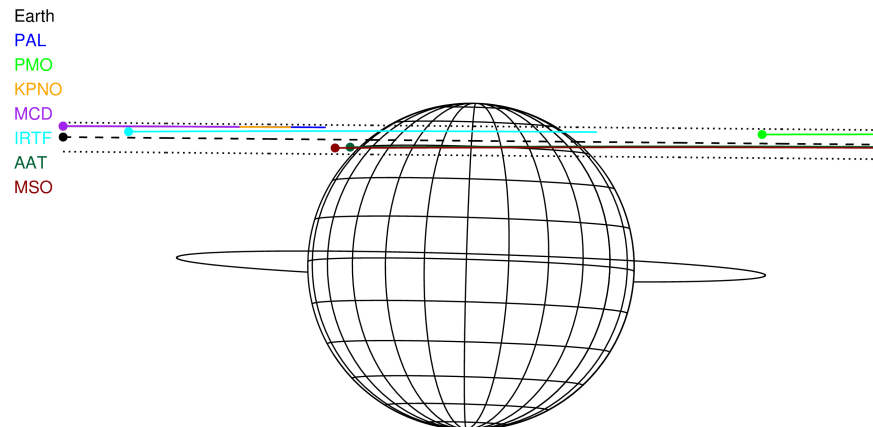
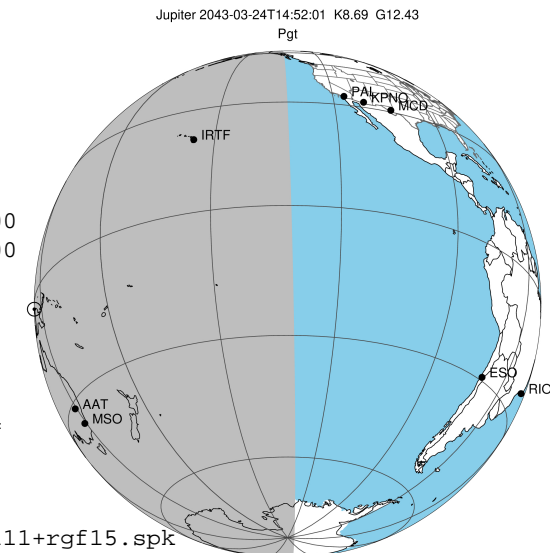


target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-03-24T14:52:01.660
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4066595299286230656
 2Mass ID (if available) : 18081625-2258330

Jupiter 2043-03-24T14:52:01 K8.69 G12.43 Pgt

ICRS Star Coord at Epoch: 18h 08m 16.25449s -22:58:33.13832s

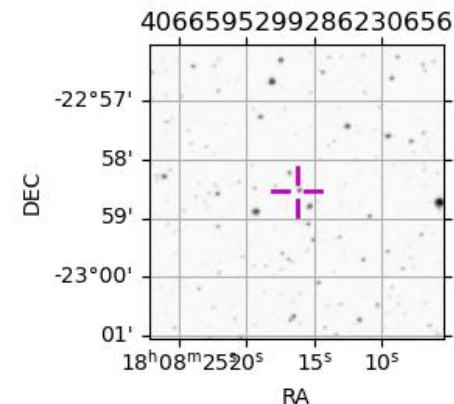
RUWE (>1.4 is poor) : 1.21
 K magnitude : 8.694
 G magnitude : 12.427
 RP magnitude : 11.414
 BP magnitude : 13.489
 DUPflag : 0
 Distance (au) : 5.178
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 12.48
 Sun-Target sep (deg) : 91.36
 Sun-Moon sep (deg) : 99.65
 B (ring opening deg) : -2.47
 PA of pole (deg) : -1.73
 Pole direction: RA (deg): 268.05664
 Dec (deg): 64.49732
 C/A sky separation (") : 14.659
 C/A sky separation (km) : 55047.8
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk



2043-03-24T14:52:01.6600 α: 18 08 16.2545 δ: -22 58 33.138 C/A ***** PA 179.47 deg v_sky +12.48 km/s D 05.18 AU
 Credit: Styled after SORA/Lucky Star

