

target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2043-11-03T01:20:14.820  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 4069173757097214336  
 2Mass ID (if available) : 18031200-2324301

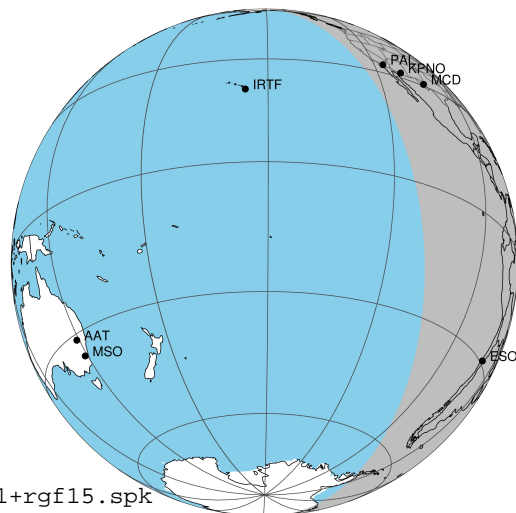
Jupiter 2043-11-03T01:20:14 K7.61 G13.38 Pgt

ICRS Star Coord at Epoch: 18h 03m 12.00108s -23:24:30.30278s

RUWE (>1.4 is poor) : 0.99  
 K magnitude : 7.607  
 G magnitude : 13.377  
 RP magnitude : 11.991  
 BP magnitude : 15.766  
 DUPflag : 0  
 Distance (au) : 5.788  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 32.08  
 Sun-Target sep (deg) : 50.83  
 Sun-Moon sep (deg) : 37.65  
 B (ring opening deg) : -2.07  
 PA of pole (deg) : -1.18  
 Pole direction: RA (deg): 268.05676  
 Dec (deg): 64.49731  
 C/A sky separation (") : 0.444  
 C/A sky separation (km) : 1865.1  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

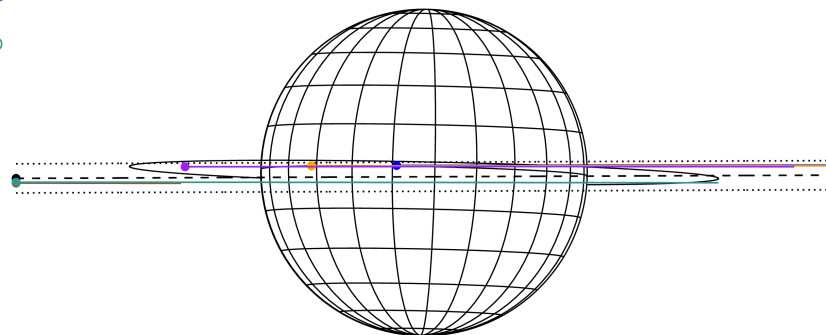
Jupiter 2043-11-03T01:20:14 K7.61 G13.38

Pgt



Earth

- PAL
- KPNO
- MCD
- RIO
- ESO

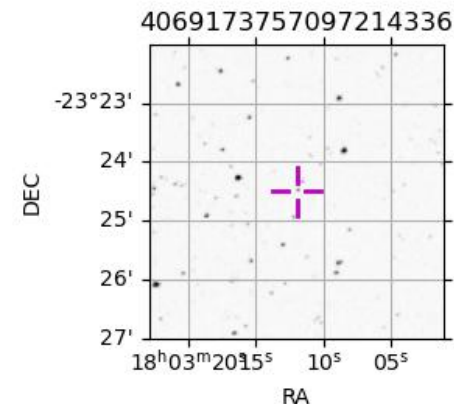


2043-11-03T01:20:14.8200 az: 18 03 12.0011 & -23 24 30.303 C/A 0.452" PA 0.23 deg v\_sky +32.08 km/s D 05.79 AU

