

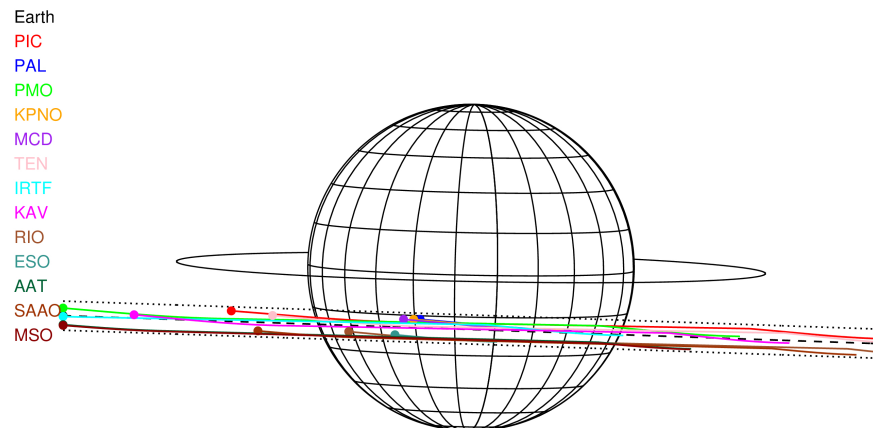
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2036-10-08T08:29:25.860
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 3403549994811424128
 2Mass ID (if available) : 05411275+2245124

Jupiter 2036-10-08T08:29:25 K9.42 G10.39 Pgt

ICRS Star Coord at Epoch: 05h 41m 12.74800s +22:45:11.87706s
 RUWE (>1.4 is poor) : 0.87
 K magnitude : 9.424
 G magnitude : 10.387
 RP magnitude : 10.026
 BP magnitude : 10.599
 DUPflag : 0
 Distance (au) : 4.650
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 2.66
 Sun-Target sep (deg) : 109.47
 Sun-Moon sep (deg) : 36.09
 B (ring opening deg) : 2.72
 PA of pole (deg) : -1.19
 Pole direction: RA (deg): 268.05633
 Dec (deg): 64.49686
 C/A sky separation (") : 8.053
 C/A sky separation (km) : 27156.7
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

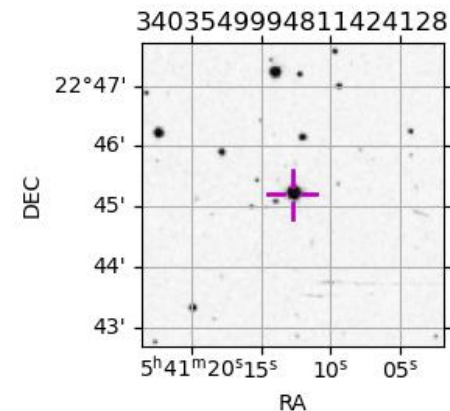


2036-10-08T08:29:25.8600 cr: 05 41 12.7480 s: +22 45 11.877 C/A 8.042" PA 358.04 deg v_sky + 2.66 km/s D 04.65 AU
 Credit: Styled after SORA/Lucky Star



