

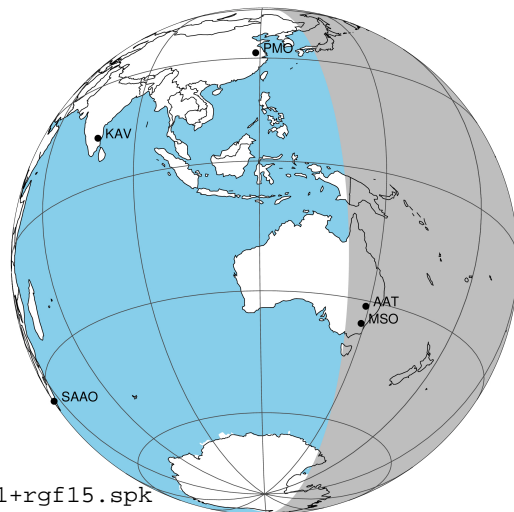
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-10-10T08:28:47.530
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4068778791910416384
 2Mass ID (if available) : 17462452-2319388

Jupiter 2043-10-10T08:28:47 K9.57 G14.94 Pgt

ICRS Star Coord at Epoch: 17h 46m 24.49528s -23:19:39.80524s

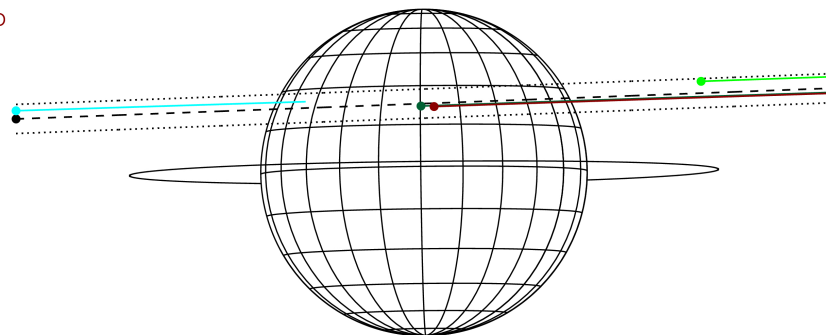
RUWE (>1.4 is poor) : 0.92
 K magnitude : 9.569
 G magnitude : 14.936
 RP magnitude : 13.299
 BP magnitude : 16.394
 DUPflag : 0
 Distance (au) : 5.474
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 23.07
 Sun-Target sep (deg) : 70.55
 Sun-Moon sep (deg) : 10.41
 B (ring opening deg) : -2.17
 PA of pole (deg) : 0.63
 Pole direction: RA (deg): 268.05675
 Dec (deg): 64.49731
 C/A sky separation (") : 7.600
 C/A sky separation (km) : 30172.0
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2043-10-10T08:28:47 K9.57 G14.94
 Pgt



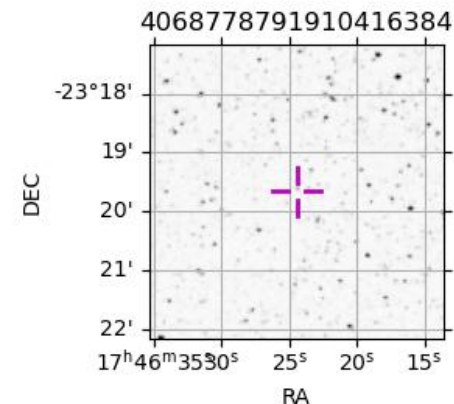
2043-10-10T08:28:47.5300 ex: 17 46 24.4953 ex: -23 19 39.805 C/A 7.591" PA 182.16 deg v_sky +23.07 km/s D 05.47 AU
 Credit: Styled after SORA/Lucky Star

