

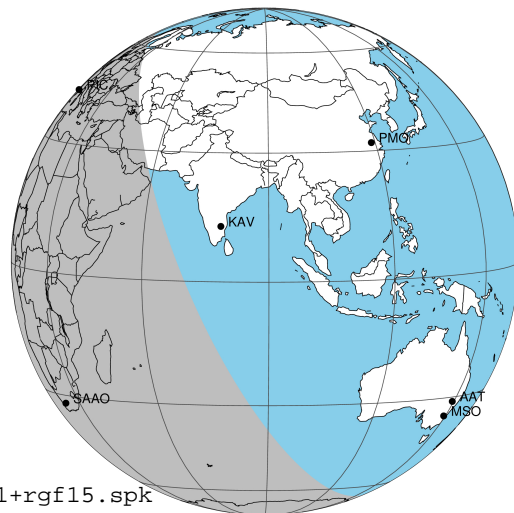
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2046-06-17T01:18:39.020
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 2552568131382952192
 2Mass ID (if available) : 00541998+0428435

Jupiter 2046-06-17T01:18:39 K8.88 G10.29 Pgt

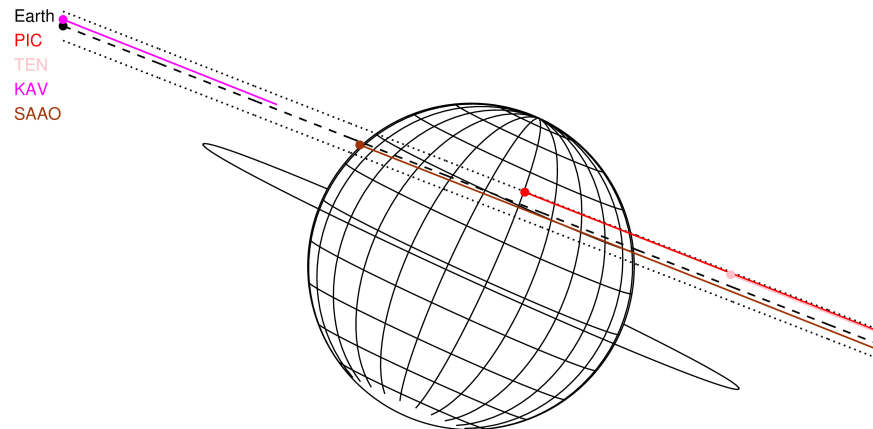
ICRS Star Coord at Epoch: 00h 54m 19.91256s +04:28:37.85061s

RUWE (>1.4 is poor) : 1.10
 K magnitude : 8.881
 G magnitude : 10.292
 RP magnitude : 9.800
 BP magnitude : 10.614
 DUPflag : 0
 Distance (au) : 5.192
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 23.06
 Sun-Target sep (deg) : 71.19
 Sun-Moon sep (deg) : 127.41
 B (ring opening deg) : 2.55
 PA of pole (deg) : -24.54
 Pole direction: RA (deg): 268.05711
 Dec (deg): 64.49722
 C/A sky separation (") : 8.815
 C/A sky separation (km) : 33194.9
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2046-06-17T01:18:39 K8.88 G10.29
 Pgt

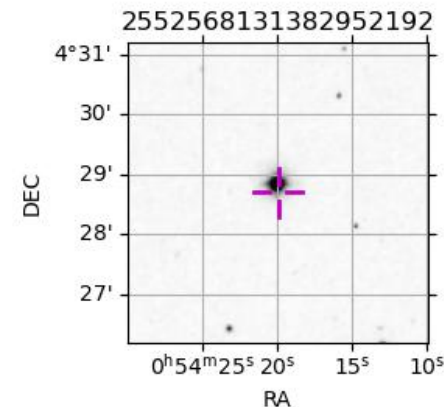


2046-06-17T01:18:39.0200 ex: 00 54 19.9126 s: +04 28 37.851 C/A 8.820° PA 158.69 deg v_sky +23.06 km/s D 05.19 AU
 Credit: Styled after SORA/Lucky Star



