

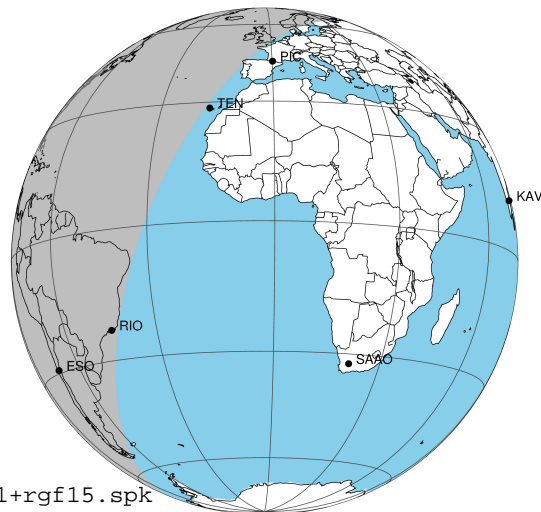
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2040-12-18T08:00:23.820
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 3618168376721272960
 2Mass ID (if available) : 13391844-0901551

Jupiter 2040-12-18T08:00:23 K9.34 G10.73 Pgt

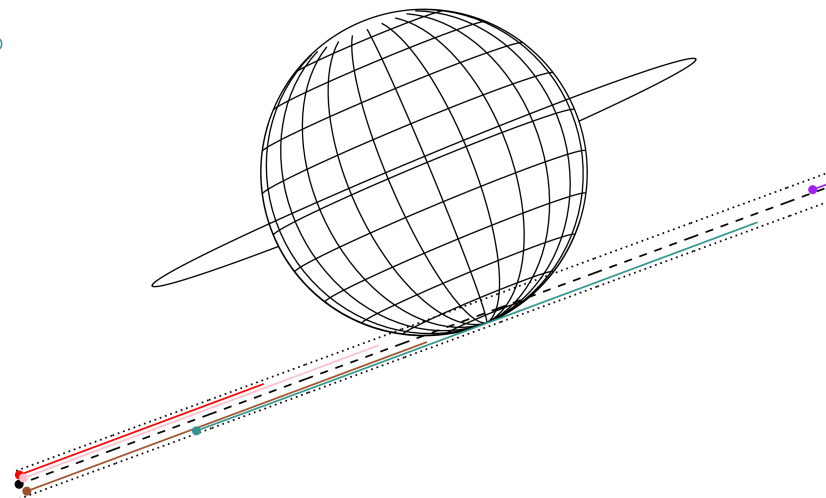
ICRS Star Coord at Epoch: 13h 39m 18.51950s -09:01:56.19583s

RUWE (>1.4 is poor) : 0.98
 K magnitude : 9.340
 G magnitude : 10.727
 RP magnitude : 10.240
 BP magnitude : 11.048
 DUPflag : 0
 Distance (au) : 5.875
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 27.24
 Sun-Target sep (deg) : 60.16
 Sun-Moon sep (deg) : 121.74
 B (ring opening deg) : -2.86
 PA of pole (deg) : 22.64
 Pole direction: RA (deg): 268.05622
 Dec (deg): 64.49717
 C/A sky separation (") : 15.739
 C/A sky separation (km) : 67066.8
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2040-12-18T08:00:23 K9.34 G10.73
 Pgt



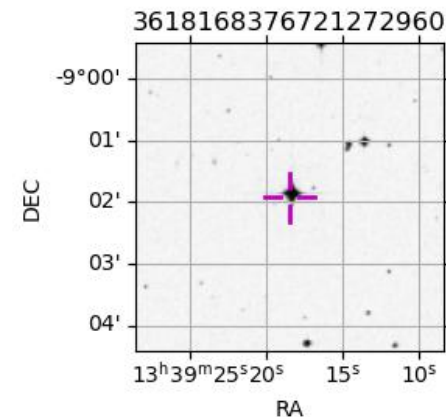
Earth
 PIC
 MCD
 TEN
 RIO
 ESO



2040-12-18T08:00:23.8200 α: 13 39 18.5195 δ: -09 01 56.196 C/A ***** PA 20.16 deg v_sky +27.24 km/s D 05.88 AU
 Credit: Styled after SORA/Lucky Star

