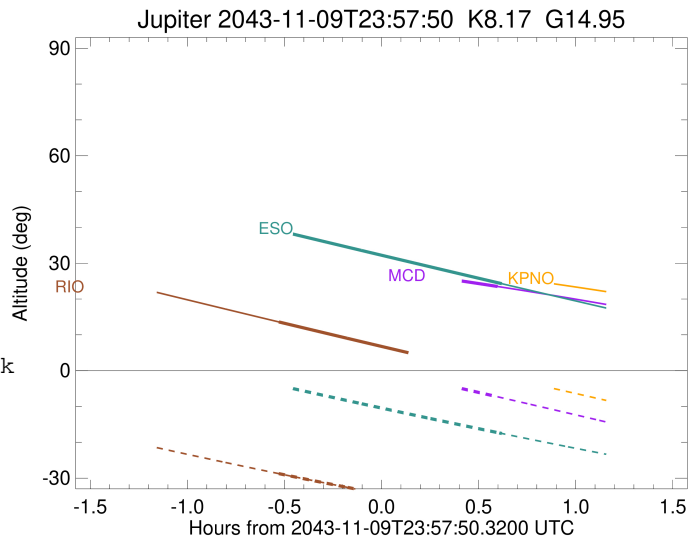
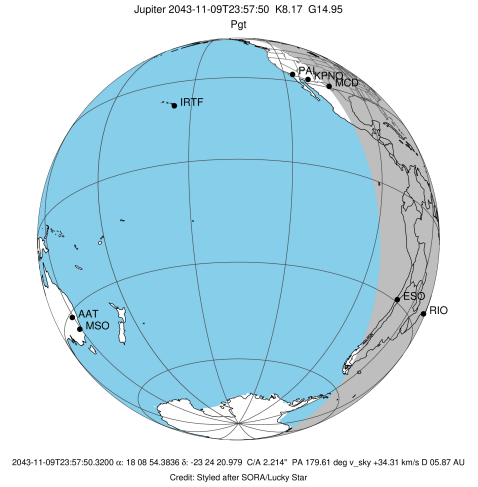




```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-11-09T23:59:17.790
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      : 4066523178190170112
2Mass ID (if available) : 18085438-2324209
ICRS Star Coord at Epoch: 18h 08m 54.38360s -23:24:20.97899s
RUWE (>1.4 is poor) : 1.15
K magnitude         : 8.170
G magnitude         : 14.951
RP magnitude        : 13.445
BP magnitude        : 18.182
DUPflag            : 0
Distance (au)       : 5.867
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : 34.31
Sun-Target sep (deg) : 45.18
Sun-Moon sep (deg)  : 44.84
B (ring opening deg) : -2.04
PA of pole (deg)    : -1.80
Pole direction: RA (deg): 268.05676
Dec (deg): 64.49731
C/A sky separation (") : 3.347
C/A sky separation (km) : 14240.1
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
    
```

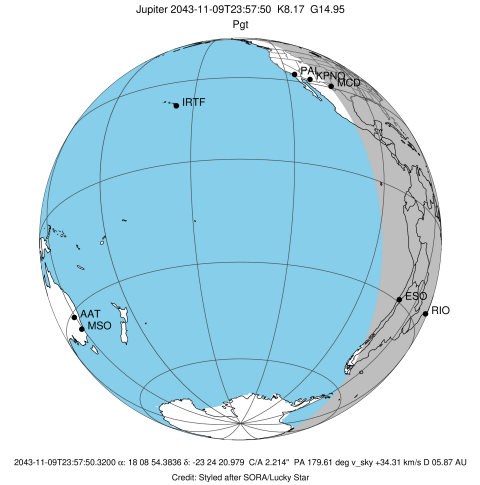


x: target alt < 5.0 deg or sun > -5.0 deg

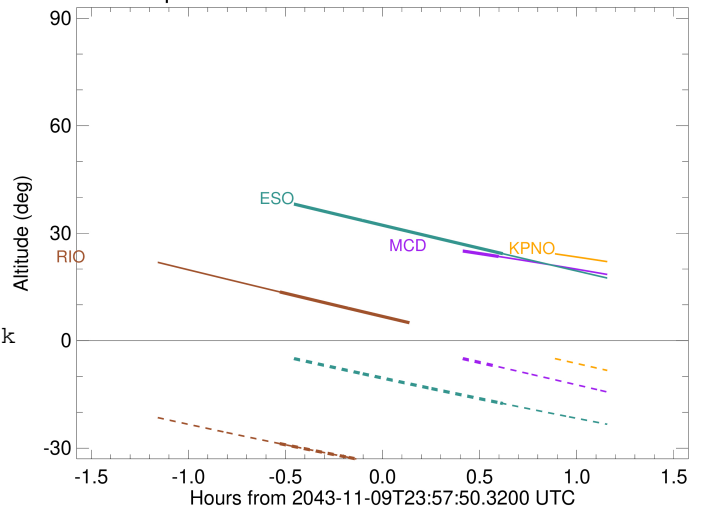
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-11-09T23:24:53.930	31.62	6.65x	71491.8	10.20	11.63
Jupiter	E	2043-11-10T00:33:39.162	23.51	-7.28	71491.7	12.72	14.47

