

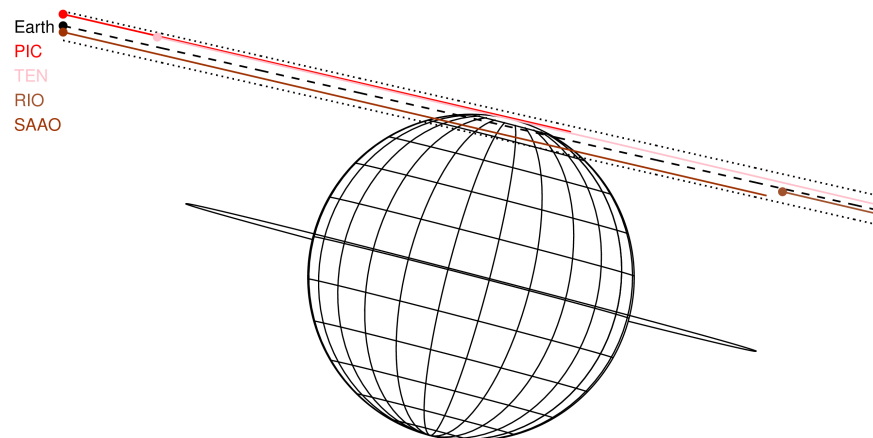
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2044-11-17T20:12:26.040
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 6854356488286659072
 2Mass ID (if available) : 20142980-2029188

Jupiter 2044-11-17T20:12:26 K8.31 G10.83 Pgt

ICRS Star Coord at Epoch: 20h 14m 29.79043s -20:29:19.72479s
 RUWE (>1.4 is poor) : 0.90
 K magnitude : 8.313
 G magnitude : 10.826
 RP magnitude : 10.064
 BP magnitude : 11.458
 DUPflag : 0
 Distance (au) : 5.410
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 25.75
 Sun-Target sep (deg) : 65.74
 Sun-Moon sep (deg) : 86.40
 B (ring opening deg) : -0.70
 PA of pole (deg) : -14.50
 Pole direction: RA (deg): 268.05694
 Dec (deg): 64.49727
 C/A sky separation (") : 17.357
 C/A sky separation (km) : 68104.3
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

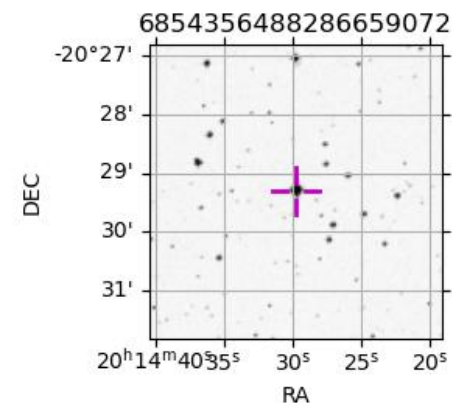


2044-11-17T20:12:26.0400 a: 20 14 29.7904 s: -20 29 19.725 C/A ***** PA 167.25 deg v_sky +25.75 km/s D 05.41 AU
 Credit: Styled after SORA/Lucky Star



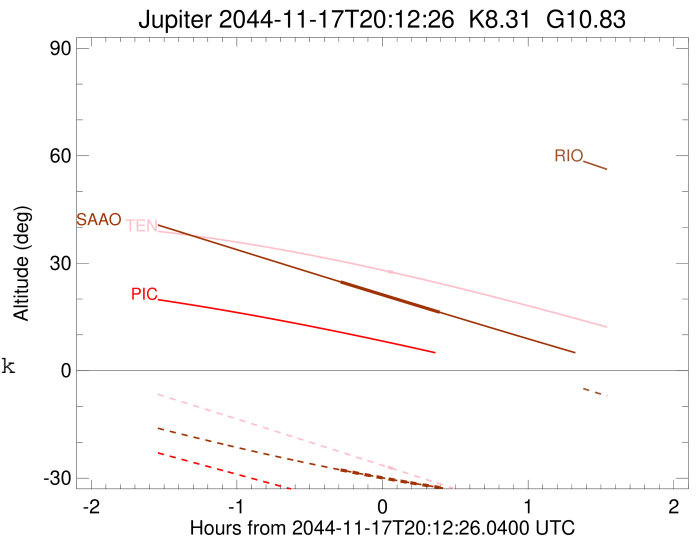
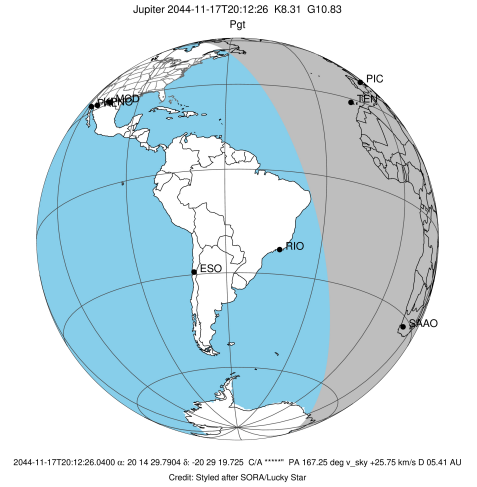
Observable events with sun below -5 deg and altitude above 5 deg

