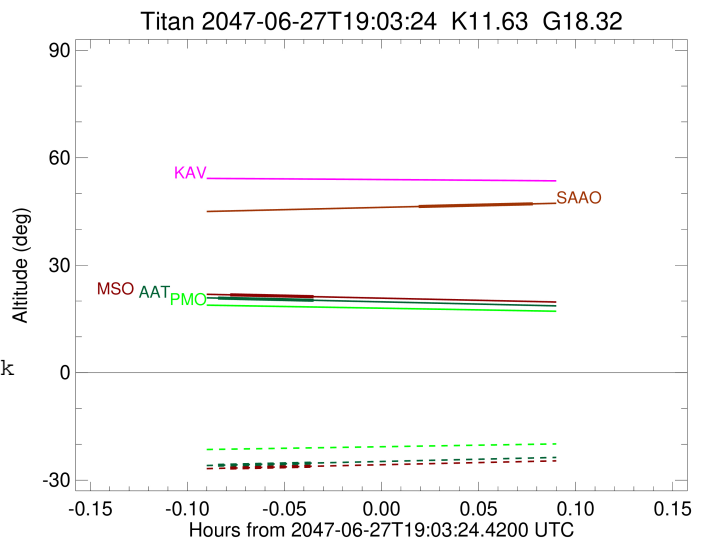



```

target                : Titan
target radius (km)   : 2575.15
C/A epoch            : 2047-06-27T18:59:50.120
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      : 4069494604032885888
2Mass ID (if available) : 18012102-2223171
ICRS Star Coord at Epoch: 18h 01m 21.02809s -22:23:17.34243s
RUWE (>1.4 is poor) : 1.00
K magnitude          : 11.635
G magnitude          : 18.323
RP magnitude         : 17.189
BP magnitude         : 19.863
DUPflag             : 0
Distance (au)       : 9.029
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : -23.76
Sun-Target sep (deg) : 174.79
Sun-Moon sep (deg)  : 122.50
B (ring opening deg) : 26.44
PA of pole (deg)    : 5.69
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.220
C/A sky separation (km) : 1438.4
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

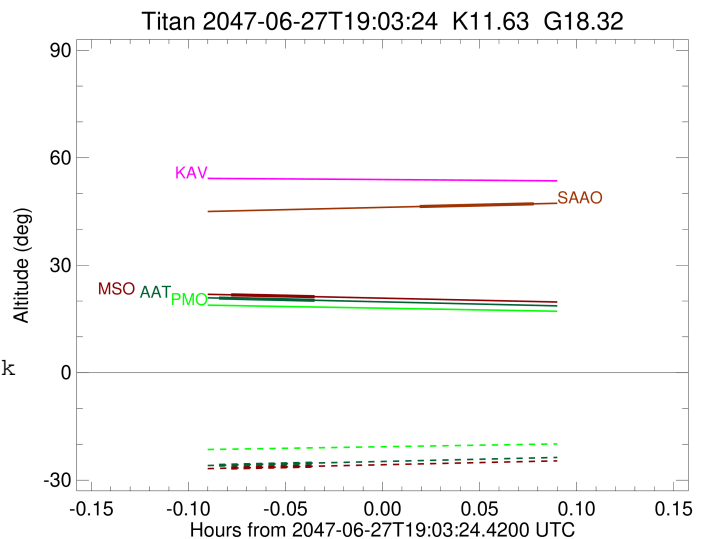
```

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Titan	I	2047-06-27T18:58:20.466	20.82	-25.84	2575.1	-38.75	-38.76
Titan	E	2047-06-27T19:01:19.770	20.20	-25.22	2575.1	-20.98	-20.99

```

target                : Titan
target radius (km)   : 2575.15
C/A epoch            : 2047-06-27T19:06:18.710
Event type           : Pgt
: Titan occs: geocentric, topocentric
: Not a ringed target
Observer code        : SAAO
Location             : So. Afr. Astro. Obs. (Sutherland)
Latitude (deg)       : -32.37953
E. Longitude (deg)  : 20.81070
Altitude (km)        : 1.768
Gaia source ID       : 4069494604032885888
2Mass ID (if available) : 18012102-2223171
ICRS Star Coord at Epoch: 18h 01m 21.02809s -22:23:17.34243s
RUWE (>1.4 is poor) : 1.00
K magnitude           : 11.635
G magnitude           : 18.323
RP magnitude          : 17.189
BP magnitude          : 19.863
DUPflag              : 0
Distance (au)         : 9.029
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -23.76
Sun-Target sep (deg) : 174.79
Sun-Moon sep (deg)   : 123.57
B (ring opening deg) : 26.44
PA of pole (deg)     : 5.69
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.047
C/A sky separation (km) : 310.6
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

```

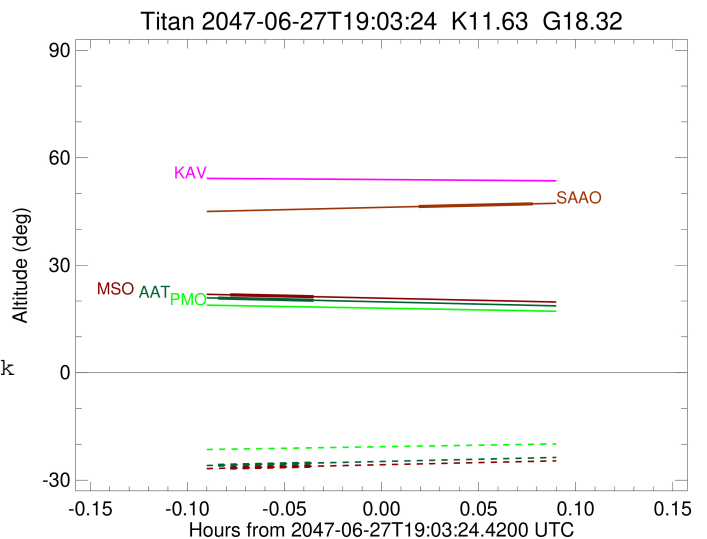


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Titan	I	2047-06-27T19:04:32.372	46.37	-42.02	2575.2	-3.61	-3.61
Titan	E	2047-06-27T19:08:05.030	47.12	-42.77	2575.1	15.96	15.97

```

target                : Titan
target radius (km)   : 2575.15
C/A epoch            : 2047-06-27T19:00:01.620
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       : 4069494604032885888
2Mass ID (if available) : 18012102-2223171
ICRS Star Coord at Epoch: 18h 01m 21.02809s -22:23:17.34243s
RUWE (>1.4 is poor) : 1.00
K magnitude          : 11.635
G magnitude          : 18.323
RP magnitude         : 17.189
BP magnitude         : 19.863
DUPflag             : 0
Distance (au)        : 9.029
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -23.76
Sun-Target sep (deg) : 174.79
Sun-Moon sep (deg)  : 122.54
B (ring opening deg) : 26.44
PA of pole (deg)    : 5.69
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.272
C/A sky separation (km) : 1778.4
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	2047-06-27T18:58:43.440	21.73	-26.64	2575.1	-46.49	-46.50
Titan	E	2047-06-27T19:01:19.796	21.21	-26.12	2575.1	-29.42	-29.44