

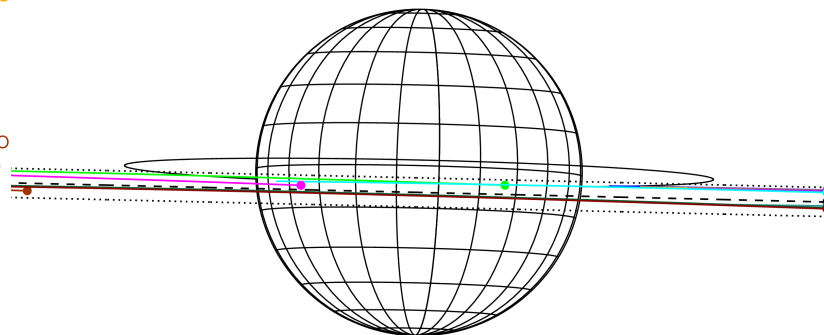
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-05-25T14:10:14.660
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4069584729615940864
 2Mass ID (if available) : 18045033-2302238

Jupiter 2043-05-25T14:10:14 K6.92 G13.02 Pgt

ICRS Star Coord at Epoch: 18h 04m 50.34199s -23:02:23.99797s
 RUWE (>1.4 is poor) : 1.17
 K magnitude : 6.919
 G magnitude : 13.025
 RP magnitude : 11.579
 BP magnitude : 15.850
 DUPflag : 0
 Distance (au) : 4.356
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : -13.07
 Sun-Target sep (deg) : 152.57
 Sun-Moon sep (deg) : 11.09
 B (ring opening deg) : -2.43
 PA of pole (deg) : -1.36
 Pole direction: RA (deg): 268.05667
 Dec (deg): 64.49732
 C/A sky separation (") : 2.764
 C/A sky separation (km) : 8731.2
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk



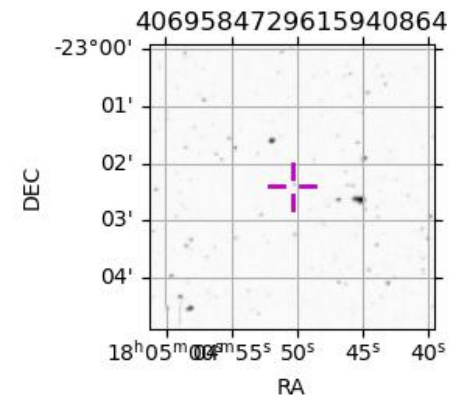
Earth
 PAL
 PMO
 KPNO
 MCD
 IRTF
 KAV
 ESO
 AAT
 SAAO
 MSO



2043-05-25T14:10:14.6600 at: 18 04 50.3420 s: -23 02 23.998 C/A 2.775" PA 358.66 deg v_sky -13.07 km/s D 04.36 AU
 Credit: Styled after SORA/Lucky Star

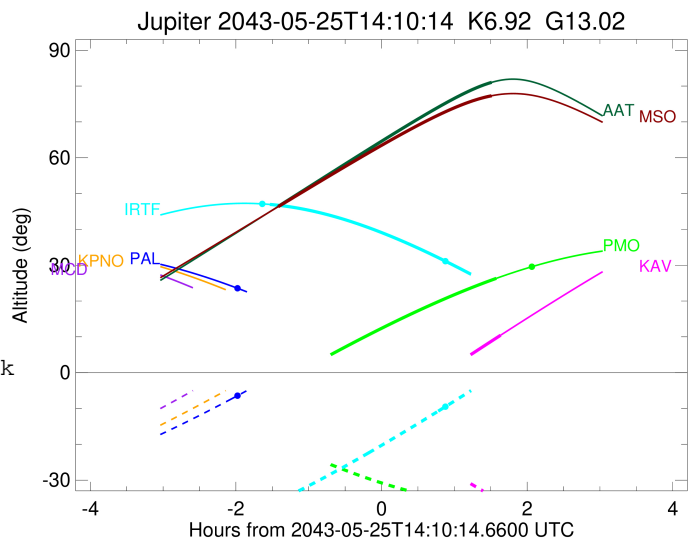
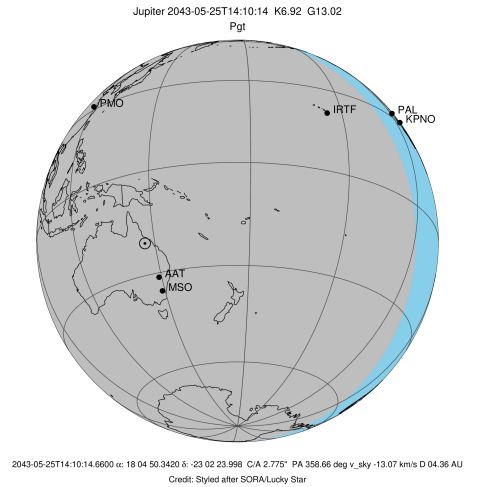
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	OEncode
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	+	MAY 25 15:44 - MAY 25 15:44	Pne
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	+	MAY 25 12:38 - MAY 25 12:38	Pin
KAV	Kavalur Observatory	12.6	78.8	+	MAY 25 15:48 - MAY 25 15:48	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	+	MAY 25 12:45 - MAY 25 15:41	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+	MAY 25 12:45 - MAY 25 15:40	Pie



