

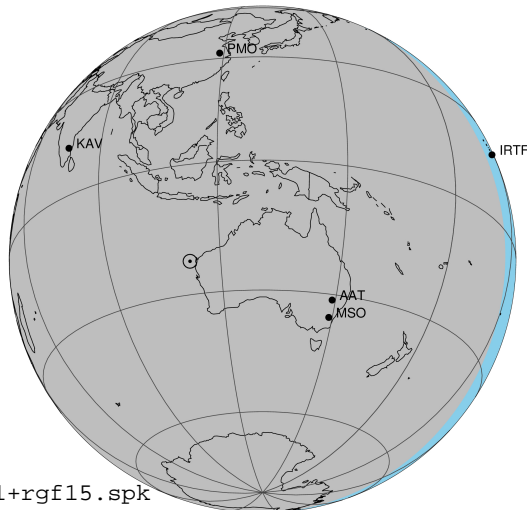
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-06-04T16:29:08.810
 Event type : Pt
 : Jupiter occs: topocentric, not geocentric
 : Not a ringed target
 Gaia source ID : 4069432004888451328
 2Mass ID (if available) : 18000402-2304005

Jupiter 2043-06-04T16:29:08 K8.23 G11.27 Pt

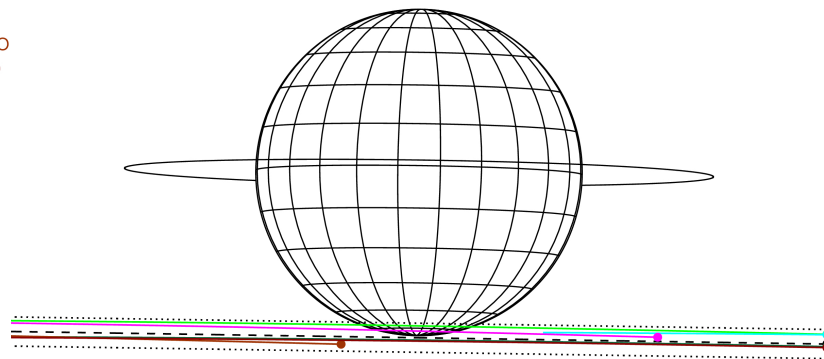
ICRS Star Coord at Epoch: 18h 00m 04.02539s -23:04:00.70520s

RUWE (>1.4 is poor) : 1.11
 K magnitude : 8.235
 G magnitude : 11.270
 RP magnitude : 10.401
 BP magnitude : 12.060
 DUPflag : 0
 Distance (au) : 4.292
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : -15.18
 Sun-Target sep (deg) : 163.35
 Sun-Moon sep (deg) : 124.39
 B (ring opening deg) : -2.42
 PA of pole (deg) : -0.84
 Pole direction: RA (deg): 268.05668
 Dec (deg): 64.49732
 C/A sky separation (") : 23.255
 C/A sky separation (km) : 72389.3
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2043-06-04T16:29:08 K8.23 G11.27 Pt



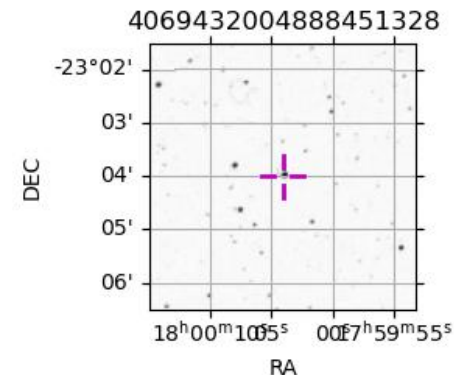
Earth
 PMO
 IRTF
 KAV
 AAT
 SAAO
 MSO



2043-06-04T16:29:08.8100 a: 18 00 04.0254 s: -23 04 00.705 C/A ***** PA 359.12 deg v_sky -15.18 km/s D 04.29 AU
 Credit: Styled after SORA/Lucky Star

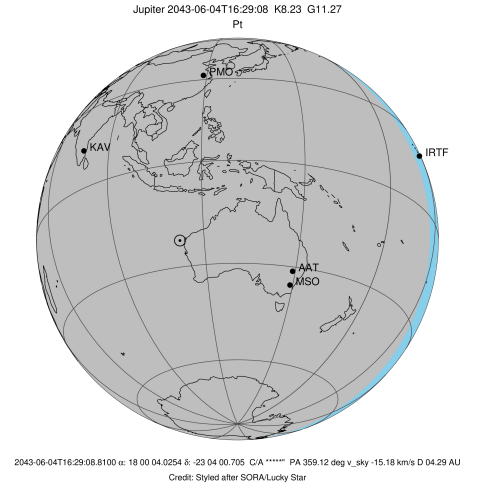
Observable events with sun below -5 deg and altitude above 5 deg

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	+ +	JUN 04 16:04 - JUN 04 16:56	Pie
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	+ +	JUN 04 16:16 - JUN 04 16:53	Pie
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			Pnn
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn

