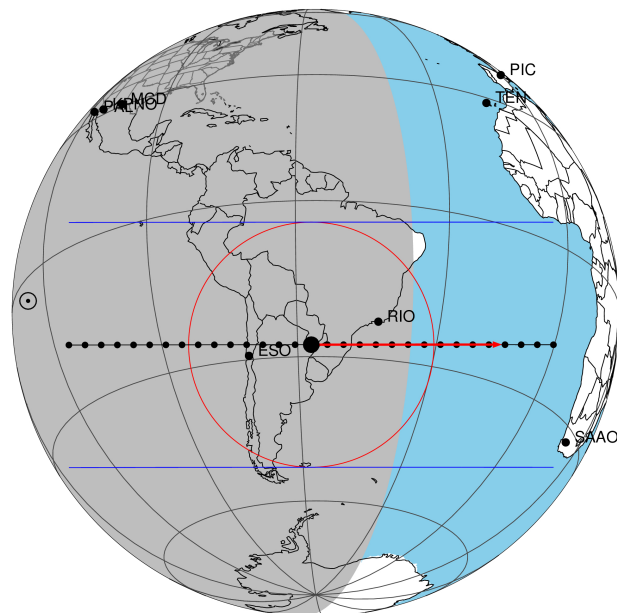


target : Titan
 target radius (km) : 2575.15
 C/A epoch : 2046-04-01T08:35:43.920
 Event type : Pgt
 : Titan occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4117826665646787840
 2Mass ID (if available) : 17280263-2140544

ICRS Star Coord at Epoch: 17h 28m 02.60868s -21:40:54.79337s
 RUWE (>1.4 is poor) : 0.95
 K magnitude : 14.851
 G magnitude : 17.461
 RP magnitude : 16.596
 BP magnitude : 18.238
 DUPflag : 0
 Distance (au) : 9.674
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 5.65
 Sun-Target sep (deg) : 108.56
 Sun-Moon sep (deg) : 52.73
 B (ring opening deg) : 26.45
 PA of pole (deg) : 4.96
 Pole direction: RA (deg): 39.48270
 Dec (deg): 83.42790
 C/A sky separation (") : 0.096
 C/A sky separation (km) : 674.8
 NAIF SPICE kernels : RAJobs_U111+rgf16.spk
 URKALLv1.spk
 naif0012.tls
 nep097.bsp
 nep101.bsp
 sat4401.bsp

Titan 2046-04-01T08:35:43 K14.85 G17.46 dots 60.0 sec
 Pgt

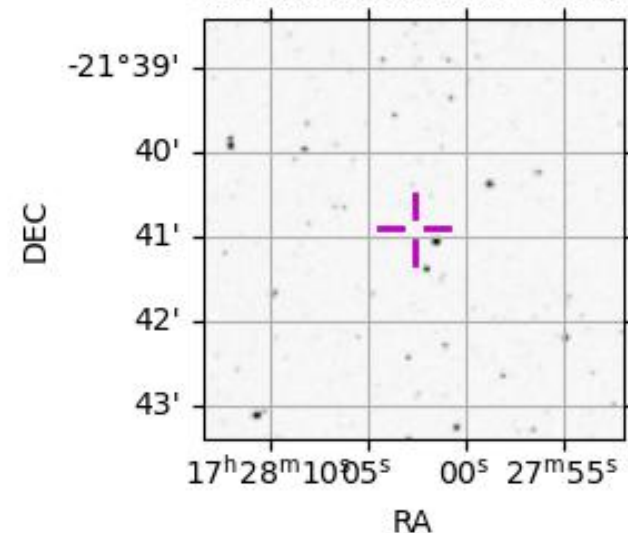


2046-04-01T08:35:43.9200 α: 17 28 02.6087 δ: -21 40 54.793 C/A 0.095" PA 179.95 deg v_{sky} + 5.65 km/s D 09.67 AU
 Credit: Styled after SORA/Lucky Star