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-05-25T14:15:51.430
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      : 4069584729615940864
2Mass ID (if available) : 18045033-2302238
ICRS Star Coord at Epoch: 18h 04m 50.34199s -23:02:23.99797s
RUWE (>1.4 is poor) : 1.17
K magnitude          : 6.919
G magnitude          : 13.025
RP magnitude         : 11.579
BP magnitude         : 15.850
DUPflag             : 0
Distance (au)       : 4.356
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -13.07
Sun-Target sep (deg) : 152.57
Sun-Moon sep (deg)  : 10.90
B (ring opening deg) : -2.43
PA of pole (deg)    : -1.36
Pole direction: RA (deg): 268.05667
Dec (deg): 64.49732
C/A sky separation (") : 1.369
C/A sky separation (km) : 4324.9
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
    
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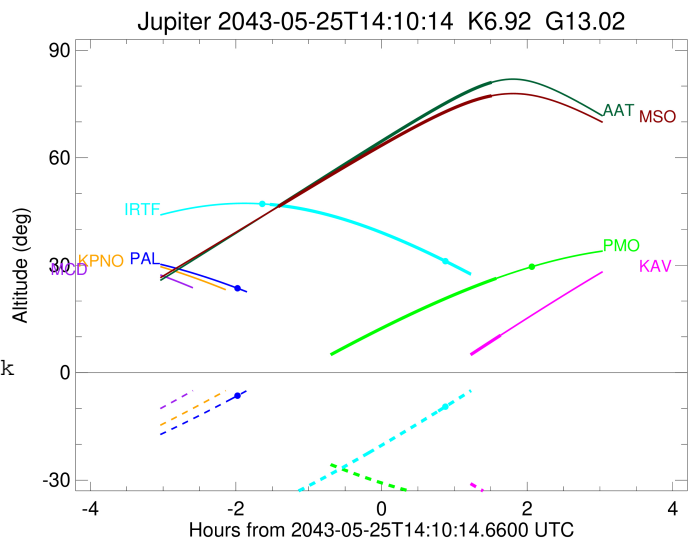
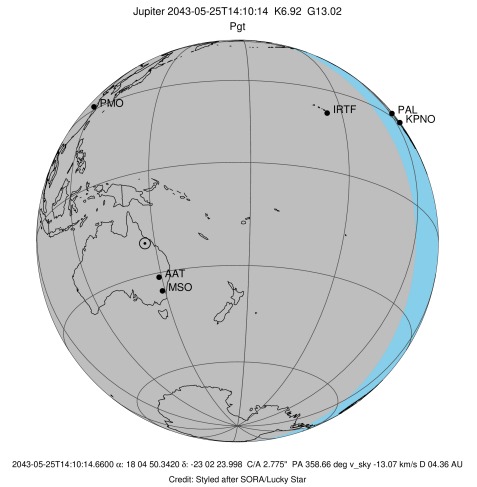


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-05-25T12:45:55.413	-2.96x	-19.37	71492.0	-4.05	-4.62
Jupiter	E	2043-05-25T15:44:51.082	26.32	-36.95	71492.0	-3.05	-3.49

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-05-25T14:06:32.360
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      : 4069584729615940864
2Mass ID (if available) : 18045033-2302238
ICRS Star Coord at Epoch: 18h 04m 50.34199s -23:02:23.99797s
RUWE (>1.4 is poor) : 1.17
K magnitude          : 6.919
G magnitude          : 13.025
RP magnitude         : 11.579
BP magnitude         : 15.850
DUPflag             : 0
Distance (au)        : 4.356
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -13.07
Sun-Target sep (deg) : 152.57
Sun-Moon sep (deg)  : 11.83
B (ring opening deg) : -2.43
PA of pole (deg)    : -1.36
Pole direction: RA (deg): 268.05667
Dec (deg): 64.49732
C/A sky separation (") : 1.502
C/A sky separation (km) : 4743.7
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
    
