

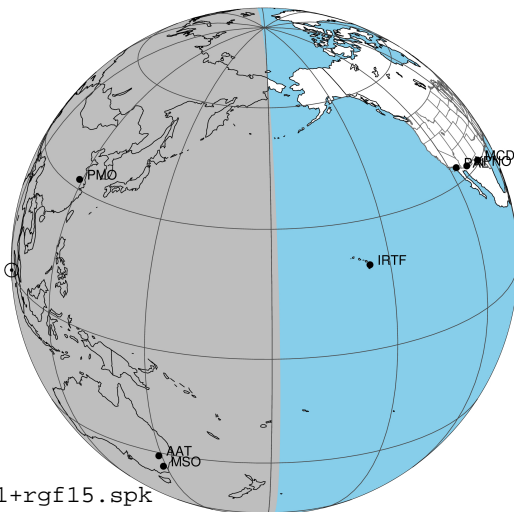
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2036-09-20T17:45:47.580
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 3404264544228619904
 2Mass ID (if available) : 05373757+2243295

Jupiter 2036-09-20T17:45:47 K7.52 G8.79 Pgt

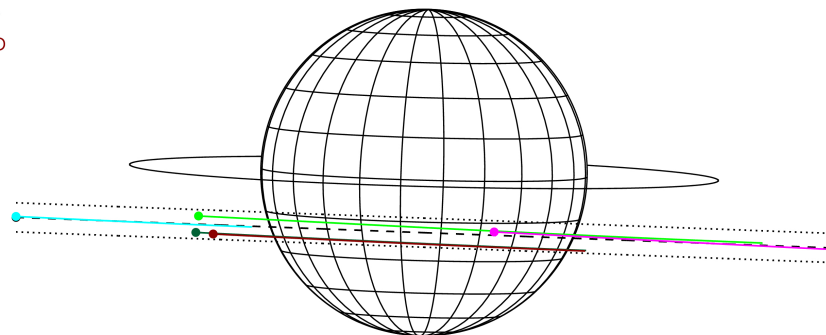
ICRS Star Coord at Epoch: 05h 37m 37.55722s +22:43:29.26480s

RUWE (>1.4 is poor) : 1.02
 K magnitude : 7.517
 G magnitude : 8.792
 RP magnitude : 8.332
 BP magnitude : 9.082
 DUPflag : 0
 Distance (au) : 4.913
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 10.99
 Sun-Target sep (deg) : 93.00
 Sun-Moon sep (deg) : 102.13
 B (ring opening deg) : 2.73
 PA of pole (deg) : -1.57
 Pole direction: RA (deg): 268.05634
 Dec (deg): 64.49686
 C/A sky separation (") : 7.395
 C/A sky separation (km) : 26346.8
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2036-09-20T17:45:47 K7.52 G8.79
 Pgt



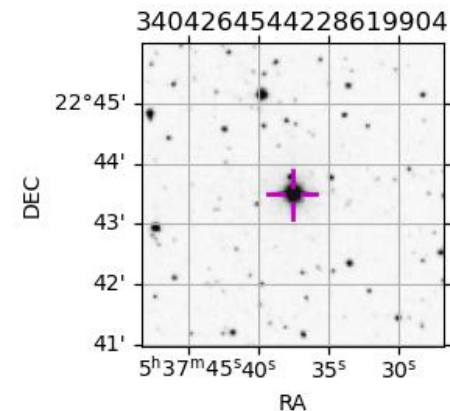
Earth
 PMO
 IRTF
 KAV
 AAT
 MSO



2036-09-20T17:45:47.5800 ex: 05 37 37.55722 s: +22 43 29.265 C/A 7.384" PA 357.85 deg v_sky +10.99 km/s D 04.91 AU
 Credit: Styled after SORA/Lucky Star

