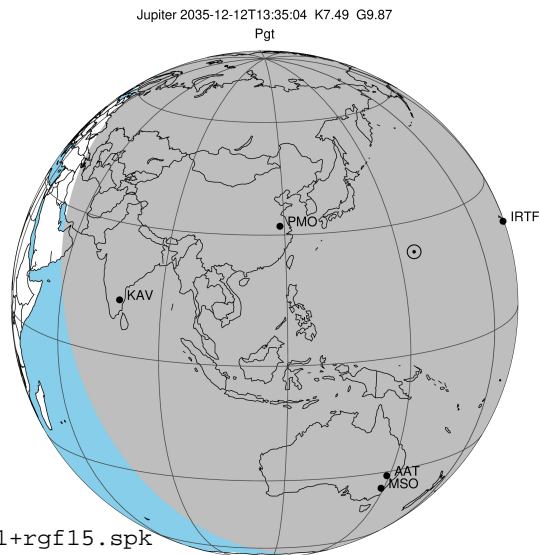


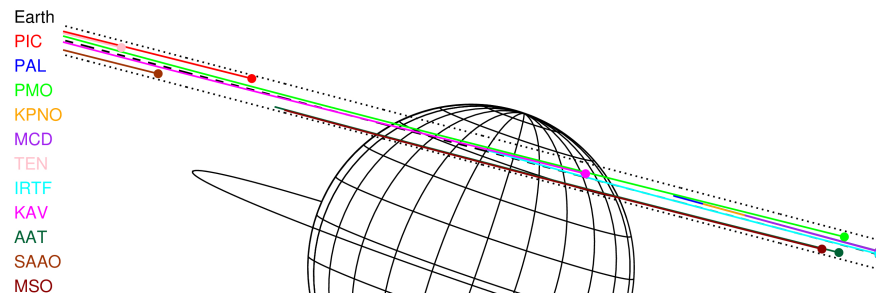
target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2035-12-12T13:35:04.630  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 26980709675660288  
 2Mass ID (if available) : 02362819+1400397

Jupiter 2035-12-12T13:35:04 K7.49 G9.87 Pgt

ICRS Star Coord at Epoch: 02h 36m 28.22534s +14:00:39.88451s  
 RUWE (>1.4 is poor) : 1.27  
 K magnitude : 7.490  
 G magnitude : 9.872  
 RP magnitude : 9.137  
 BP magnitude : 10.469  
 DUPflag : 0  
 Distance (au) : 4.185  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : -9.95  
 Sun-Target sep (deg) : 141.29  
 Sun-Moon sep (deg) : 5.85  
 B (ring opening deg) : 3.20  
 PA of pole (deg) : -18.97  
 Pole direction: RA (deg): 268.05638  
 Dec (deg): 64.49683  
 C/A sky separation (") : 16.785  
 C/A sky separation (km) : 50947.9  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

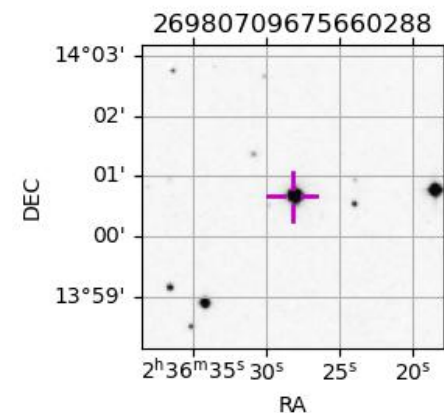


2035-12-12T13:35:04.6300 α: 02 36 28.2253 s: +14 00 39.885 C/A \*\*\*\*\* PA 165.26 deg v\_sky - 9.95 km/s D 04.19 AU  
 Credit: Styled after SORA/Lucky Star



