

target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2030-05-03T16:05:06.920
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 6258410461495248128
 2Mass ID (if available) : 15255974-1730152

Jupiter 2030-05-03T16:05:06 K7.62 G11.60 Pgt

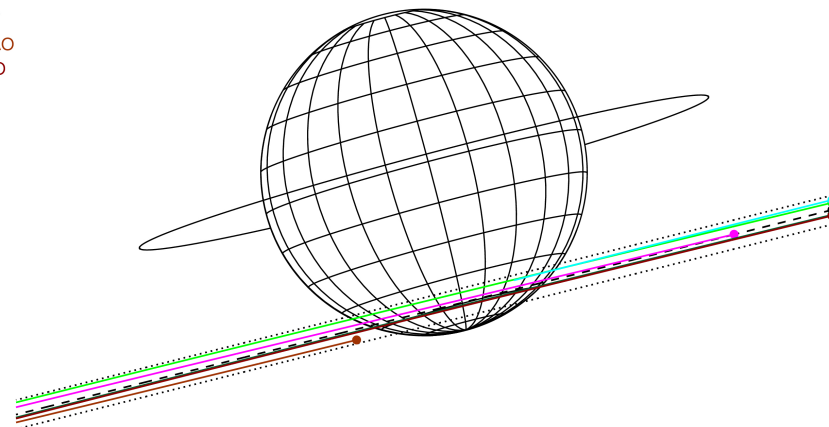
ICRS Star Coord at Epoch: 15h 25m 59.75143s -17:30:15.43950s

RUWE (>1.4 is poor) : 1.24
 K magnitude : 7.619
 G magnitude : 11.598
 RP magnitude : 10.466
 BP magnitude : 12.925
 DUPflag : 0
 Distance (au) : 4.404
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : -16.37
 Sun-Target sep (deg) : 169.22
 Sun-Moon sep (deg) : 176.73
 B (ring opening deg) : -3.35
 PA of pole (deg) : 14.89
 Pole direction: RA (deg): 268.05726
 Dec (deg): 64.49652
 C/A sky separation (") : 18.592
 C/A sky separation (km) : 59388.4
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2030-05-03T16:05:06 K7.62 G11.60
 Pgt



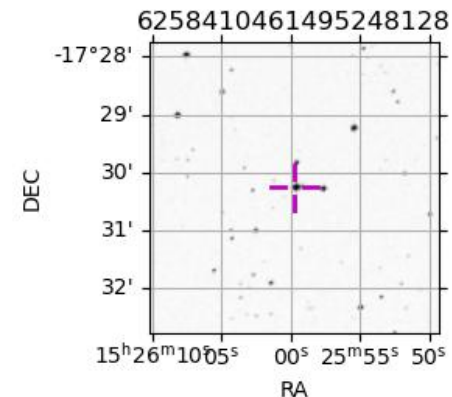
Earth
 PMO
 IRTF
 KAV
 AAT
 SAAO
 MSO



2030-05-03T16:05:06.9200 α: 15 25 59.7514 δ: -17 30 15.440 C/A ***** PA 14.08 deg v_sky -16.37 km/s D 04.40 AU
 Credit: Styled after SORA/Lucky Star

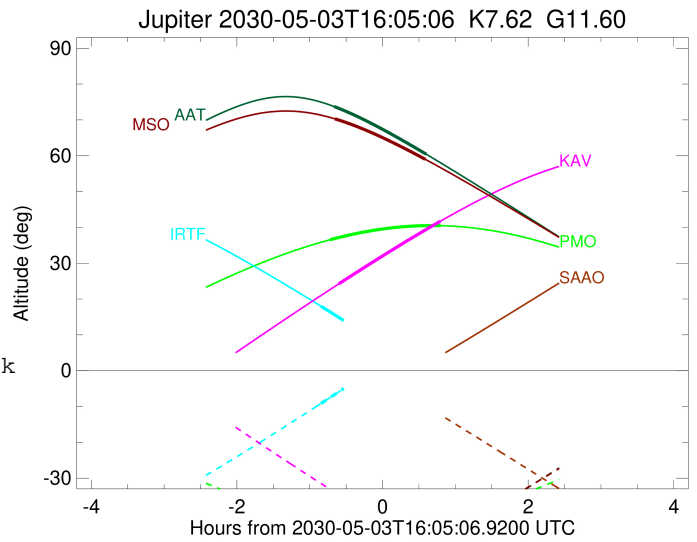
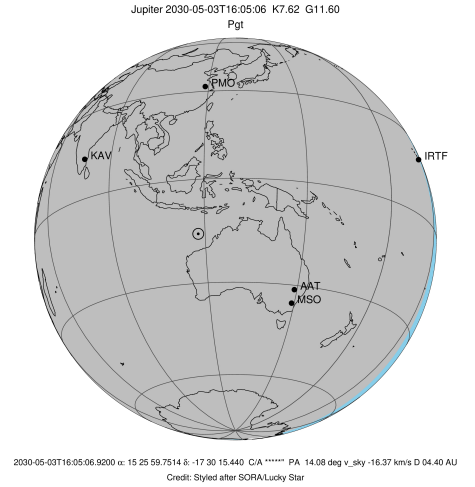
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	OEcode
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 03 15:22 - MAY 03 16:53	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	+	MAY 03 15:14 - MAY 03 15:14	Pin
KAV	Kavalur Observatory	12.6	78.8	+ +	MAY 03 15:29 - MAY 03 16:52	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	+ +	MAY 03 15:25 - MAY 03 16:41	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+ +	MAY 03 15:25 - MAY 03 16:40	Pie



