

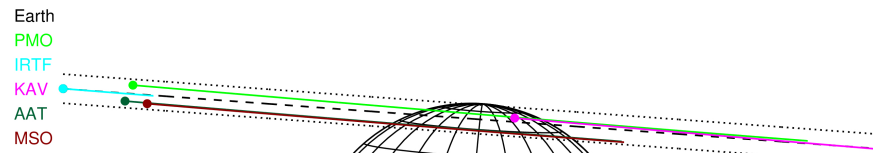
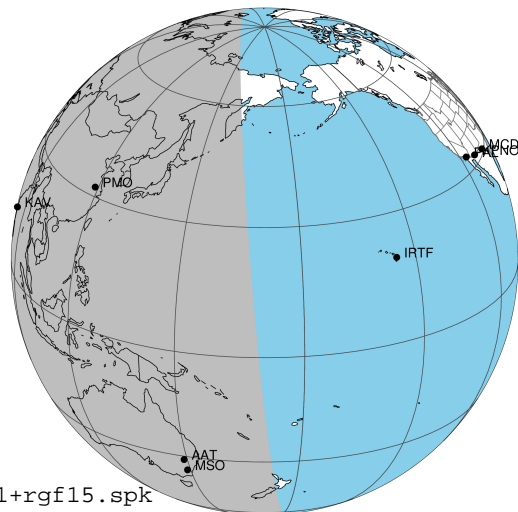
target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2024-09-08T18:39:10.900  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 3415438296785992832  
 2Mass ID (if available) : 05143270+2219255

Jupiter 2024-09-08T18:39:10 K9.28 G10.50 Pgt

ICRS Star Coord at Epoch: 05h 14m 32.70808s +22:19:25.49550s

RUWE (>1.4 is poor) : 1.03  
 K magnitude : 9.281  
 G magnitude : 10.503  
 RP magnitude : 10.073  
 BP magnitude : 10.760  
 DUPflag : 0  
 Distance (au) : 5.003  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 14.30  
 Sun-Target sep (deg) : 86.76  
 Sun-Moon sep (deg) : 148.41  
 B (ring opening deg) : 2.87  
 PA of pole (deg) : -4.05  
 Pole direction: RA (deg): 268.05789  
 Dec (deg): 64.49673  
 C/A sky separation (") : 17.791  
 C/A sky separation (km) : 64548.6  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

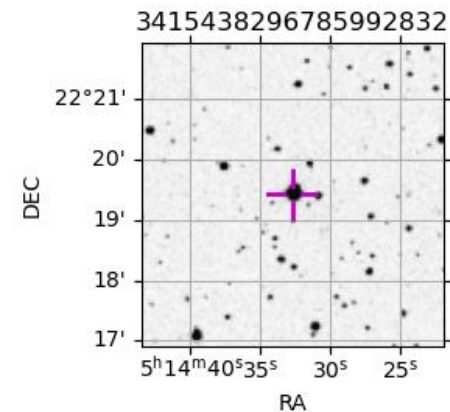
Jupiter 2024-09-08T18:39:10 K9.28 G10.50  
 Pgt



2024-09-08T18:39:10.9000 α: 05 14 32.7081 δ: +22 19 25.496 C/A \*\*\*\*\* PA 175.79 deg v\_sky +14.30 km/s D 05.00 AU  
 Credit: Styled after SORA/Lucky Star

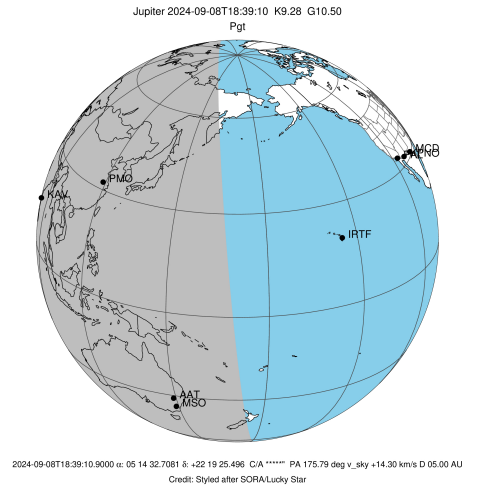
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	OEcode
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	+ +	SEP 08 18:04 - SEP 08 19:05	Pie
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 08 19:03 - SEP 08 19:03	Pne
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	+ +	SEP 08 17:49 - SEP 08 19:23	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+ +	SEP 08 17:49 - SEP 08 19:24	Pie

