

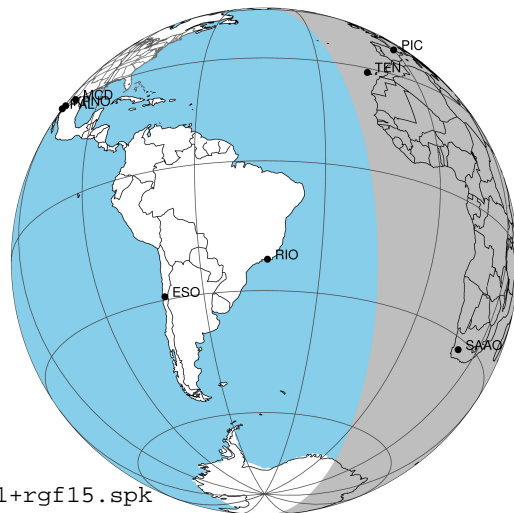
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-10-18T19:01:28.140
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4068637500350632704
 2Mass ID (if available) : 17515141-2322084

Jupiter 2043-10-18T19:01:28 K8.06 G14.20 Pgt

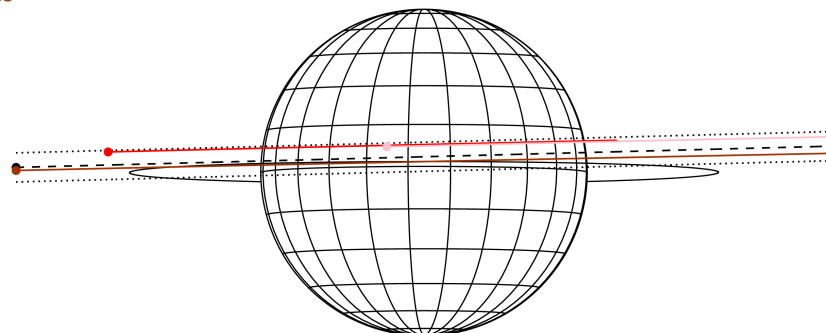
ICRS Star Coord at Epoch: 17h 51m 51.40011s -23:22:08.70536s

RUWE (>1.4 is poor) : 0.94
 K magnitude : 8.056
 G magnitude : 14.204
 RP magnitude : 12.733
 BP magnitude : 17.221
 DUPflag : 0
 Distance (au) : 5.593
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 26.49
 Sun-Target sep (deg) : 63.45
 Sun-Moon sep (deg) : 120.60
 B (ring opening deg) : -2.13
 PA of pole (deg) : 0.04
 Pole direction: RA (deg): 268.05675
 Dec (deg): 64.49731
 C/A sky separation (") : 1.699
 C/A sky separation (km) : 6889.7
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2043-10-18T19:01:28 K8.06 G14.20
 Pgt



Earth
 PIC
 TEN
 SAAO

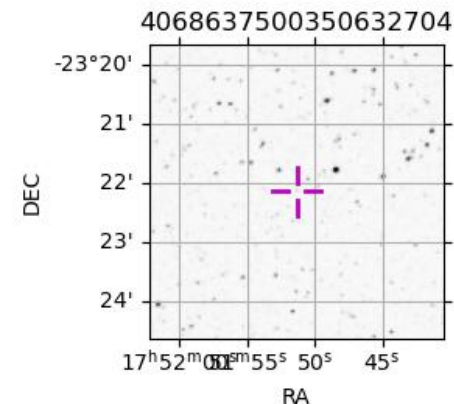


2043-10-18T19:01:28.1400 cc: 17 51 51.40011 s: -23 22 08.70536 C/A 1.699° PA 181.49 deg v_sky +26.49 km/s D 05.59 AU

