

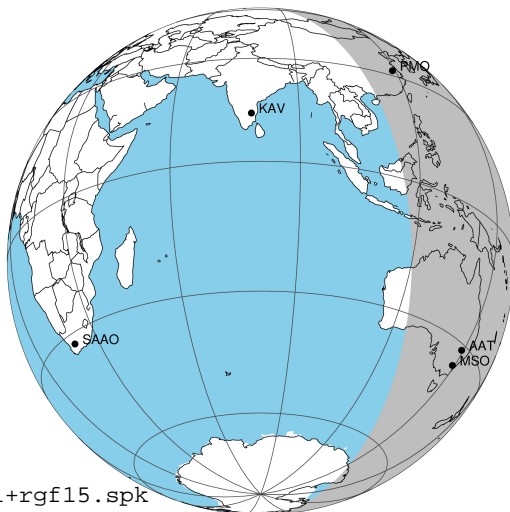
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2031-10-26T10:00:59.260
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4116490896530022784
 2Mass ID (if available) : 17411874-2314371

Jupiter 2031-10-26T10:00:59 K9.92 G14.50 Pgt

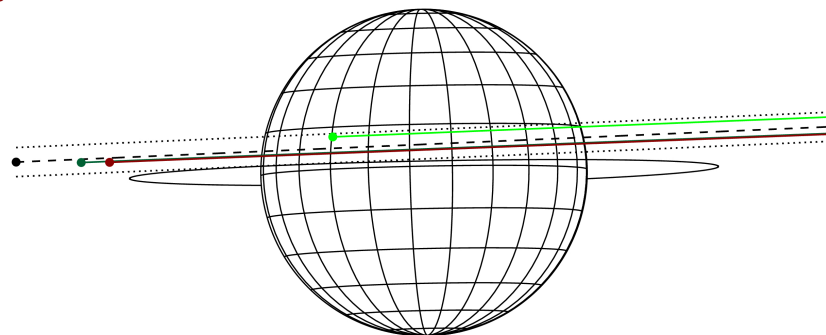
ICRS Star Coord at Epoch: 17h 41m 18.73978s -23:14:37.29113s

RUWE (>1.4 is poor) : 0.94
 K magnitude : 9.920
 G magnitude : 14.495
 RP magnitude : 13.308
 BP magnitude : 16.023
 DUPflag : 0
 Distance (au) : 5.766
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 30.98
 Sun-Target sep (deg) : 53.36
 Sun-Moon sep (deg) : 77.41
 B (ring opening deg) : -2.23
 PA of pole (deg) : 1.18
 Pole direction: RA (deg): 268.05681
 Dec (deg): 64.49652
 C/A sky separation (") : 2.944
 C/A sky separation (km) : 12311.2
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2031-10-26T10:00:59 K9.92 G14.50
 Pgt



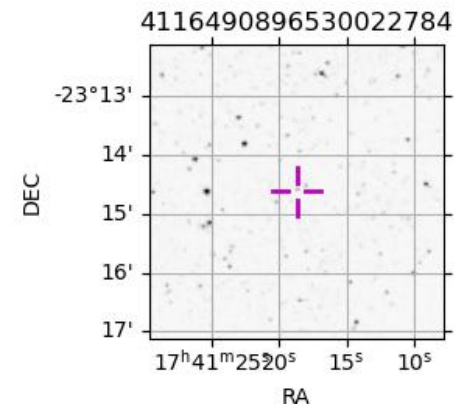
Earth
 PMO
 AAT
 MSO



2031-10-26T10:00:59.2600 cc: 17 41 18.7398 s: -23 14 37.2911 C/A 2.936" PA 182.49 deg v_sky +30.98 km/s D 05.77 AU
 Credit: Styled after SORA/Lucky Star

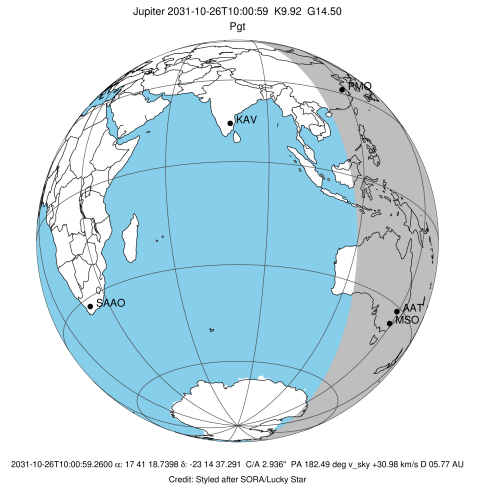
Observable events with sun below -5 deg and altitude above 5 deg

