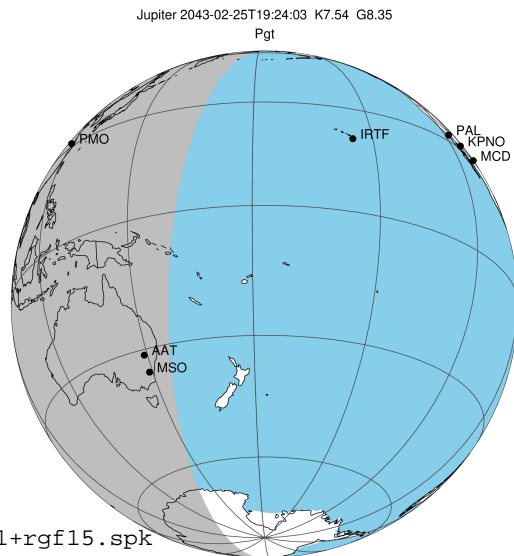


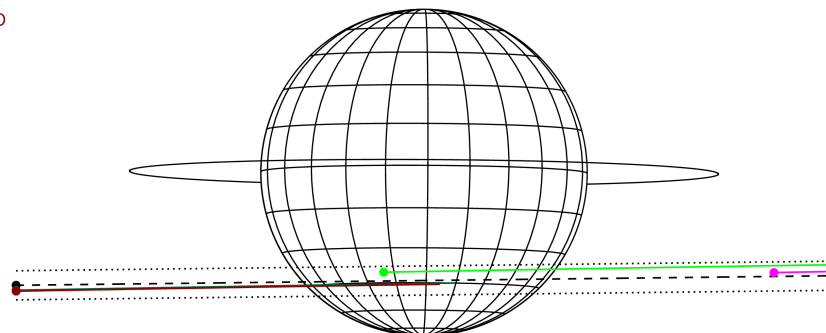
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-02-25T19:24:03.910
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4070142147649607552
 2Mass ID (if available) : 17550020-2258520

Jupiter 2043-02-25T19:24:03 K7.54 G8.35 Pgt

ICRS Star Coord at Epoch: 17h 55m 00.20525s -22:58:52.39021s
 RUWE (>1.4 is poor) : 0.91
 K magnitude : 7.537
 G magnitude : 8.351
 RP magnitude : 8.002
 BP magnitude : 8.535
 DUPflag : 0
 Distance (au) : 5.602
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 24.52
 Sun-Target sep (deg) : 67.63
 Sun-Moon sep (deg) : 90.61
 B (ring opening deg) : -2.52
 PA of pole (deg) : -0.30
 Pole direction: RA (deg): 268.05662
 Dec (deg): 64.49732
 C/A sky separation (") : 11.646
 C/A sky separation (km) : 47317.2
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk



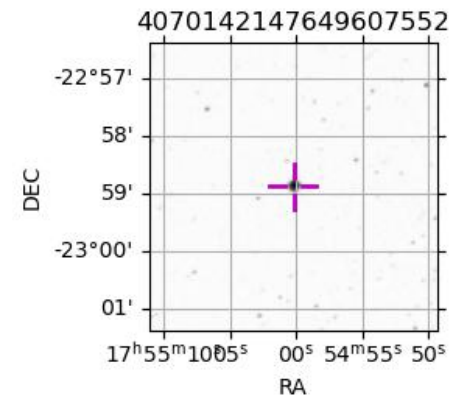
Earth
 PMO
 KAV
 AAT
 MSO



2043-02-25T19:24:03.9100 α: 17 55 00.2053 δ: -22 58 52.390 C/A ***** PA 0.67 deg v_sky +24.52 km/s D 05.60 AU
 Credit: Styled after SORA/Lucky Star

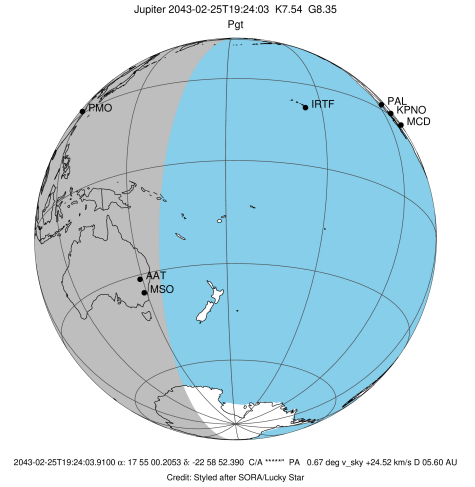
Observable events with sun below -5 deg and altitude above 5 deg

