

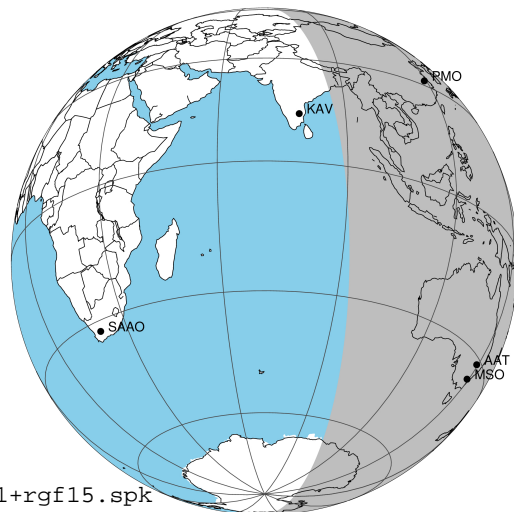
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-10-10T11:49:58.590
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4068778547074248192
 2Mass ID (if available) : 17462954-2320046

Jupiter 2043-10-10T11:49:58 K9.84 G14.74 Pgt

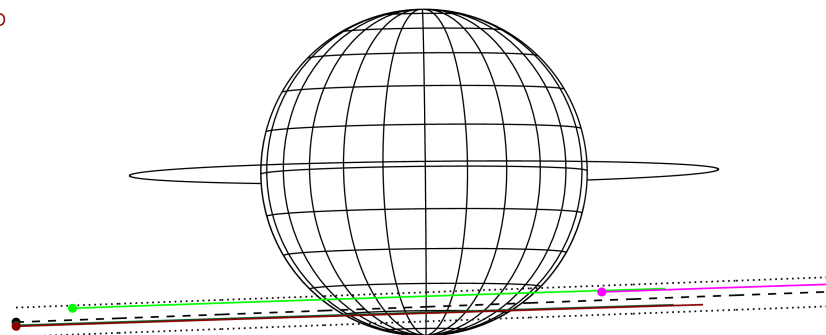
ICRS Star Coord at Epoch: 17h 46m 29.52925s -23:20:04.83893s

RUWE (>1.4 is poor) : 1.00
 K magnitude : 9.838
 G magnitude : 14.740
 RP magnitude : 13.486
 BP magnitude : 16.485
 DUPflag : 0
 Distance (au) : 5.476
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 23.13
 Sun-Target sep (deg) : 70.43
 Sun-Moon sep (deg) : 11.86
 B (ring opening deg) : -2.16
 PA of pole (deg) : 0.62
 Pole direction: RA (deg): 268.05675
 Dec (deg): 64.49731
 C/A sky separation (") : 14.814
 C/A sky separation (km) : 58834.1
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2043-10-10T11:49:58 K9.84 G14.74
 Pgt



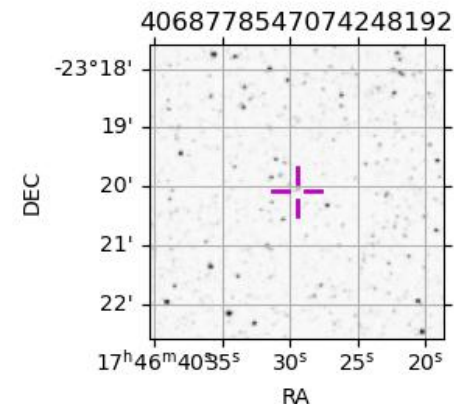
Earth
 PMO
 KAV
 AAT
 MSO



2043-10-10T11:49:58.5900 α: 17 46 29.5292 δ: -23 20 04.839 C/A ***** PA 2.14 deg v_sky +23.13 km/s D 05.48 AU
 Credit: Styled after SORA/Lucky Star

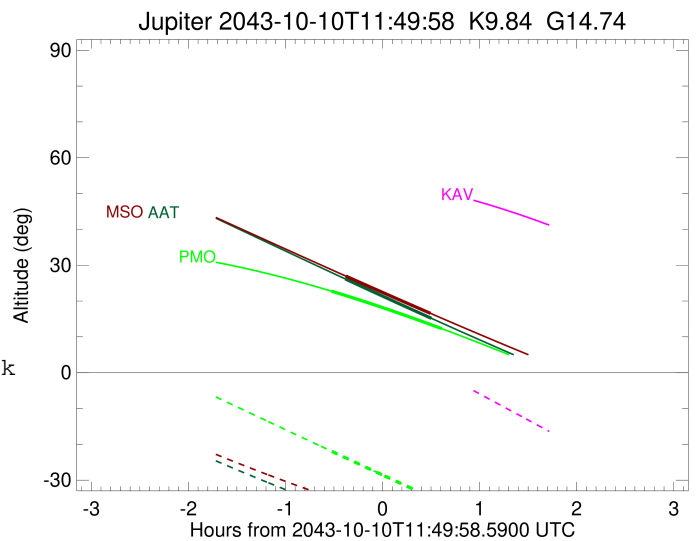
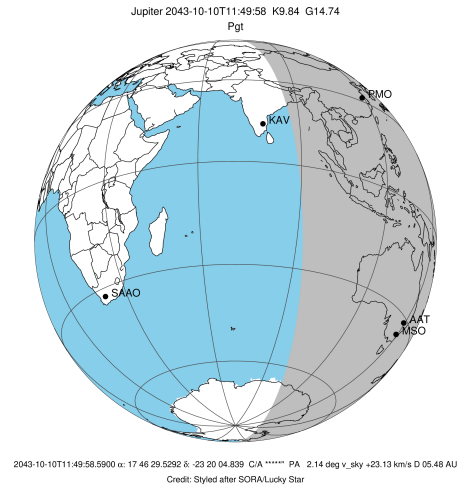
Observable events with sun below -5 deg and altitude above 5 deg

