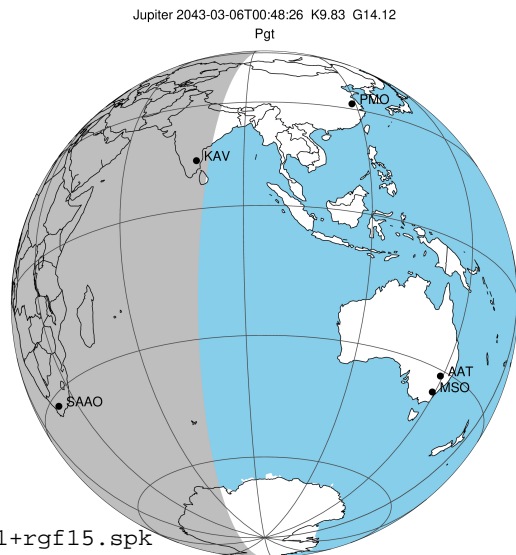


target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-03-06T00:48:26.620
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4069445027228866304
 2Mass ID (if available) : 17595202-2259023

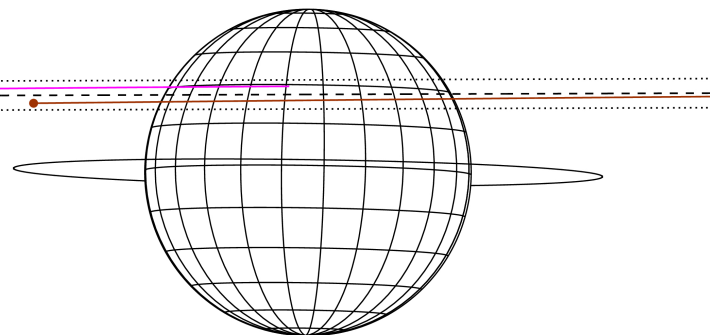
Jupiter 2043-03-06T00:48:26 K9.83 G14.12 Pgt

ICRS Star Coord at Epoch: 17h 59m 52.02703s -22:59:02.21550s
 RUWE (>1.4 is poor) : 0.96
 K magnitude : 9.826
 G magnitude : 14.124
 RP magnitude : 12.996
 BP magnitude : 15.464
 DUPflag : 0
 Distance (au) : 5.476
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 21.02
 Sun-Target sep (deg) : 74.77
 Sun-Moon sep (deg) : 9.19
 B (ring opening deg) : -2.51
 PA of pole (deg) : -0.82
 Pole direction: RA (deg): 268.05663
 Dec (deg): 64.49732
 C/A sky separation (") : 8.608
 C/A sky separation (km) : 34185.0
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk



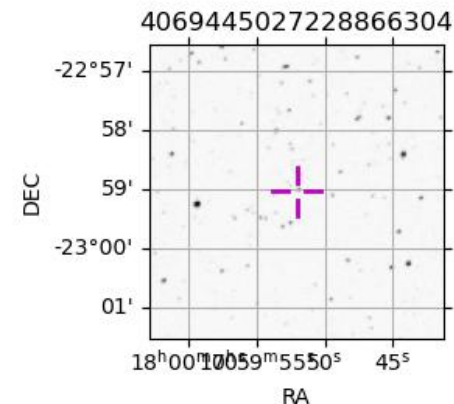
2043-03-06T00:48:26.6200 cc: 17 59 52.0270 s: -22 59 02.216 C/A 8.598" PA 180.19 deg v_sky +21.02 km/s D 05.48 AU
 Credit: Styled after SORA/Lucky Star

Earth
 KAV
 SAAO



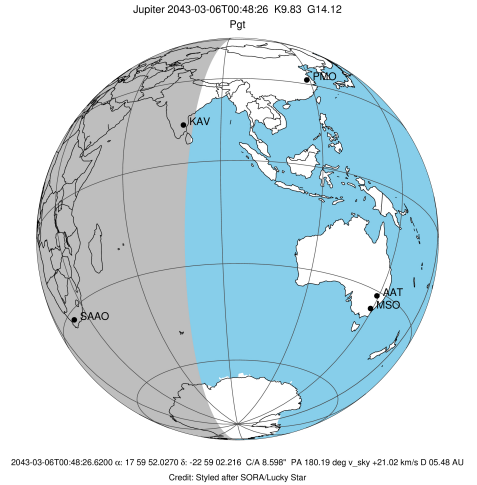
Observable events with sun below -5 deg and altitude above 5 deg

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			Pnn
KAV	Kavalur Observatory	12.6	78.8	+	MAR 05 23:57 - MAR 05 23:57	Pin
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	+ +	MAR 05 23:53 - MAR 06 01:35	Pie
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn