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	+	FEB 25 19:59 - FEB 25 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			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	+	FEB 25 18:46 - FEB 25 18:46	Pin
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+	FEB 25 18:46 - FEB 25 18:46	Pin

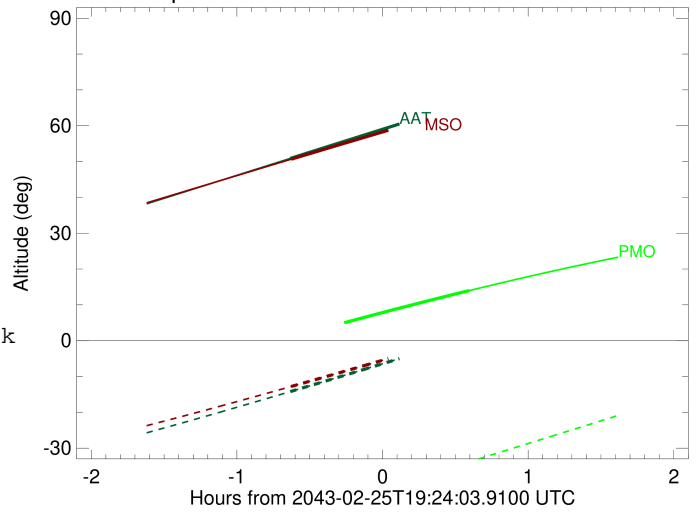


```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-02-25T19:20:53.320
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        : 4070142147649607552
2Mass ID (if available) : 17550020-2258520
ICRS Star Coord at Epoch: 17h 55m 00.20525s -22:58:52.39021s
RUWE (>1.4 is poor)  : 0.91
K magnitude           : 7.537
G magnitude           : 8.351
RP magnitude          : 8.002
BP magnitude          : 8.535
DUPflag              : 0
Distance (au)         : 5.602
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s)  : 24.52
Sun-Target sep (deg)  : 67.63
Sun-Moon sep (deg)    : 90.75
B (ring opening deg)  : -2.52
PA of pole (deg)      : -0.30
Pole direction: RA (deg): 268.05662
Dec (deg): 64.49732
C/A sky separation (") : 10.670
C/A sky separation (km) : 43353.4
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 2043-02-25T19:24:03 K7.54 G8.35

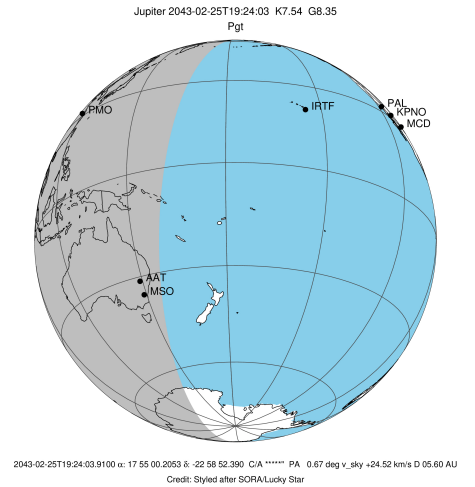


x: target alt < 5.0 deg or sun > -5.0 deg

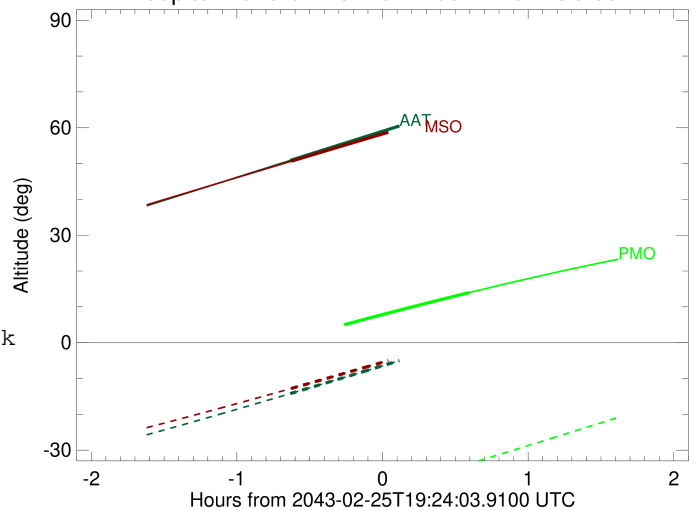
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-02-25T18:42:03.142	0.13x	-49.43	71488.6	-38.60	-42.29
Jupiter	E	2043-02-25T19:59:50.468	13.99	-33.79	71489.0	-36.01	-39.64

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-02-25T19:22:06.410
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      : 4070142147649607552
2Mass ID (if available) : 17550020-2258520
ICRS Star Coord at Epoch: 17h 55m 00.20525s -22:58:52.39021s
RUWE (>1.4 is poor) : 0.91
K magnitude          : 7.537