| Obs | Location | lat | Elon | Target | Observed Events Interval | OEcode |
|------|-----------------------------------|-------|-------|--------|-----------------------------|--------|
| 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 | + + | OCT 10 11:18 - OCT 10 12:26 | Pie |
| 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 | | | Pnn |
| 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 | + + | OCT 10 11:26 - OCT 10 12:20 | Pie |
| SAAO | So. Afr. Astro. Obs. (Sutherland) | -32.4 | 20.8 | | | Pnn |
| MSO | Mt. Stromlo Observatory | -35.3 | 149.0 | + + | OCT 10 11:27 - OCT 10 12:19 | Pie |



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-10T11:52:36.670
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       : 4068778547074248192
2Mass ID (if available) : 17462954-2320046
ICRS Star Coord at Epoch: 17h 46m 29.52925s -23:20:04.83893s
RUWE (>1.4 is poor) : 1.00
K magnitude           : 9.838
G magnitude           : 14.740
RP magnitude          : 13.486
BP magnitude          : 16.485
DUPflag              : 0
Distance (au)        : 5.476
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 23.13
Sun-Target sep (deg) : 70.43
Sun-Moon sep (deg)   : 11.74
B (ring opening deg) : -2.16
PA of pole (deg)     : 0.62
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (") : 13.646
C/A sky separation (km) : 54197.5
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
    
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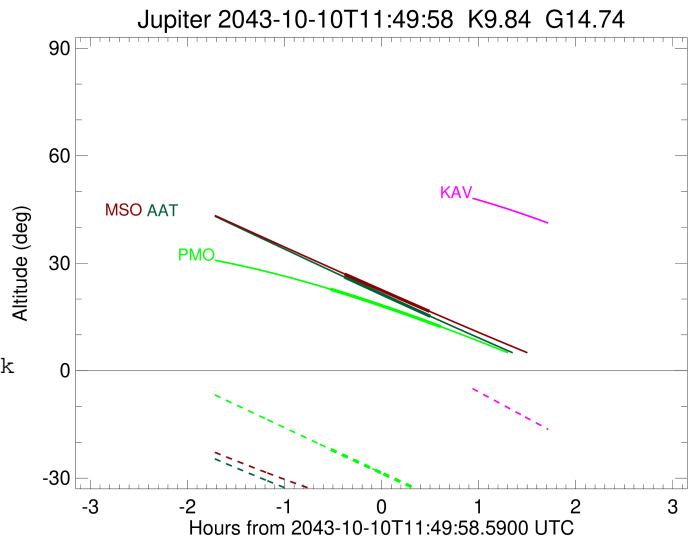
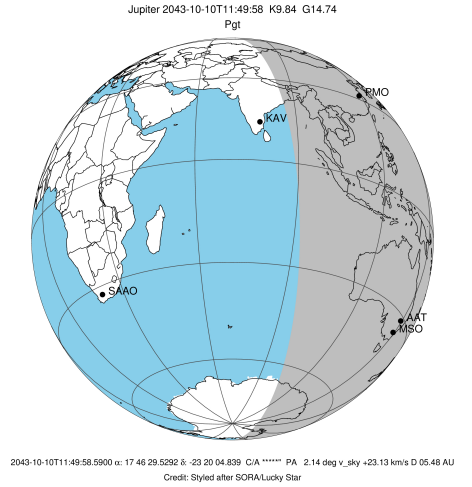


x: target alt < 5.0 deg or sun > -5.0 deg

| Target | I/E | UTC | alt | alt-sun | radius | lat-geo | lat-geodetic |
|---------|-----|-------------------------|-------|---------|---------|---------|--------------|
| Jupiter | I | 2043-10-10T11:18:36.664 | 22.72 | -21.96 | 71488.2 | -50.52 | -54.09 |
| Jupiter | E | 2043-10-10T12:26:31.896 | 12.30 | -36.11 | 71488.5 | -48.02 | -51.67 |

