

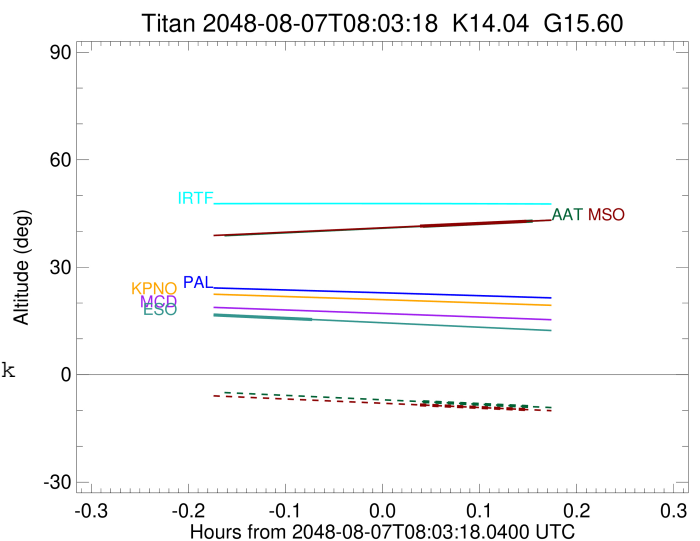

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target                : Titan
target radius (km)   : 2575.15
C/A epoch             : 2048-08-07T07:55:43.870
Event type            : Pgt
: Titan occs: geocentric, topocentric
: Not a ringed target
Observer code         : ESO
Location              : European Southern Obs. (3.6m)
Latitude (deg)        : -29.26097
E. Longitude (deg)    : 289.26831
Altitude (km)         : 2.400
Gaia source ID        : 4079280502372429312
2Mass ID (if available) : 18414994-2234425
ICRS Star Coord at Epoch: 18h 41m 49.95283s -22:34:42.57366s
RUWE (>1.4 is poor) : 1.21
K magnitude           : 14.037
G magnitude           : 15.596
RP magnitude          : 15.003
BP magnitude          : 16.020
DUPflag              : 0
Distance (au)         : 9.191
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -12.31
Sun-Target sep (deg)  : 144.82
Sun-Moon sep (deg)    : 171.41
B (ring opening deg) : 25.64
PA of pole (deg)      : 6.37
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.138
C/A sky separation (km) : 921.3
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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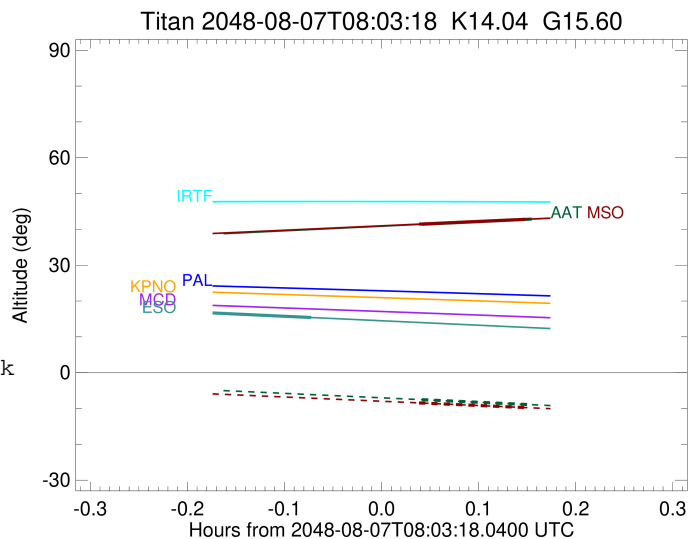
x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Titan	I	2048-08-07T07:52:29.580	16.75	-45.95	2575.1	-22.65	-22.66
Titan	E	2048-08-07T07:58:58.335	15.39	-44.54	2575.1	-14.95	-14.96



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target                : Titan
target radius (km)   : 2575.15
C/A epoch             : 2048-08-07T08:09:10.990
Event type            : Pgt
: Titan occs: geocentric, topocentric
: Not a ringed target
Observer code         : AAT
Location              : Siding Spring (AAT)
Latitude (deg)        : -31.27703
E. Longitude (deg)    : 149.06608
Altitude (km)         : 1.164
Gaia source ID        : 4079280502372429312
2Mass ID (if available) : 18414994-2234425
ICRS Star Coord at Epoch: 18h 41m 49.95283s -22:34:42.57366s
RUWE (>1.4 is poor) : 1.21
K magnitude           : 14.037
G magnitude           : 15.596
RP magnitude          : 15.003
BP magnitude          : 16.020
DUPflag              : 0
Distance (au)         : 9.191
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -12.31
Sun-Target sep (deg) : 144.82
Sun-Moon sep (deg)   : 172.81
B (ring opening deg) : 25.64
PA of pole (deg)     : 6.37
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.040
C/A sky separation (km) : 267.0
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
    
```



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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	2048-08-07T08:05:46.711	41.41	-7.53	2575.1	-10.43	-10.44
Titan	E	2048-08-07T08:12:35.271	42.87	-8.94	2575.2	-0.28	-0.28

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target                : Titan
target radius (km)   : 2575.15
C/A epoch             : 2048-08-07T08:08:55.190
Event type           : Pgt
: Titan occs: geocentric, topocentric
: Not a ringed target
Observer code        : MSO
Location             : Mt. Stromlo Observatory
Latitude (deg)       : -35.32000
E. Longitude (deg)   : 149.00833
Altitude (km)        : 0.770
Gaia source ID       : 4079280502372429312
2Mass ID (if available) : 18414994-2234425
ICRS Star Coord at Epoch: 18h 41m 49.95283s -22:34:42.57366s
RUWE (>1.4 is poor) : 1.21
K magnitude           : 14.037
G magnitude           : 15.596
RP magnitude          : 15.003
BP magnitude          : 16.020
DUPflag              : 0
Distance (au)        : 9.191
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -12.31
Sun-Target sep (deg) : 144.82
Sun-Moon sep (deg)   : 172.80
B (ring opening deg) : 25.64
PA of pole (deg)     : 6.37
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation ("): 0.100
C/A sky separation (km): 669.3
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	2048-08-07T08:05:36.698	41.46	-8.44	2575.1	-18.56	-18.57
Titan	E	2048-08-07T08:12:13.700	42.82	-9.75	2575.2	-8.51	-8.52

