

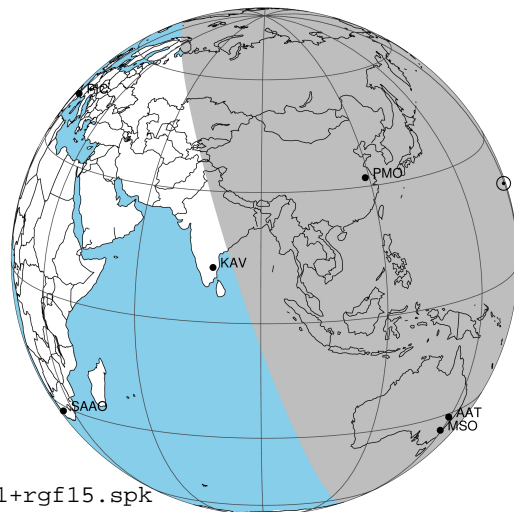
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2036-01-24T12:19:43.900
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 75026344152412800
 2Mass ID (if available) : 02345947+1406159

Jupiter 2036-01-24T12:19:43 K9.57 G11.91 Pgt

ICRS Star Coord at Epoch: 02h 34m 59.46560s +14:06:15.45796s

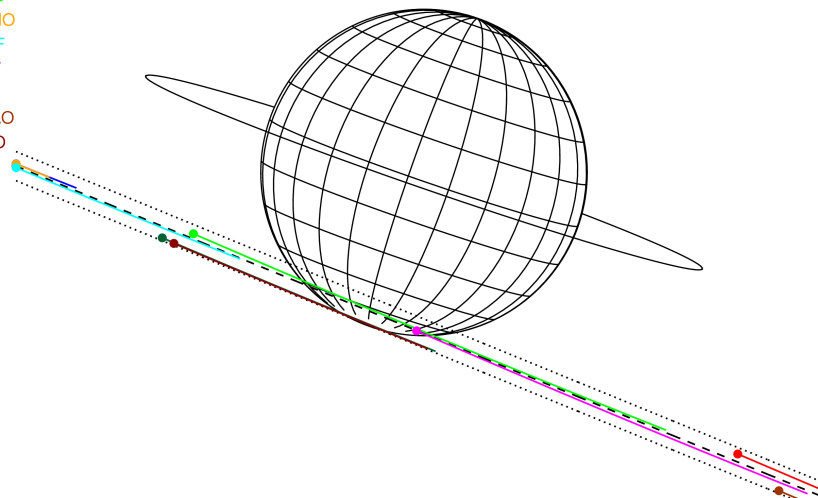
RUWE (>1.4 is poor) : 1.05
 K magnitude : 9.572
 G magnitude : 11.913
 RP magnitude : 11.193
 BP magnitude : 12.489
 DUPflag : 0
 Distance (au) : 4.780
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 9.41
 Sun-Target sep (deg) : 97.26
 Sun-Moon sep (deg) : 139.50
 B (ring opening deg) : 3.00
 PA of pole (deg) : -19.08
 Pole direction: RA (deg): 268.05638
 Dec (deg): 64.49683
 C/A sky separation (") : 18.836
 C/A sky separation (km) : 65298.9
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2036-01-24T12:19:43 K9.57 G11.91
 Pgt



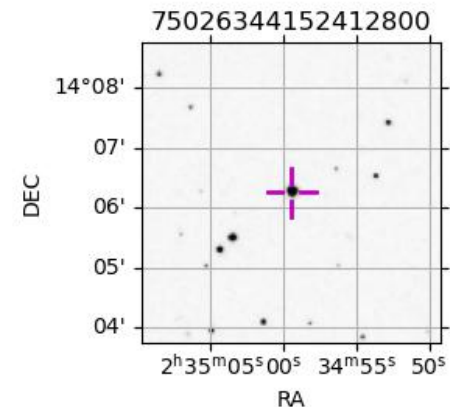
2036-01-24T12:19:43.9000 a: 02 34 59.4656 s: +14 06 15.4579 C/A ***** PA 337.70 deg v_sky + 9.41 km/s D 04.78 AU
 Credit: Styled after SORA/Lucky Star