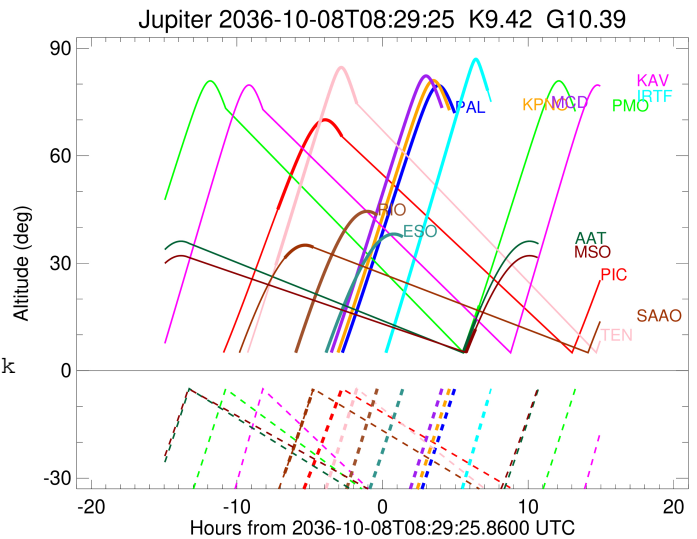
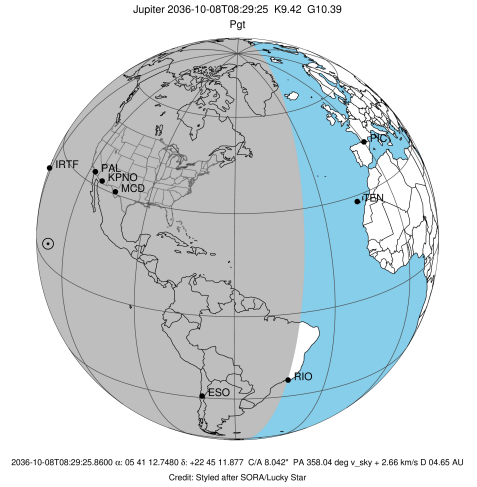
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	OCode
PIC	Pic du Midi	42.9	0.1	+	OCT 08 01:17 - OCT 08 01:17	Pin
PAL	Palomar Mt (200")	33.4	243.1			Pnn
PMO	Purple Mtn Obs. Nanking	32.1	118.8	+	OCT 08 15:08 - OCT 08 15:08	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	+	OCT 08 01:09 - OCT 08 01:09	Pin
IRTF	Mauna Kea/IRTF	19.8	204.5	+	OCT 08 15:43 - OCT 08 15:43	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			Pnn
AAT	Siding Spring (AAT)	-31.3	149.1	+	OCT 08 14:52 - OCT 08 14:52	Pne
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8	+	OCT 08 01:45 - OCT 08 01:45	Pin
MSO	Mt. Stromlo Observatory	-35.3	149.0	+	OCT 08 14:53 - OCT 08 14:53	Pne



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2036-10-08T09:04:25.240
Event type          : Pgt
                    : Jupiter occs: geocentric, topocentric
                    : Not a ringed target
Observer code       : PIC
Location            : Pic du Midi
Latitude (deg)      : 42.93656
E. Longitude (deg)  : 0.14231
Altitude (km)       : 2.890
Gaia source ID      : 3403549994811424128
2Mass ID (if available) : 05411275+2245124
ICRS Star Coord at Epoch: 05h 41m 12.74800s +22:45:11.87706s
RUWE (>1.4 is poor) : 0.87
K magnitude          : 9.424
G magnitude          : 10.387
RP magnitude         : 10.026
BP magnitude         : 10.599
DUPflag             : 0
Distance (au)       : 4.649
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 2.66
Sun-Target sep (deg) : 109.47
Sun-Moon sep (deg)  : 36.97
B (ring opening deg) : 2.72
PA of pole (deg)    : -1.19
Pole direction: RA (deg): 268.05633
Dec (deg): 64.49686
C/A sky separation ("): 7.120
C/A sky separation (km): 24008.0
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
    
```

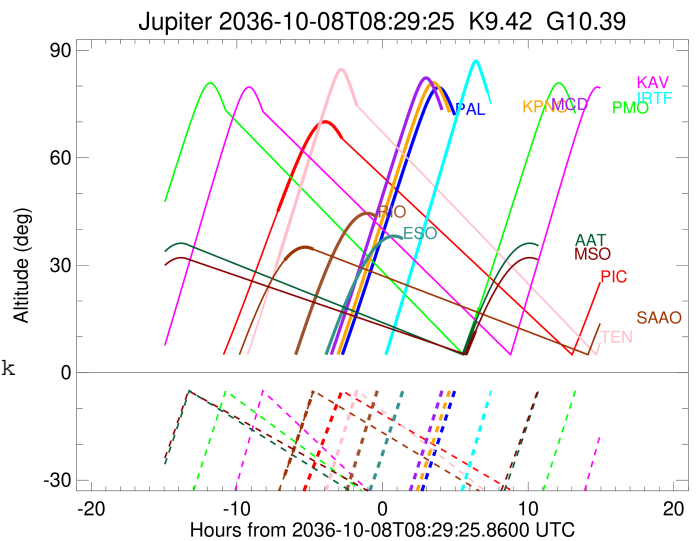
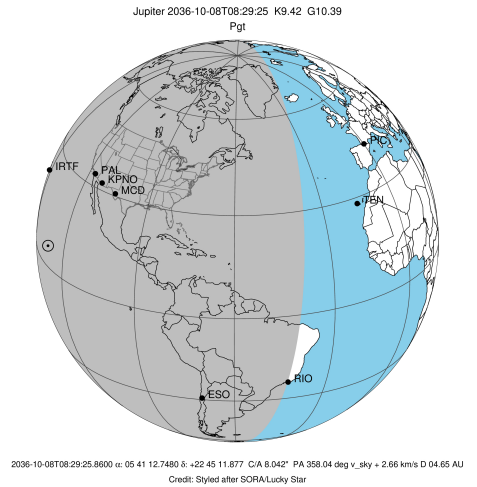


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2036-10-08T01:17:39.102	44.97	-48.18	71490.9	-19.04	-21.52
Jupiter	E	2036-10-08T15:55:23.180	-23.96x	15.46x	71491.0	-18.19	-20.57

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2036-10-08T08:32:00.340
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      : 3403549994811424128
2Mass ID (if available) : 05411275+2245124
ICRS Star Coord at Epoch: 05h 41m 12.74800s +22:45:11.87706s
RUWE (>1.4 is poor) : 0.87
K magnitude          : 9.424
G magnitude          : 10.387
RP magnitude         : 10.026
BP magnitude         : 10.599
DUPflag             : 0
Distance (au)       : 4.650
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 2.66
Sun-Target sep (deg) : 109.47
Sun-Moon sep (deg)  : 35.90
B (ring opening deg) : 2.72
PA of pole (deg)    : -1.19
Pole direction: RA (deg): 268.05633
Dec (deg): 64.49686
C/A sky separation (") : 6.514
C/A sky separation (km) : 21965.9
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
    
```

