

target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2025-10-01T10:14:52.120
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 865367160604662272
 2Mass ID (if available) : 07354456+2138060

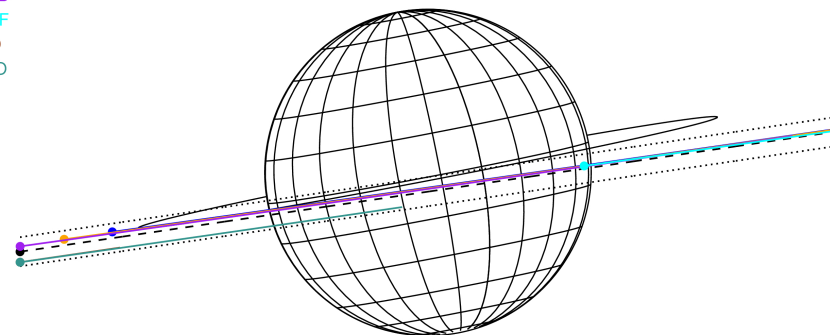
Jupiter 2025-10-01T10:14:52 K9.20 G10.33 Pgt

ICRS Star Coord at Epoch: 07h 35m 44.52135s +21:38:05.68979s
 RUWE (>1.4 is poor) : 1.16
 K magnitude : 9.204
 G magnitude : 10.328
 RP magnitude : 9.912
 BP magnitude : 10.589
 DUPflag : 0
 Distance (au) : 5.329
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 19.47
 Sun-Target sep (deg) : 75.99
 Sun-Moon sep (deg) : 175.18
 B (ring opening deg) : 1.57
 PA of pole (deg) : 10.84
 Pole direction: RA (deg): 268.05773
 Dec (deg): 64.49670
 C/A sky separation (") : 2.148
 C/A sky separation (km) : 8301.4
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk
 URKALLvl1.spk
 naif0012.tls
 nep097.bsp
 nep101.bsp
 sat4401.bsp



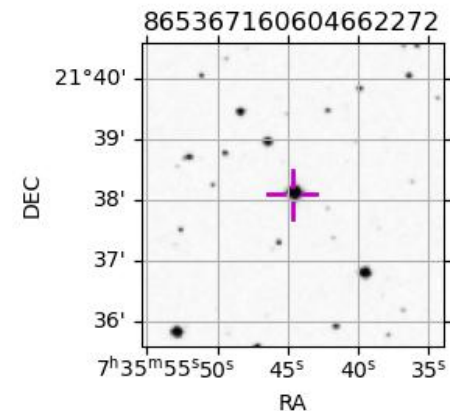
2025-10-01T10:14:52.1200 α: 07 35 44.5214 δ: +21 38 05.690 C/A 2.140" PA 8.38 deg v_sky +19.47 km/s D 05.33 AU
 Credit: Styled after SORA/Lucky Star

Earth
 PAL
 KPNO
 MCD
 IRTF
 RIO
 ESO



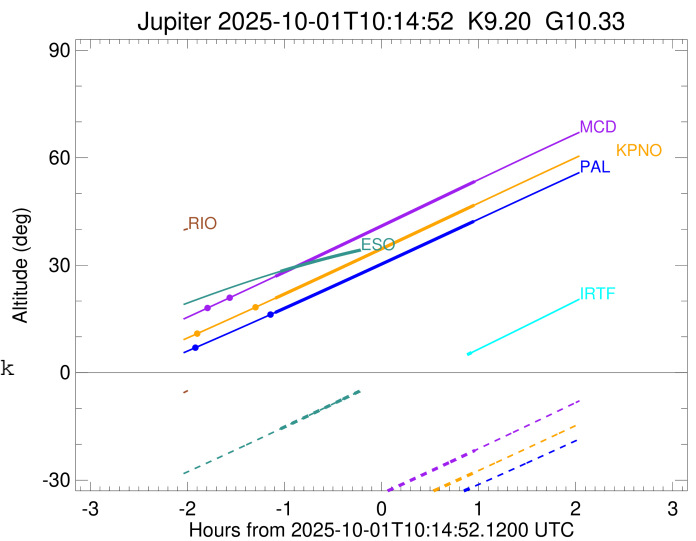
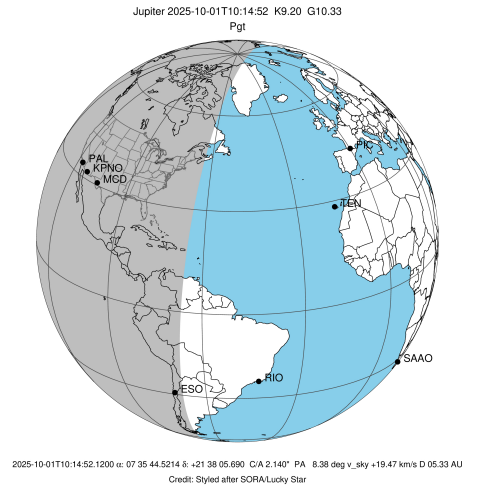
Observable events with sun below -5 deg and altitude above 5 deg

