

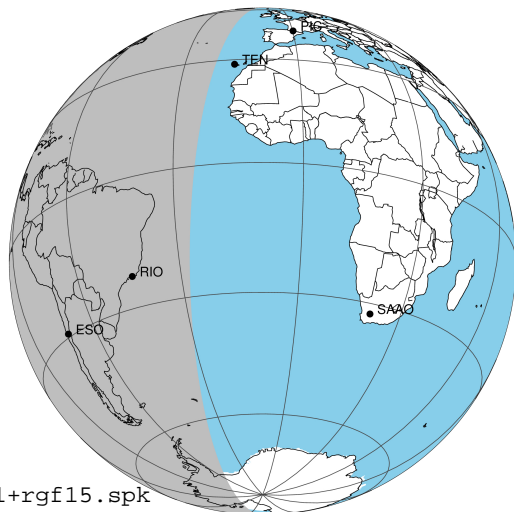
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-03-04T07:50:42.280
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4069447737337714176
 2Mass ID (if available) : 17585465-2259081

Jupiter 2043-03-04T07:50:42 K9.71 G13.79 Pgt

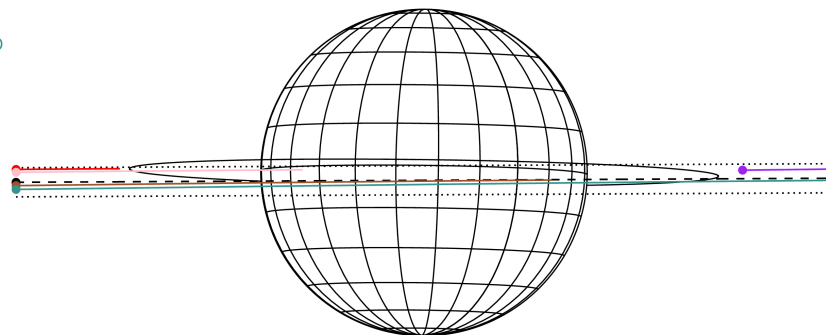
ICRS Star Coord at Epoch: 17h 58m 54.64834s -22:59:08.39556s

RUWE (>1.4 is poor) : 0.99
 K magnitude : 9.713
 G magnitude : 13.787
 RP magnitude : 12.696
 BP magnitude : 15.038
 DUPflag : 0
 Distance (au) : 5.502
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 21.76
 Sun-Target sep (deg) : 73.28
 Sun-Moon sep (deg) : 14.61
 B (ring opening deg) : -2.51
 PA of pole (deg) : -0.72
 Pole direction: RA (deg): 268.05662
 Dec (deg): 64.49732
 C/A sky separation (") : 0.853
 C/A sky separation (km) : 3404.5
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2043-03-04T07:50:42 K9.71 G13.79
 Pgt



Earth
 PIC
 MCD
 TEN
 RIO
 ESO

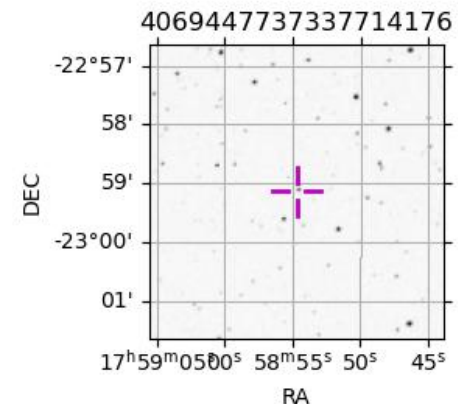


2043-03-04T07:50:42.2800 az: 17 58 54.6483 & -22 59 08.396 C/A 0.863" PA 0.28 deg v_sky +21.76 km/s D 05.50 AU

