

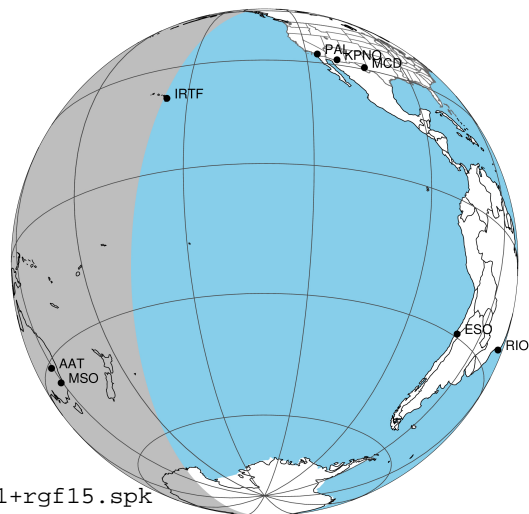
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-02-14T16:56:39.970
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4068932444343238400
 2Mass ID (if available) : 17472987-2256389

Jupiter 2043-02-14T16:56:39 K9.62 G14.48 Pgt

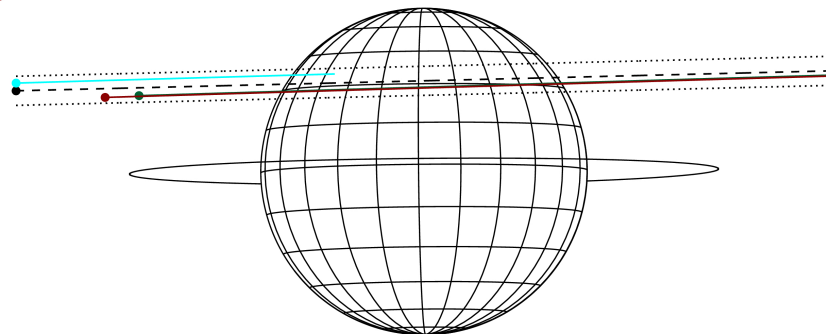
ICRS Star Coord at Epoch: 17h 47m 29.86052s -22:56:38.94375s

RUWE (>1.4 is poor) : 0.95
 K magnitude : 9.622
 G magnitude : 14.478
 RP magnitude : 13.216
 BP magnitude : 16.196
 DUPflag : 0
 Distance (au) : 5.762
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 28.90
 Sun-Target sep (deg) : 58.17
 Sun-Moon sep (deg) : 121.76
 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 (") : 9.504
 C/A sky separation (km) : 39718.8
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2043-02-14T16:56:39 K9.62 G14.48
 Pgt



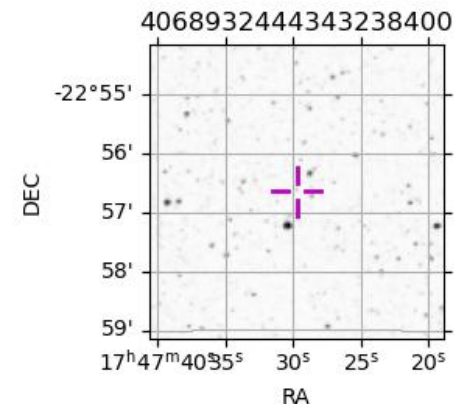
Earth
 IRTF
 AAT
 MSO



2043-02-14T16:56:39.9700 cr: 17 47 29.8605 s: -22 56 38.944 C/A 9.494° PA 181.40 deg v_sky +28.90 km/s D 05.76 AU
 Credit: Styled after SORA/Lucky Star