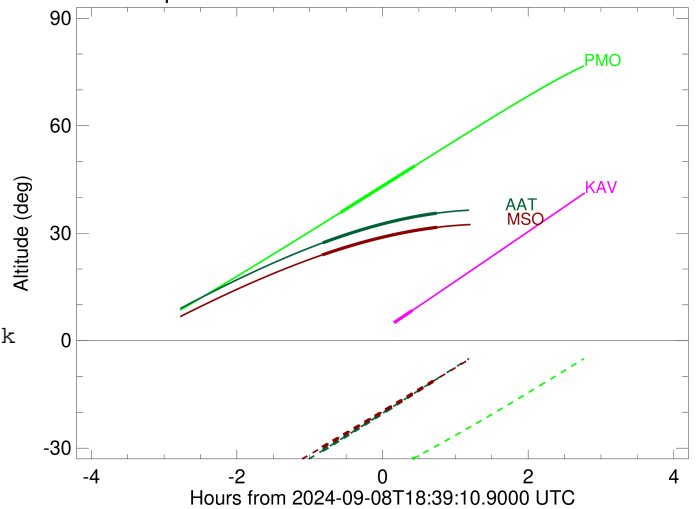


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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2024-09-08T18:35:03.580
Event type          : Pgt
                    : Jupiter occs: geocentric, topocentric
                    : Not a ringed target
Observer code       : PMO
Location            : Purple Mtn Obs. Nanking
Latitude (deg)      : 32.06667
E. Longitude (deg)  : 118.82089
Altitude (km)       : 0.364
Gaia source ID      : 3415438296785992832
2Mass ID (if available) : 05143270+2219255
ICRS Star Coord at Epoch: 05h 14m 32.70808s +22:19:25.49550s
RUWE (>1.4 is poor) : 1.03
K magnitude          : 9.281
G magnitude          : 10.503
RP magnitude         : 10.073
BP magnitude         : 10.760
DUPflag             : 0
Distance (au)       : 5.003
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 14.30
Sun-Target sep (deg) : 86.76
Sun-Moon sep (deg)  : 148.20
B (ring opening deg) : 2.87
PA of pole (deg)    : -4.05
Pole direction: RA (deg): 268.05789
Dec (deg): 64.49673
C/A sky separation (") : 18.392
C/A sky separation (km) : 66732.6
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
    
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Jupiter 2024-09-08T18:39:10 K9.28 G10.50

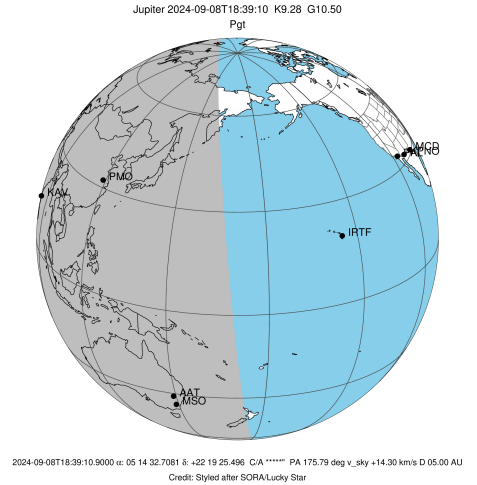


x: target alt < 5.0 deg or sun > -5.0 deg

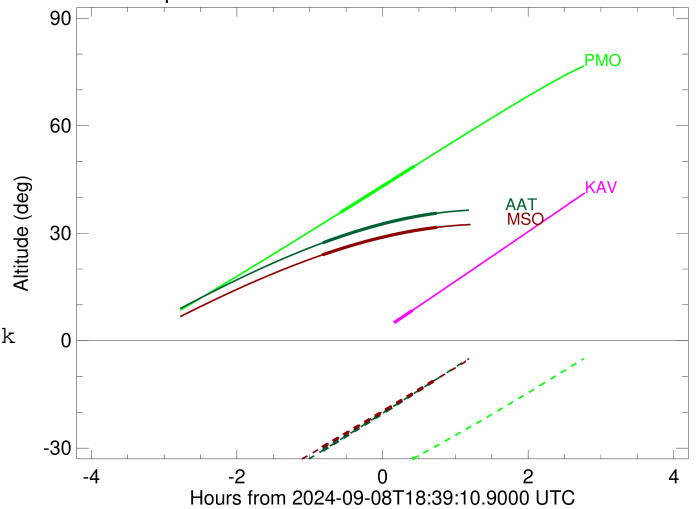
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2024-09-08T18:04:47.453	35.82	-42.72	71482.1	69.54	71.81
Jupiter	E	2024-09-08T19:05:26.359	48.71	-32.72	71482.2	68.11	70.51

