

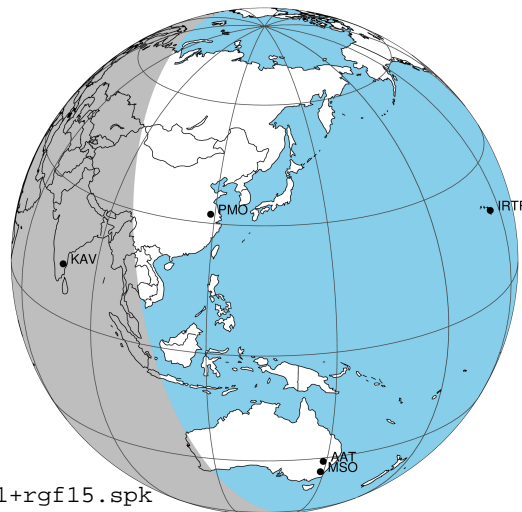
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2024-08-06T22:59:38.980
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 3412351688470705920
 2Mass ID (if available) : 04553721+2154438

Jupiter 2024-08-06T22:59:38 K9.19 G12.57 Pgt

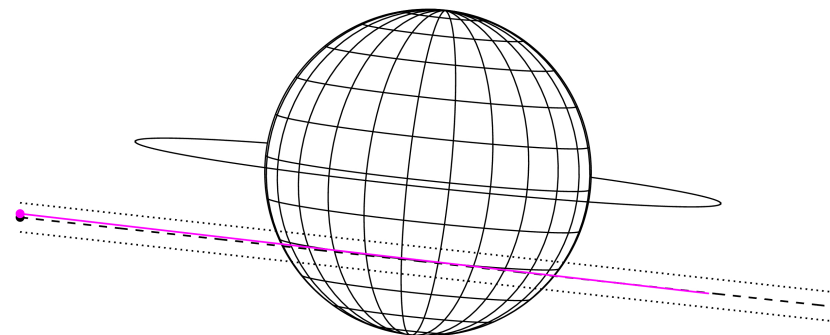
ICRS Star Coord at Epoch: 04h 55m 37.20701s +21:54:43.74799s

RUWE (>1.4 is poor) : 0.98
 K magnitude : 9.191
 G magnitude : 12.570
 RP magnitude : 11.623
 BP magnitude : 13.499
 DUPflag : 0
 Distance (au) : 5.475
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 27.86
 Sun-Target sep (deg) : 59.52
 Sun-Moon sep (deg) : 87.51
 B (ring opening deg) : 2.90
 PA of pole (deg) : -6.05
 Pole direction: RA (deg): 268.05790
 Dec (deg): 64.49674
 C/A sky separation (") : 9.831
 C/A sky separation (km) : 39041.1
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2024-08-06T22:59:38 K9.19 G12.57
 Pgt



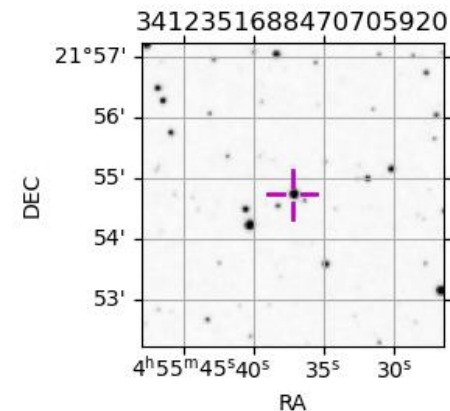
Earth
 KAV



2024-08-06T22:59:38.9800 ex: 04 55 37.2070 0: +21 54 43.748 C/A 9.822" PA 353.73 deg v_sky +27.86 km/s D 05.48 AU
 Credit: Styled after SORA/Lucky Star

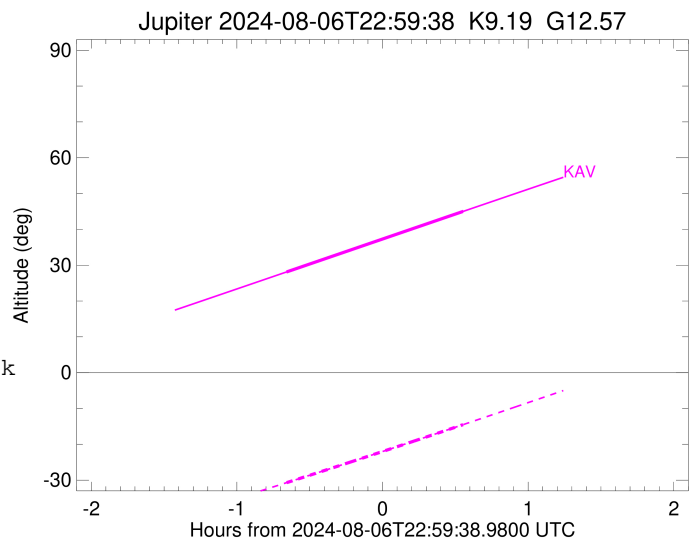
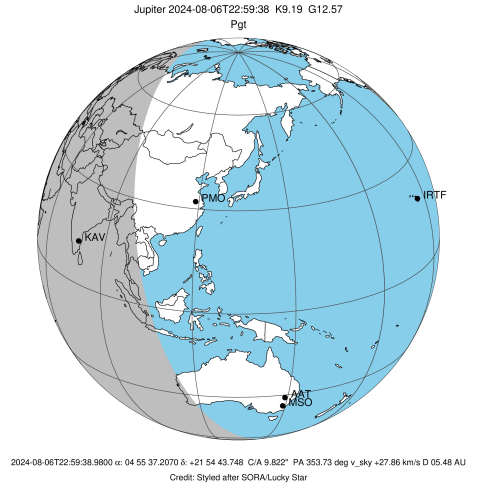
Observable events with sun below -5 deg and altitude above 5 deg

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	+ +	AUG 06 22:20 - AUG 06 23:32	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



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2024-08-06T22:56:27.620
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      : 3412351688470705920
2Mass ID (if available) : 04553721+2154438
ICRS Star Coord at Epoch: 04h 55m 37.20701s +21:54:43.74799s
RUWE (>1.4 is poor) : 0.98
K magnitude          : 9.191
G magnitude          : 12.570
RP magnitude         : 11.623
BP magnitude         : 13.499
DUPflag             : 0
Distance (au)       : 5.475
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 27.86
Sun-Target sep (deg) : 59.52
Sun-Moon sep (deg)  : 88.08
B (ring opening deg) : 2.90
PA of pole (deg)    : -6.05
Pole direction: RA (deg): 268.05790
Dec (deg): 64.49674
C/A sky separation (") : 9.705
C/A sky separation (km) : 38538.4
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	2024-08-06T22:20:10.017	28.12	-30.70	71488.8	-32.01	-35.48
Jupiter	E	2024-08-06T23:32:50.925	45.00	-14.51	71488.6	-33.12	-36.65