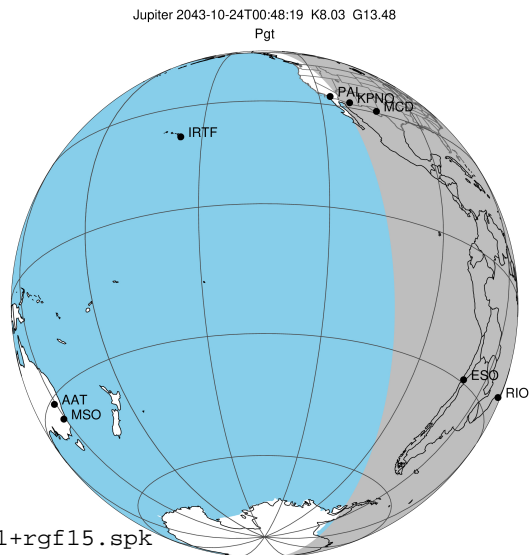


target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-10-24T00:48:19.630
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4069362289005901312
 2Mass ID (if available) : 17553289-2323071

Jupiter 2043-10-24T00:48:19 K8.03 G13.48 Pgt

ICRS Star Coord at Epoch: 17h 55m 32.89704s -23:23:07.29909s

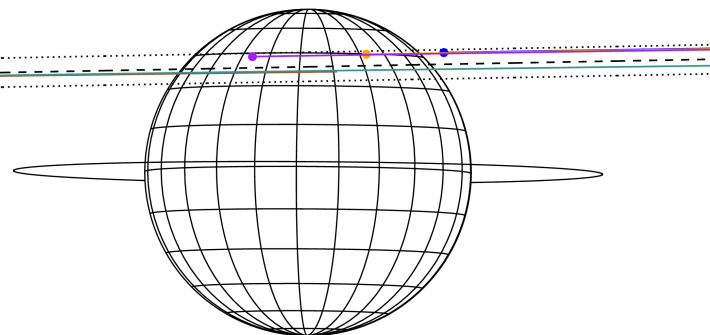
RUWE (>1.4 is poor) : 0.84
 K magnitude : 8.026
 G magnitude : 13.481
 RP magnitude : 12.135
 BP magnitude : 15.700
 DUPflag : 0
 Distance (au) : 5.663
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 28.50
 Sun-Target sep (deg) : 59.09
 Sun-Moon sep (deg) : 162.18
 B (ring opening deg) : -2.11
 PA of pole (deg) : -0.36
 Pole direction: RA (deg): 268.05675
 Dec (deg): 64.49731
 C/A sky separation (") : 11.269
 C/A sky separation (km) : 46283.4
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk



2043-10-24T00:48:19.6300 a: 17 55 32.8970 s: -23 23 07.299 C/A ***** PA 181.07 deg v_sky +28.50 km/s D 05.66 AU
 Credit: Styled after SORA/Lucky Star

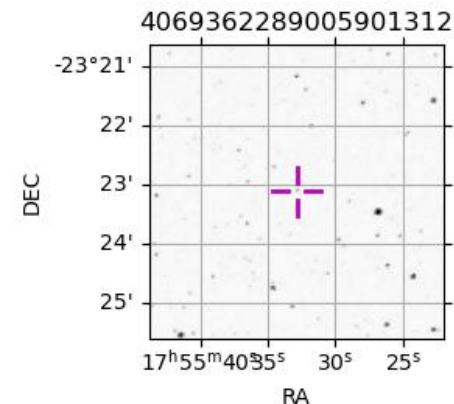
Earth

- PAL
- KPNO
- MCD
- RIO
- ESO



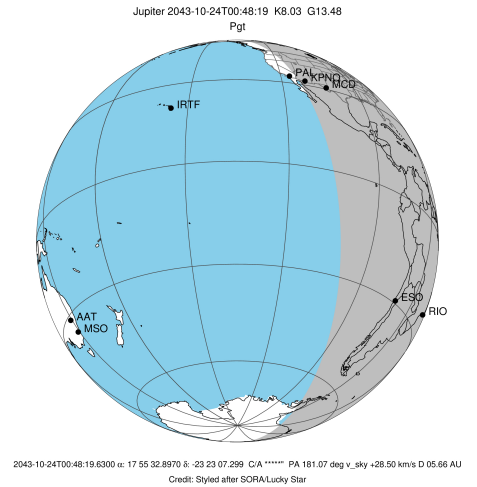
Observable events with sun below -5 deg and altitude above 5 deg