Earth
 PIC
 PAL
 PMO
 KPNO
 IRTF
 KAV
 AAT
 SAAO
 MSO



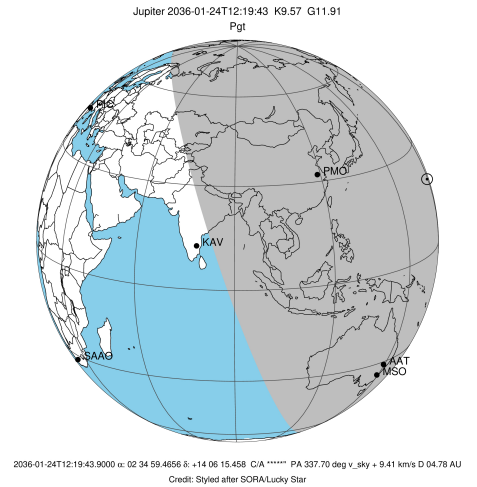
Observable events with sun below -5 deg and altitude above 5 deg

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	+ +	JAN 24 11:26 - JAN 24 13:21	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	+ +	JAN 24 13:10 - JAN 24 13:10	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	+ +	JAN 24 12:05 - JAN 24 12:44	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+ +	JAN 24 12:07 - JAN 24 12:40	Pie

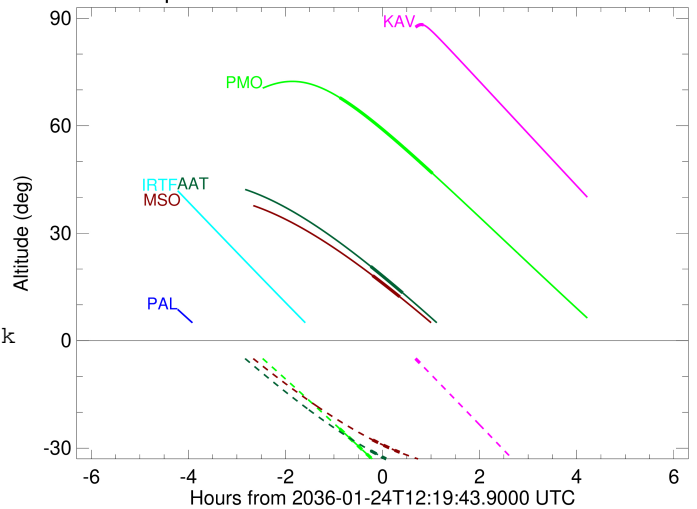


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target                : Jupiter
target radius (km)    : 71492.00
C/A epoch              : 2036-01-24T12:24:22.100
Event type             : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : PMO
Location              : Purple Mtn Obs. Nanking
Latitude (deg)        : 32.06667
E. Longitude (deg)    : 118.82089
Altitude (km)         : 0.364
Gaia source ID        : 75026344152412800
2Mass ID (if available) : 02345947+1406159
ICRS Star Coord at Epoch: 02h 34m 59.46560s +14:06:15.45796s
RUWE (>1.4 is poor)  : 1.05
K magnitude           : 9.572
G magnitude           : 11.913
RP magnitude          : 11.193
BP magnitude          : 12.489
DUPflag              : 0
Distance (au)         : 4.780
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s)  : 9.41
Sun-Target sep (deg)  : 97.26
Sun-Moon sep (deg)    : 139.69
B (ring opening deg)  : 3.00
PA of pole (deg)      : -19.08
Pole direction: RA (deg): 268.05638
Dec (deg): 64.49683
C/A sky separation (") : 18.562
C/A sky separation (km) : 64350.8
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
    
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Jupiter 2036-01-24T12:19:43 K9.57 G11.91

