

target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2047-07-01T14:15:25.060
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 34217390267690112
 2Mass ID (if available) : 02592975+1555264

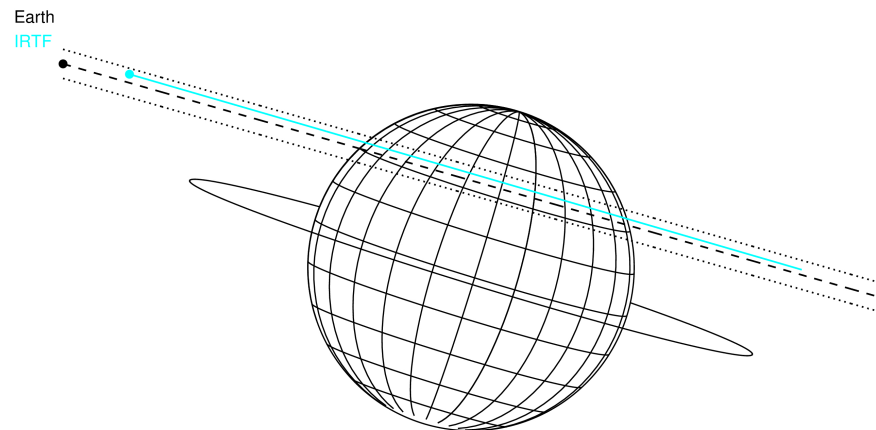
Jupiter 2047-07-01T14:15:25 K9.16 G11.67 Pgt

ICRS Star Coord at Epoch: 02h 59m 29.72591s +15:55:25.71962s

RUWE (>1.4 is poor) : 0.94
 K magnitude : 9.160
 G magnitude : 11.669
 RP magnitude : 10.899
 BP magnitude : 12.307
 DUPflag : 0
 Distance (au) : 5.531
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 31.49
 Sun-Target sep (deg) : 52.02
 Sun-Moon sep (deg) : 152.70
 B (ring opening deg) : 3.11
 PA of pole (deg) : -17.16
 Pole direction: RA (deg): 268.05720
 Dec (deg): 64.49723
 C/A sky separation (") : 9.141
 C/A sky separation (km) : 36668.6
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk



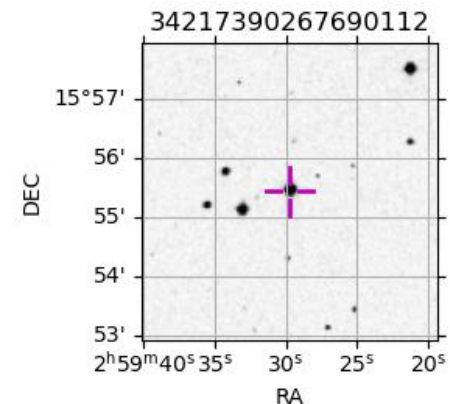
2047-07-01T14:15:25.0600 ex: 02 59 29.7259 s +15 55 25.720 C/A 9.150" PA 164.05 deg v_sky +31.49 km/s D 05.53 AU
 Credit: Styled after SORA/Lucky Star



URKALLvl.spk
 naif0012.tls
 nep097.bsp
 nep101.bsp
 sat4401.bsp

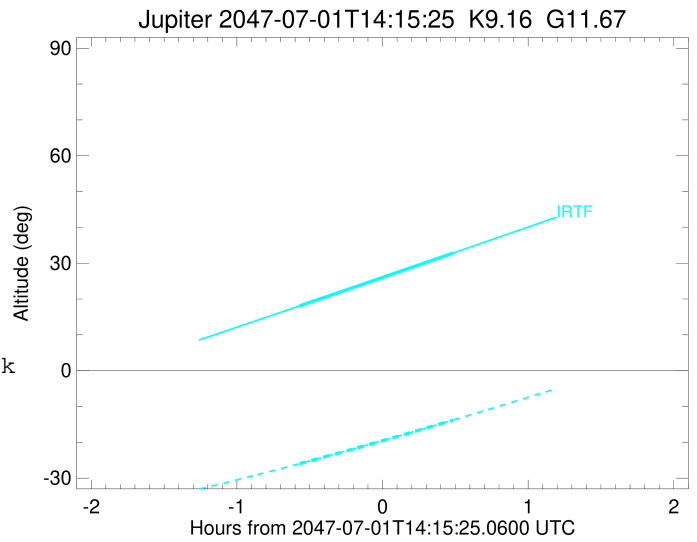
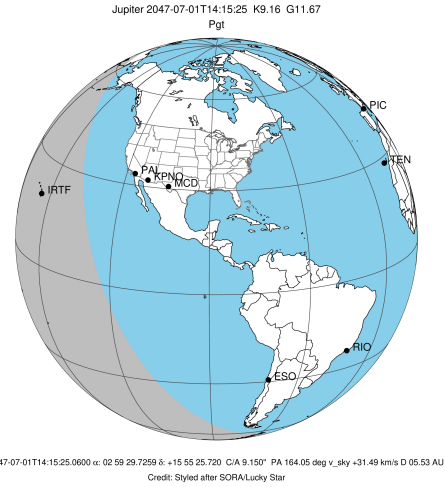
Observable events with sun below -5 deg and altitude above 5 deg

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	+ +	JUL 01 13:41 - JUL 01 14:44	Pie
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            : 2047-07-01T14:12:53.220
Event type           : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code        : IRTF
Location             : Mauna Kea/IRTF
Latitude (deg)       : 19.82622
E. Longitude (deg)   : 204.52800
Altitude (km)        : 4.168
Gaia source ID       : 34217390267690112
2Mass ID (if available) : 02592975+1555264
ICRS Star Coord at Epoch: 02h 59m 29.72591s +15:55:25.71962s
RUWE (>1.4 is poor) : 0.94
K magnitude           : 9.160
G magnitude           : 11.669
RP magnitude         : 10.899
BP magnitude         : 12.307
DUPflag              : 0
Distance (au)        : 5.531
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 31.49
Sun-Target sep (deg) : 52.02
Sun-Moon sep (deg)   : 152.15
B (ring opening deg) : 3.11
PA of pole (deg)     : -17.16
Pole direction: RA (deg): 268.05720
Dec (deg): 64.49723
C/A sky separation (") : 9.866
C/A sky separation (km) : 39575.7
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	2047-07-01T13:41:16.962	18.10	-25.94	71488.1	32.61	36.12
Jupiter	E	2047-07-01T14:44:33.326	32.84	-13.77	71487.7	34.49	38.07