

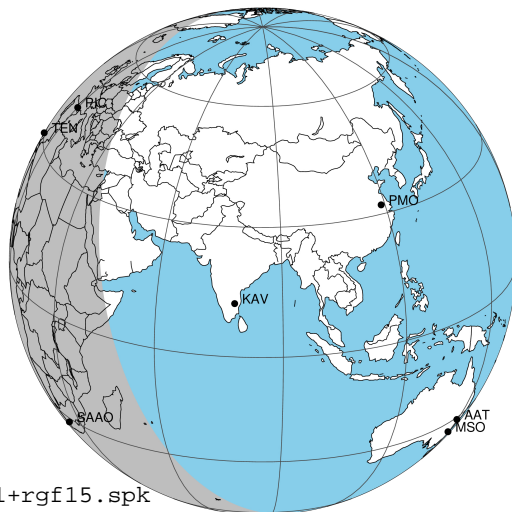
target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2036-07-31T02:50:40.470  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 3415251444231982976  
 2Mass ID (if available) : 05070622+2215464

Jupiter 2036-07-31T02:50:40 K9.65 G12.38 Pgt

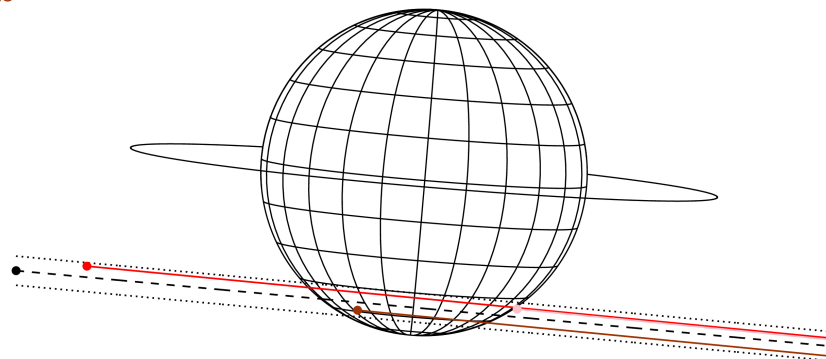
ICRS Star Coord at Epoch: 05h 07m 06.22325s +22:15:46.38430s

RUWE (>1.4 is poor) : 0.99  
 K magnitude : 9.650  
 G magnitude : 12.382  
 RP magnitude : 11.561  
 BP magnitude : 13.094  
 DUPflag : 0  
 Distance (au) : 5.638  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 31.80  
 Sun-Target sep (deg) : 50.22  
 Sun-Moon sep (deg) : 151.85  
 B (ring opening deg) : 2.80  
 PA of pole (deg) : -4.84  
 Pole direction: RA (deg): 268.05635  
 Dec (deg): 64.49685  
 C/A sky separation (") : 14.504  
 C/A sky separation (km) : 59314.4  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

Jupiter 2036-07-31T02:50:40 K9.65 G12.38  
 Pgt



Earth  
 PIC  
 TEN  
 SAAO

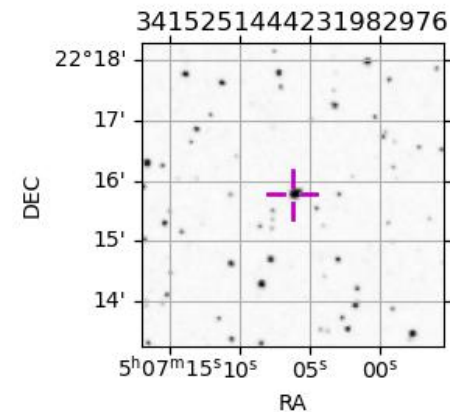


2036-07-31T02:50:40.4700 α: 05 07 06.2233 δ: +22 15 46.384 C/A \*\*\*\*\* PA 354.71 deg v\_sky +31.80 km/s D 05.64 AU

