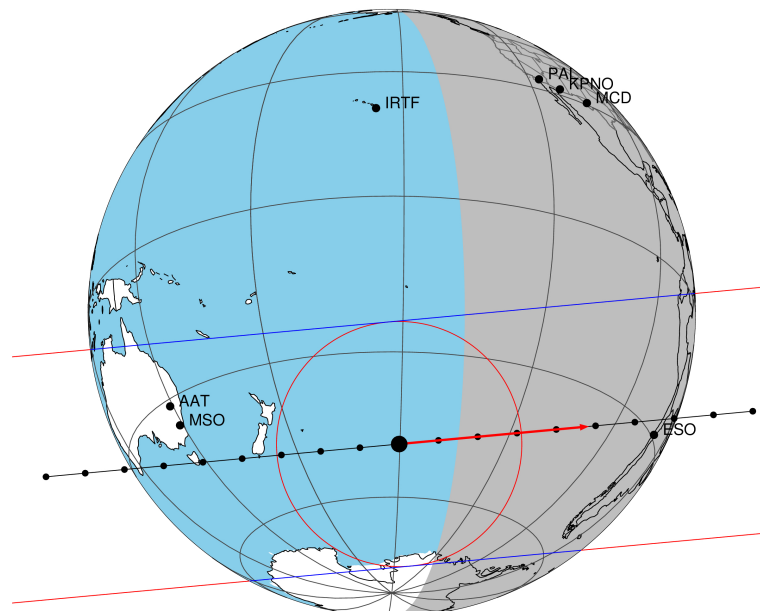


target : Titan  
 target radius (km) : 2575.15  
 C/A epoch : 2047-10-06T03:05:28.290  
 Event type : Pt  
 : Titan occs: topocentric, not geocentric  
 : Not a ringed target  
 Gaia source ID : 4070223167919834240  
 2Mass ID (if available) : 17521904-2236443

ICRS Star Coord at Epoch: 17h 52m 19.01663s -22:36:44.82888s  
 RUWE (>1.4 is poor) : 1.13  
 K magnitude : 13.166  
 G magnitude : 17.473  
 RP magnitude : 16.297  
 BP magnitude : 19.012  
 DUPflag : 0  
 Distance (au) : 10.234  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 13.80  
 Sun-Target sep (deg) : 76.09  
 Sun-Moon sep (deg) : 127.33  
 B (ring opening deg) : 26.86  
 PA of pole (deg) : 5.52  
 Pole direction: RA (deg): 39.48270  
 Dec (deg): 83.42790  
 C/A sky separation (") : 0.373  
 C/A sky separation (km) : 2770.7  
 NAIF SPICE kernels : RAJobs\_U111+rgf16.spk  
 URKALLv1.spk  
 naif0012.tls  
 nep097.bsp  
 nep101.bsp  
 sat4401.bsp

Titan 2047-10-06T03:05:28 K13.17 G17.47 dots 60.0 sec  
 Pt

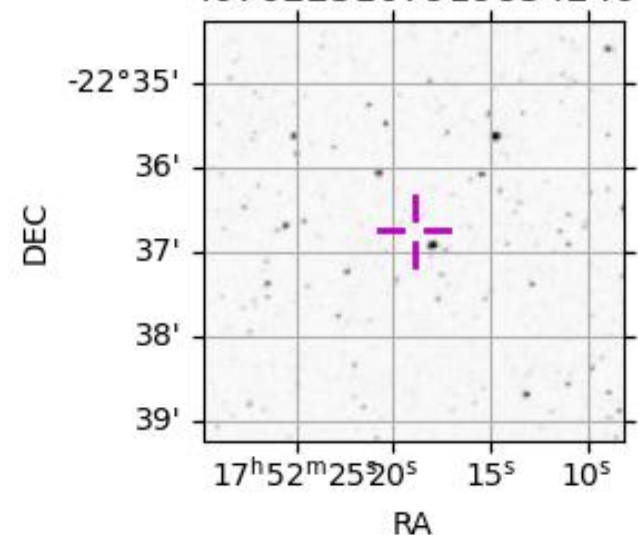


2047-10-06T03:05:28.2900 α: 17 52 19.0166 δ: -22 36 44.829 C/A 0.372" PA 174.70 deg v\_sky +13.80 km/s D 10.23 AU  
 Credit: Styled after SORA/Lucky Star

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	+ +	OCT 06 03:08 -	OCT 06 03:14	Pie
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

4070223167919834240



```

target                : Titan
target radius (km)   : 2575.15
C/A epoch            : 2047-10-06T03:11:48.350
Event type           : Pt
: Titan occs: topocentric, not geocentric
: Not a ringed target
Observer code        : ESO
Location             : European Southern Obs. (3.6m)
Latitude (deg)       : -29.26097
E. Longitude (deg)  : 289.26831
Altitude (km)        : 2.400
Gaia source ID       : 4070223167919834240
2Mass ID (if available) : 17521904-2236443
ICRS Star Coord at Epoch: 17h 52m 19.01663s -22:36:44.82888s
RUWE (>1.4 is poor) : 1.13
K magnitude          : 13.166
G magnitude          : 17.473
RP magnitude         : 16.297
BP magnitude         : 19.012
DUPflag             : 0
Distance (au)        : 10.234
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 13.80
Sun-Target sep (deg) : 76.09
Sun-Moon sep (deg)  : 128.00
B (ring opening deg) : 26.86
PA of pole (deg)    : 5.52
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.049
C/A sky separation (km) : 363.3
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	2047-10-06T03:08:43.237	17.09	-50.53	2575.1	3.02	3.02
Titan	E	2047-10-06T03:14:53.325	15.80	-51.25	2575.1	-17.41	-17.42

