

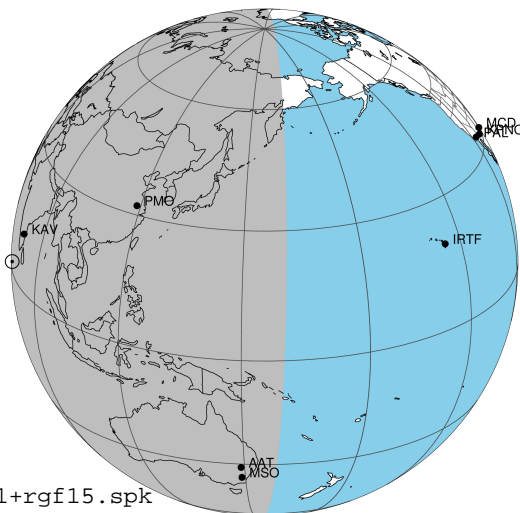
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2048-09-27T19:11:01.540
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 3424529333801515776
 2Mass ID (if available) : 05582266+2255171

Jupiter 2048-09-27T19:11:01 K8.34 G10.99 Pgt

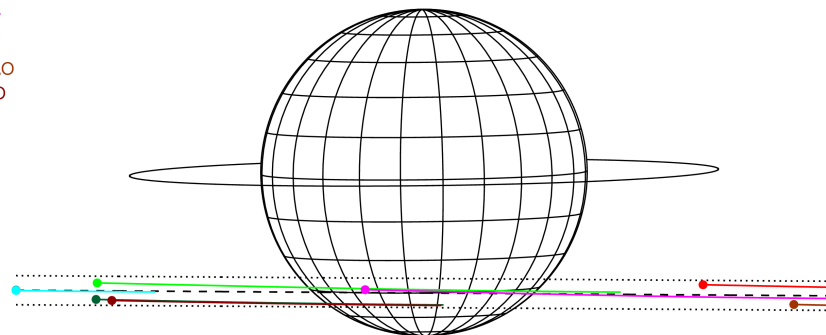
ICRS Star Coord at Epoch: 05h 58m 22.64886s +22:55:16.57183s

RUWE (>1.4 is poor) : 0.98
 K magnitude : 8.341
 G magnitude : 10.986
 RP magnitude : 10.188
 BP magnitude : 11.666
 DUPflag : 0
 Distance (au) : 4.892
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 9.90
 Sun-Target sep (deg) : 95.05
 Sun-Moon sep (deg) : 20.11
 B (ring opening deg) : 2.57
 PA of pole (deg) : 0.66
 Pole direction: RA (deg): 268.05734
 Dec (deg): 64.49722
 C/A sky separation (") : 14.881
 C/A sky separation (km) : 52795.7
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2048-09-27T19:11:01 K8.34 G10.99
 Pgt



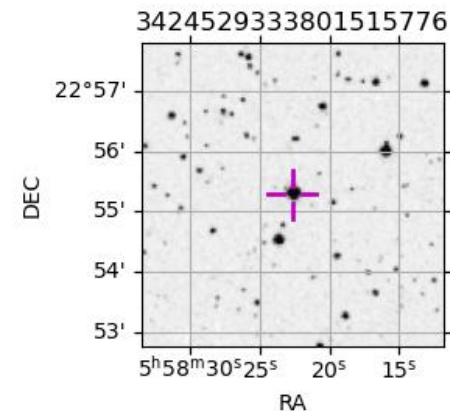
Earth
 PIC
 PMO
 IRTF
 KAV
 AAT
 SAAO
 MSO



2048-09-27T19:11:01.5400 a: 05 58 22.64886 s: +22 55 16.572 C/A ***** PA 359.60 deg v_sky + 9.90 km/s D 04.89 AU
 Credit: Styled after SORA/Lucky Star

