

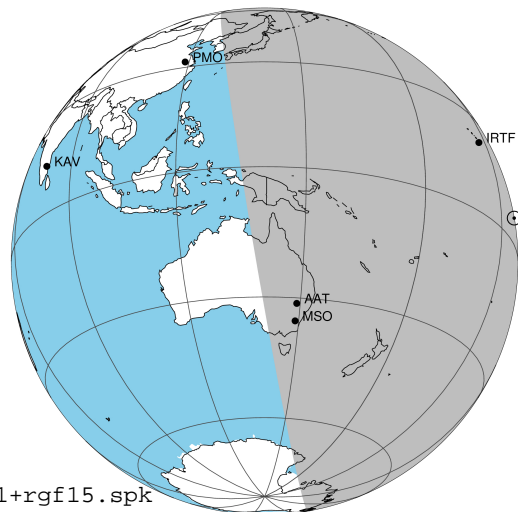
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2032-10-14T08:45:29.430
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 6771921630489616384
 2Mass ID (if available) : 19393370-2200596

Jupiter 2032-10-14T08:45:29 K9.48 G11.99 Pgt

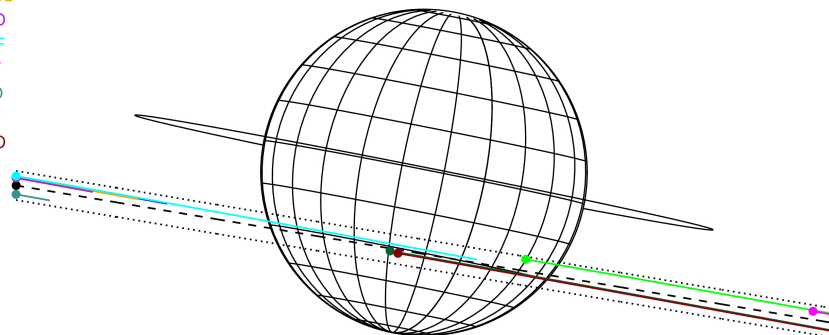
ICRS Star Coord at Epoch: 19h 39m 33.70785s -22:00:59.80879s

RUWE (>1.4 is poor) : 0.90
 K magnitude : 9.479
 G magnitude : 11.995
 RP magnitude : 11.238
 BP magnitude : 12.626
 DUPflag : 0
 Distance (au) : 4.977
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 12.45
 Sun-Target sep (deg) : 91.86
 Sun-Moon sep (deg) : 27.79
 B (ring opening deg) : -1.02
 PA of pole (deg) : -11.21
 Pole direction: RA (deg): 268.05657
 Dec (deg): 64.49657
 C/A sky separation (") : 9.766
 C/A sky separation (km) : 35249.8
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2032-10-14T08:45:29 K9.48 G11.99
 Pgt



Earth
 PAL
 PMO
 KPNO
 MCD
 IRTF
 KAV
 ESO
 AAT
 MSO

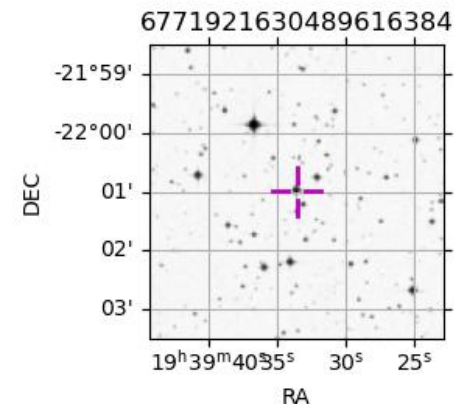


2032-10-14T08:45:29.4300 ex: 19 39 33.7079 s: -22 00 59.809 C/A 9.771" PA 350.45 deg v_sky +12.45 km/s D 04.98 AU

