

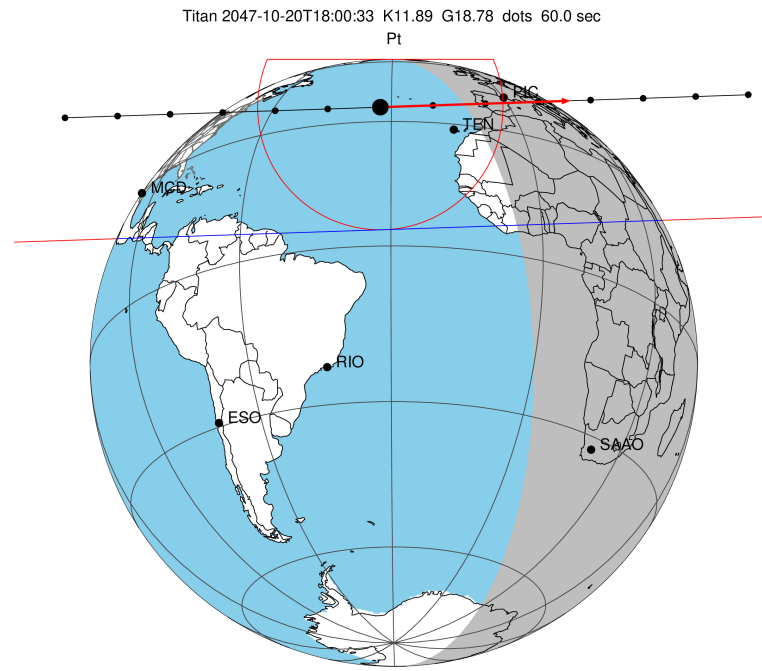
target : Titan  
 target radius (km) : 2575.15  
 C/A epoch : 2047-10-20T18:00:33.870  
 Event type : Pt  
 : Titan occs: topocentric, not geocentric  
 : Not a ringed target  
 Gaia source ID : 4070177263314044544  
 2Mass ID (if available) : 17562715-2239530

ICRS Star Coord at Epoch: 17h 56m 27.15378s -22:39:53.22842s  
 RUWE (>1.4 is poor) : 1.09  
 K magnitude : 11.894  
 G magnitude : 18.776  
 RP magnitude : 17.271  
 BP magnitude : 21.600  
 DUPflag : 0  
 Distance (au) : 10.458  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 18.41  
 Sun-Target sep (deg) : 62.58  
 Sun-Moon sep (deg) : 39.97  
 B (ring opening deg) : 26.82  
 PA of pole (deg) : 5.61  
 Pole direction: RA (deg): 39.48270  
 Dec (deg): 83.42790  
 C/A sky separation (") : 0.708  
 C/A sky separation (km) : 5372.8  
 NAIF SPICE kernels : RAJobs\_U111+rgf16.spk

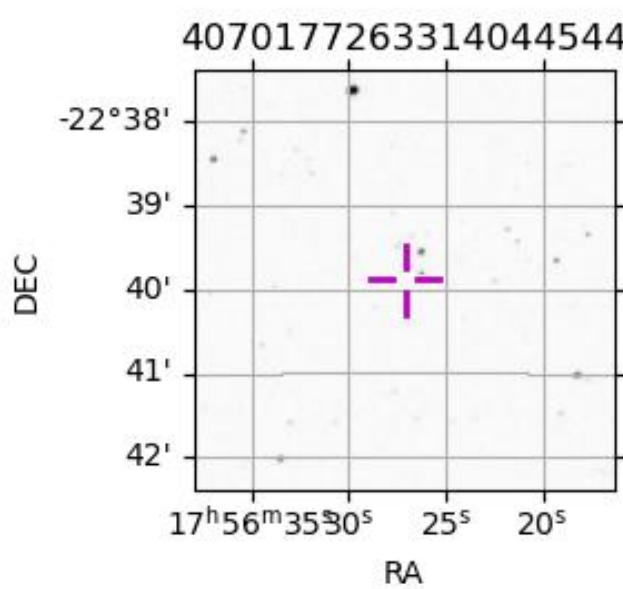
URKALLv1.spk  
 naif0012.tls  
 nep097.bsp  
 nep101.bsp  
 sat4401.bsp

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

Obs	Location	lat	Elon	Target	Observed Events Interval	OEncode
PIC	Pic du Midi	42.9	0.1	+ +	OCT 20 18:00 - OCT 20 18:05	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



2047-10-20T18:00:33.8700 α: 17 56 27.1538 δ: -22 39 53.228 C/A 0.709" PA 358.06 deg v\_sky +18.40 km/s D 10.46 AU  
 Credit: Styled after SORA/Lucky Star



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target                : Titan
target radius (km)   : 2575.15
C/A epoch            : 2047-10-20T18:02:53.320
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       : 4070177263314044544
2Mass ID (if available) : 17562715-2239530
ICRS Star Coord at Epoch: 17h 56m 27.15378s -22:39:53.22842s
RUWE (>1.4 is poor) : 1.09
K magnitude           : 11.894
G magnitude           : 18.776
RP magnitude          : 17.271
BP magnitude          : 21.600
DUPflag              : 0
Distance (au)        : 10.458
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 18.41
Sun-Target sep (deg) : 62.58
Sun-Moon sep (deg)   : 40.55
B (ring opening deg) : 26.82
PA of pole (deg)     : 5.61
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.011
C/A sky separation (km) : 81.7
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	2047-10-20T18:00:31.202	19.13	-10.11	2575.1	8.54	8.55
Titan	E	2047-10-20T18:05:15.401	18.70	-10.98	2575.1	-5.35	-5.36

