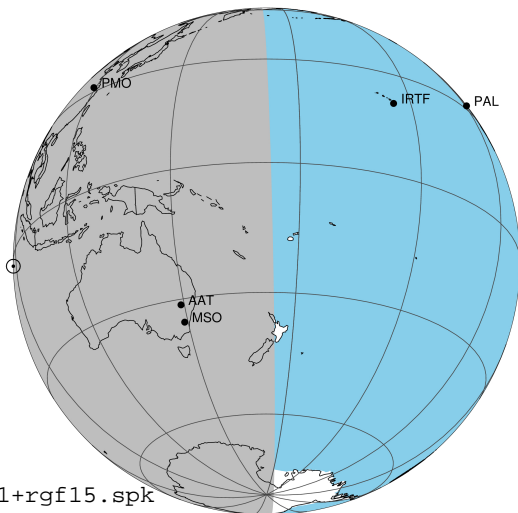


target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-03-24T18:32:55.870
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4066595123138402048
 2Mass ID (if available) : 18081944-2258552

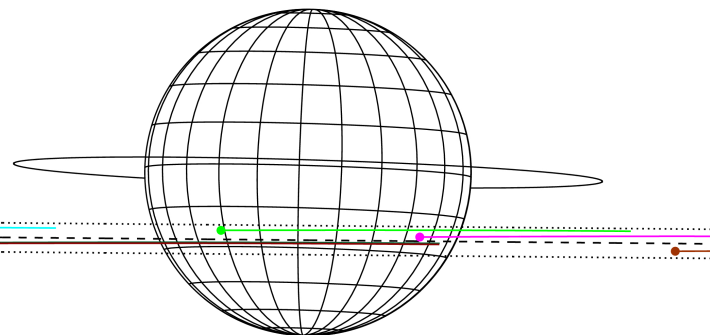
Jupiter 2043-03-24T18:32:55 K7.73 G11.12 Pgt

ICRS Star Coord at Epoch: 18h 08m 19.44973s -22:58:55.29315s
 RUWE (>1.4 is poor) : 0.80
 K magnitude : 7.729
 G magnitude : 11.120
 RP magnitude : 10.178
 BP magnitude : 12.037
 DUPflag : 0
 Distance (au) : 5.175
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 12.40
 Sun-Target sep (deg) : 91.50
 Sun-Moon sep (deg) : 97.78
 B (ring opening deg) : -2.46
 PA of pole (deg) : -1.73
 Pole direction: RA (deg): 268.05664
 Dec (deg): 64.49732
 C/A sky separation (") : 7.899
 C/A sky separation (km) : 29648.8
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2043-03-24T18:32:55 K7.73 G11.12 Pgt



Earth
 PMO
 IRTF
 KAV
 AAT
 SAAO
 MSO

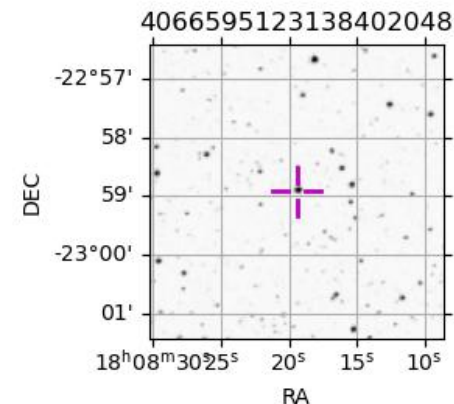


2043-03-24T18:32:55.8700 ex: 18 08 19.44973 s: -22 58 55.293 C/A 7.909° PA 359.48 deg v_sky +12.40 km/s D 05.18 AU