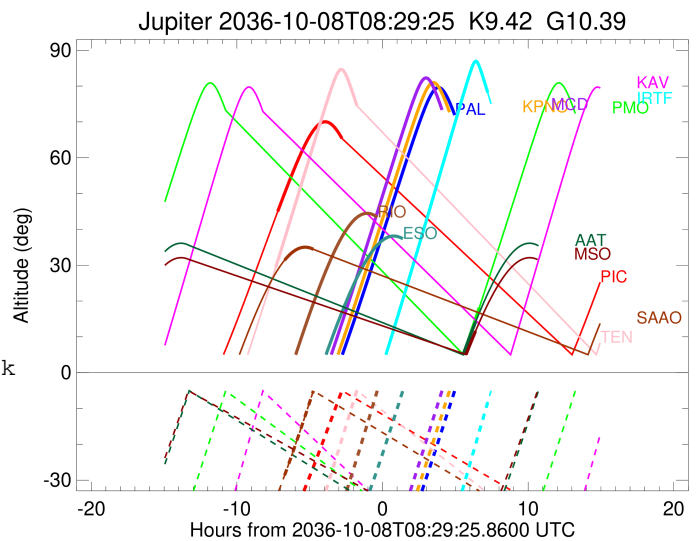
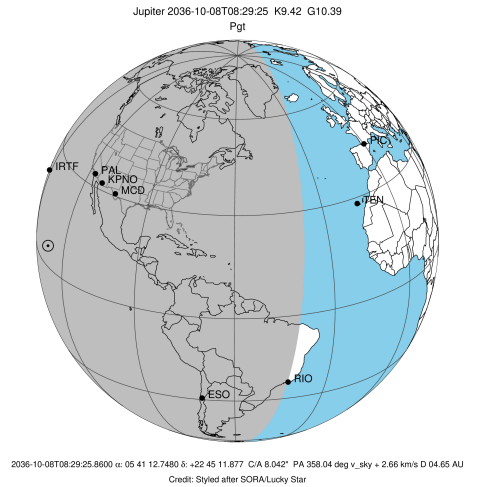


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2036-10-08T02:11:15.357	17.37	45.07x	71490.9	-19.22	-21.72
Jupiter	E	2036-10-08T15:08:18.300	18.17	-62.41	71490.8	-20.53	-23.15

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2036-10-08T09:05:18.910
Event type           : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code        : TEN
Location             : Teide Obs./Tenerife
Latitude (deg)       : 28.30050
E. Longitude (deg)   : 343.48909
Altitude (km)        : 2.395
Gaia source ID       : 3403549994811424128
2Mass ID (if available) : 05411275+2245124
ICRS Star Coord at Epoch: 05h 41m 12.74800s +22:45:11.87706s
RUWE (>1.4 is poor) : 0.87
K magnitude           : 9.424
G magnitude           : 10.387
RP magnitude         : 10.026
BP magnitude         : 10.599
DUPflag              : 0
Distance (au)        : 4.649
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 2.66
Sun-Target sep (deg) : 109.47
Sun-Moon sep (deg)   : 37.00
B (ring opening deg) : 2.72
PA of pole (deg)     : -1.19
Pole direction: RA (deg): 268.05633
Dec (deg): 64.49686
C/A sky separation (") : 7.682
C/A sky separation (km) : 25902.5
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
    