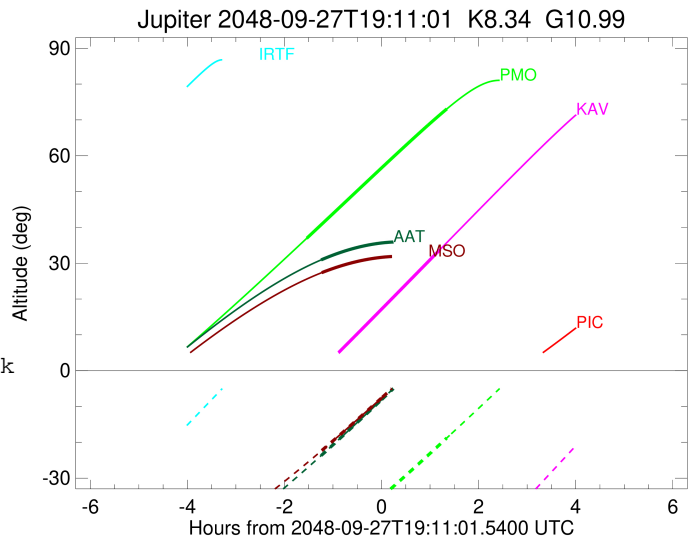
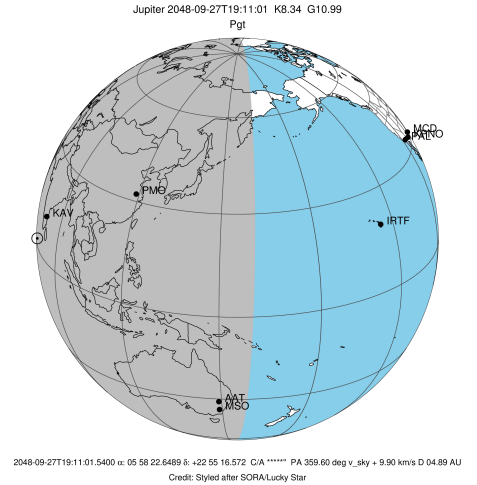
Observable events with sun below -5 deg and altitude above 5 deg

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	+	SEP 27 17:38 - SEP 27 20:31	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 27 20:23 - SEP 27 20:23	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 27 17:56 - SEP 27 17:56	Pin
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+	SEP 27 17:57 - SEP 27 17:57	Pin



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2048-09-27T19:04:33.190
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      : 3424529333801515776
2Mass ID (if available) : 05582266+2255171
ICRS Star Coord at Epoch: 05h 58m 22.64886s +22:55:16.57183s
RUWE (>1.4 is poor) : 0.98
K magnitude          : 8.341
G magnitude          : 10.986
RP magnitude         : 10.188
BP magnitude         : 11.666
DUPflag             : 0
Distance (au)       : 4.892
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 9.90
Sun-Target sep (deg) : 95.05
Sun-Moon sep (deg)  : 19.93
B (ring opening deg) : 2.57
PA of pole (deg)    : 0.66
Pole direction: RA (deg): 268.05734
Dec (deg): 64.49722
C/A sky separation ("): 14.473
C/A sky separation (km): 51349.7
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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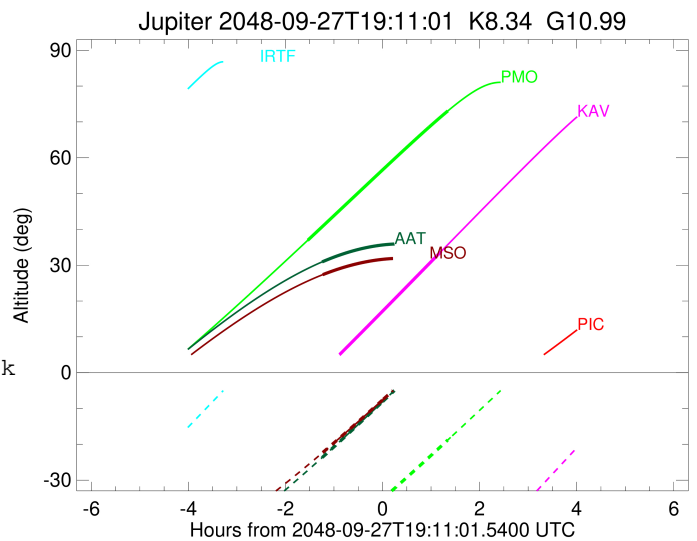
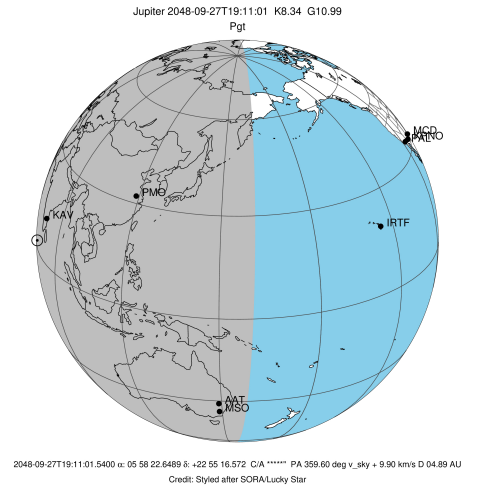