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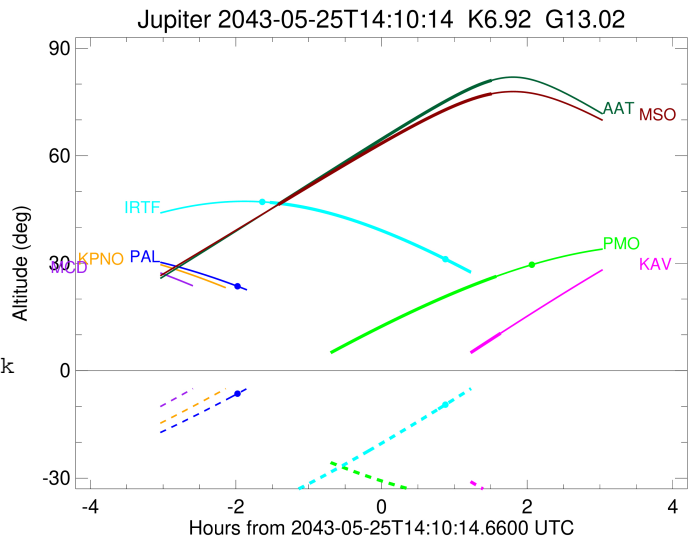
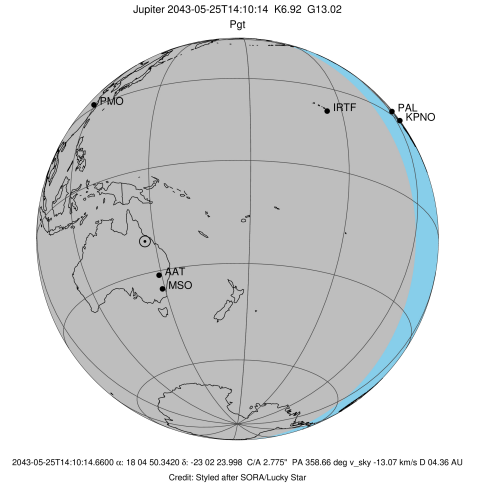


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-05-25T12:38:22.351	46.95	-36.89	71492.0	-3.54	-4.04
Jupiter	E	2043-05-25T15:35:07.842	25.45	-2.62x	71492.0	-4.31	-4.93

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-05-25T14:18:14.240
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        : 4069584729615940864
2Mass ID (if available) : 18045033-2302238
ICRS Star Coord at Epoch: 18h 04m 50.34199s -23:02:23.99797s
RUWE (>1.4 is poor) : 1.17
K magnitude           : 6.919
G magnitude           : 13.025
RP magnitude          : 11.579
BP magnitude          : 15.850
DUPflag              : 0
Distance (au)         : 4.356
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -13.07
Sun-Target sep (deg)  : 152.57
Sun-Moon sep (deg)    : 10.39
B (ring opening deg) : -2.43
PA of pole (deg)      : -1.36
Pole direction: RA (deg): 268.05667
Dec (deg): 64.49732
C/A sky separation (") : 2.380
C/A sky separation (km) : 7517.6
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
    
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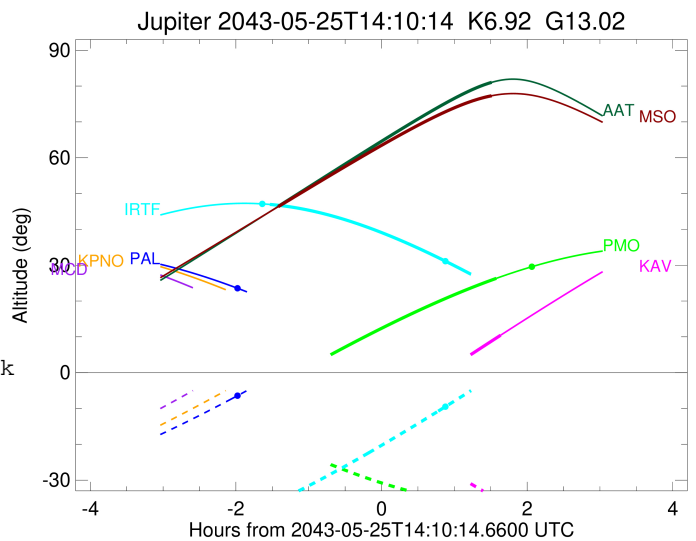
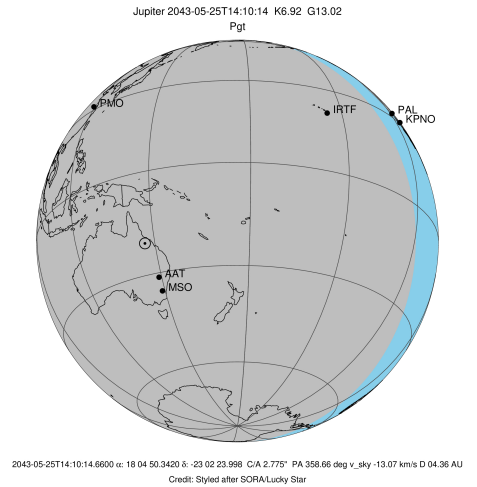


