

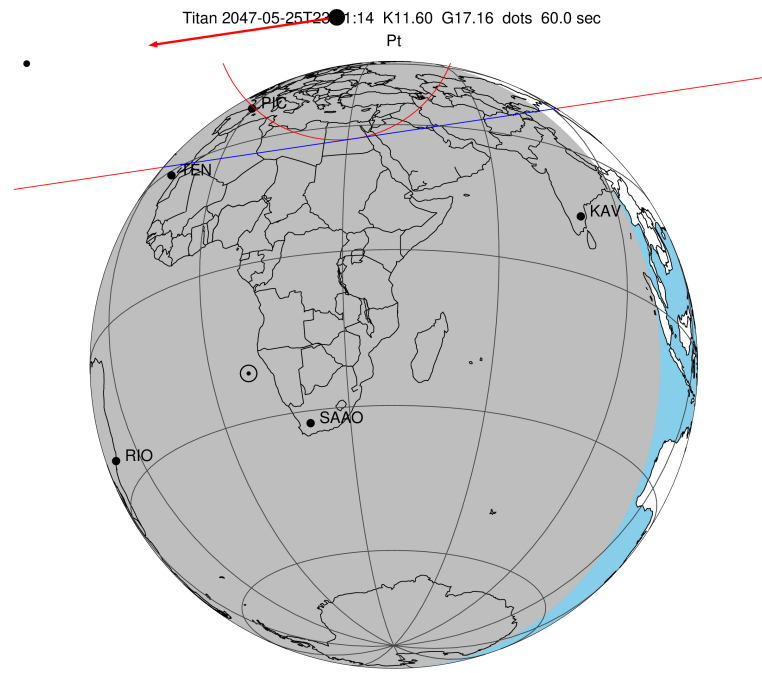
target : Titan  
 target radius (km) : 2575.15  
 C/A epoch : 2047-05-25T23:21:14.450  
 Event type : Pt  
 : Titan occs: topocentric, not geocentric  
 : Not a ringed target  
 Gaia source ID : 4066741706160208640  
 2Mass ID (if available) : 18111850-2219336

ICRS Star Coord at Epoch: 18h 11m 18.49083s -22:19:33.90172s  
 RUWE (>1.4 is poor) : 1.05  
 K magnitude : 11.602  
 G magnitude : 17.155  
 RP magnitude : 15.771  
 BP magnitude : 19.500  
 DUPflag : 0  
 Distance (au) : 9.143  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : -18.28  
 Sun-Target sep (deg) : 151.40  
 Sun-Moon sep (deg) : 163.51  
 B (ring opening deg) : 26.14  
 PA of pole (deg) : 5.87  
 Pole direction: RA (deg): 39.48270  
 Dec (deg): 83.42790  
 C/A sky separation (") : 1.113  
 C/A sky separation (km) : 7383.7  
 NAIF SPICE kernels : RAJobs\_U111+rgf16.spk

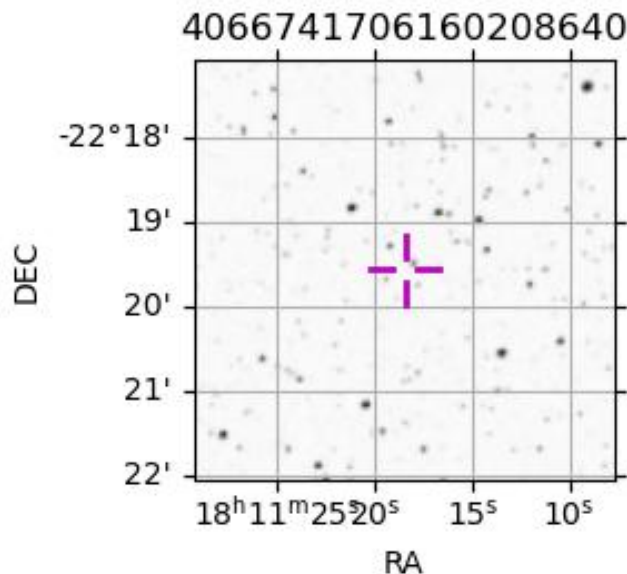
URKALLv1.spk  
 naif0012.tls  
 nep097.bsp  
 nep101.bsp  
 sat4401.bsp

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	+ +	MAY 25 23:21 - MAY 25 23:24	Pie
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			Pnn
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



2047-05-25T23:21:14.4500 cc: 18 11 18.4908 8: -22 19 33.902 C/A 1.116" PA 351.49 deg v\_sky -18.28 km/s D 09.14 AU  
 Credit: Styled after SORA/Lucky Star



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target                : Titan
target radius (km)   : 2575.15
C/A epoch             : 2047-05-25T23:23:09.230
Event type            : Pt
: Titan occs: topocentric, not geocentric
: Not a ringed target
Observer code         : PIC
Location              : Pic du Midi
Latitude (deg)       : 42.93656
E. Longitude (deg)   : 0.14231
Altitude (km)        : 2.890
Gaia source ID       : 4066741706160208640
2Mass ID (if available) : 18111850-2219336
ICRS Star Coord at Epoch: 18h 11m 18.49083s -22:19:33.90172s
RUWE (>1.4 is poor) : 1.05
K magnitude           : 11.602
G magnitude           : 17.155
RP magnitude          : 15.771
BP magnitude          : 19.500
DUPflag              : 0
Distance (au)         : 9.143
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -18.28
Sun-Target sep (deg) : 151.40
Sun-Moon sep (deg)   : 163.34
B (ring opening deg) : 26.14
PA of pole (deg)     : 5.87
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.244
C/A sky separation (km) : 1617.2
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	2047-05-25T23:21:21.242	15.43	-25.68	2575.1	-46.11	-46.13
Titan	E	2047-05-25T23:24:57.194	15.83	-25.78	2575.2	-21.78	-21.79