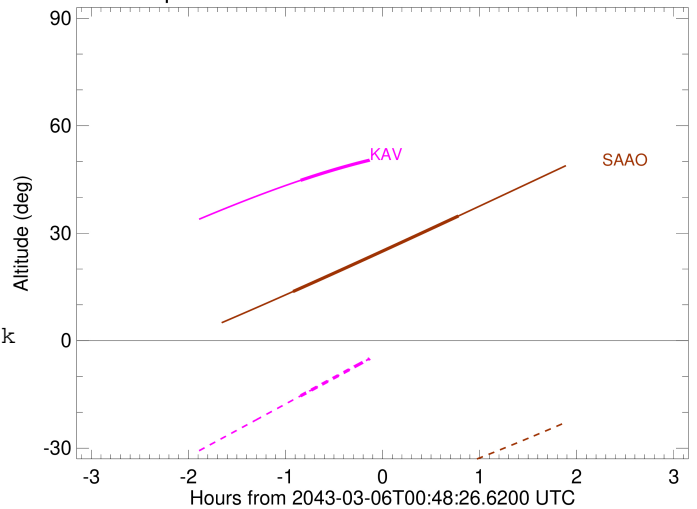


```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-03-06T00:46:59.050
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      : 4069445027228866304
2Mass ID (if available) : 17595202-2259023
ICRS Star Coord at Epoch: 17h 59m 52.02703s -22:59:02.21550s
RUWE (>1.4 is poor) : 0.96
K magnitude          : 9.826
G magnitude          : 14.124
RP magnitude         : 12.996
BP magnitude         : 15.464
DUPflag             : 0
Distance (au)       : 5.476
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 21.02
Sun-Target sep (deg) : 74.77
Sun-Moon sep (deg)  : 9.83
B (ring opening deg) : -2.51
PA of pole (deg)    : -0.82
Pole direction: RA (deg): 268.05663
Dec (deg): 64.49732
C/A sky separation (" ) : 9.516
C/A sky separation (km) : 37790.7
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
    
```



Jupiter 2043-03-06T00:48:26 K9.83 G14.12

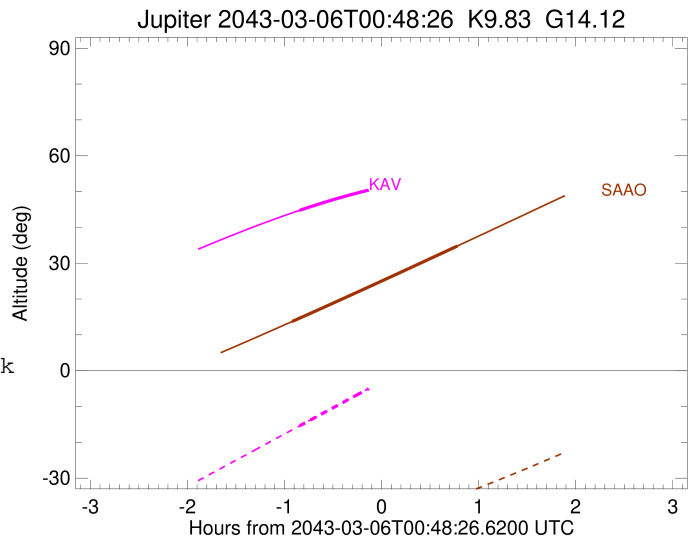
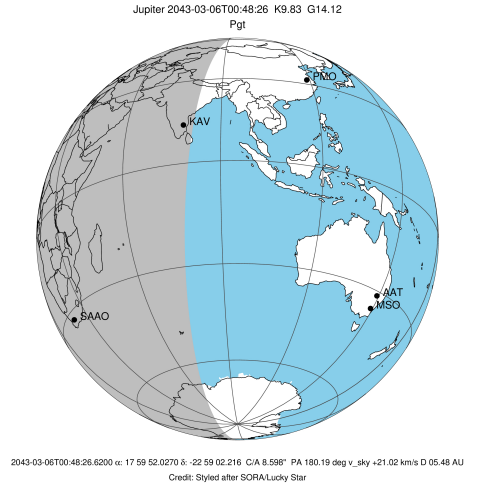


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-03-05T23:57:52.460	44.76	-15.39	71489.8	30.68	34.09
Jupiter	E	2043-03-06T01:36:12.075	54.30	8.51x	71489.5	32.97	36.49

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-03-06T00:44:07.810
Event type           : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code        : SAAO
Location             : So. Afr. Astro. Obs. (Sutherland)
Latitude (deg)       : -32.37953
E. Longitude (deg)   : 20.81070
Altitude (km)        : 1.768
Gaia source ID       : 4069445027228866304
2Mass ID (if available) : 17595202-2259023
ICRS Star Coord at Epoch: 17h 59m 52.02703s -22:59:02.21550s
RUWE (>1.4 is poor) : 0.96
K magnitude           : 9.826
G magnitude           : 14.124
RP magnitude         : 12.996
BP magnitude         : 15.464
DUPflag              : 0
Distance (au)        : 5.476
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 21.02
Sun-Target sep (deg) : 74.77
Sun-Moon sep (deg)   : 9.65
B (ring opening deg) : -2.51
PA of pole (deg)     : -0.82
Pole direction: RA (deg): 268.05663
Dec (deg): 64.49732
C/A sky separation (") : 7.959
C/A sky separation (km) : 31606.8
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
    
```



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	2043-03-05T23:53:09.459	13.71	-48.97	71490.5	24.79	27.80
Jupiter	E	2043-03-06T01:35:21.347	34.80	-35.01	71490.2	27.61	30.83