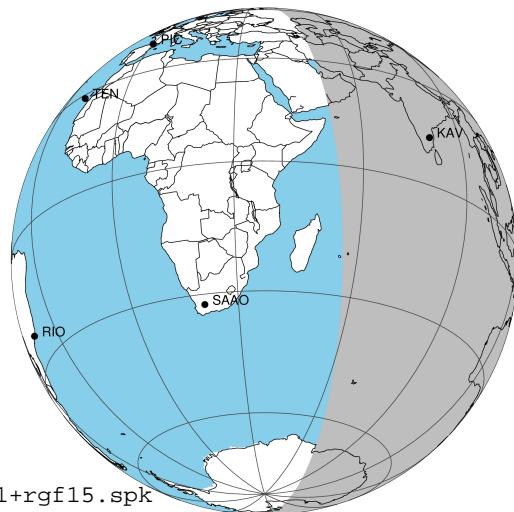


target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-10-08T14:11:23.950
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4068803565353905920
 2Mass ID (if available) : 17452116-2319194

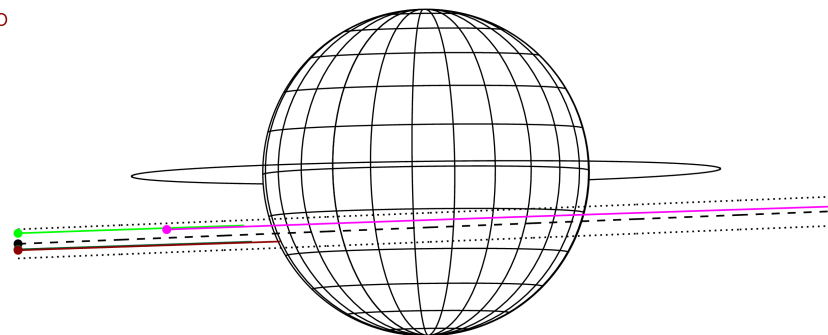
Jupiter 2043-10-08T14:11:23 K9.82 G14.95 Pgt

ICRS Star Coord at Epoch: 17h 45m 21.16151s -23:19:19.61158s
 RUWE (>1.4 is poor) : 0.97
 K magnitude : 9.819
 G magnitude : 14.948
 RP magnitude : 13.630
 BP magnitude : 16.927
 DUPflag : 0
 Distance (au) : 5.449
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 22.33
 Sun-Target sep (deg) : 72.05
 Sun-Moon sep (deg) : 12.84
 B (ring opening deg) : -2.17
 PA of pole (deg) : 0.74
 Pole direction: RA (deg): 268.05674
 Dec (deg): 64.49731
 C/A sky separation (") : 6.093
 C/A sky separation (km) : 24077.4
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk



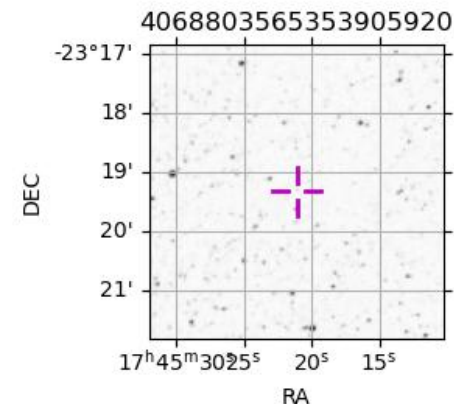
2043-10-08T14:11:23.9500 α: 17 45 21.1615 δ: -23 19 19.612 C/A 6.101° PA 2.29 deg v_sky +22.33 km/s D 05.45 AU
 Credit: Styled after SORA/Lucky Star

Earth
 PMO
 KAV
 AAT
 MSO



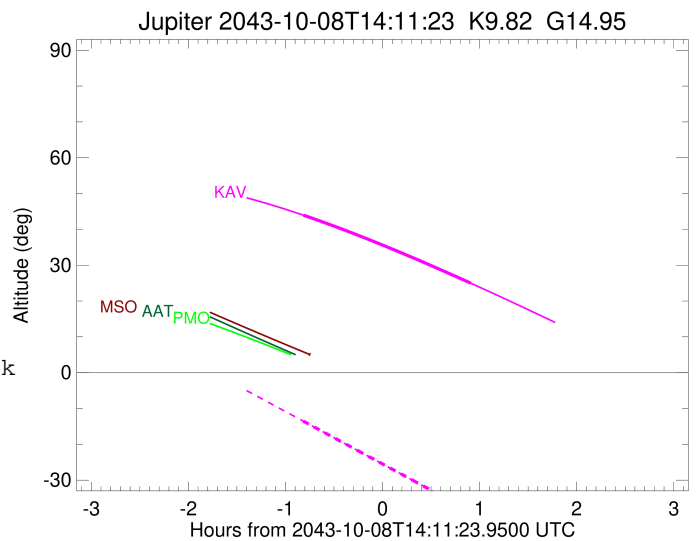
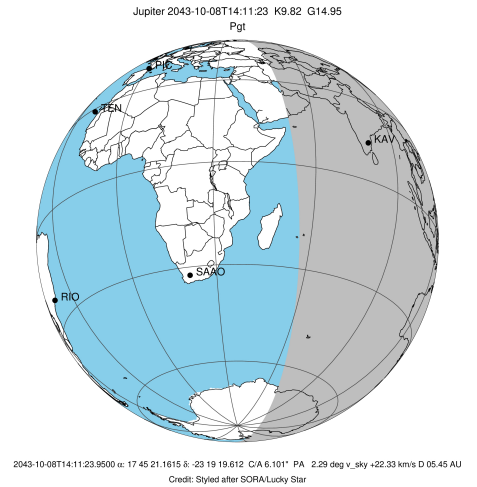
Observable events with sun below -5 deg and altitude above 5 deg