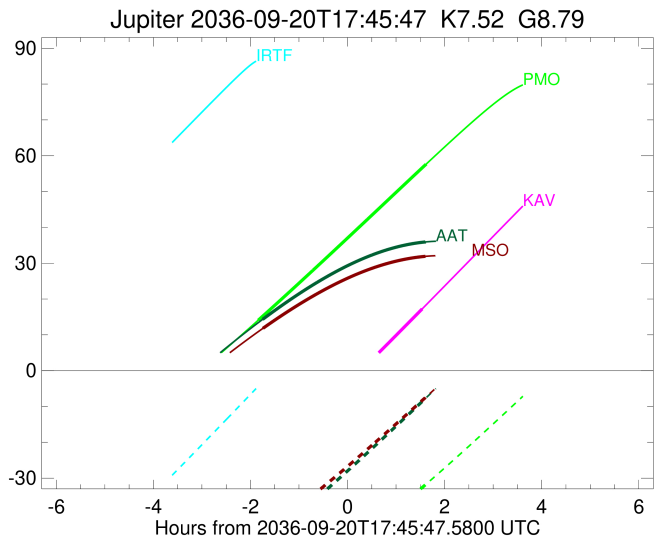
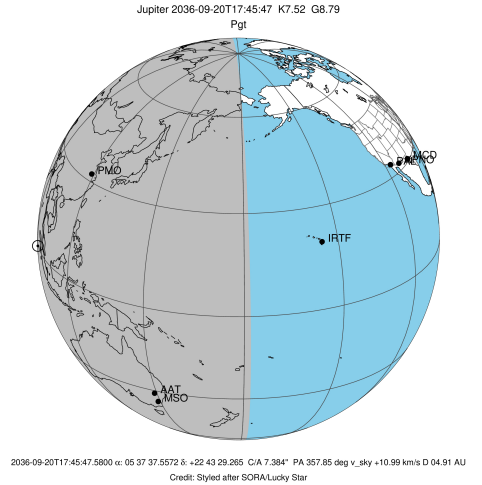
Observable events with sun below -5 deg and altitude above 5 deg

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	+ +	SEP 20 15:55 - SEP 20 19:22	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	+ +	SEP 20 19:18 - SEP 20 19:18	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	+ +	SEP 20 16:00 - SEP 20 19:22	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+ +	SEP 20 16:01 - SEP 20 19:22	Pie



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target                : Jupiter
target radius (km)    : 71492.00
C/A epoch             : 2036-09-20T17:38:13.940
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        : 3404264544228619904
2Mass ID (if available) : 05373757+2243295
ICRS Star Coord at Epoch: 05h 37m 37.55722s +22:43:29.26480s
RUWE (>1.4 is poor)  : 1.02
K magnitude           : 7.517
G magnitude           : 8.792
RP magnitude          : 8.332
BP magnitude          : 9.082
DUPflag              : 0
Distance (au)         : 4.913
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 10.99
Sun-Target sep (deg)  : 93.00
Sun-Moon sep (deg)    : 102.56
B (ring opening deg) : 2.73
PA of pole (deg)      : -1.57
Pole direction: RA (deg): 268.05634
Dec (deg): 64.49686
C/A sky separation (") : 6.760
C/A sky separation (km) : 24087.0
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
    
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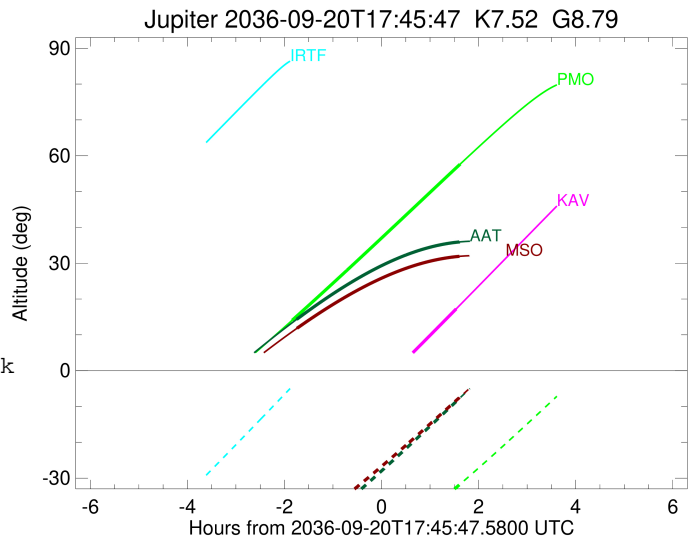
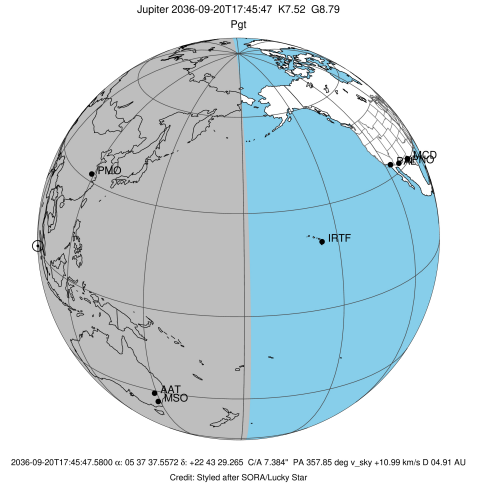


