

target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2035-10-23T16:36:58.490  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 34010265469281152  
 2Mass ID (if available) : 03002929+1540375

Jupiter 2035-10-23T16:36:58 K9.52 G11.10 Pgt

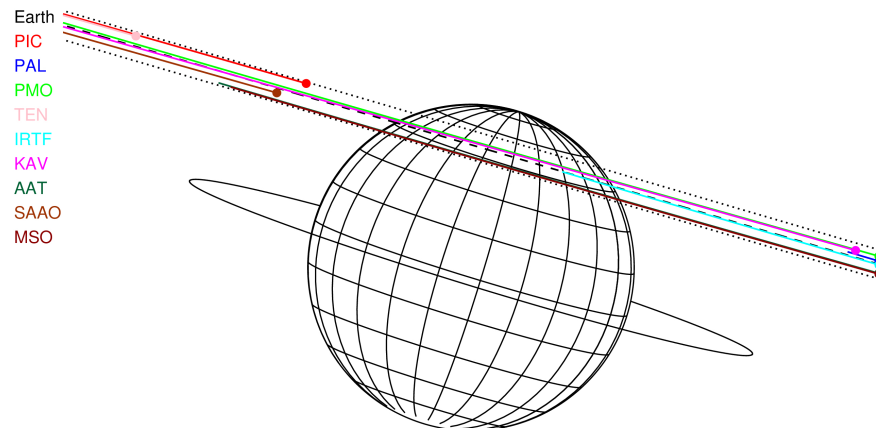
ICRS Star Coord at Epoch: 03h 00m 29.28802s +15:40:37.45862s

RUWE (>1.4 is poor) : 1.02  
 K magnitude : 9.524  
 G magnitude : 11.105  
 RP magnitude : 10.560  
 BP magnitude : 11.475  
 DUPflag : 1  
 Distance (au) : 4.025  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : -15.09  
 Sun-Target sep (deg) : 162.36  
 Sun-Moon sep (deg) : 70.00  
 B (ring opening deg) : 3.42  
 PA of pole (deg) : -17.09  
 Pole direction: RA (deg): 268.05639  
 Dec (deg): 64.49682  
 C/A sky separation (") : 17.676  
 C/A sky separation (km) : 51596.2  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

Jupiter 2035-10-23T16:36:58 K9.52 G11.10  
 Pgt

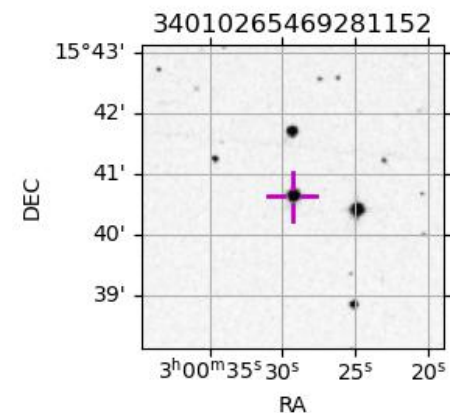


2035-10-23T16:36:58.4900 a: 03 00 29.2880 s: +15 40 37.4586 C/A \*\*\*\*\* PA 163.66 deg v\_sky -15.09 km/s D 04.02 AU  
 Credit: Styled after SORA/Lucky Star



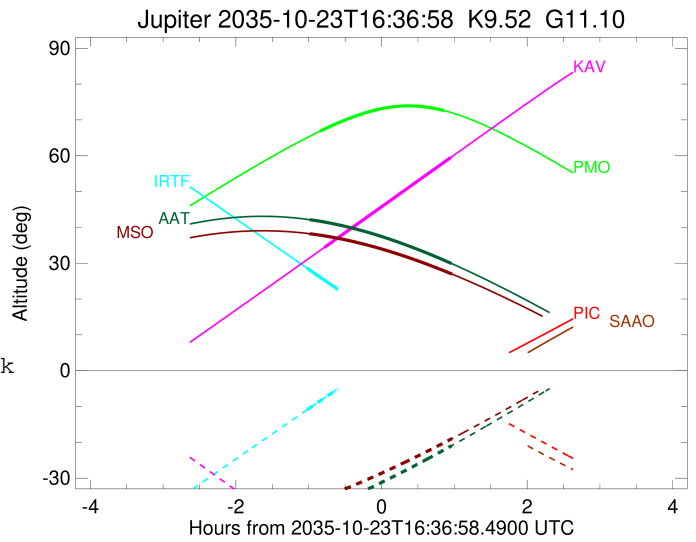
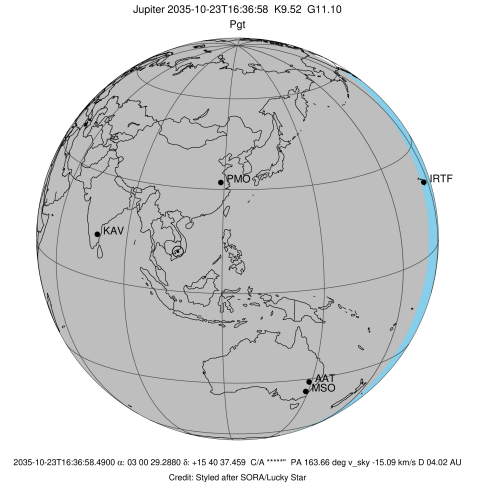
Observable events with sun below -5 deg and altitude above 5 deg

