

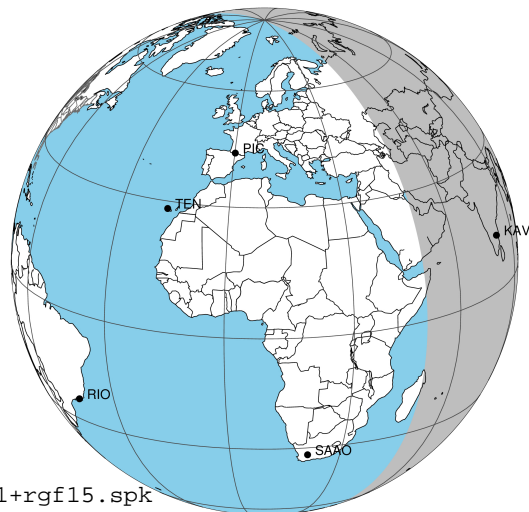
target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2048-03-20T14:51:13.830  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 55830249816799104  
 2Mass ID (if available) : 03204789+1739225

Jupiter 2048-03-20T14:51:13 K8.33 G9.75 Pgt

ICRS Star Coord at Epoch: 03h 20m 48.06440s +17:39:19.31181s

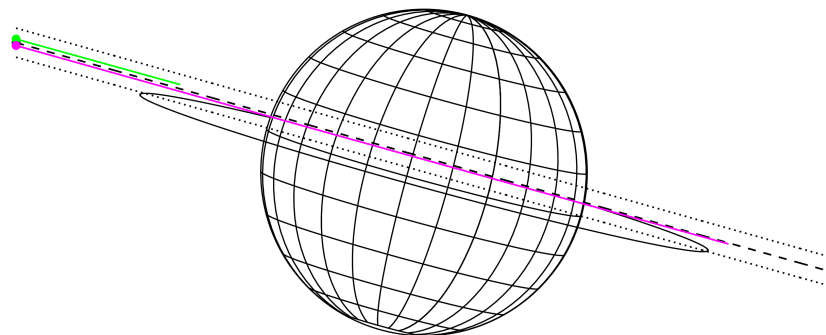
RUWE (>1.4 is poor) : 1.00  
 K magnitude : 8.327  
 G magnitude : 9.754  
 RP magnitude : 9.251  
 BP magnitude : 10.091  
 DUPflag : 0  
 Distance (au) : 5.568  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 31.29  
 Sun-Target sep (deg) : 52.41  
 Sun-Moon sep (deg) : 15.62  
 B (ring opening deg) : 2.88  
 PA of pole (deg) : -15.34  
 Pole direction: RA (deg): 268.05727  
 Dec (deg): 64.49723  
 C/A sky separation (") : 1.582  
 C/A sky separation (km) : 6388.5  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

Jupiter 2048-03-20T14:51:13 K8.33 G9.75  
 Pgt



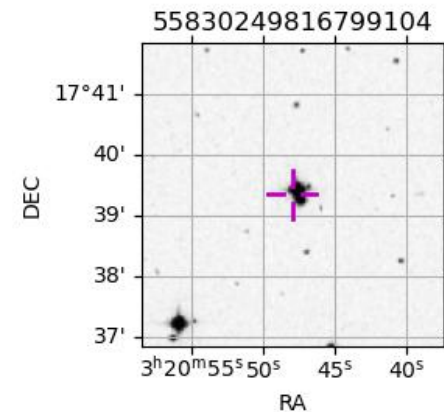
2048-03-20T14:51:13.8300 cc: 03 20 48.0644 s: +17 39 19.312 C/A 1.592" PA 164.30 deg v\_sky +31.29 km/s D 05.57 AU  
 Credit: Styled after SORA/Lucky Star

Earth  
 PMO  
 KAV



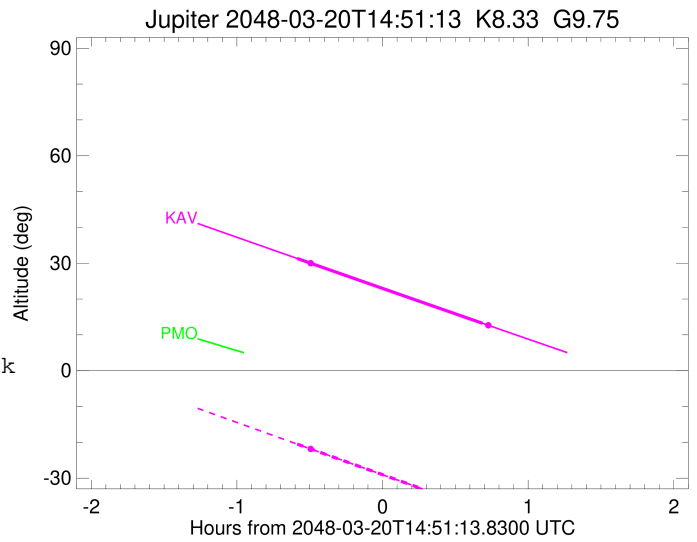
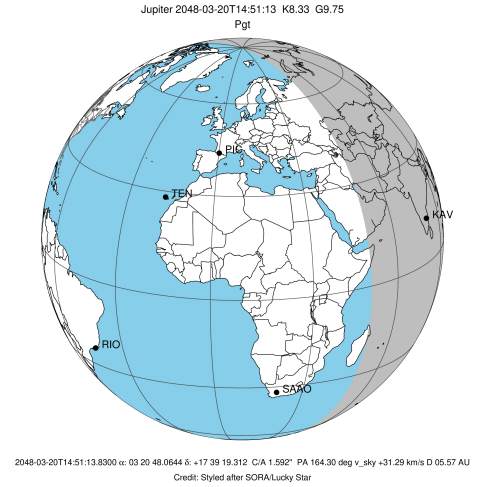
Observable events with sun below -5 deg and altitude above 5 deg

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	+ +	MAR 20 14:16 - MAR 20 15:32	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			Pnn



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2048-03-20T14:54:19.740
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      : 55830249816799104
2Mass ID (if available) : 03204789+1739225
ICRS Star Coord at Epoch: 03h 20m 48.06440s +17:39:19.31181s
RUWE (>1.4 is poor) : 1.00
K magnitude          : 8.327
G magnitude          : 9.754
RP magnitude         : 9.251
BP magnitude         : 10.091
DUPflag             : 0
Distance (au)       : 5.568
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 31.29
Sun-Target sep (deg) : 52.41
Sun-Moon sep (deg)  : 14.95
B (ring opening deg) : 2.88
PA of pole (deg)    : -15.34
Pole direction: RA (deg): 268.05727
Dec (deg): 64.49723
C/A sky separation (" ) : 1.355
C/A sky separation (km) : 5472.1
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	2048-03-20T14:16:05.584	31.31	-20.50	71491.9	4.61	5.27
Jupiter	E	2048-03-20T15:32:28.208	13.22	-38.96	71491.9	4.21	4.81