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2024-09-08T18:32:59.430
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      : 3415438296785992832
2Mass ID (if available) : 05143270+2219255
ICRS Star Coord at Epoch: 05h 14m 32.70808s +22:19:25.49550s
RUWE (>1.4 is poor) : 1.03
K magnitude          : 9.281
G magnitude          : 10.503
RP magnitude        : 10.073
BP magnitude        : 10.760
DUPflag             : 0
Distance (au)       : 5.003
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : 14.30
Sun-Target sep (deg) : 86.76
Sun-Moon sep (deg)  : 147.67
B (ring opening deg) : 2.87
PA of pole (deg)    : -4.05
Pole direction: RA (deg): 268.05789
Dec (deg): 64.49673
C/A sky separation (") : 18.305
C/A sky separation (km) : 66415.9
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
    
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Jupiter 2024-09-08T18:39:10 K9.28 G10.50

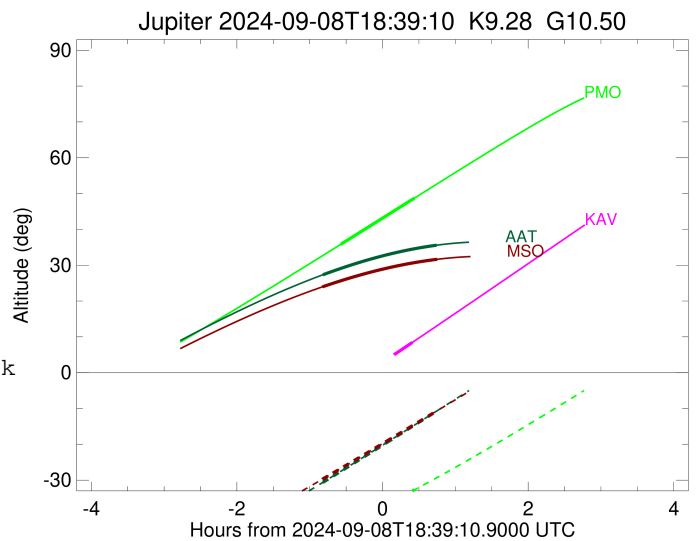
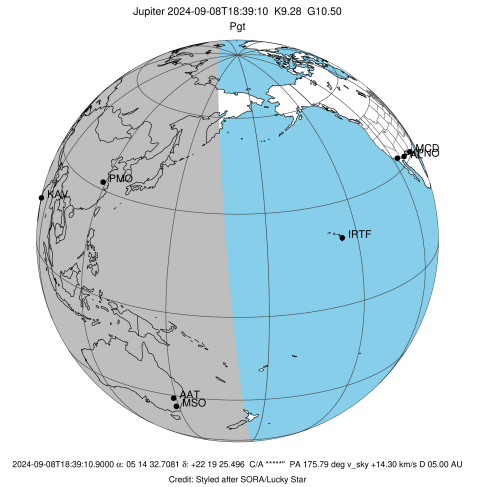


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2024-09-08T18:02:19.556	-5.43x	-69.65	71482.1	68.94	71.26
Jupiter	E	2024-09-08T19:03:48.202	8.45	-71.42	71482.4	67.27	69.75

