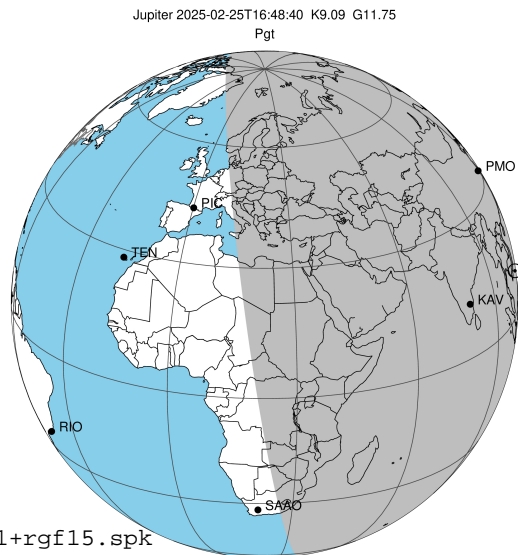


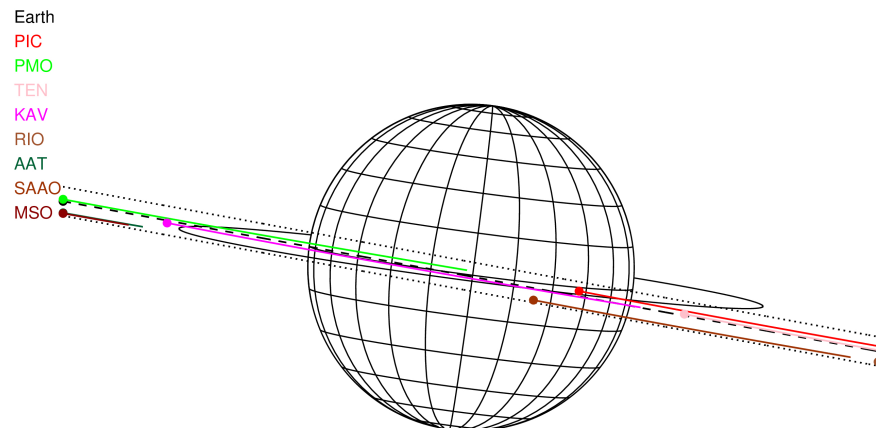
target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2025-02-25T16:48:40.060  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 3411466448467684096  
 2Mass ID (if available) : 04405108+2146443

Jupiter 2025-02-25T16:48:40 K9.09 G11.75 Pgt

ICRS Star Coord at Epoch: 04h 40m 51.08253s +21:46:44.18531s  
 RUWE (>1.4 is poor) : 1.14  
 K magnitude : 9.086  
 G magnitude : 11.745  
 RP magnitude : 10.914  
 BP magnitude : 12.470  
 DUPflag : 0  
 Distance (au) : 4.924  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 10.31  
 Sun-Target sep (deg) : 94.69  
 Sun-Moon sep (deg) : 125.49  
 B (ring opening deg) : 2.62  
 PA of pole (deg) : -7.59  
 Pole direction: RA (deg): 268.05781  
 Dec (deg): 64.49672  
 C/A sky separation (") : 1.089  
 C/A sky separation (km) : 3888.8  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

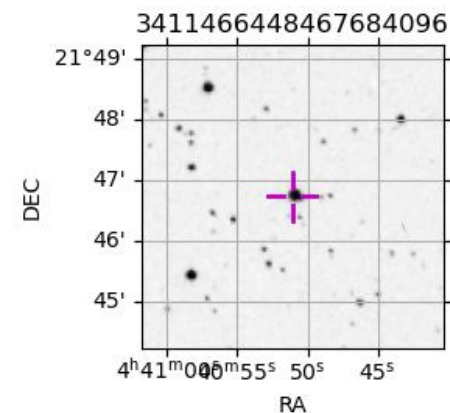


2025-02-25T16:48:40.0600 ex: 04 40 51.0825 s: +21 46 44.185 C/A 1.078" PA 349.57 deg v\_sky +10.31 km/s D 04.92 AU  
 Credit: Styled after SORA/Lucky Star