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2048-09-27T17:38:35.254	36.94	-51.54	71487.6	-44.12	-47.83
Jupiter	E	2048-09-27T20:31:39.749	73.03	-18.81	71487.1	-47.33	-50.99

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2048-09-27T18:59:10.770
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        : 3424529333801515776
2Mass ID (if available) : 05582266+2255171
ICRS Star Coord at Epoch: 05h 58m 22.64886s +22:55:16.57183s
RUWE (>1.4 is poor) : 0.98
K magnitude           : 8.341
G magnitude           : 10.986
RP magnitude          : 10.188
BP magnitude          : 11.666
DUPflag              : 0
Distance (au)         : 4.892
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 9.90
Sun-Target sep (deg)  : 95.05
Sun-Moon sep (deg)    : 19.38
B (ring opening deg) : 2.57
PA of pole (deg)      : 0.66
Pole direction: RA (deg): 268.05734
Dec (deg): 64.49722
C/A sky separation (") : 14.647
C/A sky separation (km) : 51967.2
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
    
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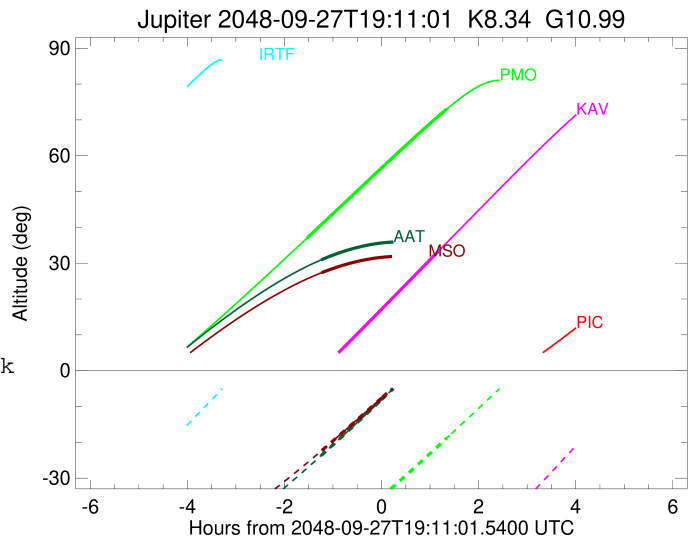
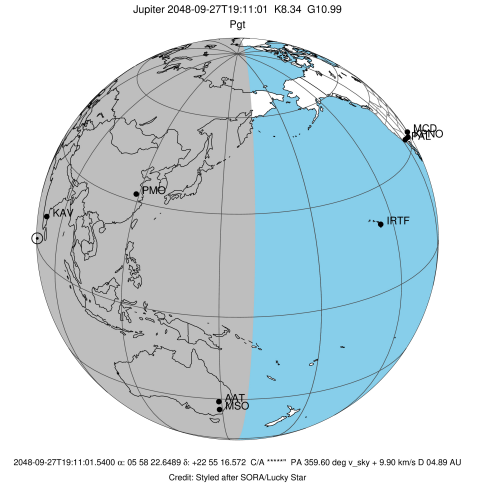


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2048-09-27T17:36:42.591	-4.21x	-72.17	71487.6	-44.50	-48.21
Jupiter	E	2048-09-27T20:23:19.813	33.79	-61.30	71486.9	-48.59	-52.22

