

target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-04-07T16:35:10.830
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4066625192270517248
 2Mass ID (if available) : 18115478-2258200

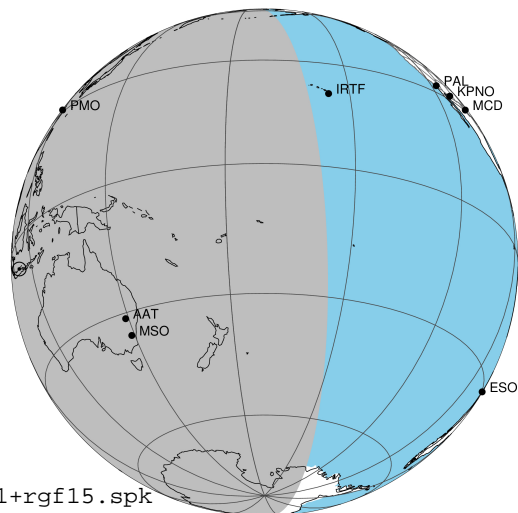
Jupiter 2043-04-07T16:35:10 K8.22 G14.23 Pgt

ICRS Star Coord at Epoch: 18h 11m 54.78288s -22:58:20.18780s

RUWE (>1.4 is poor) : 1.34
 K magnitude : 8.222
 G magnitude : 14.228
 RP magnitude : 12.824
 BP magnitude : 16.469
 DUPflag : 0
 Distance (au) : 4.953
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 5.79
 Sun-Target sep (deg) : 104.42
 Sun-Moon sep (deg) : 75.37
 B (ring opening deg) : -2.45
 PA of pole (deg) : -2.12
 Pole direction: RA (deg): 268.05664
 Dec (deg): 64.49732
 C/A sky separation (") : 2.308
 C/A sky separation (km) : 8290.5
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

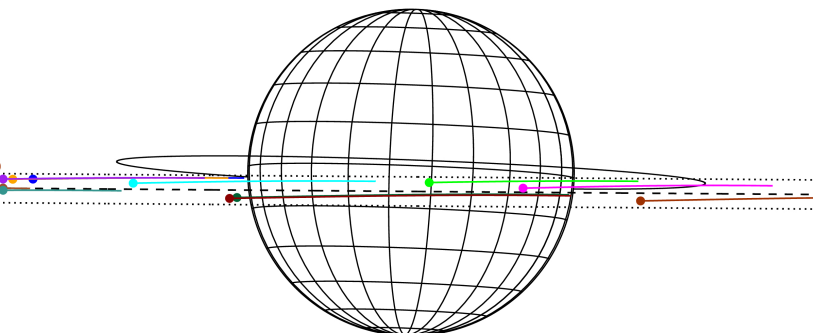
Jupiter 2043-04-07T16:35:10 K8.22 G14.23

Pgt



Earth

- PAL
- PMO
- KPNO
- MCD
- IRTF
- KAV
- RIO
- ESO
- AAT
- SAAO
- MSO

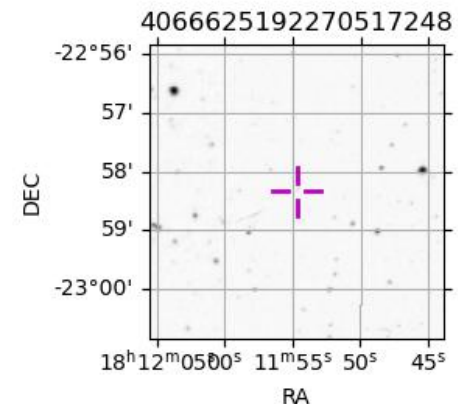


2043-04-07T16:35:10.8300 or: 18 11 54.7829 s: -22 58 20.188 C/A 2.319" PA 359.55 deg v_sky + 5.79 km/s D 04.95 AU

