

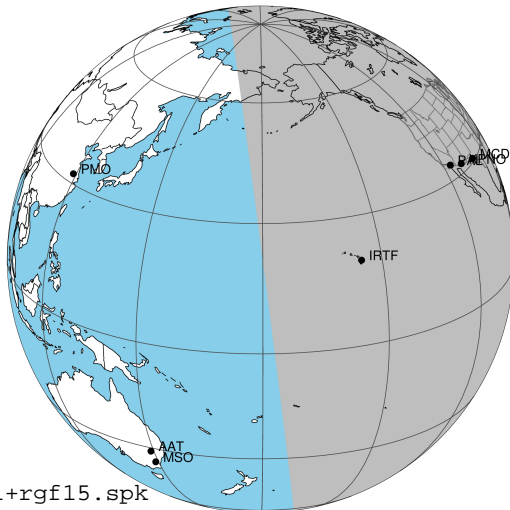
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2025-03-03T06:01:08.160
 Event type : Pt
 : Jupiter occs: topocentric, not geocentric
 : Not a ringed target
 Gaia source ID : 3412956557304965888
 2Mass ID (if available) : 04424092+2150551

Jupiter 2025-03-03T06:01:08 K8.80 G11.88 Pt

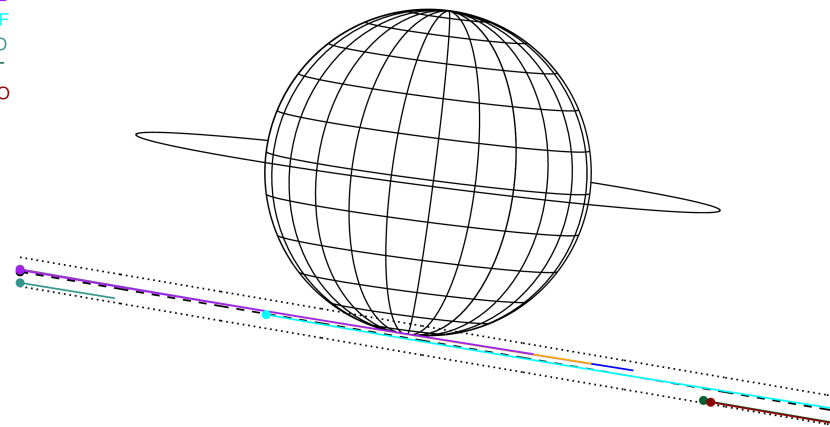
ICRS Star Coord at Epoch: 04h 42m 40.92711s +21:50:55.08799s

RUWE (>1.4 is poor) : 1.31
 K magnitude : 8.801
 G magnitude : 11.881
 RP magnitude : 10.961
 BP magnitude : 12.747
 DUPflag : 0
 Distance (au) : 5.014
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 12.99
 Sun-Target sep (deg) : 89.55
 Sun-Moon sep (deg) : 45.35
 B (ring opening deg) : 2.61
 PA of pole (deg) : -7.40
 Pole direction: RA (deg): 268.05781
 Dec (deg): 64.49672
 C/A sky separation (") : 20.069
 C/A sky separation (km) : 72976.3
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2025-03-03T06:01:08 K8.80 G11.88 Pt



Earth
 PAL
 KPNO
 MCD
 IRTF
 ESO
 AAT
 MSO

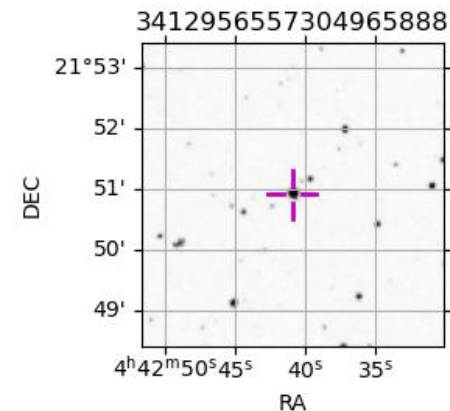


2025-03-03T06:01:08.1600 α: 04 42 40.92711 β: +21 50 55.088 C/A ***** PA 350.32 deg v_sky +12.99 km/s D 05.01 AU