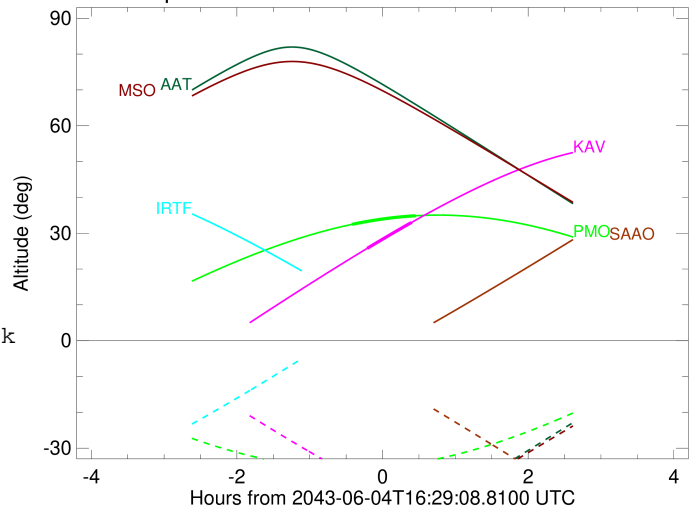


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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-06-04T16:30:17.880
Event type           : Pt
: Jupiter occs: topocentric, not geocentric
: Not a ringed target
Observer code        : PMO
Location             : Purple Mtn Obs. Nanking
Latitude (deg)       : 32.06667
E. Longitude (deg)   : 118.82089
Altitude (km)        : 0.364
Gaia source ID       : 4069432004888451328
2Mass ID (if available) : 18000402-2304005
ICRS Star Coord at Epoch: 18h 00m 04.02539s -23:04:00.70520s
RUWE (>1.4 is poor) : 1.11
K magnitude           : 8.235
G magnitude           : 11.270
RP magnitude          : 10.401
BP magnitude          : 12.060
DUPflag              : 0
Distance (au)         : 4.292
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -15.18
Sun-Target sep (deg)  : 163.35
Sun-Moon sep (deg)    : 124.78
B (ring opening deg) : -2.42
PA of pole (deg)     : -0.84
Pole direction: RA (deg): 268.05668
Dec (deg): 64.49732
C/A sky separation (") : 21.586
C/A sky separation (km) : 67192.4
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 2043-06-04T16:29:08 K8.23 G11.27

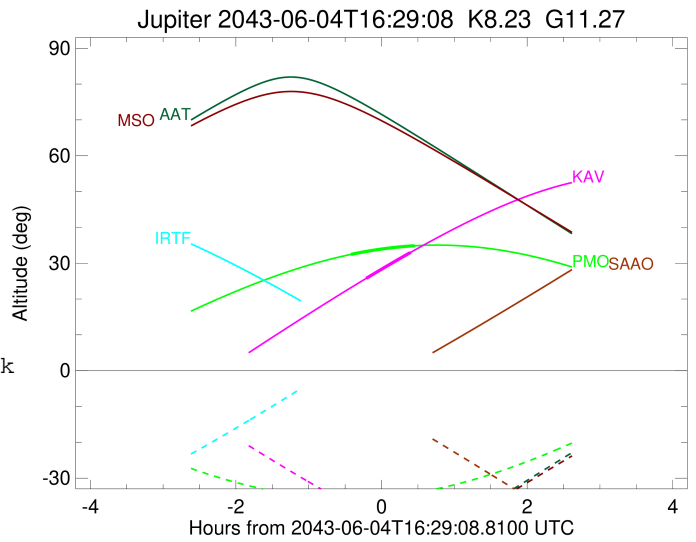
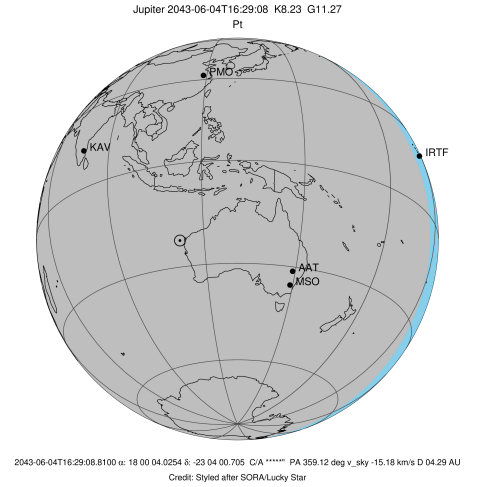


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-06-04T16:04:12.133	32.47	-35.64	71484.9	-70.05	-72.27
Jupiter	E	2043-06-04T16:56:22.505	34.86	-34.16	71484.9	-69.82	-72.06

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-06-04T16:34:58.230
Event type            : Pt
: Jupiter occs: topocentric, not geocentric
: 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        : 4069432004888451328
2Mass ID (if available) : 18000402-2304005
ICRS Star Coord at Epoch: 18h 00m 04.02539s -23:04:00.70520s
RUWE (>1.4 is poor)  : 1.11
K magnitude           : 8.235
G magnitude           : 11.270
RP magnitude          : 10.401
BP magnitude          : 12.060
DUPflag              : 0
Distance (au)         : 4.292
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s)  : -15.18
Sun-Target sep (deg)  : 163.35
Sun-Moon sep (deg)    : 124.37
B (ring opening deg)  : -2.42
PA of pole (deg)      : -0.84
Pole direction: RA (deg): 268.05668
Dec (deg): 64.49732
C/A sky separation (") : 22.315
C/A sky separation (km) : 69461.3
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	2043-06-04T16:16:47.191	25.81	-39.94	71484.3	-76.66	-78.19
Jupiter	E	2043-06-04T16:53:07.147	33.01	-45.87	71484.4	-75.63	-77.28