

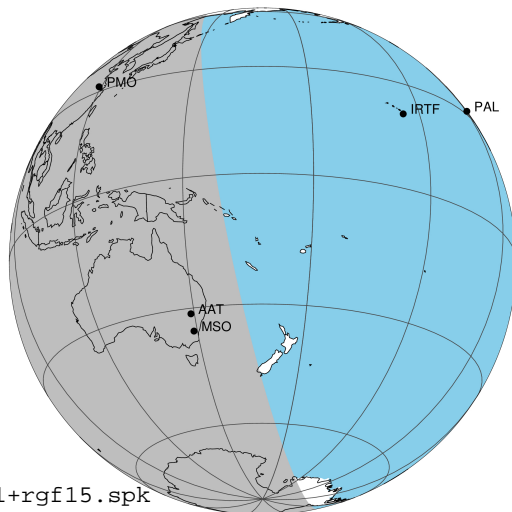
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2032-04-12T19:29:23.910
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 6865996395116631936
 2Mass ID (if available) : 20072110-2024312

Jupiter 2032-04-12T19:29:23 K8.72 G11.27 Pgt

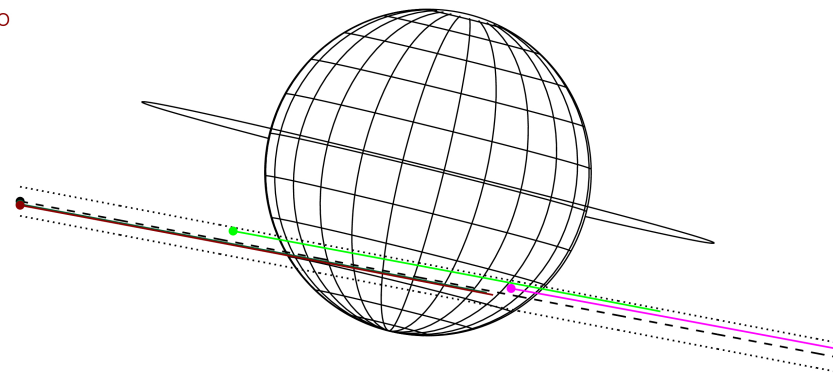
ICRS Star Coord at Epoch: 20h 07m 21.12354s -20:24:31.35510s

RUWE (>1.4 is poor) : 1.17
 K magnitude : 8.718
 G magnitude : 11.272
 RP magnitude : 10.492
 BP magnitude : 11.927
 DUPflag : 1
 Distance (au) : 5.192
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 16.92
 Sun-Target sep (deg) : 83.37
 Sun-Moon sep (deg) : 117.81
 B (ring opening deg) : -1.18
 PA of pole (deg) : -13.85
 Pole direction: RA (deg): 268.05668
 Dec (deg): 64.49654
 C/A sky separation (") : 12.187
 C/A sky separation (km) : 45887.4
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2032-04-12T19:29:23 K8.72 G11.27
 Pgt



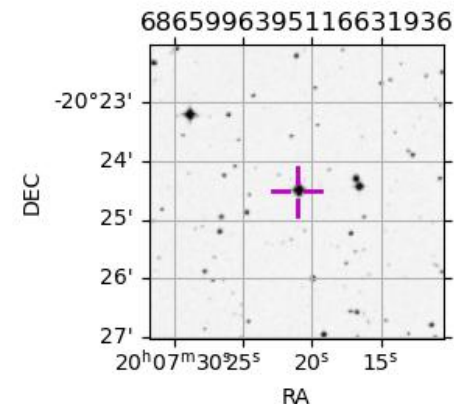
Earth
 PMO
 KAV
 AAT
 MSO



2032-04-12T19:29:23.9100 at: 20 07 21.1235 s -20 24 31.355 C/A ***** PA 349.19 deg v_sky +16.92 km/s D 05.19 AU
 Credit: Styled after SORA/Lucky Star