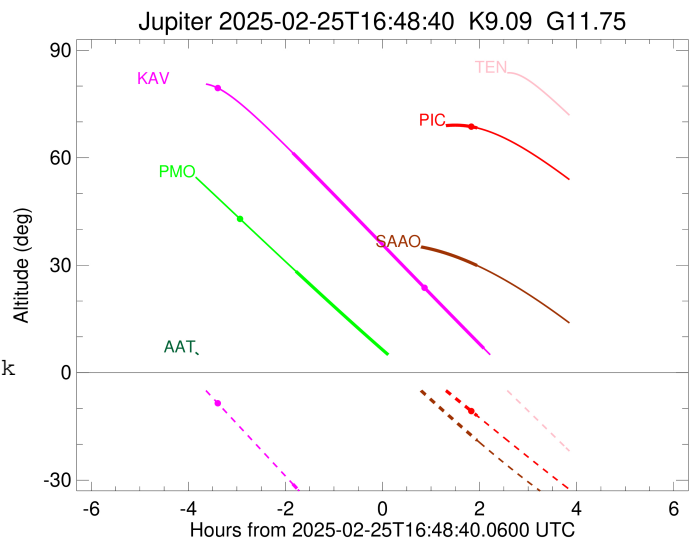
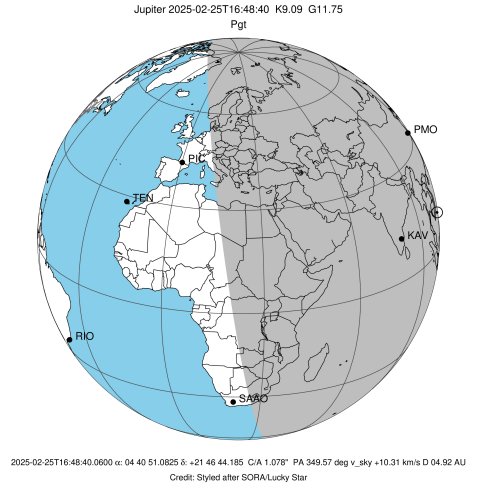
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	OCode
PIC	Pic du Midi	42.9	0.1	+	FEB 25 18:45 - FEB 25 18:45	Pne
PAL	Palomar Mt (200")	33.4	243.1			Pnn
PMO	Purple Mtn Obs. Nanking	32.1	118.8	+	FEB 25 15:01 - FEB 25 15:01	Pin
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	+ +	FEB 25 14:57 - FEB 25 18:54	Pie
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	+	FEB 25 18:45 - FEB 25 18:45	Pne
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2025-02-25T16:46:25.900
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       : 3411466448467684096
2Mass ID (if available) : 04405108+2146443
ICRS Star Coord at Epoch: 04h 40m 51.08253s +21:46:44.18531s
RUWE (>1.4 is poor) : 1.14
K magnitude           : 9.086
G magnitude           : 11.745
RP magnitude          : 10.914
BP magnitude          : 12.470
DUPflag              : 0
Distance (au)         : 4.924
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 10.31
Sun-Target sep (deg)  : 94.69
Sun-Moon sep (deg)   : 126.29
B (ring opening deg) : 2.62
PA of pole (deg)     : -7.59
Pole direction: RA (deg): 268.05781
Dec (deg): 64.49672
C/A sky separation ("): 0.333
C/A sky separation (km): 1187.4
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
    