Earth
 PMO
 IRTF
 AAT
 MSO



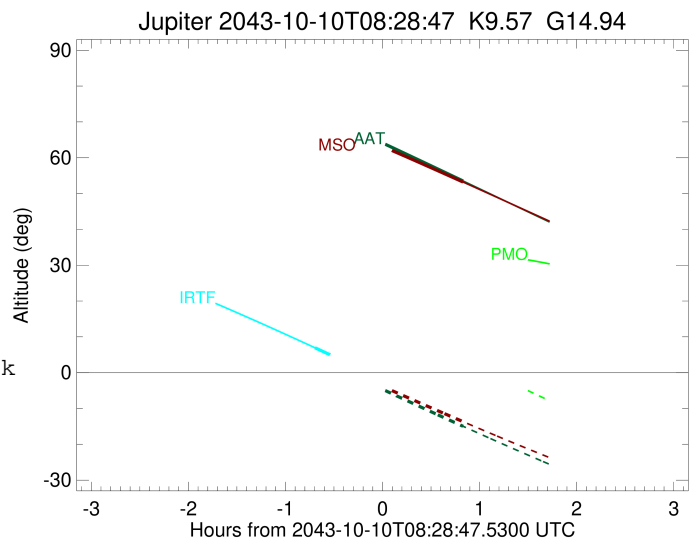
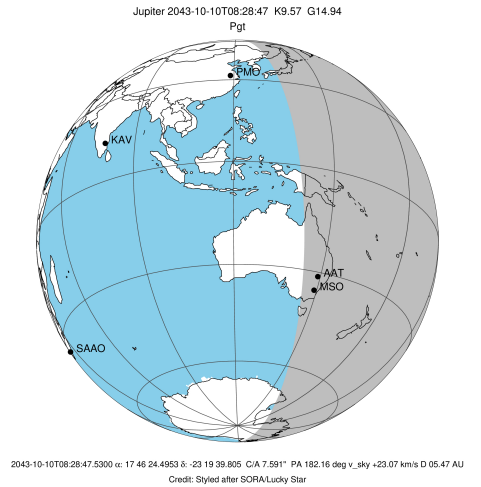
Observable events with sun below -5 deg and altitude above 5 deg

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	+	OCT 10 07:47 - OCT 10 07:47	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 10 09:18 - OCT 10 09:18	Pne
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+	OCT 10 09:18 - OCT 10 09:18	Pne



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-10-10T08:33:13.830
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      : 4068778791910416384
2Mass ID (if available) : 17462452-2319388
ICRS Star Coord at Epoch: 17h 46m 24.49528s -23:19:39.80524s
RUWE (>1.4 is poor) : 0.92
K magnitude         : 9.569
G magnitude         : 14.936
RP magnitude        : 13.299
BP magnitude        : 16.394
DUPflag            : 0
Distance (au)       : 5.474
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : 23.07
Sun-Target sep (deg) : 70.55
Sun-Moon sep (deg)  : 9.88
B (ring opening deg) : -2.17
PA of pole (deg)    : 0.63
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (") : 8.205
C/A sky separation (km) : 32574.8
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
    
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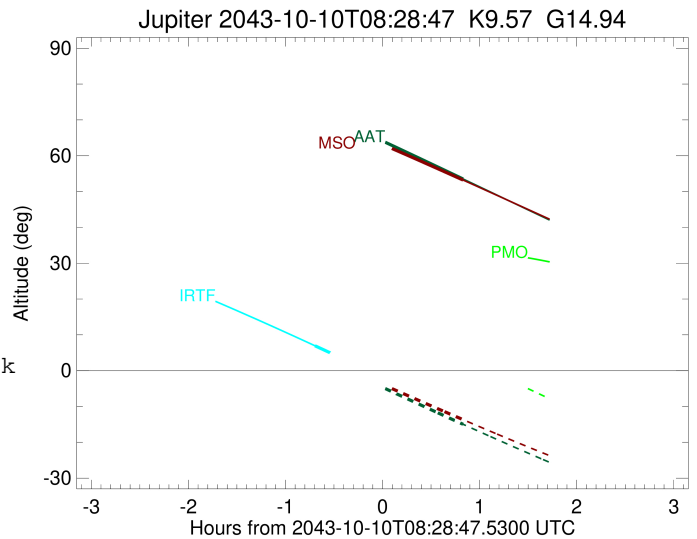
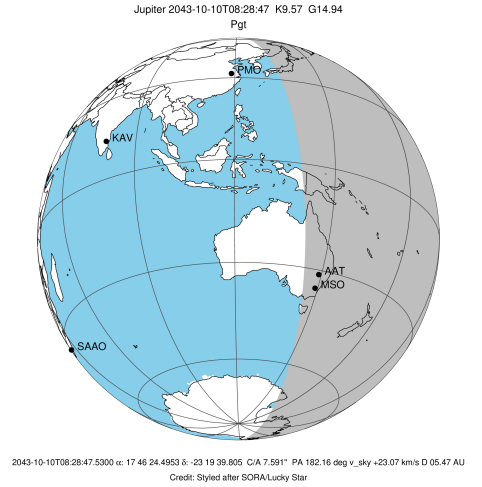