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2024-09-08T18:36:46.050
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : AAT
Location              : Siding Spring (AAT)
Latitude (deg)       : -31.27703
E. Longitude (deg)   : 149.06608
Altitude (km)        : 1.164
Gaia source ID       : 3415438296785992832
2Mass ID (if available) : 05143270+2219255
ICRS Star Coord at Epoch: 05h 14m 32.70808s +22:19:25.49550s
RUWE (>1.4 is poor) : 1.03
K magnitude           : 9.281
G magnitude           : 10.503
RP magnitude          : 10.073
BP magnitude          : 10.760
DUPflag              : 0
Distance (au)        : 5.003
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 14.30
Sun-Target sep (deg) : 86.76
Sun-Moon sep (deg)   : 148.45
B (ring opening deg) : 2.87
PA of pole (deg)     : -4.05
Pole direction: RA (deg): 268.05789
Dec (deg): 64.49673
C/A sky separation (") : 16.467
C/A sky separation (km) : 59746.2
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
    
```

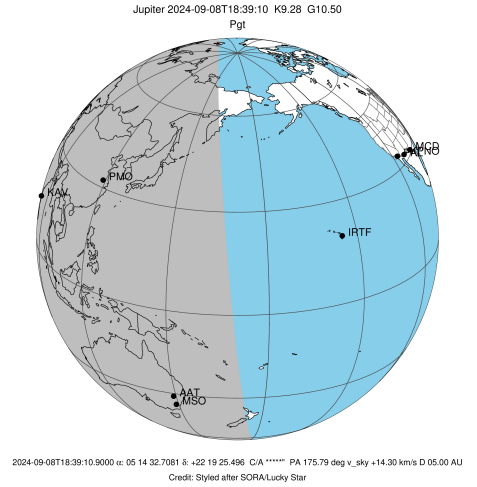


x: target alt < 5.0 deg or sun > -5.0 deg

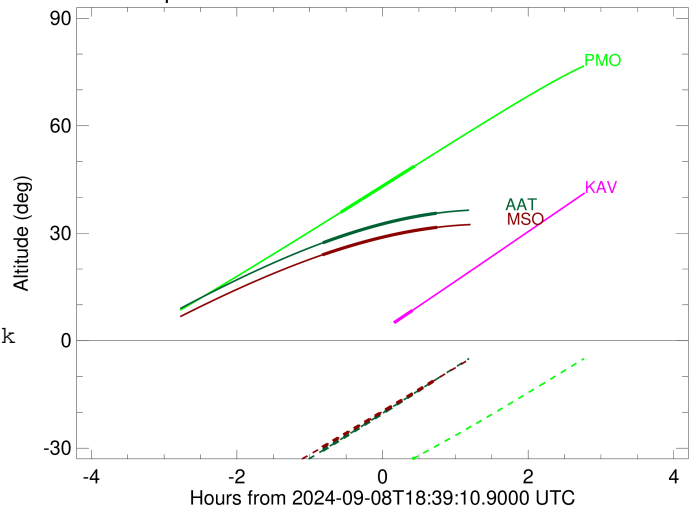
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2024-09-08T17:49:58.749	27.31	-30.64	71484.0	57.15	60.40
Jupiter	E	2024-09-08T19:23:42.996	35.57	-10.73	71484.2	56.14	59.44

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2024-09-08T18:36:49.850
Event type          : Pgt
                    : Jupiter occs: geocentric, topocentric
                    : Not a ringed target
Observer code       : MSO
Location            : Mt. Stromlo Observatory
Latitude (deg)      : -35.32000
E. Longitude (deg)  : 149.00833
Altitude (km)       : 0.770
Gaia source ID      : 3415438296785992832
2Mass ID (if available) : 05143270+2219255
ICRS Star Coord at Epoch: 05h 14m 32.70808s +22:19:25.49550s
RUWE (>1.4 is poor) : 1.03
K magnitude          : 9.281
G magnitude          : 10.503
RP magnitude        : 10.073
BP magnitude        : 10.760
DUPflag            : 0
Distance (au)       : 5.003
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : 14.30
Sun-Target sep (deg) : 86.76
Sun-Moon sep (deg)  : 148.43
B (ring opening deg) : 2.87
PA of pole (deg)    : -4.05
Pole direction: RA (deg): 268.05789
Dec (deg): 64.49673
C/A sky separation (") : 16.394
C/A sky separation (km) : 59481.1
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
    
```



Jupiter 2024-09-08T18:39:10 K9.28 G10.50



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	2024-09-08T17:49:36.902	23.95	-29.74	71484.1	56.75	60.02
Jupiter	E	2024-09-08T19:24:12.313	31.64	-10.63	71484.3	55.77	59.10