Credit: Styled after SORA/Lucky Star

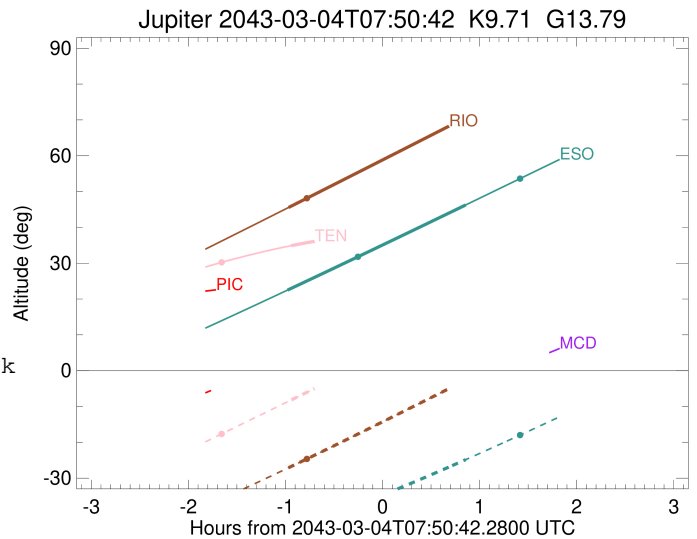
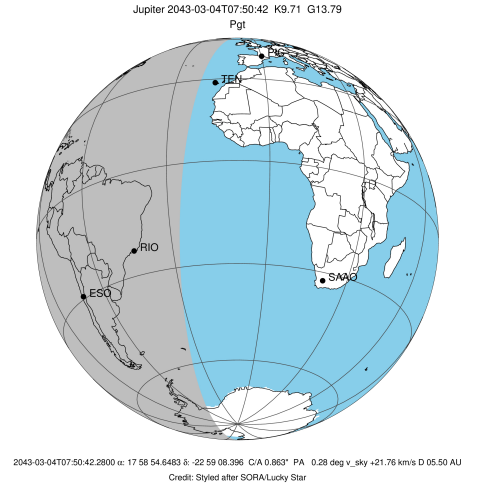
Observable events with sun below -5 deg and altitude above 5 deg

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			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	+	MAR 04 06:54 - MAR 04 06:54	Pin
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	+	MAR 04 06:52 - MAR 04 06:52	Pin
ESO	European Southern Obs. (3.6m)	-29.3	289.3	+	MAR 04 06:52 - MAR 04 08:42	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            : 2043-03-04T07:50:09.100
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      : 4069447737337714176
2Mass ID (if available) : 17585465-2259081
ICRS Star Coord at Epoch: 17h 58m 54.64834s -22:59:08.39556s
RUWE (>1.4 is poor) : 0.99
K magnitude          : 9.713
G magnitude          : 13.787
RP magnitude         : 12.696
BP magnitude         : 15.038
DUPflag             : 0
Distance (au)       : 5.502
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 21.76
Sun-Target sep (deg) : 73.28
Sun-Moon sep (deg)  : 14.93
B (ring opening deg) : -2.51
PA of pole (deg)    : -0.72
Pole direction: RA (deg): 268.05662
Dec (deg): 64.49732
C/A sky separation (" ) : 0.386
C/A sky separation (km) : 1540.6
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
    
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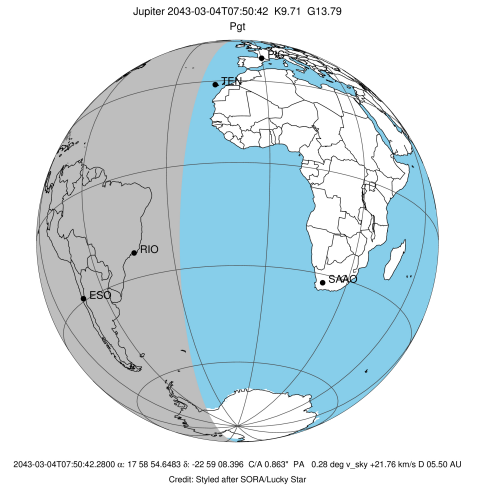


x: target alt < 5.0 deg or sun > -5.0 deg

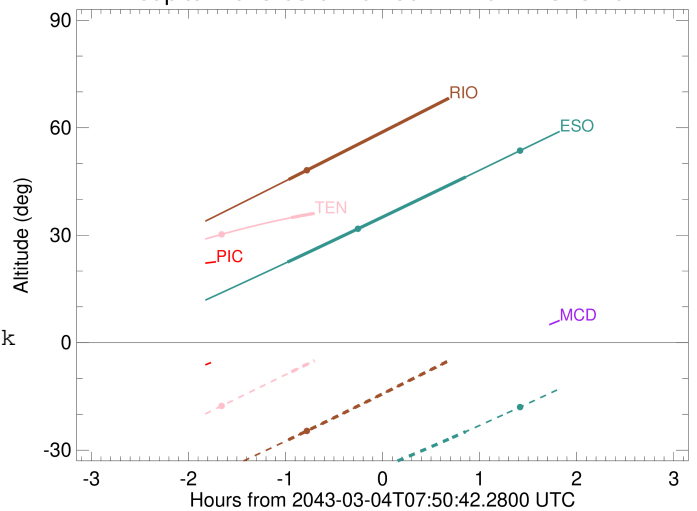
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-03-04T06:54:25.090	34.90	-8.15	71492.0	0.12	0.14
Jupiter	E	2043-03-04T08:45:58.119	38.48	16.06x	71492.0	2.24	2.56

