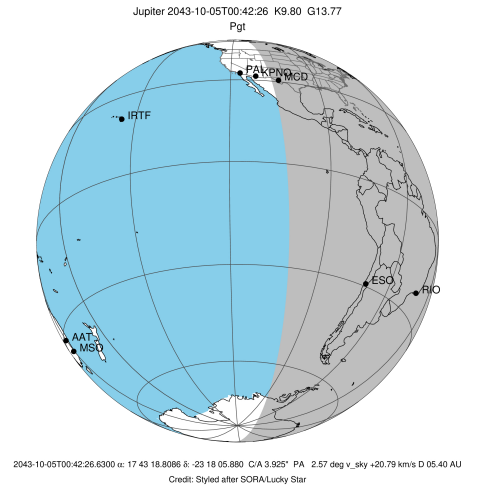
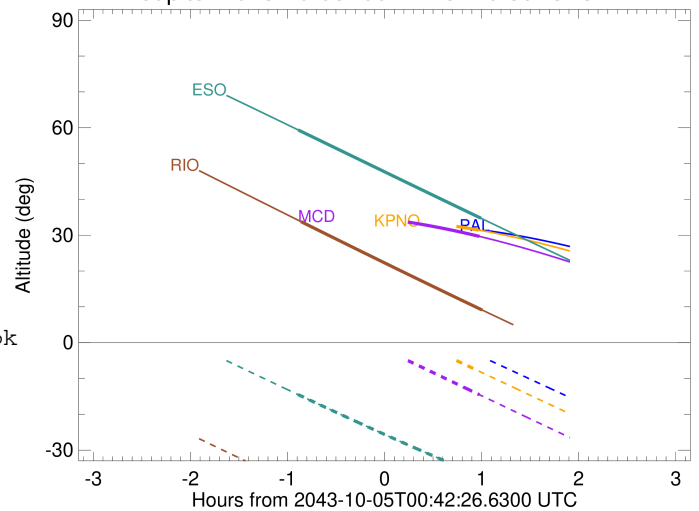



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-10-05T00:42:44.710
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      : 4068814663552676224
2Mass ID (if available) : 17431882-2318055
ICRS Star Coord at Epoch: 17h 43m 18.80858s -23:18:05.88009s
RUWE (>1.4 is poor) : 0.93
K magnitude          : 9.804
G magnitude          : 13.772
RP magnitude         : 12.688
BP magnitude         : 14.981
DUPflag             : 0
Distance (au)       : 5.396
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : 20.79
Sun-Target sep (deg) : 75.09
Sun-Moon sep (deg)  : 54.29
B (ring opening deg) : -2.18
PA of pole (deg)    : 0.96
Pole direction: RA (deg): 268.05674
Dec (deg): 64.49731
C/A sky separation ("): 2.579
C/A sky separation (km) : 10092.0
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 2043-10-05T00:42:26 K9.80 G13.77