Credit: Styled after SORA/Lucky Star

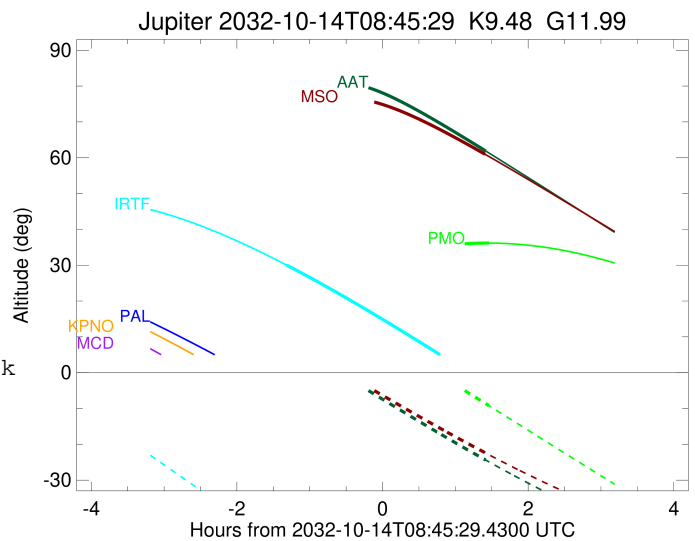
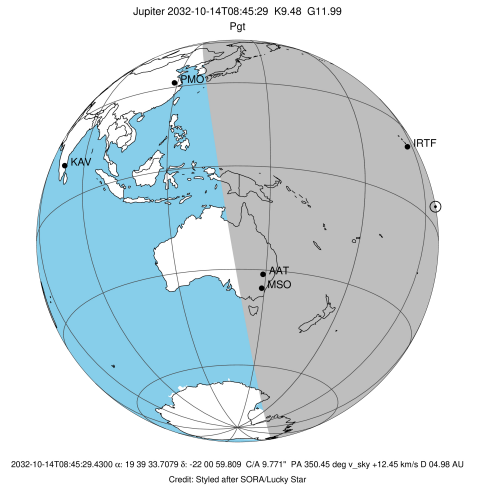
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	OEncode
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 14 10:13 - OCT 14 10:13	Pne
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	+	OCT 14 07:26 - OCT 14 07:26	Pin
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 14 10:10 - OCT 14 10:10	Pne
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+	OCT 14 10:09 - OCT 14 10:09	Pne



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2032-10-14T08:43:54.570
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      : 6771921630489616384
2Mass ID (if available) : 19393370-2200596
ICRS Star Coord at Epoch: 19h 39m 33.70785s -22:00:59.80879s
RUWE (>1.4 is poor) : 0.90
K magnitude          : 9.479
G magnitude          : 11.995
RP magnitude        : 11.238
BP magnitude        : 12.626
DUPflag            : 0
Distance (au)       : 4.977
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : 12.45
Sun-Target sep (deg) : 91.86
Sun-Moon sep (deg)  : 28.05
B (ring opening deg) : -1.02
PA of pole (deg)    : -11.21
Pole direction: RA (deg): 268.05657
Dec (deg): 64.49657
C/A sky separation (" ) : 8.307
C/A sky separation (km) : 29981.7
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
    
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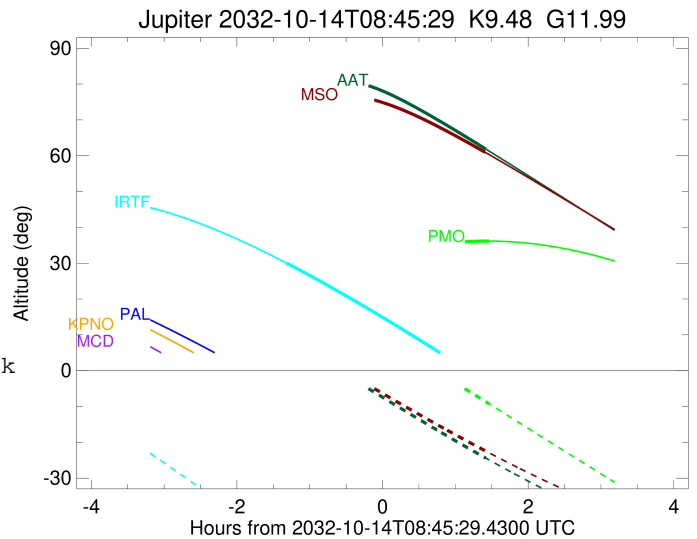
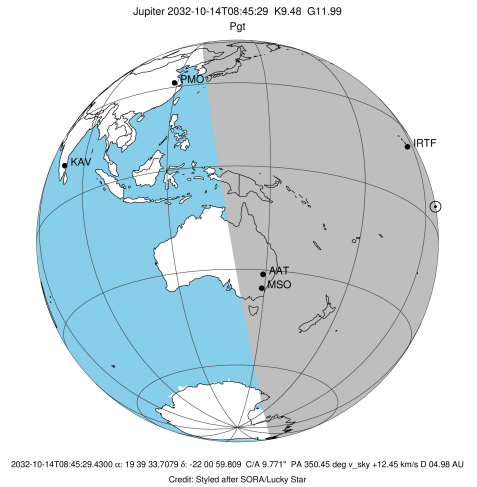


