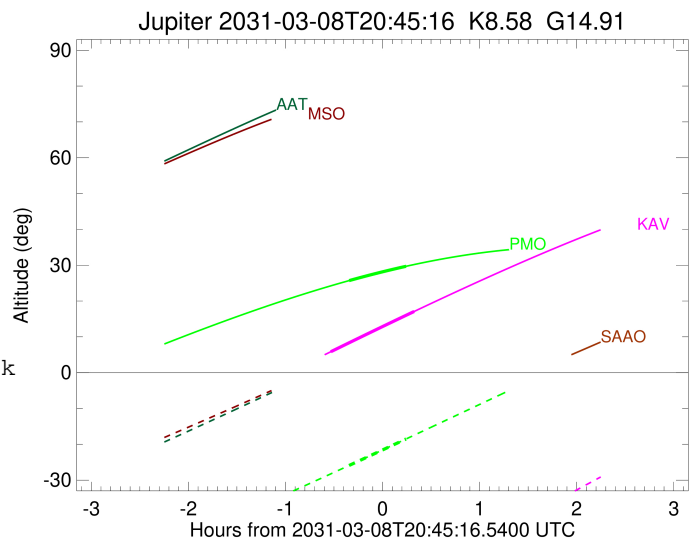
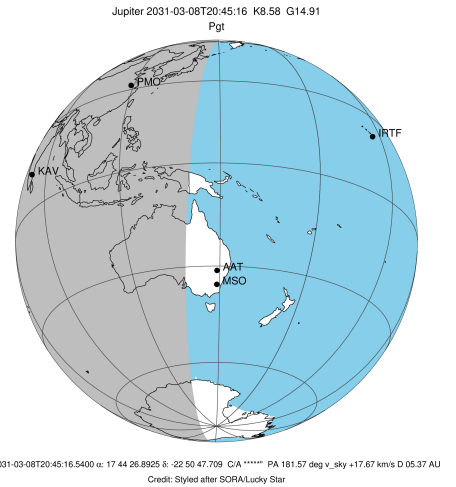



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2031-03-08T20:42:13.380
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      : 4116893283378521088
2Mass ID (if available) : 17442690-2250473
ICRS Star Coord at Epoch: 17h 44m 26.89245s -22:50:47.70871s
RUWE (>1.4 is poor) : 1.02
K magnitude          : 8.578
G magnitude          : 14.912
RP magnitude         : 13.400
BP magnitude         : 18.254
DUPflag             : 0
Distance (au)       : 5.373
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : 17.67
Sun-Target sep (deg) : 81.23
Sun-Moon sep (deg)  : 103.18
B (ring opening deg) : -2.64
PA of pole (deg)    : 0.84
Pole direction: RA (deg): 268.05700
Dec (deg): 64.49651
C/A sky separation (" ) : 17.736
C/A sky separation (km) : 69117.2
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
    
```

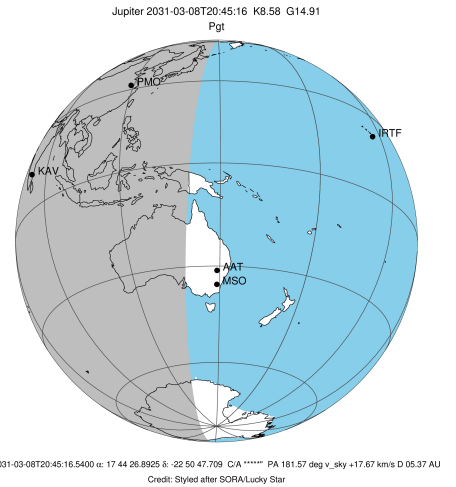


x: target alt < 5.0 deg or sun > -5.0 deg

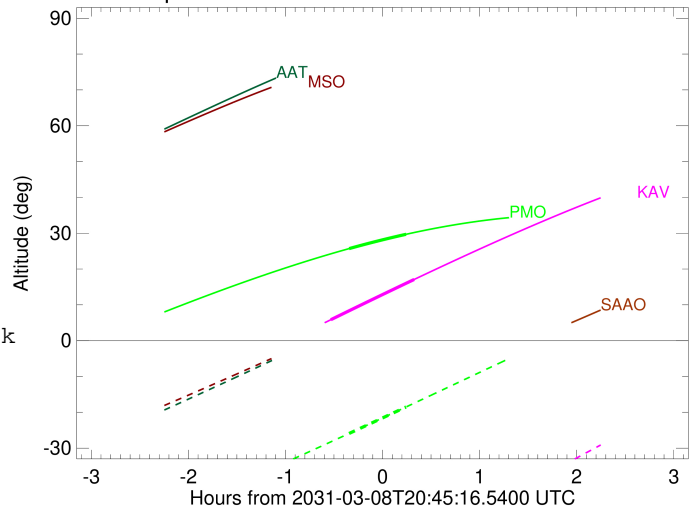
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2031-03-08T20:24:41.060	25.70	-25.89	71483.2	73.97	75.79
Jupiter	E	2031-03-08T20:59:47.028	29.68	-18.52	71483.0	75.97	77.58

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2031-03-08T20:39:03.070
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        : 4116893283378521088
2Mass ID (if available) : 17442690-2250473
ICRS Star Coord at Epoch: 17h 44m 26.89245s -22:50:47.70871s
RUWE (>1.4 is poor) : 1.02
K magnitude           : 8.578
G magnitude           : 14.912
RP magnitude          : 13.400
BP magnitude          : 18.254
DUPflag              : 0
Distance (au)         : 5.373
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 17.67
Sun-Target sep (deg) : 81.23
Sun-Moon sep (deg)   : 103.06
B (ring opening deg) : -2.64
PA of pole (deg)     : 0.84
Pole direction: RA (deg): 268.05700
Dec (deg): 64.49651
C/A sky separation (") : 16.980
C/A sky separation (km) : 66171.7
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 2031-03-08T20:45:16 K8.58 G14.91



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	2031-03-08T20:13:23.307	5.86	-69.23	71484.0	66.34	68.90
Jupiter	E	2031-03-08T21:04:48.006	17.07	-57.11	71483.7	68.89	71.22