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2030-05-03T16:07:34.070
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      : 6258410461495248128
2Mass ID (if available) : 15255974-1730152
ICRS Star Coord at Epoch: 15h 25m 59.75143s -17:30:15.43950s
RUWE (>1.4 is poor) : 1.24
K magnitude          : 7.619
G magnitude          : 11.598
RP magnitude         : 10.466
BP magnitude         : 12.925
DUPflag             : 0
Distance (au)       : 4.404
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : -16.37
Sun-Target sep (deg) : 169.22
Sun-Moon sep (deg)  : 177.44
B (ring opening deg) : -3.35
PA of pole (deg)    : 14.89
Pole direction: RA (deg): 268.05726
Dec (deg): 64.49652
C/A sky separation (" ) : 17.196
C/A sky separation (km) : 54926.3
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
    
```

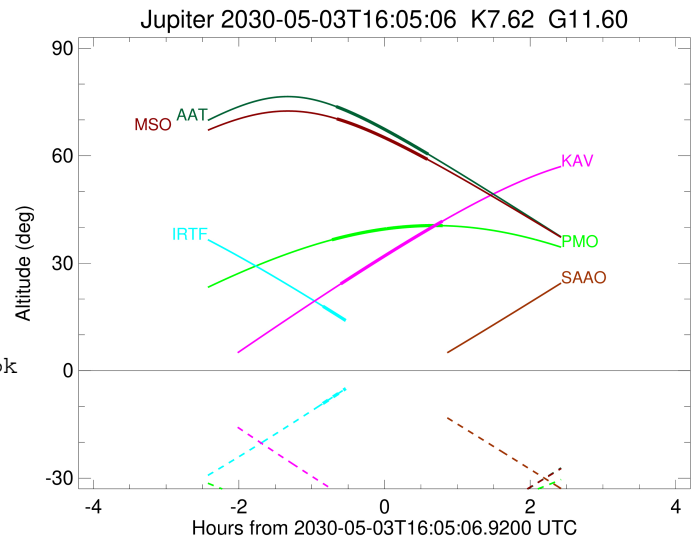
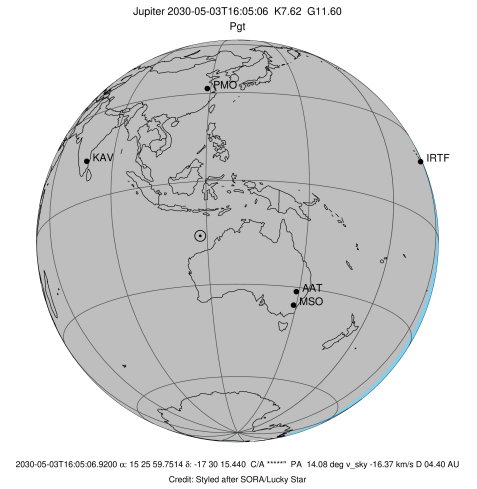


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2030-05-03T15:22:02.099	36.55	-41.36	71482.6	-51.31	-54.85
Jupiter	E	2030-05-03T16:53:02.354	40.47	-40.71	71483.2	-48.94	-52.56

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2030-05-03T15:59:42.480
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       : 6258410461495248128
2Mass ID (if available) : 15255974-1730152
ICRS Star Coord at Epoch: 15h 25m 59.75143s -17:30:15.43950s
RUWE (>1.4 is poor) : 1.24
K magnitude          : 7.619
G magnitude          : 11.598
RP magnitude         : 10.466
BP magnitude         : 12.925
DUPflag             : 0
Distance (au)        : 4.404
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -16.37
Sun-Target sep (deg) : 169.22
Sun-Moon sep (deg)   : 176.92
B (ring opening deg) : -3.35
PA of pole (deg)     : 14.89
Pole direction: RA (deg): 268.05726
Dec (deg): 64.49652
C/A sky separation (") : 17.383
C/A sky separation (km) : 55525.3
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
    
```