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	+ +	OCT 01 09:09 - OCT 01 11:11	Pie
PMO	Purple Mtn Obs. Nanking	32.1	118.8			Pnn
KPNO	Kitt Peak Natl Obs	32.0	248.4	+ +	OCT 01 09:09 - OCT 01 11:12	Pie
MCD	McDonald Obs. 2.7m	30.7	256.0	+ +	OCT 01 09:09 - OCT 01 11:12	Pie
TEN	Teide Obs./Tenerife	28.3	343.5			Pnn
IRTF	Mauna Kea/IRTF	19.8	204.5		OCT 01 11:10 - OCT 01 11:10	Pne
KAV	Kavalur Observatory	12.6	78.8			Pnn
RIO	Rio de Janeiro	-22.9	316.8			Pnn
ESO	European Southern Obs. (3.6m)	-29.3	289.3	+	OCT 01 09:12 - OCT 01 09:12	Pin
AAT	Siding Spring (AAT)	-31.3	149.1			Pnn
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2025-10-01T10:10:19.500
Event type          : Pgt
                    : Jupiter occs: geocentric, topocentric
                    : Not a ringed target
Observer code       : PAL
Location            : Palomar Mt (200")
Latitude (deg)      : 33.35622
E. Longitude (deg)  : 243.13601
Altitude (km)       : 1.706
Gaia source ID      : 865367160604662272
2Mass ID (if available) : 07354456+2138060
ICRS Star Coord at Epoch: 07h 35m 44.52135s +21:38:05.68979s
RUWE (>1.4 is poor) : 1.16
K magnitude          : 9.204
G magnitude          : 10.328
RP magnitude         : 9.912
BP magnitude         : 10.589
DUPflag             : 0
Distance (au)       : 5.329
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 19.47
Sun-Target sep (deg) : 75.99
Sun-Moon sep (deg)  : 175.32
B (ring opening deg) : 1.57
PA of pole (deg)    : 10.84
Pole direction: RA (deg): 268.05773
Dec (deg): 64.49670
C/A sky separation (") : 1.694
C/A sky separation (km) : 6548.1
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
    