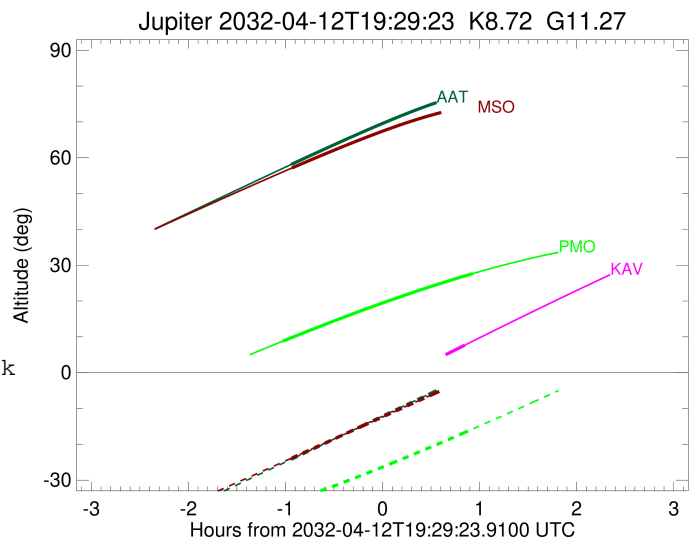
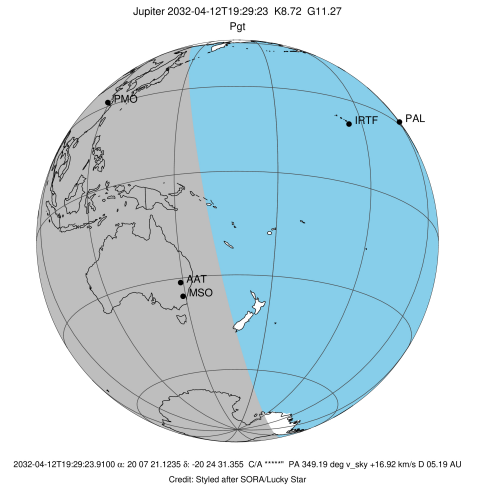
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	OEncode
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	+ +	APR 12 18:27 - APR 12 20:25	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	+	APR 12 20:20 - APR 12 20:20	Pne
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	+	APR 12 18:32 - APR 12 18:32	Pin
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+	APR 12 18:33 - APR 12 18:33	Pin



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2032-04-12T19:26:19.210
Event type          : Pgt
                    : Jupiter occs: geocentric, topocentric
                    : 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      : 6865996395116631936
2Mass ID (if available) : 20072110-2024312
ICRS Star Coord at Epoch: 20h 07m 21.12354s -20:24:31.35510s
RUWE (>1.4 is poor) : 1.17
K magnitude         : 8.718
G magnitude         : 11.272
RP magnitude        : 10.492
BP magnitude        : 11.927
DUPflag            : 1
Distance (au)       : 5.192
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : 16.92
Sun-Target sep (deg) : 83.37
Sun-Moon sep (deg)  : 117.86
B (ring opening deg) : -1.18
PA of pole (deg)    : -13.85
Pole direction: RA (deg): 268.05668
Dec (deg): 64.49654
C/A sky separation (") : 10.841
C/A sky separation (km) : 40818.6
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
    
