

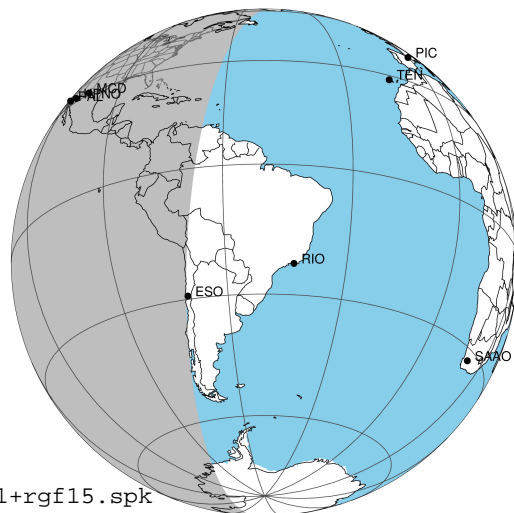
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2031-02-26T10:38:13.630
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4116754087690589568
 2Mass ID (if available) : 17385774-2248451

Jupiter 2031-02-26T10:38:13 K9.96 G14.67 Pgt

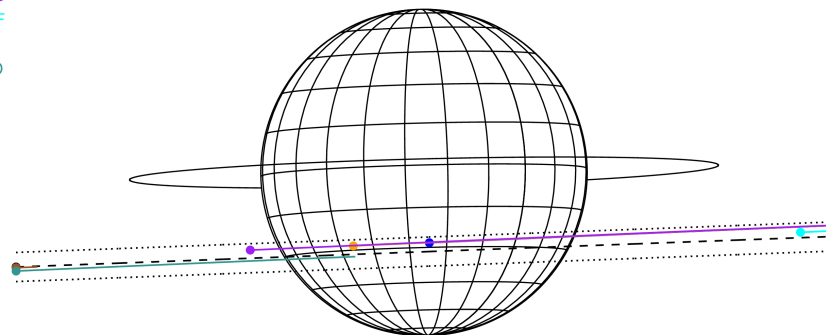
ICRS Star Coord at Epoch: 17h 38m 57.74589s -22:48:45.37117s

RUWE (>1.4 is poor) : 0.99
 K magnitude : 9.959
 G magnitude : 14.669
 RP magnitude : 13.453
 BP magnitude : 16.233
 DUPflag : 0
 Distance (au) : 5.537
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 22.31
 Sun-Target sep (deg) : 72.05
 Sun-Moon sep (deg) : 131.63
 B (ring opening deg) : -2.65
 PA of pole (deg) : 1.43
 Pole direction: RA (deg): 268.05701
 Dec (deg): 64.49651
 C/A sky separation (") : 8.639
 C/A sky separation (km) : 34696.1
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2031-02-26T10:38:13 K9.96 G14.67
 Pgt



Earth
 PAL
 KPNO
 MCD
 IRTF
 RIO
 ESO

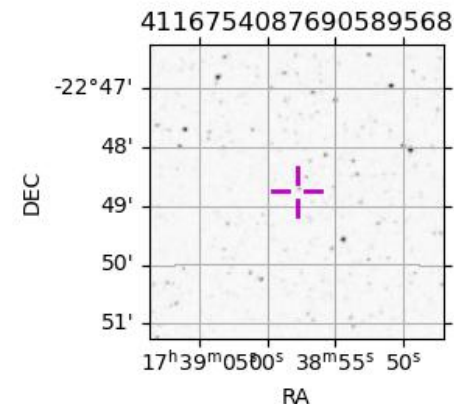


2031-02-26T10:38:13.6300 az: 17 38 57.7459 δ: -22 48 45.371 C/A 8.649° PA 2.14 deg v_sky +22.31 km/s D 05.54 AU