Credit: Styled after SORA/Lucky Star

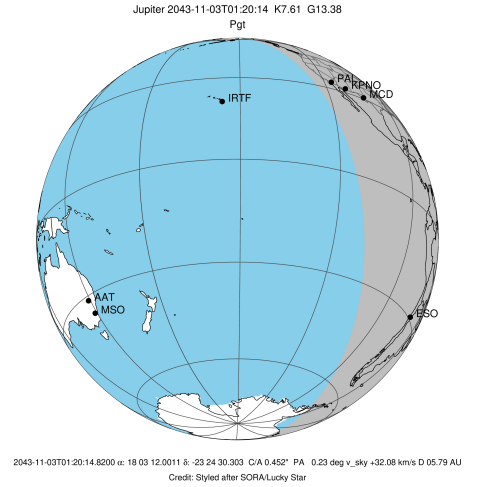
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	OCode
PIC	Pic du Midi	42.9	0.1			Pnn
PAL	Palomar Mt (200")	33.4	243.1	+	NOV 03 01:59 - NOV 03 01:59	Pne
PMO	Purple Mtn Obs. Nanking	32.1	118.8			Pnn
KPNO	Kitt Peak Natl Obs	32.0	248.4	+	NOV 03 01:59 - NOV 03 01:59	Pne
MCD	McDonald Obs. 2.7m	30.7	256.0	+ +	NOV 03 00:44 - NOV 03 01:59	Pie
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			Pnn
ESO	European Southern Obs. (3.6m)	-29.3	289.3	+ +	NOV 03 00:45 - NOV 03 02:00	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

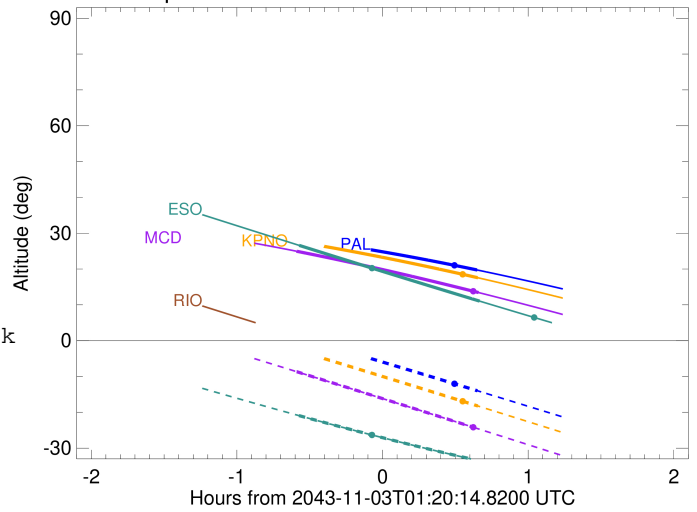


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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-11-03T01:21:49.020
Event type           : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code        : PAL
Location             : Palomar Mt (200")
Latitude (deg)       : 33.35622
E. Longitude (deg)   : 243.13601
Altitude (km)        : 1.706
Gaia source ID       : 4069173757097214336
2Mass ID (if available) : 18031200-2324301
ICRS Star Coord at Epoch: 18h 03m 12.00108s -23:24:30.30278s
RUWE (>1.4 is poor) : 0.99
K magnitude          : 7.607
G magnitude          : 13.377
RP magnitude         : 11.991
BP magnitude         : 15.766
DUPflag             : 0
Distance (au)        : 5.788
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 32.08
Sun-Target sep (deg) : 50.83
Sun-Moon sep (deg)   : 38.29
B (ring opening deg) : -2.07
PA of pole (deg)     : -1.18
Pole direction: RA (deg): 268.05676
Dec (deg): 64.49731
C/A sky separation ("): 0.734
C/A sky separation (km): 3083.3
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
    
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Jupiter 2043-11-03T01:20:14 K7.61 G13.38

