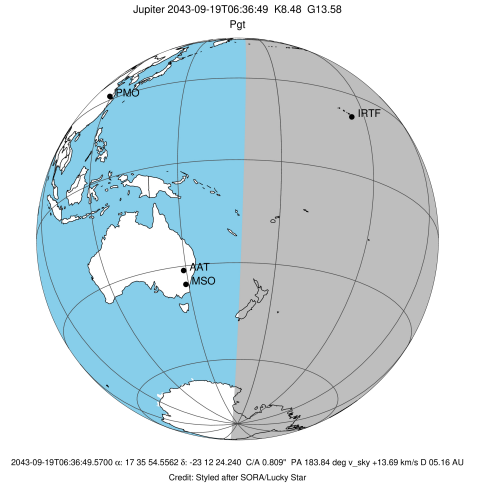
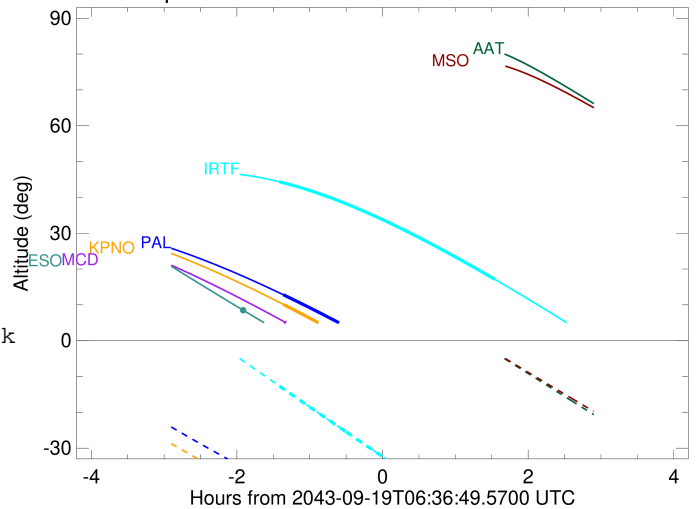



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-09-19T06:42:57.800
Event type            : Pgt
: Jupiter 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        : 4116634726330654464
2Mass ID (if available) : 17355455-2312241
ICRS Star Coord at Epoch: 17h 35m 54.55619s -23:12:24.24016s
RUWE (>1.4 is poor) : 0.88
K magnitude           : 8.481
G magnitude           : 13.579
RP magnitude          : 12.285
BP magnitude          : 15.457
DUPflag              : 0
Distance (au)         : 5.158
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 13.69
Sun-Target sep (deg) : 88.84
Sun-Moon sep (deg)   : 93.83
B (ring opening deg) : -2.24
PA of pole (deg)     : 1.76
Pole direction: RA (deg): 268.05673
Dec (deg): 64.49731
C/A sky separation ("): 1.883
C/A sky separation (km): 7044.8
NAIF SPICE kernels   : RAJobs_U111+rgf15.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
uranus_ringframes_rfrench20220627_v1.tf
neptune_ringframes_rfrench20220702a_v1.tf
earth_flat_IAU.spk
    