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-03-04T07:48:09.780
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        : 4069447737337714176
2Mass ID (if available) : 17585465-2259081
ICRS Star Coord at Epoch: 17h 58m 54.64834s -22:59:08.39556s
RUWE (>1.4 is poor)  : 0.99
K magnitude           : 9.713
G magnitude           : 13.787
RP magnitude          : 12.696
BP magnitude          : 15.038
DUPflag              : 0
Distance (au)         : 5.502
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 21.76
Sun-Target sep (deg)  : 73.28
Sun-Moon sep (deg)    : 14.36
B (ring opening deg)  : -2.51
PA of pole (deg)      : -0.72
Pole direction: RA (deg): 268.05662
Dec (deg): 64.49732
C/A sky separation (") : 0.949
C/A sky separation (km) : 3785.6
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 2043-03-04T07:50:42 K9.71 G13.79

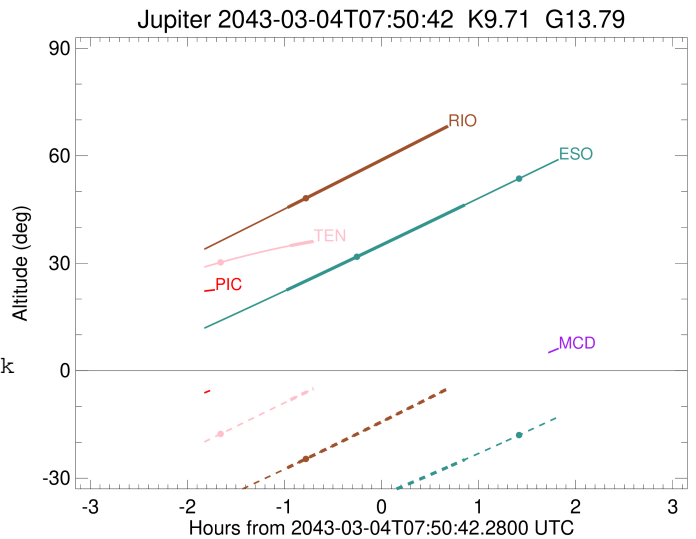
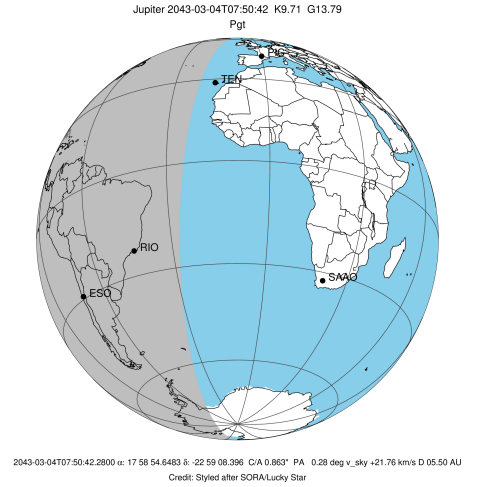


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-03-04T06:52:41.880	45.56	-27.08	71491.9	-4.33	-4.95
Jupiter	E	2043-03-04T08:43:49.837	71.02	-2.26x	71492.0	-1.82	-2.08

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-03-04T07:46:57.060
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        : 4069447737337714176
2Mass ID (if available) : 17585465-2259081
ICRS Star Coord at Epoch: 17h 58m 54.64834s -22:59:08.39556s
RUWE (>1.4 is poor) : 0.99
K magnitude           : 9.713
G magnitude           : 13.787
RP magnitude          : 12.696
BP magnitude          : 15.038
DUPflag              : 0
Distance (au)         : 5.502
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 21.76
Sun-Target sep (deg) : 73.28
Sun-Moon sep (deg)   : 14.01
B (ring opening deg) : -2.51
PA of pole (deg)     : -0.72
Pole direction: RA (deg): 268.05662
Dec (deg): 64.49732
C/A sky separation (") : 1.316
C/A sky separation (km) : 5252.1
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	2043-03-04T06:52:00.684	22.49	-44.60	71491.9	-5.60	-6.40
Jupiter	E	2043-03-04T08:42:09.552	46.26	-24.83	71492.0	-2.86	-3.27