

target : Titan  
 target radius (km) : 2575.15  
 C/A epoch : 2034-02-27T03:30:25.830  
 Event type : Pgt  
 : Titan occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 3368020930125330816  
 2Mass ID (if available) : 07012309+2230380

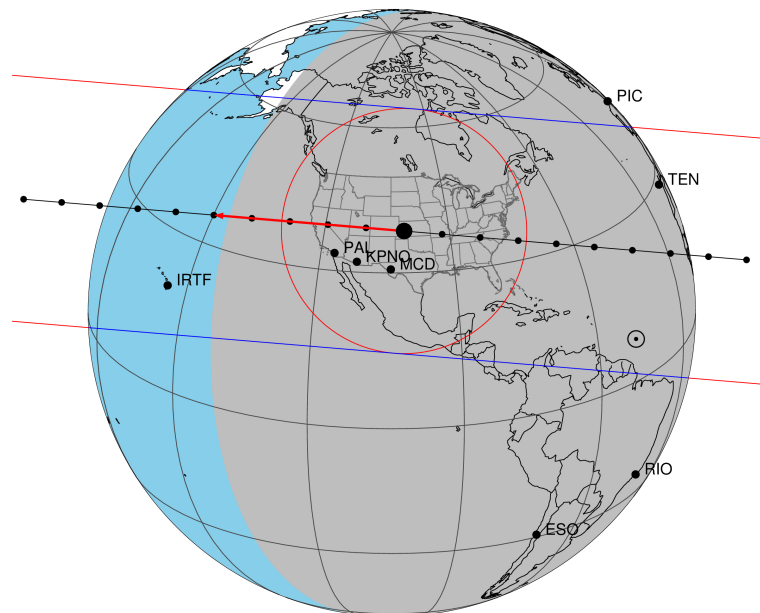
ICRS Star Coord at Epoch: 07h 01m 23.10009s +22:30:37.88078s  
 RUWE (>1.4 is poor) : 0.98  
 K magnitude : 14.402  
 G magnitude : 16.974  
 RP magnitude : 16.159  
 BP magnitude : 17.698  
 DUPflag : 0  
 Distance (au) : 8.411  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : -13.36  
 Sun-Target sep (deg) : 126.02  
 Sun-Moon sep (deg) : 18.06  
 B (ring opening deg) : -25.06  
 PA of pole (deg) : -6.62  
 Pole direction: RA (deg): 39.48270  
 Dec (deg): 83.42790  
 C/A sky separation (") : 0.283  
 C/A sky separation (km) : 1729.2  
 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

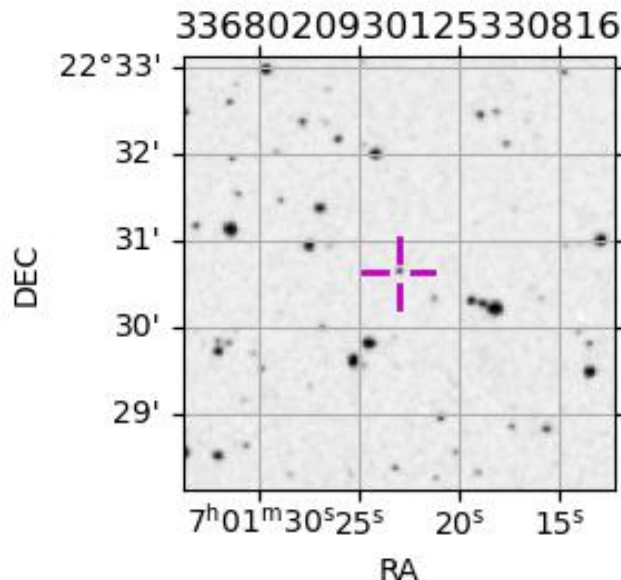
Obs	Location	lat	Elon	Target	Observed Events Interval	OEcode
PIC	Pic du Midi	42.9	0.1			Pnn
PAL	Palomar Mt (200")	33.4	243.1	+ +	FEB 27 03:28 - FEB 27 03:35	Pie
PMO	Purple Mtn Obs. Nanking	32.1	118.8			Pnn
KPNO	Kitt Peak Natl Obs	32.0	248.4	+ +	FEB 27 03:28 - FEB 27 03:34	Pie
MCD	McDonald Obs. 2.7m	30.7	256.0	+ +	FEB 27 03:27 - FEB 27 03:33	Pie
TEN	Teide Obs./Tenerife	28.3	343.5	+ +	FEB 27 03:21 - FEB 27 03:26	Pie
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

