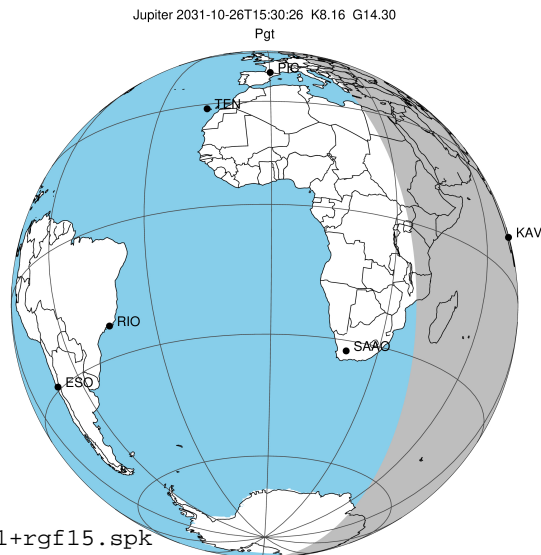


target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2031-10-26T15:30:26.860
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4116493778309997824
 2Mass ID (if available) : 17412943-2314401

Jupiter 2031-10-26T15:30:26 K8.16 G14.30 Pgt

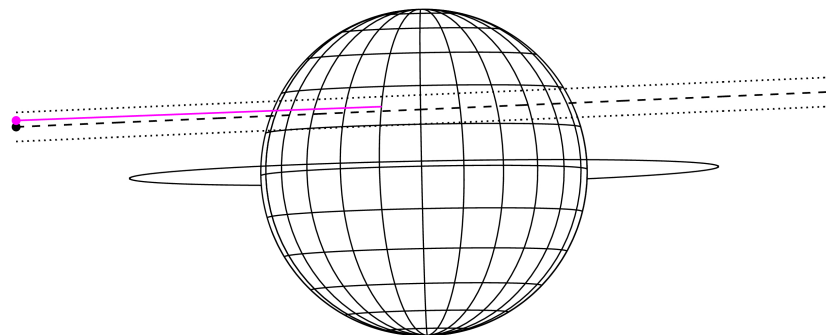
ICRS Star Coord at Epoch: 17h 41m 29.37661s -23:14:39.96492s

RUWE (>1.4 is poor) : 1.65
 K magnitude : 8.161
 G magnitude : 14.302
 RP magnitude : 12.794
 BP magnitude : 15.781
 DUPflag : 0
 Distance (au) : 5.769
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 31.06
 Sun-Target sep (deg) : 53.17
 Sun-Moon sep (deg) : 80.56
 B (ring opening deg) : -2.23
 PA of pole (deg) : 1.16
 Pole direction: RA (deg): 268.05681
 Dec (deg): 64.49652
 C/A sky separation (") : 6.605
 C/A sky separation (km) : 27635.6
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk



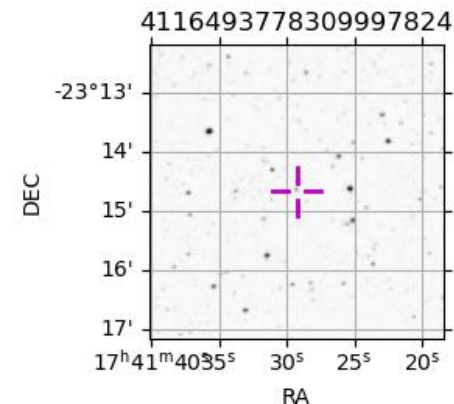
2031-10-26T15:30:26.8600 cc: 17 41 29.3766 s: -23 14 39.965 C/A 6.5977 PA 182.47 deg v_sky +31.06 km/s D 05.77 AU
 Credit: Styled after SORA/Lucky Star

Earth
 KAV



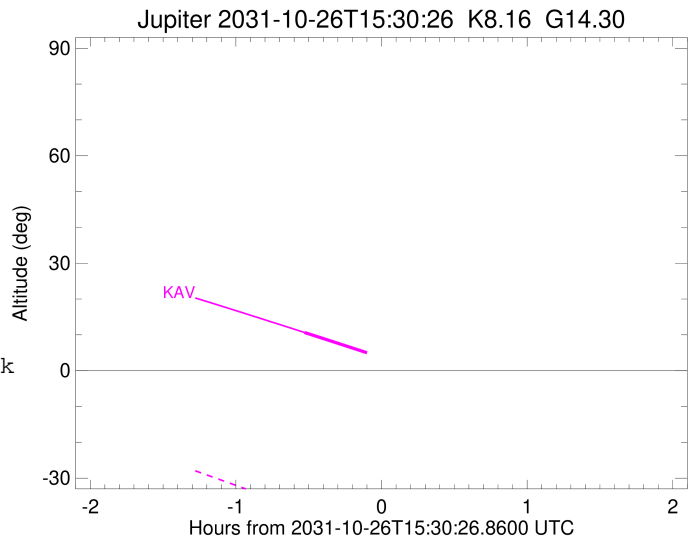
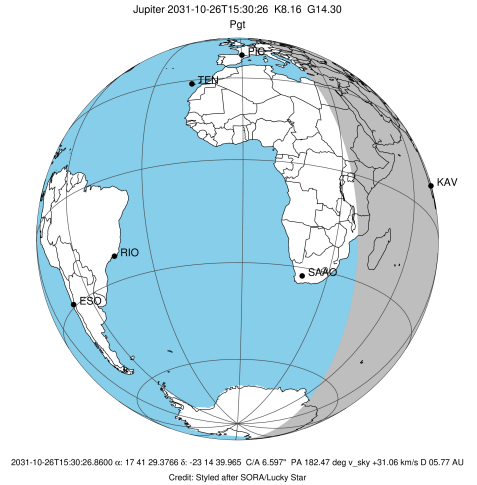
Observable events with sun below -5 deg and altitude above 5 deg

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	+	OCT 26 14:58 - OCT 26 14:58	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			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2031-10-26T15:33:48.110
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        : 4116493778309997824
2Mass ID (if available) : 17412943-2314401
ICRS Star Coord at Epoch: 17h 41m 29.37661s -23:14:39.96492s
RUWE (>1.4 is poor)  : 1.65
K magnitude           : 8.161
G magnitude           : 14.302
RP magnitude          : 12.794
BP magnitude          : 15.781
DUPflag              : 0
Distance (au)         : 5.769
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 31.06
Sun-Target sep (deg)  : 53.17
Sun-Moon sep (deg)    : 80.46
B (ring opening deg)  : -2.23
PA of pole (deg)      : 1.16
Pole direction: RA (deg): 268.05681
Dec (deg): 64.49652
C/A sky separation (") : 7.056
C/A sky separation (km) : 29520.7
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	2031-10-26T14:58:43.763	10.66	-38.86	71490.9	23.37	26.26
Jupiter	E	2031-10-26T16:08:47.097	-4.91x	-55.90	71490.8	25.35	28.41