

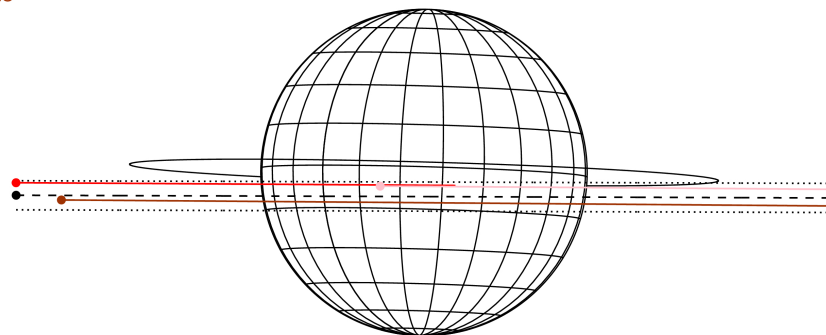
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-11-07T18:44:54.060
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4066546474096013952
 2Mass ID (if available) : 18070306-2324332

Jupiter 2043-11-07T18:44:54 K9.12 G14.44 Pgt

ICRS Star Coord at Epoch: 18h 07m 03.06407s -23:24:33.37789s
 RUWE (>1.4 is poor) : 0.95
 K magnitude : 9.125
 G magnitude : 14.438
 RP magnitude : 13.139
 BP magnitude : 16.330
 DUPflag : 0
 Distance (au) : 5.842
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 33.62
 Sun-Target sep (deg) : 46.98
 Sun-Moon sep (deg) : 18.47
 B (ring opening deg) : -2.05
 PA of pole (deg) : -1.60
 Pole direction: RA (deg): 268.05676
 Dec (deg): 64.49731
 C/A sky separation (") : 2.491
 C/A sky separation (km) : 10555.0
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk
 URKALLv1.spk
 naif0012.tls
 nep097.bsp
 nep101.bsp
 sat4401.bsp



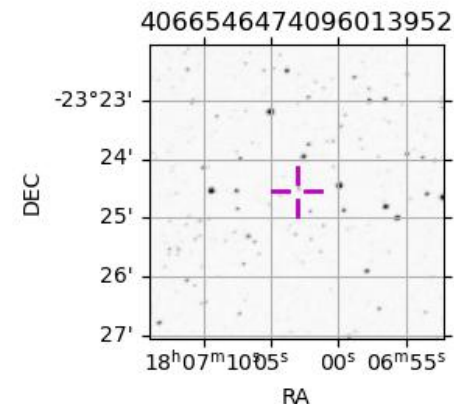
Earth
 PIC
 TEN
 SAAO



2043-11-07T18:44:54.0600 ex: 18 07 03.0641 s: -23 24 33.378 C/A 2.498" PA 359.82 deg v_sky +33.62 km/s D 05.84 AU
 Credit: Styled after SORA/Lucky Star