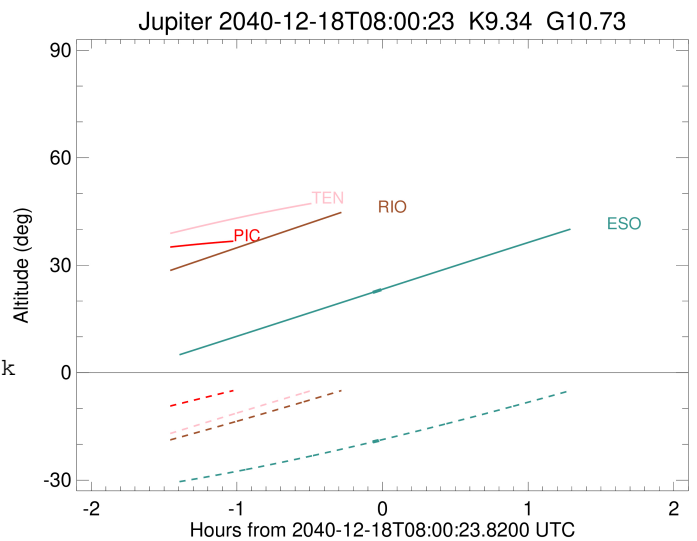
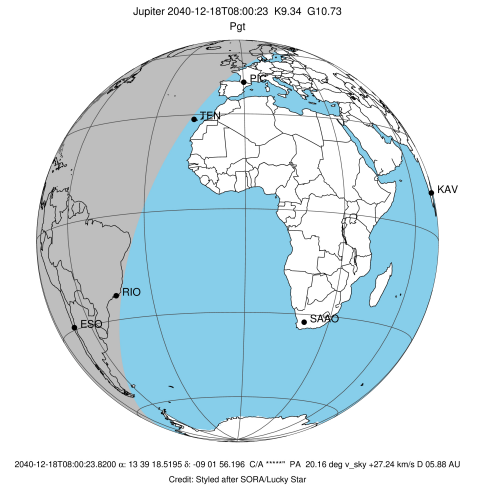
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	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			Pnn
RIO	Rio de Janeiro	-22.9	316.8			Pnn
ESO	European Southern Obs. (3.6m)	-29.3	289.3	+ +	DEC 18 07:56 - DEC 18 07:59	Pie
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            : 2040-12-18T07:58:09.390
Event type           : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code        : ESO
Location             : European Southern Obs. (3.6m)
Latitude (deg)       : -29.26097
E. Longitude (deg)  : 289.26831
Altitude (km)        : 2.400
Gaia source ID       : 3618168376721272960
2Mass ID (if available) : 13391844-0901551
ICRS Star Coord at Epoch: 13h 39m 18.51950s -09:01:56.19583s
RUWE (>1.4 is poor) : 0.98
K magnitude           : 9.340
G magnitude           : 10.727
RP magnitude         : 10.240
BP magnitude         : 11.048
DUPflag              : 0
Distance (au)        : 5.875
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 27.24
Sun-Target sep (deg) : 60.16
Sun-Moon sep (deg)  : 122.32
B (ring opening deg) : -2.86
PA of pole (deg)    : 22.64
Pole direction: RA (deg): 268.05622
Dec (deg): 64.49717
C/A sky separation (") : 16.762
C/A sky separation (km) : 71425.0
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	2040-12-18T07:56:25.170	22.40	-19.33	71480.9	-84.66	-85.29
Jupiter	E	2040-12-18T07:59:53.550	23.16	-18.76	71480.8	-87.14	-87.48