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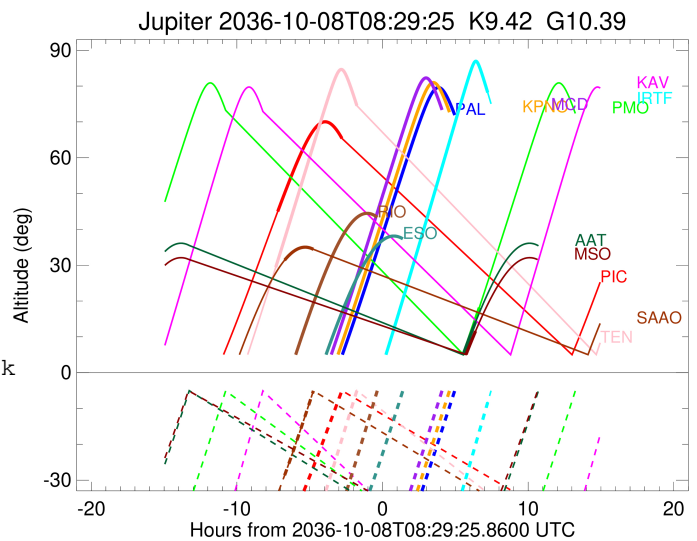
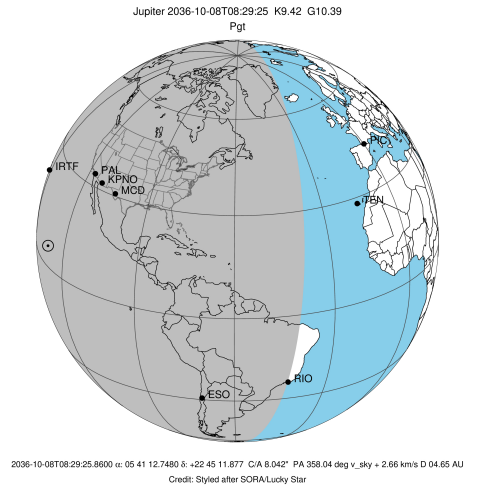


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2036-10-08T01:09:18.755	29.37	-67.59	71490.8	-19.72	-22.27
Jupiter	E	2036-10-08T16:03:04.231	-34.20x	32.77x	71490.9	-19.08	-21.56

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2036-10-08T07:45:33.920
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       : 3403549994811424128
2Mass ID (if available) : 05411275+2245124
ICRS Star Coord at Epoch: 05h 41m 12.74800s +22:45:11.87706s
RUWE (>1.4 is poor) : 0.87
K magnitude           : 9.424
G magnitude           : 10.387
RP magnitude         : 10.026
BP magnitude         : 10.599
DUPflag              : 0
Distance (au)        : 4.650
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 2.66
Sun-Target sep (deg) : 109.47
Sun-Moon sep (deg)  : 35.44
B (ring opening deg) : 2.72
PA of pole (deg)    : -1.19
Pole direction: RA (deg): 268.05633
Dec (deg): 64.49686
C/A sky separation (") : 7.218
C/A sky separation (km) : 24343.7
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
    