Credit: Styled after SORA/Lucky Star

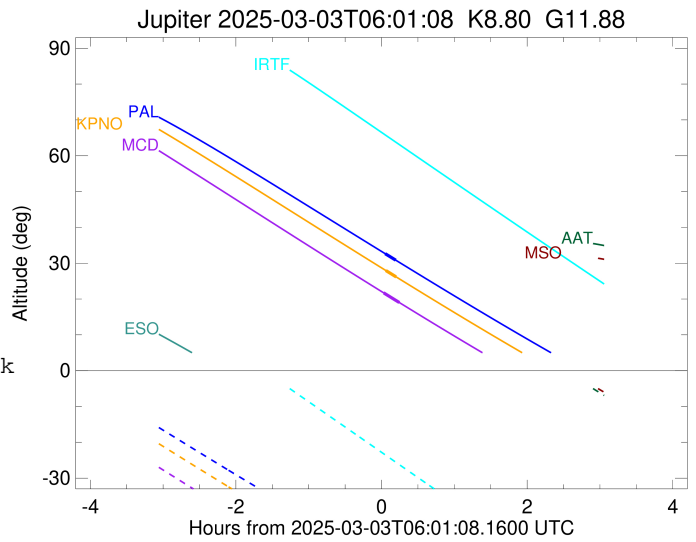
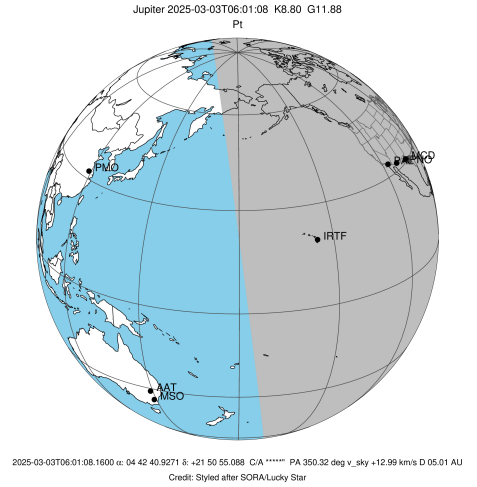
Observable events with sun below -5 deg and altitude above 5 deg

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	+ +	MAR 03 06:04 - MAR 03 06:12	Pie
PMO	Purple Mtn Obs. Nanking	32.1	118.8			Pnn
KPNO	Kitt Peak Natl Obs	32.0	248.4	+ +	MAR 03 06:04 - MAR 03 06:13	Pie
MCD	McDonald Obs. 2.7m	30.7	256.0	+ +	MAR 03 06:03 - MAR 03 06:15	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



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2025-03-03T06:08:31.960
Event type            : Pt
: Jupiter occs: topocentric, not geocentric
: 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        : 3412956557304965888
2Mass ID (if available) : 04424092+2150551
ICRS Star Coord at Epoch: 04h 42m 40.92711s +21:50:55.08799s
RUWE (>1.4 is poor) : 1.31
K magnitude           : 8.801
G magnitude           : 11.881
RP magnitude          : 10.961
BP magnitude          : 12.747
DUPflag              : 0
Distance (au)         : 5.014
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 12.99
Sun-Target sep (deg)  : 89.55
Sun-Moon sep (deg)   : 46.28
B (ring opening deg) : 2.61
PA of pole (deg)     : -7.40
Pole direction: RA (deg): 268.05781
Dec (deg): 64.49672
C/A sky separation (") : 19.637
C/A sky separation (km) : 71405.1
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
    
```

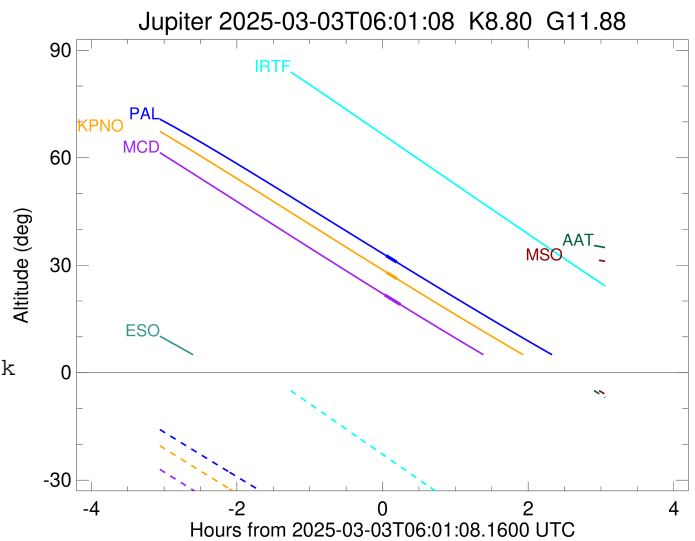
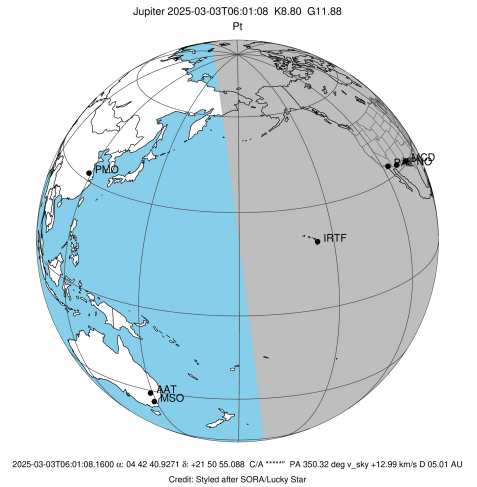


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2025-03-03T06:04:11.222	32.65	-52.41	71482.8	-84.81	-85.42
Jupiter	E	2025-03-03T06:12:52.451	30.84	-53.81	71482.8	-87.26	-87.58

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2025-03-03T06:08:57.820
Event type           : Pt
: Jupiter occs: topocentric, not geocentric
: 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       : 3412956557304965888
2Mass ID (if available) : 04424092+2150551
ICRS Star Coord at Epoch: 04h 42m 40.92711s +21:50:55.08799s
RUWE (>1.4 is poor) : 1.31
K magnitude          : 8.801
G magnitude          : 11.881
RP magnitude         : 10.961
BP magnitude         : 12.747
DUPflag             : 0
Distance (au)        : 5.014
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 12.99
Sun-Target sep (deg) : 89.55
Sun-Moon sep (deg)  : 46.26
B (ring opening deg) : 2.61
PA of pole (deg)    : -7.40
Pole direction: RA (deg): 268.05781
Dec (deg): 64.49672
C/A sky separation (") : 19.637
C/A sky separation (km) : 71407.8
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
    
```