Credit: Styled after SORA/Lucky Star

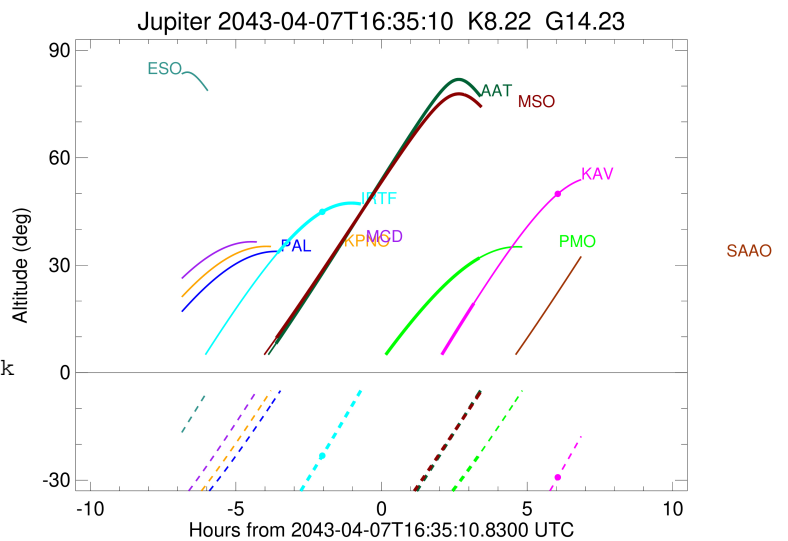
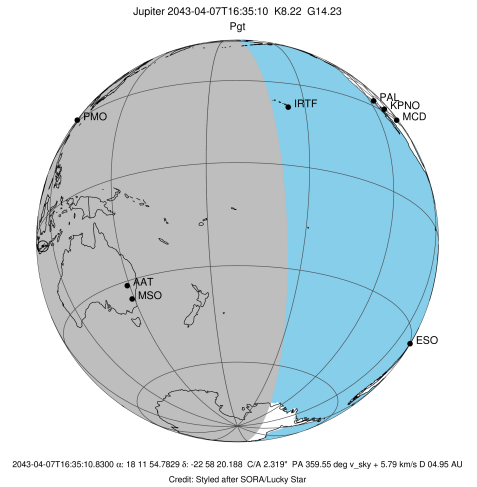
Observable events with sun below -5 deg and altitude above 5 deg

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	+	APR 07 19:56 - APR 07 19:56	Pne
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	+	APR 07 13:00 - APR 07 13:00	Pin
KAV	Kavalur Observatory	12.6	78.8	+	APR 07 19:45 - APR 07 19:45	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 07 12:57 - APR 07 12:57	Pin
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+	APR 07 12:58 - APR 07 12:58	Pin



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-04-07T16:20:42.570
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        : 4066625192270517248
2Mass ID (if available) : 18115478-2258200
ICRS Star Coord at Epoch: 18h 11m 54.78288s -22:58:20.18780s
RUWE (>1.4 is poor) : 1.34
K magnitude           : 8.222
G magnitude           : 14.228
RP magnitude          : 12.824
BP magnitude          : 16.469
DUPflag              : 0
Distance (au)         : 4.953
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 5.79
Sun-Target sep (deg)  : 104.42
Sun-Moon sep (deg)    : 75.63
B (ring opening deg) : -2.45
PA of pole (deg)      : -2.12
Pole direction: RA (deg): 268.05664
Dec (deg): 64.49732
C/A sky separation (") : 1.263
C/A sky separation (km) : 4538.4
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
    
