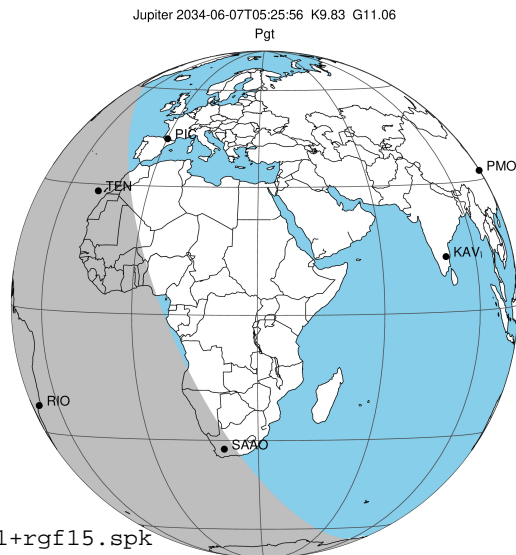


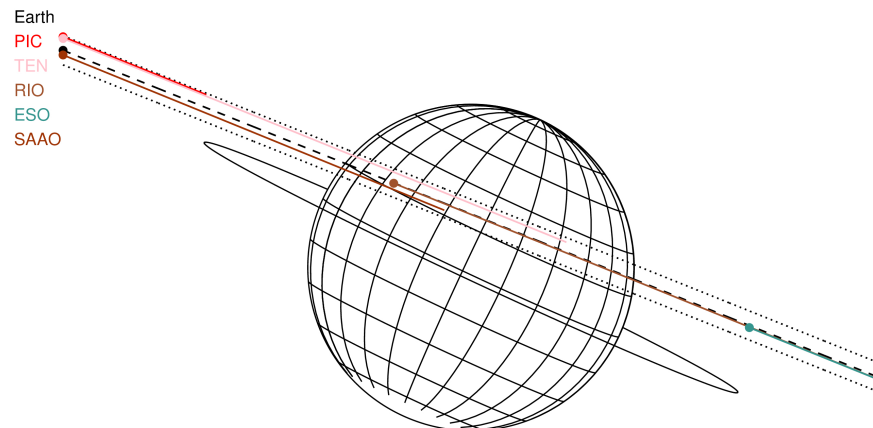
target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2034-06-07T05:25:56.430  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 2544532934766855936  
 2Mass ID (if available) : 00333789+0219270

Jupiter 2034-06-07T05:25:56 K9.83 G11.06 Pgt

ICRS Star Coord at Epoch: 00h 33m 37.90966s +02:19:26.81609s  
 RUWE (>1.4 is poor) : 1.28  
 K magnitude : 9.829  
 G magnitude : 11.056  
 RP magnitude : 10.606  
 BP magnitude : 11.346  
 DUPflag : 0  
 Distance (au) : 5.262  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 24.95  
 Sun-Target sep (deg) : 67.46  
 Sun-Moon sep (deg) : 54.63  
 B (ring opening deg) : 2.33  
 PA of pole (deg) : -25.08  
 Pole direction: RA (deg): 268.05641  
 Dec (deg): 64.49671  
 C/A sky separation (") : 5.709  
 C/A sky separation (km) : 21787.6  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

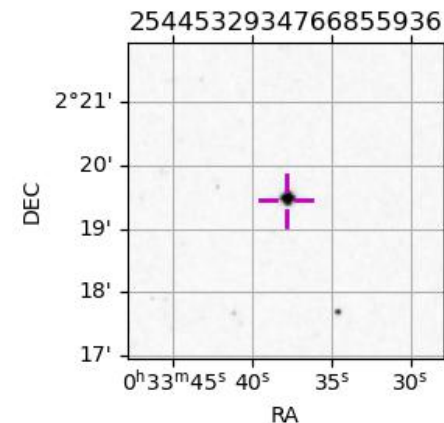


2034-06-07T05:25:56.4300 ex: 00 33 37.9097 s: +02 19 26.816 C/A 5.714" PA 158.15 deg v\_sky +24.95 km/s D 05.26 AU  
 Credit: Styled after SORA/Lucky Star



