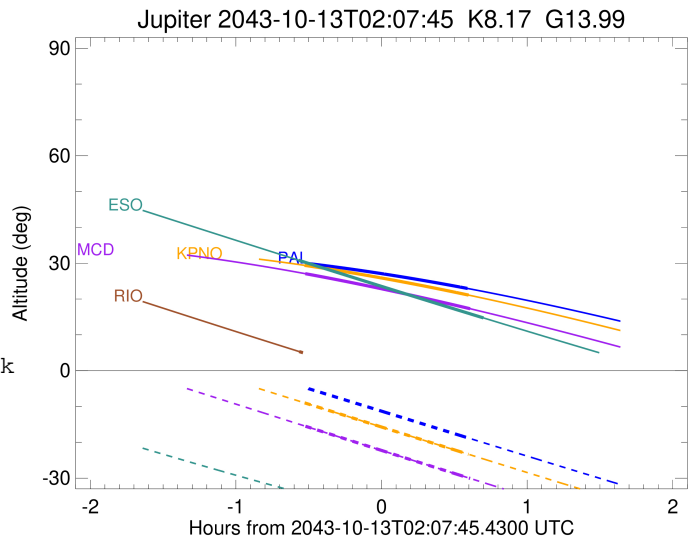
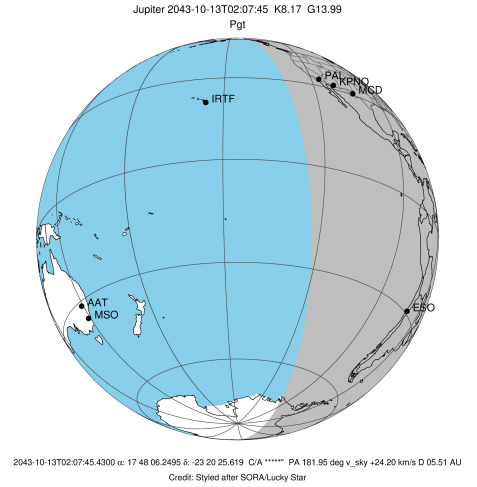




```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-13T02:09:33.470
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        : 4068766869076973952
2Mass ID (if available) : 17480625-2320254
ICRS Star Coord at Epoch: 17h 48m 06.24950s -23:20:25.61931s
RUWE (>1.4 is poor) : 1.27
K magnitude           : 8.173
G magnitude           : 13.994
RP magnitude          : 12.497
BP magnitude          : 16.818
DUPflag              : 0
Distance (au)         : 5.513
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 24.20
Sun-Target sep (deg) : 68.24
Sun-Moon sep (deg)   : 42.54
B (ring opening deg) : -2.16
PA of pole (deg)     : 0.44
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation ("): 13.207
C/A sky separation (km): 52809.2
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
    
```

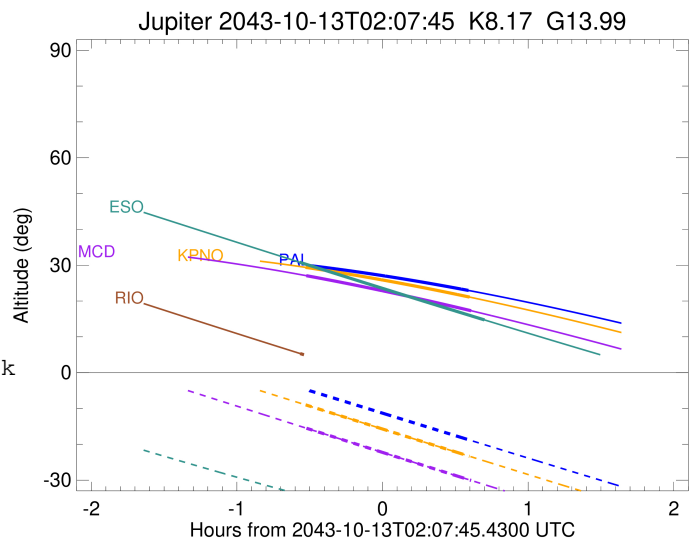
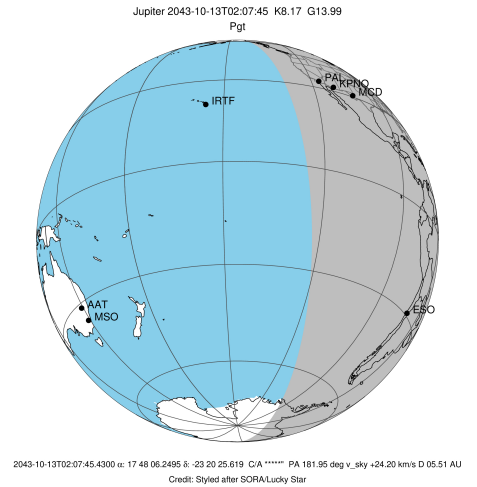


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-10-13T01:35:51.768	30.04	-4.64x	71488.7	46.21	49.89
Jupiter	E	2043-10-13T02:43:11.839	22.95	-18.72	71488.4	48.89	52.52

