

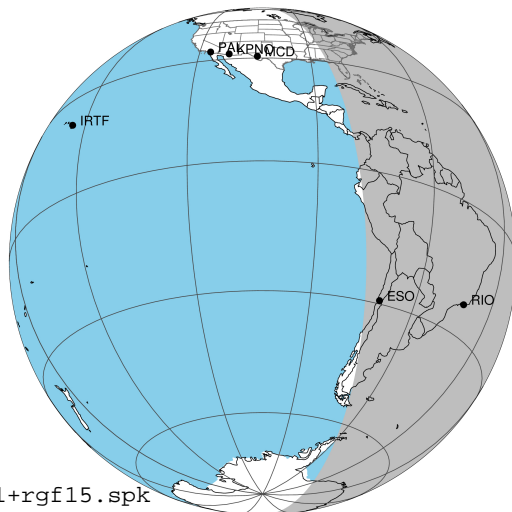
target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2043-10-15T23:05:38.060  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 4068670387026689152  
 2Mass ID (if available) : 17495749-2321427

Jupiter 2043-10-15T23:05:38 K8.79 G14.84 Pgt

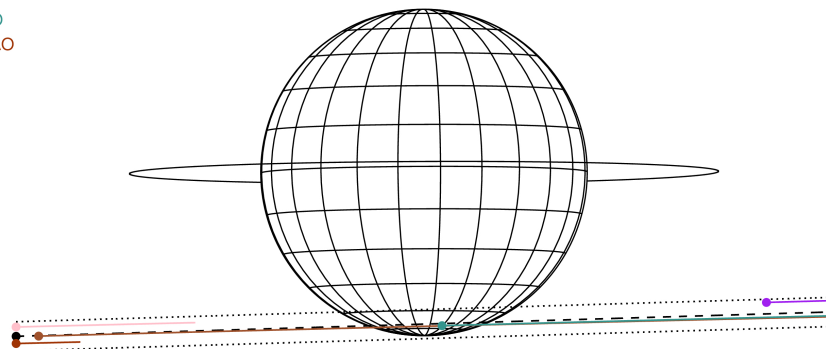
ICRS Star Coord at Epoch: 17h 49m 57.47909s -23:21:42.96433s

RUWE (>1.4 is poor) : 1.54  
 K magnitude : 8.786  
 G magnitude : 14.841  
 RP magnitude : 13.383  
 BP magnitude : 17.400  
 DUPflag : 0  
 Distance (au) : 5.554  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 25.37  
 Sun-Target sep (deg) : 65.82  
 Sun-Moon sep (deg) : 80.13  
 B (ring opening deg) : -2.14  
 PA of pole (deg) : 0.24  
 Pole direction: RA (deg): 268.05675  
 Dec (deg): 64.49731  
 C/A sky separation (") : 16.482  
 C/A sky separation (km) : 66388.3  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

Jupiter 2043-10-15T23:05:38 K8.79 G14.84  
 Pgt



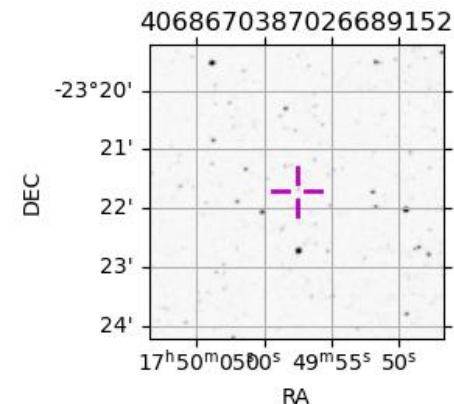
Earth  
 MCD  
 TEN  
 RIO  
 ESO  
 SAAO



2043-10-15T23:05:38.0600 α: 17 49 57.4791 δ: -23 21 42.964 C/A \*\*\*\*\* PA 1.71 deg v\_sky +25.37 km/s D 05.55 AU  
 Credit: Styled after SORA/Lucky Star

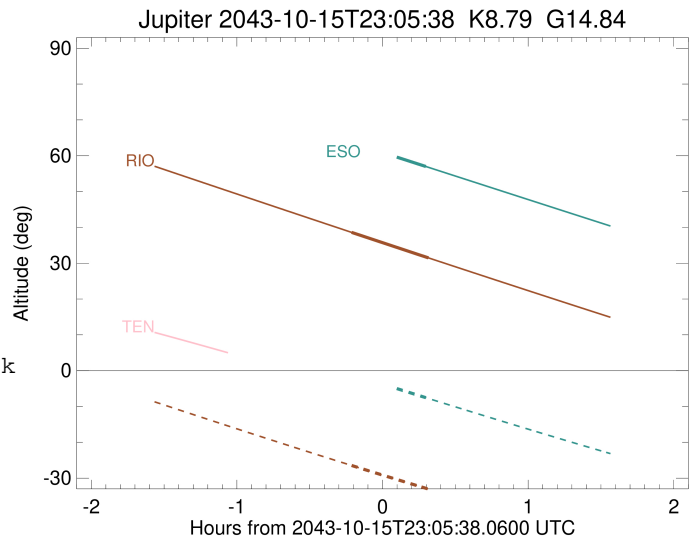
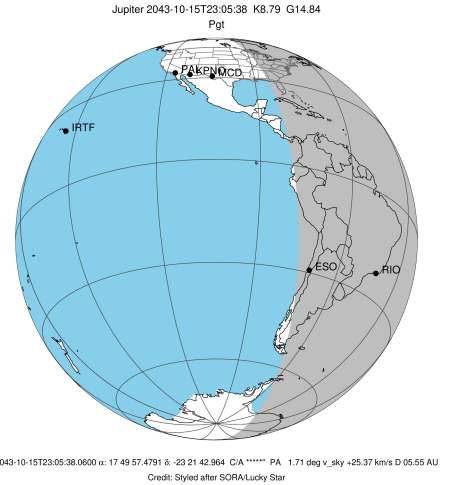
Observable events with sun below -5 deg and altitude above 5 deg

