

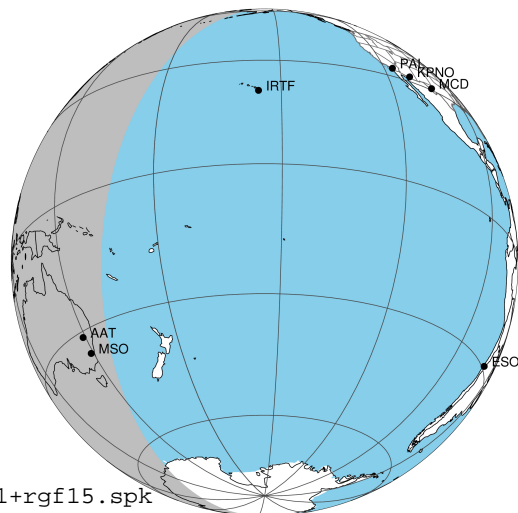
target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2043-02-04T18:59:10.900  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 4116567175157410944  
 2Mass ID (if available) : 17395993-2253290

Jupiter 2043-02-04T18:59:10 K8.70 G14.02 Pgt

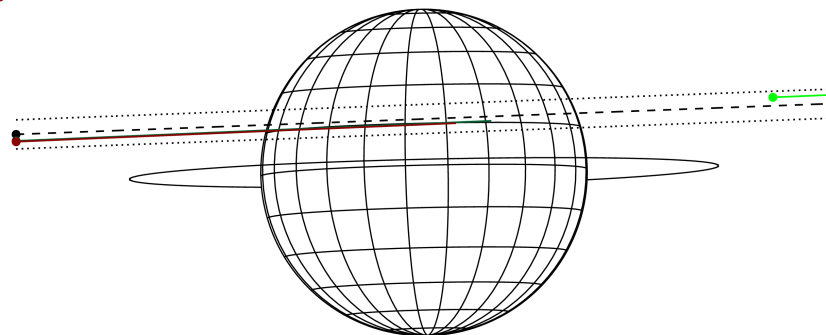
ICRS Star Coord at Epoch: 17h 39m 59.92171s -22:53:29.53872s

RUWE (>1.4 is poor) : 0.96  
 K magnitude : 8.699  
 G magnitude : 14.022  
 RP magnitude : 12.738  
 BP magnitude : 15.908  
 DUPflag : 0  
 Distance (au) : 5.893  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 32.42  
 Sun-Target sep (deg) : 49.86  
 Sun-Moon sep (deg) : 12.53  
 B (ring opening deg) : -2.58  
 PA of pole (deg) : 1.32  
 Pole direction: RA (deg): 268.05661  
 Dec (deg): 64.49732  
 C/A sky separation (") : 5.480  
 C/A sky separation (km) : 23425.0  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

Jupiter 2043-02-04T18:59:10 K8.70 G14.02  
 Pgt



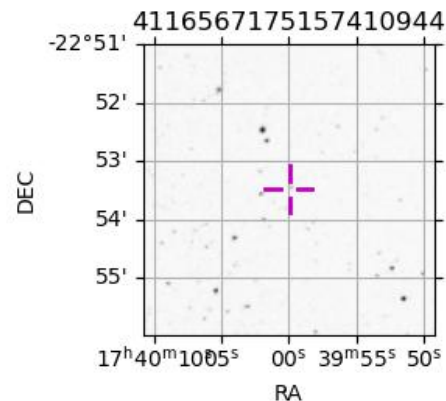
Earth  
 PMO  
 AAT  
 MSO



2043-02-04T18:59:10.9000 cc: 17.39 59.9217 s: -22 53 29.539 C/A 5.471" PA 182.16 deg v\_sky +32.42 km/s D 05.89 AU  
 Credit: Styled after SORA/Lucky Star

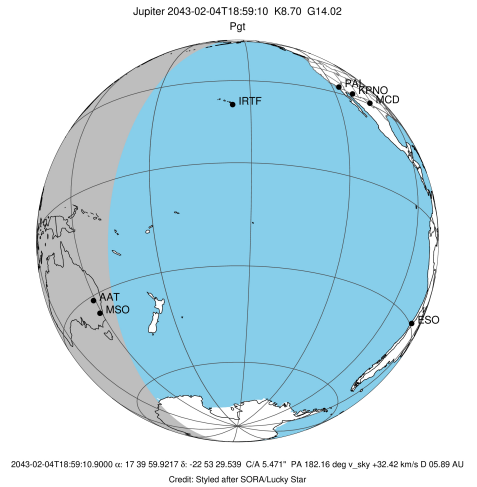
Observable events with sun below -5 deg and altitude above 5 deg

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			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			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 04 18:21 - FEB 04 18:21	Pin
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+	FEB 04 18:21 - FEB 04 18:21	Pin

