

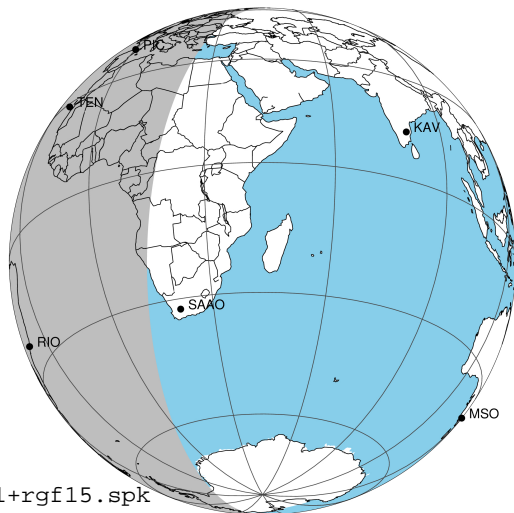
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-02-20T05:00:29.050
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4068707220675316736
 2Mass ID (if available) : 17512068-2257398

Jupiter 2043-02-20T05:00:29 K9.64 G14.82 Pgt

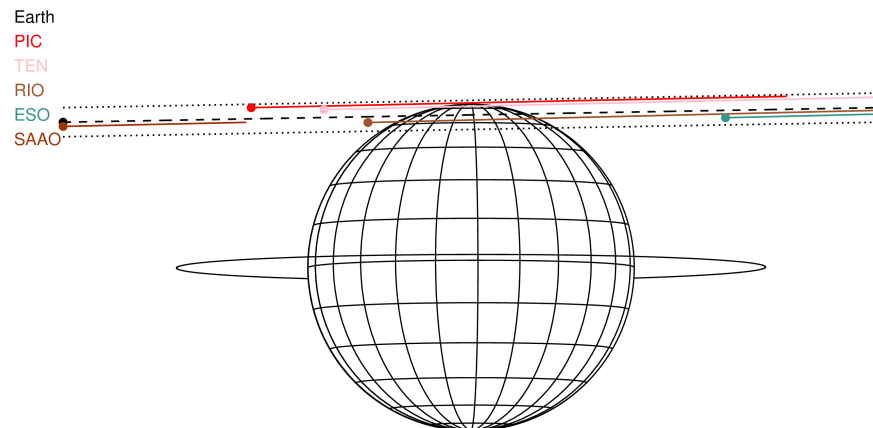
ICRS Star Coord at Epoch: 17h 51m 20.68749s -22:57:39.82726s

RUWE (>1.4 is poor) : 0.93
 K magnitude : 9.639
 G magnitude : 14.823
 RP magnitude : 13.537
 BP magnitude : 16.739
 DUPflag : 0
 Distance (au) : 5.685
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 26.78
 Sun-Target sep (deg) : 62.84
 Sun-Moon sep (deg) : 161.42
 B (ring opening deg) : -2.54
 PA of pole (deg) : 0.09
 Pole direction: RA (deg): 268.05662
 Dec (deg): 64.49732
 C/A sky separation (") : 16.210
 C/A sky separation (km) : 66832.0
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2043-02-20T05:00:29 K9.64 G14.82
 Pgt

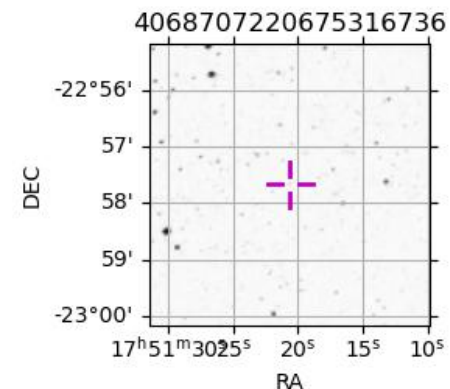


2043-02-20T05:00:29.0500 a: 17 51 20.6875 s: -22 57 39.827 C/A ***** PA 181.02 deg v_sky +26.78 km/s D 05.68 AU
 Credit: Styled after SORA/Lucky Star



