

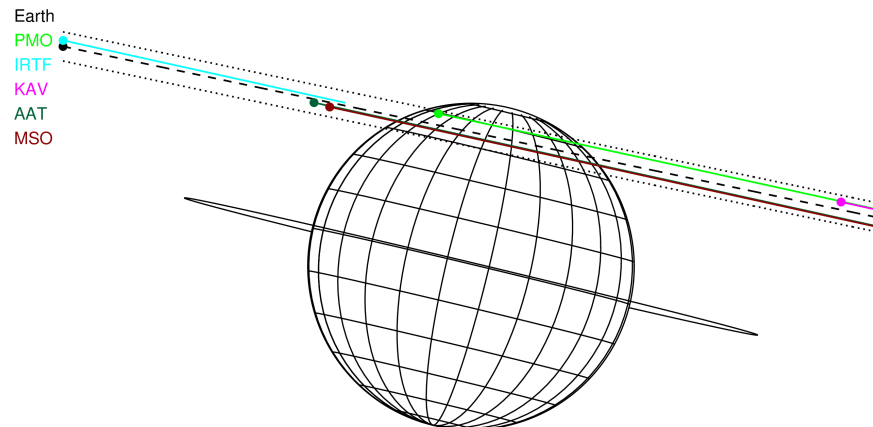
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2044-10-28T10:05:00.170
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 6865862946190909056
 2Mass ID (if available) : 20030240-2104241

Jupiter 2044-10-28T10:05:00 K9.64 G12.15 Pgt

ICRS Star Coord at Epoch: 20h 03m 02.40346s -21:04:25.01550s
 RUWE (>1.4 is poor) : 0.90
 K magnitude : 9.637
 G magnitude : 12.155
 RP magnitude : 11.391
 BP magnitude : 12.779
 DUPflag : 0
 Distance (au) : 5.107
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 16.83
 Sun-Target sep (deg) : 83.49
 Sun-Moon sep (deg) : 2.67
 B (ring opening deg) : -0.78
 PA of pole (deg) : -13.45
 Pole direction: RA (deg): 268.05693
 Dec (deg): 64.49727
 C/A sky separation (") : 15.557
 C/A sky separation (km) : 57625.2
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

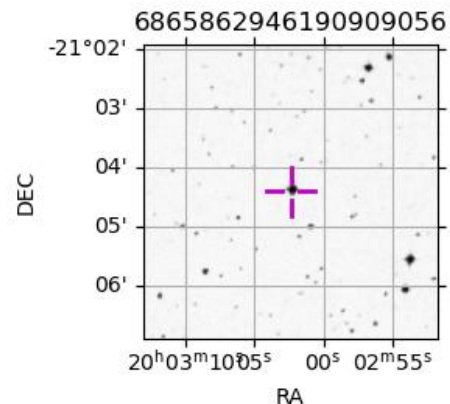


2044-10-28T10:05:00.1700 a: 20 03 02.4035 s: -21 04 25.015 C/A ***** PA 168.14 deg v_sky +16.83 km/s D 05.11 AU
 Credit: Styled after SORA/Lucky Star