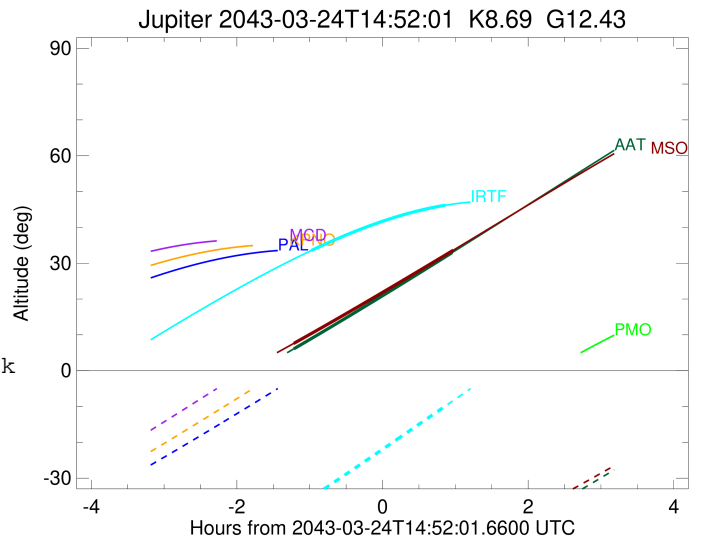
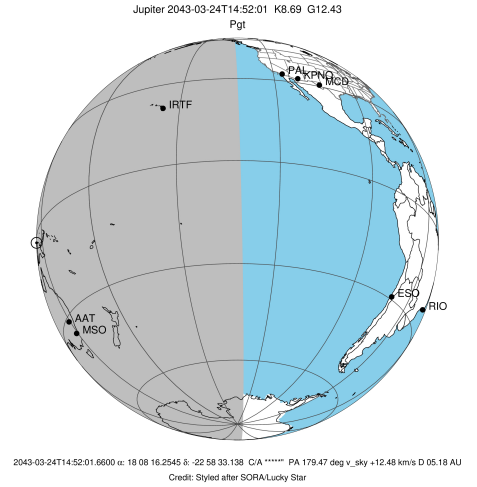
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	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			Pnn
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	+ +	MAR 24 13:53 - MAR 24 15:43	Pie
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	+ +	MAR 24 13:39 - MAR 24 15:49	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+ +	MAR 24 13:38 - MAR 24 15:50	Pie



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-03-24T14:48:24.490
Event type          : Pgt
                    : Jupiter occs: geocentric, topocentric
                    : Not a ringed target
Observer code       : IRTF
Location            : Mauna Kea/IRTF
Latitude (deg)      : 19.82622
E. Longitude (deg)  : 204.52800
Altitude (km)       : 4.168
Gaia source ID      : 4066595299286230656
2Mass ID (if available) : 18081625-2258330
ICRS Star Coord at Epoch: 18h 08m 16.25449s -22:58:33.13832s
RUWE (>1.4 is poor) : 1.21
K magnitude          : 8.694
G magnitude          : 12.427
RP magnitude         : 11.414
BP magnitude         : 13.489
DUPflag             : 0
Distance (au)       : 5.178
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 12.48
Sun-Target sep (deg) : 91.36
Sun-Moon sep (deg)  : 100.31
B (ring opening deg) : -2.47
PA of pole (deg)    : -1.73
Pole direction: RA (deg): 268.05664
Dec (deg): 64.49732
C/A sky separation (") : 15.765
C/A sky separation (km) : 59202.3
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
    
```

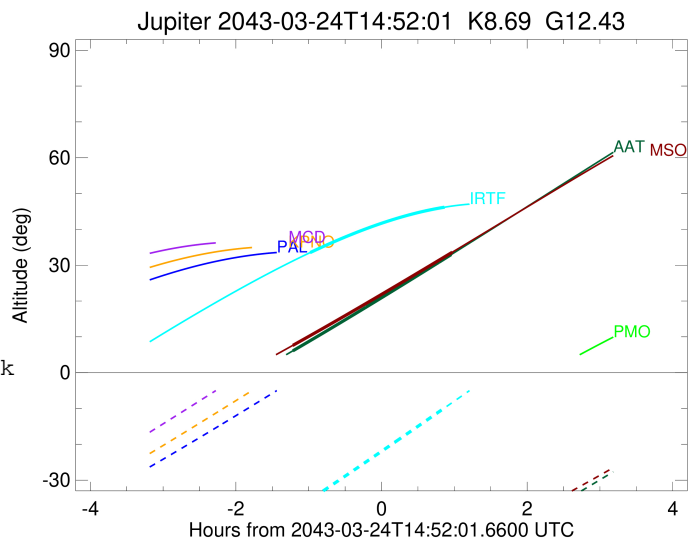
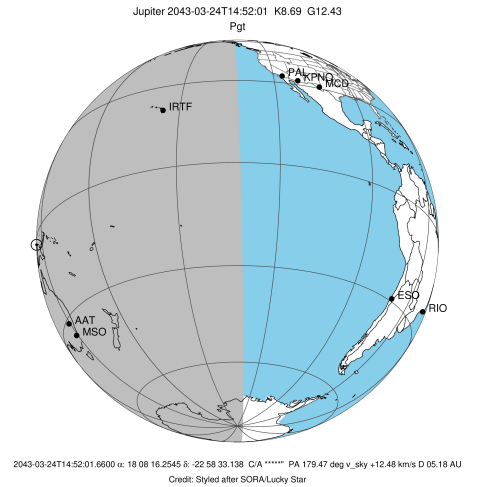


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-03-24T13:53:09.106	33.50	-35.45	71486.5	54.25	57.66
Jupiter	E	2043-03-24T15:43:57.575	46.18	-9.84	71486.1	57.23	60.48

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-03-24T14:43:55.590
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       : 4066595299286230656
2Mass ID (if available) : 18081625-2258330
ICRS Star Coord at Epoch: 18h 08m 16.25449s -22:58:33.13832s
RUWE (>1.4 is poor) : 1.21
K magnitude           : 8.694
G magnitude           : 12.427
RP magnitude          : 11.414
BP magnitude          : 13.489
DUPflag              : 0
Distance (au)         : 5.178
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 12.48
Sun-Target sep (deg) : 91.36
Sun-Moon sep (deg)   : 100.10
B (ring opening deg) : -2.47
PA of pole (deg)     : -1.73
Pole direction: RA (deg): 268.05664
Dec (deg): 64.49732
C/A sky separation ("): 13.964
C/A sky separation (km): 52439.7
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
    
```

