

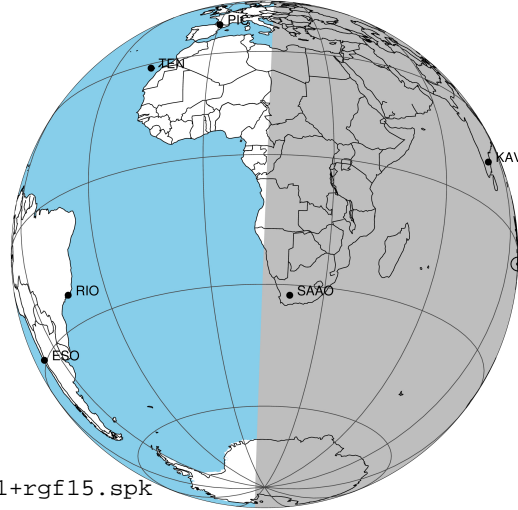
target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2043-09-17T16:55:30.720  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 4116632870903428992  
 2Mass ID (if available) : 17351954-2311452

Jupiter 2043-09-17T16:55:30 K9.49 G14.88 Pgt

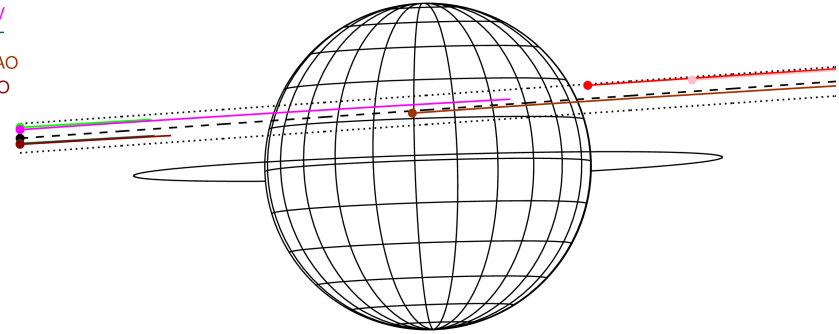
ICRS Star Coord at Epoch: 17h 35m 19.52966s -23:11:45.40513s

RUWE (>1.4 is poor) : 0.96  
 K magnitude : 9.487  
 G magnitude : 14.875  
 RP magnitude : 13.540  
 BP magnitude : 16.808  
 DUPflag : 0  
 Distance (au) : 5.134  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 12.96  
 Sun-Target sep (deg) : 90.23  
 Sun-Moon sep (deg) : 72.03  
 B (ring opening deg) : -2.25  
 PA of pole (deg) : 1.82  
 Pole direction: RA (deg): 268.05673  
 Dec (deg): 64.49731  
 C/A sky separation (") : 6.653  
 C/A sky separation (km) : 24771.5  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

Jupiter 2043-09-17T16:55:30 K9.49 G14.88  
 Pgt



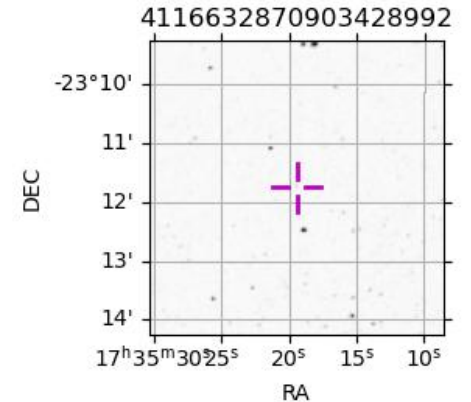
Earth  
 PIC  
 PMO  
 TEN  
 KAV  
 AAT  
 SAAO  
 MSO



2043-09-17T16:55:30.7200 ex: 17 35 19.5297 s: -23 11 45.405 C/A 6.644" PA 183.98 deg v\_sky +12.96 km/s D 05.13 AU  
 Credit: Styled after SORA/Lucky Star

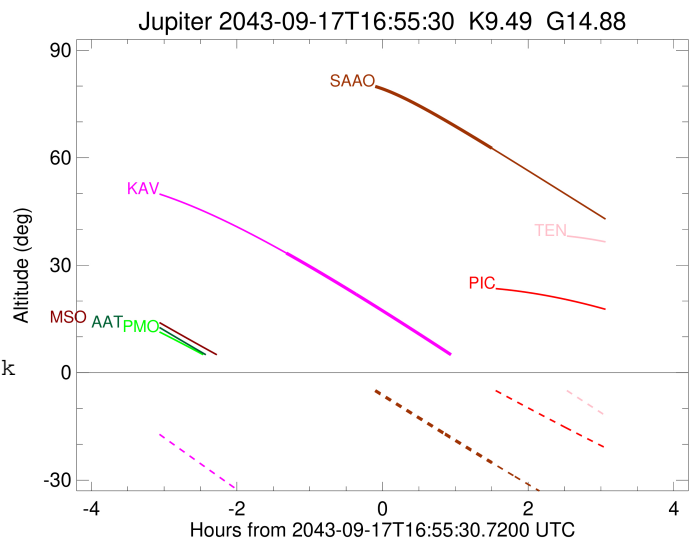
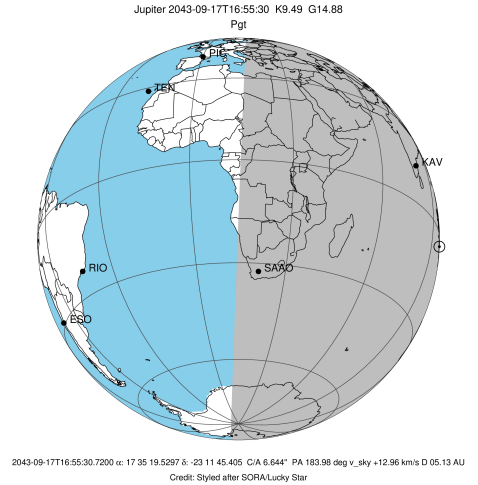
Observable events with sun below -5 deg and altitude above 5 deg