```

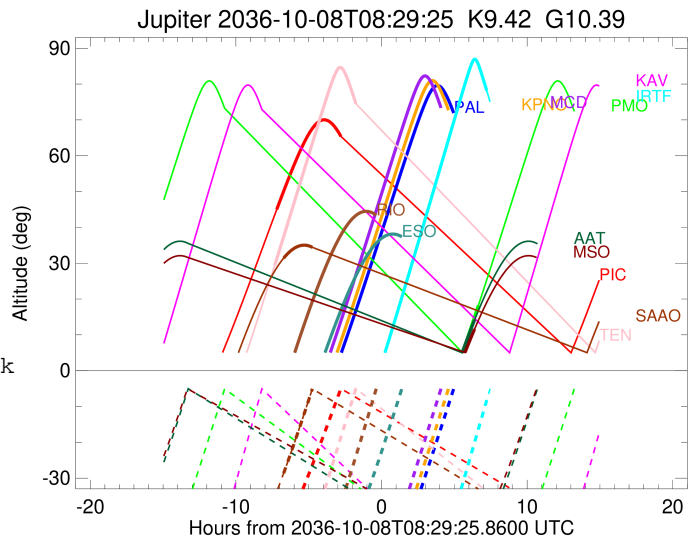
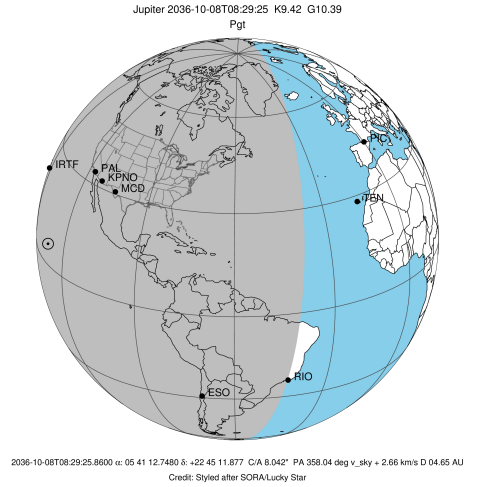


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2036-10-08T01:46:59.661	-44.30x	30.61x	71491.0	-17.99	-20.35
Jupiter	E	2036-10-08T15:43:06.359	78.13	-8.23	71490.4	-23.36	-26.26

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2036-10-08T08:12:24.260
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      : 3403549994811424128
2Mass ID (if available) : 05411275+2245124
ICRS Star Coord at Epoch: 05h 41m 12.74800s +22:45:11.87706s
RUWE (>1.4 is poor) : 0.87
K magnitude         : 9.424
G magnitude         : 10.387
RP magnitude        : 10.026
BP magnitude        : 10.599
DUPflag            : 0
Distance (au)       : 4.650
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : 2.66
Sun-Target sep (deg) : 109.47
Sun-Moon sep (deg)  : 35.27
B (ring opening deg) : 2.72
PA of pole (deg)    : -1.19
Pole direction: RA (deg): 268.05633
Dec (deg): 64.49686
C/A sky separation (") : 8.362
C/A sky separation (km) : 28198.1
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
    
```

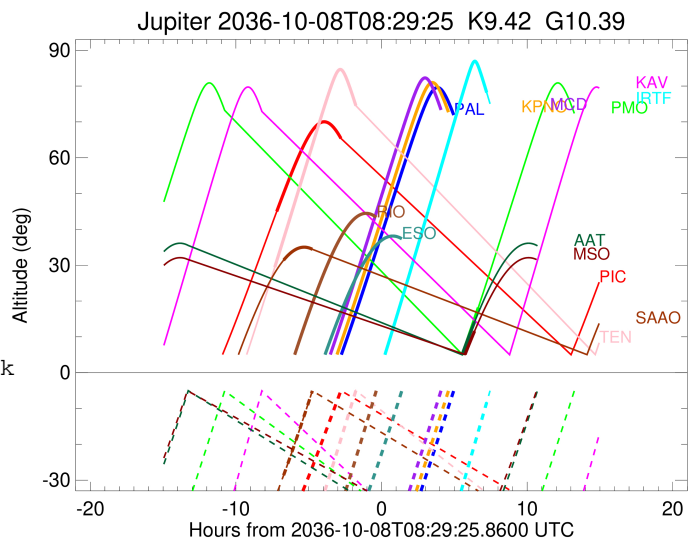
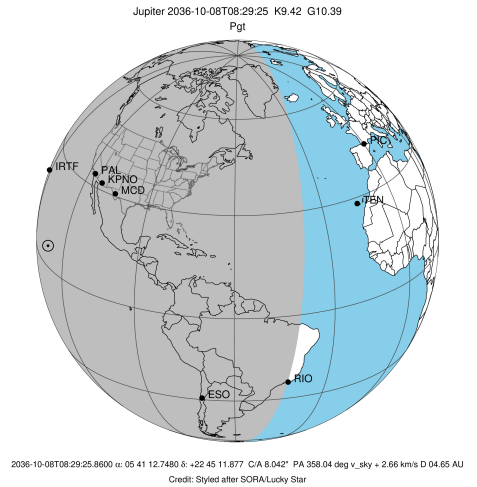


