

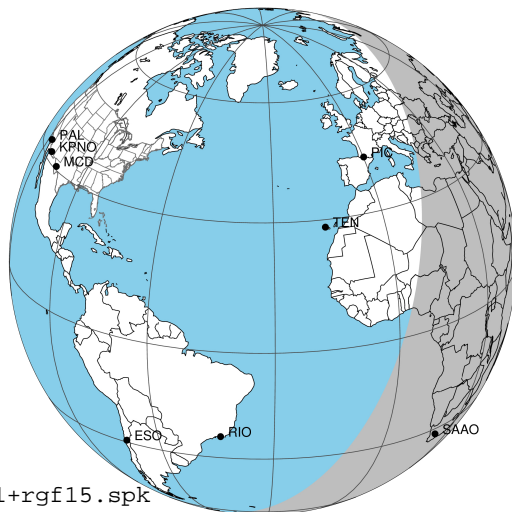
target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2038-05-25T17:52:56.850  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 673768497731753472  
 2Mass ID (if available) : 07530152+2123482

Jupiter 2038-05-25T17:52:56 K9.77 G11.42 Pgt

ICRS Star Coord at Epoch: 07h 53m 01.64979s +21:23:48.18439s

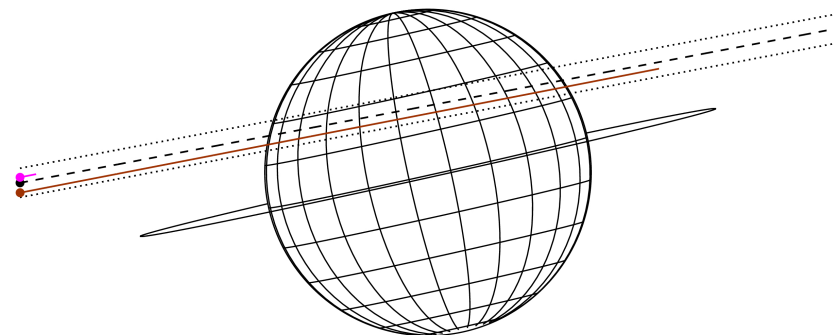
RUWE (>1.4 is poor) : 1.33  
 K magnitude : 9.770  
 G magnitude : 11.424  
 RP magnitude : 10.871  
 BP magnitude : 11.806  
 DUPflag : 0  
 Distance (au) : 5.841  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 30.62  
 Sun-Target sep (deg) : 52.06  
 Sun-Moon sep (deg) : 143.26  
 B (ring opening deg) : 0.99  
 PA of pole (deg) : 12.51  
 Pole direction: RA (deg): 268.05618  
 Dec (deg): 64.49692  
 C/A sky separation (") : 6.781  
 C/A sky separation (km) : 28725.8  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

Jupiter 2038-05-25T17:52:56 K9.77 G11.42  
 Pgt



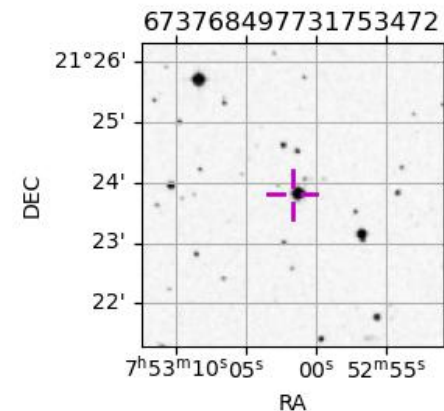
2038-05-25T17:52:56.8500 ex: 07 53 01.6498 s: +21 23 48.184 C/A 6.785" PA 190.70 deg v\_sky +30.62 km/s D 05.84 AU  
 Credit: Styled after SORA/Lucky Star

Earth  
 KAV  
 SAAO



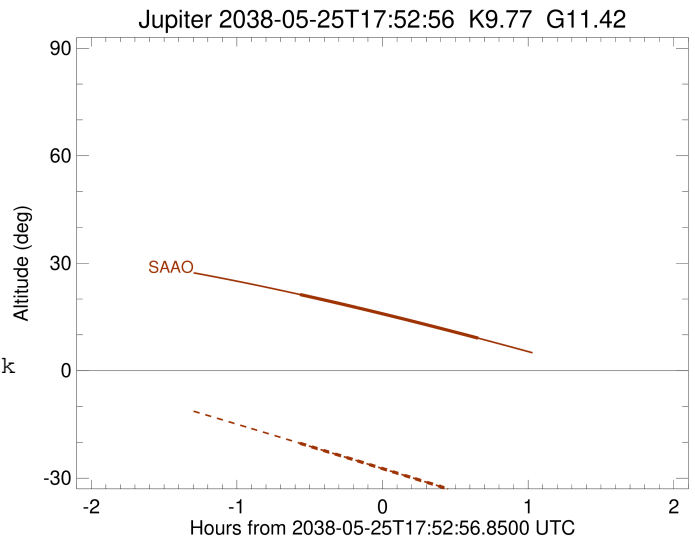
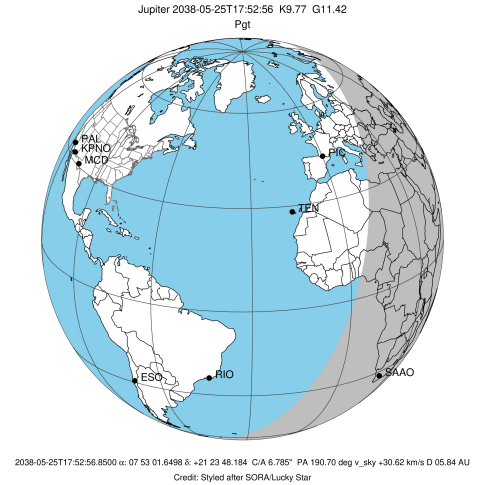
Observable events with sun below -5 deg and altitude above 5 deg

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			Pnn
AAT	Siding Spring (AAT)	-31.3	149.1			Pnn
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8	+ +	MAY 25 17:19 - MAY 25 18:32	Pie
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2038-05-25T17:55:39.680
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      : 673768497731753472
2Mass ID (if available) : 07530152+2123482
ICRS Star Coord at Epoch: 07h 53m 01.64979s +21:23:48.18439s
RUWE (>1.4 is poor) : 1.33
K magnitude          : 9.770
G magnitude          : 11.424
RP magnitude         : 10.871
BP magnitude         : 11.806
DUPflag             : 0
Distance (au)       : 5.841
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 30.62
Sun-Target sep (deg) : 52.06
Sun-Moon sep (deg)  : 142.87
B (ring opening deg) : 0.99
PA of pole (deg)    : 12.51
Pole direction: RA (deg): 268.05618
Dec (deg): 64.49692
C/A sky separation ("): 5.978
C/A sky separation (km): 25325.5
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	2038-05-25T17:18:59.855	21.25	-20.27	71491.8	22.26	25.06
Jupiter	E	2038-05-25T18:32:15.002	9.10	-35.59	71491.9	19.23	21.73