

target : Titan
 target radius (km) : 2575.15
 C/A epoch : 2036-02-06T03:46:04.040
 Event type : Pgt
 : Titan occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 635021330010163584
 2Mass ID (if available) : 09114848+1714501

ICRS Star Coord at Epoch: 09h 11m 48.44841s +17:14:50.04643s
 RUWE (>1.4 is poor) : 1.00
 K magnitude : 14.264
 G magnitude : 17.045
 RP magnitude : 16.224
 BP magnitude : 17.761
 DUPflag : 0
 Distance (au) : 8.165
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : -16.52
 Sun-Target sep (deg) : 178.40
 Sun-Moon sep (deg) : 77.95
 B (ring opening deg) : -16.17
 PA of pole (deg) : -6.77
 Pole direction: RA (deg): 39.48270
 Dec (deg): 83.42790
 C/A sky separation (") : 0.130
 C/A sky separation (km) : 769.0
 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

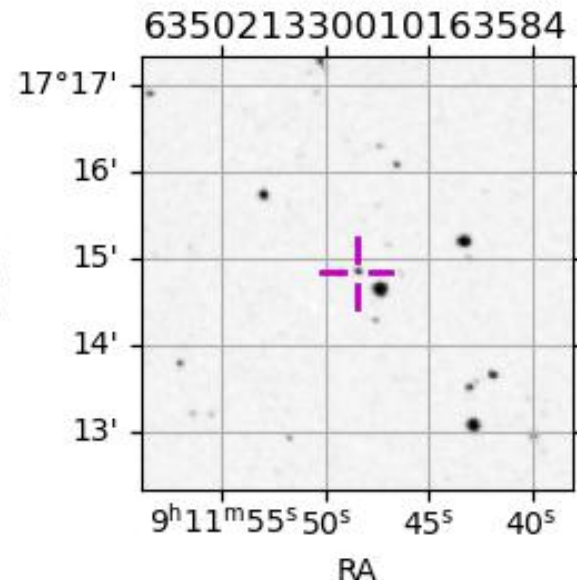
Obs	Location	lat	Elon	Target	Observed Events Interval	OCode
PIC	Pic du Midi	42.9	0.1			Pnn
PAL	Palomar Mt (200")	33.4	243.1	+ +	FEB 06 03:49 - FEB 06 03:53	Pie
PMO	Purple Mtn Obs. Nanking	32.1	118.8			Pnn
KPNO	Kitt Peak Natl Obs	32.0	248.4	+ +	FEB 06 03:49 - FEB 06 03:53	Pie
MCD	McDonald Obs. 2.7m	30.7	256.0	+ +	FEB 06 03:48 - FEB 06 03:52	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

Titan 2036-02-06T03:46:04 K14.26 G17.05 dots 60.0 sec
 Pgt



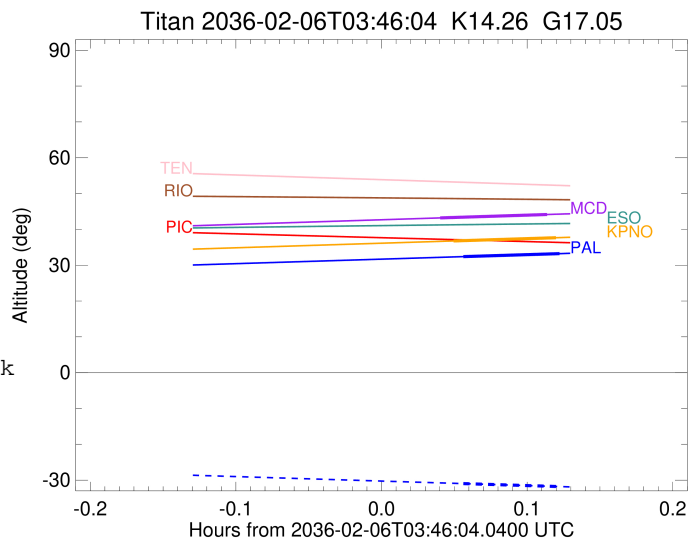
2036-02-06T03:46:04.0400 α: 09 11 48.4484 δ: +17 14 50.046 C/A 0.128" PA 199.61 deg v_sky -16.51 km/s D 08.16 AU