Credit: Styled after SORA/Lucky Star

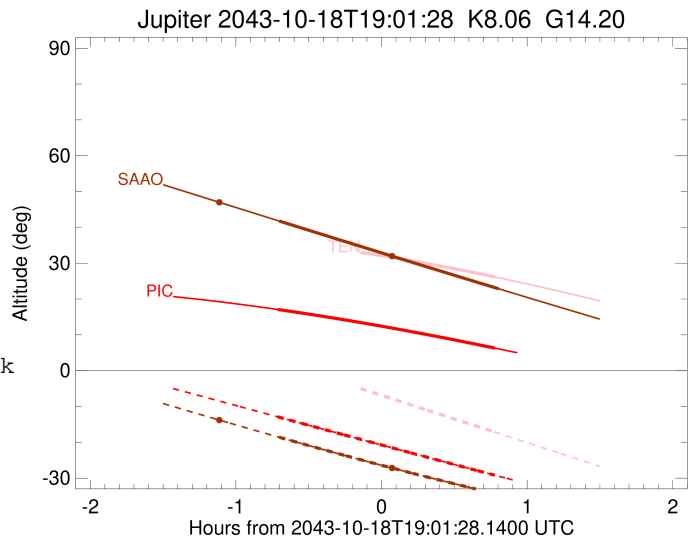
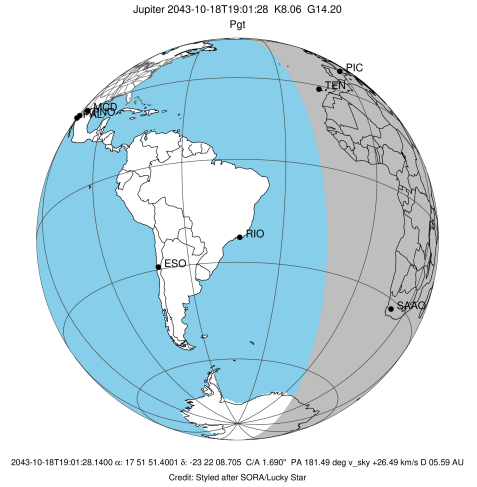
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	OEcode
PIC	Pic du Midi	42.9	0.1	+ +	OCT 18 18:18 - OCT 18 19:48	Pie
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			Pnn
TEN	Teide Obs./Tenerife	28.3	343.5	+ +	OCT 18 19:48 - OCT 18 19:48	Pne
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			Pnn
ESO	European Southern Obs. (3.6m)	-29.3	289.3			Pnn
AAT	Siding Spring (AAT)	-31.3	149.1			Pnn
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8	+ +	OCT 18 18:19 - OCT 18 19:49	Pie
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-10-18T19:03:29.390
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       : 4068637500350632704
2Mass ID (if available) : 17515141-2322084
ICRS Star Coord at Epoch: 17h 51m 51.40011s -23:22:08.70536s
RUWE (>1.4 is poor) : 0.94
K magnitude          : 8.056
G magnitude          : 14.204
RP magnitude         : 12.733
BP magnitude         : 17.221
DUPflag             : 0
Distance (au)        : 5.593
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 26.49
Sun-Target sep (deg) : 63.45
Sun-Moon sep (deg)   : 121.07
B (ring opening deg) : -2.13
PA of pole (deg)     : 0.04
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (") : 3.020
C/A sky separation (km) : 12250.7
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
    
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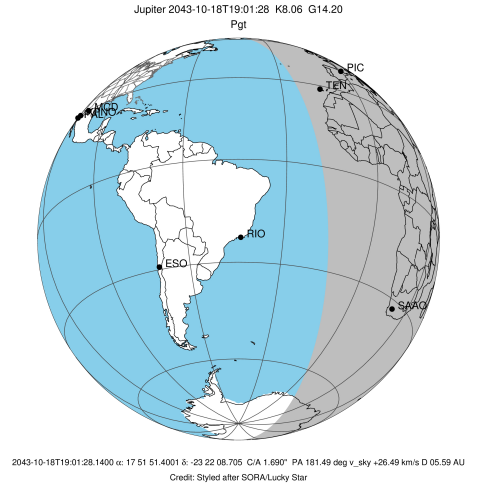


x: target alt < 5.0 deg or sun > -5.0 deg

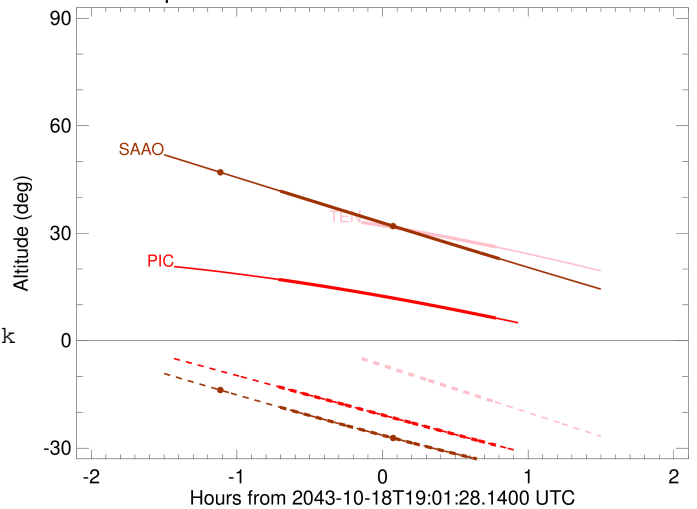
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-10-18T18:18:42.380	17.08	-12.89	71491.9	8.58	9.79
Jupiter	E	2043-10-18T19:48:10.178	6.31	-29.18	71491.8	11.09	12.63