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-13T02:09:54.350
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       : 4068766869076973952
2Mass ID (if available) : 17480625-2320254
ICRS Star Coord at Epoch: 17h 48m 06.24950s -23:20:25.61931s
RUWE (>1.4 is poor) : 1.27
K magnitude           : 8.173
G magnitude           : 13.994
RP magnitude          : 12.497
BP magnitude          : 16.818
DUPflag              : 0
Distance (au)        : 5.513
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 24.20
Sun-Target sep (deg) : 68.24
Sun-Moon sep (deg)   : 42.48
B (ring opening deg) : -2.16
PA of pole (deg)     : 0.44
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (") : 13.161
C/A sky separation (km) : 52626.4
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
    
```

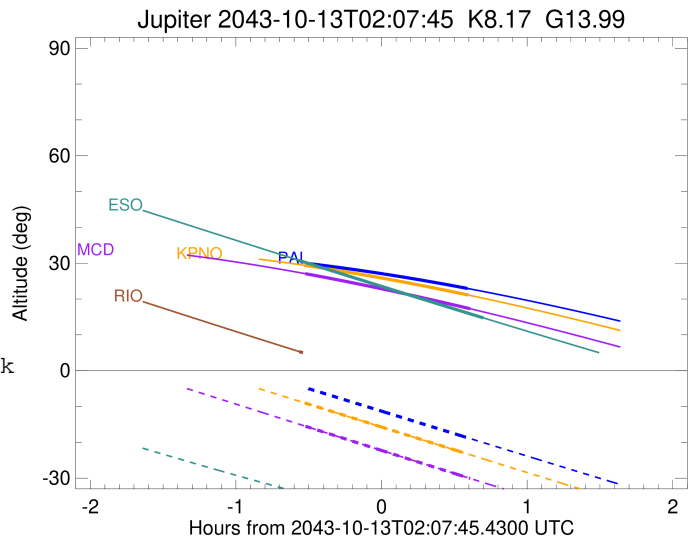
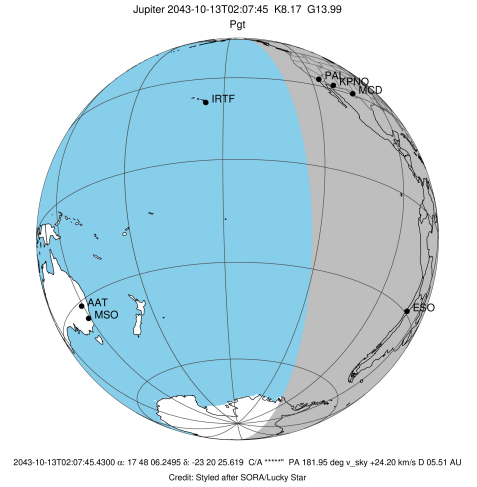


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-10-13T01:36:05.278	29.39	-8.99	71488.7	46.03	49.71
Jupiter	E	2043-10-13T02:43:39.640	21.09	-23.35	71488.4	48.65	52.27

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-13T02:10:21.870
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        : 4068766869076973952
2Mass ID (if available) : 17480625-2320254
ICRS Star Coord at Epoch: 17h 48m 06.24950s -23:20:25.61931s
RUWE (>1.4 is poor) : 1.27
K magnitude           : 8.173
G magnitude           : 13.994
RP magnitude          : 12.497
BP magnitude          : 16.818
DUPflag              : 0
Distance (au)         : 5.513
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 24.20
Sun-Target sep (deg)  : 68.24
Sun-Moon sep (deg)    : 42.38
B (ring opening deg) : -2.16
PA of pole (deg)      : 0.44
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (") : 13.098
C/A sky separation (km) : 52374.4
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
    
```

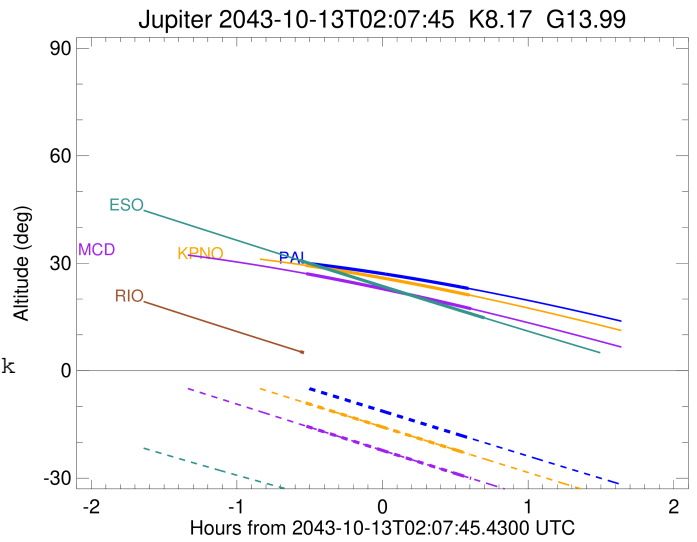
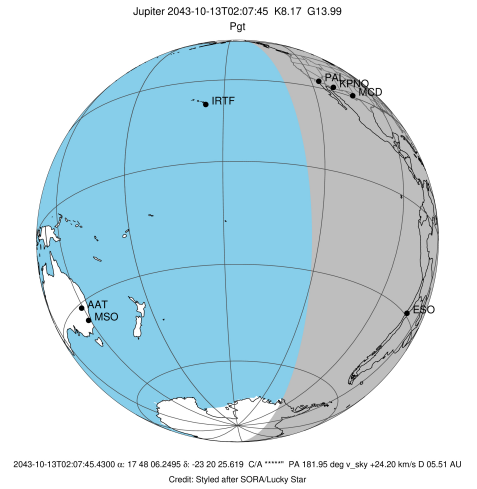