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	+ +	OCT 23 15:46 - OCT 23 17:28	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	+	OCT 23 15:35 - OCT 23 15:35	Pin
KAV	Kavalur Observatory	12.6	78.8	+ +	OCT 23 15:49 - OCT 23 17:34	Pie
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	+ +	OCT 23 15:37 - OCT 23 17:34	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+ +	OCT 23 15:37 - OCT 23 17:35	Pie



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2035-10-23T16:37:26.120
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       : 34010265469281152
2Mass ID (if available) : 03002929+1540375
ICRS Star Coord at Epoch: 03h 00m 29.28802s +15:40:37.45862s
RUWE (>1.4 is poor) : 1.02
K magnitude          : 9.524
G magnitude          : 11.105
RP magnitude         : 10.560
BP magnitude         : 11.475
DUPflag             : 1
Distance (au)        : 4.025
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -15.09
Sun-Target sep (deg) : 162.36
Sun-Moon sep (deg)   : 70.90
B (ring opening deg) : 3.42
PA of pole (deg)     : -17.09
Pole direction: RA (deg): 268.05639
Dec (deg): 64.49682
C/A sky separation ("): 18.309
C/A sky separation (km): 53443.7
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
    
```

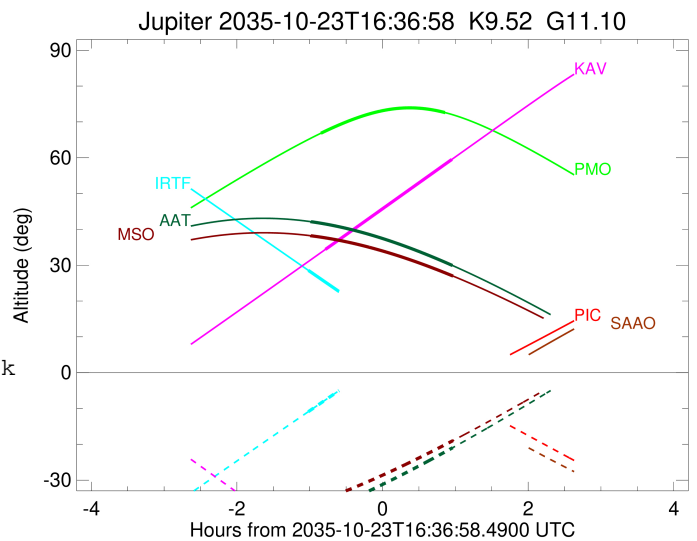
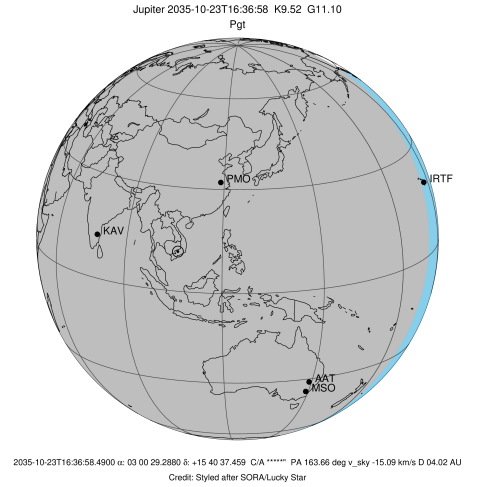


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2035-10-23T15:46:15.580	66.84	-69.59	71482.7	49.49	53.10
Jupiter	E	2035-10-23T17:28:32.243	72.59	-59.34	71483.4	47.13	50.79

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2035-10-23T16:29:52.300
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       : 34010265469281152
2Mass ID (if available) : 03002929+1540375
ICRS Star Coord at Epoch: 03h 00m 29.28802s +15:40:37.45862s
RUWE (>1.4 is poor) : 1.02
K magnitude           : 9.524
G magnitude           : 11.105
RP magnitude          : 10.560
BP magnitude          : 11.475
DUPflag              : 1
Distance (au)         : 4.025
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -15.09
Sun-Target sep (deg)  : 162.36
Sun-Moon sep (deg)   : 69.91
B (ring opening deg) : 3.42
PA of pole (deg)     : -17.09
Pole direction: RA (deg): 268.05639
Dec (deg): 64.49682
C/A sky separation (") : 17.686
C/A sky separation (km) : 51626.2
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
    
```

