

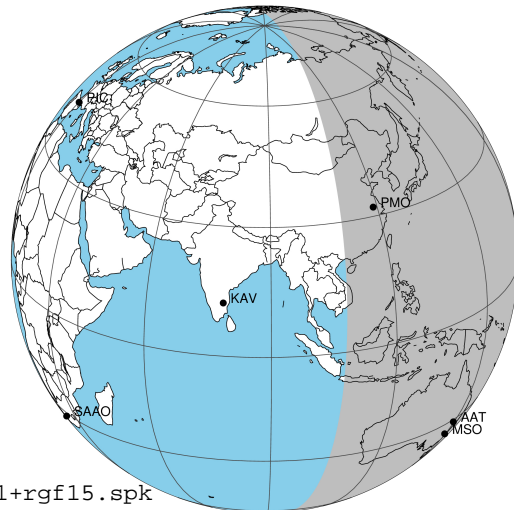
target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2037-03-28T10:56:13.340  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 3415513437236853376  
 2Mass ID (if available) : 05124167+2245460

Jupiter 2037-03-28T10:56:13 K9.59 G13.01 Pgt

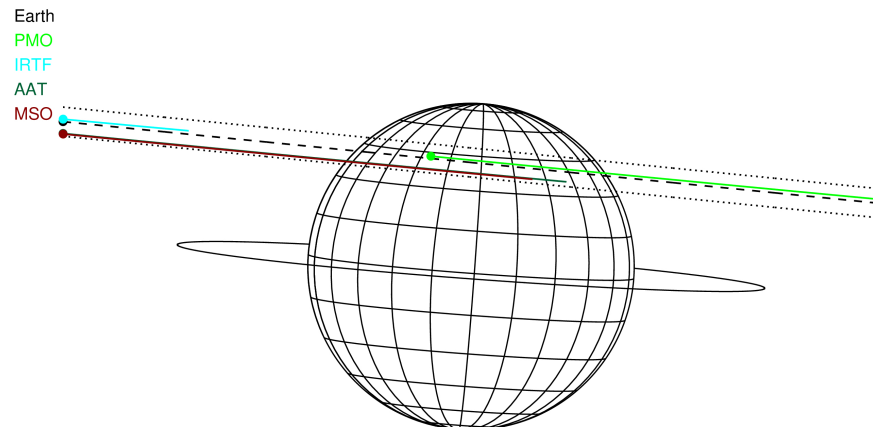
ICRS Star Coord at Epoch: 05h 12m 41.68824s +22:45:46.05072s

RUWE (>1.4 is poor) : 1.01  
 K magnitude : 9.589  
 G magnitude : 13.010  
 RP magnitude : 12.050  
 BP magnitude : 13.962  
 DUPflag : 0  
 Distance (au) : 5.356  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 22.12  
 Sun-Target sep (deg) : 71.52  
 Sun-Moon sep (deg) : 66.94  
 B (ring opening deg) : 2.40  
 PA of pole (deg) : -4.24  
 Pole direction: RA (deg): 268.05629  
 Dec (deg): 64.49688  
 C/A sky separation (") : 11.670  
 C/A sky separation (km) : 45338.3  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

Jupiter 2037-03-28T10:56:13 K9.59 G13.01  
 Pgt

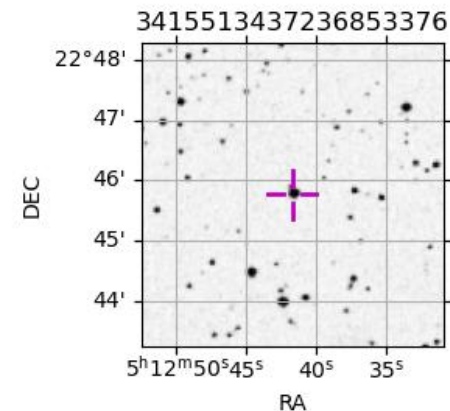


2037-03-28T10:56:13.3400 α: 05 12 41.6882 δ: +22 45 46.051 C/A \*\*\*\*\* PA 174.29 deg v\_sky +22.12 km/s D 05.36 AU  
 Credit: Styled after SORA/Lucky Star