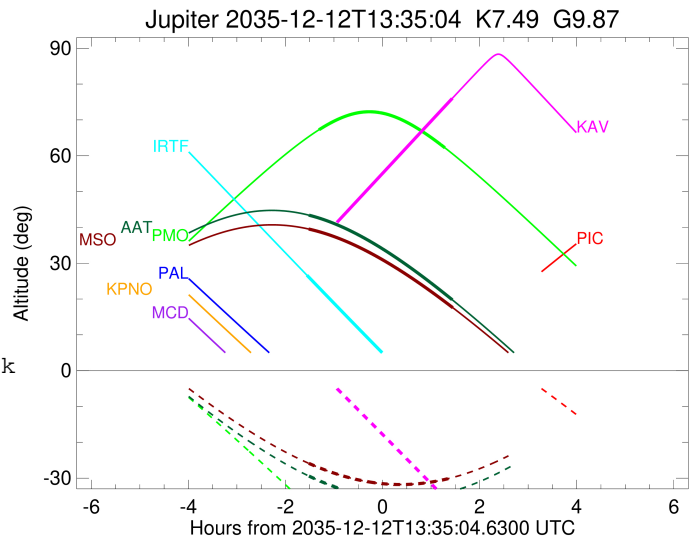
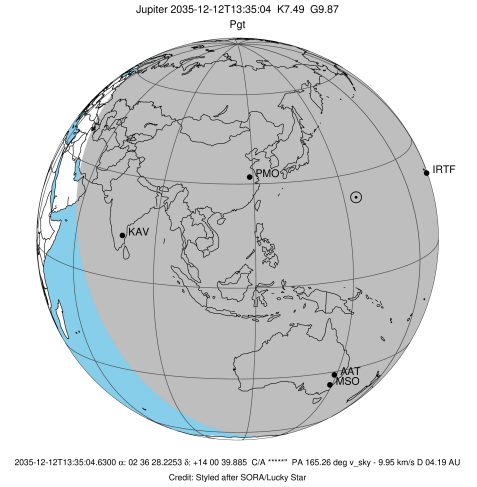
Observable events with sun below -5 deg and altitude above 5 deg

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			Pnn
PMO	Purple Mtn Obs. Nanking	32.1	118.8	+ +	DEC 12 12:16 - DEC 12 14:52	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	+	DEC 12 12:01 - DEC 12 12:01	Pin
KAV	Kavalur Observatory	12.6	78.8	+	DEC 12 15:01 - DEC 12 15:01	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	+ +	DEC 12 12:04 - DEC 12 15:01	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+ +	DEC 12 12:03 - DEC 12 15:02	Pie



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2035-12-12T13:34:27.020
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       : 26980709675660288
2Mass ID (if available) : 02362819+1400397
ICRS Star Coord at Epoch: 02h 36m 28.22534s +14:00:39.88451s
RUWE (>1.4 is poor) : 1.27
K magnitude           : 7.490
G magnitude           : 9.872
RP magnitude         : 9.137
BP magnitude         : 10.469
DUPflag              : 0
Distance (au)        : 4.185
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -9.95
Sun-Target sep (deg) : 141.29
Sun-Moon sep (deg)   : 6.01
B (ring opening deg) : 3.20
PA of pole (deg)     : -18.97
Pole direction: RA (deg): 268.05638
Dec (deg): 64.49683
C/A sky separation ("): 17.375
C/A sky separation (km): 52737.5
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
    