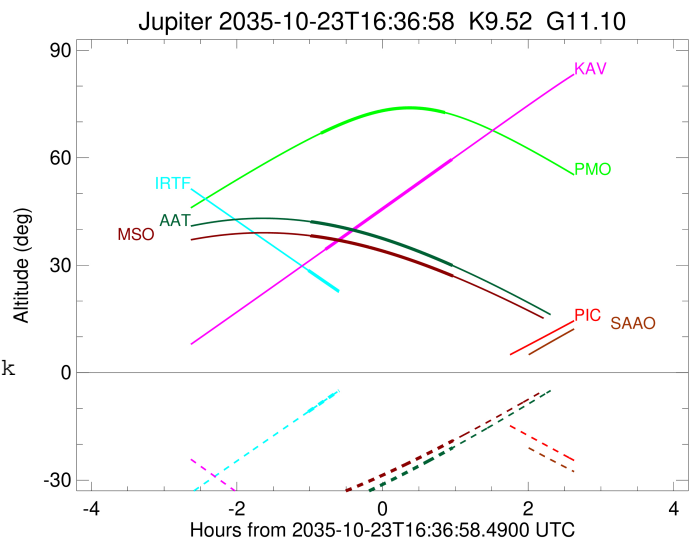
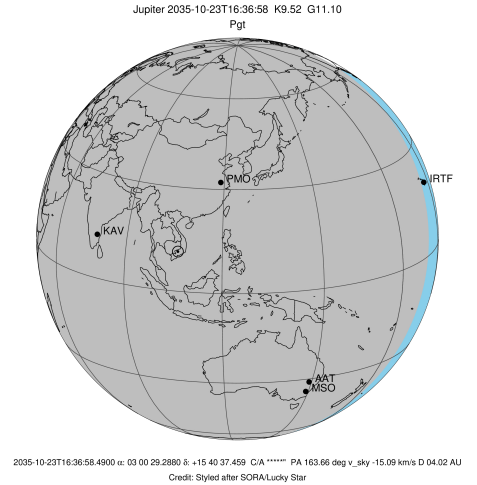


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2035-10-23T15:35:53.862	28.55	-10.88	71483.5	46.61	50.29
Jupiter	E	2035-10-23T17:24:10.138	3.52x	13.92x	71483.8	45.77	49.47

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2035-10-23T16:42:12.770
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      : 34010265469281152
2Mass ID (if available) : 03002929+1540375
ICRS Star Coord at Epoch: 03h 00m 29.28802s +15:40:37.45862s
RUWE (>1.4 is poor) : 1.02
K magnitude          : 9.524
G magnitude          : 11.105
RP magnitude        : 10.560
BP magnitude        : 11.475
DUPflag             : 1
Distance (au)       : 4.025
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : -15.09
Sun-Target sep (deg) : 162.36
Sun-Moon sep (deg)  : 70.89
B (ring opening deg) : 3.42
PA of pole (deg)    : -17.09
Pole direction: RA (deg): 268.05639
Dec (deg): 64.49682
C/A sky separation ("): 18.130
C/A sky separation (km): 52920.1
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
    
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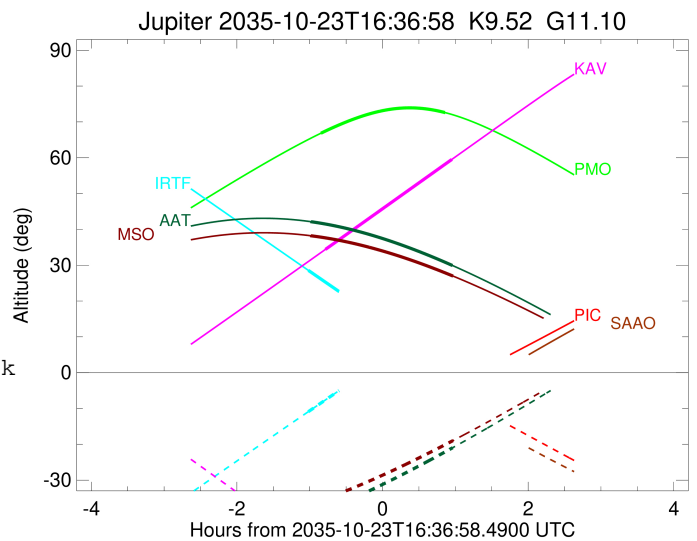
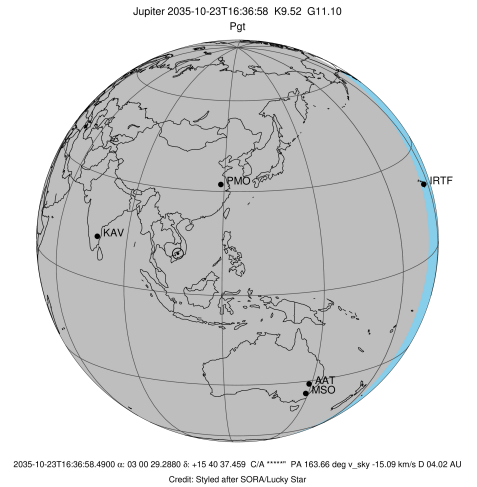