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	+	OCT 26 10:40 - OCT 26 10:40	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			Pnn
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	+ +	OCT 26 09:25 - OCT 26 10:42	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+ +	OCT 26 09:25 - OCT 26 10:41	Pie

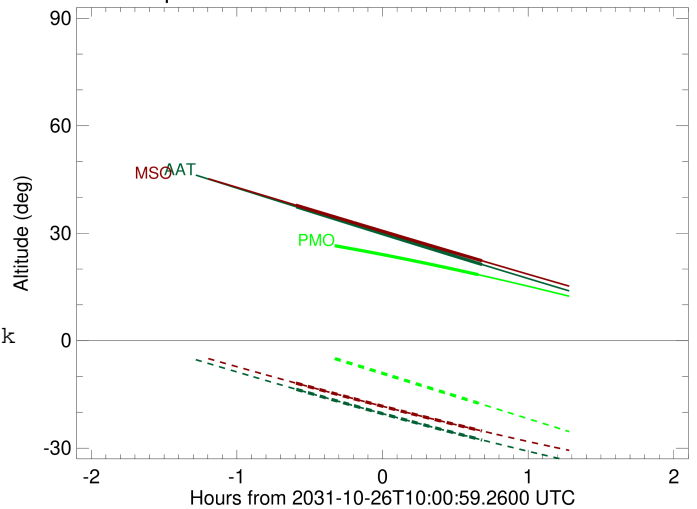


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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2031-10-26T10:02:42.730
Event type           : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code        : PMO
Location             : Purple Mtn Obs. Nanking
Latitude (deg)       : 32.06667
E. Longitude (deg)   : 118.82089
Altitude (km)        : 0.364
Gaia source ID       : 4116490896530022784
2Mass ID (if available) : 17411874-2314371
ICRS Star Coord at Epoch: 17h 41m 18.73978s -23:14:37.29113s
RUWE (>1.4 is poor) : 0.94
K magnitude           : 9.920
G magnitude           : 14.495
RP magnitude         : 13.308
BP magnitude         : 16.023
DUPflag              : 0
Distance (au)        : 5.766
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 30.98
Sun-Target sep (deg) : 53.36
Sun-Moon sep (deg)   : 77.68
B (ring opening deg) : -2.23
PA of pole (deg)     : 1.18
Pole direction: RA (deg): 268.05681
Dec (deg): 64.49652
C/A sky separation ("): 4.116
C/A sky separation (km): 17211.8
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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Jupiter 2031-10-26T10:00:59 K9.92 G14.50

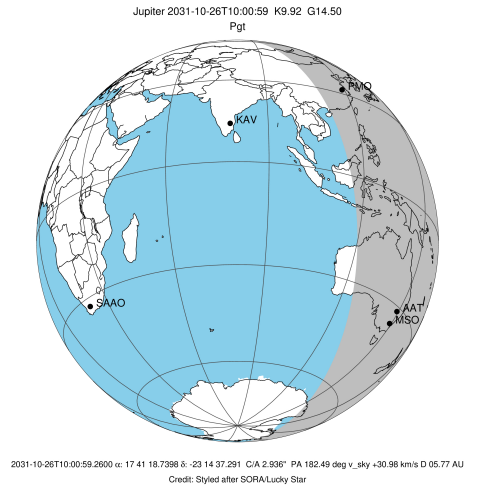


x: target alt < 5.0 deg or sun > -5.0 deg

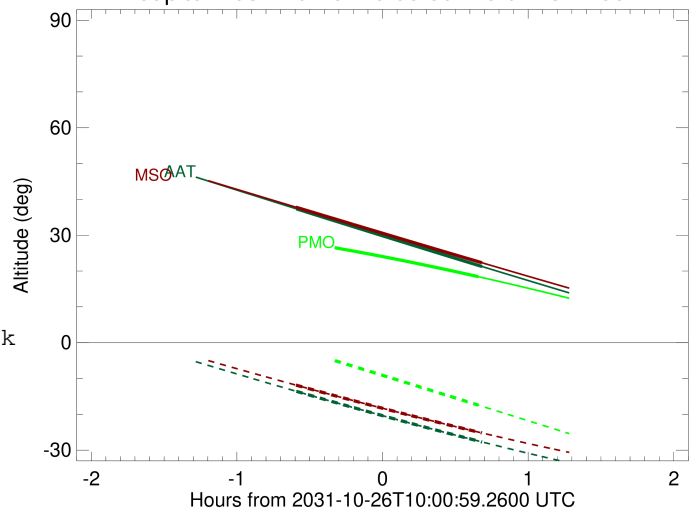
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2031-10-26T09:24:57.970	28.34	-1.61x	71491.7	12.75	14.50
Jupiter	E	2031-10-26T10:40:23.775	18.43	-17.42	71491.5	15.05	17.08