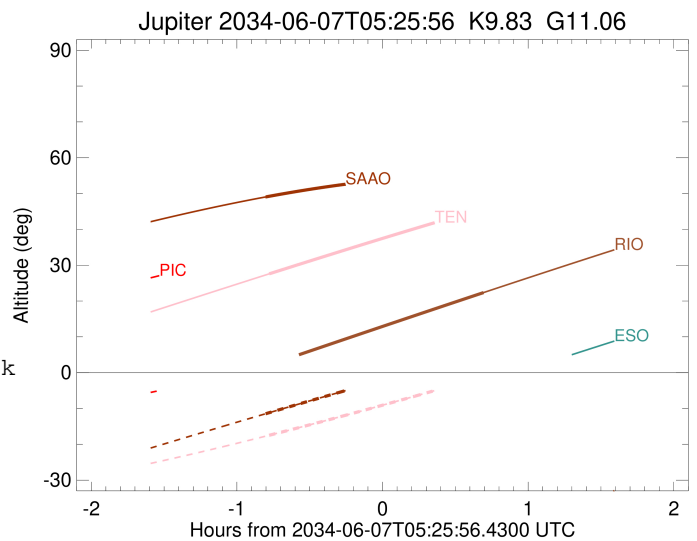
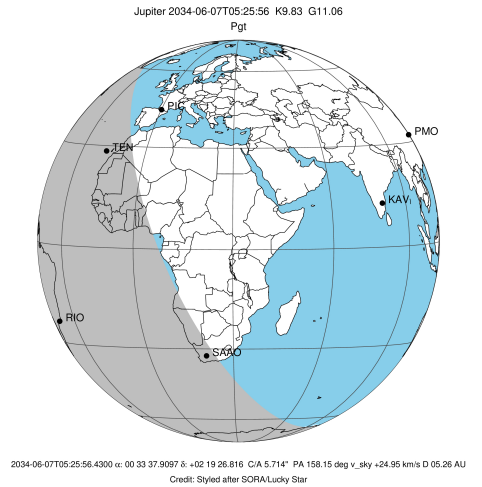
Observable events with sun below -5 deg and altitude above 5 deg

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	+	JUN 07 04:39 - JUN 07 04:39	Pin
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	+	JUN 07 06:07 - JUN 07 06:07	Pne
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	+	JUN 07 04:37 - JUN 07 04:37	Pin
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2034-06-07T05:24:06.500
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       : 2544532934766855936
2Mass ID (if available) : 00333789+0219270
ICRS Star Coord at Epoch: 00h 33m 37.90966s +02:19:26.81609s
RUWE (>1.4 is poor) : 1.28
K magnitude           : 9.829
G magnitude           : 11.056
RP magnitude         : 10.606
BP magnitude         : 11.346
DUPflag              : 0
Distance (au)        : 5.262
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 24.95
Sun-Target sep (deg) : 67.46
Sun-Moon sep (deg)   : 54.84
B (ring opening deg) : 2.33
PA of pole (deg)     : -25.08
Pole direction: RA (deg): 268.05641
Dec (deg): 64.49671
C/A sky separation (" ) : 6.811
C/A sky separation (km) : 25992.5
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
    
```

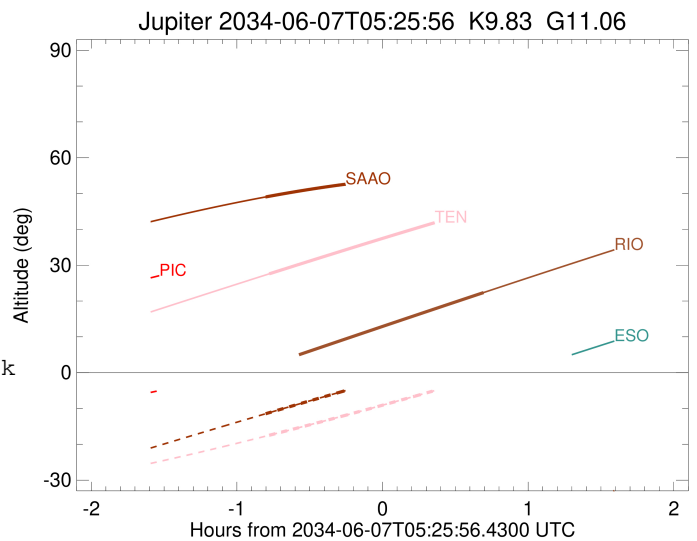
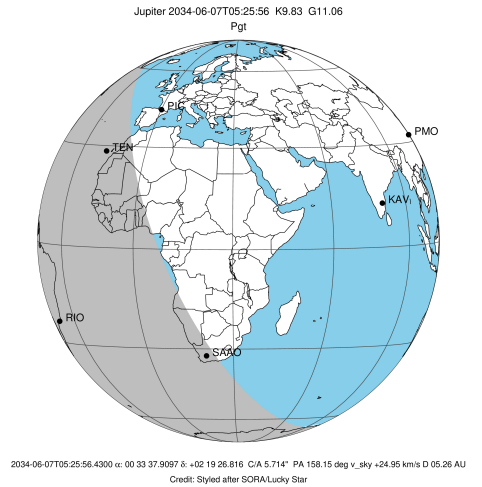


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2034-06-07T04:39:13.755	27.58	-17.48	71491.3	18.31	20.70
Jupiter	E	2034-06-07T06:09:06.901	46.15	-0.77x	71490.7	24.25	27.22

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2034-06-07T05:21:48.530
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      : 2544532934766855936
2Mass ID (if available) : 00333789+0219270
ICRS Star Coord at Epoch: 00h 33m 37.90966s +02:19:26.81609s
RUWE (>1.4 is poor) : 1.28
K magnitude          : 9.829
G magnitude          : 11.056
RP magnitude         : 10.606
BP magnitude         : 11.346
DUPflag             : 0
Distance (au)       : 5.262
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 24.95
Sun-Target sep (deg) : 67.46
Sun-Moon sep (deg)   : 54.27
B (ring opening deg) : 2.33
PA of pole (deg)     : -25.08
Pole direction: RA (deg): 268.05641
Dec (deg): 64.49671
C/A sky separation ("): 5.650
C/A sky separation (km): 21561.1
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
    
```