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-10T11:53:36.390
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : AAT
Location              : Siding Spring (AAT)
Latitude (deg)        : -31.27703
E. Longitude (deg)    : 149.06608
Altitude (km)         : 1.164
Gaia source ID        : 4068778547074248192
2Mass ID (if available) : 17462954-2320046
ICRS Star Coord at Epoch: 17h 46m 29.52925s -23:20:04.83893s
RUWE (>1.4 is poor) : 1.00
K magnitude           : 9.838
G magnitude           : 14.740
RP magnitude          : 13.486
BP magnitude          : 16.485
DUPflag              : 0
Distance (au)         : 5.476
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 23.13
Sun-Target sep (deg)  : 70.43
Sun-Moon sep (deg)    : 11.09
B (ring opening deg) : -2.16
PA of pole (deg)      : 0.62
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (") : 15.428
C/A sky separation (km) : 61276.0
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
    
```

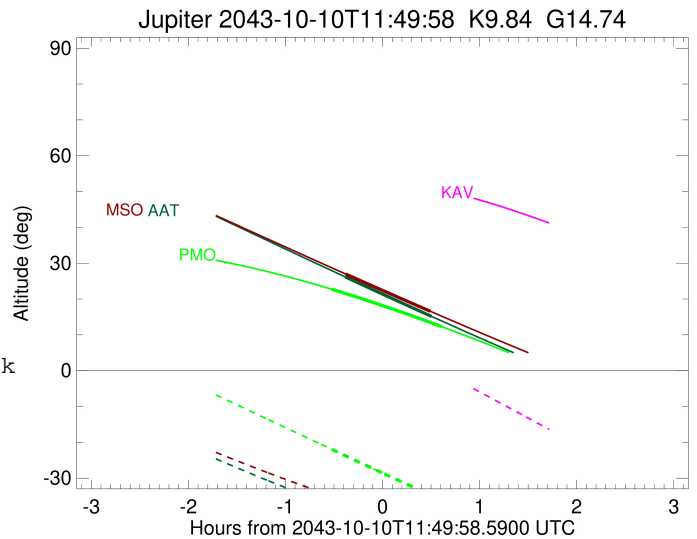
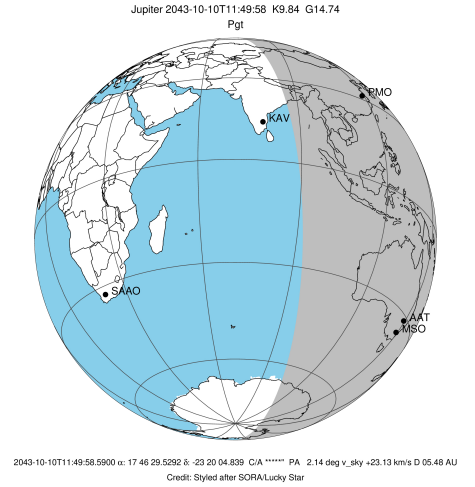


x: target alt < 5.0 deg or sun > -5.0 deg

| Target | I/E | UTC | alt | alt-sun | radius | lat-geo | lat-geodetic |
|---------|-----|-------------------------|-------|---------|---------|---------|--------------|
| Jupiter | I | 2043-10-10T11:26:57.670 | 26.16 | -38.93 | 71487.2 | -60.08 | -63.14 |
| Jupiter | E | 2043-10-10T12:20:11.452 | 15.17 | -46.43 | 71487.4 | -57.79 | -61.00 |

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-10T11:53:27.070
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : MSO
Location              : Mt. Stromlo Observatory
Latitude (deg)        : -35.32000
E. Longitude (deg)    : 149.00833
Altitude (km)         : 0.770
Gaia source ID        : 4068778547074248192
2Mass ID (if available) : 17462954-2320046
ICRS Star Coord at Epoch: 17h 46m 29.52925s -23:20:04.83893s
RUWE (>1.4 is poor) : 1.00
K magnitude           : 9.838
G magnitude           : 14.740
RP magnitude          : 13.486
BP magnitude          : 16.485
DUPflag              : 0
Distance (au)         : 5.476
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 23.13
Sun-Target sep (deg) : 70.43
Sun-Moon sep (deg)   : 11.10
B (ring opening deg) : -2.16
PA of pole (deg)     : 0.62
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (") : 15.521
C/A sky separation (km) : 61642.4
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 | 2043-10-10T11:27:15.421 | 26.97 | -36.20 | 71487.1 | -60.67 | -63.69 |
| Jupiter | E | 2043-10-10T12:19:35.311 | 16.57 | -42.94 | 71487.4 | -58.35 | -61.52 |