```

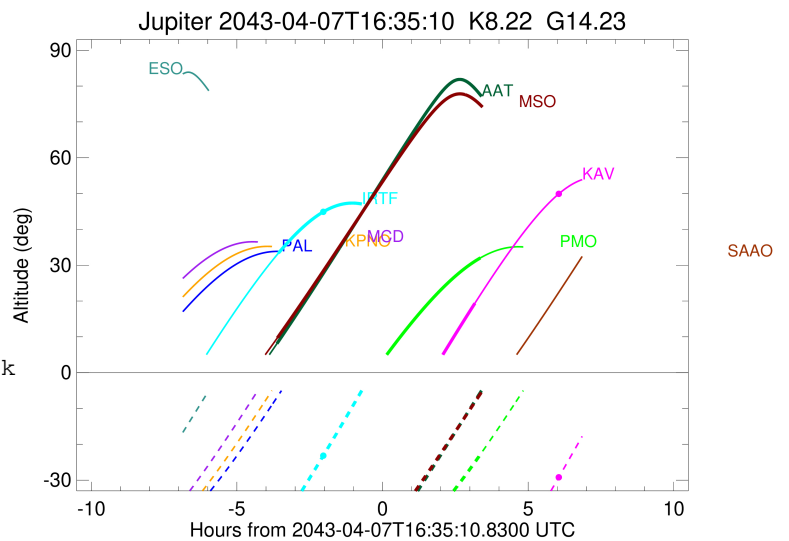
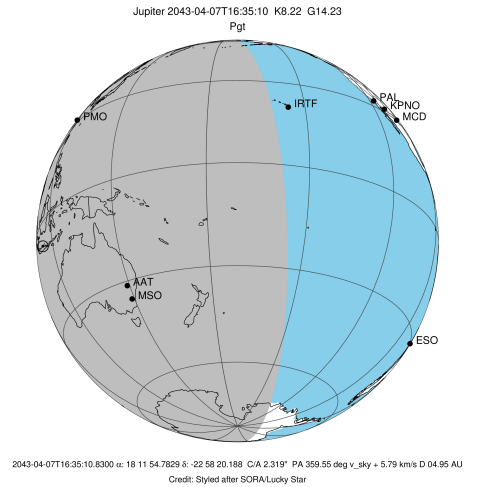


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-04-07T12:58:55.227	-40.33x	-30.77	71491.9	-6.74	-7.70
Jupiter	E	2043-04-07T19:56:48.675	32.03	-22.82	71492.0	-0.87	-1.00

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-04-07T16:40:12.660
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       : 4066625192270517248
2Mass ID (if available) : 18115478-2258200
ICRS Star Coord at Epoch: 18h 11m 54.78288s -22:58:20.18780s
RUWE (>1.4 is poor) : 1.34
K magnitude           : 8.222
G magnitude           : 14.228
RP magnitude          : 12.824
BP magnitude          : 16.469
DUPflag              : 0
Distance (au)        : 4.953
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 5.79
Sun-Target sep (deg) : 104.42
Sun-Moon sep (deg)   : 75.99
B (ring opening deg) : -2.45
PA of pole (deg)     : -2.12
Pole direction: RA (deg): 268.05664
Dec (deg): 64.49732
C/A sky separation ("): 1.138
C/A sky separation (km): 4089.1
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
    
```

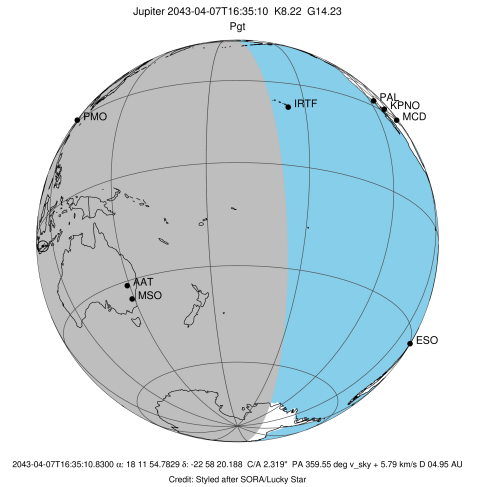


x: target alt < 5.0 deg or sun > -5.0 deg

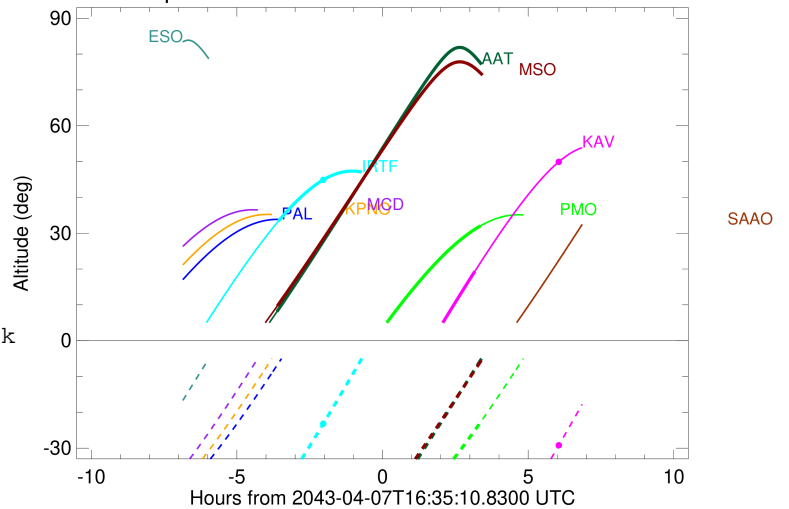
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-04-07T13:00:42.878	33.35	-43.14	71491.9	-5.21	-5.95
Jupiter	E	2043-04-07T20:18:09.781	8.29	56.98x	71492.0	-2.84	-3.25

