

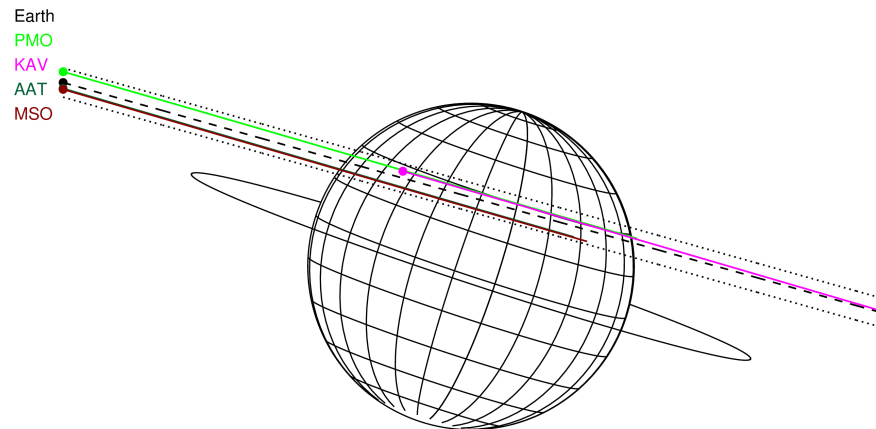
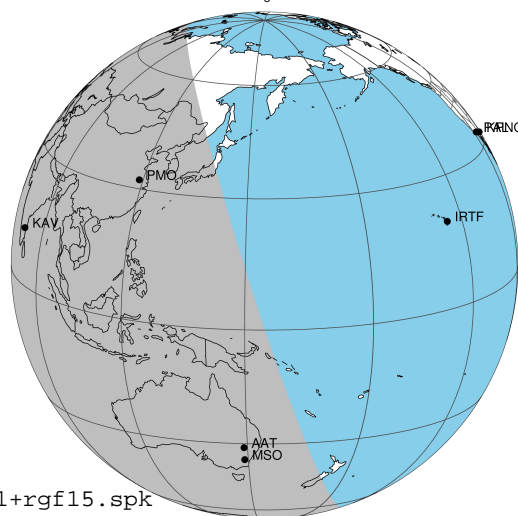
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2023-08-01T19:47:59.620
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 32915736003365248
 2Mass ID (if available) : 02452770+1442336

Jupiter 2023-08-01T19:47:59 K9.00 G11.67 Pgt

ICRS Star Coord at Epoch: 02h 45m 27.70841s +14:42:33.71279s

RUWE (>1.4 is poor) : 1.11
 K magnitude : 9.004
 G magnitude : 11.667
 RP magnitude : 10.872
 BP magnitude : 12.352
 DUPflag : 0
 Distance (au) : 4.936
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 15.42
 Sun-Target sep (deg) : 85.55
 Sun-Moon sep (deg) : 93.58
 B (ring opening deg) : 3.24
 PA of pole (deg) : -18.29
 Pole direction: RA (deg): 268.05806
 Dec (deg): 64.49679
 C/A sky separation (") : 8.152
 C/A sky separation (km) : 29184.9
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2023-08-01T19:47:59 K9.00 G11.67 Pgt

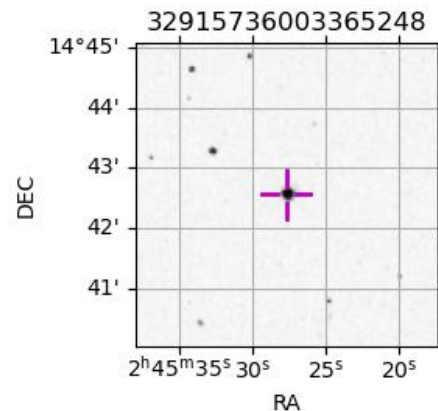


2023-08-01T19:47:59.6200 cc: 02 45 27.7084 s: +14 42 33.713 C/A 8.161" PA 164.30 deg v_sky +15.42 km/s D 04.94 AU