G magnitude          : 8.351
RP magnitude         : 8.002
BP magnitude         : 8.535
DUPflag             : 0
Distance (au)        : 5.602
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 24.52
Sun-Target sep (deg) : 67.63
Sun-Moon sep (deg)   : 91.41
B (ring opening deg) : -2.52
PA of pole (deg)     : -0.30
Pole direction: RA (deg): 268.05662
Dec (deg): 64.49732
C/A sky separation ("): 11.964
C/A sky separation (km): 48608.9
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 2043-02-25T19:24:03 K7.54 G8.35

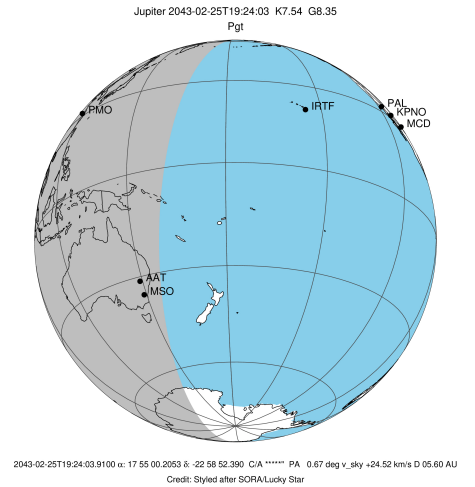


x: target alt < 5.0 deg or sun > -5.0 deg

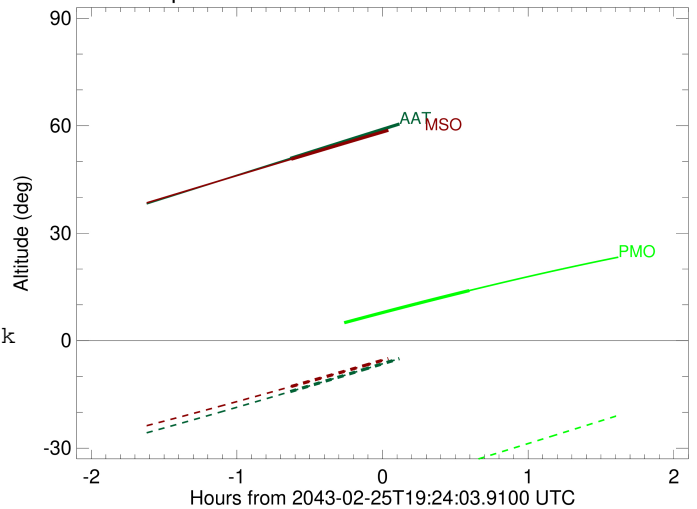
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-02-25T18:46:02.620	50.86	-14.22	71487.8	-43.99	-47.70
Jupiter	E	2043-02-25T19:58:14.403	66.21	0.69x	71488.2	-41.64	-45.35

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-02-25T19:22:11.810
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        : 4070142147649607552
2Mass ID (if available) : 17550020-2258520
ICRS Star Coord at Epoch: 17h 55m 00.20525s -22:58:52.39021s
RUWE (>1.4 is poor)  : 0.91
K magnitude           : 7.537
G magnitude           : 8.351
RP magnitude          : 8.002
BP magnitude          : 8.535
DUPflag              : 0
Distance (au)         : 5.602
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 24.52
Sun-Target sep (deg)  : 67.63
Sun-Moon sep (deg)    : 91.40
B (ring opening deg)  : -2.52
PA of pole (deg)      : -0.30
Pole direction: RA (deg): 268.05662
Dec (deg): 64.49732
C/A sky separation (") : 12.068
C/A sky separation (km) : 49032.9
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 2043-02-25T19:24:03 K7.54 G8.35



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	2043-02-25T18:46:25.592	50.64	-12.79	71487.7	-44.44	-48.15
Jupiter	E	2043-02-25T19:58:02.029	64.88	1.30x	71488.1	-42.11	-45.83