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-04-07T16:19:28.190
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      : 4066625192270517248
2Mass ID (if available) : 18115478-2258200
ICRS Star Coord at Epoch: 18h 11m 54.78288s -22:58:20.18780s
RUWE (>1.4 is poor) : 1.34
K magnitude          : 8.222
G magnitude          : 14.228
RP magnitude        : 12.824
BP magnitude        : 16.469
DUPflag            : 0
Distance (au)       : 4.953
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : 5.79
Sun-Target sep (deg) : 104.42
Sun-Moon sep (deg)  : 75.22
B (ring opening deg) : -2.45
PA of pole (deg)    : -2.12
Pole direction: RA (deg): 268.05664
Dec (deg): 64.49732
C/A sky separation (" ) : 2.211
C/A sky separation (km) : 7943.9
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 2043-04-07T16:35:10 K8.22 G14.23

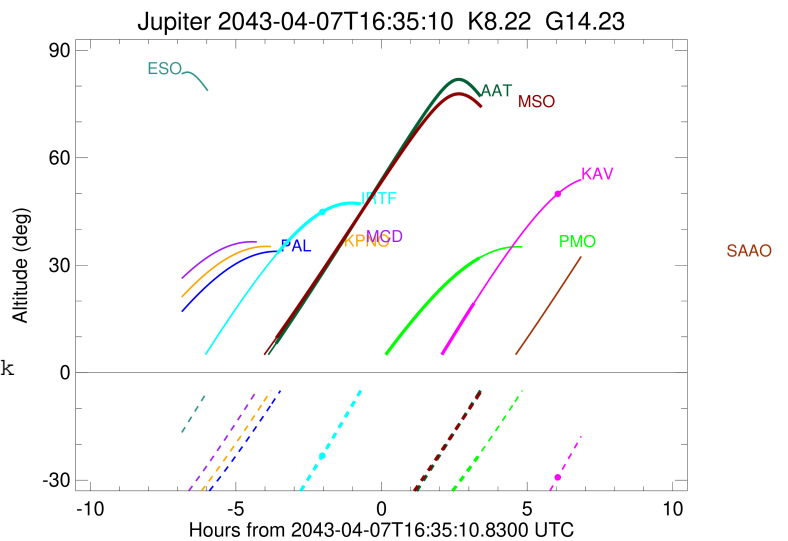
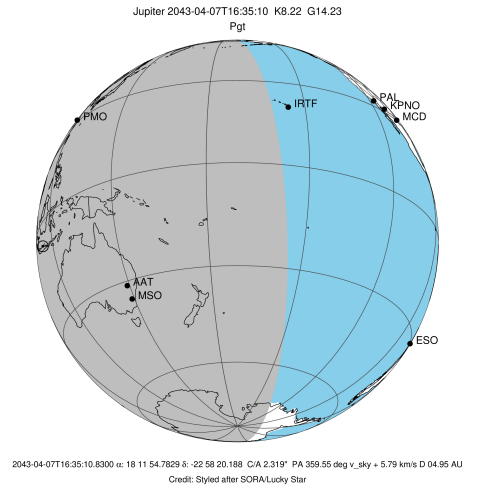


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-04-07T13:07:03.765	-70.19x	-3.43x	71491.8	-9.14	-10.43
Jupiter	E	2043-04-07T19:45:26.679	19.36	-65.63	71492.0	-3.00	-3.43