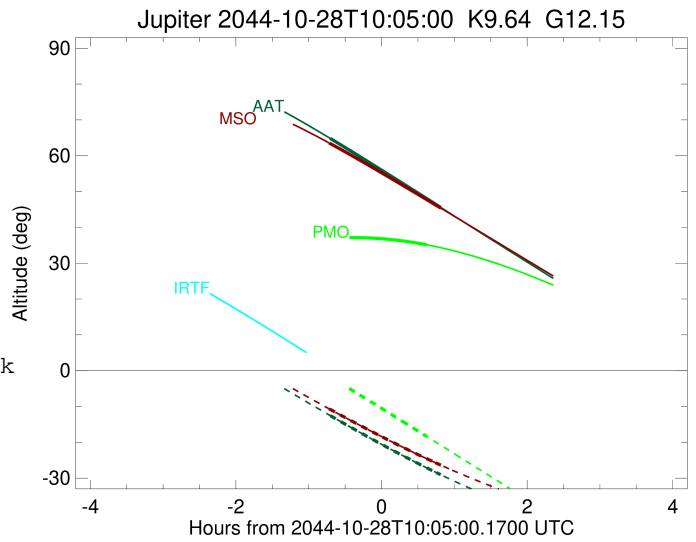
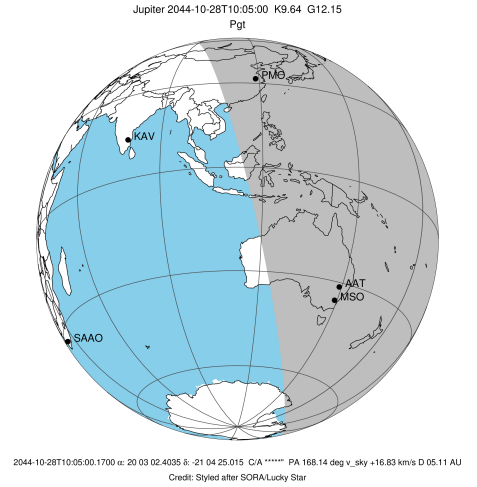
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	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	+	OCT 28 10:42 - OCT 28 10:42	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			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 28 09:22 - OCT 28 10:53	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+ +	OCT 28 09:22 - OCT 28 10:53	Pie



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2044-10-28T10:07:01.330
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       : 6865862946190909056
2Mass ID (if available) : 20030240-2104241
ICRS Star Coord at Epoch: 20h 03m 02.40346s -21:04:25.01550s
RUWE (>1.4 is poor) : 0.90
K magnitude           : 9.637
G magnitude           : 12.155
RP magnitude          : 11.391
BP magnitude          : 12.779
DUPflag              : 0
Distance (au)        : 5.107
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 16.83
Sun-Target sep (deg) : 83.49
Sun-Moon sep (deg)   : 3.36
B (ring opening deg) : -0.78
PA of pole (deg)     : -13.45
Pole direction: RA (deg): 268.05693
Dec (deg): 64.49727
C/A sky separation ("): 16.860
C/A sky separation (km): 62449.8
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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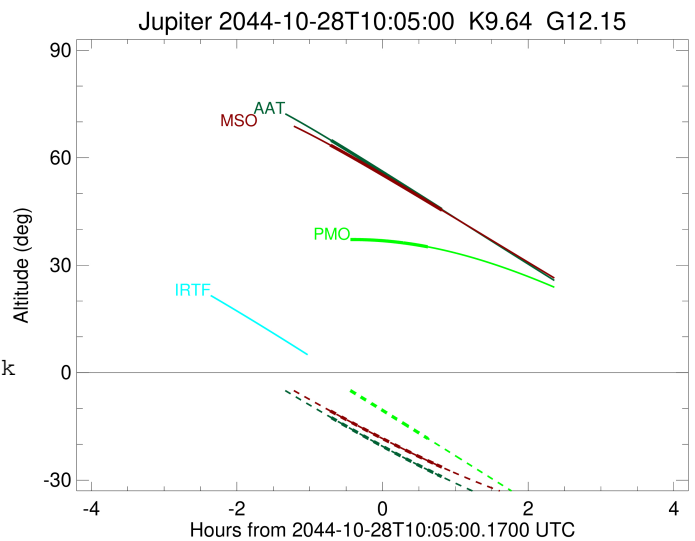
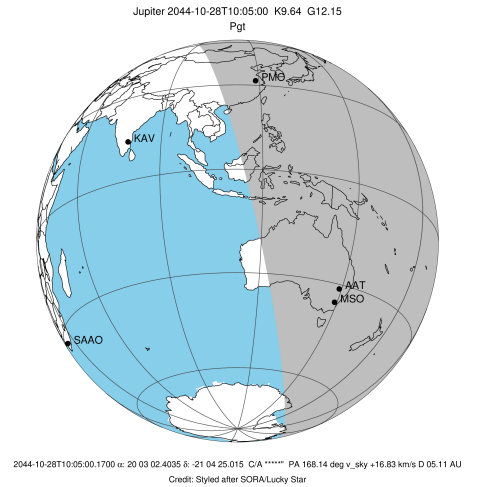


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2044-10-28T09:31:42.555	37.11	-3.58x	71491.4	59.57	62.67
Jupiter	E	2044-10-28T10:42:16.807	35.13	-18.37	71491.4	62.08	64.99