Credit: Styled after SORA/Lucky Star

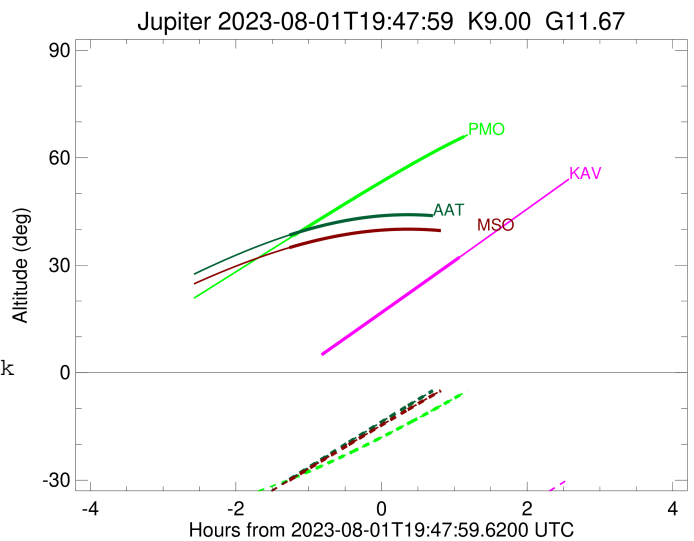
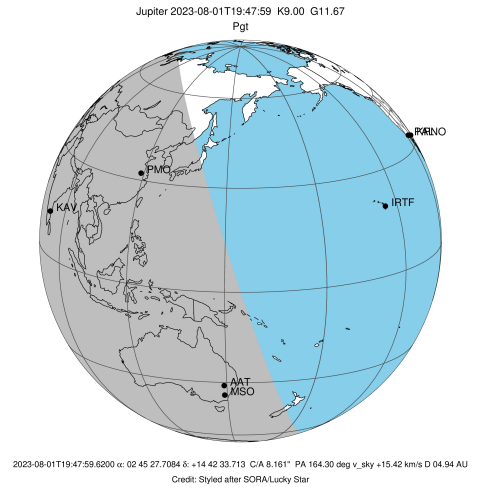
Observable events with sun below -5 deg and altitude above 5 deg

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	+ +	AUG 01 18:35 - AUG 01 20:56	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	+	AUG 01 20:52 - AUG 01 20:52	Pne
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	+	AUG 01 18:32 - AUG 01 18:32	Pin
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+	AUG 01 18:32 - AUG 01 18:32	Pin



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2023-08-01T19:45:36.590
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      : 32915736003365248
2Mass ID (if available) : 02452770+1442336
ICRS Star Coord at Epoch: 02h 45m 27.70841s +14:42:33.71279s
RUWE (>1.4 is poor) : 1.11
K magnitude          : 9.004
G magnitude          : 11.667
RP magnitude         : 10.872
BP magnitude         : 12.352
DUPflag             : 0
Distance (au)        : 4.936
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 15.42
Sun-Target sep (deg) : 85.55
Sun-Moon sep (deg)  : 94.42
B (ring opening deg) : 3.24
PA of pole (deg)    : -18.29
Pole direction: RA (deg): 268.05806
Dec (deg): 64.49679
C/A sky separation (") : 8.969
C/A sky separation (km) : 32110.3
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
    
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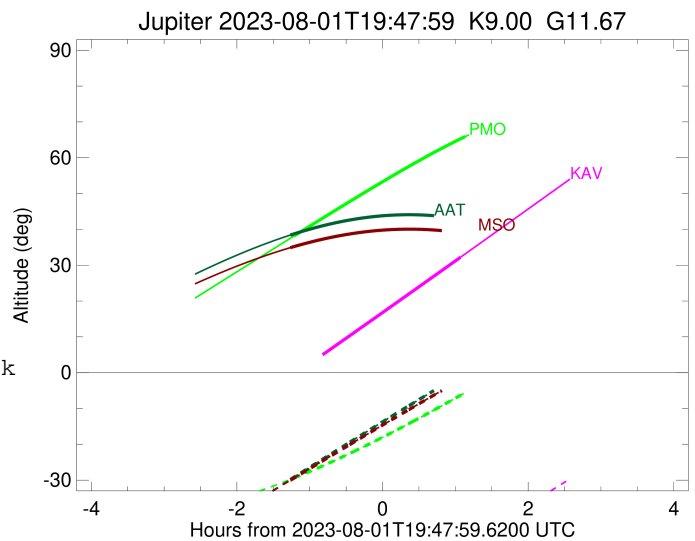
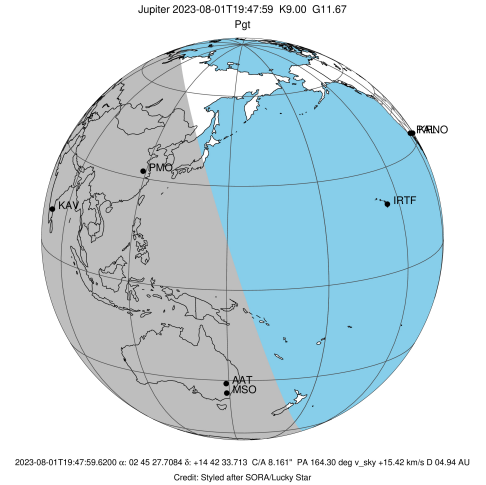


