

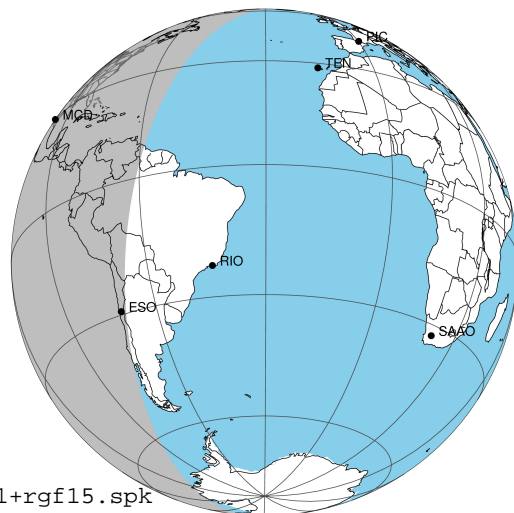
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2031-02-08T10:16:52.230
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4111701904814986496
 2Mass ID (if available) : 17270706-2240413

Jupiter 2031-02-08T10:16:52 K8.98 G14.31 Pgt

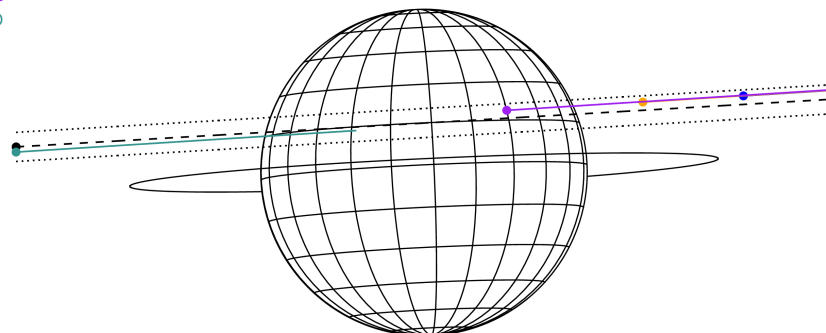
ICRS Star Coord at Epoch: 17h 27m 07.04694s -22:40:41.60454s

RUWE (>1.4 is poor) : 1.05
 K magnitude : 8.984
 G magnitude : 14.310
 RP magnitude : 12.998
 BP magnitude : 16.301
 DUPflag : 0
 Distance (au) : 5.801
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 29.55
 Sun-Target sep (deg) : 56.60
 Sun-Moon sep (deg) : 113.06
 B (ring opening deg) : -2.69
 PA of pole (deg) : 2.70
 Pole direction: RA (deg): 268.05703
 Dec (deg): 64.49651
 C/A sky separation (") : 5.139
 C/A sky separation (km) : 21620.2
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2031-02-08T10:16:52 K8.98 G14.31
 Pgt



Earth
 PAL
 KPNO
 MCD
 ESO

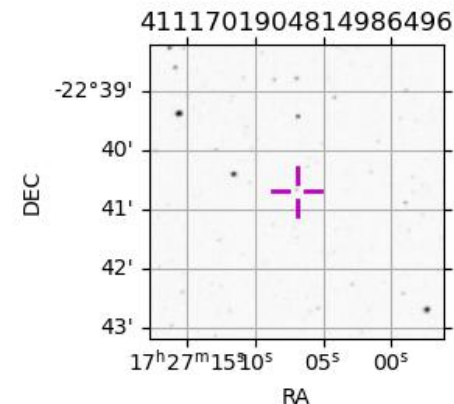


2031-02-08T10:16:52.2300 cc: 17 27 07.0469 s: -22 40 41.605 C/A 5.129° PA 183.34 deg v_sky +29.55 km/s D 05.80 AU

Credit: Styled after SORA/Lucky Star

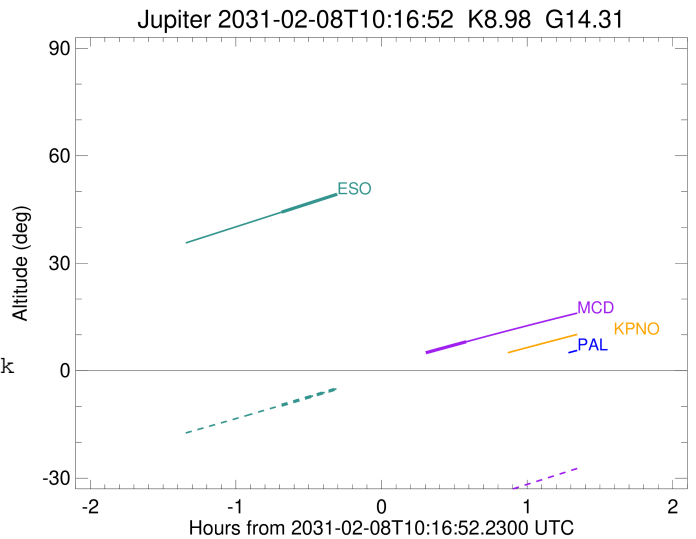
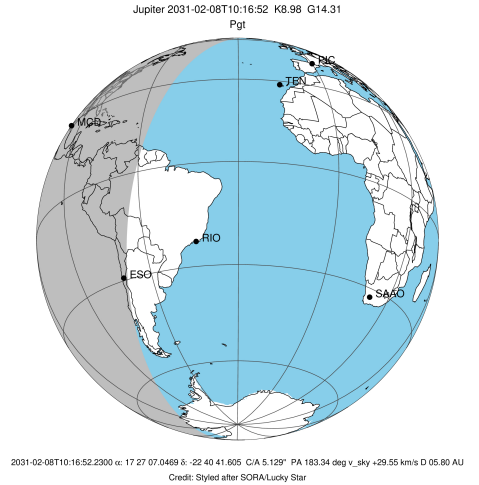
Observable events with sun below -5 deg and altitude above 5 deg

