

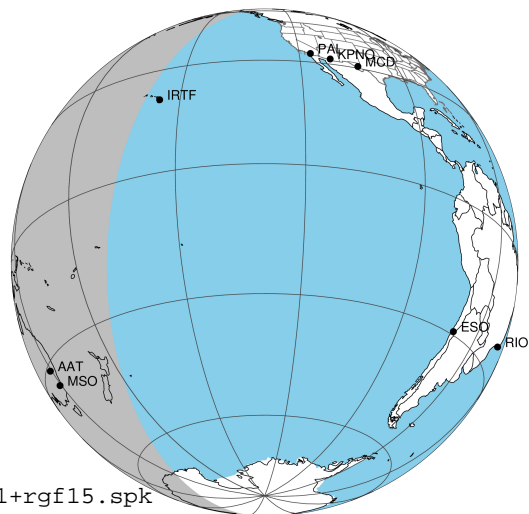
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-02-06T17:14:29.380
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4116924791266441984
 2Mass ID (if available) : 17413052-2254253

Jupiter 2043-02-06T17:14:29 K8.56 G13.98 Pgt

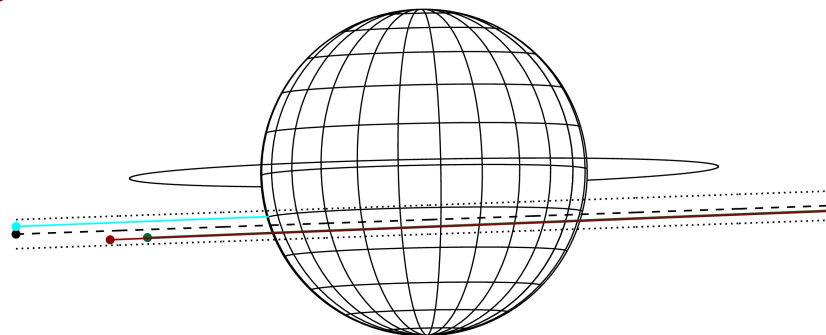
ICRS Star Coord at Epoch: 17h 41m 30.51789s -22:54:25.46116s

RUWE (>1.4 is poor) : 0.87
 K magnitude : 8.564
 G magnitude : 13.982
 RP magnitude : 12.595
 BP magnitude : 16.392
 DUPflag : 0
 Distance (au) : 5.869
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 31.77
 Sun-Target sep (deg) : 51.46
 Sun-Moon sep (deg) : 13.53
 B (ring opening deg) : -2.57
 PA of pole (deg) : 1.15
 Pole direction: RA (deg): 268.05661
 Dec (deg): 64.49732
 C/A sky separation (") : 4.870
 C/A sky separation (km) : 20730.2
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2043-02-06T17:14:29 K8.56 G13.98
 Pgt



Earth
 IRTF
 AAT
 MSO

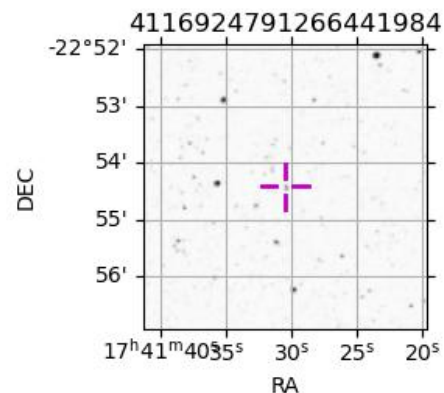


2043-02-06T17:14:29.3800 @: 17 41 30.51789 s -22 54 25.46116 s C/A 4.870" PA 2.01 deg v_sky +31.77 km/s D 05.87 AU