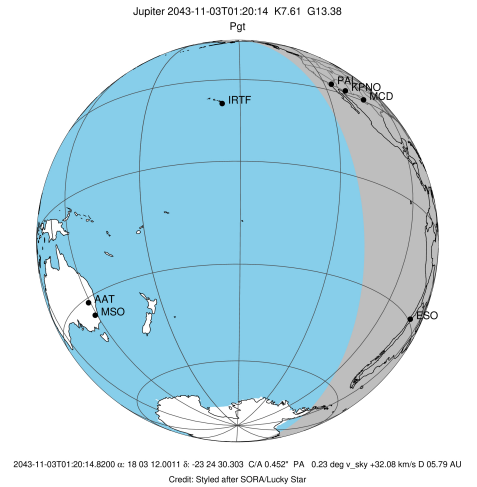


x: target alt < 5.0 deg or sun > -5.0 deg

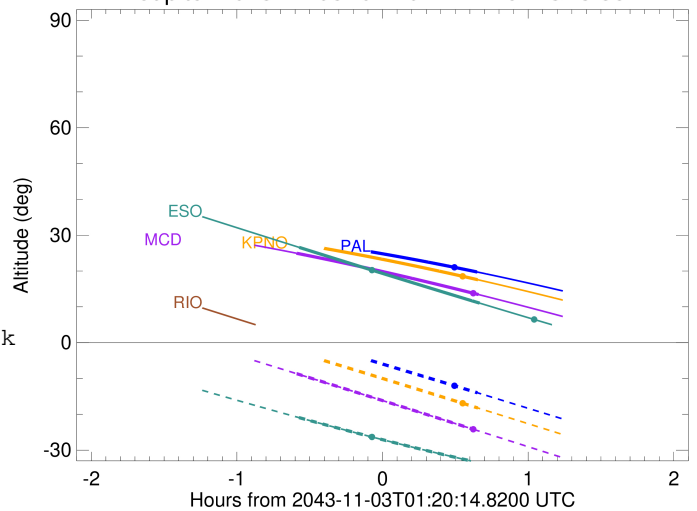
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-11-03T00:44:18.657	28.62	1.25x	71492.0	1.20	1.37
Jupiter	E	2043-11-03T01:59:16.096	19.73	-13.96	71492.0	3.70	4.23

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-11-03T01:22:03.030
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       : 4069173757097214336
2Mass ID (if available) : 18031200-2324301
ICRS Star Coord at Epoch: 18h 03m 12.00108s -23:24:30.30278s
RUWE (>1.4 is poor) : 0.99
K magnitude          : 7.607
G magnitude          : 13.377
RP magnitude         : 11.991
BP magnitude         : 15.766
DUPflag             : 0
Distance (au)        : 5.788
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 32.08
Sun-Target sep (deg) : 50.83
Sun-Moon sep (deg)   : 38.32
B (ring opening deg) : -2.07
PA of pole (deg)     : -1.18
Pole direction: RA (deg): 268.05676
Dec (deg): 64.49731
C/A sky separation ("): 0.684
C/A sky separation (km): 2870.8
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 2043-11-03T01:20:14 K7.61 G13.38

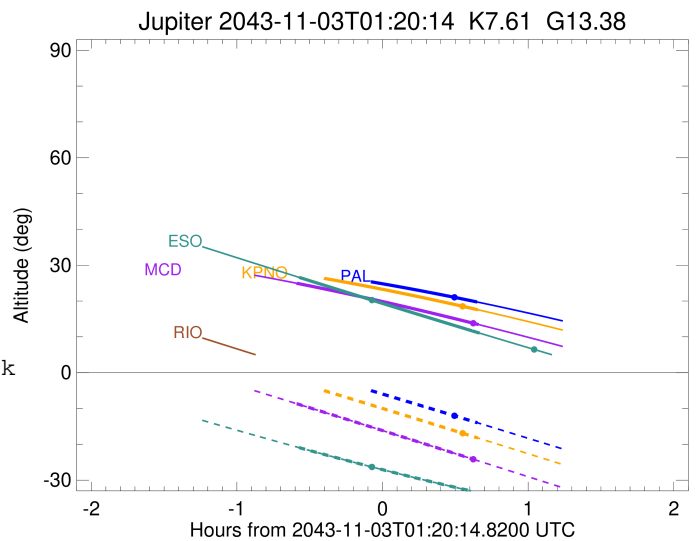
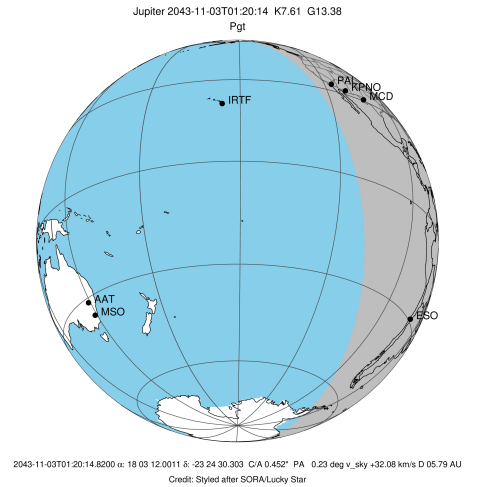


