

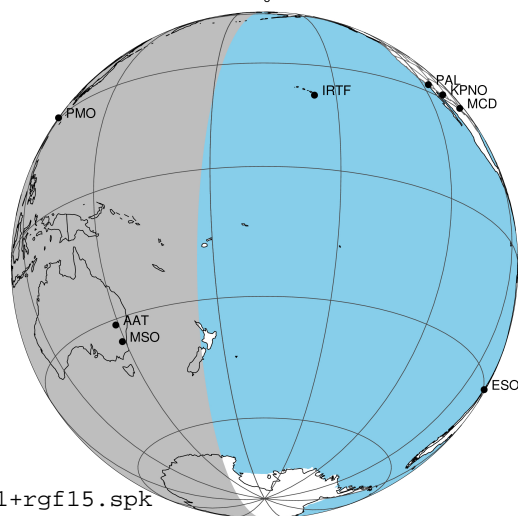
target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2043-03-05T18:18:50.240  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 4069445199028014080  
 2Mass ID (if available) : 17594305-2259105

Jupiter 2043-03-05T18:18:50 K9.89 G13.84 Pgt

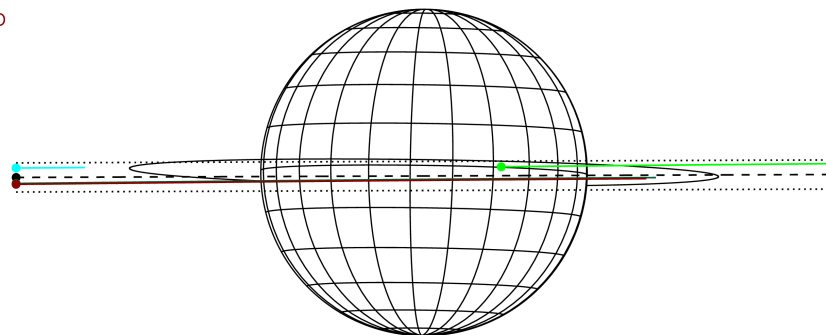
ICRS Star Coord at Epoch: 17h 59m 43.04472s -22:59:10.77601s

RUWE (>1.4 is poor) : 1.01  
 K magnitude : 9.894  
 G magnitude : 13.839  
 RP magnitude : 12.760  
 BP magnitude : 15.049  
 DUPflag : 0  
 Distance (au) : 5.480  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 21.14  
 Sun-Target sep (deg) : 74.53  
 Sun-Moon sep (deg) : 6.86  
 B (ring opening deg) : -2.50  
 PA of pole (deg) : -0.81  
 Pole direction: RA (deg): 268.05663  
 Dec (deg): 64.49732  
 C/A sky separation (") : 0.382  
 C/A sky separation (km) : 1516.6  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

Jupiter 2043-03-05T18:18:50 K9.89 G13.84  
 Pgt



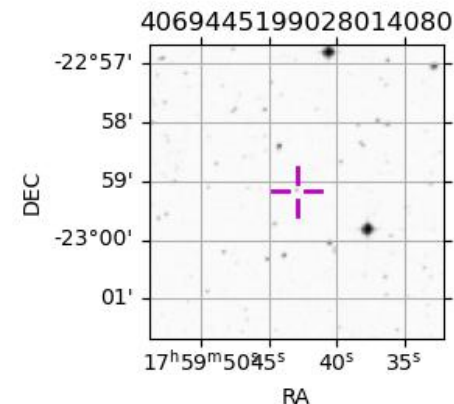
Earth  
 PMO  
 IRTF  
 AAT  
 MSO



2043-03-05T18:18:50.2400 a: 17 59 43.04472 & -22 59 10.776 C/A 0.3911 PA 0.23 deg v\_sky +21.14 km/s D 05.48 AU  
 Credit: Styled after SORA/Lucky Star

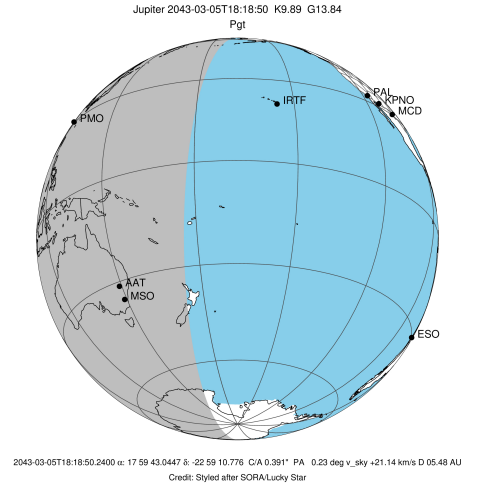
Observable events with sun below -5 deg and altitude above 5 deg