```

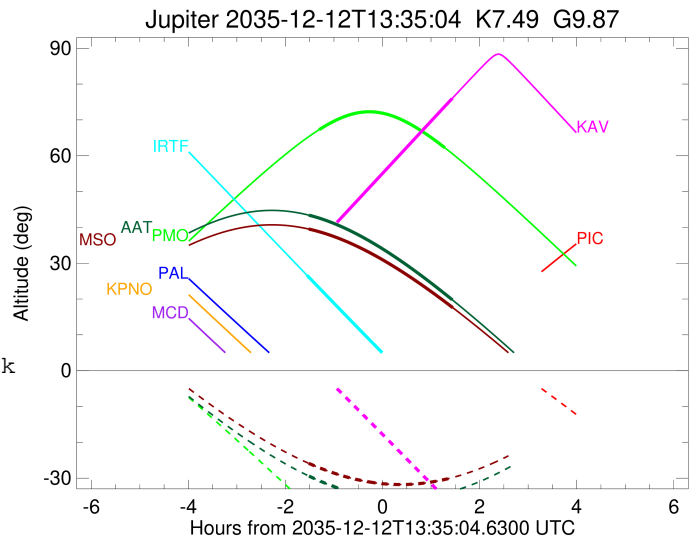
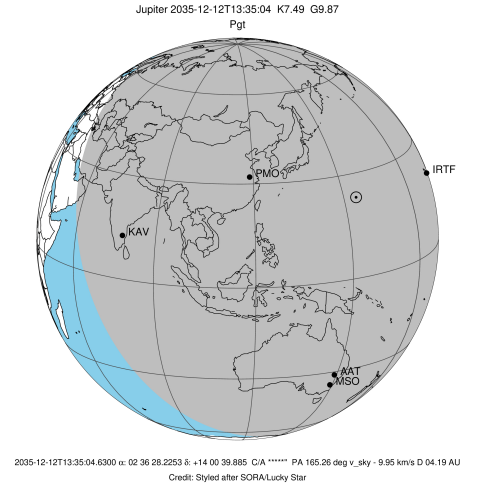


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2035-12-12T12:16:44.834	67.27	-40.61	71483.2	52.25	55.75
Jupiter	E	2035-12-12T14:52:16.205	62.20	-72.94	71485.5	42.81	46.53

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2035-12-12T13:23:40.020
Event type          : Pgt
                    : Jupiter occs: geocentric, topocentric
                    : Not a ringed target
Observer code       : IRTF
Location            : Mauna Kea/IRTF
Latitude (deg)      : 19.82622
E. Longitude (deg)  : 204.52800
Altitude (km)       : 4.168
Gaia source ID      : 26980709675660288
2Mass ID (if available) : 02362819+1400397
ICRS Star Coord at Epoch: 02h 36m 28.22534s +14:00:39.88451s
RUWE (>1.4 is poor) : 1.27
K magnitude          : 7.490
G magnitude          : 9.872
RP magnitude         : 9.137
BP magnitude         : 10.469
DUPflag             : 0
Distance (au)       : 4.185
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -9.95
Sun-Target sep (deg) : 141.29
Sun-Moon sep (deg)  : 5.14
B (ring opening deg) : 3.20
PA of pole (deg)    : -18.97
Pole direction: RA (deg): 268.05638
Dec (deg): 64.49683
C/A sky separation (") : 16.928
C/A sky separation (km) : 51379.2
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
    
```

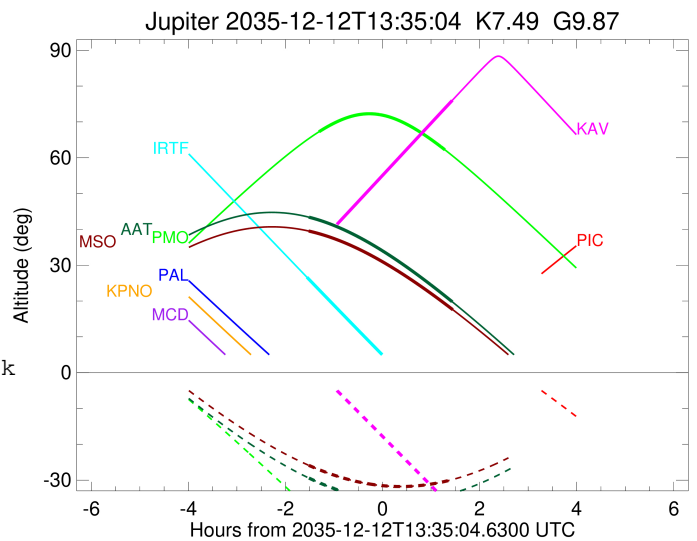
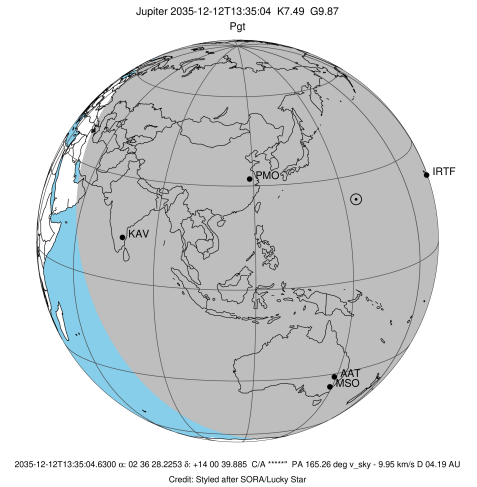