Titan 2034-02-27T03:30:25 K14.40 G16.97 dots 60.0 sec  
 Pgt



2034-02-27T03:30:25.8300 α: 07 01 23.1001 δ: +22 30 37.881 C/A 0.284" PA 4.81 deg v\_sky -13.36 km/s D 08.41 AU

Credit: Styled after SORA/Lucky Star



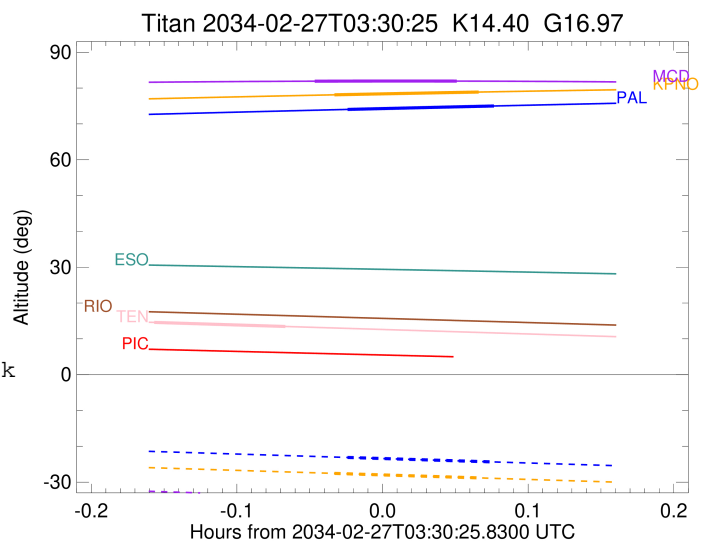
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target                : Titan
target radius (km)   : 2575.15
C/A epoch             : 2034-02-27T03:32:01.060
Event type            : Pgt
: Titan occs: geocentric, topocentric
: Not a ringed target
Observer code         : PAL
Location              : Palomar Mt (200")
Latitude (deg)        : 33.35622
E. Longitude (deg)    : 243.13601
Altitude (km)         : 1.706
Gaia source ID        : 3368020930125330816
2Mass ID (if available) : 07012309+2230380
ICRS Star Coord at Epoch: 07h 01m 23.10009s +22:30:37.88078s
RUWE (>1.4 is poor) : 0.98
K magnitude           : 14.402
G magnitude           : 16.974
RP magnitude          : 16.159
BP magnitude          : 17.698
DUPflag              : 0
Distance (au)         : 8.411
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -13.36
Sun-Target sep (deg)  : 126.02
Sun-Moon sep (deg)   : 18.21
B (ring opening deg) : -25.06
PA of pole (deg)     : -6.62
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (" ) : 0.098
C/A sky separation (km) : 600.4
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

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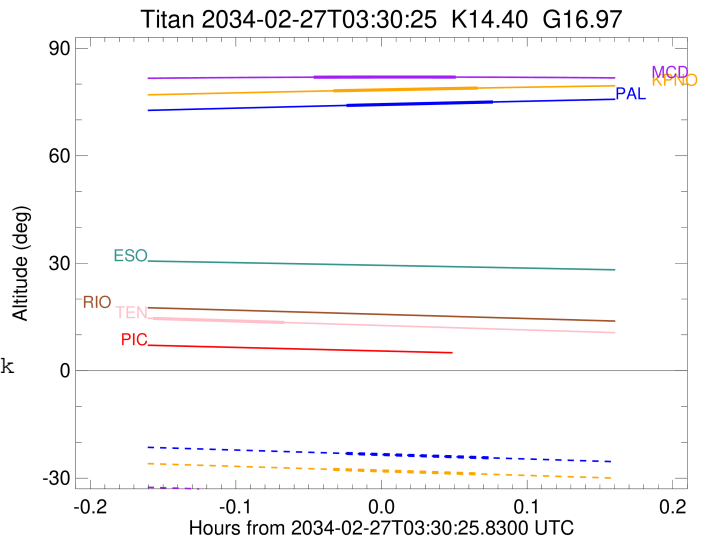
x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Titan	I	2034-02-27T03:28:58.834	74.03	-23.10	2575.2	-1.86	-1.86
Titan	E	2034-02-27T03:35:03.286	75.00	-24.37	2575.1	-22.41	-22.42