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	+	MAR 05 19:11 - MAR 05 19:11	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 05 17:18 - MAR 05 19:13	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+ +	MAR 05 17:19 - MAR 05 19:13	Pie

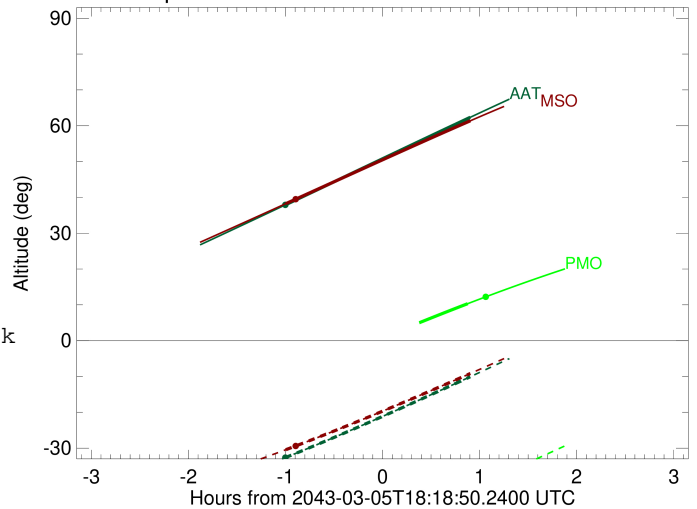


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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-03-05T18:14:42.810
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : PMO
Location              : Purple Mtn Obs. Nanking
Latitude (deg)       : 32.06667
E. Longitude (deg)   : 118.82089
Altitude (km)        : 0.364
Gaia source ID       : 4069445199028014080
2Mass ID (if available) : 17594305-2259105
ICRS Star Coord at Epoch: 17h 59m 43.04472s -22:59:10.77601s
RUWE (>1.4 is poor) : 1.01
K magnitude           : 9.894
G magnitude           : 13.839
RP magnitude          : 12.760
BP magnitude          : 15.049
DUPflag              : 0
Distance (au)        : 5.480
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 21.14
Sun-Target sep (deg) : 74.53
Sun-Moon sep (deg)   : 7.73
B (ring opening deg) : -2.50
PA of pole (deg)     : -0.81
Pole direction: RA (deg): 268.05663
Dec (deg): 64.49732
C/A sky separation (") : 0.540
C/A sky separation (km) : 2146.7
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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Jupiter 2043-03-05T18:18:50 K9.89 G13.84

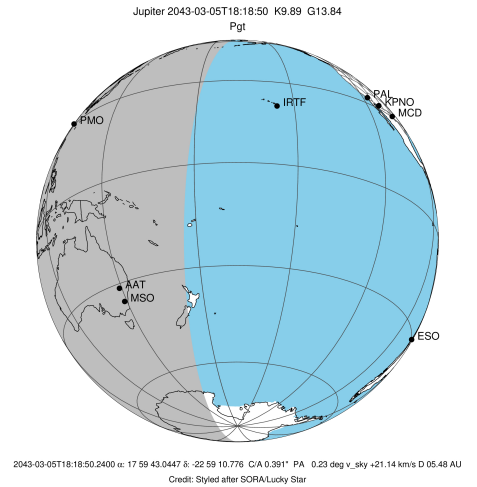


x: target alt < 5.0 deg or sun > -5.0 deg

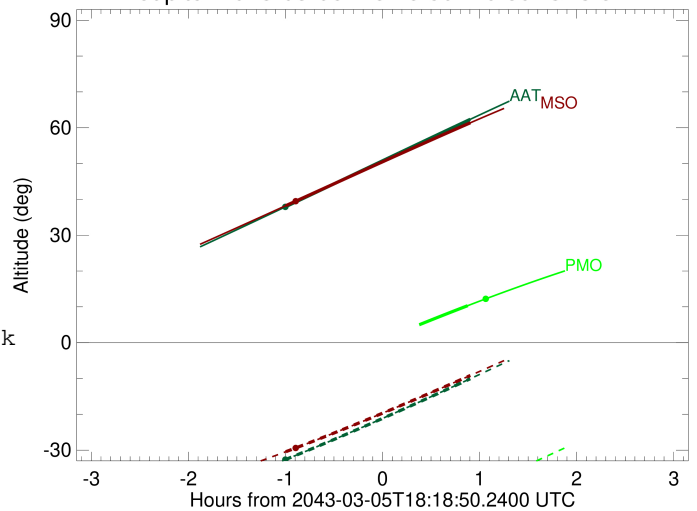
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-03-05T17:18:14.505	-10.97x	-60.22	71492.0	0.29	0.34
Jupiter	E	2043-03-05T19:11:29.470	10.32	-41.53	71492.0	3.12	3.56

