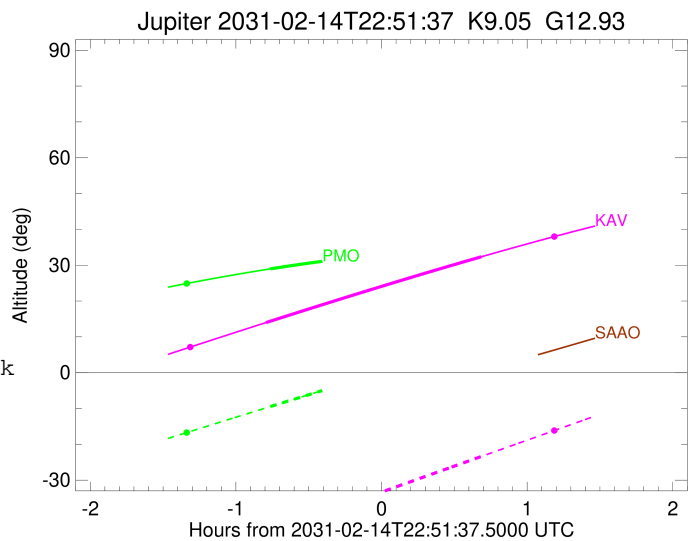
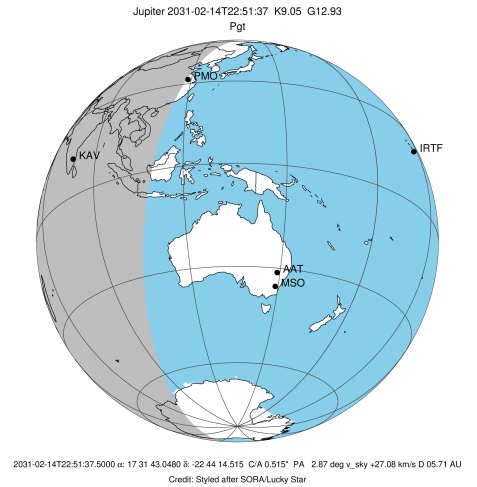



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2031-02-14T22:50:29.430
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       : 4117450460859464704
2Mass ID (if available) : 17314306-2244140
ICRS Star Coord at Epoch: 17h 31m 43.04804s -22:44:14.51476s
RUWE (>1.4 is poor) : 0.86
K magnitude           : 9.055
G magnitude           : 12.930
RP magnitude          : 11.816
BP magnitude          : 14.188
DUPflag              : 0
Distance (au)        : 5.710
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 27.08
Sun-Target sep (deg) : 62.13
Sun-Moon sep (deg)   : 27.93
B (ring opening deg) : -2.67
PA of pole (deg)     : 2.21
Pole direction: RA (deg): 268.05702
Dec (deg): 64.49651
C/A sky separation (") : 0.708
C/A sky separation (km) : 2931.7
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
    
```

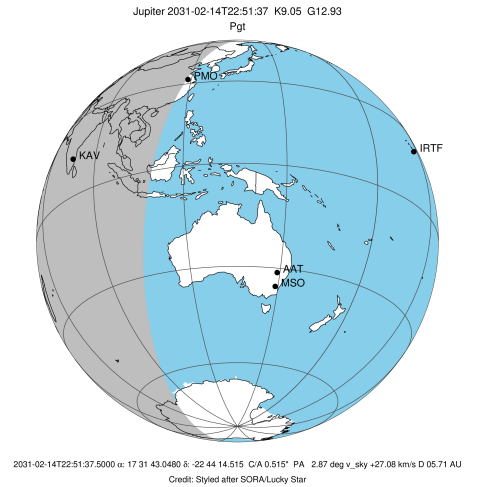


x: target alt < 5.0 deg or sun > -5.0 deg

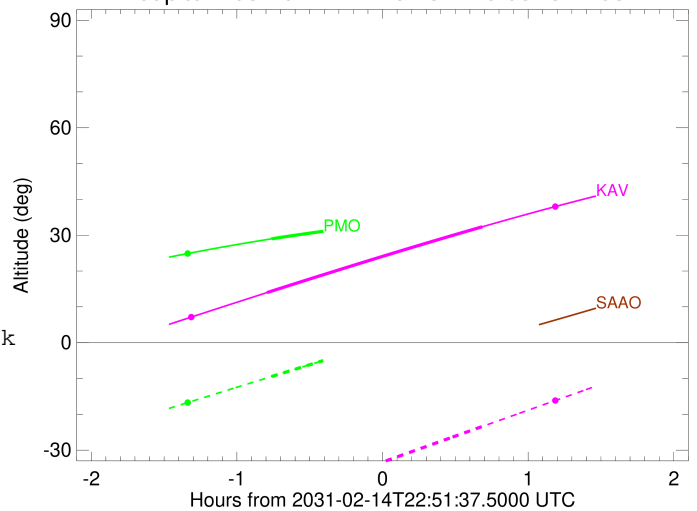
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2031-02-14T22:05:56.940	28.99	-9.44	71492.0	1.52	1.74
Jupiter	E	2031-02-14T23:35:05.777	35.05	8.81x	71492.0	3.11	3.56

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2031-02-14T22:48:18.830
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        : 4117450460859464704
2Mass ID (if available) : 17314306-2244140
ICRS Star Coord at Epoch: 17h 31m 43.04804s -22:44:14.51476s
RUWE (>1.4 is poor)  : 0.86
K magnitude           : 9.055
G magnitude           : 12.930
RP magnitude          : 11.816
BP magnitude          : 14.188
DUPflag              : 0
Distance (au)         : 5.710
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 27.08
Sun-Target sep (deg)  : 62.13
Sun-Moon sep (deg)    : 27.36
B (ring opening deg)  : -2.67
PA of pole (deg)      : 2.21
Pole direction: RA (deg): 268.05702
Dec (deg): 64.49651
C/A sky separation (") : 0.053
C/A sky separation (km) : 217.8
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 2031-02-14T22:51:37 K9.05 G12.93



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	2031-02-14T22:04:00.551	13.97	-44.88	71492.0	-0.84	-0.96
Jupiter	E	2031-02-14T23:32:45.995	32.35	-23.39	71492.0	1.16	1.32