Credit: Styled after SORA/Lucky Star

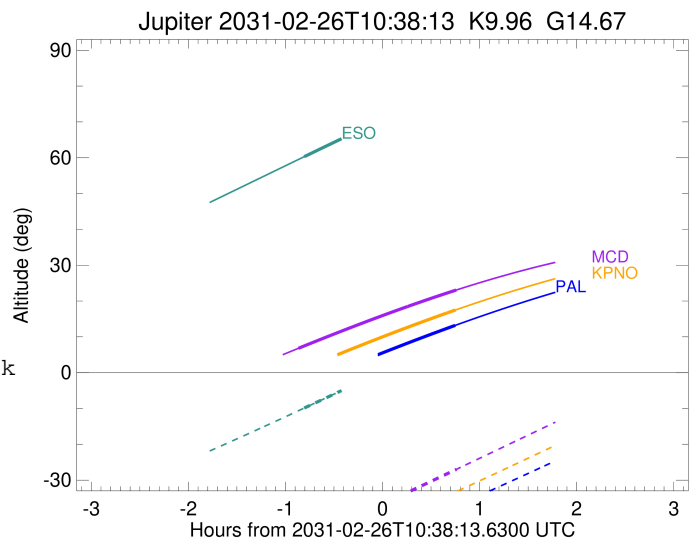
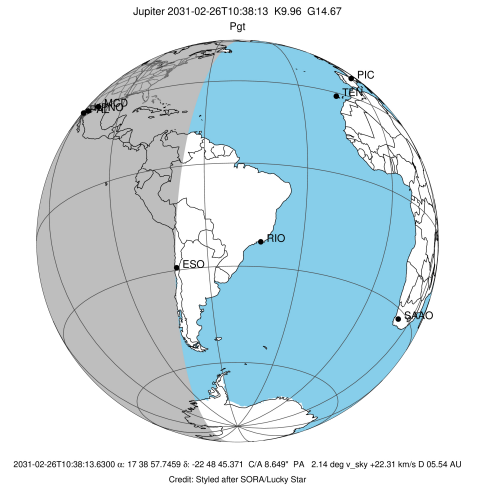
Observable events with sun below -5 deg and altitude above 5 deg

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	+	FEB 26 11:23 - FEB 26 11:23	Pne
PMO	Purple Mtn Obs. Nanking	32.1	118.8			Pnn
KPNO	Kitt Peak Natl Obs	32.0	248.4	+	FEB 26 11:23 - FEB 26 11:23	Pne
MCD	McDonald Obs. 2.7m	30.7	256.0	+ +	FEB 26 09:46 - FEB 26 11:23	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	+	FEB 26 09:49 - FEB 26 09:49	Pin
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            : 2031-02-26T10:34:36.050
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       : 4116754087690589568
2Mass ID (if available) : 17385774-2248451
ICRS Star Coord at Epoch: 17h 38m 57.74589s -22:48:45.37117s
RUWE (>1.4 is poor) : 0.99
K magnitude          : 9.959
G magnitude          : 14.669
RP magnitude         : 13.453
BP magnitude         : 16.233
DUPflag             : 0
Distance (au)        : 5.538
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 22.31
Sun-Target sep (deg) : 72.05
Sun-Moon sep (deg)   : 131.23
B (ring opening deg) : -2.65
PA of pole (deg)     : 1.43
Pole direction: RA (deg): 268.05701
Dec (deg): 64.49651
C/A sky separation ("): 7.682
C/A sky separation (km): 30854.3
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
    
