

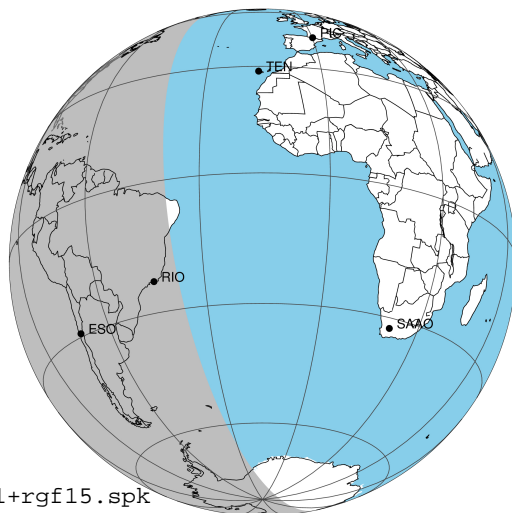
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2032-03-28T08:37:38.170
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 6866109683472286848
 2Mass ID (if available) : 19590875-2046197

Jupiter 2032-03-28T08:37:38 K9.67 G12.04 Pgt

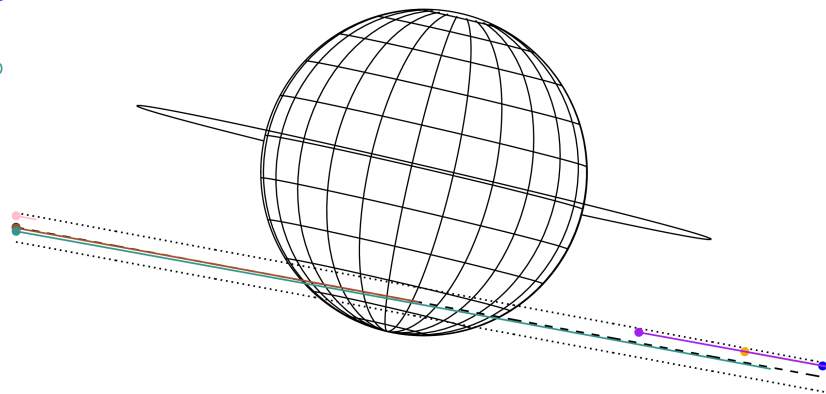
ICRS Star Coord at Epoch: 19h 59m 08.78406s -20:46:20.18117s

RUWE (>1.4 is poor) : 0.97
 K magnitude : 9.672
 G magnitude : 12.041
 RP magnitude : 11.305
 BP magnitude : 12.635
 DUPflag : 0
 Distance (au) : 5.432
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 23.63
 Sun-Target sep (deg) : 70.10
 Sun-Moon sep (deg) : 94.59
 B (ring opening deg) : -1.28
 PA of pole (deg) : -13.09
 Pole direction: RA (deg): 268.05669
 Dec (deg): 64.49654
 C/A sky separation (") : 14.272
 C/A sky separation (km) : 56227.8
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2032-03-28T08:37:38 K9.67 G12.04
 Pgt



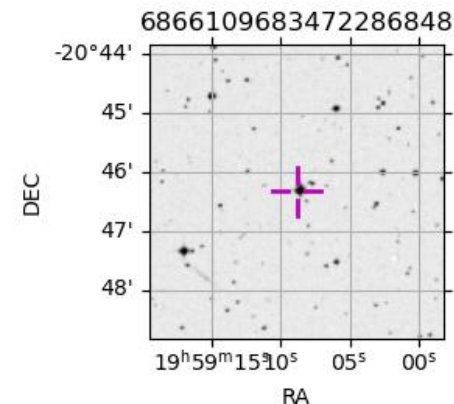
Earth
 PAL
 KPNO
 MCD
 TEN
 RIO
 ESO



2032-03-28T08:37:38.1700 a: 19 59 08.7841 s: -20 46 20.1811 C/A ***** PA 349.49 deg v_sky +23.63 km/s D 05.43 AU
 Credit: Styled after SORA/Lucky Star

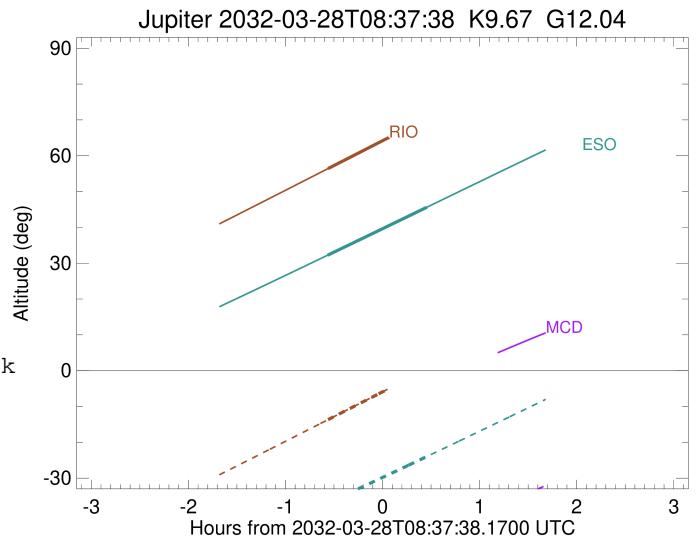
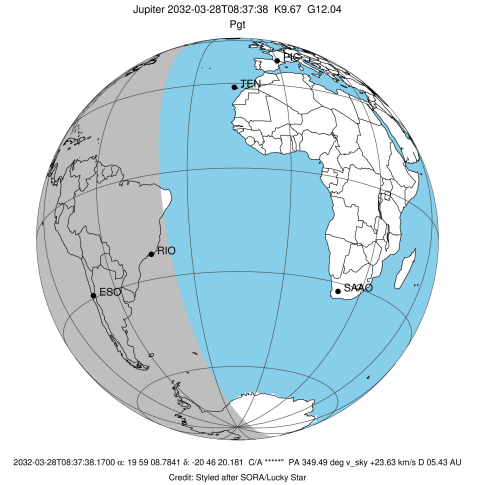
Observable events with sun below -5 deg and altitude above 5 deg