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-05-25T12:46:41.094	-30.75x	3.28x	71491.9	-6.78	-7.74
Jupiter	E	2043-05-25T15:48:26.780	10.46	-35.87	71491.9	-5.29	-6.04

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-05-25T14:13:25.610
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      : 4069584729615940864
2Mass ID (if available) : 18045033-2302238
ICRS Star Coord at Epoch: 18h 04m 50.34199s -23:02:23.99797s
RUWE (>1.4 is poor) : 1.17
K magnitude          : 6.919
G magnitude          : 13.025
RP magnitude         : 11.579
BP magnitude         : 15.850
DUPflag             : 0
Distance (au)       : 4.356
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -13.07
Sun-Target sep (deg) : 152.57
Sun-Moon sep (deg)  : 10.87
B (ring opening deg) : -2.43
PA of pole (deg)    : -1.36
Pole direction: RA (deg): 268.05667
Dec (deg): 64.49732
C/A sky separation ("): 3.096
C/A sky separation (km): 9779.8
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
    
```

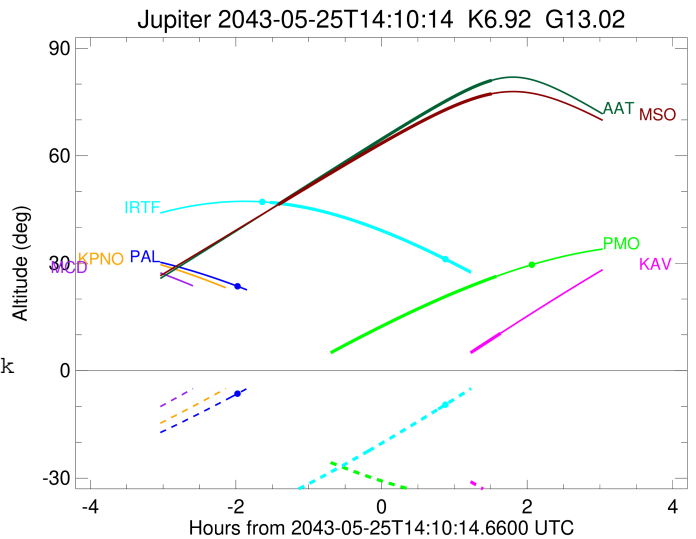
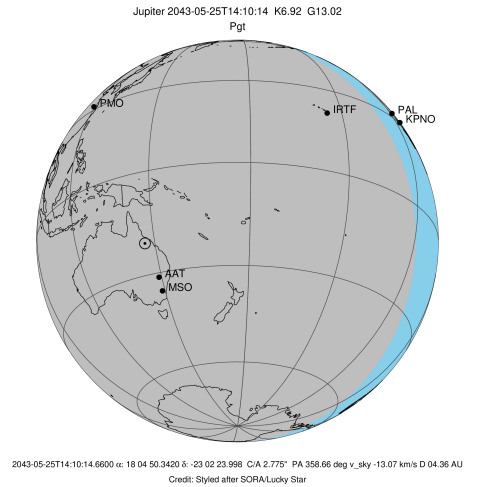


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-05-25T12:45:15.821	46.44	-70.32	71491.8	-8.21	-9.36
Jupiter	E	2043-05-25T15:41:04.114	81.04	-65.37	71491.9	-7.74	-8.84

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-05-25T14:13:18.720
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      : 4069584729615940864
2Mass ID (if available) : 18045033-2302238
ICRS Star Coord at Epoch: 18h 04m 50.34199s -23:02:23.99797s
RUWE (>1.4 is poor) : 1.17
K magnitude          : 6.919
G magnitude          : 13.025
RP magnitude         : 11.579
BP magnitude         : 15.850
DUPflag             : 0
Distance (au)       : 4.356
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : -13.07
Sun-Target sep (deg) : 152.57
Sun-Moon sep (deg)  : 10.85
B (ring opening deg) : -2.43
PA of pole (deg)    : -1.36
Pole direction: RA (deg): 268.05667
Dec (deg): 64.49732
C/A sky separation ("): 3.234
C/A sky separation (km): 10214.9
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	2043-05-25T12:45:07.707	46.33	-68.18	71491.8	-8.54	-9.75
Jupiter	E	2043-05-25T15:40:59.465	77.29	-63.91	71491.8	-8.10	-9.24