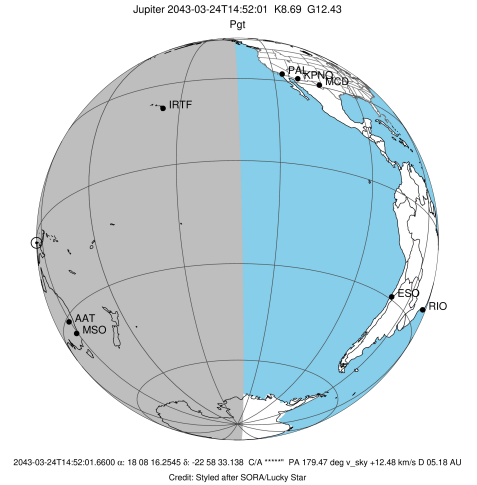


x: target alt < 5.0 deg or sun > -5.0 deg

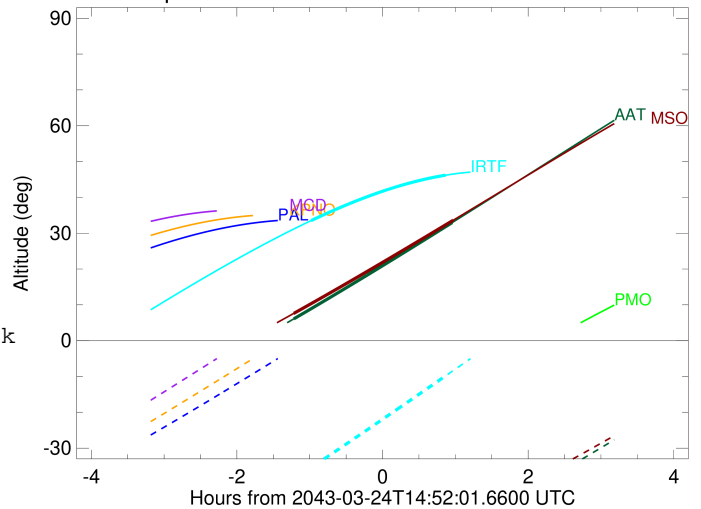
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-03-24T13:39:02.488	6.11	-59.52	71487.8	45.22	48.92
Jupiter	E	2043-03-24T15:49:32.446	32.98	-52.21	71487.3	49.00	52.61

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-03-24T14:44:17.410
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        : 4066595299286230656
2Mass ID (if available) : 18081625-2258330
ICRS Star Coord at Epoch: 18h 08m 16.25449s -22:58:33.13832s
RUWE (>1.4 is poor) : 1.21
K magnitude           : 8.694
G magnitude           : 12.427
RP magnitude          : 11.414
BP magnitude          : 13.489
DUPflag              : 0
Distance (au)         : 5.178
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 12.48
Sun-Target sep (deg)  : 91.36
Sun-Moon sep (deg)    : 100.11
B (ring opening deg) : -2.47
PA of pole (deg)      : -1.73
Pole direction: RA (deg): 268.05664
Dec (deg): 64.49732
C/A sky separation (") : 13.867
C/A sky separation (km) : 52076.7
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
    
```



Jupiter 2043-03-24T14:52:01 K8.69 G12.43



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	2043-03-24T13:38:53.329	7.61	-55.60	71487.9	44.83	48.54
Jupiter	E	2043-03-24T15:50:24.218	33.63	-49.12	71487.3	48.54	52.17