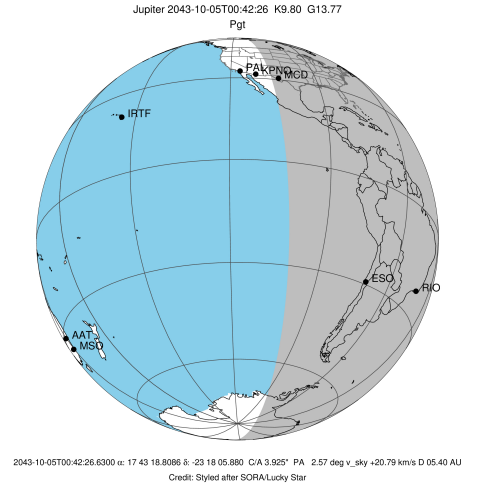


x: target alt < 5.0 deg or sun > -5.0 deg

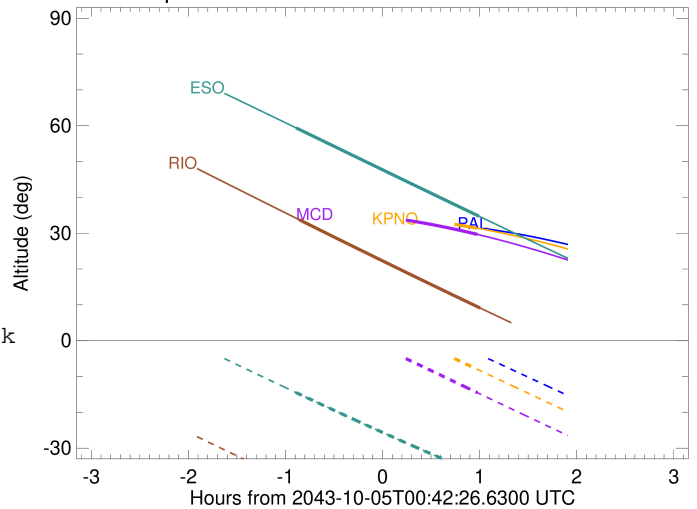
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-10-04T23:44:53.724	34.32	16.37x	71491.8	-9.77	-11.14
Jupiter	E	2043-10-05T01:40:30.764	31.44	-7.88	71491.9	-6.56	-7.49

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-05T00:43:19.850
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        : 4068814663552676224
2Mass ID (if available) : 17431882-2318055
ICRS Star Coord at Epoch: 17h 43m 18.80858s -23:18:05.88009s
RUWE (>1.4 is poor) : 0.93
K magnitude           : 9.804
G magnitude           : 13.772
RP magnitude          : 12.688
BP magnitude          : 14.981
DUPflag              : 0
Distance (au)         : 5.396
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 20.79
Sun-Target sep (deg) : 75.09
Sun-Moon sep (deg)   : 54.35
B (ring opening deg) : -2.18
PA of pole (deg)     : 0.96
Pole direction: RA (deg): 268.05674
Dec (deg): 64.49731
C/A sky separation (") : 2.605
C/A sky separation (km) : 10196.7
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 2043-10-05T00:42:26 K9.80 G13.77

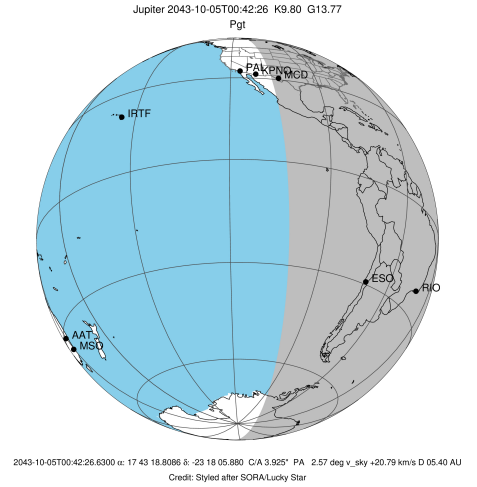


x: target alt < 5.0 deg or sun > -5.0 deg

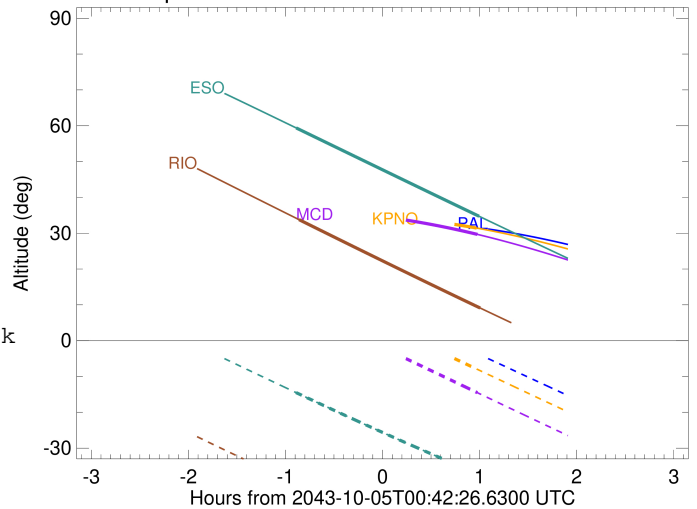
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-10-04T23:45:29.036	36.17	10.27x	71491.8	-9.80	-11.17
Jupiter	E	2043-10-05T01:41:03.457	29.67	-14.51	71491.9	-6.71	-7.66