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			Pnn
RIO	Rio de Janeiro	-22.9	316.8	+ +	OCT 15 22:52 - OCT 15 23:24	Pie
ESO	European Southern Obs. (3.6m)	-29.3	289.3	+	OCT 15 23:23 - OCT 15 23:23	Pne
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            : 2043-10-15T23:08:45.170
Event type           : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code        : RIO
Location             : Rio de Janeiro
Latitude (deg)       : -22.89506
E. Longitude (deg)   : 316.77708
Altitude (km)        : 0.033
Gaia source ID       : 4068670387026689152
2Mass ID (if available) : 17495749-2321427
ICRS Star Coord at Epoch: 17h 49m 57.47909s -23:21:42.96433s
RUWE (>1.4 is poor) : 1.54
K magnitude           : 8.786
G magnitude           : 14.841
RP magnitude         : 13.383
BP magnitude         : 17.400
DUPflag              : 0
Distance (au)        : 5.554
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 25.37
Sun-Target sep (deg) : 65.82
Sun-Moon sep (deg)   : 80.56
B (ring opening deg) : -2.14
PA of pole (deg)     : 0.24
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (") : 16.724
C/A sky separation (km) : 67365.2
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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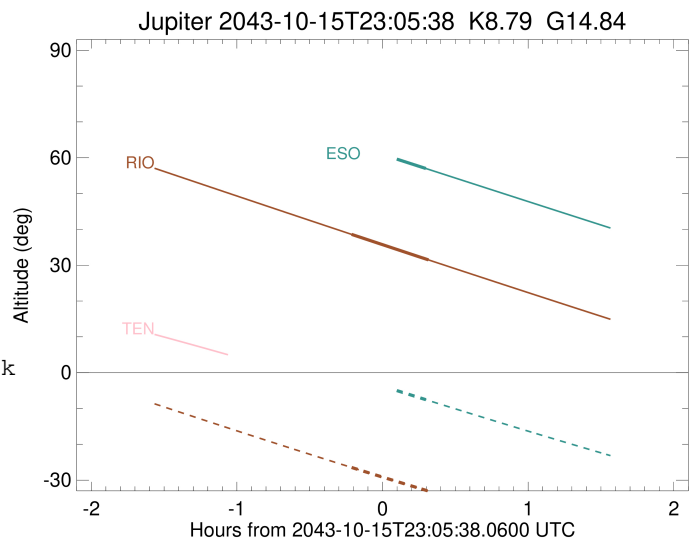
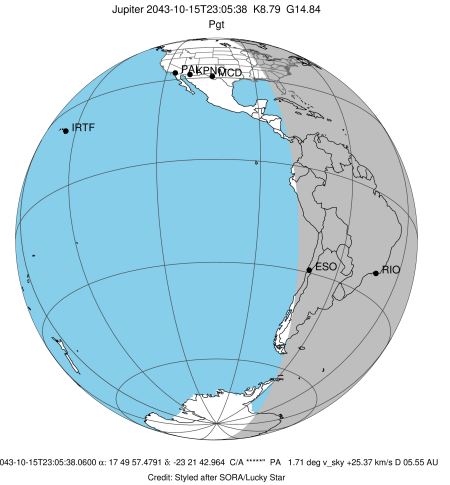


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-10-15T22:52:54.013	38.60	-26.46	71486.3	-71.48	-73.56
Jupiter	E	2043-10-15T23:24:35.214	31.48	-33.05	71486.5	-69.21	-71.50

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-10-15T23:07:28.360
Event type          : Pgt
                    : Jupiter occs: geocentric, topocentric
                    : Not a ringed target
Observer code       : ESO
Location            : European Southern Obs. (3.6m)
Latitude (deg)     : -29.26097
E. Longitude (deg) : 289.26831
Altitude (km)      : 2.400
Gaia source ID     : 4068670387026689152
2Mass ID (if available) : 17495749-2321427
ICRS Star Coord at Epoch: 17h 49m 57.47909s -23:21:42.96433s
RUWE (>1.4 is poor) : 1.54
K magnitude         : 8.786
G magnitude         : 14.841
RP magnitude        : 13.383
BP magnitude        : 17.400
DUPflag            : 0
Distance (au)      : 5.554
f0 (km)            : 0.00
g0 (km)            : 0.00
skyplane vel. (km/s) : 25.37
Sun-Target sep (deg) : 65.82
Sun-Moon sep (deg)  : 80.90
B (ring opening deg) : -2.14
PA of pole (deg)    : 0.24
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (" ) : 16.706
C/A sky separation (km) : 67292.4
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	2043-10-15T22:51:24.527	64.00	-0.70x	71486.3	-71.46	-73.54
Jupiter	E	2043-10-15T23:23:31.441	56.98	-7.54	71486.5	-68.89	-71.22