Credit: Styled after SORA/Lucky Star

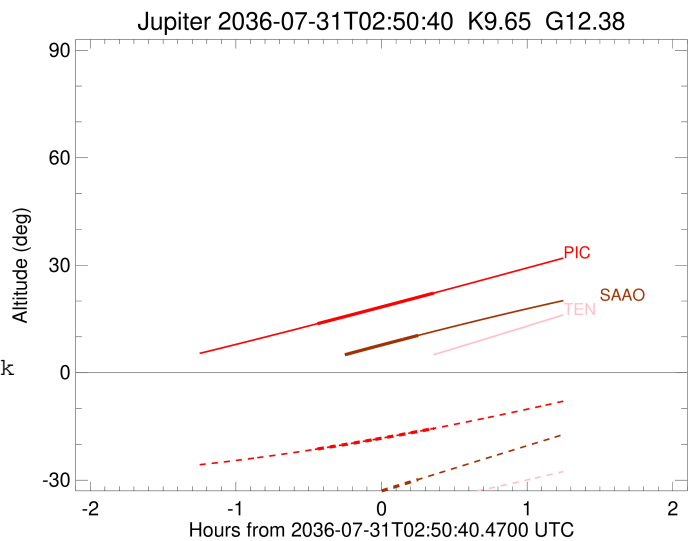
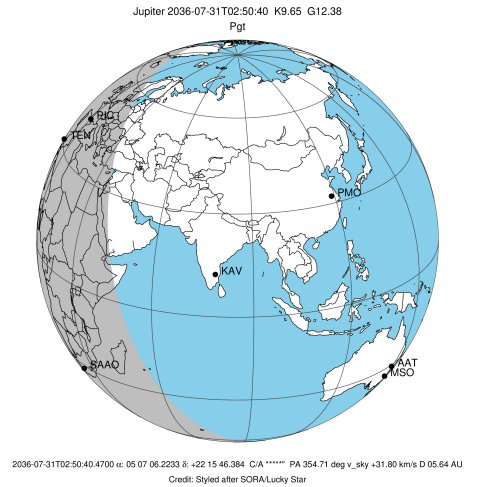
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	OCode
PIC	Pic du Midi	42.9	0.1	+ +	JUL 31 02:24 - JUL 31 03:12	Pie
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			Pnn
AAT	Siding Spring (AAT)	-31.3	149.1			Pnn
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8	+	JUL 31 03:05 - JUL 31 03:05	Pne
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2036-07-31T02:48:17.960
Event type          : Pgt
                    : Jupiter occs: geocentric, topocentric
                    : Not a ringed target
Observer code       : PIC
Location            : Pic du Midi
Latitude (deg)      : 42.93656
E. Longitude (deg)  : 0.14231
Altitude (km)       : 2.890
Gaia source ID      : 3415251444231982976
2Mass ID (if available) : 05070622+2215464
ICRS Star Coord at Epoch: 05h 07m 06.22325s +22:15:46.38430s
RUWE (>1.4 is poor) : 0.99
K magnitude          : 9.650
G magnitude          : 12.382
RP magnitude         : 11.561
BP magnitude         : 13.094
DUPflag             : 0
Distance (au)        : 5.639
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 31.80
Sun-Target sep (deg) : 50.22
Sun-Moon sep (deg)   : 151.53
B (ring opening deg) : 2.80
PA of pole (deg)     : -4.84
Pole direction: RA (deg): 268.05635
Dec (deg): 64.49685
C/A sky separation (") : 13.461
C/A sky separation (km) : 55047.0
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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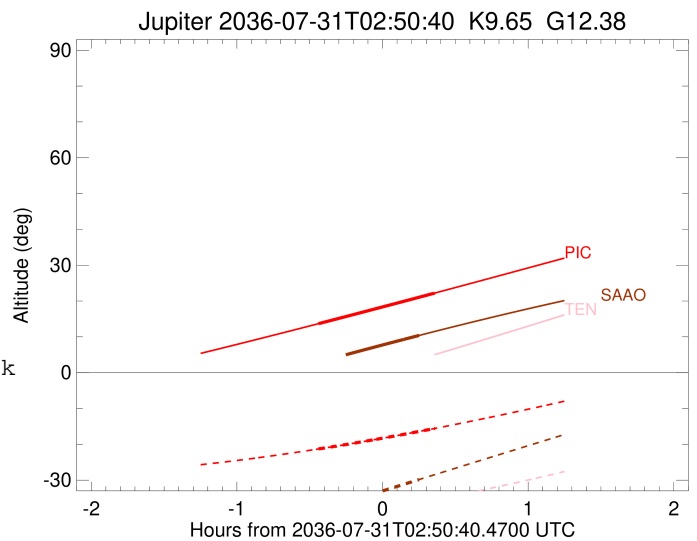
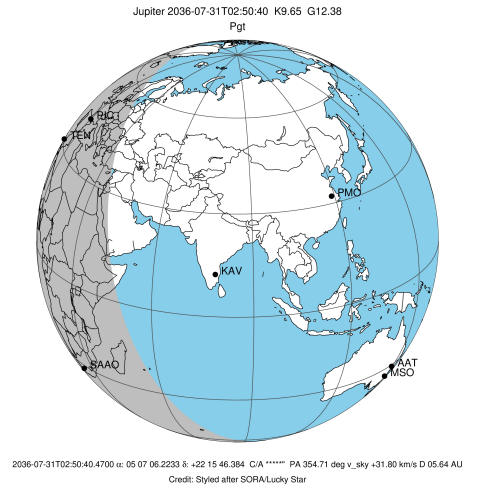


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2036-07-31T02:24:24.262	13.69	-21.28	71485.8	-49.59	-53.19
Jupiter	E	2036-07-31T03:12:13.567	22.22	-15.57	71485.6	-50.97	-54.52

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2036-07-31T02:47:46.600
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      : 3415251444231982976
2Mass ID (if available) : 05070622+2215464
ICRS Star Coord at Epoch: 05h 07m 06.22325s +22:15:46.38430s
RUWE (>1.4 is poor) : 0.99
K magnitude          : 9.650
G magnitude          : 12.382
RP magnitude         : 11.561
BP magnitude         : 13.094
DUPflag             : 0
Distance (au)       : 5.639
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 31.80
Sun-Target sep (deg) : 50.22
Sun-Moon sep (deg)  : 151.16
B (ring opening deg) : 2.80
PA of pole (deg)    : -4.84
Pole direction: RA (deg): 268.05635
Dec (deg): 64.49685
C/A sky separation (") : 15.373
C/A sky separation (km) : 62865.9
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	2036-07-31T02:29:52.013	3.95x	-37.42	71483.9	-60.72	-63.74
Jupiter	E	2036-07-31T03:05:42.310	10.38	-29.84	71483.6	-62.17	-65.07