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			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	+ +	OCT 08 13:22 - OCT 08 15:06	Pie
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			Pnn
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+	OCT 08 13:26 - OCT 08 13:26	Pin



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-08T14:14:22.910
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       : 4068803565353905920
2Mass ID (if available) : 17452116-2319194
ICRS Star Coord at Epoch: 17h 45m 21.16151s -23:19:19.61158s
RUWE (>1.4 is poor) : 0.97
K magnitude           : 9.819
G magnitude           : 14.948
RP magnitude         : 13.630
BP magnitude         : 16.927
DUPflag              : 0
Distance (au)        : 5.449
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 22.33
Sun-Target sep (deg) : 72.05
Sun-Moon sep (deg)   : 13.66
B (ring opening deg) : -2.17
PA of pole (deg)     : 0.74
Pole direction: RA (deg): 268.05674
Dec (deg): 64.49731
C/A sky separation ("): 5.275
C/A sky separation (km): 20846.6
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
    
```

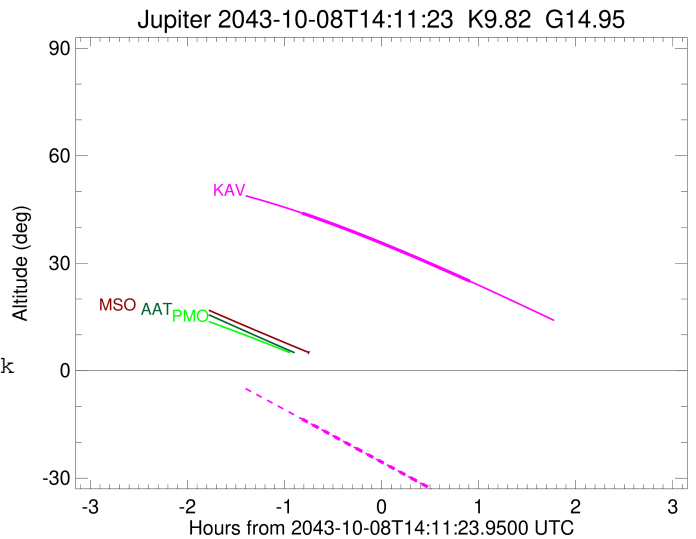
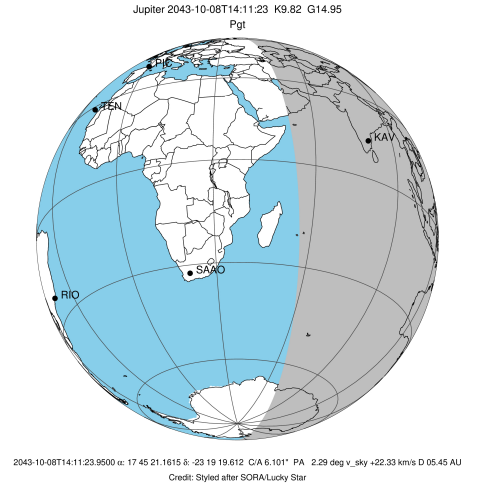


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-10-08T13:22:28.148	43.96	-13.54	71491.4	-18.25	-20.64
Jupiter	E	2043-10-08T15:06:05.618	24.95	-38.83	71491.5	-15.72	-17.83

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-08T14:14:57.390
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        : 4068803565353905920
2Mass ID (if available) : 17452116-2319194
ICRS Star Coord at Epoch: 17h 45m 21.16151s -23:19:19.61158s
RUWE (>1.4 is poor) : 0.97
K magnitude           : 9.819
G magnitude           : 14.948
RP magnitude          : 13.630
BP magnitude          : 16.927
DUPflag               : 0
Distance (au)         : 5.449
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 22.33
Sun-Target sep (deg) : 72.05
Sun-Moon sep (deg)   : 13.25
B (ring opening deg) : -2.17
PA of pole (deg)     : 0.74
Pole direction: RA (deg): 268.05674
Dec (deg): 64.49731
C/A sky separation ("): 7.105
C/A sky separation (km): 28075.4
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	2043-10-08T13:26:05.259	5.13	-48.46	71490.9	-24.28	-27.25
Jupiter	E	2043-10-08T15:03:37.760	-11.74x	-45.49	71491.1	-21.91	-24.67