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			Pnn
KPNO	Kitt Peak Natl Obs	32.0	248.4	+	OCT 24 01:19 - OCT 24 01:19	Pne
MCD	McDonald Obs. 2.7m	30.7	256.0	+	OCT 24 01:19 - OCT 24 01:19	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			Pnn
RIO	Rio de Janeiro	-22.9	316.8	+	OCT 24 00:18 - OCT 24 00:18	Pin
ESO	European Southern Obs. (3.6m)	-29.3	289.3	+	OCT 24 00:18 - OCT 24 01:24	Pie
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

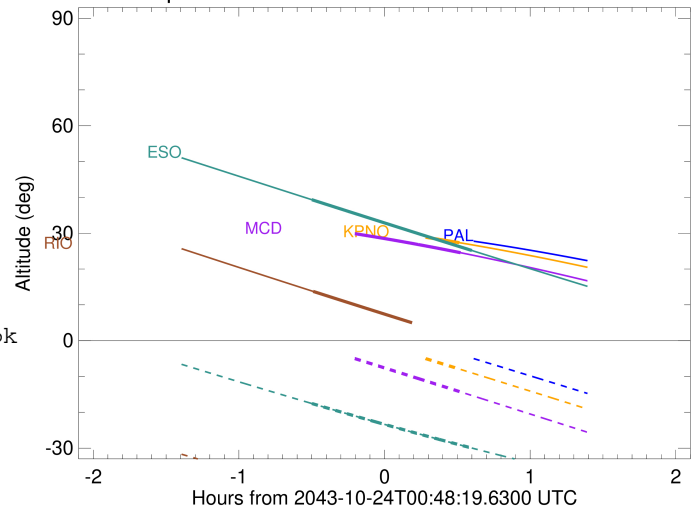


```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-24T00:49:36.950
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        : 4069362289005901312
2Mass ID (if available) : 17553289-2323071
ICRS Star Coord at Epoch: 17h 55m 32.89704s -23:23:07.29909s
RUWE (>1.4 is poor) : 0.84
K magnitude           : 8.026
G magnitude           : 13.481
RP magnitude          : 12.135
BP magnitude          : 15.700
DUPflag              : 0
Distance (au)         : 5.663
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 28.50
Sun-Target sep (deg) : 59.09
Sun-Moon sep (deg)   : 162.23
B (ring opening deg) : -2.11
PA of pole (deg)     : -0.36
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (") : 12.506
C/A sky separation (km) : 51366.7
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
    
```