```



Jupiter 2043-09-19T06:36:49 K8.48 G13.58

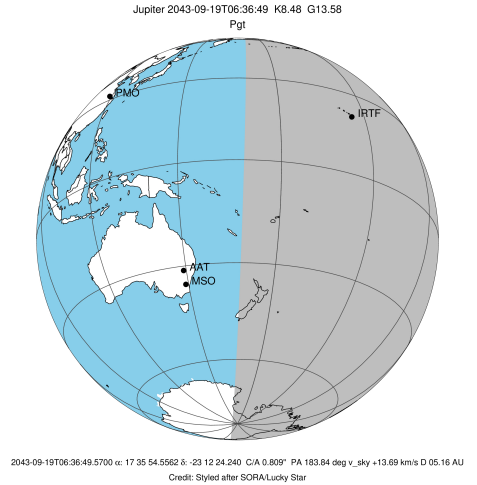


x: target alt < 5.0 deg or sun > -5.0 deg

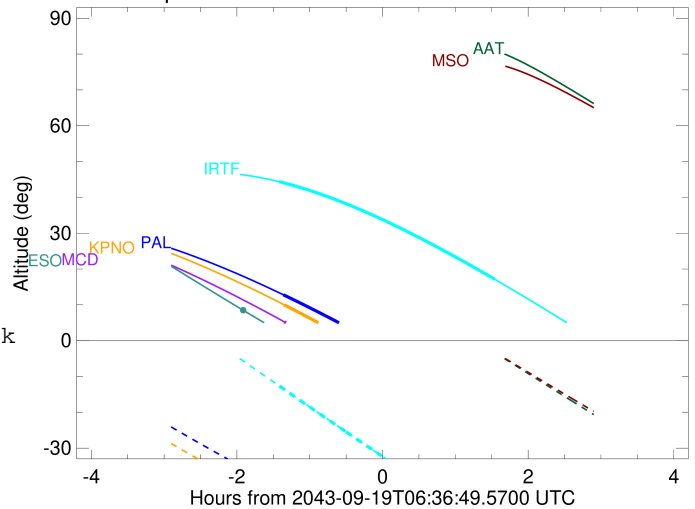
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-09-19T05:15:11.831	12.80	-41.14	71492.0	4.12	4.71
Jupiter	E	2043-09-19T08:09:37.110	-19.69x	-54.71	71491.9	7.09	8.10

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-09-19T06:43:11.540
Event type            : Pgt
: Jupiter 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        : 4116634726330654464
2Mass ID (if available) : 17355455-2312241
ICRS Star Coord at Epoch: 17h 35m 54.55619s -23:12:24.24016s
RUWE (>1.4 is poor) : 0.88
K magnitude           : 8.481
G magnitude           : 13.579
RP magnitude          : 12.285
BP magnitude          : 15.457
DUPflag              : 0
Distance (au)         : 5.158
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 13.69
Sun-Target sep (deg)  : 88.84
Sun-Moon sep (deg)   : 93.77
B (ring opening deg) : -2.24
PA of pole (deg)     : 1.76
Pole direction: RA (deg): 268.05673
Dec (deg): 64.49731
C/A sky separation ("): 1.804
C/A sky separation (km): 6748.4
NAIF SPICE kernels   : RAJobs_U111+rgf15.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
uranus_ringframes_rfrench20220627_v1.tf
neptune_ringframes_rfrench20220702a_v1.tf
earth_flat_IAU.spk
    
```



Jupiter 2043-09-19T06:36:49 K8.48 G13.58

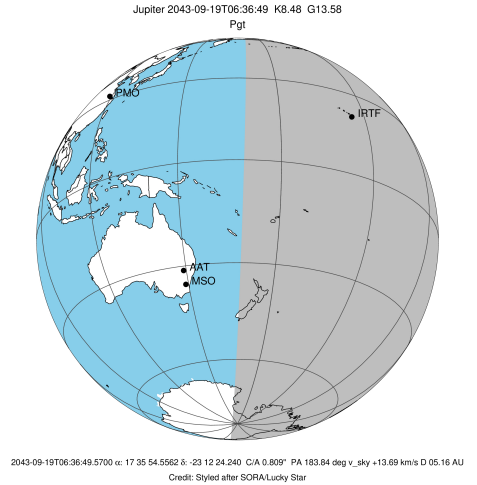


x: target alt < 5.0 deg or sun > -5.0 deg

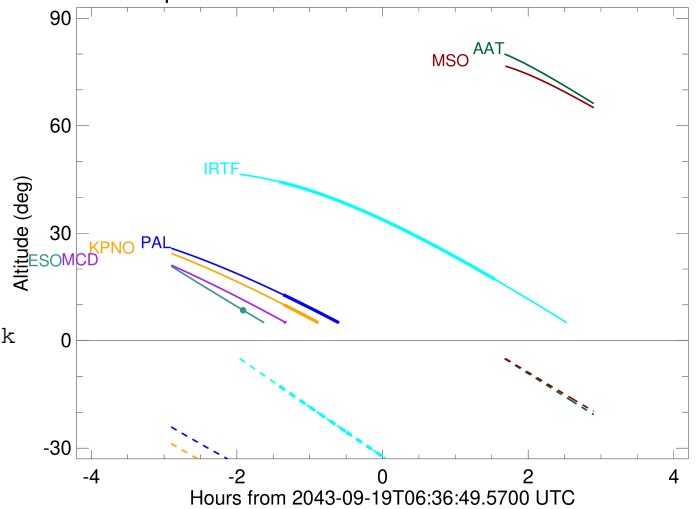
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-09-19T05:15:35.774	10.04	-45.49	71492.0	3.92	4.48
Jupiter	E	2043-09-19T08:09:39.199	-23.65x	-54.74	71491.9	6.84	7.81