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2036-09-20T15:55:25.540	14.08	-57.42	71491.0	-18.31	-20.71
Jupiter	E	2036-09-20T19:22:54.917	57.63	-31.69	71490.7	-20.89	-23.55

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2036-09-20T17:36:05.550
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        : 3404264544228619904
2Mass ID (if available) : 05373757+2243295
ICRS Star Coord at Epoch: 05h 37m 37.55722s +22:43:29.26480s
RUWE (>1.4 is poor) : 1.02
K magnitude           : 7.517
G magnitude           : 8.792
RP magnitude          : 8.332
BP magnitude          : 9.082
DUPflag              : 0
Distance (au)         : 4.913
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 10.99
Sun-Target sep (deg)  : 93.00
Sun-Moon sep (deg)    : 101.87
B (ring opening deg) : 2.73
PA of pole (deg)     : -1.57
Pole direction: RA (deg): 268.05634
Dec (deg): 64.49686
C/A sky separation (") : 6.842
C/A sky separation (km) : 24376.6
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
    
```

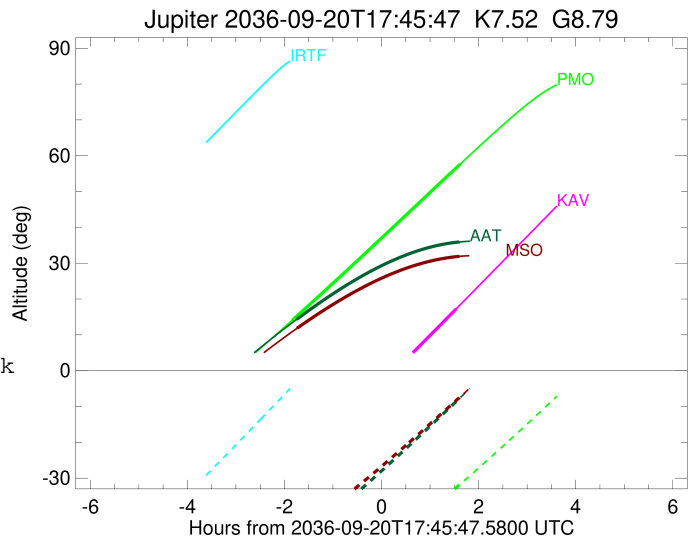
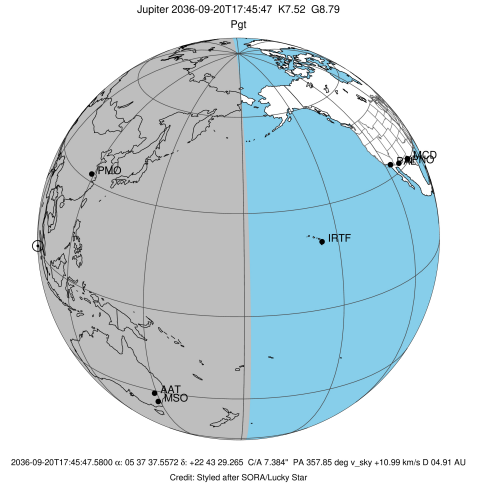


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2036-09-20T15:56:12.624	-27.22x	-47.81	71491.0	-18.56	-20.98
Jupiter	E	2036-09-20T19:18:04.737	17.23	-73.50	71490.6	-21.39	-24.11

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2036-09-20T17:40:57.600
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       : 3404264544228619904
2Mass ID (if available) : 05373757+2243295
ICRS Star Coord at Epoch: 05h 37m 37.55722s +22:43:29.26480s
RUWE (>1.4 is poor) : 1.02
K magnitude           : 7.517
G magnitude           : 8.792
RP magnitude         : 8.332
BP magnitude         : 9.082
DUPflag              : 0
Distance (au)        : 4.913
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 10.99
Sun-Target sep (deg) : 93.00
Sun-Moon sep (deg)   : 102.50
B (ring opening deg) : 2.73
PA of pole (deg)     : -1.57
Pole direction: RA (deg): 268.05634
Dec (deg): 64.49686
C/A sky separation ("): 8.731
C/A sky separation (km): 31107.6
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
    
```