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2032-10-14T07:14:36.690	21.37	26.84x	71491.7	-26.56	-29.71
Jupiter	E	2032-10-14T10:13:19.573	36.17	-9.25	71491.8	-23.31	-26.20

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2032-10-14T08:52:44.030
Event type           : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code        : IRTF
Location             : Mauna Kea/IRTF
Latitude (deg)       : 19.82622
E. Longitude (deg)   : 204.52800
Altitude (km)        : 4.168
Gaia source ID       : 6771921630489616384
2Mass ID (if available) : 19393370-2200596
ICRS Star Coord at Epoch: 19h 39m 33.70785s -22:00:59.80879s
RUWE (>1.4 is poor) : 0.90
K magnitude           : 9.479
G magnitude           : 11.995
RP magnitude         : 11.238
BP magnitude         : 12.626
DUPflag              : 0
Distance (au)        : 4.977
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 12.45
Sun-Target sep (deg) : 91.86
Sun-Moon sep (deg)   : 27.05
B (ring opening deg) : -1.02
PA of pole (deg)     : -11.21
Pole direction: RA (deg): 268.05657
Dec (deg): 64.49657
C/A sky separation ("): 9.228
C/A sky separation (km): 33306.1
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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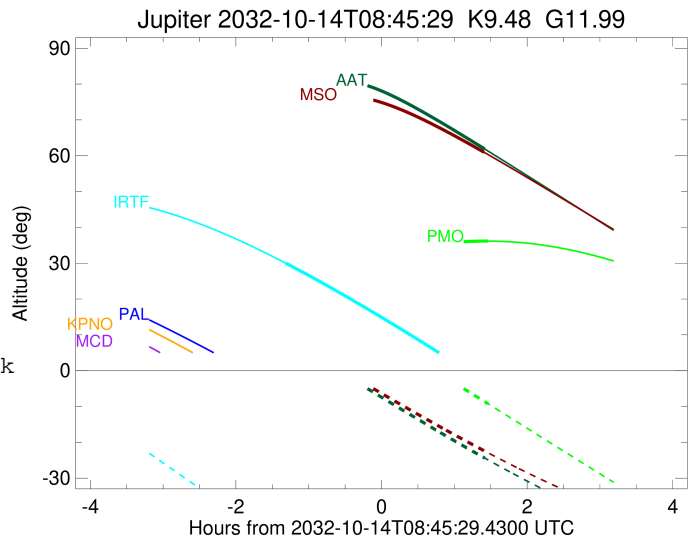
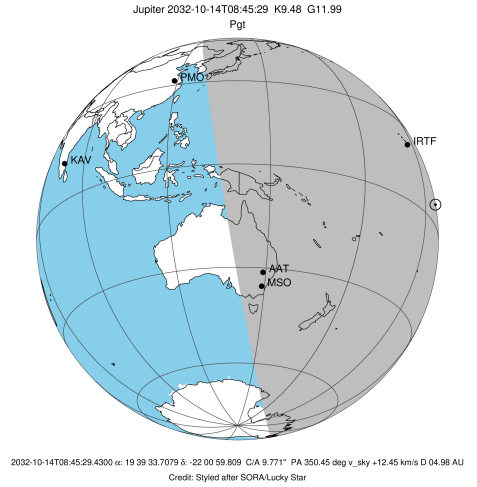


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2032-10-14T07:26:26.436	30.03	-49.39	71491.7	-28.61	-31.89
Jupiter	E	2032-10-14T10:17:48.138	-4.71x	-78.47	71491.7	-26.91	-30.08