Jupiter 2043-10-24T00:48:19 K8.03 G13.48

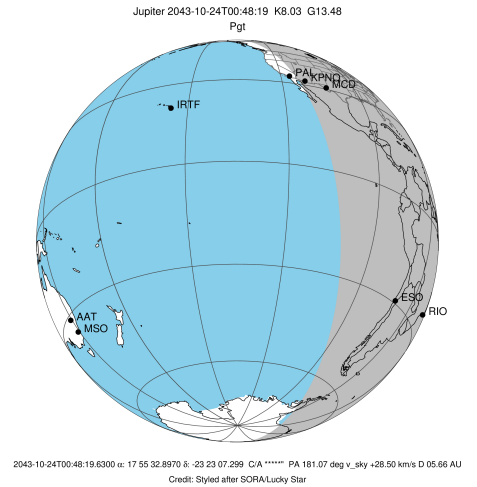


x: target alt < 5.0 deg or sun > -5.0 deg

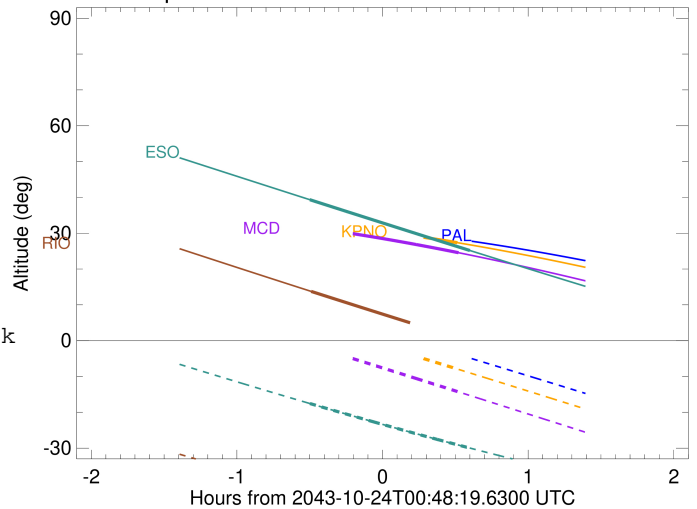
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-10-24T00:20:08.255	32.67	4.32x	71489.0	44.56	48.27
Jupiter	E	2043-10-24T01:19:03.769	27.36	-7.90	71488.7	47.19	50.85

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-24T00:50:02.280
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        : 4069362289005901312
2Mass ID (if available) : 17553289-2323071
ICRS Star Coord at Epoch: 17h 55m 32.89704s -23:23:07.29909s
RUWE (>1.4 is poor) : 0.84
K magnitude           : 8.026
G magnitude           : 13.481
RP magnitude          : 12.135
BP magnitude          : 15.700
DUPflag              : 0
Distance (au)         : 5.663
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 28.50
Sun-Target sep (deg)  : 59.09
Sun-Moon sep (deg)    : 162.11
B (ring opening deg) : -2.11
PA of pole (deg)      : -0.36
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (") : 12.455
C/A sky separation (km) : 51156.5
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
    
```



Jupiter 2043-10-24T00:48:19 K8.03 G13.48

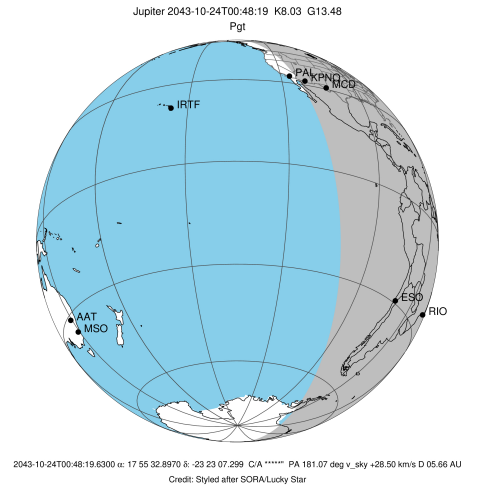


x: target alt < 5.0 deg or sun > -5.0 deg

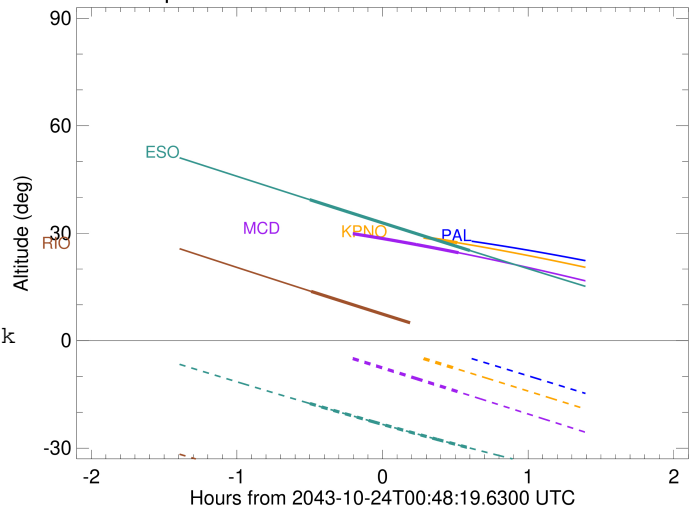
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-10-24T00:20:26.957	31.44	-1.70x	71489.0	44.36	48.07
Jupiter	E	2043-10-24T01:19:35.311	24.56	-14.29	71488.7	46.90	50.57

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-10-24T00:51:56.080
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      : 4069362289005901312
2Mass ID (if available) : 17553289-2323071
ICRS Star Coord at Epoch: 17h 55m 32.89704s -23:23:07.29909s
RUWE (>1.4 is poor) : 0.84
K magnitude          : 8.026
G magnitude          : 13.481
RP magnitude         : 12.135
BP magnitude         : 15.700
DUPflag             : 0
Distance (au)       : 5.663
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 28.50
Sun-Target sep (deg) : 59.09
Sun-Moon sep (deg)  : 161.30
B (ring opening deg) : -2.11
PA of pole (deg)    : -0.36
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (") : 10.713
C/A sky separation (km) : 43999.4
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
    
```