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2023-08-01T18:35:30.950	38.24	-29.34	71489.5	24.60	27.60
Jupiter	E	2023-08-01T20:56:09.212	65.90	-5.57	71488.7	28.70	32.00

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2023-08-01T19:42:15.900
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        : 32915736003365248
2Mass ID (if available) : 02452770+1442336
ICRS Star Coord at Epoch: 02h 45m 27.70841s +14:42:33.71279s
RUWE (>1.4 is poor) : 1.11
K magnitude           : 9.004
G magnitude           : 11.667
RP magnitude          : 10.872
BP magnitude          : 12.352
DUPflag              : 0
Distance (au)         : 4.936
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 15.42
Sun-Target sep (deg) : 85.55
Sun-Moon sep (deg)   : 93.93
B (ring opening deg) : 3.24
PA of pole (deg)     : -18.29
Pole direction: RA (deg): 268.05806
Dec (deg): 64.49679
C/A sky separation (") : 8.872
C/A sky separation (km) : 31763.5
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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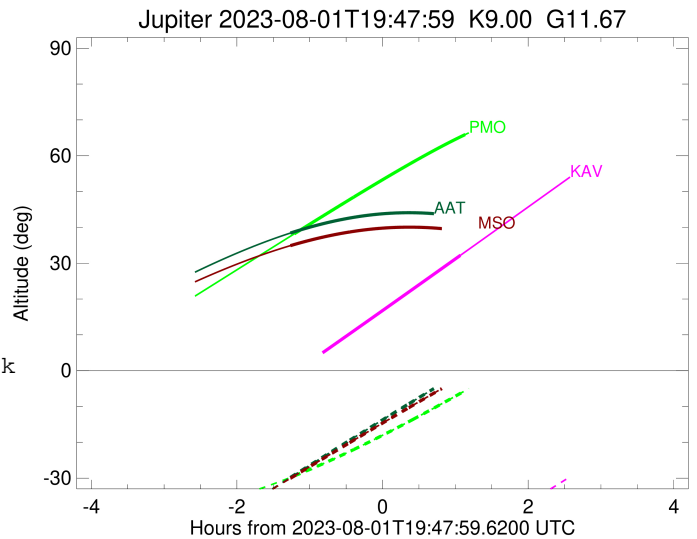
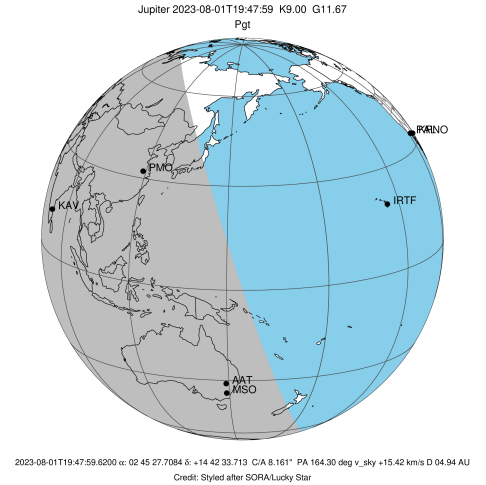


