

target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-08-11T22:05:25.020
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4111433417833677312
 2Mass ID (if available) : 17304142-2303140

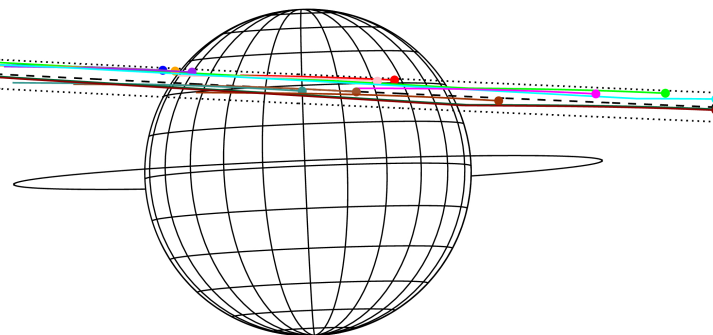
Jupiter 2043-08-11T22:05:25 K9.18 G14.68 Pgt

ICRS Star Coord at Epoch: 17h 30m 41.41900s -23:03:14.27120s
 RUWE (>1.4 is poor) : 0.95
 K magnitude : 9.176
 G magnitude : 14.678
 RP magnitude : 13.286
 BP magnitude : 17.083
 DUPflag : 0
 Distance (au) : 4.604
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : -3.84
 Sun-Target sep (deg) : 124.72
 Sun-Moon sep (deg) : 44.33
 B (ring opening deg) : -2.35
 PA of pole (deg) : 2.32
 Pole direction: RA (deg): 268.05671
 Dec (deg): 64.49731
 C/A sky separation (") : 10.902
 C/A sky separation (km) : 36406.1
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk



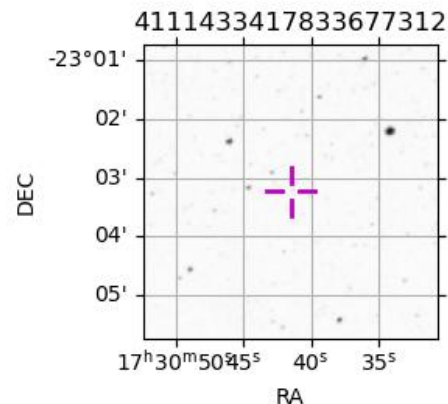
2043-08-11T22:05:25.0200 α: 17 30 41.4190 δ: -23 03 14.271 C/A ***** PA 177.34 deg v_sky - 3.84 km/s D 04.60 AU
 Credit: Styled after SORA/Lucky Star

- Earth
- PIC
- PAL
- PMO
- KPNO
- MCD
- TEN
- IRTF
- KAV
- RIO
- ESO
- AAT
- SAAO
- MSO



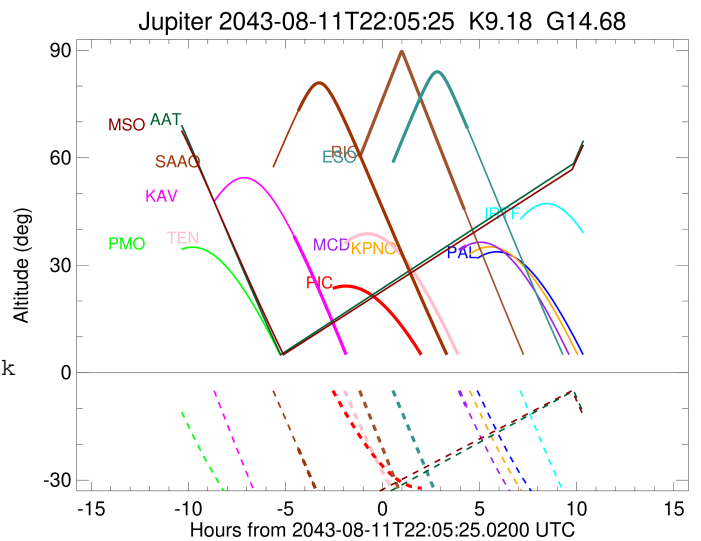
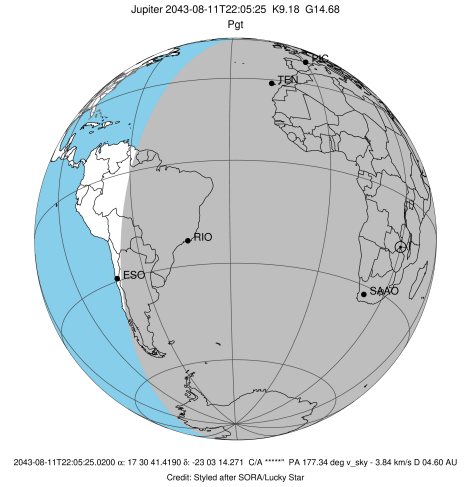
Observable events with sun below -5 deg and altitude above 5 deg