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-10-10T07:47:03.631	6.95	-53.20	71490.8	25.97	29.07
Jupiter	E	2043-10-10T09:19:11.531	-12.91x	-72.24	71490.6	28.19	31.44

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-10-10T08:30:44.930
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      : 4068778791910416384
2Mass ID (if available) : 17462452-2319388
ICRS Star Coord at Epoch: 17h 46m 24.49528s -23:19:39.80524s
RUWE (>1.4 is poor) : 0.92
K magnitude         : 9.569
G magnitude         : 14.936
RP magnitude        : 13.299
BP magnitude        : 16.394
DUPflag            : 0
Distance (au)       : 5.474
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : 23.07
Sun-Target sep (deg) : 70.55
Sun-Moon sep (deg)  : 10.16
B (ring opening deg) : -2.17
PA of pole (deg)    : 0.63
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (" ) : 7.339
C/A sky separation (km) : 29138.0
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
    
```

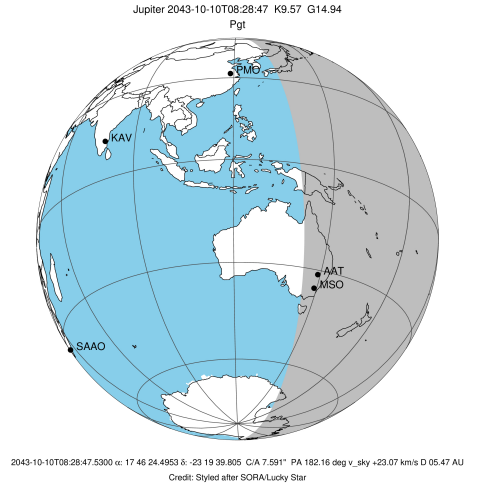


x: target alt < 5.0 deg or sun > -5.0 deg

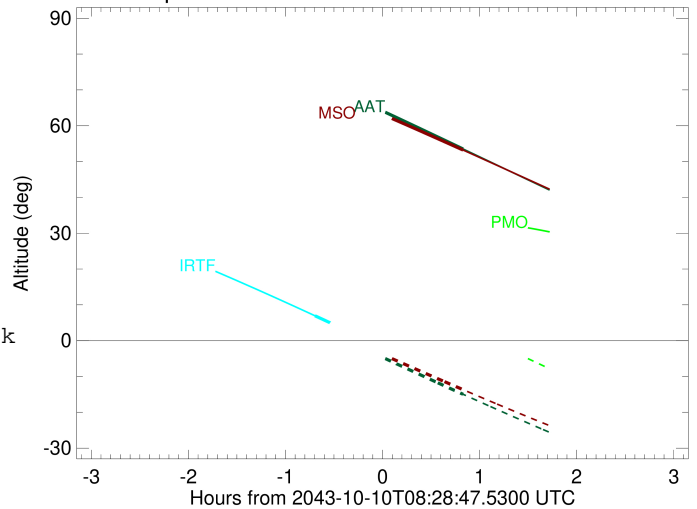
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-10-10T07:42:47.507	73.55	5.11x	71491.0	22.62	25.45
Jupiter	E	2043-10-10T09:18:35.373	53.50	-14.97	71490.8	25.37	28.42

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-10T08:30:39.970
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        : 4068778791910416384
2Mass ID (if available) : 17462452-2319388
ICRS Star Coord at Epoch: 17h 46m 24.49528s -23:19:39.80524s
RUWE (>1.4 is poor) : 0.92
K magnitude           : 9.569
G magnitude           : 14.936
RP magnitude          : 13.299
BP magnitude          : 16.394
DUPflag              : 0
Distance (au)         : 5.474
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 23.07
Sun-Target sep (deg) : 70.55
Sun-Moon sep (deg)   : 10.15
B (ring opening deg) : -2.17
PA of pole (deg)     : 0.63
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation ("): 7.230
C/A sky separation (km): 28705.7
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 2043-10-10T08:28:47 K9.57 G14.94



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	2043-10-10T07:42:36.263	71.61	5.51x	71491.1	22.24	25.03
Jupiter	E	2043-10-10T09:18:36.927	53.20	-13.68	71490.9	25.00	28.03