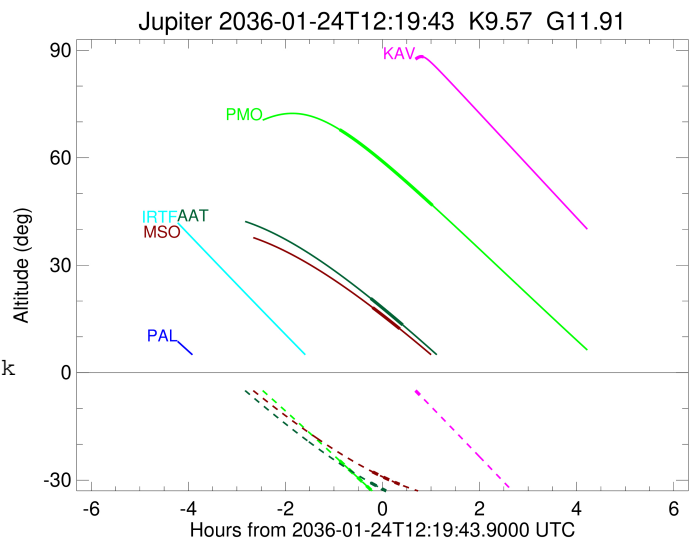
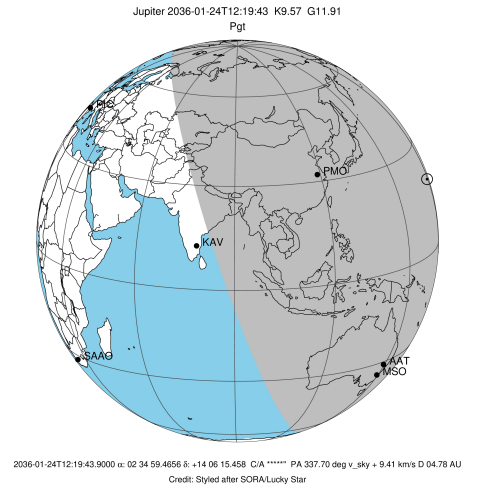


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2036-01-24T11:26:47.886	67.84	-24.57	71482.8	-60.17	-63.22
Jupiter	E	2036-01-24T13:21:35.761	46.68	-48.85	71481.5	-67.62	-70.07

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2036-01-24T12:14:51.010
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        : 75026344152412800
2Mass ID (if available) : 02345947+1406159
ICRS Star Coord at Epoch: 02h 34m 59.46560s +14:06:15.45796s
RUWE (>1.4 is poor) : 1.05
K magnitude            : 9.572
G magnitude           : 11.913
RP magnitude          : 11.193
BP magnitude          : 12.489
DUPflag              : 0
Distance (au)         : 4.780
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 9.41
Sun-Target sep (deg)  : 97.26
Sun-Moon sep (deg)    : 140.21
B (ring opening deg) : 3.00
PA of pole (deg)      : -19.08
Pole direction: RA (deg): 268.05638
Dec (deg): 64.49683
C/A sky separation (") : 18.726
C/A sky separation (km) : 64918.2
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
    
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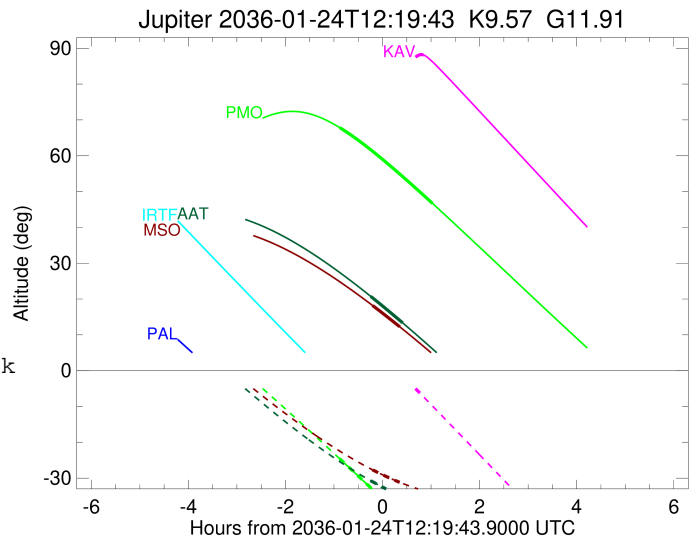
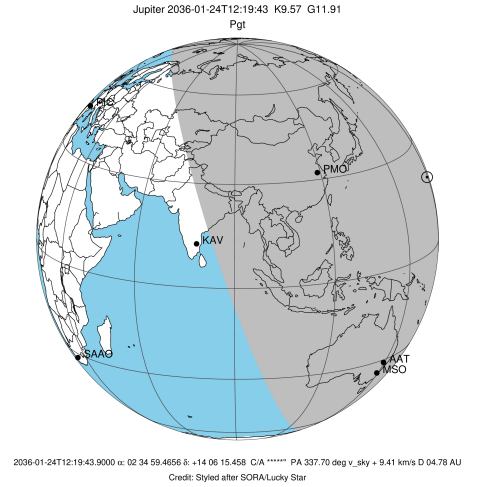


