

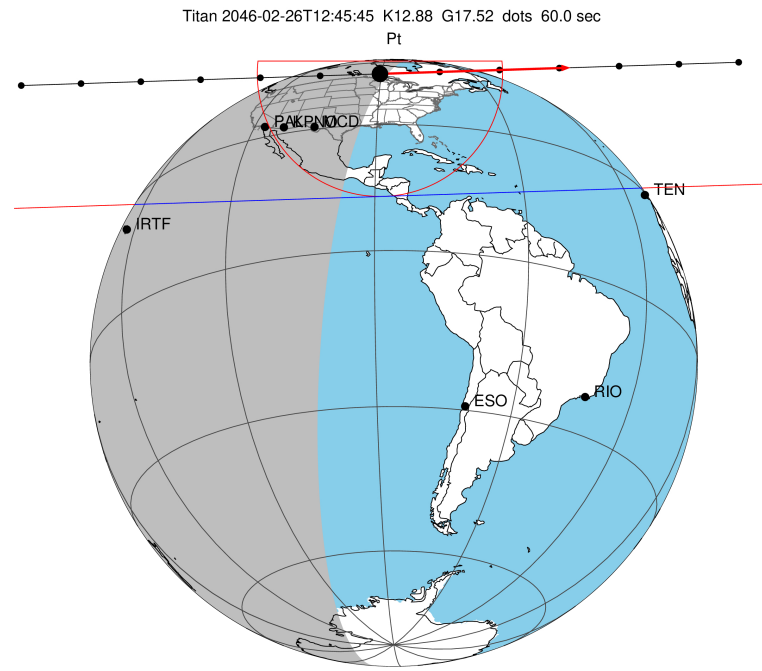
target : Titan
 target radius (km) : 2575.15
 C/A epoch : 2046-02-26T12:45:45.090
 Event type : Pt
 : Titan occs: topocentric, not geocentric
 : Not a ringed target
 Gaia source ID : 4114862382275549184
 2Mass ID (if available) : 17234944-2140438

ICRS Star Coord at Epoch: 17h 23m 49.43117s -21:40:44.30484s
 RUWE (>1.4 is poor) : 0.94
 K magnitude : 12.885
 G magnitude : 17.525
 RP magnitude : 0.000
 BP magnitude : 0.000
 DUPflag : 0
 Distance (au) : 10.229
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 20.93
 Sun-Target sep (deg) : 75.84
 Sun-Moon sep (deg) : 29.12
 B (ring opening deg) : 26.53
 PA of pole (deg) : 4.86
 Pole direction: RA (deg): 39.48270
 Dec (deg): 83.42790
 C/A sky separation (") : 0.818
 C/A sky separation (km) : 6068.0
 NAIF SPICE kernels : RAJobs_U111+rgf16.spk

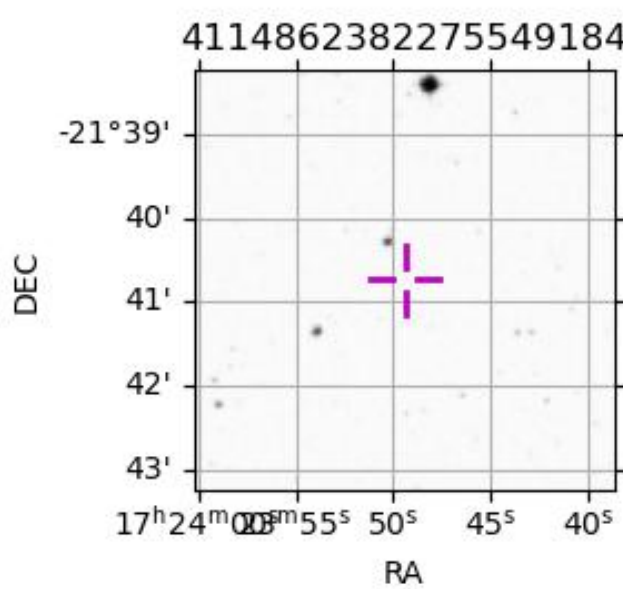
URKALLv1.spk
 naif0012.tls
 nep097.bsp
 nep101.bsp
 sat4401.bsp

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	+ +	FEB 26 12:41 - FEB 26 12:45	Pie
PMO	Purple Mtn Obs. Nanking	32.1	118.8			Pnn
KPNO	Kitt Peak Natl Obs	32.0	248.4	+ +	FEB 26 12:42 - FEB 26 12:45	Pie
MCD	McDonald Obs. 2.7m	30.7	256.0	+ +	FEB 26 12:42 - FEB 26 12:46	Pie
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



2046-02-26T12:45:45.0900 α: 17 23 49.4312 δ: -21 40 44.305 C/A 0.819" PA 358.14 deg v_sky +20.93 km/s D 10.23 AU
 Credit: Styled after SORA/Lucky Star