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	+	FEB 08 10:51 - FEB 08 10:51	Pne
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			Pnn
ESO	European Southern Obs. (3.6m)	-29.3	289.3	+	FEB 08 09:35 - FEB 08 09:35	Pin
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            : 2031-02-08T10:13:42.330
Event type           : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code        : MCD
Location             : McDonald Obs. 2.7m
Latitude (deg)       : 30.67158
E. Longitude (deg)   : 255.97844
Altitude (km)        : 2.075
Gaia source ID       : 4111701904814986496
2Mass ID (if available) : 17270706-2240413
ICRS Star Coord at Epoch: 17h 27m 07.04694s -22:40:41.60454s
RUWE (>1.4 is poor) : 1.05
K magnitude          : 8.984
G magnitude          : 14.310
RP magnitude         : 12.998
BP magnitude         : 16.301
DUPflag             : 0
Distance (au)        : 5.801
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 29.55
Sun-Target sep (deg) : 56.60
Sun-Moon sep (deg)   : 113.38
B (ring opening deg) : -2.69
PA of pole (deg)     : 2.70
Pole direction: RA (deg): 268.05703
Dec (deg): 64.49651
C/A sky separation ("): 5.912
C/A sky separation (km): 24875.0
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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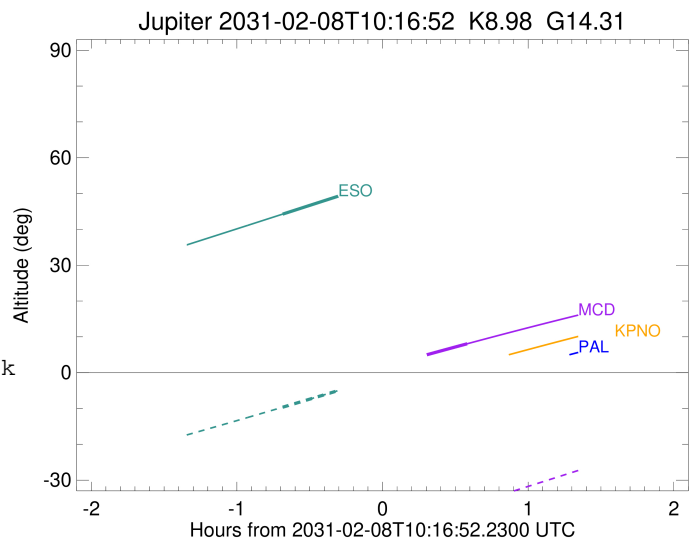
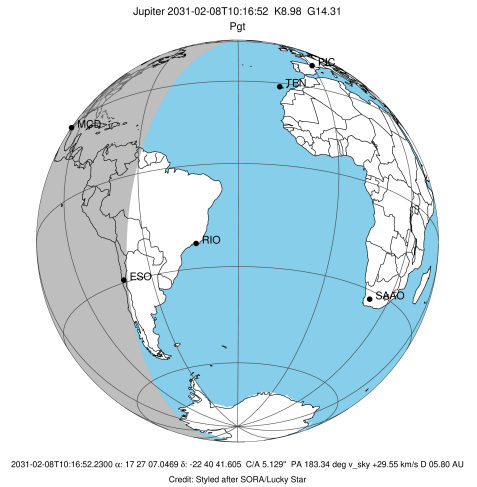


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2031-02-08T09:35:49.296	-6.48x	-53.24	71490.9	19.40	21.91
Jupiter	E	2031-02-08T10:51:41.248	8.05	-37.17	71490.7	21.27	23.97

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2031-02-08T10:14:48.360
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      : 4111701904814986496
2Mass ID (if available) : 17270706-2240413
ICRS Star Coord at Epoch: 17h 27m 07.04694s -22:40:41.60454s
RUWE (>1.4 is poor) : 1.05
K magnitude          : 8.984
G magnitude          : 14.310
RP magnitude         : 12.998
BP magnitude         : 16.301
DUPflag             : 0
Distance (au)       : 5.801
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 29.55
Sun-Target sep (deg) : 56.60
Sun-Moon sep (deg)  : 113.96
B (ring opening deg) : -2.69
PA of pole (deg)    : 2.70
Pole direction: RA (deg): 268.05703
Dec (deg): 64.49651
C/A sky separation (" ) : 4.798
C/A sky separation (km) : 20185.2
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	2031-02-08T09:35:45.587	44.26	-9.63	71491.3	15.49	17.57
Jupiter	E	2031-02-08T10:53:55.829	61.35	6.55x	71491.1	17.24	19.52