

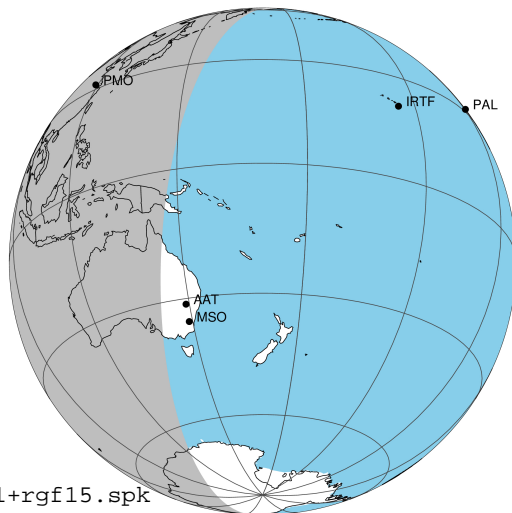
target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2031-02-19T20:19:18.480  
 Event type : Pt  
 : Jupiter occs: topocentric, not geocentric  
 : Not a ringed target  
 Gaia source ID : 4116707706440956288  
 2Mass ID (if available) : 17345669-2246384

Jupiter 2031-02-19T20:19:18 K8.97 G14.57 Pt

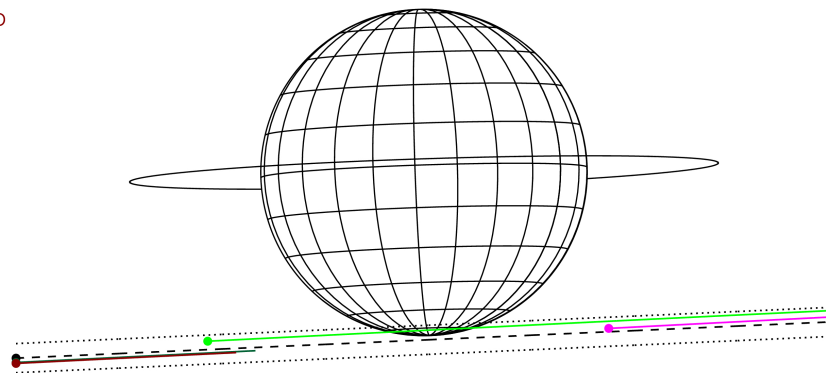
ICRS Star Coord at Epoch: 17h 34m 56.69016s -22:46:38.53969s

RUWE (>1.4 is poor) : 0.89  
 K magnitude : 8.972  
 G magnitude : 14.570  
 RP magnitude : 13.147  
 BP magnitude : 17.190  
 DUPflag : 0  
 Distance (au) : 5.638  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 25.11  
 Sun-Target sep (deg) : 66.33  
 Sun-Moon sep (deg) : 41.93  
 B (ring opening deg) : -2.66  
 PA of pole (deg) : 1.86  
 Pole direction: RA (deg): 268.05702  
 Dec (deg): 64.49651  
 C/A sky separation (") : 17.927  
 C/A sky separation (km) : 73299.5  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

Jupiter 2031-02-19T20:19:18 K8.97 G14.57 Pt



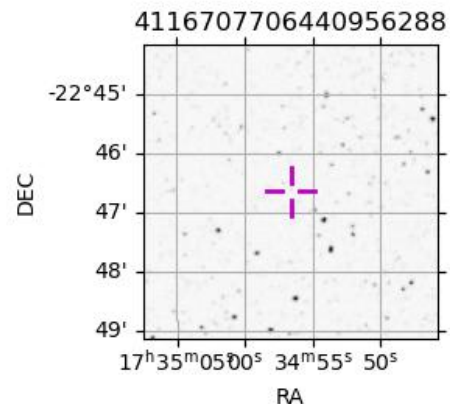
Earth  
 PMO  
 KAV  
 AAT  
 MSO



2031-02-19T20:19:18.4800 α: 17 34 56.6902 δ: -22 46 38.540 C/A \*\*\*\*\* PA 2.55 deg v\_sky +25.11 km/s D 05.64 AU  
 Credit: Styled after SORA/Lucky Star

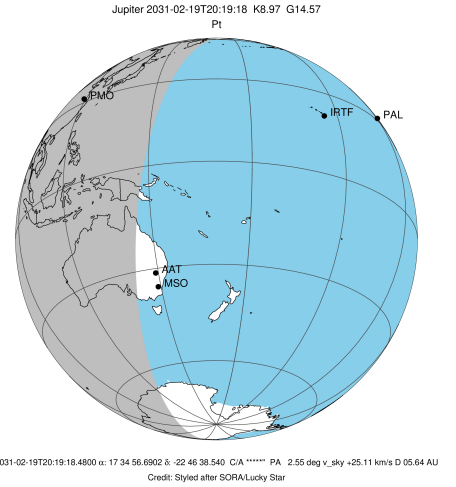
Observable events with sun below -5 deg and altitude above 5 deg

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	+ +	FEB 19 20:04 - FEB 19 20:28	Pie
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			Pnn
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn

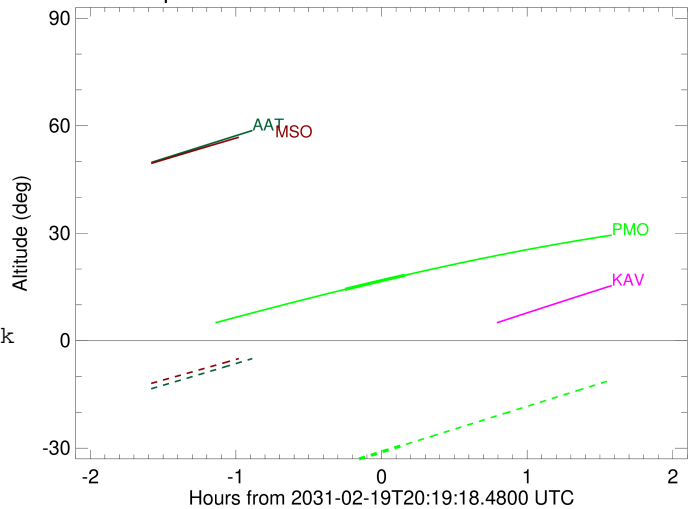


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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2031-02-19T20:16:36.810
Event type            : Pt
: Jupiter occs: topocentric, not geocentric
: Not a ringed target
Observer code         : PMO
Location              : Purple Mtn Obs. Nanking
Latitude (deg)        : 32.06667
E. Longitude (deg)    : 118.82089
Altitude (km)         : 0.364
Gaia source ID        : 4116707706440956288
2Mass ID (if available) : 17345669-2246384
ICRS Star Coord at Epoch: 17h 34m 56.69016s -22:46:38.53969s
RUWE (>1.4 is poor) : 0.89
K magnitude           : 8.972
G magnitude           : 14.570
RP magnitude          : 13.147
BP magnitude          : 17.190
DUPflag               : 0
Distance (au)         : 5.638
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 25.11
Sun-Target sep (deg) : 66.33
Sun-Moon sep (deg)   : 42.59
B (ring opening deg) : -2.66
PA of pole (deg)     : 1.86
Pole direction: RA (deg): 268.05702
Dec (deg): 64.49651
C/A sky separation (") : 16.893
C/A sky separation (km) : 69074.0
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
    
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Jupiter 2031-02-19T20:19:18 K8.97 G14.57



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	2031-02-19T20:04:17.647	14.32	-34.22	71482.9	-75.83	-77.45
Jupiter	E	2031-02-19T20:28:56.615	18.27	-29.02	71483.0	-73.89	-75.72