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2035-12-12T12:01:43.511	26.63	-65.07	71483.8	49.65	53.24
Jupiter	E	2035-12-12T14:47:02.538	-11.37x	-27.27	71485.6	42.31	46.03

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2035-12-12T13:42:01.520
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       : 26980709675660288
2Mass ID (if available) : 02362819+1400397
ICRS Star Coord at Epoch: 02h 36m 28.22534s +14:00:39.88451s
RUWE (>1.4 is poor) : 1.27
K magnitude          : 7.490
G magnitude          : 9.872
RP magnitude         : 9.137
BP magnitude         : 10.469
DUPflag             : 0
Distance (au)        : 4.185
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -9.95
Sun-Target sep (deg) : 141.29
Sun-Moon sep (deg)   : 6.47
B (ring opening deg) : 3.20
PA of pole (deg)     : -18.97
Pole direction: RA (deg): 268.05638
Dec (deg): 64.49683
C/A sky separation (") : 17.102
C/A sky separation (km) : 51910.5
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
    
```

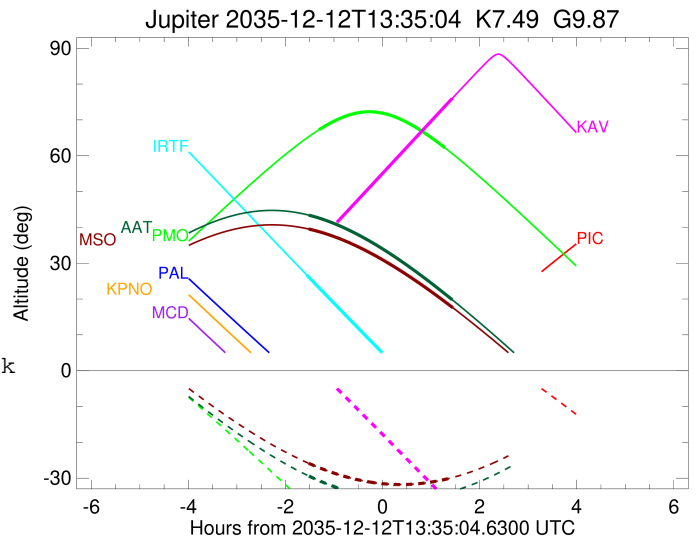
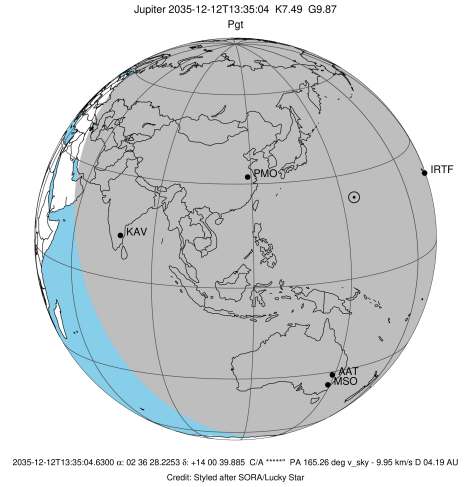


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2035-12-12T12:22:08.610	37.35	-1.25x	71483.4	51.56	55.09
Jupiter	E	2035-12-12T15:01:17.061	75.99	-37.56	71485.8	41.43	45.15

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2035-12-12T13:32:14.100
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      : 26980709675660288
2Mass ID (if available) : 02362819+1400397
ICRS Star Coord at Epoch: 02h 36m 28.22534s +14:00:39.88451s
RUWE (>1.4 is poor) : 1.27
K magnitude          : 7.490
G magnitude          : 9.872
RP magnitude         : 9.137
BP magnitude         : 10.469
DUPflag             : 0
Distance (au)       : 4.185
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -9.95
Sun-Target sep (deg) : 141.29
Sun-Moon sep (deg)  : 5.23
B (ring opening deg) : 3.20
PA of pole (deg)    : -18.97
Pole direction: RA (deg): 268.05638
Dec (deg): 64.49683
C/A sky separation ("): 15.162
C/A sky separation (km): 46020.5
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
    
```