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-10-13T01:36:23.581	27.07	-15.50	71488.7	45.78	49.47
Jupiter	E	2043-10-13T02:44:15.753	17.29	-30.07	71488.5	48.31	51.94

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-10-13T02:11:57.630
Event type           : Pgt
: Jupiter 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       : 4068766869076973952
2Mass ID (if available) : 17480625-2320254
ICRS Star Coord at Epoch: 17h 48m 06.24950s -23:20:25.61931s
RUWE (>1.4 is poor) : 1.27
K magnitude          : 8.173
G magnitude          : 13.994
RP magnitude         : 12.497
BP magnitude         : 16.818
DUPflag             : 0
Distance (au)        : 5.513
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 24.20
Sun-Target sep (deg) : 68.24
Sun-Moon sep (deg)   : 41.78
B (ring opening deg) : -2.16
PA of pole (deg)     : 0.44
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (") : 11.265
C/A sky separation (km) : 45046.1
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
    
```

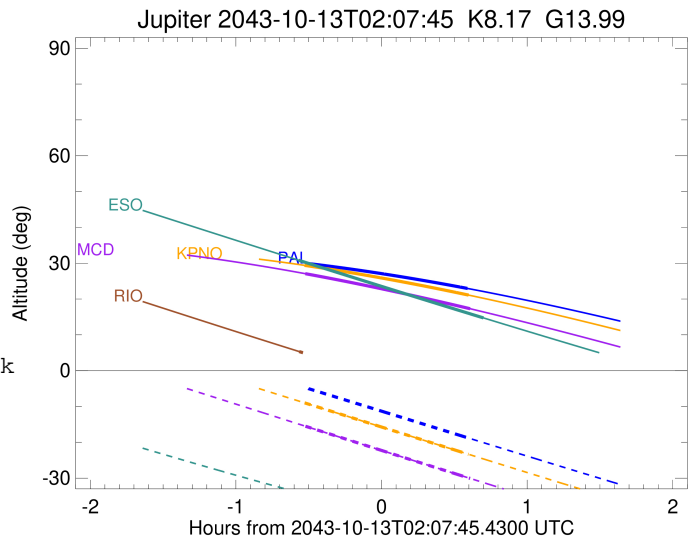
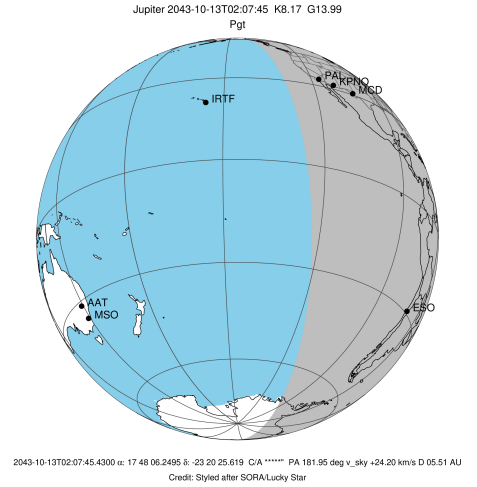


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-10-13T01:33:49.608	5.34	-55.62	71489.6	37.92	41.60
Jupiter	E	2043-10-13T02:49:57.832	-10.35x	-59.43	71489.4	40.14	43.85

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-13T02:11:43.500
Event type            : Pgt
: Jupiter 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        : 4068766869076973952
2Mass ID (if available) : 17480625-2320254
ICRS Star Coord at Epoch: 17h 48m 06.24950s -23:20:25.61931s
RUWE (>1.4 is poor) : 1.27
K magnitude           : 8.173
G magnitude           : 13.994
RP magnitude          : 12.497
BP magnitude          : 16.818
DUPflag              : 0
Distance (au)         : 5.513
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 24.20
Sun-Target sep (deg)  : 68.24
Sun-Moon sep (deg)    : 42.10
B (ring opening deg) : -2.16
PA of pole (deg)      : 0.44
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (") : 11.388
C/A sky separation (km) : 45535.6
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	2043-10-13T01:33:33.014	30.83	-33.98	71489.5	38.38	42.07
Jupiter	E	2043-10-13T02:49:46.476	14.73	-46.11	71489.3	40.66	44.37