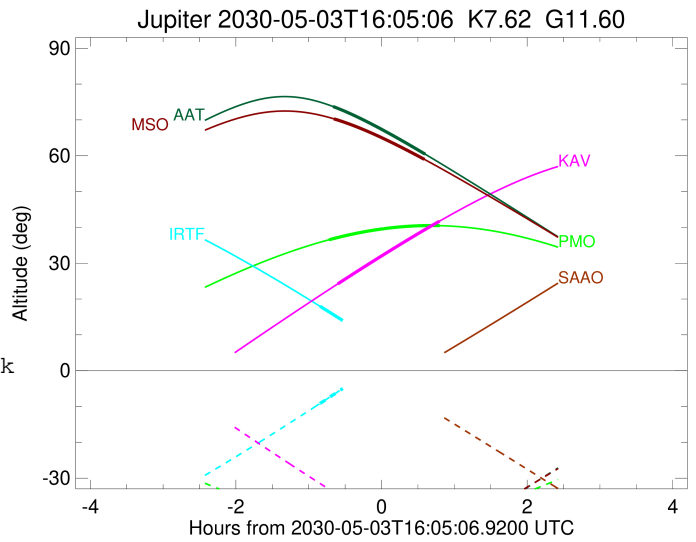
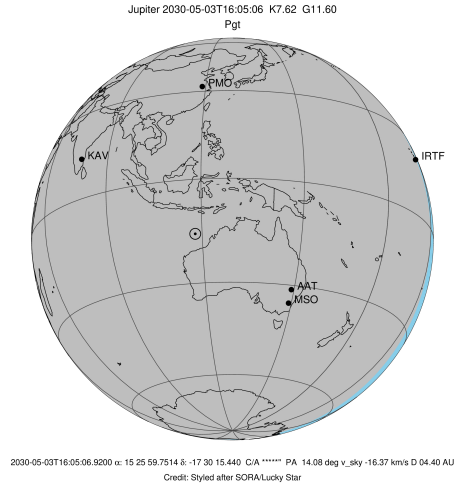


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2030-05-03T15:14:26.537	17.97	-9.15	71482.6	-51.37	-54.91
Jupiter	E	2030-05-03T16:45:11.203	-1.84x	11.31x	71482.9	-50.42	-53.99

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2030-05-03T16:10:58.730
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        : 6258410461495248128
2Mass ID (if available) : 15255974-1730152
ICRS Star Coord at Epoch: 15h 25m 59.75143s -17:30:15.43950s
RUWE (>1.4 is poor) : 1.24
K magnitude           : 7.619
G magnitude           : 11.598
RP magnitude          : 10.466
BP magnitude          : 12.925
DUPflag              : 0
Distance (au)         : 4.404
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -16.37
Sun-Target sep (deg) : 169.22
Sun-Moon sep (deg)   : 177.07
B (ring opening deg) : -3.35
PA of pole (deg)     : 14.89
Pole direction: RA (deg): 268.05726
Dec (deg): 64.49652
C/A sky separation ("): 18.170
C/A sky separation (km): 58037.2
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
    
```

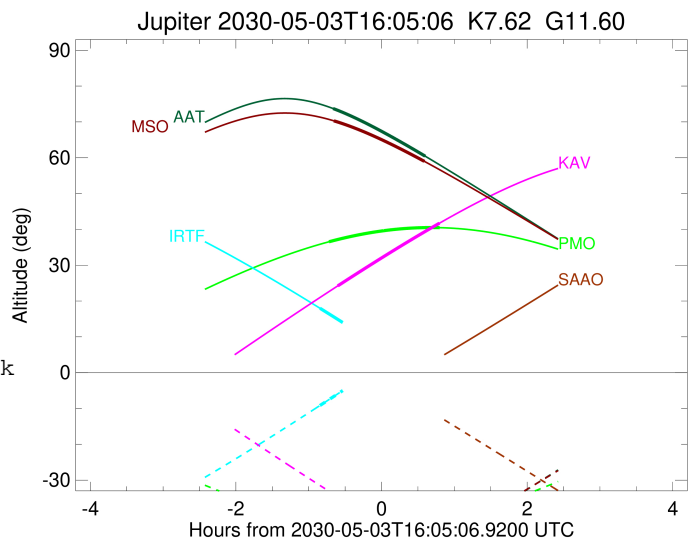
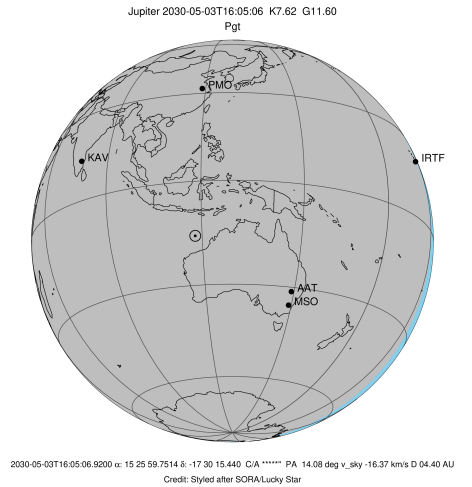


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2030-05-03T15:29:05.850	24.23	-34.63	71481.5	-55.54	-58.88
Jupiter	E	2030-05-03T16:52:41.169	41.68	-50.92	71482.3	-52.76	-56.24

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2030-05-03T16:03:06.890
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       : 6258410461495248128
2Mass ID (if available) : 15255974-1730152
ICRS Star Coord at Epoch: 15h 25m 59.75143s -17:30:15.43950s
RUWE (>1.4 is poor) : 1.24
K magnitude          : 7.619
G magnitude           : 11.598
RP magnitude         : 10.466
BP magnitude         : 12.925
DUPflag             : 0
Distance (au)        : 4.404
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -16.37
Sun-Target sep (deg) : 169.22
Sun-Moon sep (deg)   : 176.53
B (ring opening deg) : -3.35
PA of pole (deg)     : 14.89
Pole direction: RA (deg): 268.05726
Dec (deg): 64.49652
C/A sky separation ("): 18.936
C/A sky separation (km): 60485.2
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
    
```