```

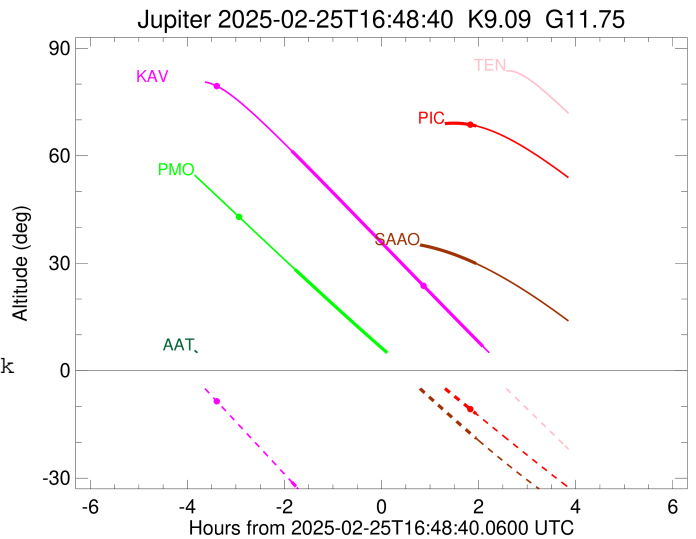
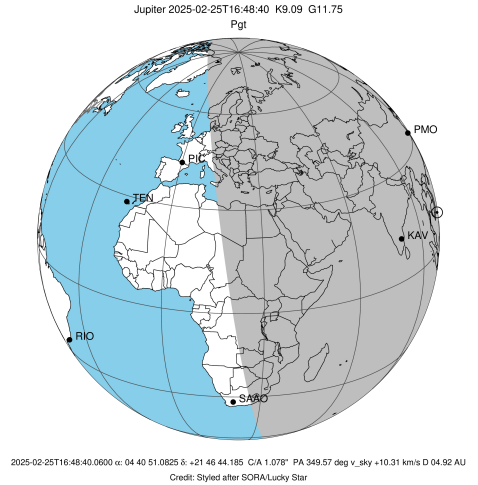


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2025-02-25T14:47:47.634	41.67	27.43x	71492.0	2.59	2.97
Jupiter	E	2025-02-25T18:45:29.306	68.33	-12.02	71492.0	-4.22	-4.82

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2025-02-25T16:58:11.870
Event type           : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code        : PMO
Location             : Purple Mtn Obs. Nanking
Latitude (deg)       : 32.06667
E. Longitude (deg)   : 118.82089
Altitude (km)        : 0.364
Gaia source ID       : 3411466448467684096
2Mass ID (if available) : 04405108+2146443
ICRS Star Coord at Epoch: 04h 40m 51.08253s +21:46:44.18531s
RUWE (>1.4 is poor) : 1.14
K magnitude           : 9.086
G magnitude           : 11.745
RP magnitude          : 10.914
BP magnitude          : 12.470
DUPflag              : 0
Distance (au)        : 4.924
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 10.31
Sun-Target sep (deg) : 94.69
Sun-Moon sep (deg)   : 125.05
B (ring opening deg) : 2.62
PA of pole (deg)     : -7.59
Pole direction: RA (deg): 268.05781
Dec (deg): 64.49672
C/A sky separation ("): 0.413
C/A sky separation (km): 1473.6
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
    
```

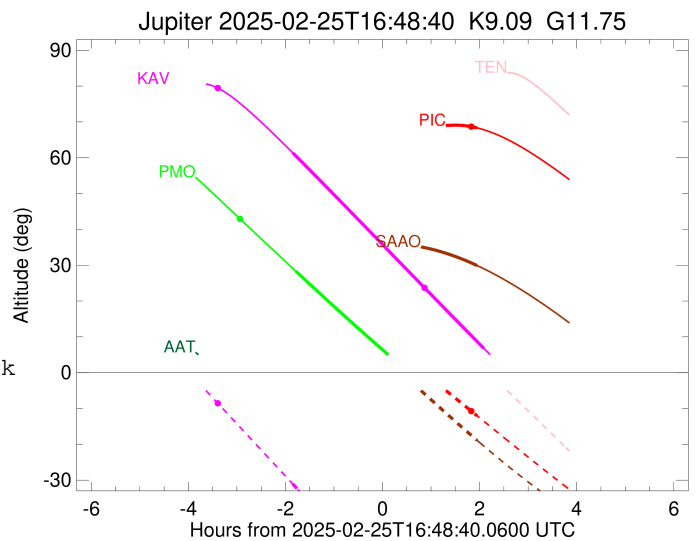
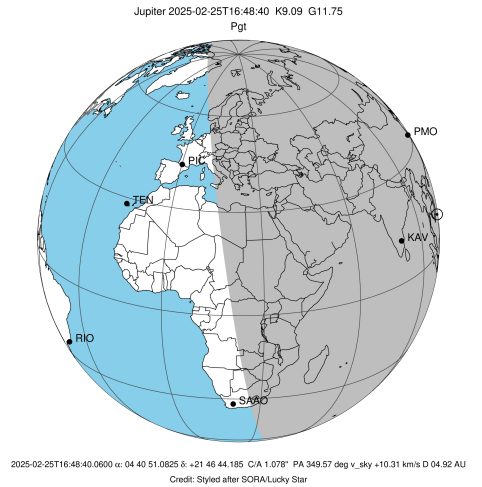