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2032-10-14T08:45:58.790
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      : 6771921630489616384
2Mass ID (if available) : 19393370-2200596
ICRS Star Coord at Epoch: 19h 39m 33.70785s -22:00:59.80879s
RUWE (>1.4 is poor) : 0.90
K magnitude          : 9.479
G magnitude          : 11.995
RP magnitude         : 11.238
BP magnitude         : 12.626
DUPflag             : 0
Distance (au)       : 4.977
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : 12.45
Sun-Target sep (deg) : 91.86
Sun-Moon sep (deg)  : 28.20
B (ring opening deg) : -1.02
PA of pole (deg)    : -11.21
Pole direction: RA (deg): 268.05657
Dec (deg): 64.49657
C/A sky separation (" ) : 10.089
C/A sky separation (km) : 36413.3
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
    
```

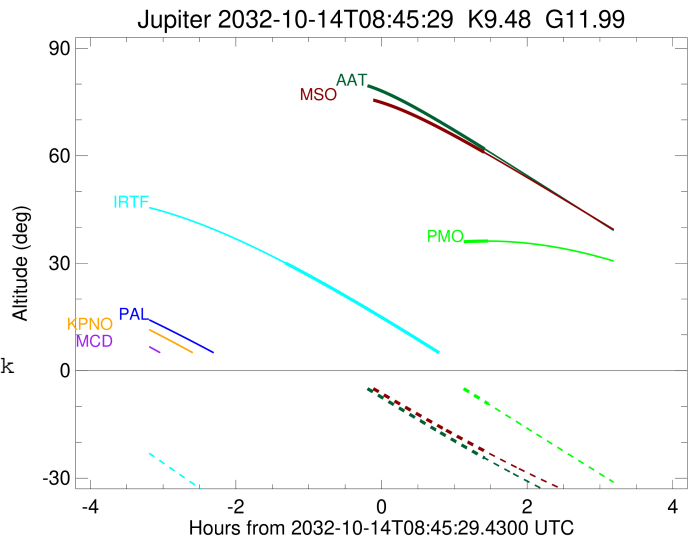
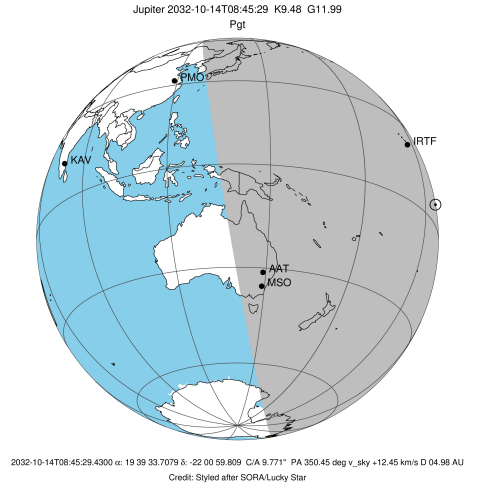


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2032-10-14T07:20:58.300	75.45	10.42x	71491.6	-31.98	-35.45
Jupiter	E	2032-10-14T10:10:34.687	61.87	-24.40	71491.7	-29.49	-32.83

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2032-10-14T08:45:50.060
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        : 6771921630489616384
2Mass ID (if available) : 19393370-2200596
ICRS Star Coord at Epoch: 19h 39m 33.70785s -22:00:59.80879s
RUWE (>1.4 is poor) : 0.90
K magnitude           : 9.479
G magnitude           : 11.995
RP magnitude          : 11.238
BP magnitude          : 12.626
DUPflag              : 0
Distance (au)         : 4.977
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 12.45
Sun-Target sep (deg) : 91.86
Sun-Moon sep (deg)   : 28.22
B (ring opening deg) : -1.02
PA of pole (deg)     : -11.21
Pole direction: RA (deg): 268.05657
Dec (deg): 64.49657
C/A sky separation ("): 10.206
C/A sky separation (km): 36837.2
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	2032-10-14T07:21:17.711	72.78	10.63x	71491.6	-32.39	-35.88
Jupiter	E	2032-10-14T10:09:58.737	60.96	-22.34	71491.6	-29.86	-33.22