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2036-10-08T02:19:48.592	-32.66x	64.07x	71490.4	-23.51	-26.42
Jupiter	E	2036-10-08T14:52:51.304	14.15	-49.82	71490.0	-26.66	-29.82

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2036-10-08T09:13:45.350
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      : 3403549994811424128
2Mass ID (if available) : 05411275+2245124
ICRS Star Coord at Epoch: 05h 41m 12.74800s +22:45:11.87706s
RUWE (>1.4 is poor) : 0.87
K magnitude          : 9.424
G magnitude          : 10.387
RP magnitude         : 10.026
BP magnitude         : 10.599
DUPflag             : 0
Distance (au)       : 4.649
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : 2.66
Sun-Target sep (deg) : 109.47
Sun-Moon sep (deg)  : 36.61
B (ring opening deg) : 2.72
PA of pole (deg)    : -1.19
Pole direction: RA (deg): 268.05633
Dec (deg): 64.49686
C/A sky separation (" ) : 9.035
C/A sky separation (km) : 30465.7
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
    
```

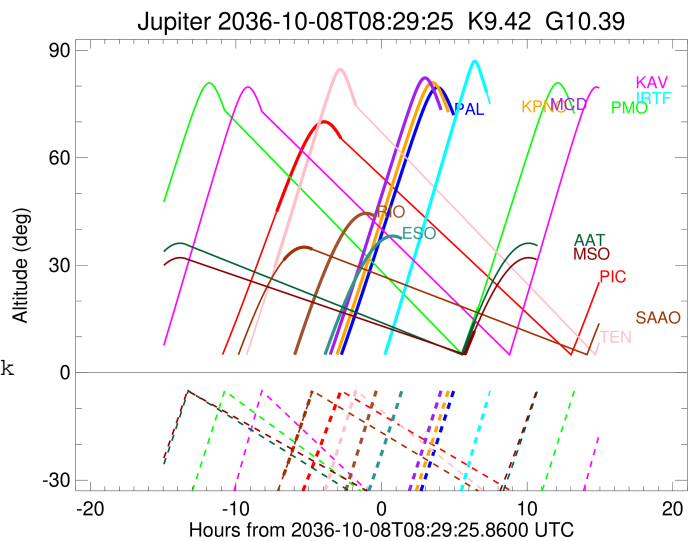
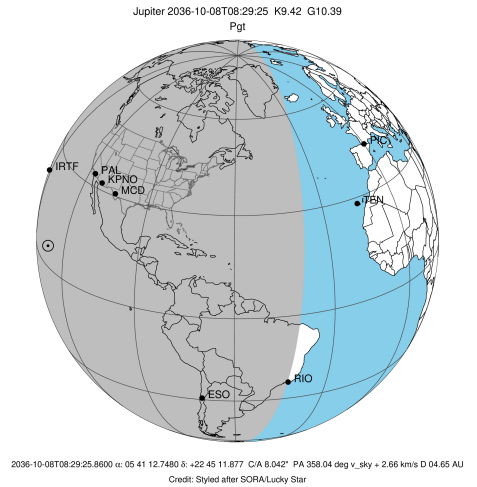


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2036-10-08T01:45:57.081	31.39	-28.67	71490.1	-25.95	-29.05
Jupiter	E	2036-10-08T15:29:16.924	-79.53x	14.91x	71490.3	-23.98	-26.93

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2036-10-08T08:12:57.890
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        : 3403549994811424128
2Mass ID (if available) : 05411275+2245124
ICRS Star Coord at Epoch: 05h 41m 12.74800s +22:45:11.87706s
RUWE (>1.4 is poor) : 0.87
K magnitude           : 9.424
G magnitude           : 10.387
RP magnitude          : 10.026
BP magnitude          : 10.599
DUPflag              : 0
Distance (au)         : 4.650
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 2.66
Sun-Target sep (deg)  : 109.47
Sun-Moon sep (deg)   : 35.28
B (ring opening deg) : 2.72
PA of pole (deg)     : -1.19
Pole direction: RA (deg): 268.05633
Dec (deg): 64.49686
C/A sky separation (") : 8.491
C/A sky separation (km) : 28634.3
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	2036-10-08T02:19:29.198	-33.06x	60.21x	71490.3	-23.85	-26.78
Jupiter	E	2036-10-08T14:53:11.090	11.65	-46.11	71489.9	-26.93	-30.10