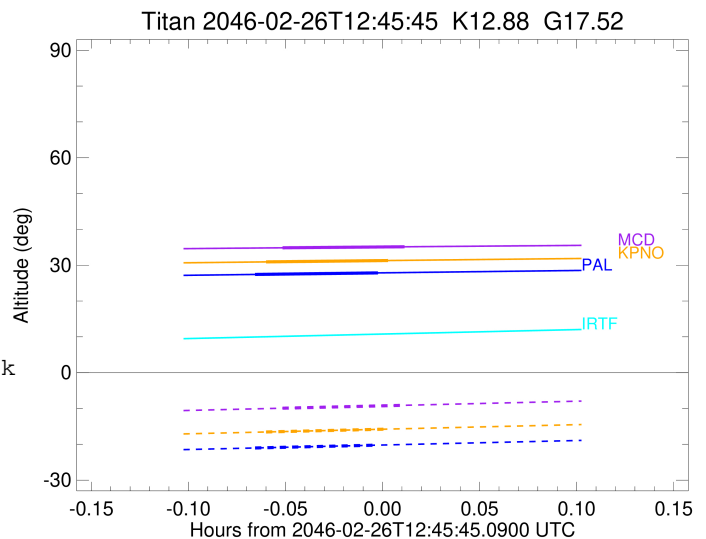
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target                : Titan
target radius (km)   : 2575.15
C/A epoch             : 2046-02-26T12:43:42.750
Event type            : Pt
: Titan occs: topocentric, not geocentric
: Not a ringed target
Observer code        : PAL
Location              : Palomar Mt (200")
Latitude (deg)       : 33.35622
E. Longitude (deg)   : 243.13601
Altitude (km)        : 1.706
Gaia source ID       : 4114862382275549184
2Mass ID (if available) : 17234944-2140438
ICRS Star Coord at Epoch: 17h 23m 49.43117s -21:40:44.30484s
RUWE (>1.4 is poor) : 0.94
K magnitude           : 12.885
G magnitude           : 17.525
RP magnitude          : 0.000
BP magnitude          : 0.000
DUPflag              : 0
Distance (au)        : 10.229
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 20.93
Sun-Target sep (deg) : 75.84
Sun-Moon sep (deg)   : 29.11
B (ring opening deg) : 26.53
PA of pole (deg)     : 4.86
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation ("): 0.140
C/A sky separation (km): 1037.1
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	2046-02-26T12:41:48.311	27.41	-21.02	2575.1	-15.34	-15.35
Titan	E	2046-02-26T12:45:37.198	27.85	-20.22	2575.1	-26.83	-26.84



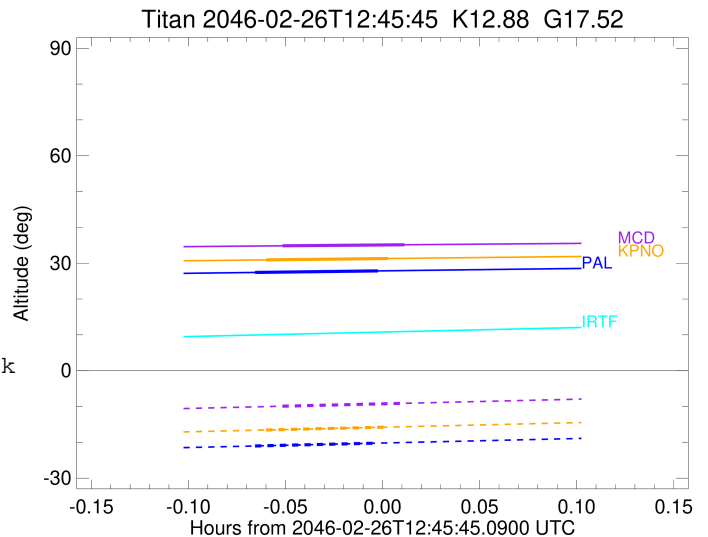
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target                : Titan
target radius (km)   : 2575.15
C/A epoch            : 2046-02-26T12:44:01.880
Event type           : Pt
: Titan occs: topocentric, not geocentric
: Not a ringed target
Observer code        : KPNO
Location             : Kitt Peak Natl Obs
Latitude (deg)       : 31.96333
E. Longitude (deg)  : 248.40000
Altitude (km)        : 2.120
Gaia source ID       : 4114862382275549184
2Mass ID (if available) : 17234944-2140438
ICRS Star Coord at Epoch: 17h 23m 49.43117s -21:40:44.30484s
RUWE (>1.4 is poor) : 0.94
K magnitude          : 12.885
G magnitude          : 17.525
RP magnitude         : 0.000
BP magnitude         : 0.000
DUPflag             : 0
Distance (au)        : 10.229
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 20.93
Sun-Target sep (deg) : 75.84
Sun-Moon sep (deg)  : 29.18
B (ring opening deg) : 26.53
PA of pole (deg)    : 4.86
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.143
C/A sky separation (km) : 1057.4
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	2046-02-26T12:42:07.754	30.92	-16.56	2575.1	-15.75	-15.76
Titan	E	2046-02-26T12:45:56.010	31.30	-15.75	2575.1	-27.29	-27.30



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target                : Titan
target radius (km)   : 2575.15
C/A epoch            : 2046-02-26T12:44:33.050
Event type           : Pt
: Titan occs: topocentric, not geocentric
: Not a ringed target
Observer code        : MCD
Location             : McDonald Obs. 2.7m
Latitude (deg)       : 30.67158
E. Longitude (deg)  : 255.97844
Altitude (km)        : 2.075
Gaia source ID       : 4114862382275549184
2Mass ID (if available) : 17234944-2140438
ICRS Star Coord at Epoch: 17h 23m 49.43117s -21:40:44.30484s
RUWE (>1.4 is poor) : 0.94
K magnitude          : 12.885
G magnitude          : 17.525
RP magnitude         : 0.000
BP magnitude         : 0.000
DUPflag             : 0
Distance (au)        : 10.229
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 20.93
Sun-Target sep (deg) : 75.84
Sun-Moon sep (deg)  : 29.29
B (ring opening deg) : 26.53
PA of pole (deg)    : 4.86
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation ("): 0.144
C/A sky separation (km): 1069.1
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	2046-02-26T12:42:39.040	34.85	-9.92	2575.1	-15.96	-15.97
Titan	E	2046-02-26T12:46:27.048	35.14	-9.10	2575.1	-27.58	-27.59