Jupiter 2043-10-24T00:48:19 K8.03 G13.48

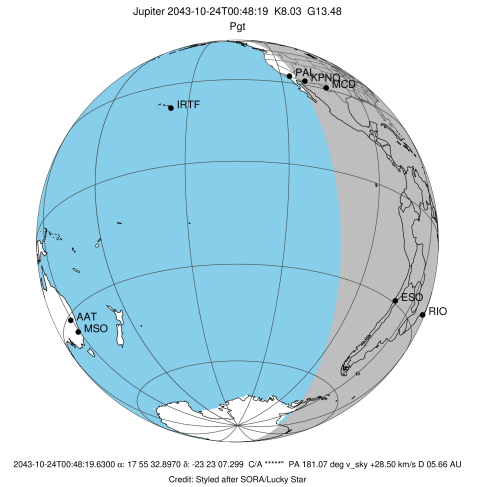


x: target alt < 5.0 deg or sun > -5.0 deg

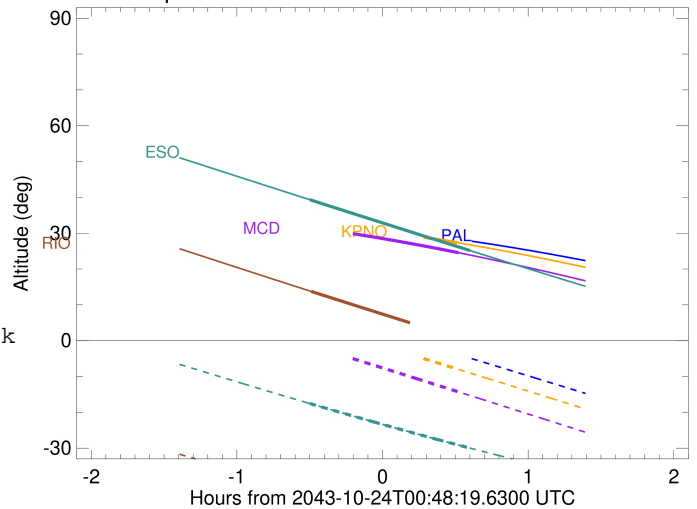
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-10-24T00:18:57.620	13.75	-41.77	71489.8	36.87	40.52
Jupiter	E	2043-10-24T01:24:49.490	-0.29x	-51.31	71489.6	39.04	42.74

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-24T00:51:25.530
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       : 4069362289005901312
2Mass ID (if available) : 17553289-2323071
ICRS Star Coord at Epoch: 17h 55m 32.89704s -23:23:07.29909s
RUWE (>1.4 is poor) : 0.84
K magnitude           : 8.026
G magnitude           : 13.481
RP magnitude          : 12.135
BP magnitude          : 15.700
DUPflag              : 0
Distance (au)        : 5.663
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 28.50
Sun-Target sep (deg) : 59.09
Sun-Moon sep (deg)   : 161.57
B (ring opening deg) : -2.11
PA of pole (deg)     : -0.36
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (") : 10.822
C/A sky separation (km) : 44447.0
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
    
```



Jupiter 2043-10-24T00:48:19 K8.03 G13.48



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	2043-10-24T00:18:26.202	39.33	-17.55	71489.8	37.26	40.92
Jupiter	E	2043-10-24T01:24:20.383	25.16	-29.98	71489.5	39.54	43.24