

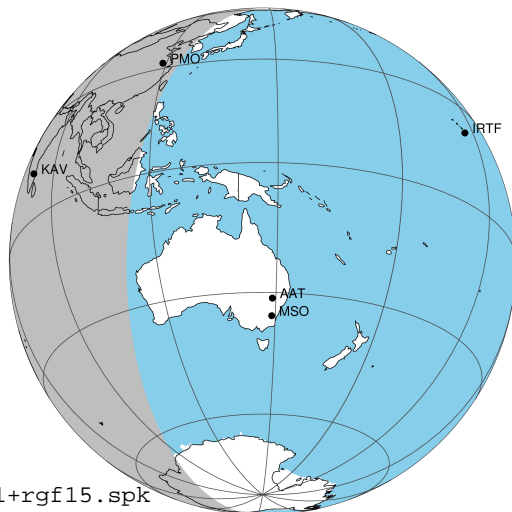
target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2043-02-13T22:28:05.770  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 4068839363885196032  
 2Mass ID (if available) : 17465644-2256346

Jupiter 2043-02-13T22:28:05 K8.97 G14.75 Pgt

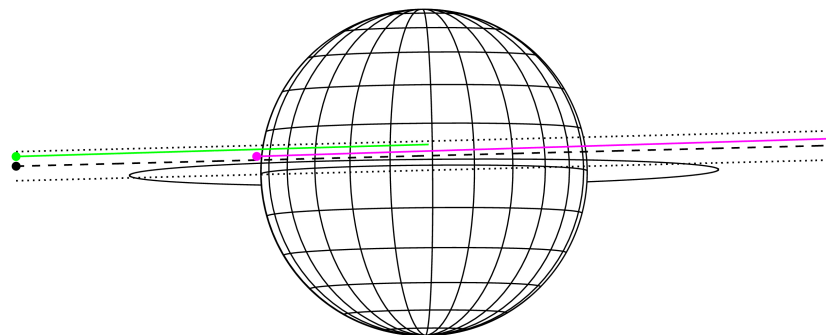
ICRS Star Coord at Epoch: 17h 46m 56.42647s -22:56:35.14925s

RUWE (>1.4 is poor) : 0.89  
 K magnitude : 8.968  
 G magnitude : 14.745  
 RP magnitude : 13.298  
 BP magnitude : 17.440  
 DUPflag : 0  
 Distance (au) : 5.773  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 29.19  
 Sun-Target sep (deg) : 57.52  
 Sun-Moon sep (deg) : 110.93  
 B (ring opening deg) : -2.55  
 PA of pole (deg) : 0.57  
 Pole direction: RA (deg): 268.05661  
 Dec (deg): 64.49732  
 C/A sky separation (") : 1.746  
 C/A sky separation (km) : 7309.2  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

Jupiter 2043-02-13T22:28:05 K8.97 G14.75  
 Pgt



Earth  
 PMO  
 KAV

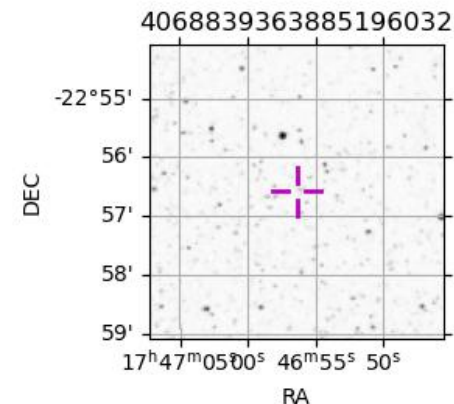


2043-02-13T22:28:05.7700 cc: 17 46 56.4265 s: -22 56 35.149 C/A 1.736" PA 181.46 deg v\_sky +29.19 km/s D 05.77 AU

Credit: Styled after SORA/Lucky Star

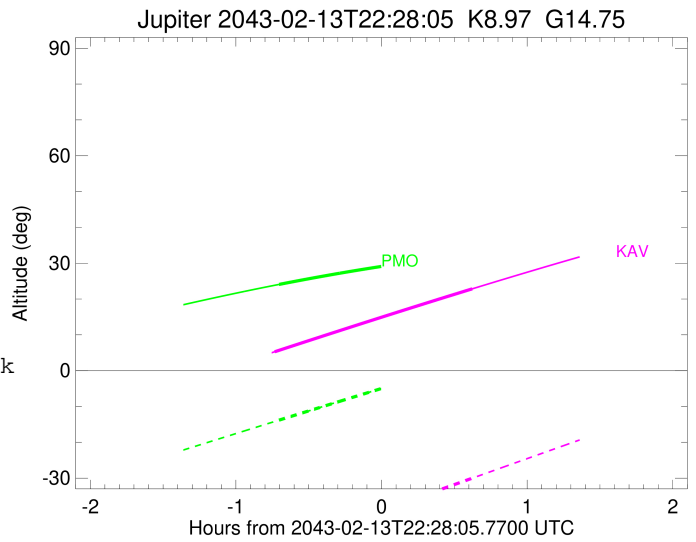
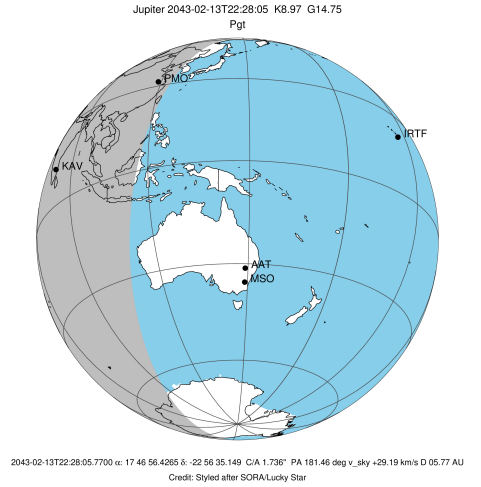
Observable events with sun below -5 deg and altitude above 5 deg

