


```

target                : Titan
target radius (km)   : 2575.15
C/A epoch            : 2047-05-22T16:49:56.020
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       : 4066730912854071168
2Mass ID (if available) : 18120178-2217384
ICRS Star Coord at Epoch: 18h 12m 01.76204s -22:17:38.44600s
RUWE (>1.4 is poor) : 1.03
K magnitude           : 13.370
G magnitude           : 18.921
RP magnitude          : 0.000
BP magnitude          : 0.000
DUPflag              : 0
Distance (au)         : 9.179
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -10.97
Sun-Target sep (deg)  : 148.08
Sun-Moon sep (deg)    : 124.47
B (ring opening deg) : 26.09
PA of pole (deg)      : 5.88
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.371
C/A sky separation (km) : 2469.9
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 | 2047-05-22T16:48:51.783 | 31.74 | -36.42 | 2575.1 | -63.91 | -63.92 |
| Titan | E | 2047-05-22T16:51:00.265 | 31.92 | -36.31 | 2575.1 | -48.98 | -49.00 |