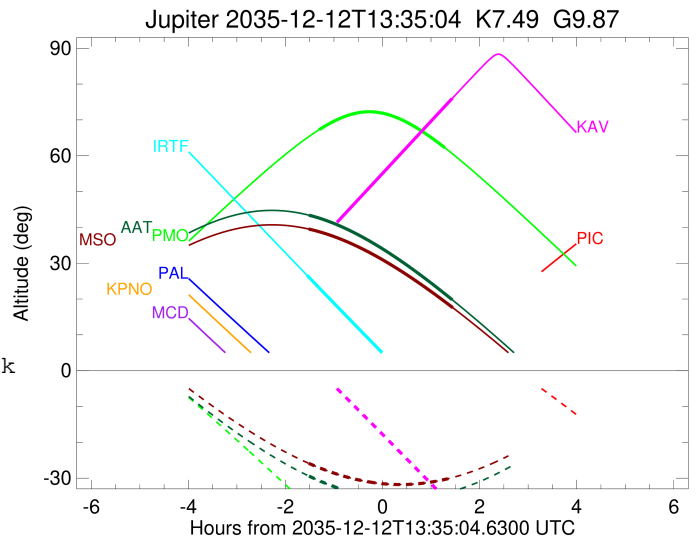
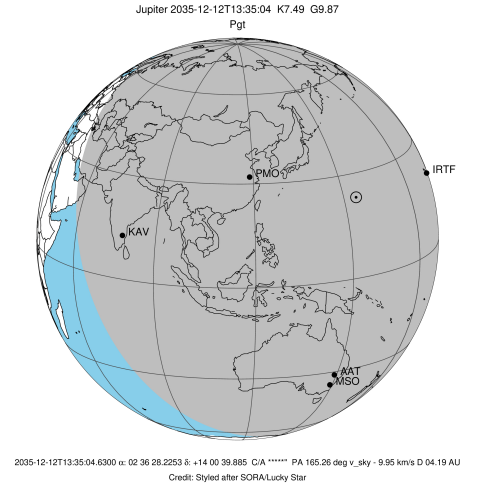


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2035-12-12T12:04:05.536	43.40	-29.41	71485.1	44.52	48.23
Jupiter	E	2035-12-12T15:01:10.729	19.81	-33.69	71487.2	35.74	39.37

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2035-12-12T13:32:34.370
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        : 26980709675660288
2Mass ID (if available) : 02362819+1400397
ICRS Star Coord at Epoch: 02h 36m 28.22534s +14:00:39.88451s
RUWE (>1.4 is poor) : 1.27
K magnitude           : 7.490
G magnitude           : 9.872
RP magnitude          : 9.137
BP magnitude          : 10.469
DUPflag              : 0
Distance (au)         : 4.185
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -9.95
Sun-Target sep (deg)  : 141.29
Sun-Moon sep (deg)    : 5.23
B (ring opening deg) : 3.20
PA of pole (deg)      : -18.97
Pole direction: RA (deg): 268.05638
Dec (deg): 64.49683
C/A sky separation (") : 15.073
C/A sky separation (km) : 45751.9
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
    
```



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	2035-12-12T12:03:55.123	39.53	-25.86	71485.1	44.23	47.94
Jupiter	E	2035-12-12T15:02:00.622	17.57	-29.81	71487.3	35.47	39.08