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	+	MAR 28 08:04 - MAR 28 08:04	Pin
ESO	European Southern Obs. (3.6m)	-29.3	289.3	+	MAR 28 08:03 - MAR 28 09:04	Pie
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             : 2032-03-28T08:35:38.740
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       : 6866109683472286848
2Mass ID (if available) : 19590875-2046197
ICRS Star Coord at Epoch: 19h 59m 08.78406s -20:46:20.18117s
RUWE (>1.4 is poor) : 0.97
K magnitude           : 9.672
G magnitude           : 12.041
RP magnitude          : 11.305
BP magnitude          : 12.635
DUPflag              : 0
Distance (au)        : 5.432
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 23.63
Sun-Target sep (deg) : 70.10
Sun-Moon sep (deg)   : 95.46
B (ring opening deg) : -1.28
PA of pole (deg)     : -13.09
Pole direction: RA (deg): 268.05669
Dec (deg): 64.49654
C/A sky separation (") : 14.260
C/A sky separation (km) : 56182.2
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
    
```

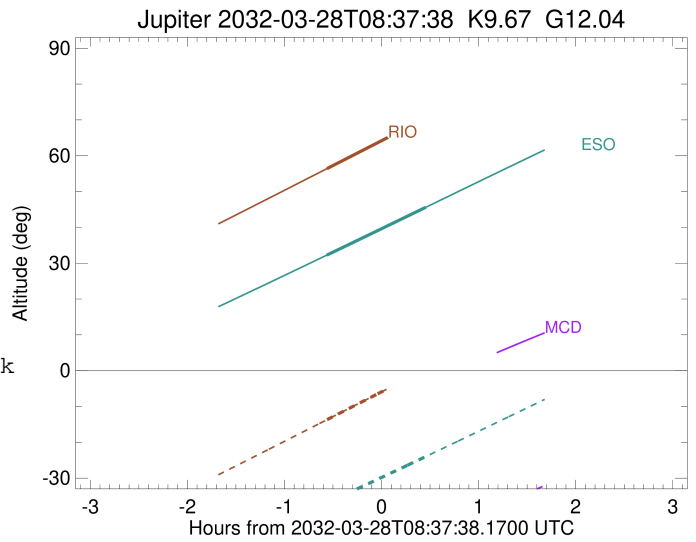
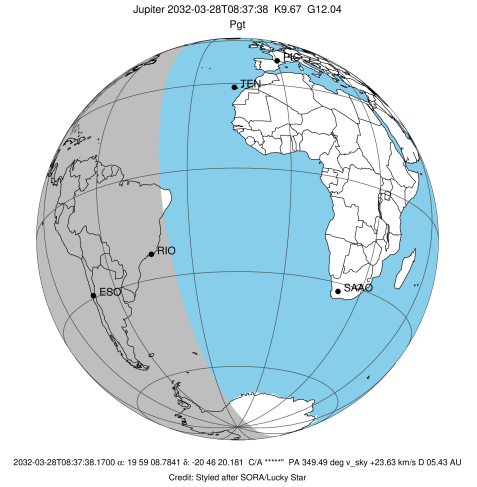


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2032-03-28T08:03:59.544	56.41	-13.67	71490.5	-54.39	-57.79
Jupiter	E	2032-03-28T09:07:20.788	71.04	0.92x	71490.7	-49.24	-52.85

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2032-03-28T08:34:19.510
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      : 6866109683472286848
2Mass ID (if available) : 19590875-2046197
ICRS Star Coord at Epoch: 19h 59m 08.78406s -20:46:20.18117s
RUWE (>1.4 is poor) : 0.97
K magnitude          : 9.672
G magnitude          : 12.041
RP magnitude         : 11.305
BP magnitude         : 12.635
DUPflag             : 0
Distance (au)       : 5.432
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 23.63
Sun-Target sep (deg) : 70.10
Sun-Moon sep (deg)   : 95.25
B (ring opening deg) : -1.28
PA of pole (deg)     : -13.09
Pole direction: RA (deg): 268.05669
Dec (deg): 64.49654
C/A sky separation ("): 14.504
C/A sky separation (km): 57142.9
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	2032-03-28T08:03:45.456	32.23	-36.89	71490.5	-55.83	-59.15
Jupiter	E	2032-03-28T09:04:57.640	45.59	-23.98	71490.7	-50.31	-53.89