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-10-18T19:03:04.540
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        : 4068637500350632704
2Mass ID (if available) : 17515141-2322084
ICRS Star Coord at Epoch: 17h 51m 51.40011s -23:22:08.70536s
RUWE (>1.4 is poor) : 0.94
K magnitude           : 8.056
G magnitude           : 14.204
RP magnitude          : 12.733
BP magnitude          : 17.221
DUPflag              : 0
Distance (au)         : 5.593
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 26.49
Sun-Target sep (deg)  : 63.45
Sun-Moon sep (deg)    : 121.29
B (ring opening deg) : -2.13
PA of pole (deg)      : 0.04
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation (" ) : 2.879
C/A sky separation (km) : 11677.2
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 2043-10-18T19:01:28 K8.06 G14.20

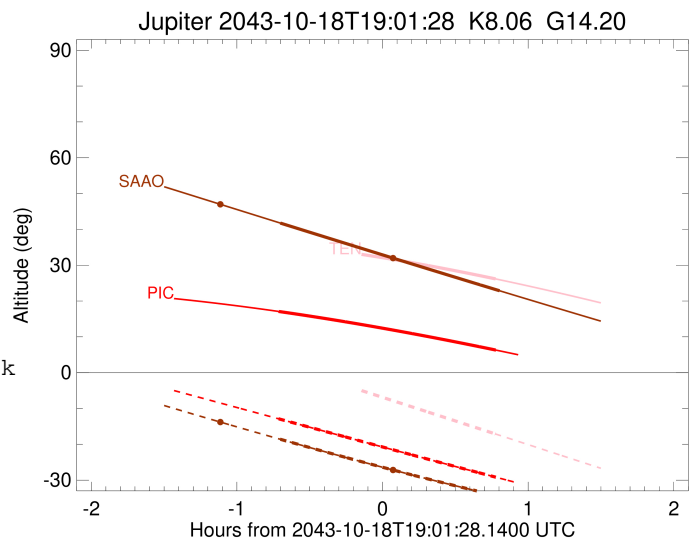
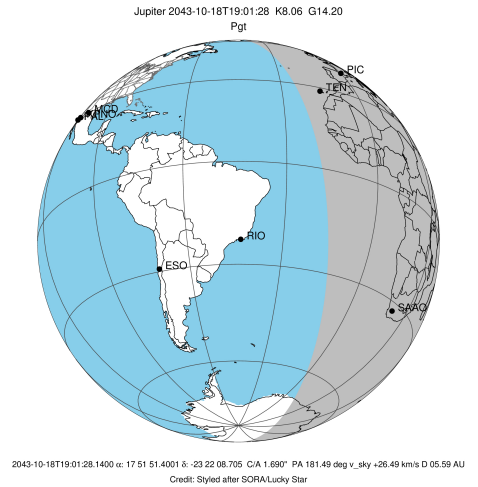


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-10-18T18:18:02.012	36.08	2.55x	71491.9	8.06	9.19
Jupiter	E	2043-10-18T19:48:01.750	26.18	-17.12	71491.8	10.66	12.15

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-10-18T19:04:36.150
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      : 4068637500350632704
2Mass ID (if available) : 17515141-2322084
ICRS Star Coord at Epoch: 17h 51m 51.40011s -23:22:08.70536s
RUWE (>1.4 is poor) : 0.94
K magnitude          : 8.056
G magnitude          : 14.204
RP magnitude         : 12.733
BP magnitude         : 17.221
DUPflag             : 0
Distance (au)        : 5.593
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 26.49
Sun-Target sep (deg) : 63.45
Sun-Moon sep (deg)   : 121.47
B (ring opening deg) : -2.13
PA of pole (deg)     : 0.04
Pole direction: RA (deg): 268.05675
Dec (deg): 64.49731
C/A sky separation ("): 1.174
C/A sky separation (km): 4764.1
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	2043-10-18T18:19:21.944	41.76	-18.59	71492.0	2.65	3.03
Jupiter	E	2043-10-18T19:49:41.633	22.87	-34.49	71492.0	4.95	5.66