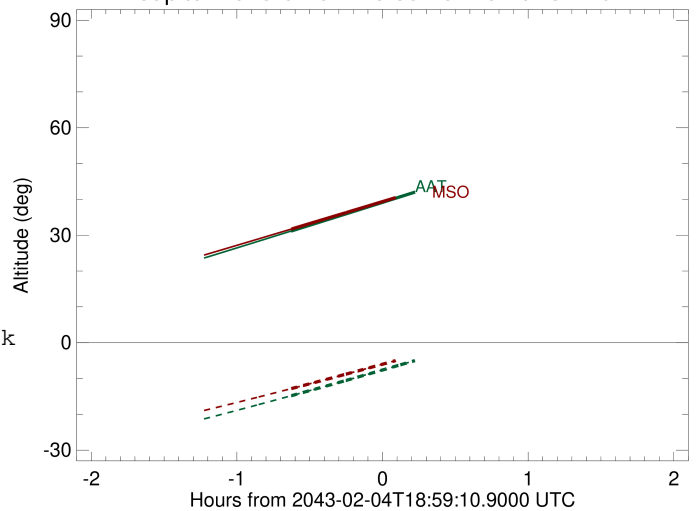


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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-02-04T18:56:48.090
Event type          : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code       : AAT
Location           : Siding Spring (AAT)
Latitude (deg)     : -31.27703
E. Longitude (deg) : 149.06608
Altitude (km)      : 1.164
Gaia source ID     : 4116567175157410944
2Mass ID (if available) : 17395993-2253290
ICRS Star Coord at Epoch: 17h 39m 59.92171s -22:53:29.53872s
RUWE (>1.4 is poor) : 0.96
K magnitude         : 8.699
G magnitude         : 14.022
RP magnitude        : 12.738
BP magnitude        : 15.908
DUPflag            : 0
Distance (au)      : 5.893
f0 (km)            : 0.00
g0 (km)            : 0.00
skyplane vel. (km/s) : 32.42
Sun-Target sep (deg) : 49.86
Sun-Moon sep (deg)  : 11.95
B (ring opening deg) : -2.58
PA of pole (deg)   : 1.32
Pole direction: RA (deg): 268.05661
Dec (deg): 64.49732
C/A sky separation (") : 5.002
C/A sky separation (km) : 21381.3
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
    
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Jupiter 2043-02-04T18:59:10 K8.70 G14.02

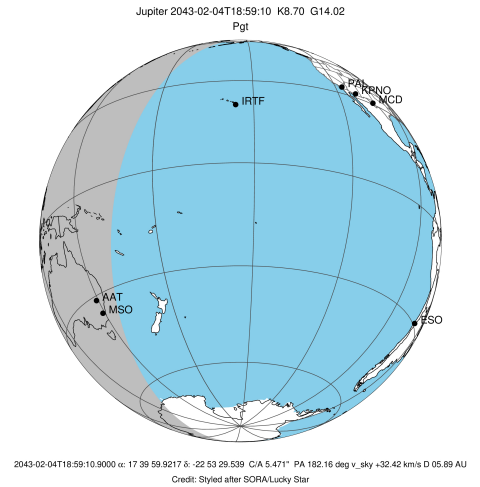


x: target alt < 5.0 deg or sun > -5.0 deg

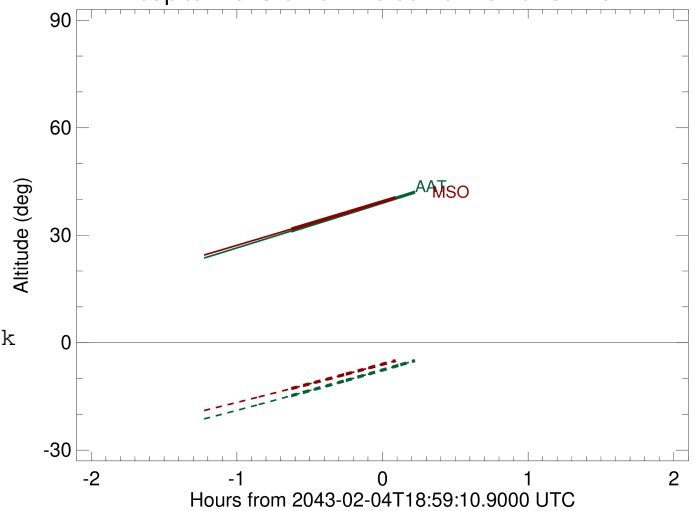
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-02-04T18:21:32.291	31.16	-14.81	71491.3	16.29	18.46
Jupiter	E	2043-02-04T19:32:07.985	46.21	-1.08x	71491.1	18.46	20.87

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-02-04T18:56:55.040
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       : 4116567175157410944
2Mass ID (if available) : 17395993-2253290
ICRS Star Coord at Epoch: 17h 39m 59.92171s -22:53:29.53872s
RUWE (>1.4 is poor) : 0.96
K magnitude           : 8.699
G magnitude           : 14.022
RP magnitude         : 12.738
BP magnitude         : 15.908
DUPflag              : 0
Distance (au)        : 5.893
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 32.42
Sun-Target sep (deg) : 49.86
Sun-Moon sep (deg)   : 11.96
B (ring opening deg) : -2.58
PA of pole (deg)     : 1.32
Pole direction: RA (deg): 268.05661
Dec (deg): 64.49732
C/A sky separation ("): 4.911
C/A sky separation (km): 20990.9
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 2043-02-04T18:59:10 K8.70 G14.02



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	2043-02-04T18:21:36.042	31.71	-12.82	71491.3	15.97	18.11
Jupiter	E	2043-02-04T19:32:17.990	46.16	0.25x	71491.1	18.12	20.50