Credit: Styled after SORA/Lucky Star

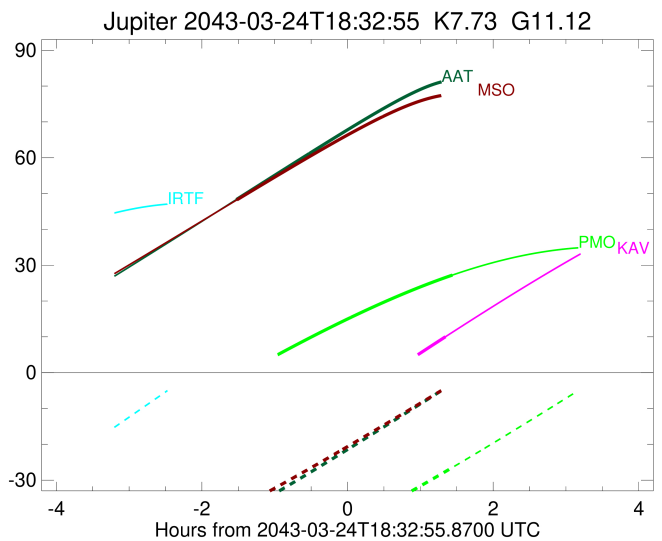
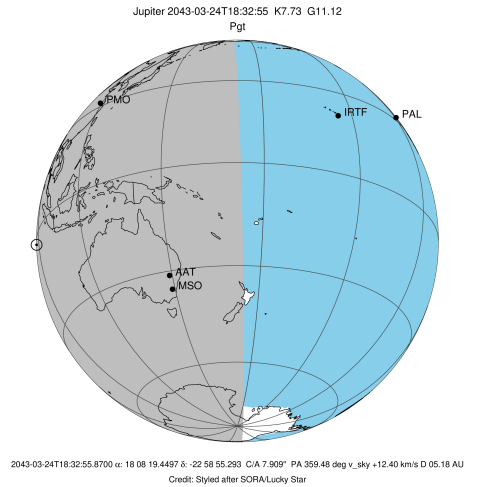
Observable events with sun below -5 deg and altitude above 5 deg

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	+	MAR 24 19:59 - MAR 24 19:59	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	+	MAR 24 19:53 - MAR 24 19:53	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	+	MAR 24 17:01 - MAR 24 17:01	Pin
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+	MAR 24 17:01 - MAR 24 17:01	Pin



```

target                : Jupiter
target radius (km)    : 71492.00
C/A epoch             : 2043-03-24T18:27:24.310
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        : 4066595123138402048
2Mass ID (if available) : 18081944-2258552
ICRS Star Coord at Epoch: 18h 08m 19.44973s -22:58:55.29315s
RUWE (>1.4 is poor)  : 0.80
K magnitude           : 7.729
G magnitude           : 11.120
RP magnitude          : 10.178
BP magnitude          : 12.037
DUPflag               : 0
Distance (au)         : 5.175
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 12.40
Sun-Target sep (deg)  : 91.50
Sun-Moon sep (deg)    : 98.10
B (ring opening deg) : -2.46
PA of pole (deg)     : -1.73
Pole direction: RA (deg): 268.05664
Dec (deg): 64.49732
C/A sky separation (") : 6.734
C/A sky separation (km) : 25276.4
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
    
```