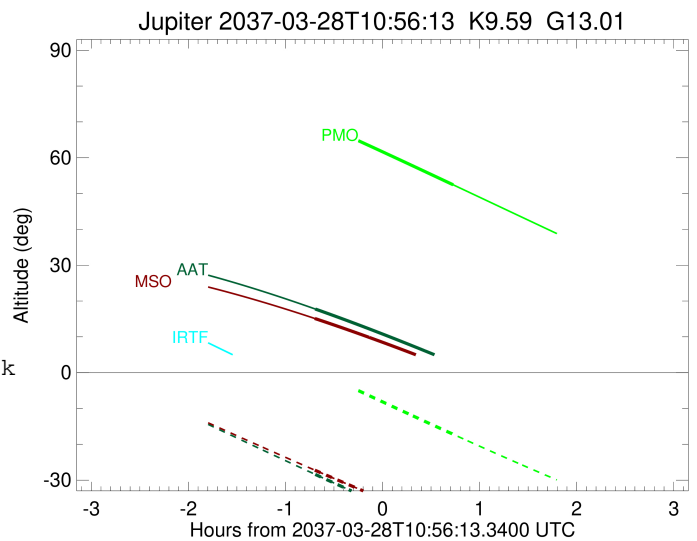
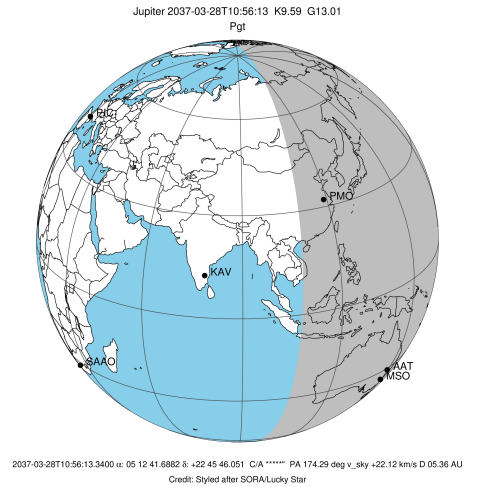
Observable events with sun below -5 deg and altitude above 5 deg

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 28 11:39 - MAR 28 11:39	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	+	MAR 28 10:14 - MAR 28 10:14	Pin
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+	MAR 28 10:14 - MAR 28 10:14	Pin



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2037-03-28T10:58:19.570
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       : 3415513437236853376
2Mass ID (if available) : 05124167+2245460
ICRS Star Coord at Epoch: 05h 12m 41.68824s +22:45:46.05072s
RUWE (>1.4 is poor) : 1.01
K magnitude           : 9.589
G magnitude           : 13.010
RP magnitude         : 12.050
BP magnitude         : 13.962
DUPflag              : 0
Distance (au)        : 5.356
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 22.12
Sun-Target sep (deg) : 71.52
Sun-Moon sep (deg)  : 67.59
B (ring opening deg) : 2.40
PA of pole (deg)    : -4.24
Pole direction: RA (deg): 268.05629
Dec (deg): 64.49688
C/A sky separation (") : 11.936
C/A sky separation (km) : 46371.0
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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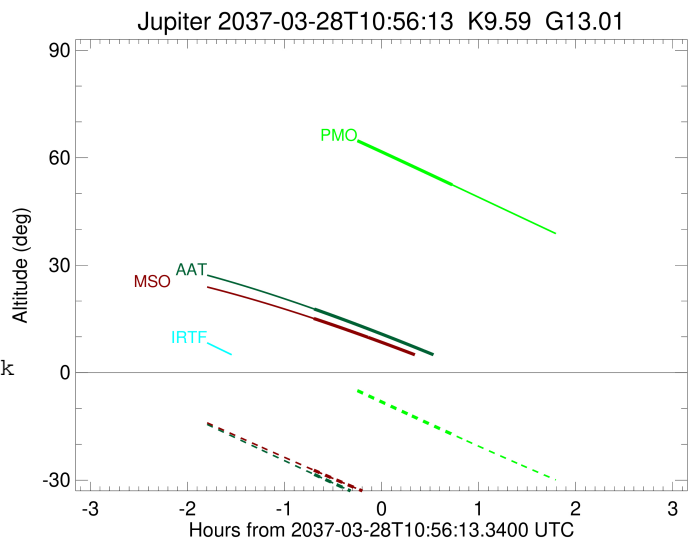
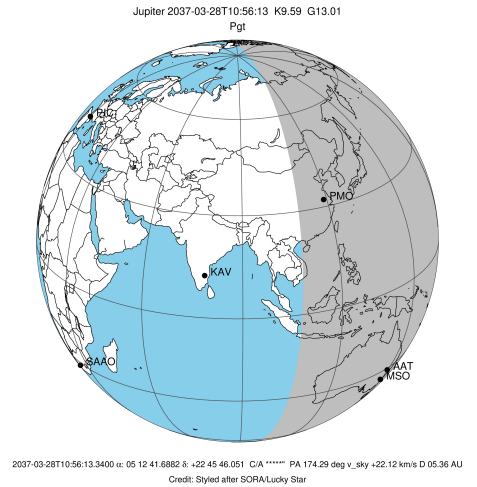