```

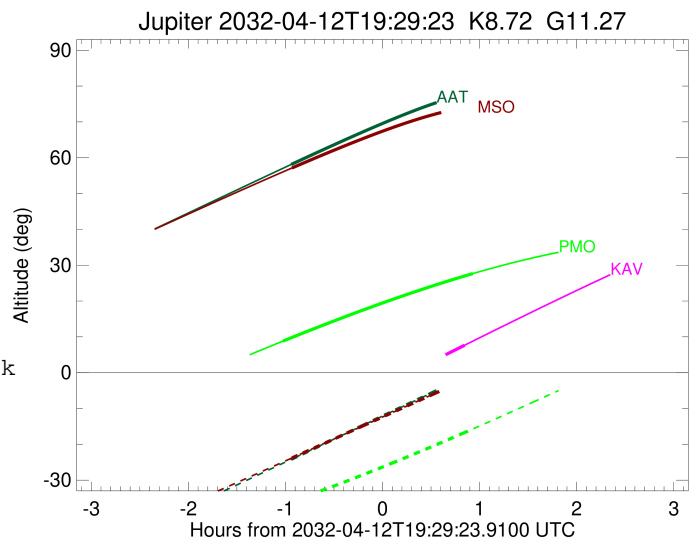
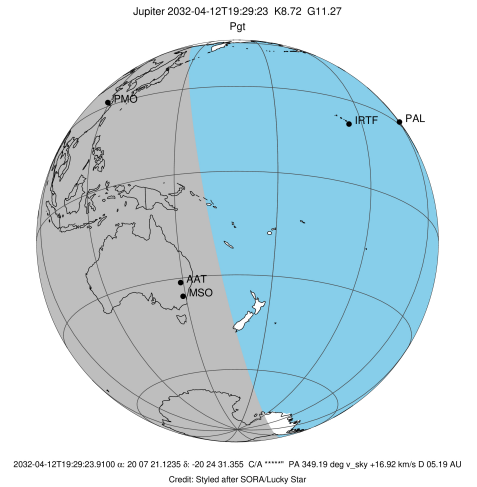


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2032-04-12T18:27:47.380	8.79	-36.73	71491.3	-38.11	-41.79
Jupiter	E	2032-04-12T20:25:10.425	27.65	-15.72	71491.5	-31.64	-35.09

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2032-04-12T19:24:00.520
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: 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        : 6865996395116631936
2Mass ID (if available) : 20072110-2024312
ICRS Star Coord at Epoch: 20h 07m 21.12354s -20:24:31.35510s
RUWE (>1.4 is poor) : 1.17
K magnitude           : 8.718
G magnitude           : 11.272
RP magnitude          : 10.492
BP magnitude          : 11.927
DUPflag              : 1
Distance (au)         : 5.192
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 16.92
Sun-Target sep (deg) : 83.37
Sun-Moon sep (deg)    : 117.35
B (ring opening deg) : -1.18
PA of pole (deg)      : -13.85
Pole direction: RA (deg): 268.05668
Dec (deg): 64.49654
C/A sky separation (") : 11.544
C/A sky separation (km) : 43468.3
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
    
```

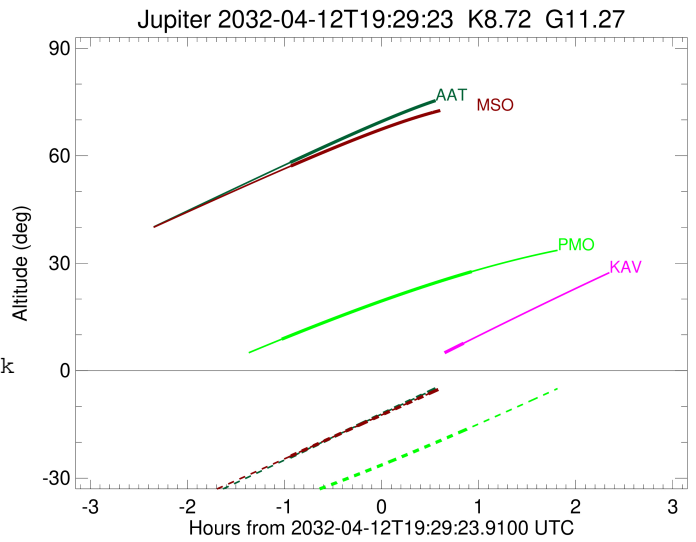
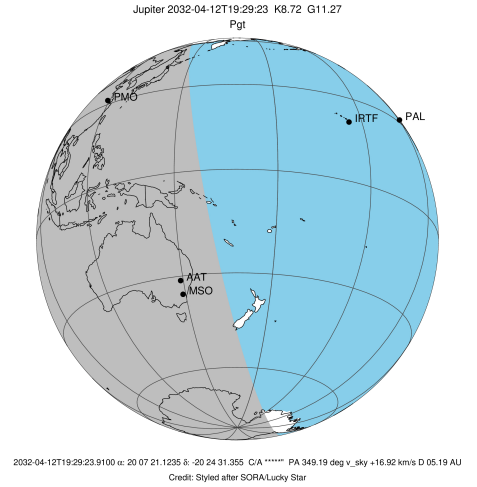


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2032-04-12T18:28:15.475	-18.08x	-68.01	71491.2	-41.04	-44.76
Jupiter	E	2032-04-12T20:20:10.638	7.66	-58.01	71491.4	-33.90	-37.46

