

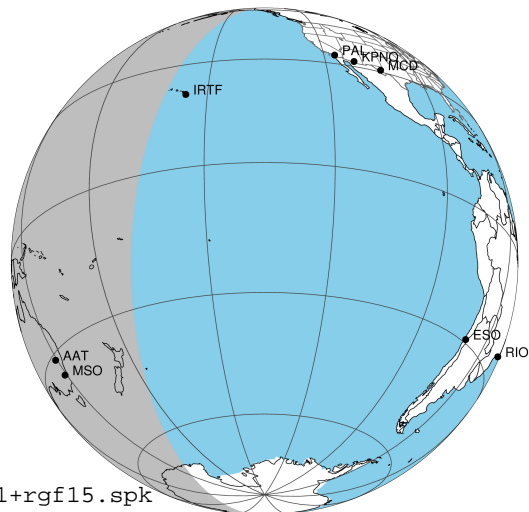
target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2043-02-14T17:16:13.990  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 4068932070756673920  
 2Mass ID (if available) : 17473039-2257043

Jupiter 2043-02-14T17:16:13 K9.72 G14.27 Pgt

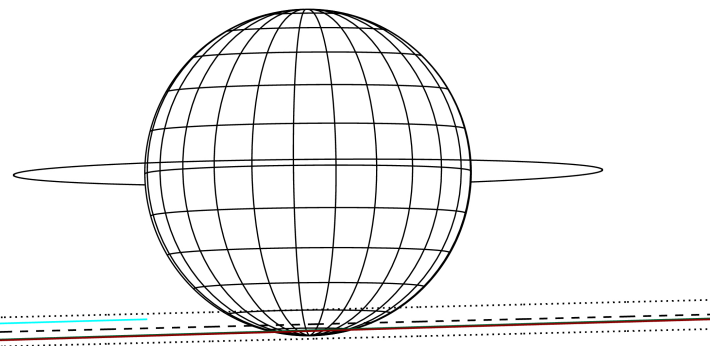
ICRS Star Coord at Epoch: 17h 47m 30.40283s -22:57:04.55124s

RUWE (>1.4 is poor) : 0.93  
 K magnitude : 9.723  
 G magnitude : 14.269  
 RP magnitude : 13.101  
 BP magnitude : 15.740  
 DUPflag : 0  
 Distance (au) : 5.762  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 28.89  
 Sun-Target sep (deg) : 58.18  
 Sun-Moon sep (deg) : 121.96  
 B (ring opening deg) : -2.55  
 PA of pole (deg) : 0.51  
 Pole direction: RA (deg): 268.05661  
 Dec (deg): 64.49732  
 C/A sky separation (") : 15.913  
 C/A sky separation (km) : 66502.3  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

Jupiter 2043-02-14T17:16:13 K9.72 G14.27  
 Pgt



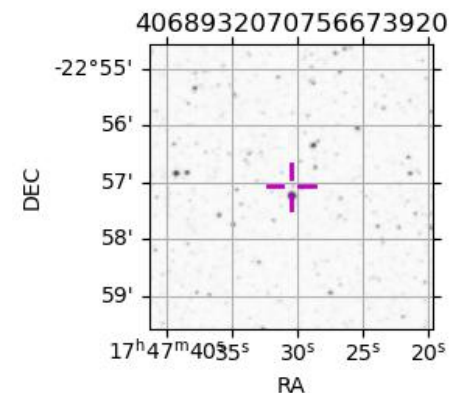
Earth  
 IRTF  
 AAT  
 MSO



2043-02-14T17:16:13.9900 α: 17 47 30.4028 δ: -22 57 04.551 C/A \*\*\*\*\* PA 1.41 deg v\_sky +28.89 km/s D 05.76 AU  
 Credit: Styled after SORA/Lucky Star

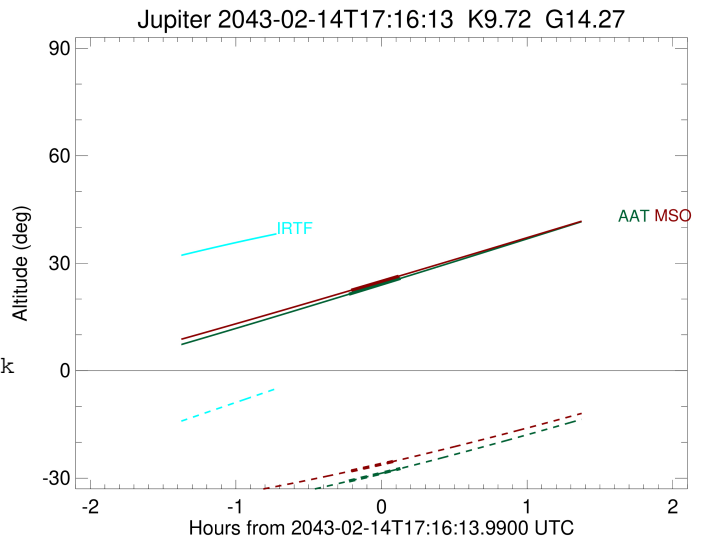
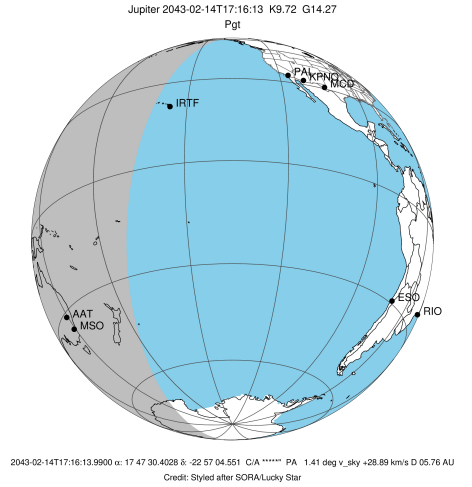
Observable events with sun below -5 deg and altitude above 5 deg