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			Pnn
KPNO	Kitt Peak Natl Obs	32.0	248.4			Pnn
MCD	McDonald Obs. 2.7m	30.7	256.0	+	AUG 12 02:23 - AUG 12 02:23	Pne
TEN	Teide Obs./Tenerife	28.3	343.5			Pnn
IRTF	Mauna Kea/IRTF	19.8	204.5			Pnn
KAV	Kavalur Observatory	12.6	78.8	+	AUG 11 17:31 - AUG 11 17:31	Pin
RIO	Rio de Janeiro	-22.9	316.8	+	AUG 12 02:18 - AUG 12 02:18	Pne
ESO	European Southern Obs. (3.6m)	-29.3	289.3	+	AUG 12 02:28 - AUG 12 02:28	Pne
AAT	Siding Spring (AAT)	-31.3	149.1			Pnn
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8	+	AUG 11 17:45 - AUG 11 17:45	Pin
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-08-11T22:20:55.910
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      : 4111433417833677312
2Mass ID (if available) : 17304142-2303140
ICRS Star Coord at Epoch: 17h 30m 41.41900s -23:03:14.27120s
RUWE (>1.4 is poor) : 0.95
K magnitude          : 9.176
G magnitude          : 14.678
RP magnitude         : 13.286
BP magnitude         : 17.083
DUPflag             : 0
Distance (au)       : 4.604
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -3.84
Sun-Target sep (deg) : 124.72
Sun-Moon sep (deg)  : 43.80
B (ring opening deg) : -2.35
PA of pole (deg)    : 2.32
Pole direction: RA (deg): 268.05671
Dec (deg): 64.49731
C/A sky separation (") : 12.080
C/A sky separation (km) : 40342.6
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
    