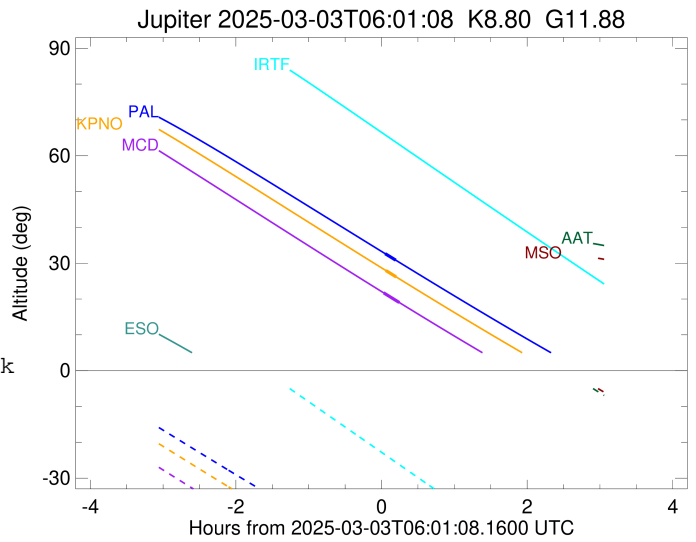
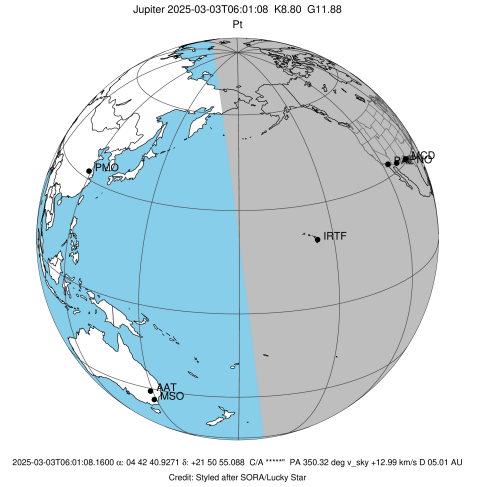


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2025-03-03T06:04:42.243	27.95	-56.75	71482.8	-84.90	-85.50
Jupiter	E	2025-03-03T06:13:13.124	26.17	-58.02	71482.8	-87.26	-87.58

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2025-03-03T06:09:26.040
Event type            : Pt
: Jupiter occs: topocentric, not geocentric
: 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       : 3412956557304965888
2Mass ID (if available) : 04424092+2150551
ICRS Star Coord at Epoch: 04h 42m 40.92711s +21:50:55.08799s
RUWE (>1.4 is poor) : 1.31
K magnitude           : 8.801
G magnitude           : 11.881
RP magnitude          : 10.961
BP magnitude          : 12.747
DUPflag              : 0
Distance (au)        : 5.014
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 12.99
Sun-Target sep (deg) : 89.55
Sun-Moon sep (deg)   : 46.22
B (ring opening deg) : 2.61
PA of pole (deg)     : -7.40
Pole direction: RA (deg): 268.05781
Dec (deg): 64.49672
C/A sky separation (") : 19.611
C/A sky separation (km) : 71311.8
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	2025-03-03T06:03:01.824	21.69	-61.75	71482.8	-83.77	-84.50
Jupiter	E	2025-03-03T06:15:49.757	19.01	-63.24	71482.8	-86.55	-86.95