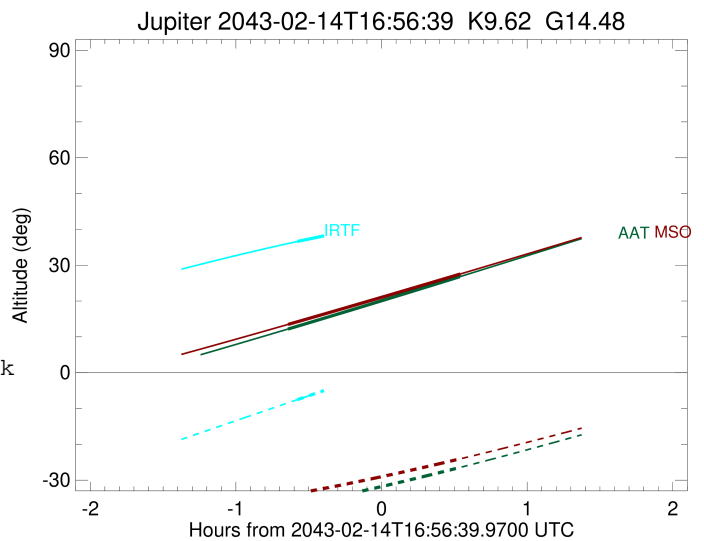
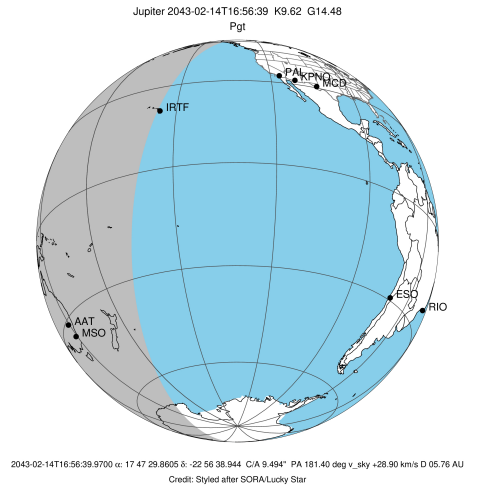
Observable events with sun below -5 deg and altitude above 5 deg

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	+	FEB 14 16:22 - FEB 14 16:22	Pin
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 16:18 - FEB 14 17:28	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+ +	FEB 14 16:18 - FEB 14 17:29	Pie



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-02-14T16:55:06.450
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : IRTF
Location              : Mauna Kea/IRTF
Latitude (deg)        : 19.82622
E. Longitude (deg)   : 204.52800
Altitude (km)         : 4.168
Gaia source ID        : 4068932444343238400
2Mass ID (if available) : 17472987-2256389
ICRS Star Coord at Epoch: 17h 47m 29.86052s -22:56:38.94375s
RUWE (>1.4 is poor) : 0.95
K magnitude           : 9.622
G magnitude           : 14.478
RP magnitude          : 13.216
BP magnitude          : 16.196
DUPflag               : 0
Distance (au)         : 5.763
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 28.90
Sun-Target sep (deg)  : 58.17
Sun-Moon sep (deg)   : 122.12
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 (") : 10.475
C/A sky separation (km) : 43779.2
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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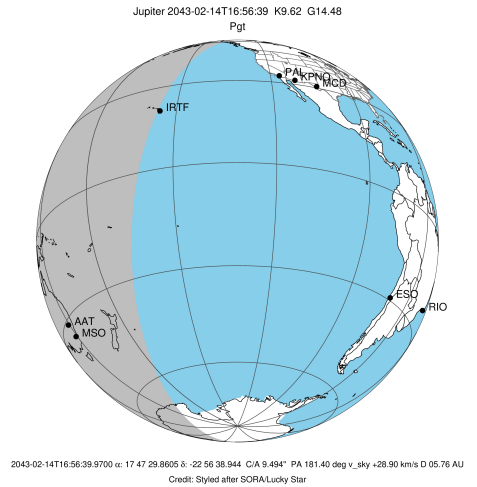


x: target alt < 5.0 deg or sun > -5.0 deg

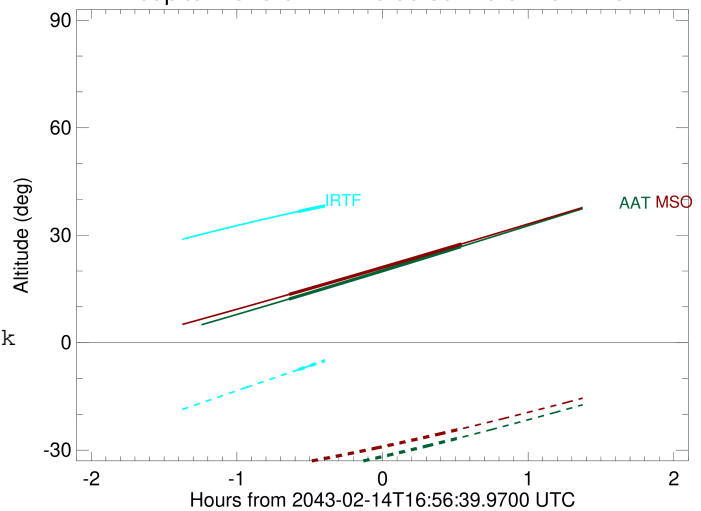
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-02-14T16:22:04.352	36.62	-7.51	71488.8	36.65	40.29
Jupiter	E	2043-02-14T17:28:11.135	44.46	7.60x	71488.5	38.75	42.44