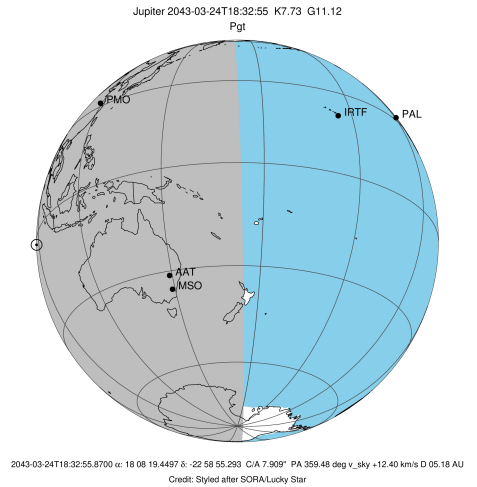


x: target alt < 5.0 deg or sun > -5.0 deg

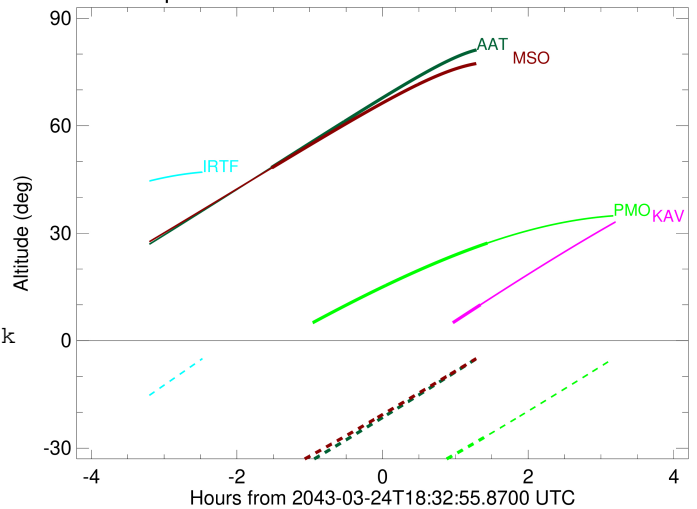
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-03-24T16:56:33.819	-2.26x	-54.83	71490.8	-22.54	-25.36
Jupiter	E	2043-03-24T19:59:25.497	27.24	-26.46	71491.1	-19.00	-21.47

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-03-24T18:25:10.110
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       : 4066595123138402048
2Mass ID (if available) : 18081944-2258552
ICRS Star Coord at Epoch: 18h 08m 19.44973s -22:58:55.29315s
RUWE (>1.4 is poor) : 0.80
K magnitude           : 7.729
G magnitude           : 11.120
RP magnitude         : 10.178
BP magnitude         : 12.037
DUPflag              : 0
Distance (au)        : 5.175
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 12.40
Sun-Target sep (deg) : 91.50
Sun-Moon sep (deg)   : 97.77
B (ring opening deg) : -2.46
PA of pole (deg)     : -1.73
Pole direction: RA (deg): 268.05664
Dec (deg): 64.49732
C/A sky separation ("): 7.600
C/A sky separation (km): 28528.4
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 2043-03-24T18:32:55 K7.73 G11.12

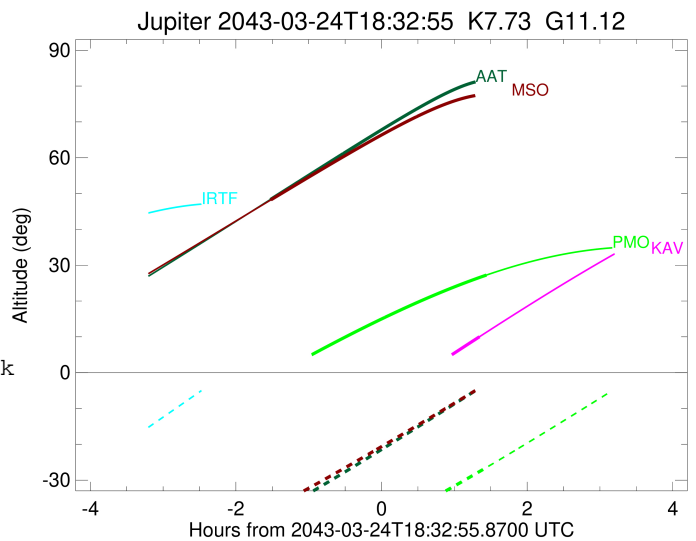
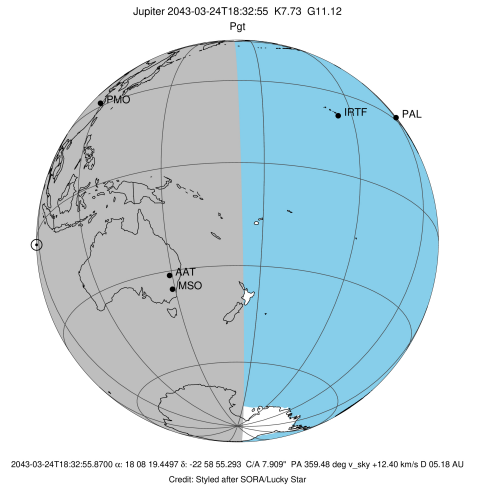


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-03-24T16:58:04.968	-29.77x	-58.68	71490.5	-25.49	-28.55
Jupiter	E	2043-03-24T19:53:39.485	10.02	-68.96	71490.9	-21.48	-24.19