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			Pnn
IRTF	Mauna Kea/IRTF	19.8	204.5			Pnn
KAV	Kavalur Observatory	12.6	78.8	+	SEP 17 15:36 - SEP 17 15:36	Pin
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	+	SEP 17 18:25 - SEP 17 18:25	Pne
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-09-17T17:03:04.720
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : KAV
Location              : Kavalur Observatory
Latitude (deg)       : 12.57556
E. Longitude (deg)   : 78.83167
Altitude (km)        : 0.722
Gaia source ID       : 4116632870903428992
2Mass ID (if available) : 17351954-2311452
ICRS Star Coord at Epoch: 17h 35m 19.52966s -23:11:45.40513s
RUWE (>1.4 is poor) : 0.96
K magnitude           : 9.487
G magnitude           : 14.875
RP magnitude          : 13.540
BP magnitude          : 16.808
DUPflag              : 0
Distance (au)        : 5.134
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 12.96
Sun-Target sep (deg) : 90.23
Sun-Moon sep (deg)   : 72.05
B (ring opening deg) : -2.25
PA of pole (deg)     : 1.82
Pole direction: RA (deg): 268.05673
Dec (deg): 64.49731
C/A sky separation ("): 7.354
C/A sky separation (km): 27380.7
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
    
```

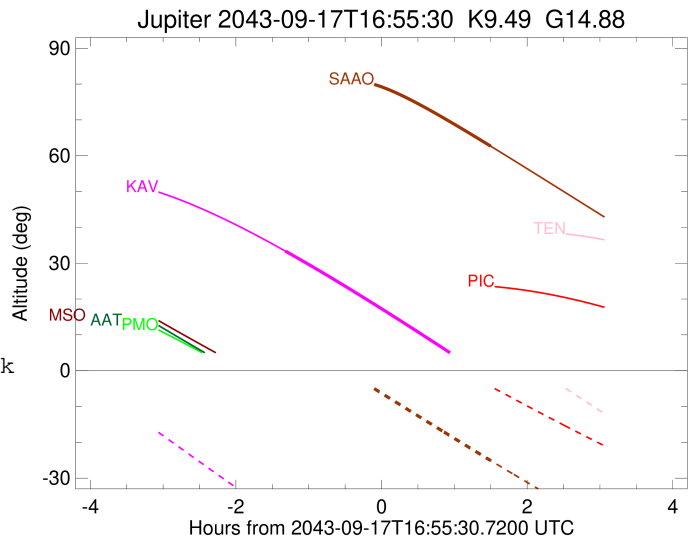
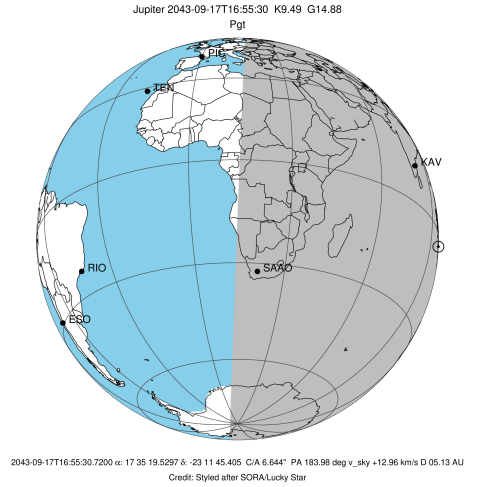


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-09-17T15:36:16.676	33.38	-42.33	71491.1	20.92	23.59
Jupiter	E	2043-09-17T18:28:37.234	-3.18x	-75.20	71490.9	23.92	26.86

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-09-17T16:56:25.160
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        : 4116632870903428992
2Mass ID (if available) : 17351954-2311452
ICRS Star Coord at Epoch: 17h 35m 19.52966s -23:11:45.40513s
RUWE (>1.4 is poor) : 0.96
K magnitude           : 9.487
G magnitude           : 14.875
RP magnitude          : 13.540
BP magnitude          : 16.808
DUPflag              : 0
Distance (au)         : 5.134
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 12.96
Sun-Target sep (deg)  : 90.23
Sun-Moon sep (deg)    : 72.91
B (ring opening deg) : -2.25
PA of pole (deg)      : 1.82
Pole direction: RA (deg): 268.05673
Dec (deg): 64.49731
C/A sky separation (") : 6.394
C/A sky separation (km) : 23805.3
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	2043-09-17T15:26:53.634	73.65	12.37x	71491.4	17.10	19.37
Jupiter	E	2043-09-17T18:25:37.347	62.64	-25.12	71491.1	21.49	24.21