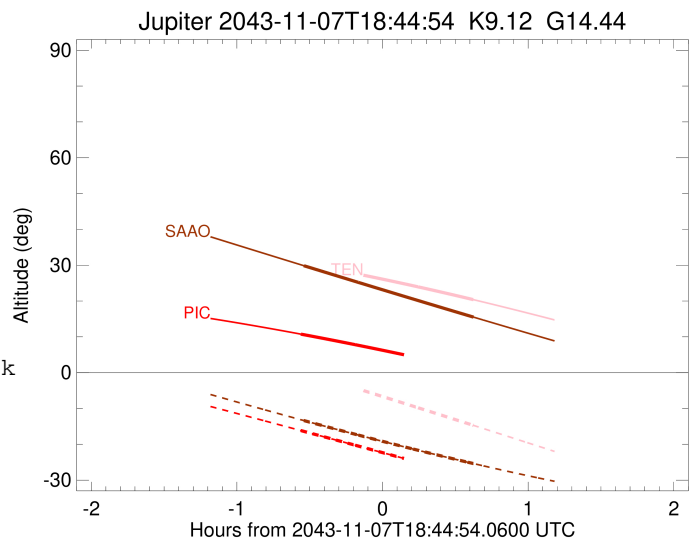
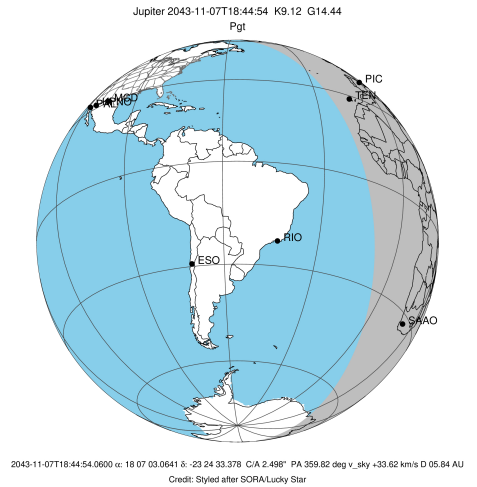
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	OCode
PIC	Pic du Midi	42.9	0.1	+	NOV 07 18:11 - NOV 07 18:11	Pin
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	+	NOV 07 19:22 - NOV 07 19:22	Pne
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	+	NOV 07 18:12 - NOV 07 19:22	Pie
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-11-07T18:46:50.470
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : PIC
Location              : Pic du Midi
Latitude (deg)        : 42.93656
E. Longitude (deg)    : 0.14231
Altitude (km)         : 2.890
Gaia source ID        : 4066546474096013952
2Mass ID (if available) : 18070306-2324332
ICRS Star Coord at Epoch: 18h 07m 03.06407s -23:24:33.37789s
RUWE (>1.4 is poor)  : 0.95
K magnitude           : 9.125
G magnitude           : 14.438
RP magnitude          : 13.139
BP magnitude          : 16.330
DUPflag              : 0
Distance (au)         : 5.842
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 33.62
Sun-Target sep (deg)  : 46.98
Sun-Moon sep (deg)    : 18.18
B (ring opening deg)  : -2.05
PA of pole (deg)      : -1.60
Pole direction: RA (deg): 268.05676
Dec (deg): 64.49731
C/A sky separation (") : 1.318
C/A sky separation (km) : 5586.8
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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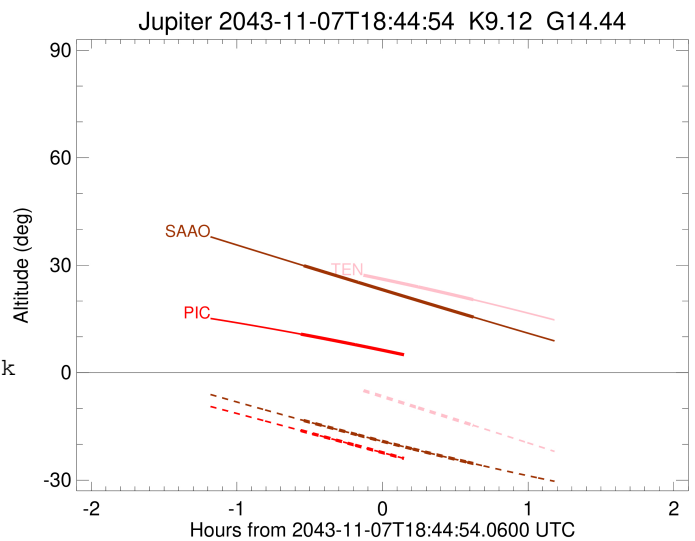
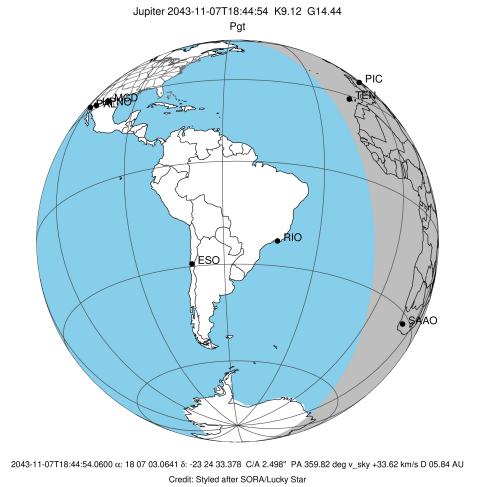


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-11-07T18:11:17.085	10.75	-16.16	71491.9	-5.70	-6.51
Jupiter	E	2043-11-07T19:22:20.442	0.75x	-29.19	71492.0	-3.28	-3.75


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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-11-07T18:47:28.020
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        : 4066546474096013952
2Mass ID (if available) : 18070306-2324332
ICRS Star Coord at Epoch: 18h 07m 03.06407s -23:24:33.37789s
RUWE (>1.4 is poor) : 0.95
K magnitude           : 9.125
G magnitude           : 14.438
RP magnitude          : 13.139
BP magnitude          : 16.330
DUPflag              : 0
Distance (au)         : 5.842
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 33.62
Sun-Target sep (deg) : 46.98
Sun-Moon sep (deg)   : 17.81
B (ring opening deg) : -2.05
PA of pole (deg)     : -1.60
Pole direction: RA (deg): 268.05676
Dec (deg): 64.49731
C/A sky separation (") : 3.124
C/A sky separation (km) : 13237.6
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	2043-11-07T18:12:31.060	29.85	-13.37	71491.8	-11.81	-13.45
Jupiter	E	2043-11-07T19:22:20.763	15.52	-25.36	71491.8	-9.52	-10.86