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2035-10-23T15:49:58.783	34.42	-51.15	71482.8	49.03	52.65
Jupiter	E	2035-10-23T17:34:09.781	59.53	-76.57	71483.6	46.26	49.94

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2035-10-23T16:36:10.000
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        : 34010265469281152
2Mass ID (if available) : 03002929+1540375
ICRS Star Coord at Epoch: 03h 00m 29.28802s +15:40:37.45862s
RUWE (>1.4 is poor) : 1.02
K magnitude           : 9.524
G magnitude           : 11.105
RP magnitude          : 10.560
BP magnitude          : 11.475
DUPflag              : 1
Distance (au)         : 4.025
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -15.09
Sun-Target sep (deg)  : 162.36
Sun-Moon sep (deg)    : 70.51
B (ring opening deg) : 3.42
PA of pole (deg)      : -17.09
Pole direction: RA (deg): 268.05639
Dec (deg): 64.49682
C/A sky separation (") : 15.973
C/A sky separation (km) : 46624.3
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
    
```

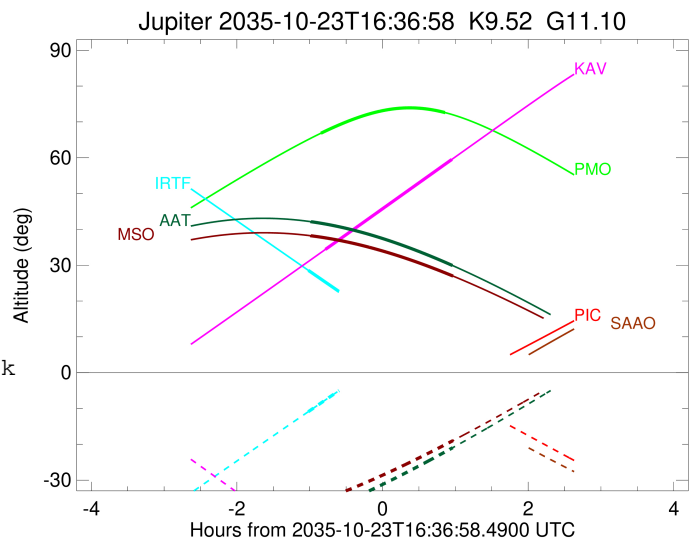
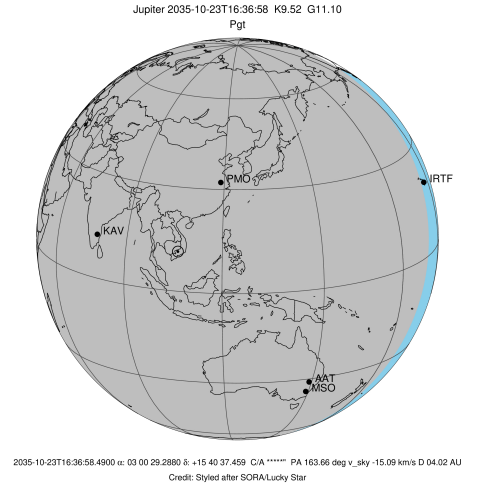


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2035-10-23T15:37:47.956	42.15	-39.92	71484.9	41.65	45.36
Jupiter	E	2035-10-23T17:34:37.907	29.91	-20.98	71485.4	39.73	43.43

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2035-10-23T16:36:21.500
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       : 34010265469281152
2Mass ID (if available) : 03002929+1540375
ICRS Star Coord at Epoch: 03h 00m 29.28802s +15:40:37.45862s
RUWE (>1.4 is poor) : 1.02
K magnitude           : 9.524
G magnitude           : 11.105
RP magnitude         : 10.560
BP magnitude         : 11.475
DUPflag              : 1
Distance (au)        : 4.025
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -15.09
Sun-Target sep (deg) : 162.36
Sun-Moon sep (deg)   : 70.47
B (ring opening deg) : 3.42
PA of pole (deg)     : -17.09
Pole direction: RA (deg): 268.05639
Dec (deg): 64.49682
C/A sky separation ("): 15.884
C/A sky separation (km): 46365.5
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	2035-10-23T15:37:41.135	38.22	-36.66	71485.0	41.36	45.08
Jupiter	E	2035-10-23T17:35:07.457	26.96	-18.95	71485.5	39.46	43.16