```

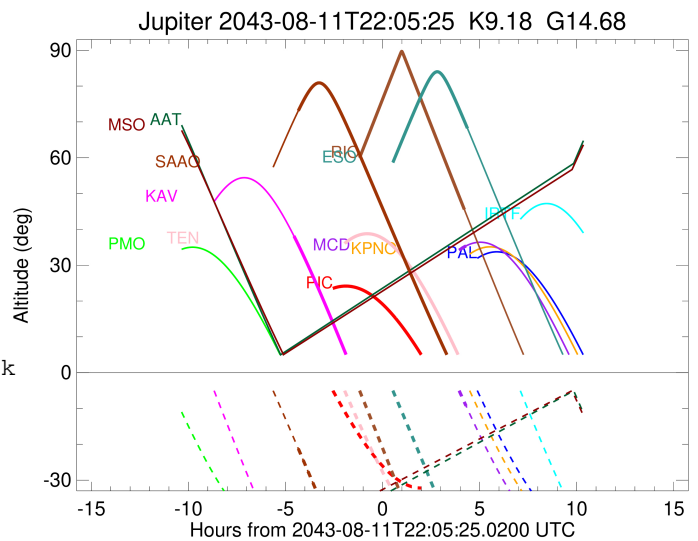
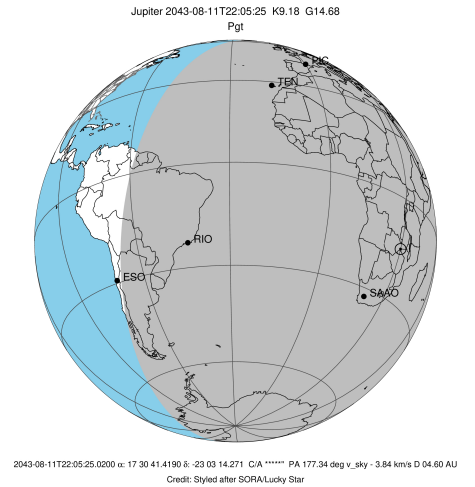


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-08-11T18:00:40.602	-51.20x	69.28x	71490.4	27.15	30.33
Jupiter	E	2043-08-12T02:23:44.831	35.39	-9.31	71488.8	40.52	44.24

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-08-11T21:46:07.660
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      : 4111433417833677312
2Mass ID (if available) : 17304142-2303140
ICRS Star Coord at Epoch: 17h 30m 41.41900s -23:03:14.27120s
RUWE (>1.4 is poor) : 0.95
K magnitude          : 9.176
G magnitude          : 14.678
RP magnitude         : 13.286
BP magnitude         : 17.083
DUPflag             : 0
Distance (au)       : 4.604
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -3.84
Sun-Target sep (deg) : 124.72
Sun-Moon sep (deg)  : 44.71
B (ring opening deg) : -2.35
PA of pole (deg)    : 2.32
Pole direction: RA (deg): 268.05671
Dec (deg): 64.49731
C/A sky separation (") : 11.045
C/A sky separation (km) : 36881.6
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
    
```

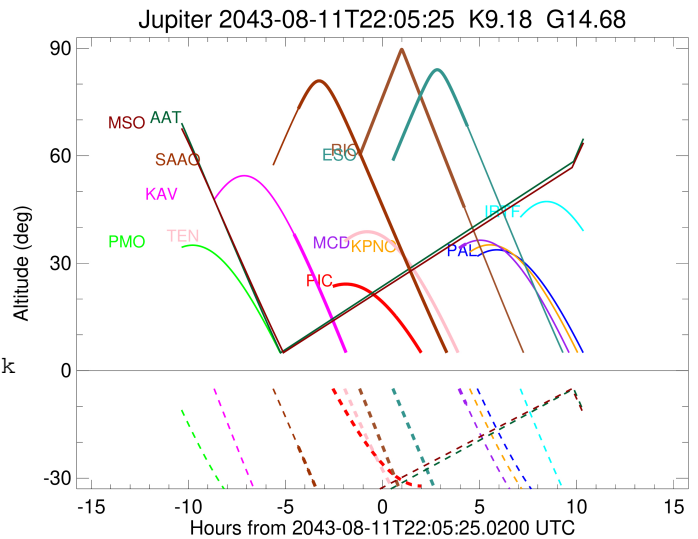
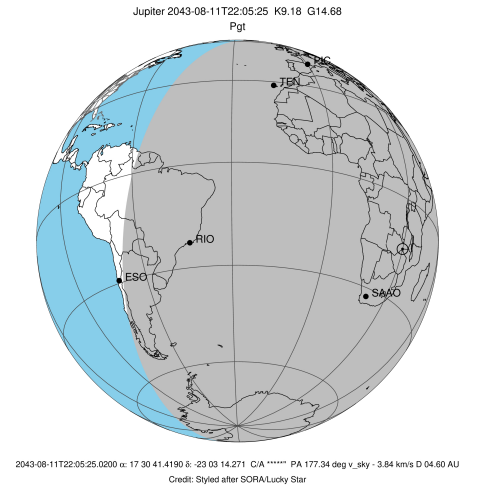