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-05T00:46:57.340
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        : 4068814663552676224
2Mass ID (if available) : 17431882-2318055
ICRS Star Coord at Epoch: 17h 43m 18.80858s -23:18:05.88009s
RUWE (>1.4 is poor) : 0.93
K magnitude           : 9.804
G magnitude           : 13.772
RP magnitude          : 12.688
BP magnitude          : 14.981
DUPflag              : 0
Distance (au)         : 5.396
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 20.79
Sun-Target sep (deg) : 75.09
Sun-Moon sep (deg)   : 54.55
B (ring opening deg) : -2.18
PA of pole (deg)     : 0.96
Pole direction: RA (deg): 268.05674
Dec (deg): 64.49731
C/A sky separation (") : 4.289
C/A sky separation (km) : 16785.2
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
    
```



Jupiter 2043-10-05T00:42:26 K9.80 G13.77

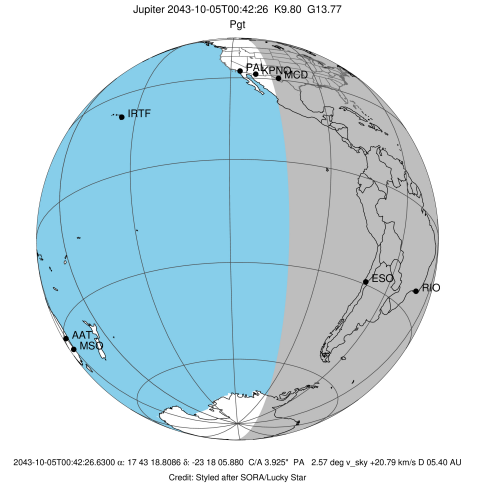


x: target alt < 5.0 deg or sun > -5.0 deg

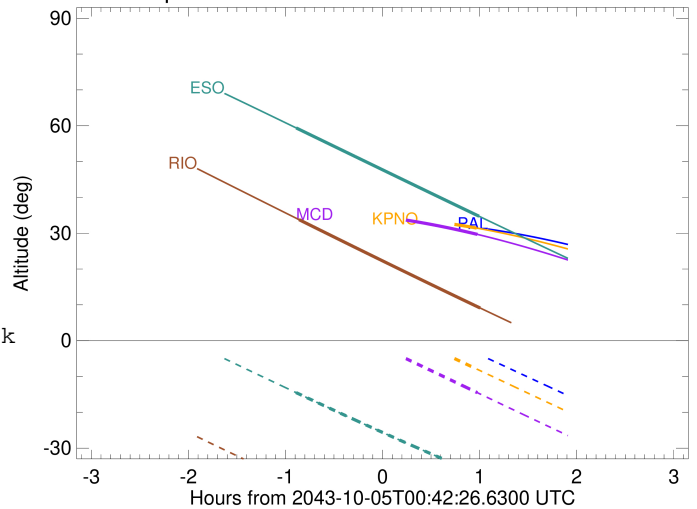
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-10-04T23:50:47.749	33.79	-40.17	71491.6	-14.76	-16.75
Jupiter	E	2043-10-05T01:42:47.560	9.12	-59.09	71491.7	-12.42	-14.13

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-05T00:45:43.500
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        : 4068814663552676224
2Mass ID (if available) : 17431882-2318055
ICRS Star Coord at Epoch: 17h 43m 18.80858s -23:18:05.88009s
RUWE (>1.4 is poor) : 0.93
K magnitude           : 9.804
G magnitude           : 13.772
RP magnitude          : 12.688
BP magnitude          : 14.981
DUPflag              : 0
Distance (au)         : 5.396
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 20.79
Sun-Target sep (deg)  : 75.09
Sun-Moon sep (deg)    : 54.69
B (ring opening deg) : -2.18
PA of pole (deg)      : 0.96
Pole direction: RA (deg): 268.05674
Dec (deg): 64.49731
C/A sky separation (") : 4.223
C/A sky separation (km) : 16527.0
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 2043-10-05T00:42:26 K9.80 G13.77



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	2043-10-04T23:49:06.542	59.37	-14.51	71491.6	-14.71	-16.70
Jupiter	E	2043-10-05T01:42:05.296	34.73	-37.20	71491.7	-12.09	-13.76