Credit: Styled after SORA/Lucky Star



```

target                : Titan
target radius (km)   : 2575.15
C/A epoch             : 2036-02-06T03:51:24.600
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        : 635021330010163584
2Mass ID (if available) : 09114848+1714501
ICRS Star Coord at Epoch: 09h 11m 48.44841s +17:14:50.04643s
RUWE (>1.4 is poor) : 1.00
K magnitude           : 14.264
G magnitude           : 17.045
RP magnitude          : 16.224
BP magnitude          : 17.761
DUPflag              : 0
Distance (au)         : 8.165
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -16.52
Sun-Target sep (deg) : 178.40
Sun-Moon sep (deg)   : 78.29
B (ring opening deg) : -16.17
PA of pole (deg)     : -6.77
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation ("): 0.273
C/A sky separation (km): 1618.6
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
    
```



```

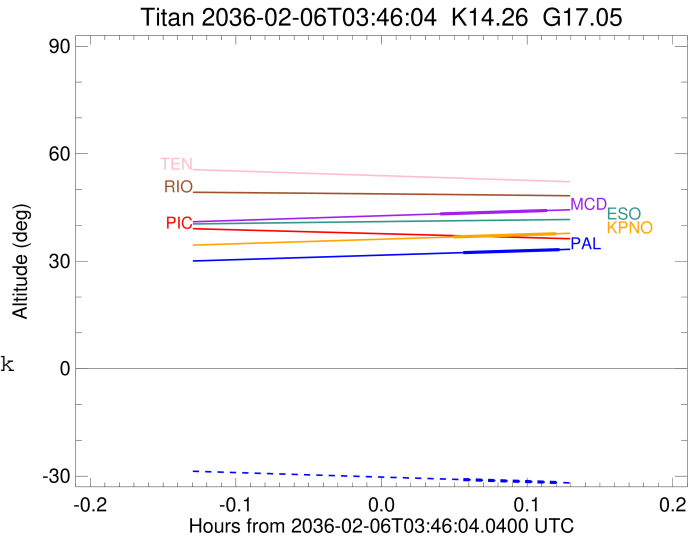
x: target alt < 5.0 deg or sun > -5.0 deg

```

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Titan	I	2036-02-06T03:49:24.788	32.38	-30.96	2575.1	60.88	60.89
Titan	E	2036-02-06T03:53:24.418	33.22	-31.79	2575.2	11.94	11.95

```

target                : Titan
target radius (km)   : 2575.15
C/A epoch            : 2036-02-06T03:51:08.940
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       : 635021330010163584
2Mass ID (if available) : 09114848+1714501
ICRS Star Coord at Epoch: 09h 11m 48.44841s +17:14:50.04643s
RUWE (>1.4 is poor) : 1.00
K magnitude           : 14.264
G magnitude           : 17.045
RP magnitude         : 16.224
BP magnitude         : 17.761
DUPflag              : 0
Distance (au)        : 8.165
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -16.52
Sun-Target sep (deg) : 178.40
Sun-Moon sep (deg)   : 78.36
B (ring opening deg) : -16.17
PA of pole (deg)     : -6.77
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.242
C/A sky separation (km) : 1435.0
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
    
```



```

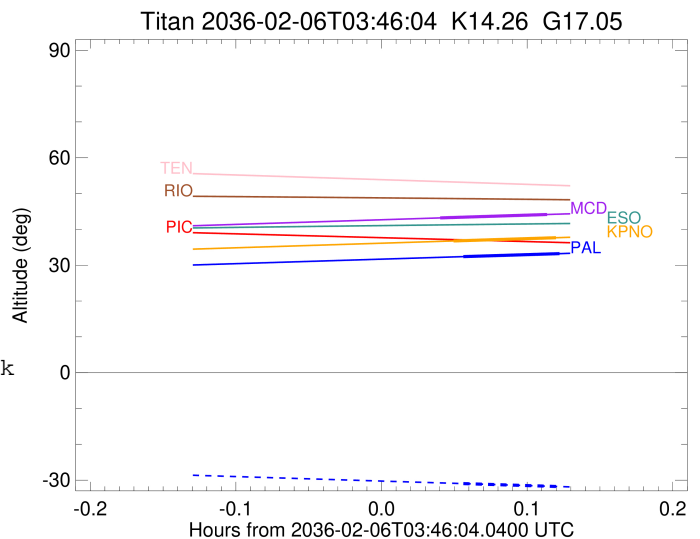
x: target alt < 5.0 deg or sun > -5.0 deg

```

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Titan	I	2036-02-06T03:49:01.262	36.76	-35.36	2575.1	56.55	56.57
Titan	E	2036-02-06T03:53:16.622	37.67	-36.26	2575.2	7.12	7.12

```

target                : Titan
target radius (km)   : 2575.15
C/A epoch            : 2036-02-06T03:50:41.560
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       : 635021330010163584
2Mass ID (if available) : 09114848+1714501
ICRS Star Coord at Epoch: 09h 11m 48.44841s +17:14:50.04643s
RUWE (>1.4 is poor) : 1.00
K magnitude           : 14.264
G magnitude           : 17.045
RP magnitude          : 16.224
BP magnitude          : 17.761
DUPflag              : 0
Distance (au)         : 8.165
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -16.52
Sun-Target sep (deg)  : 178.40
Sun-Moon sep (deg)   : 78.46
B (ring opening deg) : -16.17
PA of pole (deg)     : -6.77
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.216
C/A sky separation (km) : 1282.0
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	2036-02-06T03:48:28.515	43.19	-41.81	2575.1	52.98	52.99
Titan	E	2036-02-06T03:52:54.605	44.15	-42.75	2575.2	3.35	3.35