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-03-05T18:15:51.090
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       : 4069445199028014080
2Mass ID (if available) : 17594305-2259105
ICRS Star Coord at Epoch: 17h 59m 43.04472s -22:59:10.77601s
RUWE (>1.4 is poor) : 1.01
K magnitude          : 9.894
G magnitude          : 13.839
RP magnitude         : 12.760
BP magnitude         : 15.049
DUPflag             : 0
Distance (au)        : 5.480
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 21.14
Sun-Target sep (deg) : 74.53
Sun-Moon sep (deg)   : 7.10
B (ring opening deg) : -2.50
PA of pole (deg)     : -0.81
Pole direction: RA (deg): 268.05663
Dec (deg): 64.49732
C/A sky separation ("): 0.759
C/A sky separation (km): 3014.8
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 2043-03-05T18:18:50 K9.89 G13.84

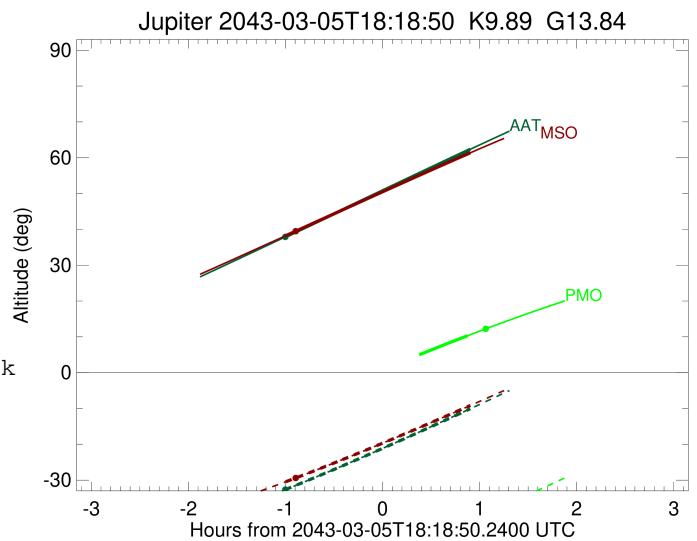
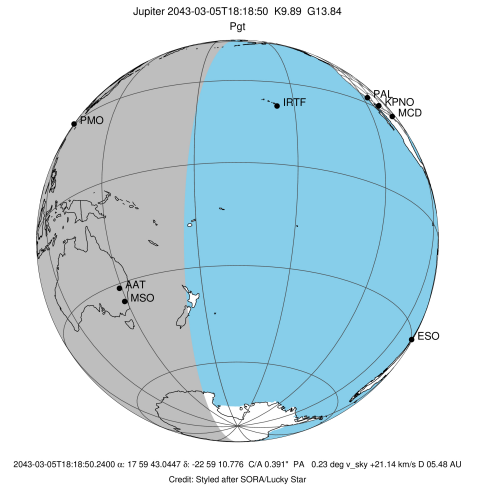


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-03-05T17:18:53.215	37.92	-32.62	71492.0	-3.76	-4.30
Jupiter	E	2043-03-05T19:13:03.532	62.34	-10.07	71492.0	-1.15	-1.31

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-03-05T18:15:59.180
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        : 4069445199028014080
2Mass ID (if available) : 17594305-2259105
ICRS Star Coord at Epoch: 17h 59m 43.04472s -22:59:10.77601s
RUWE (>1.4 is poor) : 1.01
K magnitude           : 9.894
G magnitude           : 13.839
RP magnitude          : 12.760
BP magnitude          : 15.049
DUPflag              : 0
Distance (au)         : 5.480
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 21.14
Sun-Target sep (deg) : 74.53
Sun-Moon sep (deg)   : 7.04
B (ring opening deg) : -2.50
PA of pole (deg)     : -0.81
Pole direction: RA (deg): 268.05663
Dec (deg): 64.49732
C/A sky separation ("): 0.863
C/A sky separation (km): 3429.5
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	2043-03-05T17:19:04.045	38.24	-30.44	71492.0	-4.08	-4.66
Jupiter	E	2043-03-05T19:13:08.344	61.37	-9.16	71492.0	-1.49	-1.71