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2032-04-12T19:27:17.390
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       : 6865996395116631936
2Mass ID (if available) : 20072110-2024312
ICRS Star Coord at Epoch: 20h 07m 21.12354s -20:24:31.35510s
RUWE (>1.4 is poor) : 1.17
K magnitude          : 8.718
G magnitude          : 11.272
RP magnitude         : 10.492
BP magnitude         : 11.927
DUPflag             : 1
Distance (au)        : 5.192
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 16.92
Sun-Target sep (deg) : 83.37
Sun-Moon sep (deg)   : 118.45
B (ring opening deg) : -1.18
PA of pole (deg)     : -13.85
Pole direction: RA (deg): 268.05668
Dec (deg): 64.49654
C/A sky separation ("): 12.434
C/A sky separation (km): 46817.2
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
    
```

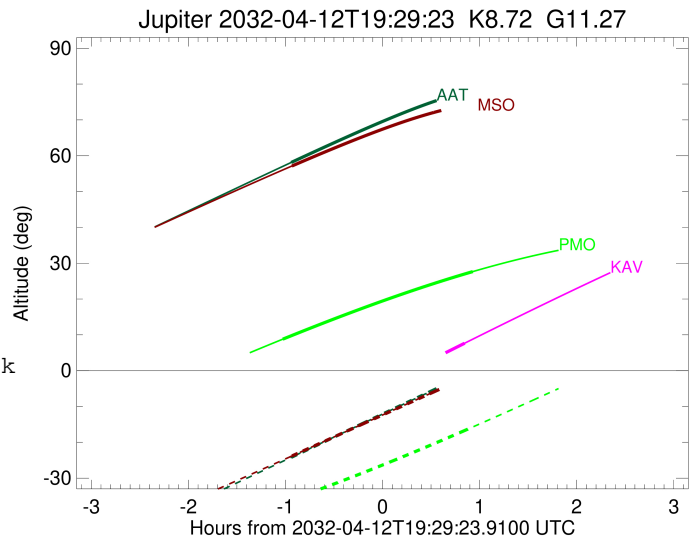
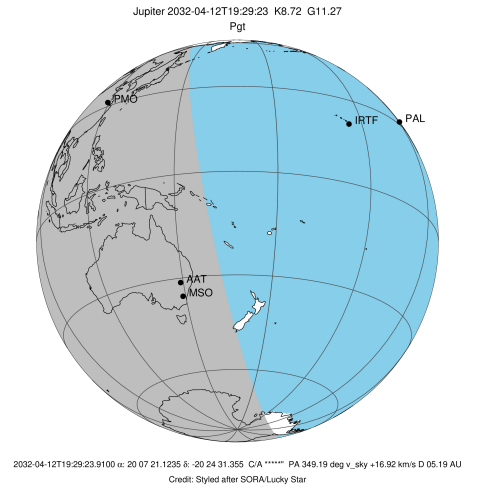


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2032-04-12T18:32:59.456	58.12	-24.19	71491.1	-43.92	-47.63
Jupiter	E	2032-04-12T20:21:44.206	77.84	-1.01x	71491.3	-38.00	-41.68

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2032-04-12T19:27:17.280
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      : 6865996395116631936
2Mass ID (if available) : 20072110-2024312
ICRS Star Coord at Epoch: 20h 07m 21.12354s -20:24:31.35510s
RUWE (>1.4 is poor) : 1.17
K magnitude          : 8.718
G magnitude          : 11.272
RP magnitude         : 10.492
BP magnitude         : 11.927
DUPflag             : 1
Distance (au)       : 5.192
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 16.92
Sun-Target sep (deg) : 83.37
Sun-Moon sep (deg)  : 118.44
B (ring opening deg) : -1.18
PA of pole (deg)    : -13.85
Pole direction: RA (deg): 268.05668
Dec (deg): 64.49654
C/A sky separation (") : 12.551
C/A sky separation (km) : 47256.7
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	2032-04-12T18:33:25.537	57.13	-23.81	71491.1	-44.39	-48.10
Jupiter	E	2032-04-12T20:21:17.546	74.14	-1.85x	71491.3	-38.46	-42.15