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-09-19T06:43:21.900
Event type           : Pgt
: Jupiter 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       : 4116634726330654464
2Mass ID (if available) : 17355455-2312241
ICRS Star Coord at Epoch: 17h 35m 54.55619s -23:12:24.24016s
RUWE (>1.4 is poor) : 0.88
K magnitude          : 8.481
G magnitude          : 13.579
RP magnitude         : 12.285
BP magnitude         : 15.457
DUPflag             : 0
Distance (au)        : 5.158
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 13.69
Sun-Target sep (deg) : 88.84
Sun-Moon sep (deg)   : 93.68
B (ring opening deg) : -2.24
PA of pole (deg)     : 1.76
Pole direction: RA (deg): 268.05673
Dec (deg): 64.49731
C/A sky separation ("): 1.700
C/A sky separation (km): 6360.4
NAIF SPICE kernels   : RAJobs_U111+rgf15.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
uranus_ringframes_rfrench20220627_v1.tf
neptune_ringframes_rfrench20220702a_v1.tf
earth_flat_IAU.spk
    
```



Jupiter 2043-09-19T06:36:49 K8.48 G13.58

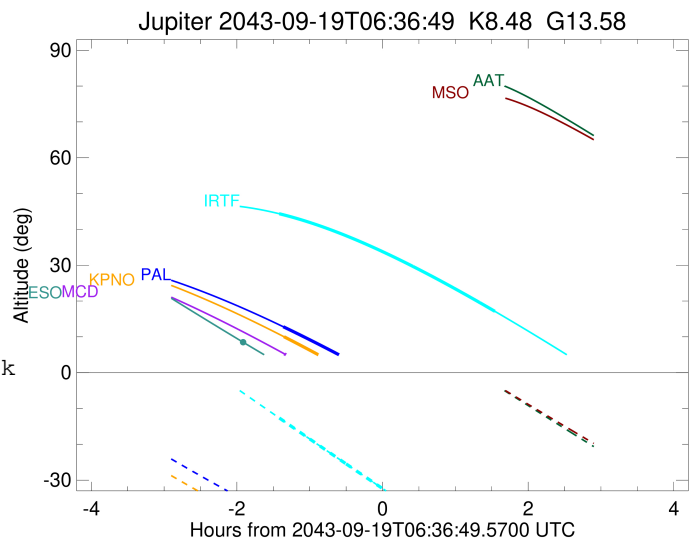
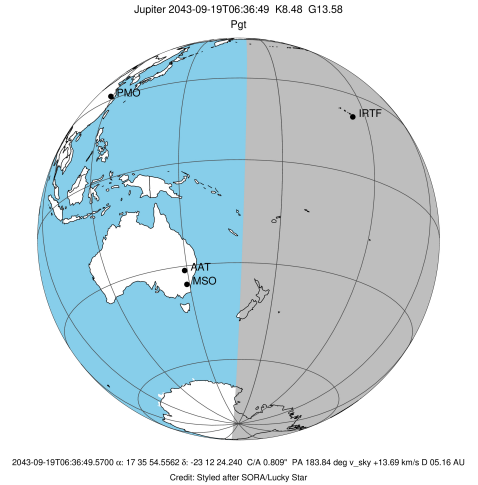


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-09-19T05:16:02.774	5.24	-50.95	71492.0	3.65	4.17
Jupiter	E	2043-09-19T08:09:32.220	-29.68x	-52.83	71491.9	6.52	7.44

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-09-19T06:41:06.620
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : IRTF
Location              : Mauna Kea/IRTF
Latitude (deg)        : 19.82622
E. Longitude (deg)    : 204.52800
Altitude (km)         : 4.168
Gaia source ID        : 4116634726330654464
2Mass ID (if available) : 17355455-2312241
ICRS Star Coord at Epoch: 17h 35m 54.55619s -23:12:24.24016s
RUWE (>1.4 is poor) : 0.88
K magnitude           : 8.481
G magnitude           : 13.579
RP magnitude          : 12.285
BP magnitude          : 15.457
DUPflag              : 0
Distance (au)         : 5.158
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 13.69
Sun-Target sep (deg)  : 88.84
Sun-Moon sep (deg)    : 94.40
B (ring opening deg) : -2.24
PA of pole (deg)      : 1.76
Pole direction: RA (deg): 268.05673
Dec (deg): 64.49731
C/A sky separation (" ) : 1.904
C/A sky separation (km) : 7122.2
NAIF SPICE kernels    : RAJobs_U111+rgf15.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
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
Jupiter	I	2043-09-19T05:11:49.521	44.35	-12.66	71492.0	3.86	4.42
Jupiter	E	2043-09-19T08:09:30.898	17.10	-52.51	71491.9	7.31	8.34