```

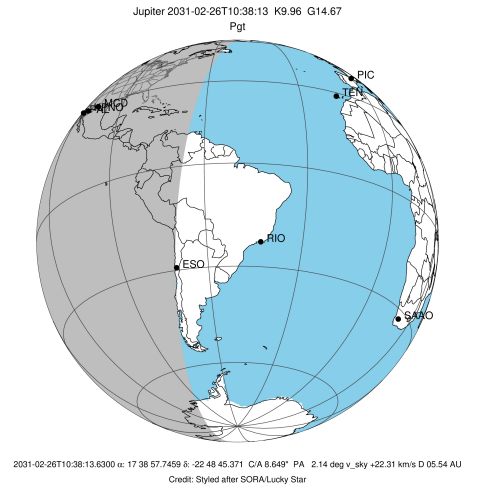


x: target alt < 5.0 deg or sun > -5.0 deg

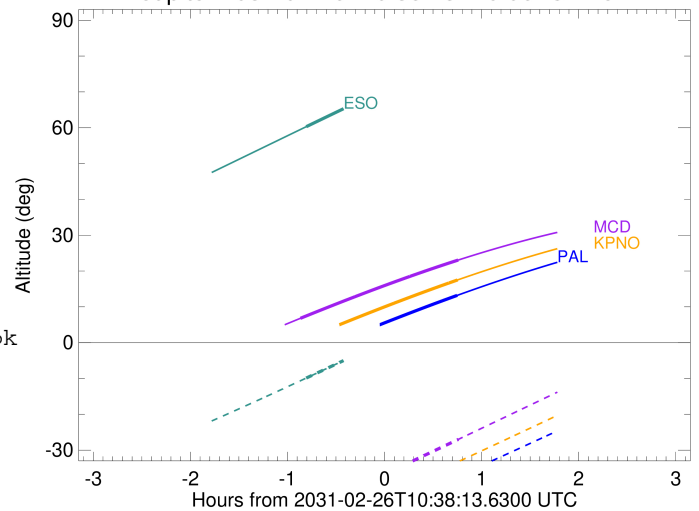
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2031-02-26T09:46:13.770	-4.08x	-55.44	71490.1	-26.63	-29.78
Jupiter	E	2031-02-26T11:23:10.375	13.20	-37.35	71490.3	-24.47	-27.46

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2031-02-26T10:34:41.880
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        : 4116754087690589568
2Mass ID (if available) : 17385774-2248451
ICRS Star Coord at Epoch: 17h 38m 57.74589s -22:48:45.37117s
RUWE (>1.4 is poor) : 0.99
K magnitude           : 9.959
G magnitude           : 14.669
RP magnitude          : 13.453
BP magnitude          : 16.233
DUPflag              : 0
Distance (au)         : 5.538
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 22.31
Sun-Target sep (deg)  : 72.05
Sun-Moon sep (deg)   : 131.30
B (ring opening deg) : -2.65
PA of pole (deg)     : 1.43
Pole direction: RA (deg): 268.05701
Dec (deg): 64.49651
C/A sky separation (") : 7.664
C/A sky separation (km) : 30781.5
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 2031-02-26T10:38:13 K9.96 G14.67

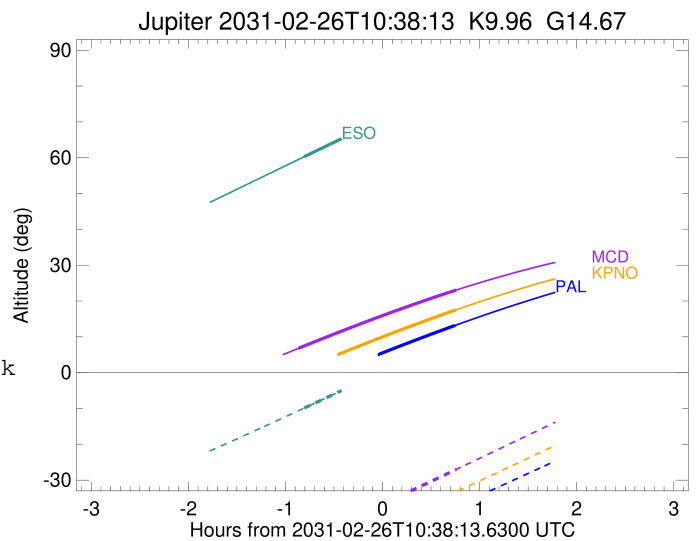
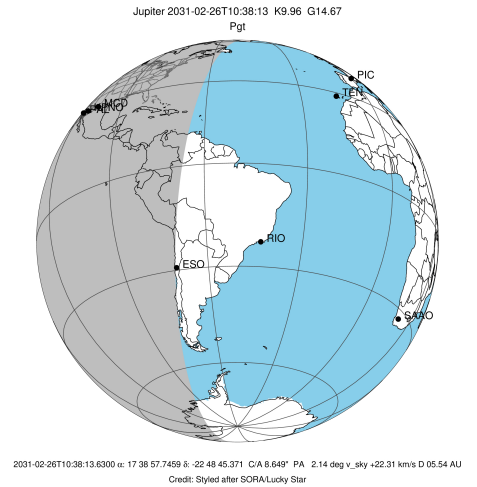


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2031-02-26T09:46:13.407	0.52x	-52.60	71490.1	-26.56	-29.71
Jupiter	E	2031-02-26T11:23:22.212	17.50	-33.31	71490.4	-24.42	-27.40

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2031-02-26T10:34:55.480
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       : 4116754087690589568
2Mass ID (if available) : 17385774-2248451
ICRS Star Coord at Epoch: 17h 38m 57.74589s -22:48:45.37117s
RUWE (>1.4 is poor) : 0.99
K magnitude           : 9.959
G magnitude           : 14.669
RP magnitude         : 13.453
BP magnitude         : 16.233
DUPflag              : 0
Distance (au)        : 5.538
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 22.31
Sun-Target sep (deg) : 72.05
Sun-Moon sep (deg)   : 131.40
B (ring opening deg) : -2.65
PA of pole (deg)     : 1.43
Pole direction: RA (deg): 268.05701
Dec (deg): 64.49651
C/A sky separation (") : 7.626
C/A sky separation (km) : 30628.8
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
    
```

