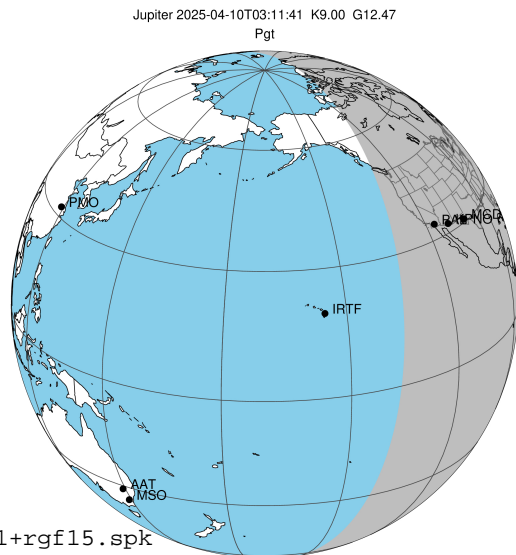


target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2025-04-10T03:11:41.760
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 3418262388104243968
 2Mass ID (if available) : 05040848+2231487

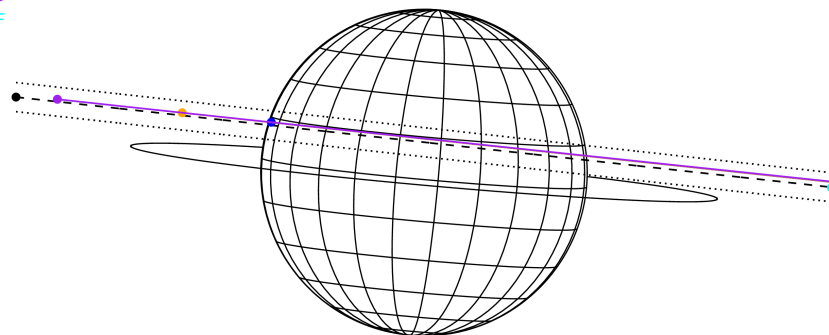
Jupiter 2025-04-10T03:11:41 K9.00 G12.47 Pgt

ICRS Star Coord at Epoch: 05h 04m 08.48602s +22:31:48.71683s
 RUWE (>1.4 is poor) : 1.09
 K magnitude : 9.002
 G magnitude : 12.474
 RP magnitude : 11.505
 BP magnitude : 13.449
 DUPflag : 0
 Distance (au) : 5.593
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 28.98
 Sun-Target sep (deg) : 56.96
 Sun-Moon sep (deg) : 91.54
 B (ring opening deg) : 2.47
 PA of pole (deg) : -5.15
 Pole direction: RA (deg): 268.05779
 Dec (deg): 64.49671
 C/A sky separation (") : 3.250
 C/A sky separation (km) : 13183.8
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk
 URKALLvl.spk
 naif0012.tls
 nep097.bsp
 nep101.bsp
 sat4401.bsp



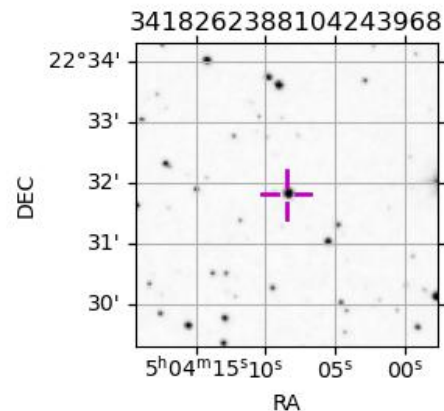
2025-04-10T03:11:41.7600 ex: 05 04 08.4860 s: +22 31 48.717 C/A 3.259" PA 173.69 deg v_sky +28.98 km/s D 05.59 AU
 Credit: Styled after SORA/Lucky Star