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2025-02-25T15:01:44.129	28.28	-60.99	71492.0	0.91	1.04
Jupiter	E	2025-02-25T18:52:03.824	-16.22x	-47.43	71492.0	-3.14	-3.59

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2025-02-25T16:57:11.430
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       : 3411466448467684096
2Mass ID (if available) : 04405108+2146443
ICRS Star Coord at Epoch: 04h 40m 51.08253s +21:46:44.18531s
RUWE (>1.4 is poor) : 1.14
K magnitude           : 9.086
G magnitude           : 11.745
RP magnitude          : 10.914
BP magnitude          : 12.470
DUPflag              : 0
Distance (au)         : 4.924
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 10.31
Sun-Target sep (deg)  : 94.69
Sun-Moon sep (deg)   : 125.50
B (ring opening deg) : 2.62
PA of pole (deg)     : -7.59
Pole direction: RA (deg): 268.05781
Dec (deg): 64.49672
C/A sky separation (") : 1.336
C/A sky separation (km) : 4770.8
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
    
```

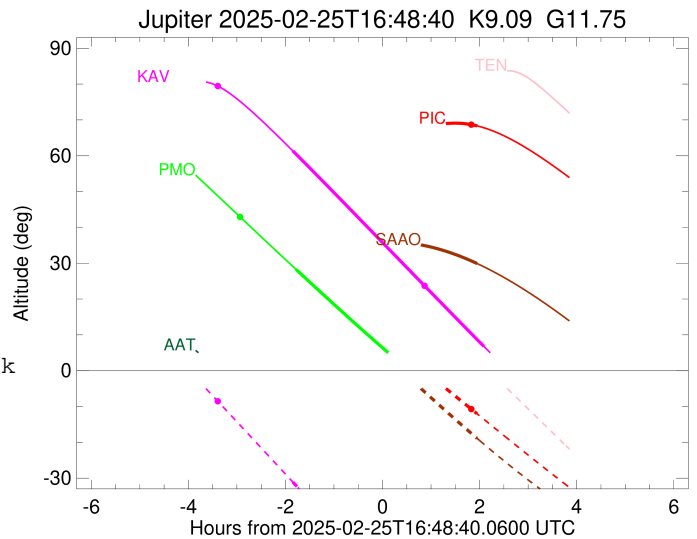
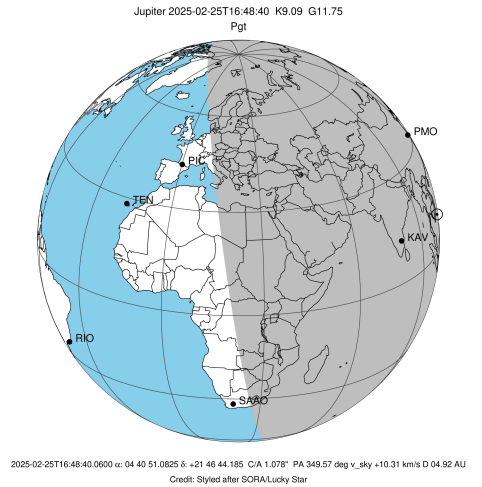


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2025-02-25T14:57:41.644	61.37	-31.05	71492.0	-1.29	-1.48
Jupiter	E	2025-02-25T18:54:00.911	6.77	-86.19	71491.9	-5.90	-6.74

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2025-02-25T16:46:43.480
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        : 3411466448467684096
2Mass ID (if available) : 04405108+2146443
ICRS Star Coord at Epoch: 04h 40m 51.08253s +21:46:44.18531s
RUWE (>1.4 is poor) : 1.14
K magnitude           : 9.086
G magnitude           : 11.745
RP magnitude          : 10.914
BP magnitude          : 12.470
DUPflag              : 0
Distance (au)         : 4.924
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 10.31
Sun-Target sep (deg)  : 94.69
Sun-Moon sep (deg)    : 126.06
B (ring opening deg) : 2.62
PA of pole (deg)      : -7.59
Pole direction: RA (deg): 268.05781
Dec (deg): 64.49672
C/A sky separation (" ) : 2.499
C/A sky separation (km) : 8924.7
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	2025-02-25T14:47:39.031	27.84	30.43x	71492.0	-3.70	-4.23
Jupiter	E	2025-02-25T18:45:33.556	29.91	-18.88	71491.7	-10.20	-11.63