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2048-09-27T19:09:46.560
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       : 3424529333801515776
2Mass ID (if available) : 05582266+2255171
ICRS Star Coord at Epoch: 05h 58m 22.64886s +22:55:16.57183s
RUWE (>1.4 is poor) : 0.98
K magnitude          : 8.341
G magnitude           : 10.986
RP magnitude         : 10.188
BP magnitude         : 11.666
DUPflag              : 0
Distance (au)        : 4.892
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 9.90
Sun-Target sep (deg) : 95.05
Sun-Moon sep (deg)   : 20.28
B (ring opening deg) : 2.57
PA of pole (deg)     : 0.66
Pole direction: RA (deg): 268.05734
Dec (deg): 64.49722
C/A sky separation (") : 16.330
C/A sky separation (km) : 57939.0
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
    
```

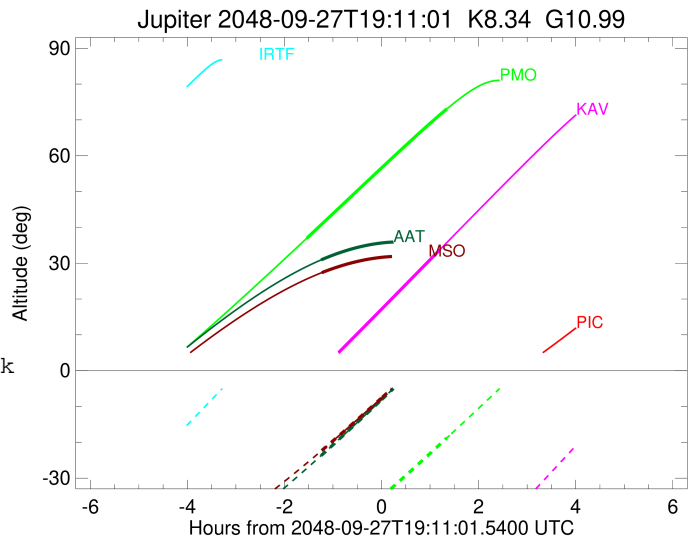
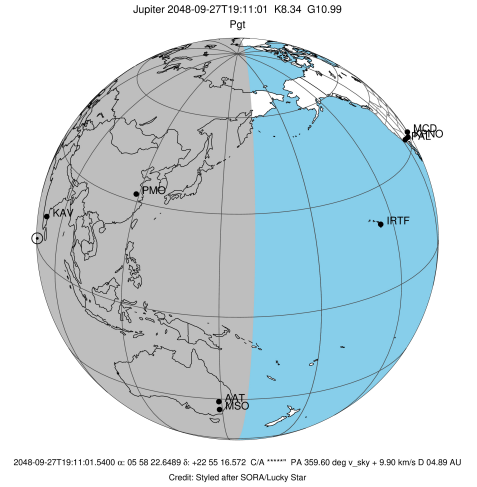


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2048-09-27T17:56:19.455	30.91	-23.72	71486.3	-52.75	-56.23
Jupiter	E	2048-09-27T20:23:32.886	34.77	7.38x	71485.9	-55.08	-58.44

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2048-09-27T19:09:49.350
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       : 3424529333801515776
2Mass ID (if available) : 05582266+2255171
ICRS Star Coord at Epoch: 05h 58m 22.64886s +22:55:16.57183s
RUWE (>1.4 is poor) : 0.98
K magnitude           : 8.341
G magnitude           : 10.986
RP magnitude          : 10.188
BP magnitude          : 11.666
DUPflag              : 0
Distance (au)        : 4.892
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 9.90
Sun-Target sep (deg) : 95.05
Sun-Moon sep (deg)   : 20.27
B (ring opening deg) : 2.57
PA of pole (deg)     : 0.66
Pole direction: RA (deg): 268.05734
Dec (deg): 64.49722
C/A sky separation (") : 16.401
C/A sky separation (km) : 58188.5
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	2048-09-27T17:57:07.240	27.35	-22.30	71486.2	-53.11	-56.57
Jupiter	E	2048-09-27T20:22:49.962	30.88	7.03x	71485.9	-55.42	-58.77