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2031-10-26T10:03:47.770
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      : 4116490896530022784
2Mass ID (if available) : 17411874-2314371
ICRS Star Coord at Epoch: 17h 41m 18.73978s -23:14:37.29113s
RUWE (>1.4 is poor) : 0.94
K magnitude          : 9.920
G magnitude          : 14.495
RP magnitude         : 13.308
BP magnitude         : 16.023
DUPflag             : 0
Distance (au)       : 5.766
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 30.98
Sun-Target sep (deg) : 53.36
Sun-Moon sep (deg)   : 77.72
B (ring opening deg) : -2.23
PA of pole (deg)     : 1.18
Pole direction: RA (deg): 268.05681
Dec (deg): 64.49652
C/A sky separation ("): 2.456
C/A sky separation (km): 10270.6
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 2031-10-26T10:00:59 K9.92 G14.50

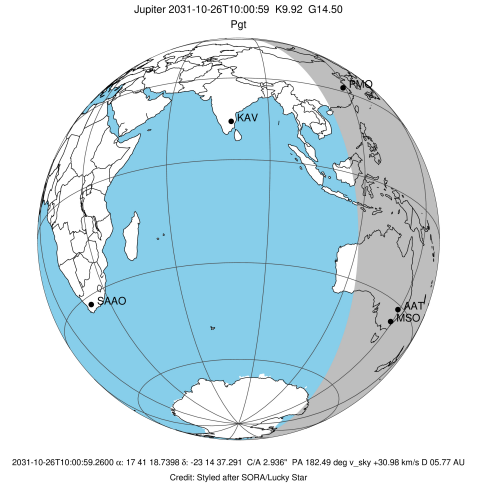


x: target alt < 5.0 deg or sun > -5.0 deg

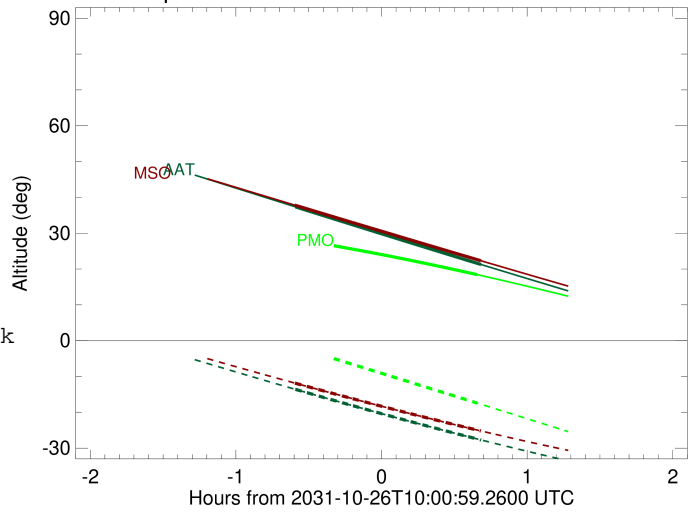
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2031-10-26T09:25:30.132	37.35	-13.58	71491.9	7.19	8.21
Jupiter	E	2031-10-26T10:41:59.997	21.26	-27.71	71491.8	9.29	10.59

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2031-10-26T10:03:40.630
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       : 4116490896530022784
2Mass ID (if available) : 17411874-2314371
ICRS Star Coord at Epoch: 17h 41m 18.73978s -23:14:37.29113s
RUWE (>1.4 is poor) : 0.94
K magnitude           : 9.920
G magnitude           : 14.495
RP magnitude          : 13.308
BP magnitude          : 16.023
DUPflag              : 0
Distance (au)        : 5.766
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 30.98
Sun-Target sep (deg) : 53.36
Sun-Moon sep (deg)   : 77.74
B (ring opening deg) : -2.23
PA of pole (deg)     : 1.18
Pole direction: RA (deg): 268.05681
Dec (deg): 64.49652
C/A sky separation (") : 2.364
C/A sky separation (km) : 9885.2
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 2031-10-26T10:00:59 K9.92 G14.50



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	2031-10-26T09:25:21.774	37.80	-11.86	71491.9	6.87	7.84
Jupiter	E	2031-10-26T10:41:54.275	22.32	-25.19	71491.8	8.99	10.25