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	+ +	NOV 17 20:14 - NOV 17 20:16	Pie
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 17 19:55 - NOV 17 20:35	Pie
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2044-11-17T20:15:39.790
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : TEN
Location              : Teide Obs./Tenerife
Latitude (deg)        : 28.30050
E. Longitude (deg)    : 343.48909
Altitude (km)         : 2.395
Gaia source ID        : 6854356488286659072
2Mass ID (if available) : 20142980-2029188
ICRS Star Coord at Epoch: 20h 14m 29.79043s -20:29:19.72479s
RUWE (>1.4 is poor) : 0.90
K magnitude           : 8.313
G magnitude           : 10.826
RP magnitude          : 10.064
BP magnitude          : 11.458
DUPflag              : 0
Distance (au)         : 5.410
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 25.75
Sun-Target sep (deg) : 65.74
Sun-Moon sep (deg)   : 86.88
B (ring opening deg) : -0.70
PA of pole (deg)     : -14.50
Pole direction: RA (deg): 268.05694
Dec (deg): 64.49727
C/A sky separation (") : 18.215
C/A sky separation (km) : 71473.6
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
    
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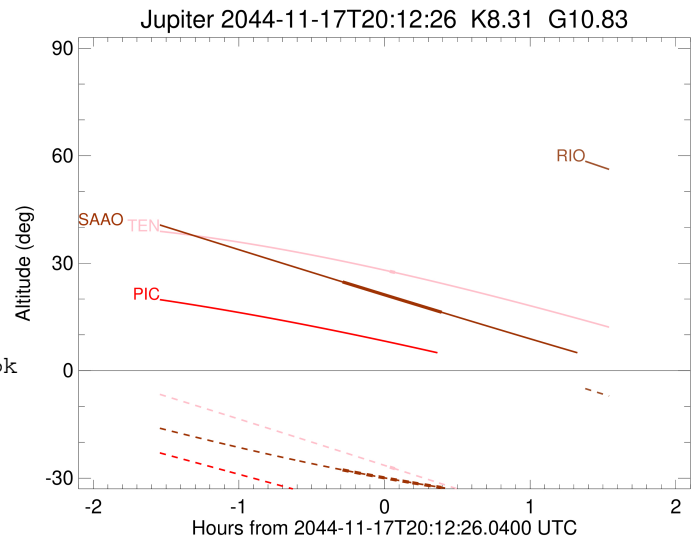
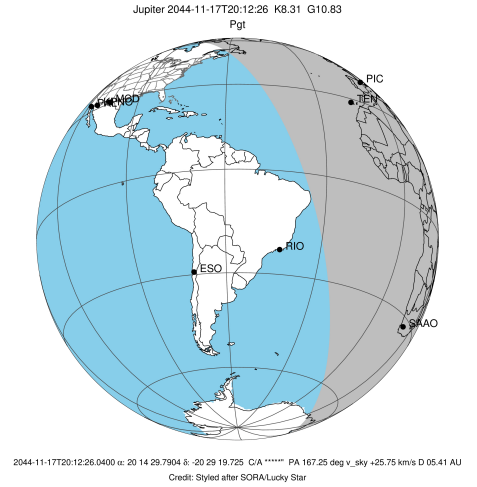


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2044-11-17T20:14:37.210	27.73	-26.92	71491.4	87.24	87.57
Jupiter	E	2044-11-17T20:16:42.372	27.41	-27.37	71491.4	89.30	89.38

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2044-11-17T20:15:35.740
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       : 6854356488286659072
2Mass ID (if available) : 20142980-2029188
ICRS Star Coord at Epoch: 20h 14m 29.79043s -20:29:19.72479s
RUWE (>1.4 is poor) : 0.90
K magnitude          : 8.313
G magnitude           : 10.826
RP magnitude         : 10.064
BP magnitude         : 11.458
DUPflag             : 0
Distance (au)        : 5.410
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 25.75
Sun-Target sep (deg) : 65.74
Sun-Moon sep (deg)   : 86.77
B (ring opening deg) : -0.70
PA of pole (deg)     : -14.50
Pole direction: RA (deg): 268.05694
Dec (deg): 64.49727
C/A sky separation ("): 16.361
C/A sky separation (km): 64197.6
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	2044-11-17T19:55:10.854	24.77	-27.70	71491.5	62.47	65.35
Jupiter	E	2044-11-17T20:35:58.643	16.30	-32.62	71491.5	65.31	67.96