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-11-10T00:00:41.630
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      : 4066523178190170112
2Mass ID (if available) : 18085438-2324209
ICRS Star Coord at Epoch: 18h 08m 54.38360s -23:24:20.97899s
RUWE (>1.4 is poor) : 1.15
K magnitude          : 8.170
G magnitude          : 14.951
RP magnitude         : 13.445
BP magnitude         : 18.182
DUPflag             : 0
Distance (au)       : 5.867
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 34.31
Sun-Target sep (deg) : 45.18
Sun-Moon sep (deg)  : 44.24
B (ring opening deg) : -2.04
PA of pole (deg)    : -1.80
Pole direction: RA (deg): 268.05676
Dec (deg): 64.49731
C/A sky separation ("): 1.644
C/A sky separation (km) : 6996.5
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 2043-11-09T23:57:50 K8.17 G14.95

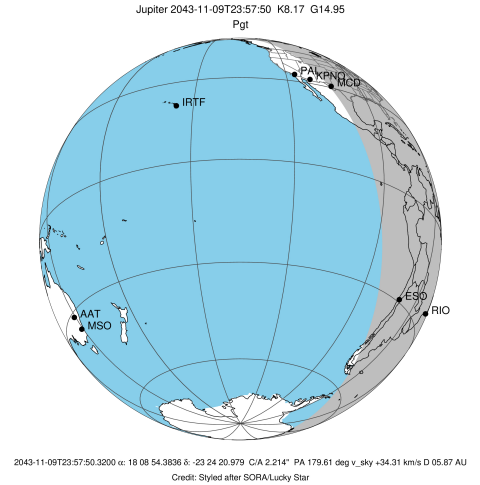


x: target alt < 5.0 deg or sun > -5.0 deg

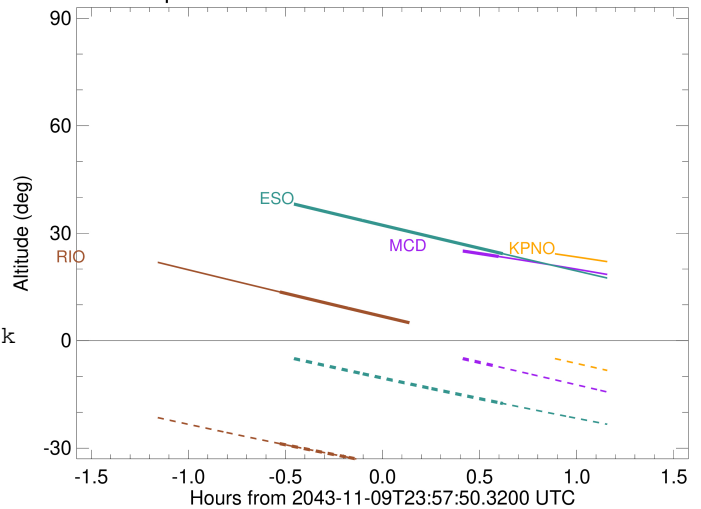
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-11-09T23:26:07.019	13.60	-28.74	71492.0	4.49	5.13
Jupiter	E	2043-11-10T00:35:11.804	-1.10x	-40.34	71491.9	6.74	7.70

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-11-10T00:00:18.410
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       : 4066523178190170112
2Mass ID (if available) : 18085438-2324209
ICRS Star Coord at Epoch: 18h 08m 54.38360s -23:24:20.97899s
RUWE (>1.4 is poor) : 1.15
K magnitude           : 8.170
G magnitude           : 14.951
RP magnitude         : 13.445
BP magnitude         : 18.182
DUPflag              : 0
Distance (au)        : 5.867
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 34.31
Sun-Target sep (deg) : 45.18
Sun-Moon sep (deg)  : 44.60
B (ring opening deg) : -2.04
PA of pole (deg)    : -1.80
Pole direction: RA (deg): 268.05676
Dec (deg): 64.49731
C/A sky separation (") : 1.755
C/A sky separation (km) : 7467.4
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 2043-11-09T23:57:50 K8.17 G14.95



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	2043-11-09T23:25:33.783	39.19	-4.01x	71492.0	4.82	5.51
Jupiter	E	2043-11-10T00:34:59.074	24.28	-17.52	71491.9	7.14	8.15