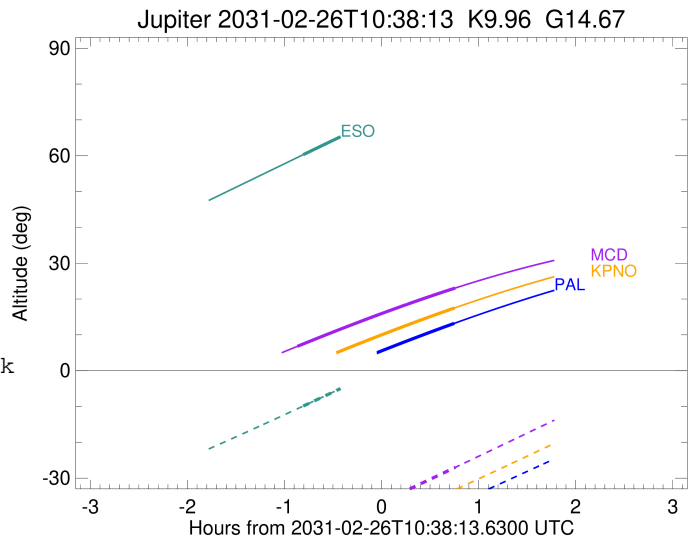
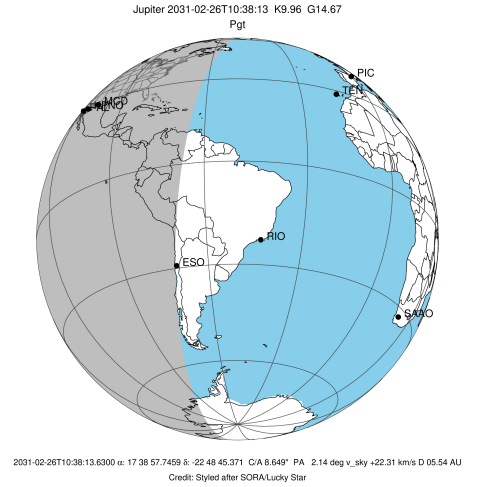


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2031-02-26T09:46:17.264	6.80	-47.37	71490.1	-26.41	-29.55
Jupiter	E	2031-02-26T11:23:45.028	23.05	-27.01	71490.4	-24.31	-27.28

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2031-02-26T10:36:51.920
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      : 4116754087690589568
2Mass ID (if available) : 17385774-2248451
ICRS Star Coord at Epoch: 17h 38m 57.74589s -22:48:45.37117s
RUWE (>1.4 is poor) : 0.99
K magnitude          : 9.959
G magnitude          : 14.669
RP magnitude         : 13.453
BP magnitude         : 16.233
DUPflag             : 0
Distance (au)       : 5.537
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 22.31
Sun-Target sep (deg) : 72.05
Sun-Moon sep (deg)  : 132.09
B (ring opening deg) : -2.65
PA of pole (deg)    : 1.43
Pole direction: RA (deg): 268.05701
Dec (deg): 64.49651
C/A sky separation (") : 8.864
C/A sky separation (km) : 35597.5
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	2031-02-26T09:49:50.182	60.28	-9.88	71489.5	-30.75	-34.17
Jupiter	E	2031-02-26T11:23:59.597	79.89	10.33x	71489.7	-28.98	-32.29