Credit: Styled after SORA/Lucky Star

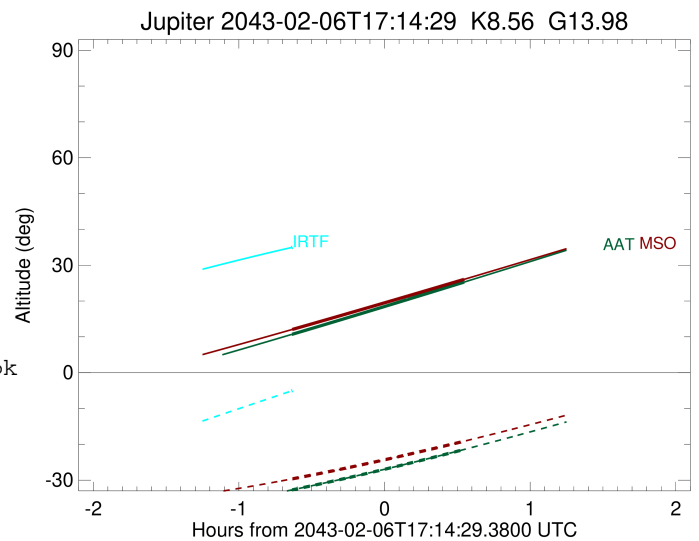
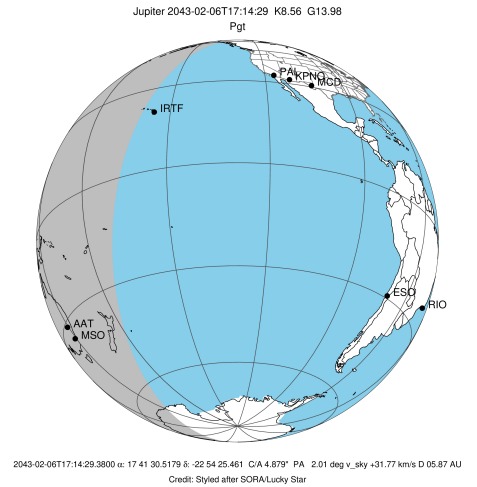
Observable events with sun below -5 deg and altitude above 5 deg

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 06 16:36 - FEB 06 16:36	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 06 16:36 - FEB 06 17:47	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+ +	FEB 06 16:36 - FEB 06 17:47	Pie



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-02-06T17:13:02.680
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        : 4116924791266441984
2Mass ID (if available) : 17413052-2254253
ICRS Star Coord at Epoch: 17h 41m 30.51789s -22:54:25.46116s
RUWE (>1.4 is poor) : 0.87
K magnitude           : 8.564
G magnitude           : 13.982
RP magnitude          : 12.595
BP magnitude          : 16.392
DUPflag              : 0
Distance (au)         : 5.869
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 31.77
Sun-Target sep (deg) : 51.46
Sun-Moon sep (deg)   : 14.27
B (ring opening deg) : -2.57
PA of pole (deg)     : 1.15
Pole direction: RA (deg): 268.05661
Dec (deg): 64.49732
C/A sky separation (") : 3.932
C/A sky separation (km) : 16738.5
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
    
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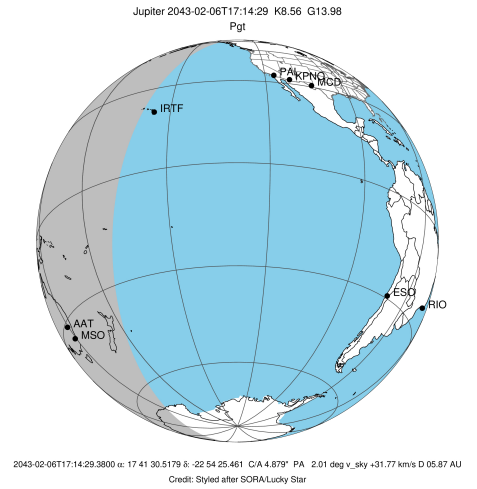


x: target alt < 5.0 deg or sun > -5.0 deg

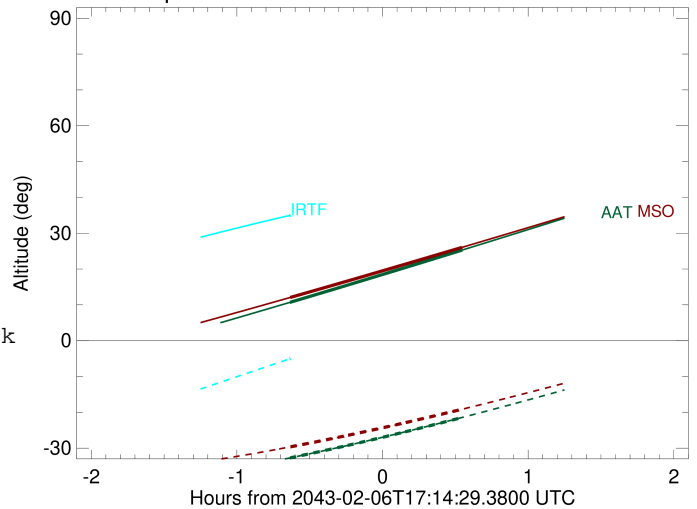
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-02-06T16:36:09.879	34.93	-5.10	71491.4	-14.56	-16.54
Jupiter	E	2043-02-06T17:49:58.485	44.17	11.44x	71491.6	-12.54	-14.26