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-11-03T00:44:33.412	27.66	-2.62x	71492.0	1.05	1.21
Jupiter	E	2043-11-03T01:59:28.983	17.57	-18.22	71492.0	3.51	4.01

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-11-03T01:22:21.090
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       : 4069173757097214336
2Mass ID (if available) : 18031200-2324301
ICRS Star Coord at Epoch: 18h 03m 12.00108s -23:24:30.30278s
RUWE (>1.4 is poor) : 0.99
K magnitude           : 7.607
G magnitude           : 13.377
RP magnitude          : 11.991
BP magnitude          : 15.766
DUPflag              : 0
Distance (au)         : 5.788
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 32.08
Sun-Target sep (deg) : 50.83
Sun-Moon sep (deg)   : 38.35
B (ring opening deg) : -2.07
PA of pole (deg)     : -1.18
Pole direction: RA (deg): 268.05676
Dec (deg): 64.49731
C/A sky separation ("): 0.615
C/A sky separation (km): 2580.5
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
    
```

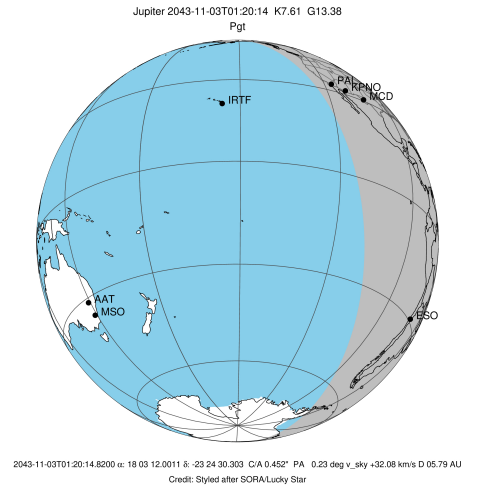


x: target alt < 5.0 deg or sun > -5.0 deg

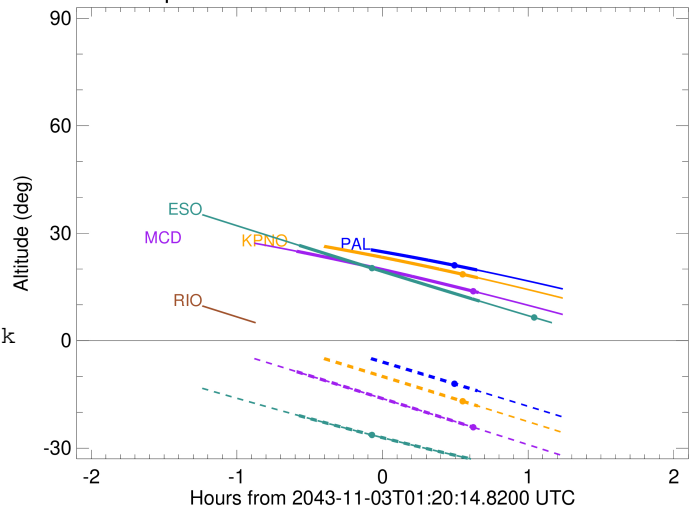
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-11-03T00:44:53.199	24.95	-8.66	71492.0	0.85	0.98
Jupiter	E	2043-11-03T01:59:44.846	13.44	-24.62	71492.0	3.25	3.71

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-11-03T01:23:05.500
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      : 4069173757097214336
2Mass ID (if available) : 18031200-2324301
ICRS Star Coord at Epoch: 18h 03m 12.00108s -23:24:30.30278s
RUWE (>1.4 is poor) : 0.99
K magnitude          : 7.607
G magnitude          : 13.377
RP magnitude         : 11.991
BP magnitude         : 15.766
DUPflag             : 0
Distance (au)       : 5.788
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 32.08
Sun-Target sep (deg) : 50.83
Sun-Moon sep (deg)  : 38.40
B (ring opening deg) : -2.07
PA of pole (deg)    : -1.18
Pole direction: RA (deg): 268.05676
Dec (deg): 64.49731
C/A sky separation ("): 1.039
C/A sky separation (km): 4360.6
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
    
```



Jupiter 2043-11-03T01:20:14 K7.61 G13.38



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	2043-11-03T00:45:54.242	26.60	-20.93	71492.0	-4.62	-5.28
Jupiter	E	2043-11-03T02:00:11.517	11.05	-33.54	71492.0	-2.38	-2.72