```

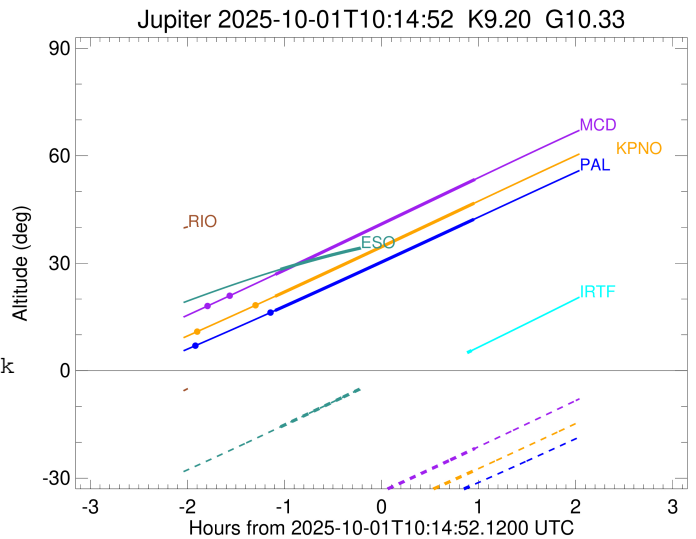
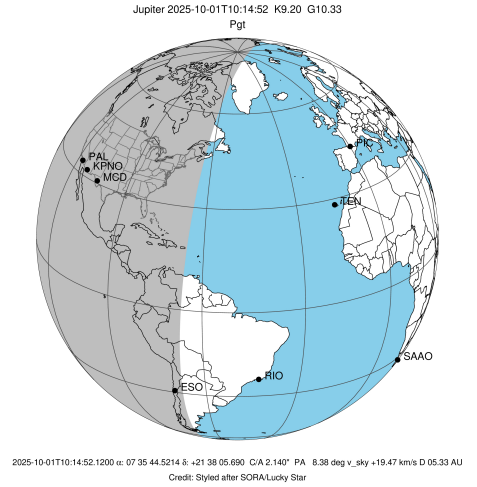


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2025-10-01T09:09:03.648	16.78	-53.25	71492.0	-2.43	-2.78
Jupiter	E	2025-10-01T11:11:57.265	42.24	-31.79	71491.9	-7.99	-9.12

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2025-10-01T10:10:28.440
Event type          : Pgt
                    : Jupiter occs: geocentric, topocentric
                    : Not a ringed target
Observer code       : KPNO
Location            : Kitt Peak Natl Obs
Latitude (deg)      : 31.96333
E. Longitude (deg)  : 248.40000
Altitude (km)       : 2.120
Gaia source ID      : 865367160604662272
2Mass ID (if available) : 07354456+2138060
ICRS Star Coord at Epoch: 07h 35m 44.52135s +21:38:05.68979s
RUWE (>1.4 is poor) : 1.16
K magnitude          : 9.204
G magnitude          : 10.328
RP magnitude         : 9.912
BP magnitude         : 10.589
DUPflag             : 0
Distance (au)       : 5.329
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 19.47
Sun-Target sep (deg) : 75.99
Sun-Moon sep (deg)  : 175.35
B (ring opening deg) : 1.57
PA of pole (deg)    : 10.84
Pole direction: RA (deg): 268.05773
Dec (deg): 64.49670
C/A sky separation (") : 1.766
C/A sky separation (km) : 6825.5
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
    
```