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-02-06T17:11:45.540
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       : 4116924791266441984
2Mass ID (if available) : 17413052-2254253
ICRS Star Coord at Epoch: 17h 41m 30.51789s -22:54:25.46116s
RUWE (>1.4 is poor) : 0.87
K magnitude          : 8.564
G magnitude          : 13.982
RP magnitude         : 12.595
BP magnitude         : 16.392
DUPflag             : 0
Distance (au)        : 5.869
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 31.77
Sun-Target sep (deg) : 51.46
Sun-Moon sep (deg)   : 14.14
B (ring opening deg) : -2.57
PA of pole (deg)     : 1.15
Pole direction: RA (deg): 268.05661
Dec (deg): 64.49732
C/A sky separation (") : 5.554
C/A sky separation (km) : 23640.9
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 2043-02-06T17:14:29 K8.56 G13.98

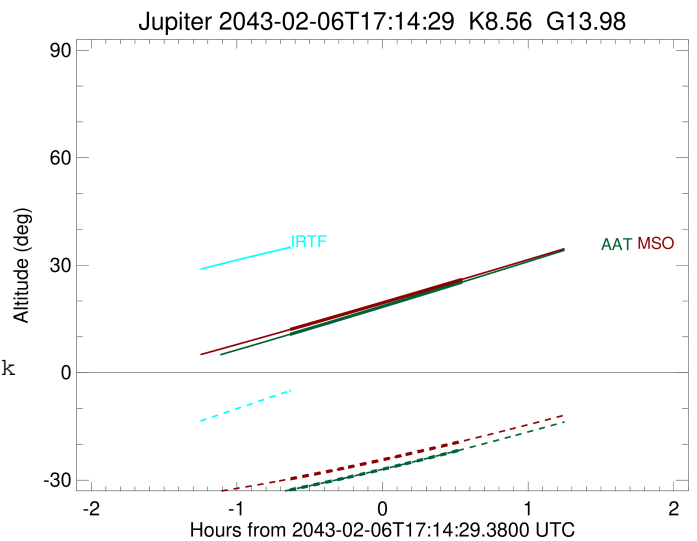
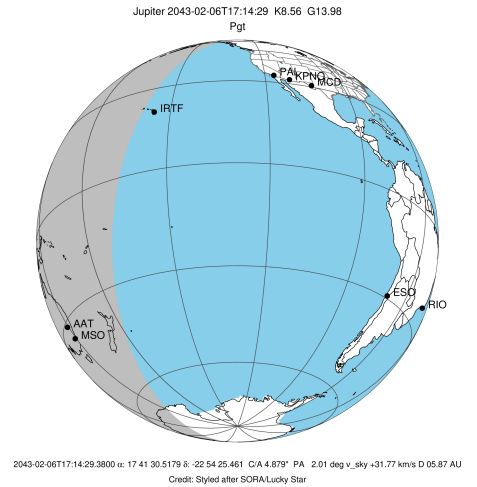


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-02-06T16:36:21.304	10.70	-32.72	71490.9	-20.42	-23.04
Jupiter	E	2043-02-06T17:47:14.539	25.27	-21.45	71491.1	-18.16	-20.54

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-02-06T17:11:53.450
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       : 4116924791266441984
2Mass ID (if available) : 17413052-2254253
ICRS Star Coord at Epoch: 17h 41m 30.51789s -22:54:25.46116s
RUWE (>1.4 is poor) : 0.87
K magnitude           : 8.564
G magnitude           : 13.982
RP magnitude          : 12.595
BP magnitude          : 16.392
DUPflag              : 0
Distance (au)        : 5.869
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 31.77
Sun-Target sep (deg) : 51.46
Sun-Moon sep (deg)   : 14.09
B (ring opening deg) : -2.57
PA of pole (deg)     : 1.15
Pole direction: RA (deg): 268.05661
Dec (deg): 64.49732
C/A sky separation (") : 5.636
C/A sky separation (km) : 23992.0
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	2043-02-06T16:36:33.174	12.07	-29.63	71490.9	-20.71	-23.35
Jupiter	E	2043-02-06T17:47:18.279	26.05	-19.13	71491.1	-18.47	-20.89