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2023-08-01T18:33:04.406	-1.05x	-59.25	71489.6	24.20	27.16
Jupiter	E	2023-08-01T20:52:08.709	32.18	-47.38	71488.8	28.36	31.63

```

target                : Jupiter
target radius (km)    : 71492.00
C/A epoch             : 2023-08-01T19:46:17.390
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        : 32915736003365248
2Mass ID (if available) : 02452770+1442336
ICRS Star Coord at Epoch: 02h 45m 27.70841s +14:42:33.71279s
RUWE (>1.4 is poor)  : 1.11
K magnitude           : 9.004
G magnitude           : 11.667
RP magnitude          : 10.872
BP magnitude          : 12.352
DUPflag              : 0
Distance (au)         : 4.936
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 15.42
Sun-Target sep (deg)  : 85.55
Sun-Moon sep (deg)   : 94.31
B (ring opening deg) : 3.24
PA of pole (deg)     : -18.29
Pole direction: RA (deg): 268.05806
Dec (deg): 64.49679
C/A sky separation (") : 6.965
C/A sky separation (km) : 24934.3
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
    
```

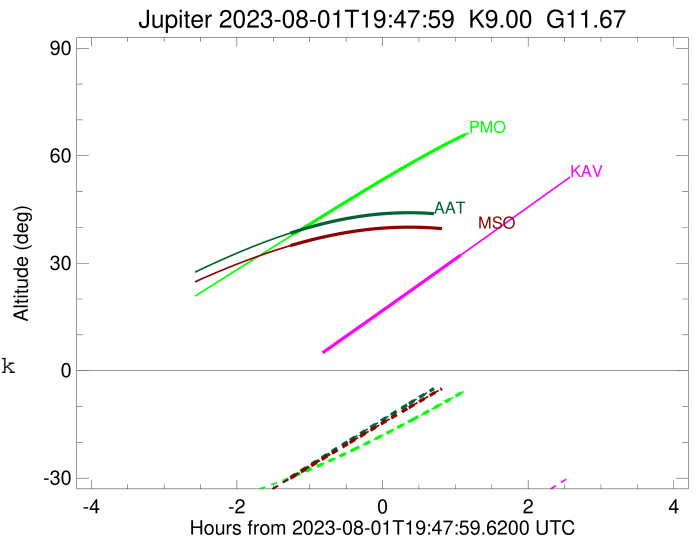
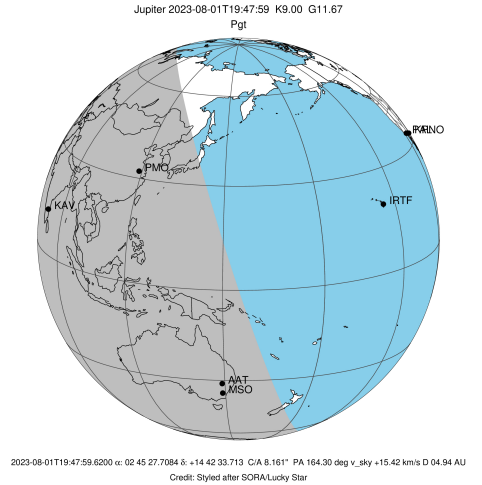


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2023-08-01T18:32:14.027	38.43	-29.77	71490.6	18.29	20.68
Jupiter	E	2023-08-01T21:00:34.090	42.49	1.09x	71489.9	22.58	25.40

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2023-08-01T19:46:12.600
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      : 32915736003365248
2Mass ID (if available) : 02452770+1442336
ICRS Star Coord at Epoch: 02h 45m 27.70841s +14:42:33.71279s
RUWE (>1.4 is poor) : 1.11
K magnitude          : 9.004
G magnitude          : 11.667
RP magnitude         : 10.872
BP magnitude         : 12.352
DUPflag             : 0
Distance (au)       : 4.936
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 15.42
Sun-Target sep (deg) : 85.55
Sun-Moon sep (deg)  : 94.26
B (ring opening deg) : 3.24
PA of pole (deg)    : -18.29
Pole direction: RA (deg): 268.05806
Dec (deg): 64.49679
C/A sky separation (") : 6.883
C/A sky separation (km) : 24641.1
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
    
```



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	2023-08-01T18:32:06.828	34.90	-30.04	71490.6	18.01	20.38
Jupiter	E	2023-08-01T21:00:31.493	38.63	-0.46x	71489.9	22.35	25.15