Earth
 PAL
 KPNO
 MCD
 IRTF



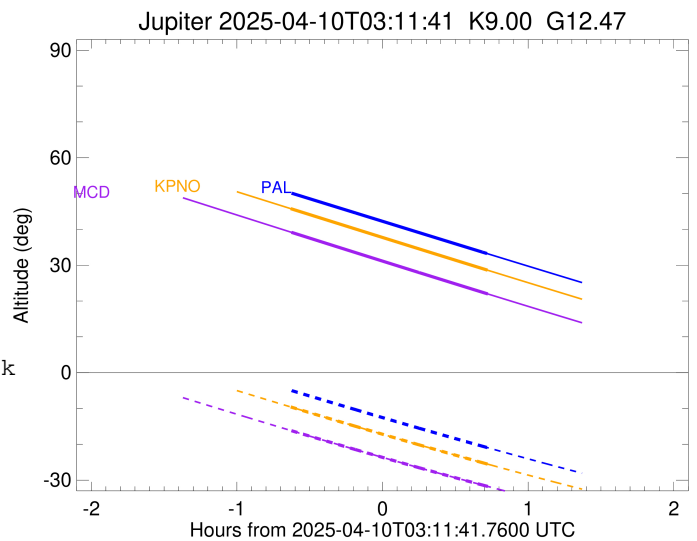
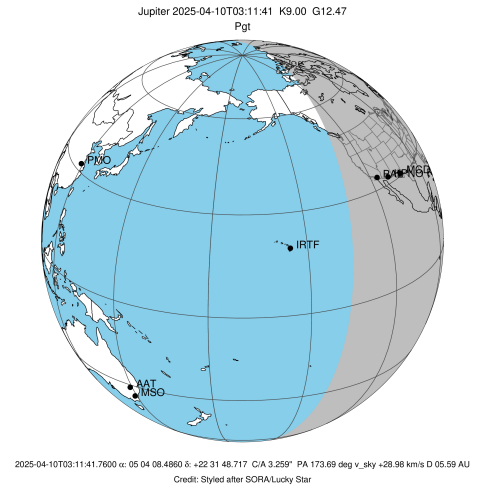
Observable events with sun below -5 deg and altitude above 5 deg

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	+	APR 10 03:54 - APR 10 03:54	Pne
PMO	Purple Mtn Obs. Nanking	32.1	118.8			Pnn
KPNO	Kitt Peak Natl Obs	32.0	248.4	+ +	APR 10 02:33 - APR 10 03:54	Pie
MCD	McDonald Obs. 2.7m	30.7	256.0	+ +	APR 10 02:34 - APR 10 03:55	Pie
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			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2025-04-10T03:14:15.370
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : PAL
Location              : Palomar Mt (200")
Latitude (deg)        : 33.35622
E. Longitude (deg)   : 243.13601
Altitude (km)         : 1.706
Gaia source ID        : 3418262388104243968
2Mass ID (if available) : 05040848+2231487
ICRS Star Coord at Epoch: 05h 04m 08.48602s +22:31:48.71683s
RUWE (>1.4 is poor) : 1.09
K magnitude           : 9.002
G magnitude           : 12.474
RP magnitude          : 11.505
BP magnitude          : 13.449
DUPflag              : 0
Distance (au)         : 5.593
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 28.98
Sun-Target sep (deg) : 56.96
Sun-Moon sep (deg)   : 92.18
B (ring opening deg) : 2.47
PA of pole (deg)     : -5.15
Pole direction: RA (deg): 268.05779
Dec (deg): 64.49671
C/A sky separation ("): 3.630
C/A sky separation (km): 14724.3
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
    
```

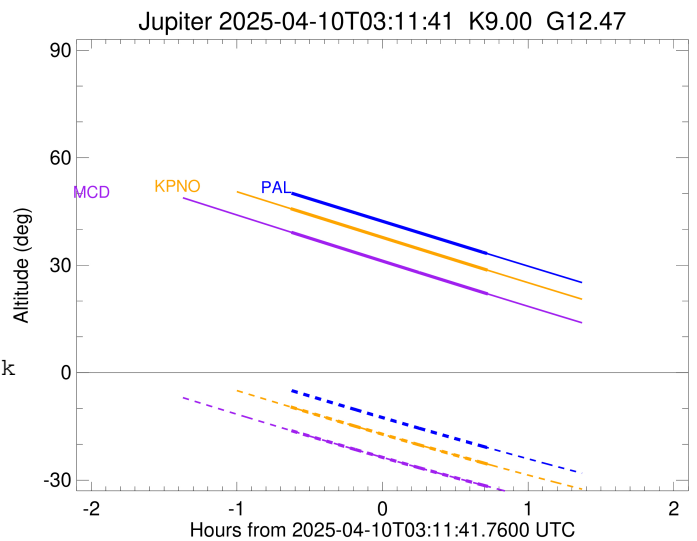
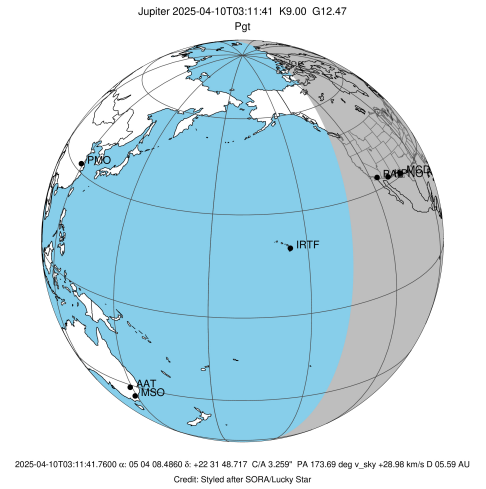


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2025-04-10T02:33:38.920	50.23	-4.88x	71491.6	12.87	14.63
Jupiter	E	2025-04-10T03:54:46.306	33.25	-20.89	71491.7	10.93	12.45

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2025-04-10T03:14:27.060
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : KPNO
Location              : Kitt Peak Natl Obs
Latitude (deg)       : 31.96333
E. Longitude (deg)   : 248.40000
Altitude (km)        : 2.120
Gaia source ID       : 3418262388104243968
2Mass ID (if available) : 05040848+2231487
ICRS Star Coord at Epoch: 05h 04m 08.48602s +22:31:48.71683s
RUWE (>1.4 is poor) : 1.09
K magnitude           : 9.002
G magnitude           : 12.474
RP magnitude          : 11.505
BP magnitude          : 13.449
DUPflag              : 0
Distance (au)        : 5.593
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 28.98
Sun-Target sep (deg) : 56.96
Sun-Moon sep (deg)   : 92.12
B (ring opening deg) : 2.47
PA of pole (deg)     : -5.15
Pole direction: RA (deg): 268.05779
Dec (deg): 64.49671
C/A sky separation (") : 3.626
C/A sky separation (km) : 14709.2
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
    
```