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

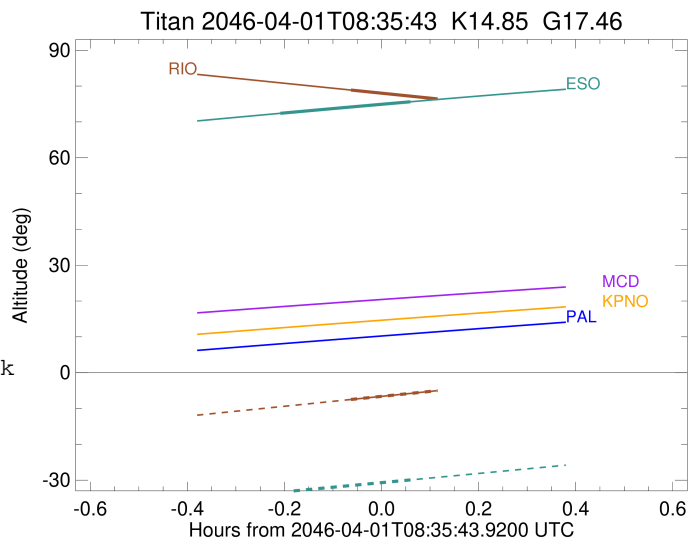
Obs	Location	lat	Elon	Target	Observed Events Interval	OCode
PIC	Pic du Midi	42.9	0.1			Pnn
PAL	Palomar Mt (200")	33.4	243.1			Pnn
PMO	Purple Mtn Obs. Nanking	32.1	118.8			Pnn
KPNO	Kitt Peak Natl Obs	32.0	248.4			Pnn
MCD	McDonald Obs. 2.7m	30.7	256.0			Pnn
TEN	Teide Obs./Tenerife	28.3	343.5			Pnn
IRTF	Mauna Kea/IRTF	19.8	204.5			Pnn
KAV	Kavalur Observatory	12.6	78.8			Pnn
RIO	Rio de Janeiro	-22.9	316.8	+	APR 01 08:31 - APR 01 08:31	Pin
ESO	European Southern Obs. (3.6m)	-29.3	289.3	+	APR 01 08:23 - APR 01 08:39	Pie
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

4117826665646787840



```

target                : Titan
target radius (km)   : 2575.15
C/A epoch            : 2046-04-01T08:39:55.250
Event type           : Pgt
: Titan occs: geocentric, topocentric
: Not a ringed target
Observer code        : RIO
Location             : Rio de Janeiro
Latitude (deg)       : -22.89506
E. Longitude (deg)   : 316.77708
Altitude (km)        : 0.033
Gaia source ID       : 4117826665646787840
2Mass ID (if available) : 17280263-2140544
ICRS Star Coord at Epoch: 17h 28m 02.60868s -21:40:54.79337s
RUWE (>1.4 is poor) : 0.95
K magnitude           : 14.851
G magnitude           : 17.461
RP magnitude          : 16.596
BP magnitude          : 18.238
DUPflag              : 0
Distance (au)        : 9.674
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 5.65
Sun-Target sep (deg) : 108.56
Sun-Moon sep (deg)   : 53.33
B (ring opening deg) : 26.45
PA of pole (deg)     : 4.96
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.070
C/A sky separation (km) : 487.6
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	2046-04-01T08:31:52.201	78.90	-7.50	2575.1	14.57	14.58
Titan	E	2046-04-01T08:47:58.202	75.18	-3.80x	2575.2	4.93	4.93

```

target                : Titan
target radius (km)   : 2575.15
C/A epoch             : 2046-04-01T08:31:16.290
Event type            : Pgt
: Titan occs: geocentric, topocentric
: Not a ringed target
Observer code         : ESO
Location              : European Southern Obs. (3.6m)
Latitude (deg)       : -29.26097
E. Longitude (deg)   : 289.26831
Altitude (km)        : 2.400
Gaia source ID       : 4117826665646787840
2Mass ID (if available) : 17280263-2140544
ICRS Star Coord at Epoch: 17h 28m 02.60868s -21:40:54.79337s
RUWE (>1.4 is poor) : 0.95
K magnitude           : 14.851
G magnitude           : 17.461
RP magnitude          : 16.596
BP magnitude          : 18.238
DUPflag              : 0
Distance (au)        : 9.674
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 5.65
Sun-Target sep (deg) : 108.56
Sun-Moon sep (deg)   : 53.55
B (ring opening deg) : 26.45
PA of pole (deg)     : 4.96
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.030
C/A sky separation (km) : 213.0
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	2046-04-01T08:23:08.897	72.37	-33.37	2575.2	-0.11	-0.11
Titan	E	2046-04-01T08:39:24.277	75.63	-29.91	2575.1	-8.35	-8.36

