

target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2032-02-29T23:19:29.880
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 6868064649507010944
 2Mass ID (if available) : 19393052-2133408

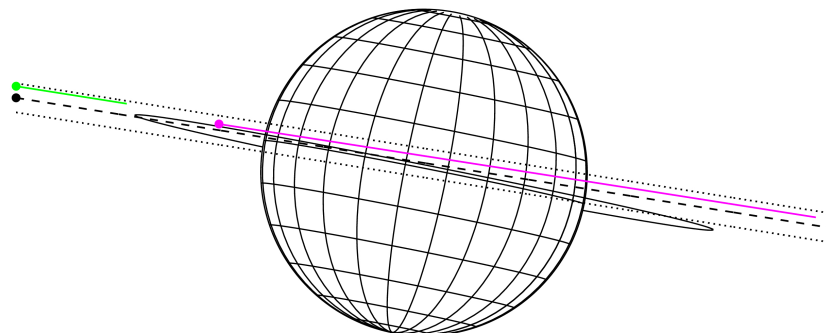
Jupiter 2032-02-29T23:19:29 K9.37 G10.43 Pgt

ICRS Star Coord at Epoch: 19h 39m 30.54052s -21:33:41.35328s
 RUWE (>1.4 is poor) : 1.24
 K magnitude : 9.365
 G magnitude : 10.427
 RP magnitude : 10.029
 BP magnitude : 10.673
 DUPflag : 0
 Distance (au) : 5.806
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 33.68
 Sun-Target sep (deg) : 47.45
 Sun-Moon sep (deg) : 91.65
 B (ring opening deg) : -1.47
 PA of pole (deg) : -11.21
 Pole direction: RA (deg): 268.05671
 Dec (deg): 64.49653
 C/A sky separation (") : 0.982
 C/A sky separation (km) : 4134.8
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk



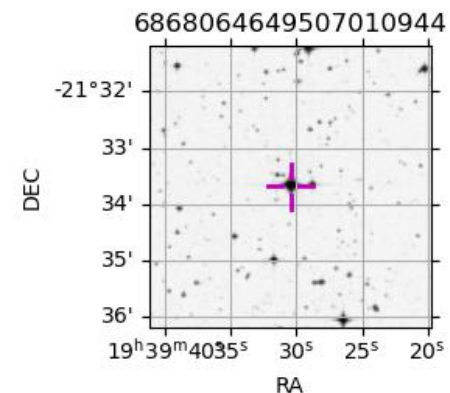
2032-02-29T23:19:29.8800 ex: 19 39 30.5405 s: -21 33 41.353 C/A 0.975° PA 170.91 deg v_sky +33.68 km/s D 05.81 AU
 Credit: Styled after SORA/Lucky Star

Earth
 PMO
 KAV



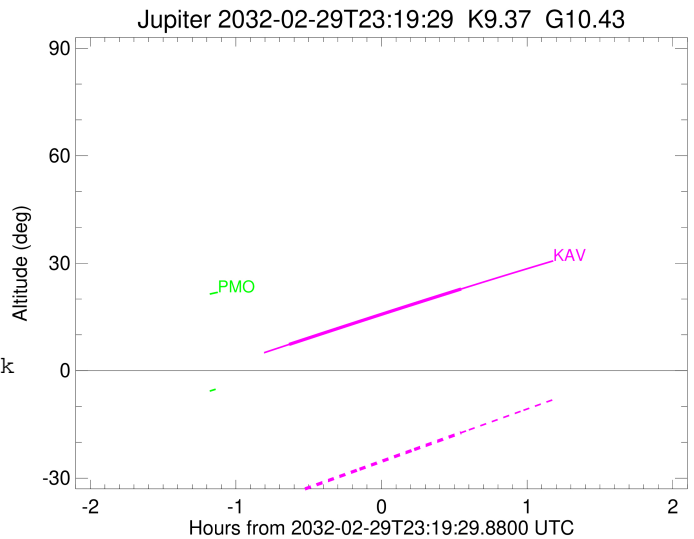
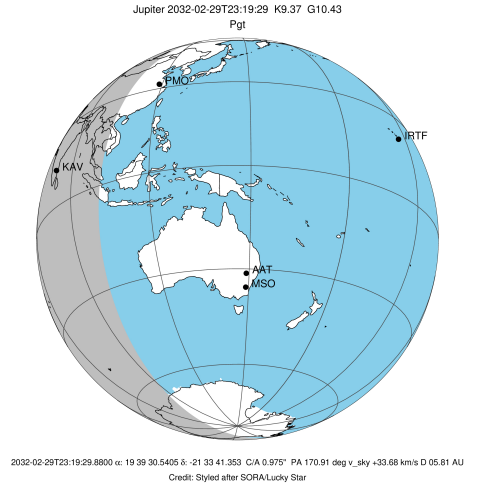
Observable events with sun below -5 deg and altitude above 5 deg

| Obs | Location | lat | Elon | Target | Observed Events Interval | OCode |
|------|-----------------------------------|-------|-------|--------|-----------------------------|-------|
| PIC | Pic du Midi | 42.9 | 0.1 | | | Pnn |
| PAL | Palomar Mt (200") | 33.4 | 243.1 | | | Pnn |
| PMO | Purple Mtn Obs. Nanking | 32.1 | 118.8 | | | Pnn |
| KPNO | Kitt Peak Natl Obs | 32.0 | 248.4 | | | Pnn |
| MCD | McDonald Obs. 2.7m | 30.7 | 256.0 | | | Pnn |
| TEN | Teide Obs./Tenerife | 28.3 | 343.5 | | | Pnn |
| IRTF | Mauna Kea/IRTF | 19.8 | 204.5 | | | Pnn |
| KAV | Kavalur Observatory | 12.6 | 78.8 | + + | FEB 29 22:41 - FEB 29 23:52 | Pie |
| RIO | Rio de Janeiro | -22.9 | 316.8 | | | Pnn |
| ESO | European Southern Obs. (3.6m) | -29.3 | 289.3 | | | Pnn |
| AAT | Siding Spring (AAT) | -31.3 | 149.1 | | | Pnn |
| SAAO | So. Afr. Astro. Obs. (Sutherland) | -32.4 | 20.8 | | | Pnn |
| MSO | Mt. Stromlo Observatory | -35.3 | 149.0 | | | Pnn |



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2032-02-29T23:16:50.110
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      : 6868064649507010944
2Mass ID (if available) : 19393052-2133408
ICRS Star Coord at Epoch: 19h 39m 30.54052s -21:33:41.35328s
RUWE (>1.4 is poor) : 1.24
K magnitude          : 9.365
G magnitude          : 10.427
RP magnitude         : 10.029
BP magnitude         : 10.673
DUPflag             : 0
Distance (au)       : 5.806
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 33.68
Sun-Target sep (deg) : 47.45
Sun-Moon sep (deg)  : 91.92
B (ring opening deg) : -1.47
PA of pole (deg)    : -11.21
Pole direction: RA (deg): 268.05671
Dec (deg): 64.49653
C/A sky separation (" ) : 1.703
C/A sky separation (km) : 7173.6
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 | 2032-02-29T22:41:28.187 | 7.33 | -34.59 | 71492.0 | 3.39 | 3.88 |
| Jupiter | E | 2032-02-29T23:52:16.601 | 22.79 | -17.32 | 71491.9 | 8.08 | 9.22 |