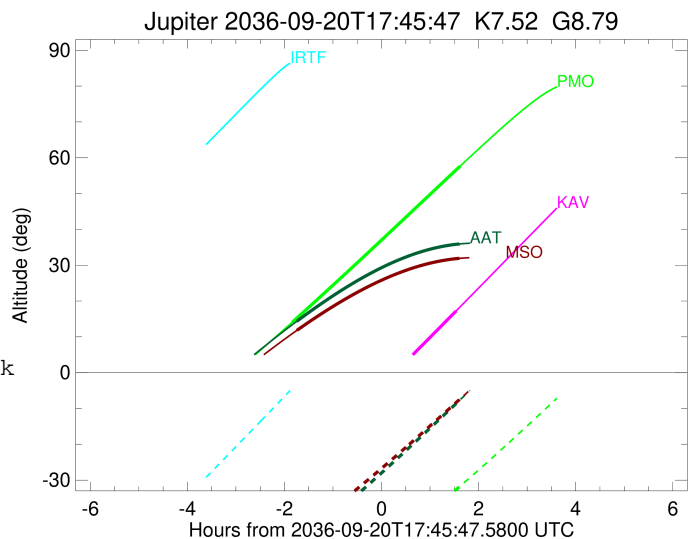
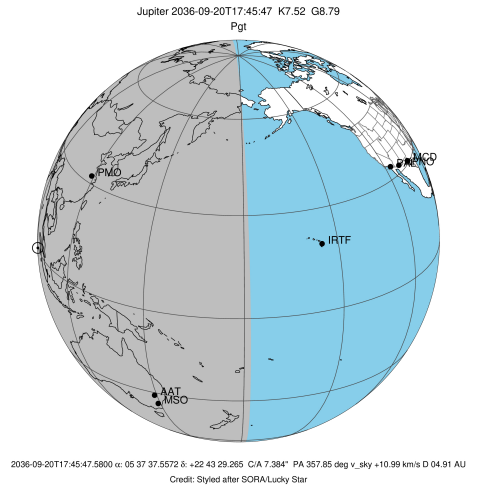


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2036-09-20T16:00:51.887	14.31	-47.74	71490.2	-24.58	-27.57
Jupiter	E	2036-09-20T19:22:15.790	35.93	-7.72	71489.9	-26.66	-29.81

```

target           : Jupiter
target radius (km) : 71492.00
C/A epoch       : 2036-09-20T17:41:08.980
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  : 3404264544228619904
2Mass ID (if available) : 05373757+2243295
ICRS Star Coord at Epoch: 05h 37m 37.55722s +22:43:29.26480s
RUWE (>1.4 is poor) : 1.02
K magnitude     : 7.517
G magnitude     : 8.792
RP magnitude    : 8.332
BP magnitude    : 9.082
DUPflag        : 0
Distance (au)   : 4.913
f0 (km)         : 0.00
g0 (km)         : 0.00
skyplane vel. (km/s) : 10.99
Sun-Target sep (deg) : 93.00
Sun-Moon sep (deg) : 102.45
B (ring opening deg) : 2.73
PA of pole (deg) : -1.57
Pole direction: RA (deg): 268.05634
Dec (deg): 64.49686
C/A sky separation (") : 8.806
C/A sky separation (km) : 31374.6
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	2036-09-20T16:01:22.619	11.83	-45.01	71490.2	-24.85	-27.86
Jupiter	E	2036-09-20T19:22:04.890	31.91	-7.51	71489.9	-26.88	-30.05