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2036-01-24T11:19:29.118	63.55	17.91x	71482.7	-60.65	-63.67
Jupiter	E	2036-01-24T13:10:20.620	88.12	-7.27	71481.2	-69.41	-71.69

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2036-01-24T12:24:52.940
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       : 75026344152412800
2Mass ID (if available) : 02345947+1406159
ICRS Star Coord at Epoch: 02h 34m 59.46560s +14:06:15.45796s
RUWE (>1.4 is poor) : 1.05
K magnitude           : 9.572
G magnitude           : 11.913
RP magnitude          : 11.193
BP magnitude          : 12.489
DUPflag              : 0
Distance (au)        : 4.780
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 9.41
Sun-Target sep (deg) : 97.26
Sun-Moon sep (deg)   : 139.28
B (ring opening deg) : 3.00
PA of pole (deg)     : -19.08
Pole direction: RA (deg): 268.05638
Dec (deg): 64.49683
C/A sky separation (") : 20.382
C/A sky separation (km) : 70660.0
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
    
```

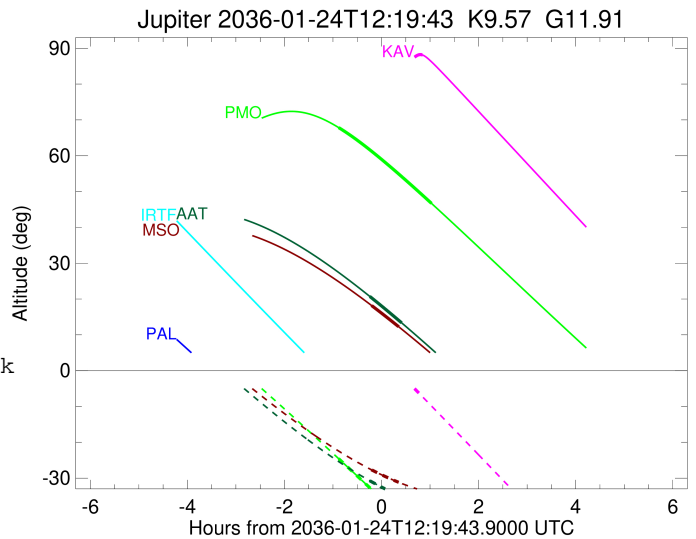
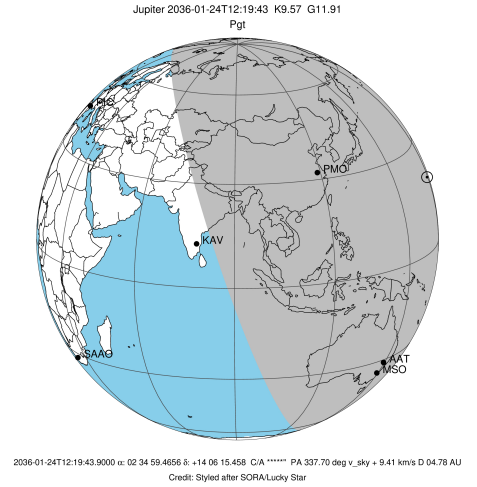


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2036-01-24T12:05:09.652	20.74	-30.72	71480.3	-77.70	-79.12
Jupiter	E	2036-01-24T12:44:31.653	13.37	-35.12	71479.9	-83.71	-84.45

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2036-01-24T12:24:17.040
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       : 75026344152412800
2Mass ID (if available) : 02345947+1406159
ICRS Star Coord at Epoch: 02h 34m 59.46560s +14:06:15.45796s
RUWE (>1.4 is poor) : 1.05
K magnitude           : 9.572
G magnitude           : 11.913
RP magnitude          : 11.193
BP magnitude          : 12.489
DUPflag              : 0
Distance (au)        : 4.780
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 9.41
Sun-Target sep (deg) : 97.26
Sun-Moon sep (deg)   : 139.29
B (ring opening deg) : 3.00
PA of pole (deg)     : -19.08
Pole direction: RA (deg): 268.05638
Dec (deg): 64.49683
C/A sky separation ("): 20.448
C/A sky separation (km): 70887.6
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	2036-01-24T12:07:32.034	18.17	-27.69	71480.2	-78.96	-80.25
Jupiter	E	2036-01-24T12:40:58.793	12.26	-31.16	71479.8	-84.83	-85.44