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2044-10-28T10:08:22.740
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        : 6865862946190909056
2Mass ID (if available) : 20030240-2104241
ICRS Star Coord at Epoch: 20h 03m 02.40346s -21:04:25.01550s
RUWE (>1.4 is poor) : 0.90
K magnitude           : 9.637
G magnitude           : 12.155
RP magnitude          : 11.391
BP magnitude          : 12.779
DUPflag              : 0
Distance (au)         : 5.107
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 16.83
Sun-Target sep (deg) : 83.49
Sun-Moon sep (deg)   : 2.36
B (ring opening deg) : -0.78
PA of pole (deg)     : -13.45
Pole direction: RA (deg): 268.05693
Dec (deg): 64.49727
C/A sky separation ("): 14.970
C/A sky separation (km): 55450.0
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
    
```

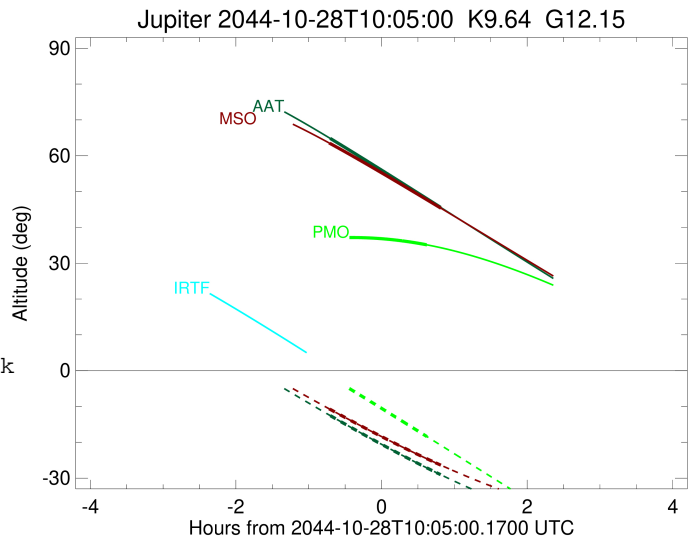
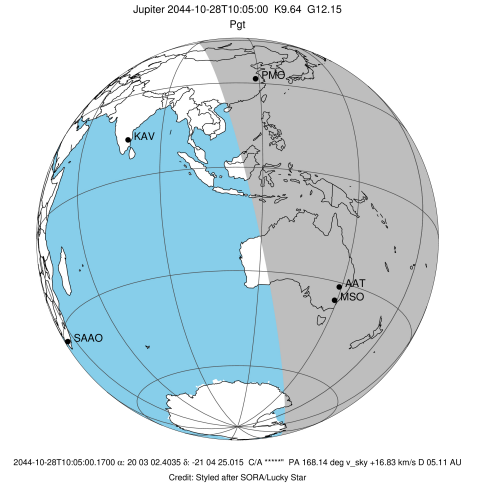


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2044-10-28T09:22:48.133	64.81	-12.55	71491.5	49.76	53.35
Jupiter	E	2044-10-28T10:53:45.741	45.57	-29.03	71491.5	51.91	55.43

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2044-10-28T10:08:06.770
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      : 6865862946190909056
2Mass ID (if available) : 20030240-2104241
ICRS Star Coord at Epoch: 20h 03m 02.40346s -21:04:25.01550s
RUWE (>1.4 is poor) : 0.90
K magnitude          : 9.637
G magnitude          : 12.155
RP magnitude         : 11.391
BP magnitude         : 12.779
DUPflag             : 0
Distance (au)       : 5.107
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 16.83
Sun-Target sep (deg) : 83.49
Sun-Moon sep (deg)  : 2.31
B (ring opening deg) : -0.78
PA of pole (deg)    : -13.45
Pole direction: RA (deg): 268.05693
Dec (deg): 64.49727
C/A sky separation (" ) : 14.868
C/A sky separation (km) : 55074.5
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
    
```



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	2044-10-28T09:22:06.745	63.51	-10.69	71491.5	49.26	52.87
Jupiter	E	2044-10-28T10:53:55.426	45.36	-26.38	71491.5	51.46	54.99