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 13 21:45 - FEB 13 21:45	Pin
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	+ +	FEB 13 21:44 - FEB 13 23:05	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            : 2043-02-13T22:26:33.890
Event type           : Pgt
: Jupiter occs: geocentric, topocentric
: 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       : 4068839363885196032
2Mass ID (if available) : 17465644-2256346
ICRS Star Coord at Epoch: 17h 46m 56.42647s -22:56:35.14925s
RUWE (>1.4 is poor) : 0.89
K magnitude          : 8.968
G magnitude          : 14.745
RP magnitude         : 13.298
BP magnitude         : 17.440
DUPflag             : 0
Distance (au)        : 5.773
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 29.19
Sun-Target sep (deg) : 57.52
Sun-Moon sep (deg)   : 111.23
B (ring opening deg) : -2.55
PA of pole (deg)     : 0.57
Pole direction: RA (deg): 268.05661
Dec (deg): 64.49732
C/A sky separation (") : 2.918
C/A sky separation (km) : 12217.4
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
    
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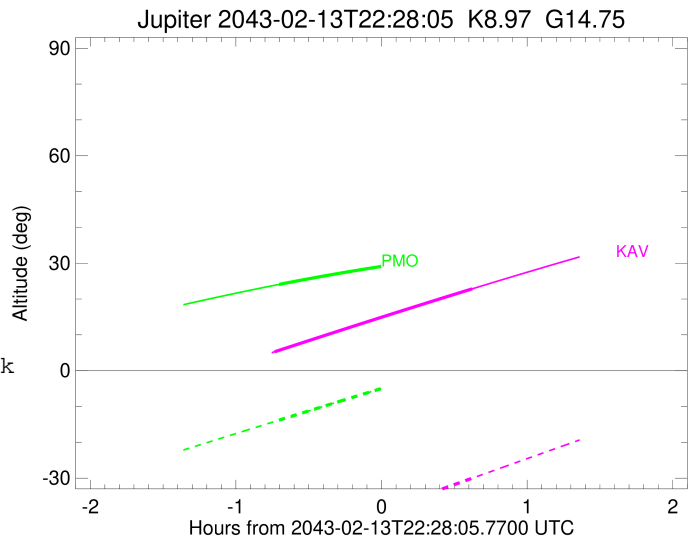
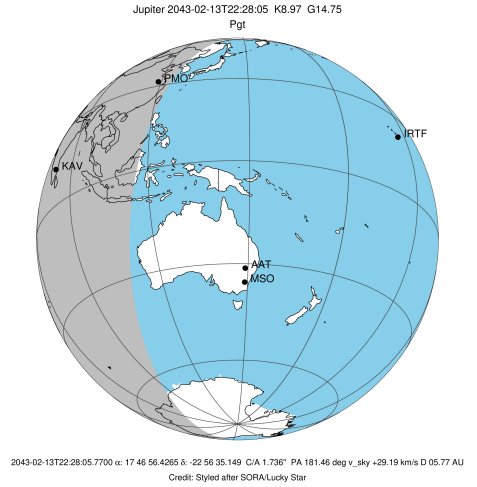


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-02-13T21:45:53.523	24.07	-13.80	71491.8	8.76	9.99
Jupiter	E	2043-02-13T23:07:18.166	32.55	3.07x	71491.7	10.85	12.36

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-02-13T22:24:43.910
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        : 4068839363885196032
2Mass ID (if available) : 17465644-2256346
ICRS Star Coord at Epoch: 17h 46m 56.42647s -22:56:35.14925s
RUWE (>1.4 is poor) : 0.89
K magnitude           : 8.968
G magnitude           : 14.745
RP magnitude          : 13.298
BP magnitude          : 17.440
DUPflag              : 0
Distance (au)         : 5.773
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 29.19
Sun-Target sep (deg) : 57.52
Sun-Moon sep (deg)   : 110.84
B (ring opening deg) : -2.55
PA of pole (deg)     : 0.57
Pole direction: RA (deg): 268.05661
Dec (deg): 64.49732
C/A sky separation (") : 2.233
C/A sky separation (km) : 9348.0
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	2043-02-13T21:44:05.771	5.28	-49.74	71491.9	6.28	7.17
Jupiter	E	2043-02-13T23:05:29.463	22.84	-30.01	71491.8	8.72	9.94