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target                : Titan
target radius (km)   : 2575.15
C/A epoch             : 2034-02-27T03:31:25.790
Event type            : Pgt
: Titan occs: geocentric, topocentric
: 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        : 3368020930125330816
2Mass ID (if available) : 07012309+2230380
ICRS Star Coord at Epoch: 07h 01m 23.10009s +22:30:37.88078s
RUWE (>1.4 is poor) : 0.98
K magnitude           : 14.402
G magnitude           : 16.974
RP magnitude          : 16.159
BP magnitude          : 17.698
DUPflag              : 0
Distance (au)         : 8.411
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -13.36
Sun-Target sep (deg) : 126.02
Sun-Moon sep (deg)   : 18.28
B (ring opening deg) : -25.06
PA of pole (deg)     : -6.62
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation ("): 0.122
C/A sky separation (km): 743.4
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
    
```



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x: target alt < 5.0 deg or sun > -5.0 deg

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Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Titan	I	2034-02-27T03:28:26.519	78.11	-27.56	2575.1	-4.90	-4.90
Titan	E	2034-02-27T03:34:25.056	78.89	-28.82	2575.1	-25.28	-25.29

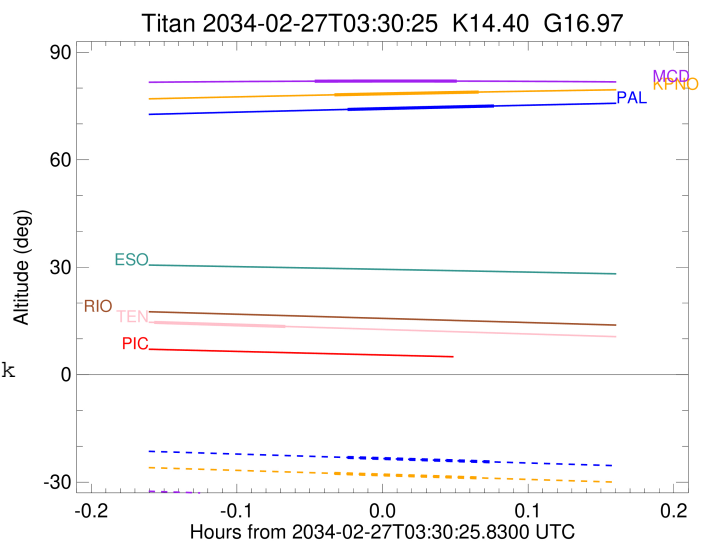
```

target                : Titan
target radius (km)   : 2575.15
C/A epoch             : 2034-02-27T03:30:33.140
Event type            : Pgt
: Titan occs: geocentric, topocentric
: 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        : 3368020930125330816
2Mass ID (if available) : 07012309+2230380
ICRS Star Coord at Epoch: 07h 01m 23.10009s +22:30:37.88078s
RUWE (>1.4 is poor) : 0.98
K magnitude           : 14.402
G magnitude           : 16.974
RP magnitude          : 16.159
BP magnitude          : 17.698
DUPflag              : 0
Distance (au)         : 8.411
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -13.36
Sun-Target sep (deg)  : 126.02
Sun-Moon sep (deg)   : 18.38
B (ring opening deg) : -25.06
PA of pole (deg)     : -6.62
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (" ) : 0.138
C/A sky separation (km) : 841.9
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	2034-02-27T03:27:36.282	81.91	-33.99	2575.2	-7.06	-7.06
Titan	E	2034-02-27T03:33:30.002	81.94	-35.23	2575.1	-27.24	-27.25



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target                : Titan
target radius (km)   : 2575.15
C/A epoch            : 2034-02-27T03:23:43.750
Event type           : Pgt
: Titan occs: geocentric, topocentric
: Not a ringed target
Observer code        : TEN
Location             : Teide Obs./Tenerife
Latitude (deg)       : 28.30050
E. Longitude (deg)   : 343.48909
Altitude (km)        : 2.395
Gaia source ID       : 3368020930125330816
2Mass ID (if available) : 07012309+2230380
ICRS Star Coord at Epoch: 07h 01m 23.10009s +22:30:37.88078s
RUWE (>1.4 is poor) : 0.98
K magnitude           : 14.402
G magnitude           : 16.974
RP magnitude         : 16.159
BP magnitude         : 17.698
DUPflag              : 0
Distance (au)        : 8.411
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -13.36
Sun-Target sep (deg) : 126.02
Sun-Moon sep (deg)   : 18.99
B (ring opening deg) : -25.06
PA of pole (deg)     : -6.62
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation ("): 0.224
C/A sky separation (km): 1364.9
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	2034-02-27T03:21:00.605	14.59	-55.04	2575.1	37.97	37.98
Titan	E	2034-02-27T03:26:26.964	13.45	-53.98	2575.2	19.16	19.17