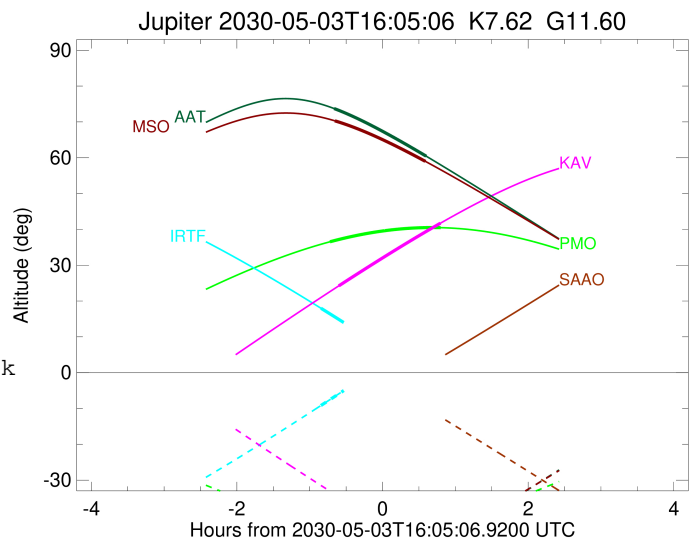
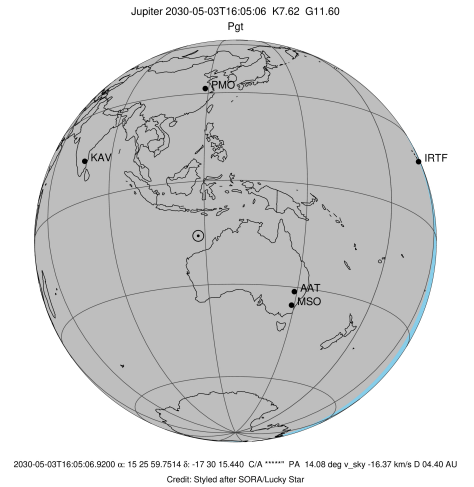


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2030-05-03T15:25:15.653	73.72	-65.37	71480.8	-58.66	-61.81
Jupiter	E	2030-05-03T16:41:00.035	60.45	-50.45	71481.2	-56.71	-59.98

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2030-05-03T16:03:05.430
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      : 6258410461495248128
2Mass ID (if available) : 15255974-1730152
ICRS Star Coord at Epoch: 15h 25m 59.75143s -17:30:15.43950s
RUWE (>1.4 is poor) : 1.24
K magnitude          : 7.619
G magnitude          : 11.598
RP magnitude         : 10.466
BP magnitude         : 12.925
DUPflag             : 0
Distance (au)       : 4.404
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -16.37
Sun-Target sep (deg) : 169.22
Sun-Moon sep (deg)  : 176.47
B (ring opening deg) : -3.35
PA of pole (deg)    : 14.89
Pole direction: RA (deg): 268.05726
Dec (deg): 64.49652
C/A sky separation ("): 19.072
C/A sky separation (km): 60920.5
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	2030-05-03T15:25:53.574	70.29	-62.89	71480.6	-59.30	-62.41
Jupiter	E	2030-05-03T16:40:19.026	59.00	-49.54	71481.1	-57.37	-60.60