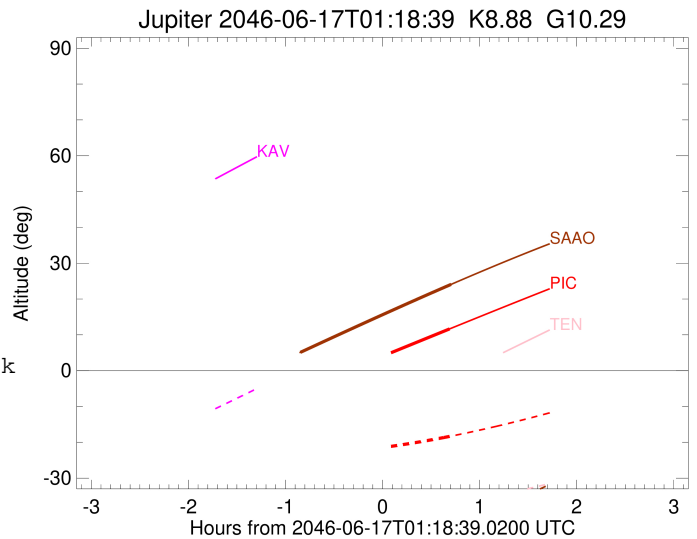
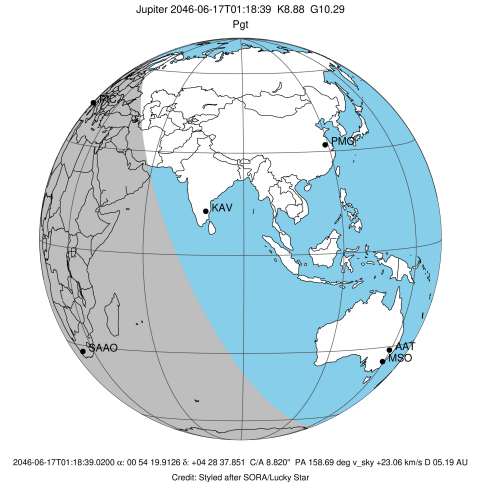
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	OCode
PIC	Pic du Midi	42.9	0.1	+	JUN 17 02:00 - JUN 17 02:00	Pne
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			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	+ +	JUN 17 00:27 - JUN 17 02:01	Pie
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2046-06-17T01:16:39.620
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     : 2552568131382952192
2Mass ID (if available) : 00541998+0428435
ICRS Star Coord at Epoch: 00h 54m 19.91256s +04:28:37.85061s
RUWE (>1.4 is poor) : 1.10
K magnitude         : 8.881
G magnitude         : 10.292
RP magnitude        : 9.800
BP magnitude        : 10.614
DUPflag            : 0
Distance (au)      : 5.192
f0 (km)            : 0.00
g0 (km)            : 0.00
skyplane vel. (km/s) : 23.06
Sun-Target sep (deg) : 71.19
Sun-Moon sep (deg) : 127.65
B (ring opening deg) : 2.55
PA of pole (deg)   : -24.54
Pole direction: RA (deg): 268.05711
Dec (deg): 64.49722
C/A sky separation (") : 10.331
C/A sky separation (km) : 38903.4
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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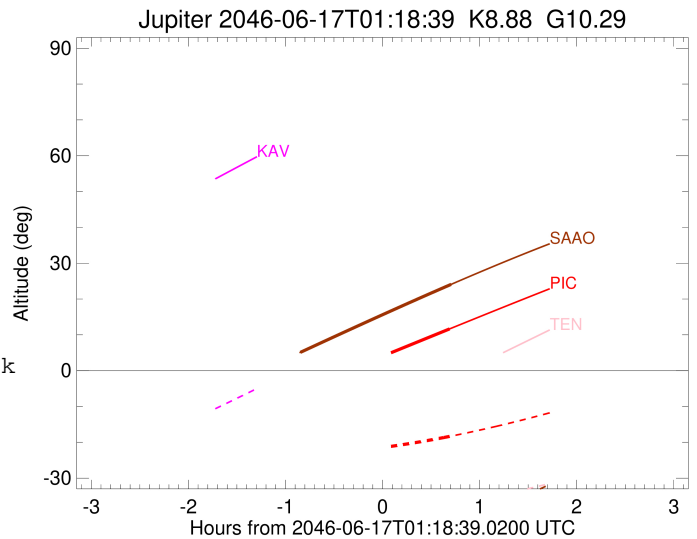
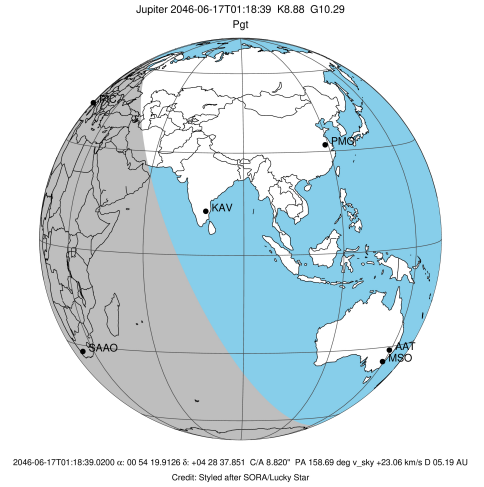


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2046-06-17T00:33:22.613	-4.24x	-23.44	71489.8	29.75	33.11
Jupiter	E	2046-06-17T02:00:04.908	11.65	-18.35	71488.9	36.05	39.68

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2046-06-17T01:14:24.170
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       : 2552568131382952192
2Mass ID (if available) : 00541998+0428435
ICRS Star Coord at Epoch: 00h 54m 19.91256s +04:28:37.85061s
RUWE (>1.4 is poor) : 1.10
K magnitude           : 8.881
G magnitude           : 10.292
RP magnitude         : 9.800
BP magnitude         : 10.614
DUPflag              : 0
Distance (au)        : 5.192
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 23.06
Sun-Target sep (deg) : 71.19
Sun-Moon sep (deg)   : 128.19
B (ring opening deg) : 2.55
PA of pole (deg)     : -24.54
Pole direction: RA (deg): 268.05711
Dec (deg): 64.49722
C/A sky separation ("): 8.423
C/A sky separation (km): 31721.6
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	2046-06-17T00:27:55.959	5.12	-64.14	71490.6	23.26	26.14
Jupiter	E	2046-06-17T02:01:02.683	24.08	-44.57	71489.9	29.30	32.63