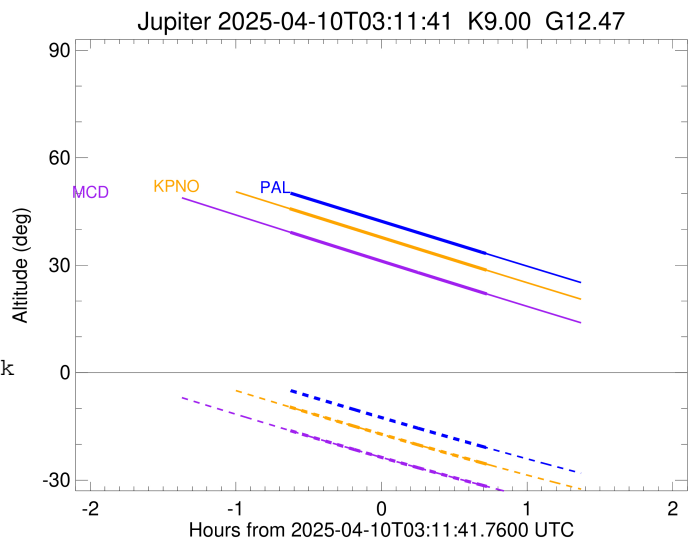
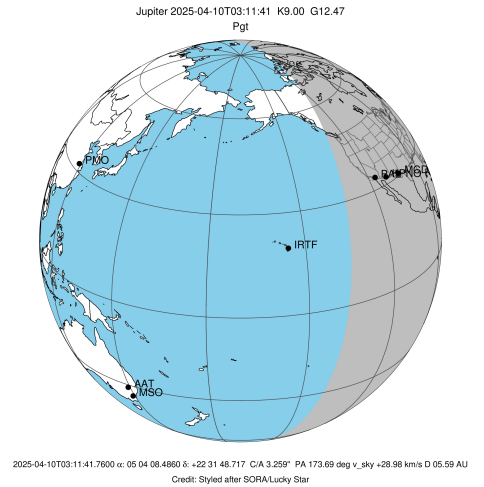


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2025-04-10T02:33:52.466	45.78	-9.57	71491.6	12.83	14.59
Jupiter	E	2025-04-10T03:54:55.748	28.62	-25.51	71491.7	10.94	12.46

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2025-04-10T03:14:40.800
Event type          : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code       : MCD
Location            : McDonald Obs. 2.7m
Latitude (deg)      : 30.67158
E. Longitude (deg)  : 255.97844
Altitude (km)       : 2.075
Gaia source ID      : 3418262388104243968
2Mass ID (if available) : 05040848+2231487
ICRS Star Coord at Epoch: 05h 04m 08.48602s +22:31:48.71683s
RUWE (>1.4 is poor) : 1.09
K magnitude          : 9.002
G magnitude          : 12.474
RP magnitude         : 11.505
BP magnitude         : 13.449
DUPflag             : 0
Distance (au)        : 5.593
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 28.98
Sun-Target sep (deg) : 56.96
Sun-Moon sep (deg)   : 92.04
B (ring opening deg) : 2.47
PA of pole (deg)     : -5.15
Pole direction: RA (deg): 268.05779
Dec (deg): 64.49671
C/A sky separation (") : 3.646
C/A sky separation (km) : 14788.5
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	2025-04-10T02:34:10.200	39.17	-16.20	71491.6	12.86	14.62
Jupiter	E	2025-04-10T03:55:05.074	21.97	-31.76	71491.7	11.03	12.56