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2037-03-28T10:16:39.541	69.74	0.20x	71488.5	41.78	45.50
Jupiter	E	2037-03-28T11:39:54.146	52.44	-17.20	71488.9	39.09	42.78

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2037-03-28T10:59:21.620
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       : 3415513437236853376
2Mass ID (if available) : 05124167+2245460
ICRS Star Coord at Epoch: 05h 12m 41.68824s +22:45:46.05072s
RUWE (>1.4 is poor) : 1.01
K magnitude           : 9.589
G magnitude           : 13.010
RP magnitude          : 12.050
BP magnitude          : 13.962
DUPflag              : 0
Distance (au)        : 5.356
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 22.12
Sun-Target sep (deg) : 71.52
Sun-Moon sep (deg)   : 66.85
B (ring opening deg) : 2.40
PA of pole (deg)     : -4.24
Pole direction: RA (deg): 268.05629
Dec (deg): 64.49688
C/A sky separation (") : 10.515
C/A sky separation (km) : 40851.0
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
    
```

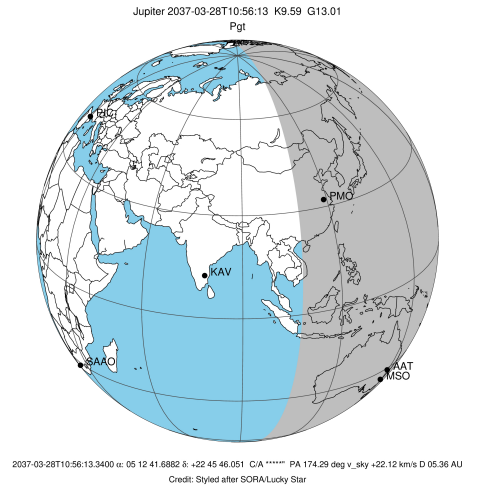


x: target alt < 5.0 deg or sun > -5.0 deg

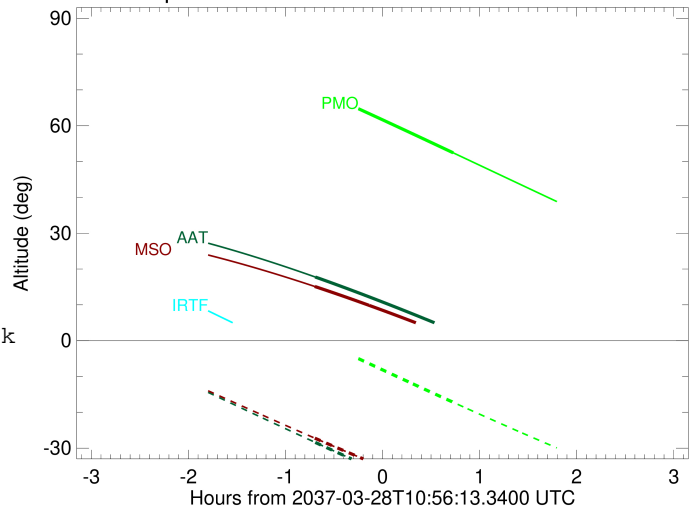
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2037-03-28T10:14:40.826	17.76	-28.40	71489.3	36.01	39.64
Jupiter	E	2037-03-28T11:43:52.649	2.09x	-45.97	71489.6	33.68	37.23

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2037-03-28T10:59:10.890
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       : 3415513437236853376
2Mass ID (if available) : 05124167+2245460
ICRS Star Coord at Epoch: 05h 12m 41.68824s +22:45:46.05072s
RUWE (>1.4 is poor) : 1.01
K magnitude           : 9.589
G magnitude           : 13.010
RP magnitude         : 12.050
BP magnitude         : 13.962
DUPflag              : 0
Distance (au)        : 5.356
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 22.12
Sun-Target sep (deg) : 71.52
Sun-Moon sep (deg)   : 66.83
B (ring opening deg) : 2.40
PA of pole (deg)     : -4.24
Pole direction: RA (deg): 268.05629
Dec (deg): 64.49688
C/A sky separation (") : 10.443
C/A sky separation (km) : 40570.8
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 2037-03-28T10:56:13 K9.59 G13.01



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	2037-03-28T10:14:22.396	15.12	-27.21	71489.3	35.75	39.37
Jupiter	E	2037-03-28T11:43:49.951	0.22x	-43.69	71489.6	33.39	36.93