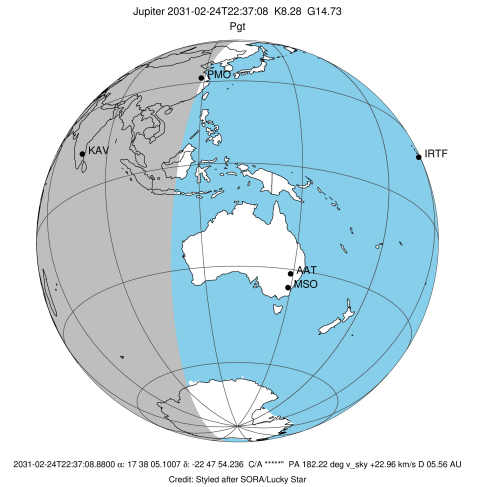
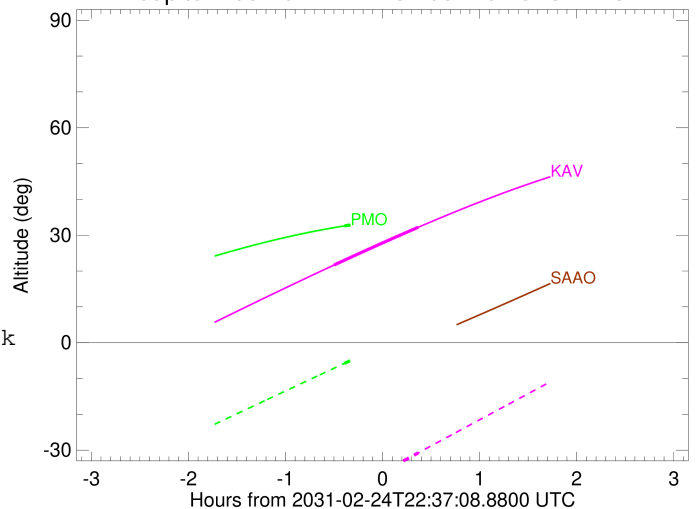



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2031-02-24T22:36:03.930
Event type          : Pgt
                    : Jupiter occs: geocentric, topocentric
                    : Not a ringed target
Observer code       : PMO
Location            : Purple Mtn Obs. Nanking
Latitude (deg)      : 32.06667
E. Longitude (deg)  : 118.82089
Altitude (km)       : 0.364
Gaia source ID      : 4116765327696859392
2Mass ID (if available) : 17380511-2247542
ICRS Star Coord at Epoch: 17h 38m 05.10066s -22:47:54.23621s
RUWE (>1.4 is poor) : 0.92
K magnitude          : 8.284
G magnitude          : 14.733
RP magnitude         : 13.240
BP magnitude         : 17.963
DUPflag             : 0
Distance (au)       : 5.561
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 22.96
Sun-Target sep (deg) : 70.74
Sun-Moon sep (deg)   : 113.02
B (ring opening deg) : -2.66
PA of pole (deg)     : 1.52
Pole direction: RA (deg): 268.05701
Dec (deg): 64.49651
C/A sky separation (") : 16.037
C/A sky separation (km) : 64676.7
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 2031-02-24T22:37:08 K8.28 G14.73

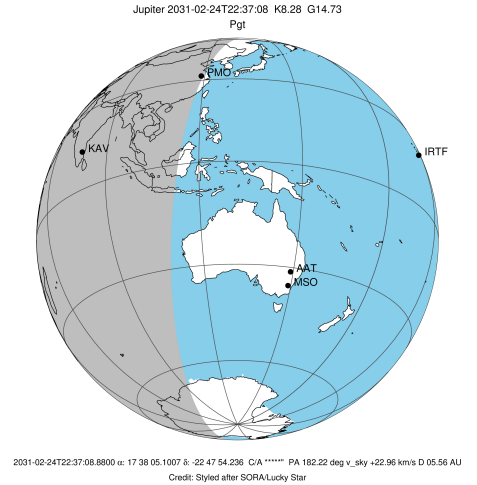


x: target alt < 5.0 deg or sun > -5.0 deg

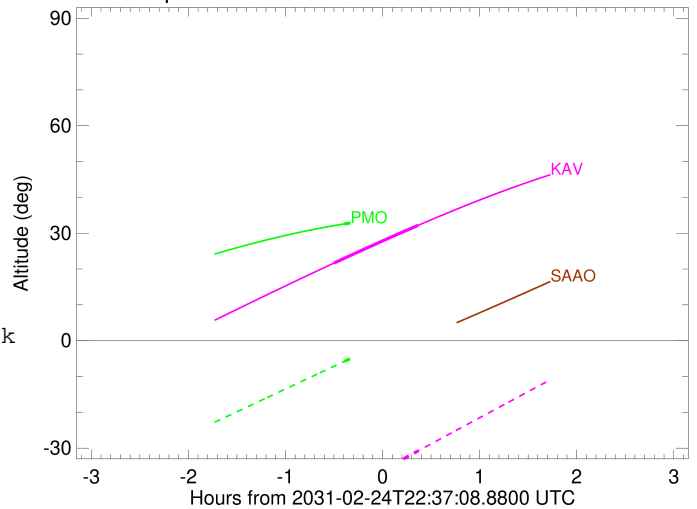
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2031-02-24T22:13:35.145	32.59	-5.78	71484.2	63.83	66.61
Jupiter	E	2031-02-24T22:58:33.712	34.89	3.62x	71484.0	65.45	68.09

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2031-02-24T22:33:09.550
Event type           : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code        : KAV
Location             : Kavalur Observatory
Latitude (deg)       : 12.57556
E. Longitude (deg)   : 78.83167
Altitude (km)        : 0.722
Gaia source ID       : 4116765327696859392
2Mass ID (if available) : 17380511-2247542
ICRS Star Coord at Epoch: 17h 38m 05.10066s -22:47:54.23621s
RUWE (>1.4 is poor) : 0.92
K magnitude          : 8.284
G magnitude          : 14.733
RP magnitude         : 13.240
BP magnitude         : 17.963
DUPflag             : 0
Distance (au)        : 5.561
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 22.96
Sun-Target sep (deg) : 70.74
Sun-Moon sep (deg)   : 112.72
B (ring opening deg) : -2.66
PA of pole (deg)     : 1.52
Pole direction: RA (deg): 268.05701
Dec (deg): 64.49651
C/A sky separation (") : 15.400
C/A sky separation (km) : 62109.0
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 2031-02-24T22:37:08 K8.28 G14.73



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	2031-02-24T22:07:11.477	21.67	-43.45	71484.9	59.13	62.25
Jupiter	E	2031-02-24T22:59:11.173	32.20	-30.77	71484.6	61.27	64.25