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-04-07T16:25:03.050
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        : 4066625192270517248
2Mass ID (if available) : 18115478-2258200
ICRS Star Coord at Epoch: 18h 11m 54.78288s -22:58:20.18780s
RUWE (>1.4 is poor) : 1.34
K magnitude           : 8.222
G magnitude           : 14.228
RP magnitude          : 12.824
BP magnitude          : 16.469
DUPflag              : 0
Distance (au)         : 4.953
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 5.79
Sun-Target sep (deg) : 104.42
Sun-Moon sep (deg)   : 76.28
B (ring opening deg) : -2.45
PA of pole (deg)     : -2.12
Pole direction: RA (deg): 268.05664
Dec (deg): 64.49732
C/A sky separation ("): 2.702
C/A sky separation (km): 9707.5
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
    
```

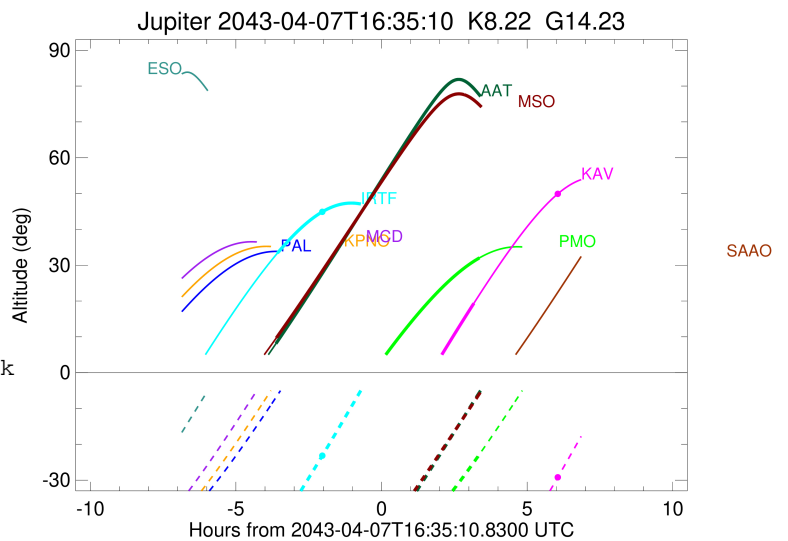
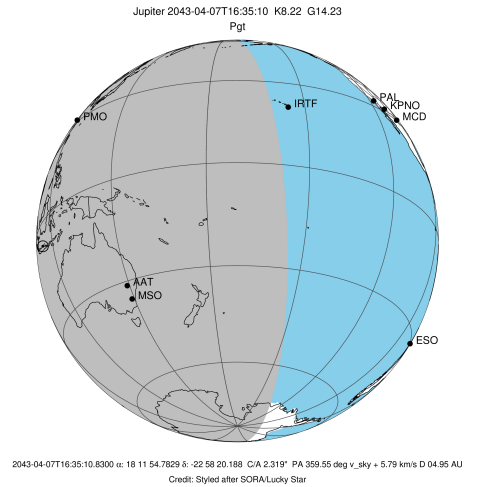


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-04-07T12:57:46.947	8.11	-61.05	71491.7	-10.85	-12.36
Jupiter	E	2043-04-07T20:03:44.466	76.31	-4.05x	71491.9	-5.76	-6.58

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-04-07T16:25:31.320
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       : 4066625192270517248
2Mass ID (if available) : 18115478-2258200
ICRS Star Coord at Epoch: 18h 11m 54.78288s -22:58:20.18780s
RUWE (>1.4 is poor) : 1.34
K magnitude           : 8.222
G magnitude           : 14.228
RP magnitude         : 12.824
BP magnitude         : 16.469
DUPflag              : 0
Distance (au)        : 4.953
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 5.79
Sun-Target sep (deg) : 104.42
Sun-Moon sep (deg)  : 76.27
B (ring opening deg) : -2.45
PA of pole (deg)    : -2.12
Pole direction: RA (deg): 268.05664
Dec (deg): 64.49732
C/A sky separation (" ) : 2.818
C/A sky separation (km) : 10123.9
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	2043-04-07T12:58:37.329	9.72	-57.80	71491.7	-11.12	-12.67
Jupiter	E	2043-04-07T20:03:21.710	73.83	-4.57x	71491.9	-6.11	-6.98