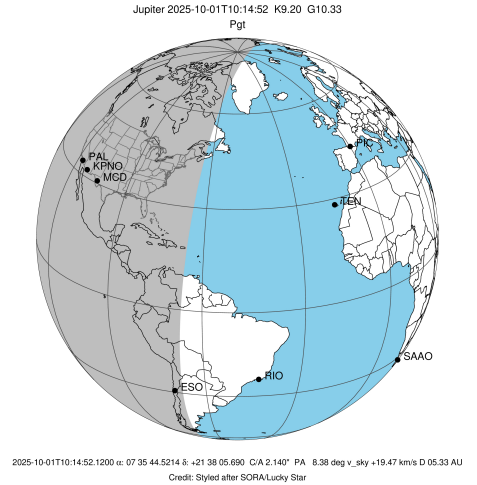


x: target alt < 5.0 deg or sun > -5.0 deg

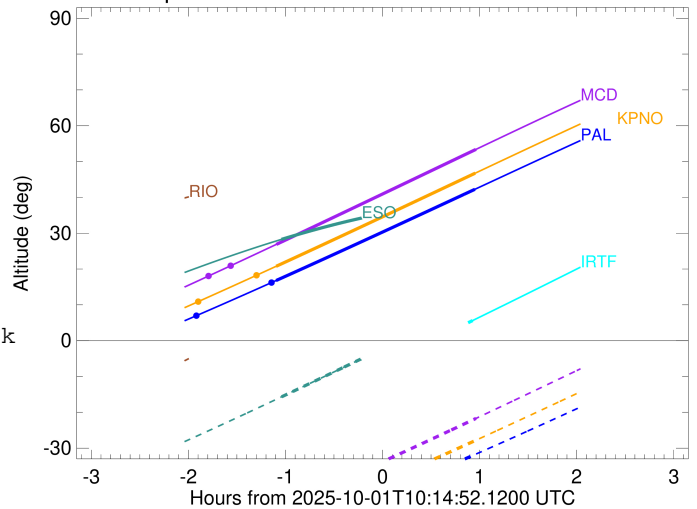
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2025-10-01T09:09:07.105	20.76	-51.09	71492.0	-2.68	-3.06
Jupiter	E	2025-10-01T11:12:11.212	46.75	-27.88	71491.9	-8.18	-9.34

```

target                : Jupiter
target radius (km)    : 71492.00
C/A epoch              : 2025-10-01T10:10:47.150
Event type             : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code          : MCD
Location               : McDonald Obs. 2.7m
Latitude (deg)         : 30.67158
E. Longitude (deg)    : 255.97844
Altitude (km)         : 2.075
Gaia source ID         : 865367160604662272
2Mass ID (if available) : 07354456+2138060
ICRS Star Coord at Epoch: 07h 35m 44.52135s +21:38:05.68979s
RUWE (>1.4 is poor)  : 1.16
K magnitude            : 9.204
G magnitude            : 10.328
RP magnitude           : 9.912
BP magnitude           : 10.589
DUPflag                : 0
Distance (au)         : 5.329
f0 (km)                : 0.00
g0 (km)                : 0.00
skyplane vel. (km/s)  : 19.47
Sun-Target sep (deg)  : 75.99
Sun-Moon sep (deg)    : 175.38
B (ring opening deg)  : 1.57
PA of pole (deg)      : 10.84
Pole direction: RA (deg): 268.05773
Dec (deg): 64.49670
C/A sky separation (") : 1.846
C/A sky separation (km) : 7133.2
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
    
```



Jupiter 2025-10-01T10:14:52 K9.20 G10.33

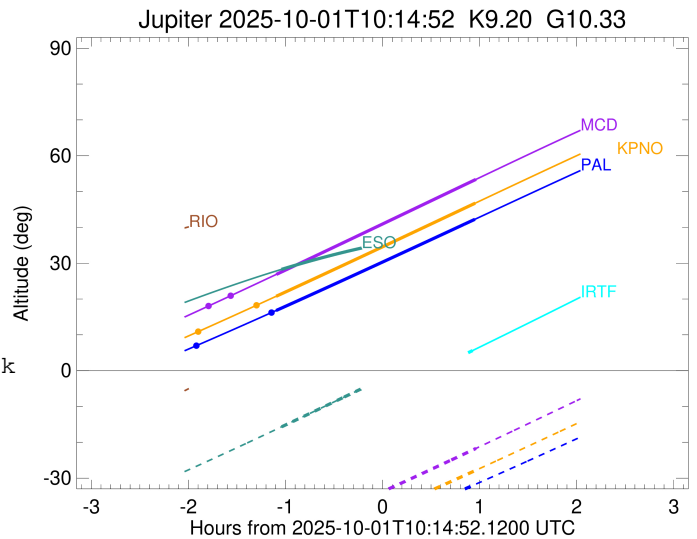
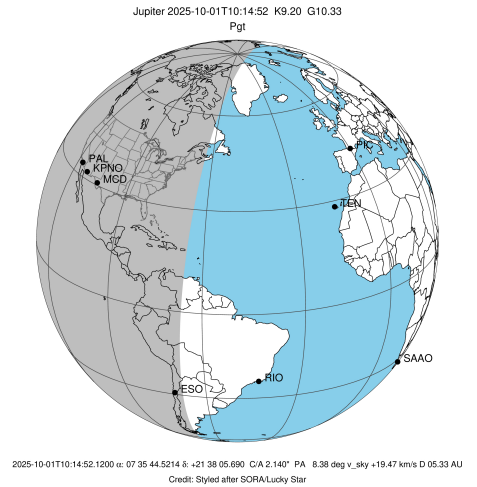


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2025-10-01T09:09:17.887	26.88	-46.60	71492.0	-2.96	-3.39
Jupiter	E	2025-10-01T11:12:36.681	53.39	-21.71	71491.9	-8.38	-9.56

