source ID       : 4070419671297764480
2Mass ID (if available) : 17521090-2226449
ICRS Star Coord at Epoch: 17h 52m 10.94222s -22:26:44.85438s
RUWE (>1.4 is poor) : 1.12
K magnitude           : 11.859
G magnitude           : 17.530
RP magnitude          : 0.000
BP magnitude          : 0.000
DUPflag              : 0
Distance (au)         : 9.226
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -18.73
Sun-Target sep (deg) : 141.49
Sun-Moon sep (deg)   : 44.06
B (ring opening deg) : 26.70
PA of pole (deg)     : 5.51
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.244
C/A sky separation (km) : 1629.6
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	2047-07-30T13:39:44.028	59.10	-75.57	2575.1	26.70	26.71
Titan	E	2047-07-30T13:43:13.216	58.35	-75.93	2575.1	41.85	41.87



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target                : Titan
target radius (km)   : 2575.15
C/A epoch             : 2047-07-30T13:41:37.510
Event type            : Pt
: Titan occs: topocentric, not geocentric
: Not a ringed target
Observer code         : MSO
Location              : Mt. Stromlo Observatory
Latitude (deg)       : -35.32000
E. Longitude (deg)   : 149.00833
Altitude (km)        : 0.770
Gaia source ID       : 4070419671297764480
2Mass ID (if available) : 17521090-2226449
ICRS Star Coord at Epoch: 17h 52m 10.94222s -22:26:44.85438s
RUWE (>1.4 is poor) : 1.12
K magnitude           : 11.859
G magnitude           : 17.530
RP magnitude          : 0.000
BP magnitude          : 0.000
DUPflag              : 0
Distance (au)        : 9.226
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -18.73
Sun-Target sep (deg) : 141.49
Sun-Moon sep (deg)   : 44.03
B (ring opening deg) : 26.70
PA of pole (deg)     : 5.51
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation ("): 0.182
C/A sky separation (km): 1217.0
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	2047-07-30T13:39:38.368	58.37	-71.95	2575.1	17.01	17.02
Titan	E	2047-07-30T13:43:36.653	57.58	-72.26	2575.1	32.76	32.77