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-08-11T17:31:42.588	38.16	-56.28	71490.3	28.48	31.76
Jupiter	E	2043-08-12T02:36:01.591	-78.38x	28.54x	71489.6	34.52	38.10

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-08-11T22:10:43.900
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : RIO
Location              : Rio de Janeiro
Latitude (deg)        : -22.89506
E. Longitude (deg)    : 316.77708
Altitude (km)         : 0.033
Gaia source ID        : 4111433417833677312
2Mass ID (if available) : 17304142-2303140
ICRS Star Coord at Epoch: 17h 30m 41.41900s -23:03:14.27120s
RUWE (>1.4 is poor)  : 0.95
K magnitude           : 9.176
G magnitude           : 14.678
RP magnitude          : 13.286
BP magnitude          : 17.083
DUPflag              : 0
Distance (au)         : 4.604
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -3.84
Sun-Target sep (deg)  : 124.72
Sun-Moon sep (deg)    : 44.80
B (ring opening deg)  : -2.35
PA of pole (deg)      : 2.32
Pole direction: RA (deg): 268.05671
Dec (deg): 64.49731
C/A sky separation (") : 10.915
C/A sky separation (km) : 36449.1
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
    
```

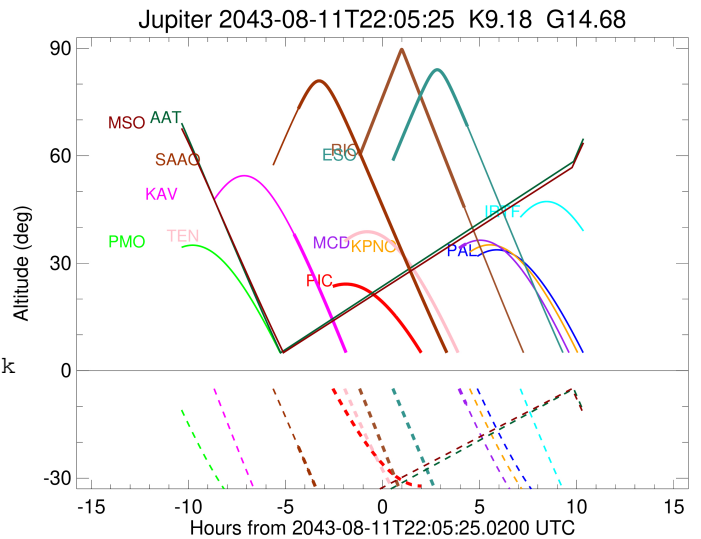
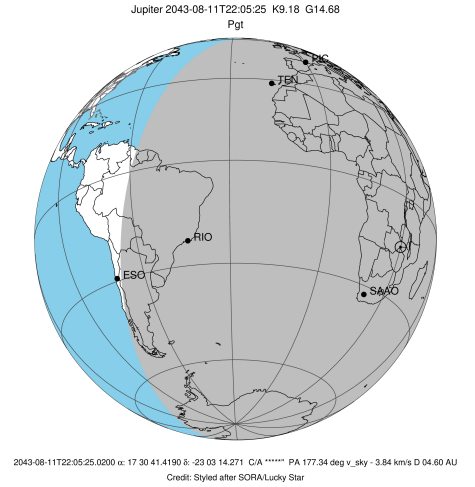


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-08-11T18:02:04.920	20.98	31.15x	71490.7	24.35	27.32
Jupiter	E	2043-08-12T02:18:19.708	45.55	-77.85	71489.6	34.72	38.30

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-08-11T22:17:50.130
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        : 4111433417833677312
2Mass ID (if available) : 17304142-2303140
ICRS Star Coord at Epoch: 17h 30m 41.41900s -23:03:14.27120s
RUWE (>1.4 is poor) : 0.95
K magnitude           : 9.176
G magnitude           : 14.678
RP magnitude          : 13.286
BP magnitude          : 17.083
DUPflag              : 0
Distance (au)         : 4.604
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -3.84
Sun-Target sep (deg)  : 124.72
Sun-Moon sep (deg)    : 44.44
B (ring opening deg) : -2.35
PA of pole (deg)      : 2.32
Pole direction: RA (deg): 268.05671
Dec (deg): 64.49731
C/A sky separation (") : 10.610
C/A sky separation (km) : 35433.5
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
    
```