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-02-14T16:53:28.780
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        : 4068932444343238400
2Mass ID (if available) : 17472987-2256389
ICRS Star Coord at Epoch: 17h 47m 29.86052s -22:56:38.94375s
RUWE (>1.4 is poor) : 0.95
K magnitude           : 9.622
G magnitude           : 14.478
RP magnitude          : 13.216
BP magnitude          : 16.196
DUPflag              : 0
Distance (au)         : 5.763
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 28.90
Sun-Target sep (deg) : 58.17
Sun-Moon sep (deg)   : 121.61
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 ("): 8.837
C/A sky separation (km): 36933.2
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 2043-02-14T16:56:39 K9.62 G14.48

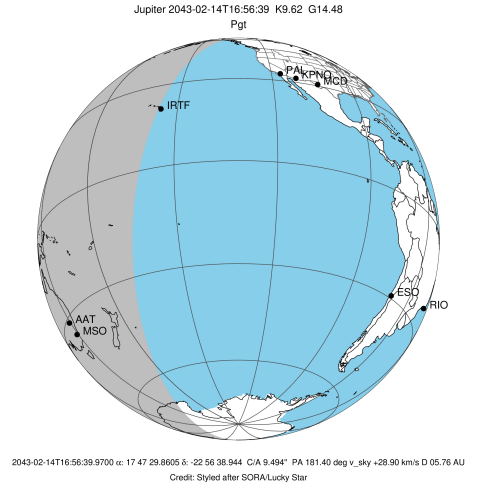


x: target alt < 5.0 deg or sun > -5.0 deg

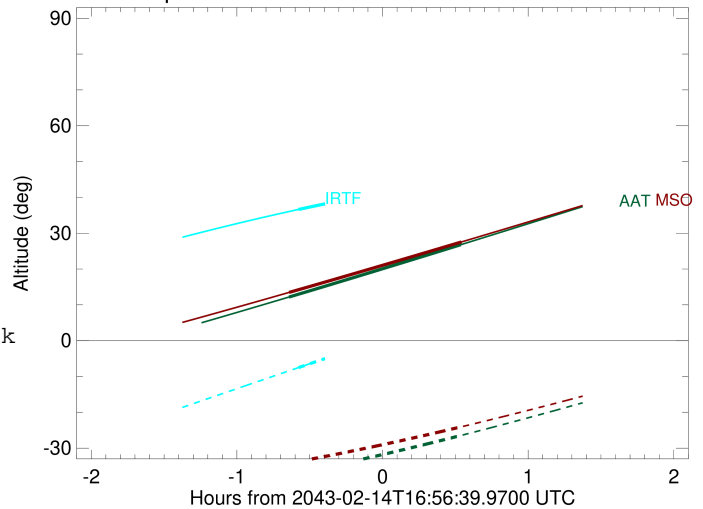
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-02-14T16:18:08.714	12.18	-37.36	71489.8	29.87	33.23
Jupiter	E	2043-02-14T17:28:54.172	26.78	-26.47	71489.5	32.27	35.75

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-02-14T16:53:37.810
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       : 4068932444343238400
2Mass ID (if available) : 17472987-2256389
ICRS Star Coord at Epoch: 17h 47m 29.86052s -22:56:38.94375s
RUWE (>1.4 is poor) : 0.95
K magnitude           : 9.622
G magnitude           : 14.478
RP magnitude          : 13.216
BP magnitude          : 16.196
DUPflag              : 0
Distance (au)        : 5.763
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 28.90
Sun-Target sep (deg) : 58.17
Sun-Moon sep (deg)   : 121.64
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 (") : 8.752
C/A sky separation (km) : 36576.6
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 2043-02-14T16:56:39 K9.62 G14.48



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	2043-02-14T16:18:10.450	13.47	-34.17	71489.8	29.55	32.90
Jupiter	E	2043-02-14T17:29:10.308	27.55	-24.04	71489.5	31.92	35.39