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2025-10-01T10:09:37.290
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       : 865367160604662272
2Mass ID (if available) : 07354456+2138060
ICRS Star Coord at Epoch: 07h 35m 44.52135s +21:38:05.68979s
RUWE (>1.4 is poor) : 1.16
K magnitude           : 9.204
G magnitude           : 10.328
RP magnitude         : 9.912
BP magnitude         : 10.589
DUPflag              : 0
Distance (au)        : 5.329
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 19.47
Sun-Target sep (deg) : 75.99
Sun-Moon sep (deg)   : 175.32
B (ring opening deg) : 1.57
PA of pole (deg)     : 10.84
Pole direction: RA (deg): 268.05773
Dec (deg): 64.49670
C/A sky separation (") : 1.691
C/A sky separation (km) : 6536.4
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
    
```

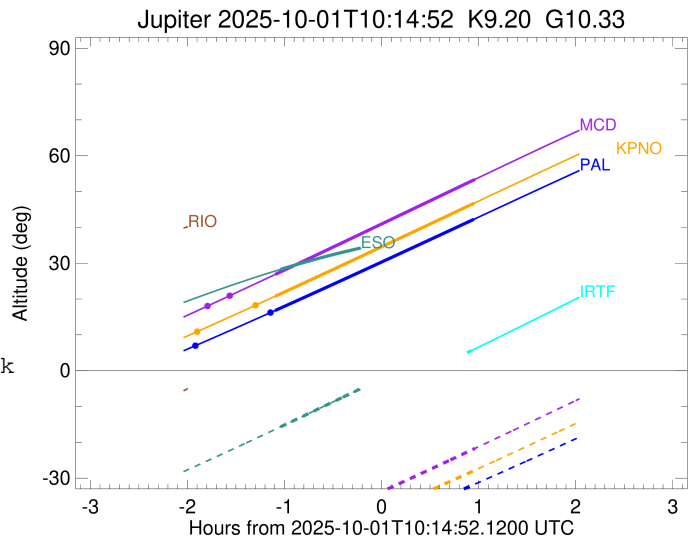
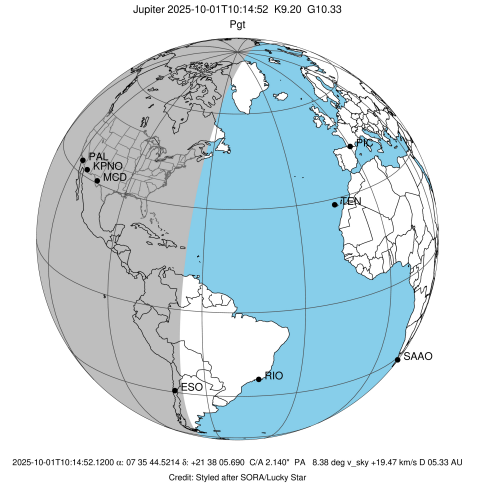


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2025-10-01T09:09:12.584	-19.97x	-67.67	71492.0	-2.29	-2.61
Jupiter	E	2025-10-01T11:10:26.570	5.59	-68.25	71491.9	-8.19	-9.35

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2025-10-01T10:13:46.340
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : ESO
Location              : European Southern Obs. (3.6m)
Latitude (deg)       : -29.26097
E. Longitude (deg)   : 289.26831
Altitude (km)        : 2.400
Gaia source ID       : 865367160604662272
2Mass ID (if available) : 07354456+2138060
ICRS Star Coord at Epoch: 07h 35m 44.52135s +21:38:05.68979s
RUWE (>1.4 is poor) : 1.16
K magnitude           : 9.204
G magnitude           : 10.328
RP magnitude          : 9.912
BP magnitude          : 10.589
DUPflag              : 0
Distance (au)        : 5.329
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 19.47
Sun-Target sep (deg) : 75.99
Sun-Moon sep (deg)   : 175.94
B (ring opening deg) : 1.57
PA of pole (deg)     : 10.84
Pole direction: RA (deg): 268.05773
Dec (deg): 64.49670
C/A sky separation ("): 3.452
C/A sky separation (km): 13340.2
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	2025-10-01T09:12:32.032	28.29	-15.67	71491.9	-8.24	-9.40
Jupiter	E	2025-10-01T11:15:11.092	39.02	10.96x	71491.8	-13.13	-14.93