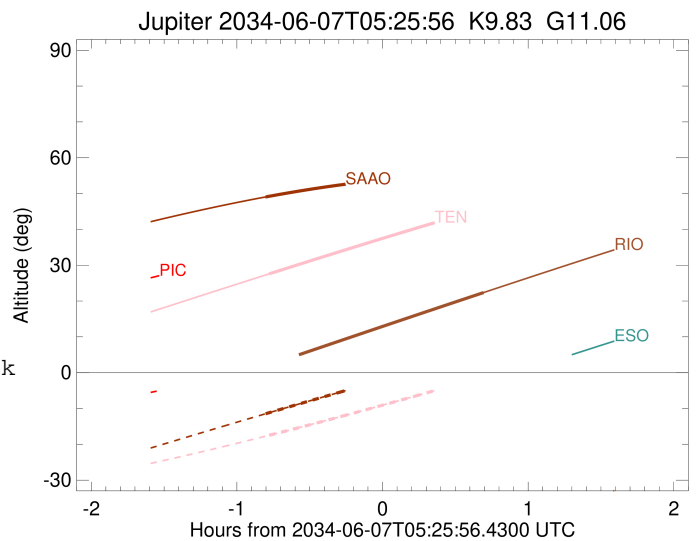
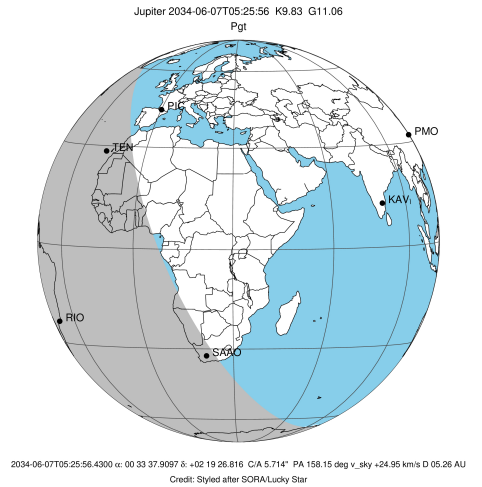


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2034-06-07T04:36:10.902	1.46x	-65.96	71491.5	14.40	16.35
Jupiter	E	2034-06-07T06:07:36.214	22.36	-45.07	71491.1	20.61	23.24

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2034-06-07T05:24:27.840
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      : 2544532934766855936
2Mass ID (if available) : 00333789+0219270
ICRS Star Coord at Epoch: 00h 33m 37.90966s +02:19:26.81609s
RUWE (>1.4 is poor) : 1.28
K magnitude         : 9.829
G magnitude         : 11.056
RP magnitude        : 10.606
BP magnitude        : 11.346
DUPflag            : 0
Distance (au)       : 5.262
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : 24.95
Sun-Target sep (deg) : 67.46
Sun-Moon sep (deg)  : 55.08
B (ring opening deg) : 2.33
PA of pole (deg)    : -25.08
Pole direction: RA (deg): 268.05641
Dec (deg): 64.49671
C/A sky separation (" ) : 4.929
C/A sky separation (km) : 18811.9
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	2034-06-07T04:37:44.863	49.04	-11.47	71491.7	12.35	14.05
Jupiter	E	2034-06-07T06:11:14.213	55.28	6.31x	71491.3	18.14	20.52