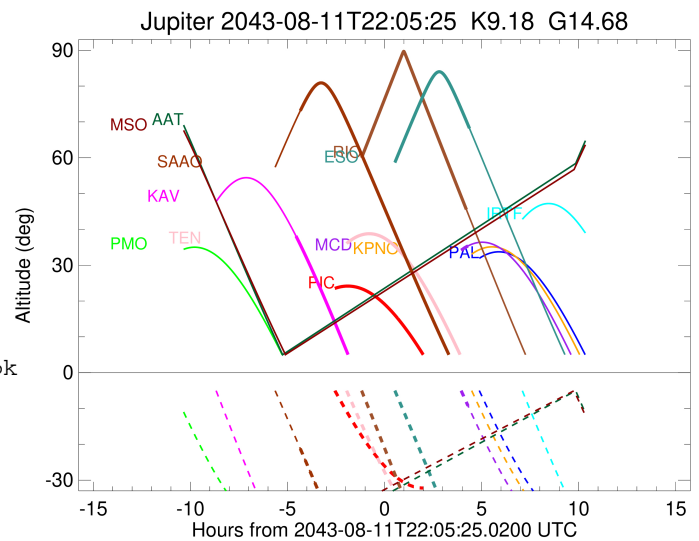
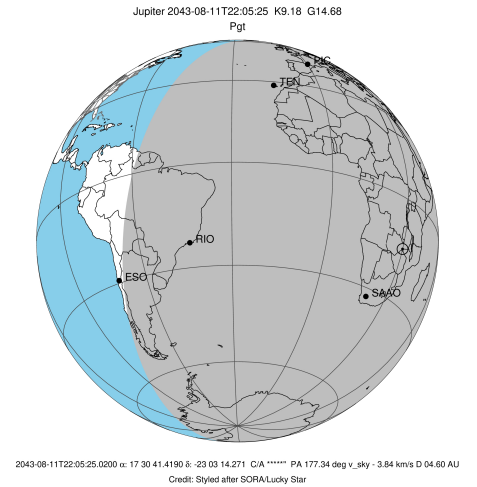


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-08-11T17:57:08.985	-0.73x	42.73x	71490.9	22.79	25.63
Jupiter	E	2043-08-12T02:28:00.381	68.18	-54.82	71489.6	34.73	38.31

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-08-11T21:53:30.210
Event type          : Pgt
                    : Jupiter occs: geocentric, topocentric
                    : Not a ringed target
Observer code       : SAAO
Location            : So. Afr. Astro. Obs. (Sutherland)
Latitude (deg)      : -32.37953
E. Longitude (deg)  : 20.81070
Altitude (km)       : 1.768
Gaia source ID      : 4111433417833677312
2Mass ID (if available) : 17304142-2303140
ICRS Star Coord at Epoch: 17h 30m 41.41900s -23:03:14.27120s
RUWE (>1.4 is poor) : 0.95
K magnitude          : 9.176
G magnitude          : 14.678
RP magnitude         : 13.286
BP magnitude         : 17.083
DUPflag             : 0
Distance (au)       : 4.604
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : -3.84
Sun-Target sep (deg) : 124.72
Sun-Moon sep (deg)  : 45.20
B (ring opening deg) : -2.35
PA of pole (deg)    : 2.32
Pole direction: RA (deg): 268.05671
Dec (deg): 64.49731
C/A sky separation ("): 10.351
C/A sky separation (km): 34566.5
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	2043-08-11T17:45:02.232	73.06	-21.18	71490.7	24.72	27.72
Jupiter	E	2043-08-12T02:24:32.145	-6.24x	-36.80	71489.9	31.75	35.21