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-03-24T18:30:07.800
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       : 4066595123138402048
2Mass ID (if available) : 18081944-2258552
ICRS Star Coord at Epoch: 18h 08m 19.44973s -22:58:55.29315s
RUWE (>1.4 is poor) : 0.80
K magnitude           : 7.729
G magnitude           : 11.120
RP magnitude         : 10.178
BP magnitude         : 12.037
DUPflag              : 0
Distance (au)        : 5.175
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 12.40
Sun-Target sep (deg) : 91.50
Sun-Moon sep (deg)   : 98.66
B (ring opening deg) : -2.46
PA of pole (deg)     : -1.73
Pole direction: RA (deg): 268.05664
Dec (deg): 64.49732
C/A sky separation ("): 8.180
C/A sky separation (km): 30704.3
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
    
```

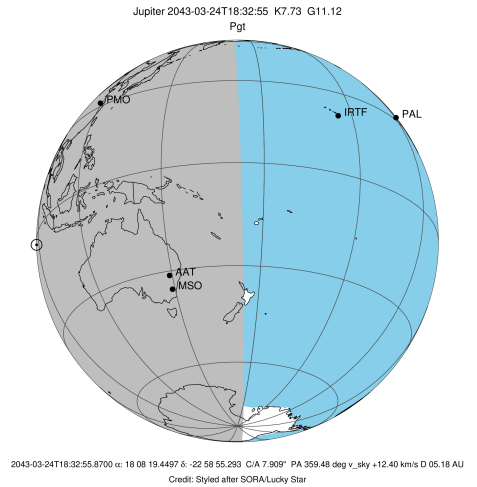


x: target alt < 5.0 deg or sun > -5.0 deg

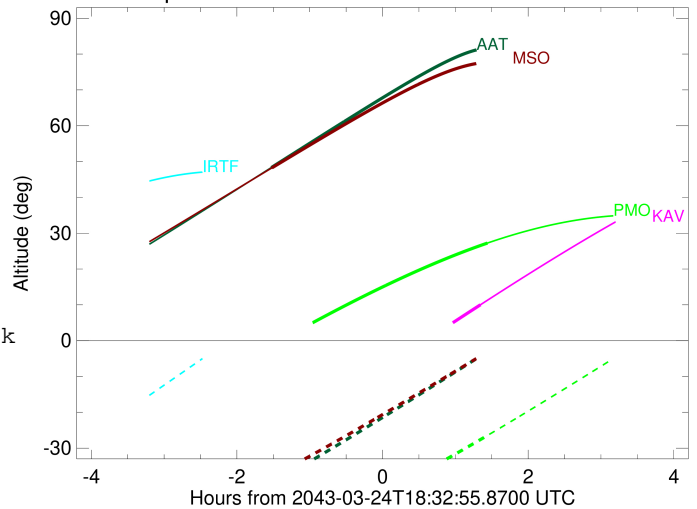
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-03-24T17:01:16.252	48.30	-39.92	71490.3	-27.02	-30.20
Jupiter	E	2043-03-24T19:59:40.114	81.75	-3.02x	71490.6	-24.06	-27.01

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-03-24T18:30:14.830
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      : 4066595123138402048
2Mass ID (if available) : 18081944-2258552
ICRS Star Coord at Epoch: 18h 08m 19.44973s -22:58:55.29315s
RUWE (>1.4 is poor) : 0.80
K magnitude          : 7.729
G magnitude          : 11.120
RP magnitude         : 10.178
BP magnitude         : 12.037
DUPflag             : 0
Distance (au)       : 5.175
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 12.40
Sun-Target sep (deg) : 91.50
Sun-Moon sep (deg)  : 98.65
B (ring opening deg) : -2.46
PA of pole (deg)    : -1.73
Pole direction: RA (deg): 268.05664
Dec (deg): 64.49732
C/A sky separation ("): 8.296
C/A sky separation (km) : 31138.8
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
    
```



Jupiter 2043-03-24T18:32:55 K7.73 G11.12



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	2043-03-24T17:01:46.648	48.23	-37.92	71490.2	-27.39	-30.59
Jupiter	E	2043-03-24T19:59:22.189	77.75	-3.13x	71490.6	-24.45	-27.44