

```

target          : Titan
target radius (km) : 2575.15
C/A epoch       : 2047-05-11T13:14:55.280
Event type      : Pgt
: Titan occs: geocentric, topocentric
: Not a ringed target
Gaia source ID  : 4090690817385676544
2Mass ID (if available) : 18142856-2218598

ICRS Star Coord at Epoch: 18h 14m 28.54508s -22:19:00.13574s
RUWE (>1.4 is poor) : 1.03
K magnitude     : 11.603
G magnitude     : 16.762
RP magnitude    : 15.404
BP magnitude    : 18.496
DUPflag        : 0
Distance (au)   : 9.280
f0 (km)        : 0.00
g0 (km)        : 0.00
skyplane vel. (km/s) : -16.48
Sun-Target sep (deg) : 136.78
Sun-Moon sep (deg) : 18.51
B (ring opening deg) : 26.06
PA of pole (deg) : 5.93
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.149
C/A sky separation (km) : 1001.9
NAIF SPICE kernels : RAJobs_U111+rgf16.spk

```

```

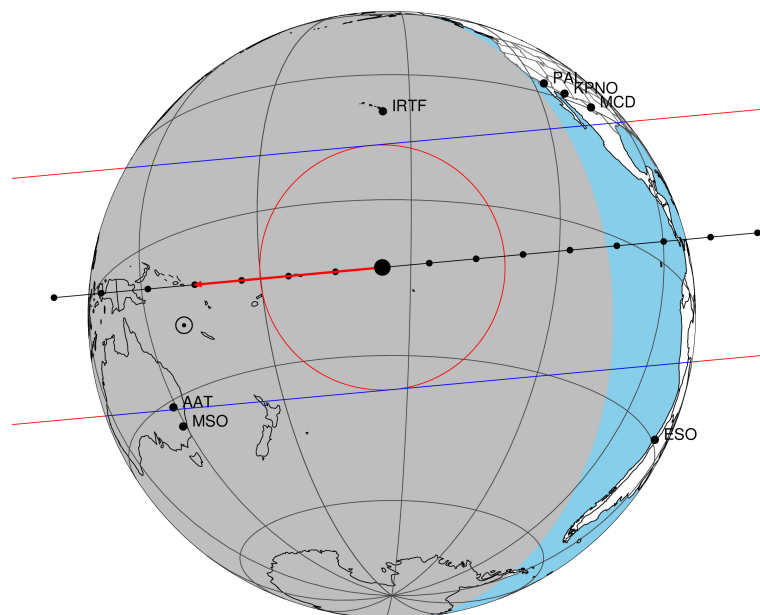
URKALLv1.spk
naif0012.tls
nep097.bsp
nep101.bsp
sat4401.bsp

```

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

Obs	Location	lat	Elon	Target	Observed Events Interval	OCode
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			Pnn
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			Pnn
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	+ +	MAY 11 13:18 - MAY 11 13:20	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn

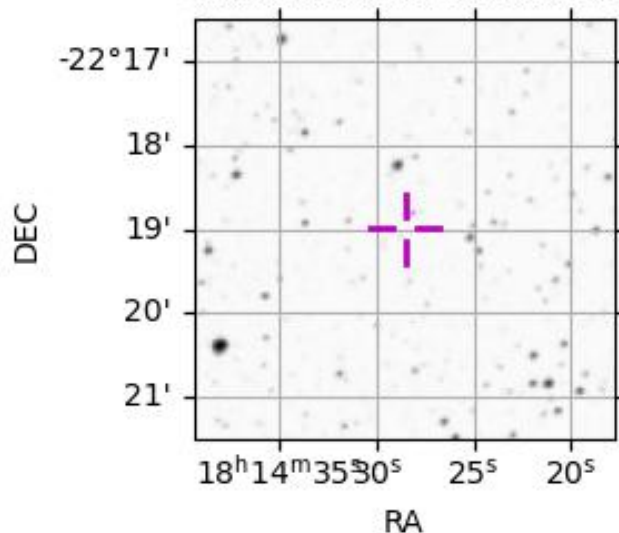
Titan 2047-05-11T13:14:55 K11.60 G16.76 dots 60.0 sec  
Pgt



2047-05-11T13:14:55.2800 α: 18 14 28.5451 δ: -22 19 00.136 C/A 0.150" PA 354.73 deg v\_sky -16.48 km/s D 09.28 AU

Credit: Styled after SORA/Lucky Star

4090690817385676544



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target                : Titan
target radius (km)   : 2575.15
C/A epoch            : 2047-05-11T13:19:40.620
Event type           : Pgt
: Titan occs: geocentric, topocentric
: 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       : 4090690817385676544
2Mass ID (if available) : 18142856-2218598
ICRS Star Coord at Epoch: 18h 14m 28.54508s -22:19:00.13574s
RUWE (>1.4 is poor) : 1.03
K magnitude           : 11.603
G magnitude           : 16.762
RP magnitude          : 15.404
BP magnitude          : 18.496
DUPflag              : 0
Distance (au)        : 9.280
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -16.48
Sun-Target sep (deg) : 136.78
Sun-Moon sep (deg)   : 17.97
B (ring opening deg) : 26.06
PA of pole (deg)     : 5.93
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.363
C/A sky separation (km) : 2445.7
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

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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	2047-05-11T13:18:52.437	39.49	-73.87	2575.0	-63.16	-63.17
Titan	E	2047-05-11T13:20:28.808	39.84	-74.08	2575.1	-51.24	-51.25