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 14 17:02 - FEB 14 17:24	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+ +	FEB 14 17:03 - FEB 14 17:23	Pie



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-02-14T17:13:25.580
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       : 4068932070756673920
2Mass ID (if available) : 17473039-2257043
ICRS Star Coord at Epoch: 17h 47m 30.40283s -22:57:04.55124s
RUWE (>1.4 is poor) : 0.93
K magnitude           : 9.723
G magnitude           : 14.269
RP magnitude         : 13.101
BP magnitude         : 15.740
DUPflag              : 0
Distance (au)        : 5.762
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 28.89
Sun-Target sep (deg) : 58.18
Sun-Moon sep (deg)   : 121.86
B (ring opening deg) : -2.55
PA of pole (deg)     : 0.51
Pole direction: RA (deg): 268.05661
Dec (deg): 64.49732
C/A sky separation (") : 16.536
C/A sky separation (km) : 69106.0
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
    
```

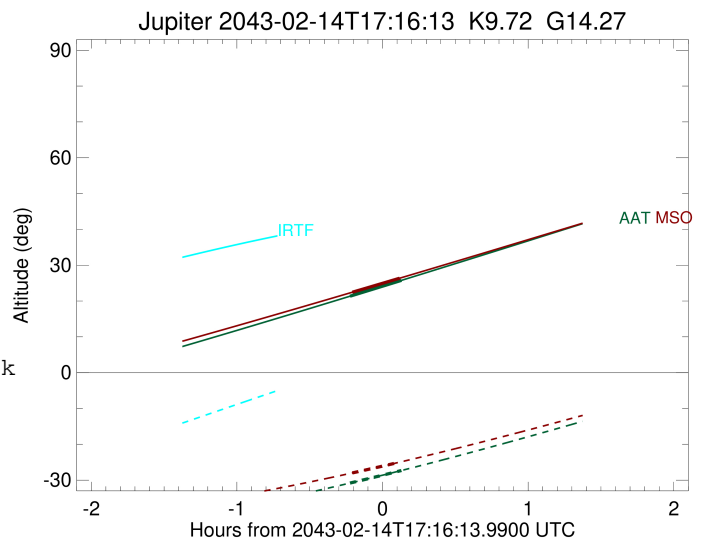
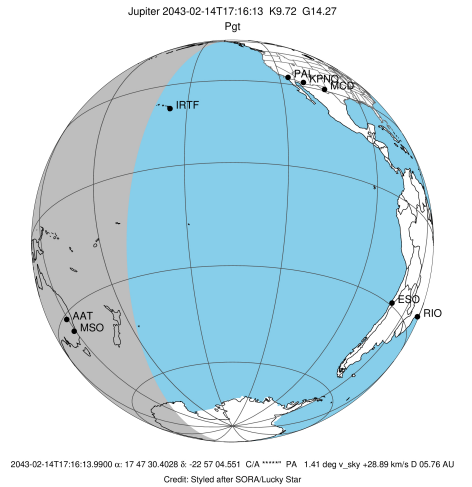


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-02-14T17:02:50.985	21.34	-30.81	71483.6	-76.15	-77.74
Jupiter	E	2043-02-14T17:24:00.649	25.75	-27.31	71483.8	-73.78	-75.62

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-02-14T17:13:33.560
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      : 4068932070756673920
2Mass ID (if available) : 17473039-2257043
ICRS Star Coord at Epoch: 17h 47m 30.40283s -22:57:04.55124s
RUWE (>1.4 is poor) : 0.93
K magnitude          : 9.723
G magnitude          : 14.269
RP magnitude         : 13.101
BP magnitude         : 15.740
DUPflag             : 0
Distance (au)        : 5.762
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 28.89
Sun-Target sep (deg) : 58.18
Sun-Moon sep (deg)  : 121.89
B (ring opening deg) : -2.55
PA of pole (deg)    : 0.51
Pole direction: RA (deg): 268.05661
Dec (deg): 64.49732
C/A sky separation (" ) : 16.623
C/A sky separation (km) : 69470.9
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
    
```



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	2043-02-14T17:03:49.014	22.46	-27.98	71483.5	-77.31	-78.77
Jupiter	E	2043-02-14T17:23:18.505	26.37	-24.98	71483.7	-74.97	-76.69