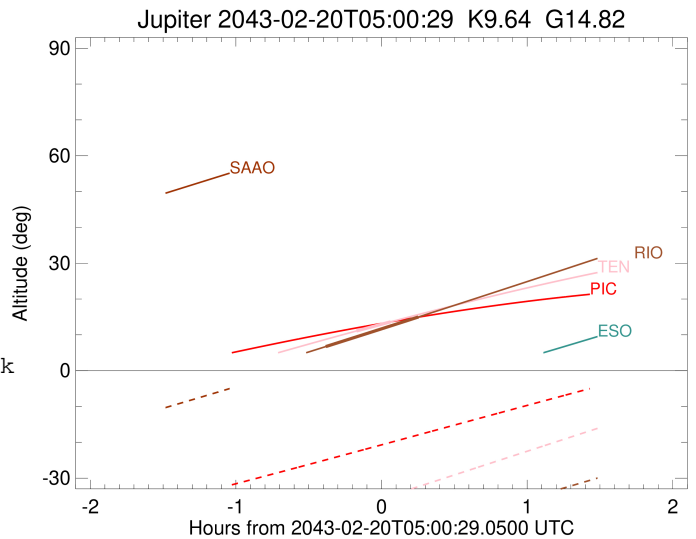
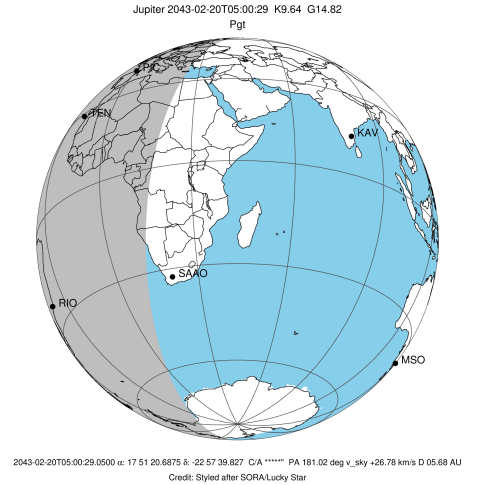
Observable events with sun below -5 deg and altitude above 5 deg

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	+ +	FEB 20 04:50 - FEB 20 05:04	Pie
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	+ +	FEB 20 04:37 - FEB 20 05:15	Pie
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			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-02-20T04:57:10.050
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       : 4068707220675316736
2Mass ID (if available) : 17512068-2257398
ICRS Star Coord at Epoch: 17h 51m 20.68749s -22:57:39.82726s
RUWE (>1.4 is poor) : 0.93
K magnitude          : 9.639
G magnitude          : 14.823
RP magnitude         : 13.537
BP magnitude         : 16.739
DUPflag             : 0
Distance (au)        : 5.685
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 26.78
Sun-Target sep (deg) : 62.84
Sun-Moon sep (deg)   : 162.32
B (ring opening deg) : -2.54
PA of pole (deg)     : 0.09
Pole direction: RA (deg): 268.05662
Dec (deg): 64.49732
C/A sky separation ("): 17.127
C/A sky separation (km): 70611.3
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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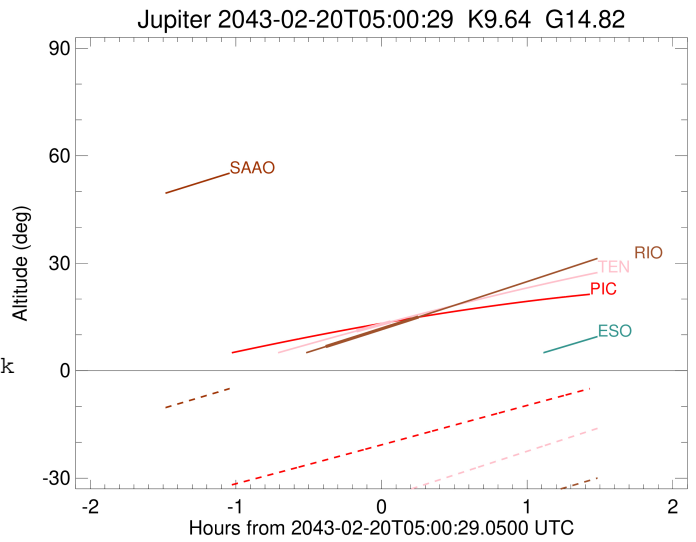
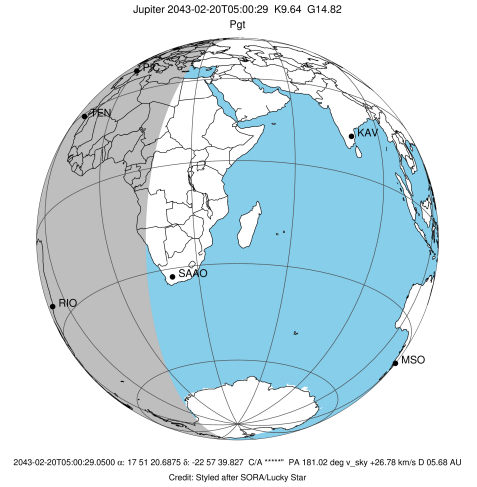


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-02-20T04:50:11.166	11.08	-37.96	71483.5	79.50	80.72
Jupiter	E	2043-02-20T05:04:09.111	13.62	-34.90	71483.4	81.87	82.82

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-02-20T04:56:35.720
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       : 4068707220675316736
2Mass ID (if available) : 17512068-2257398
ICRS Star Coord at Epoch: 17h 51m 20.68749s -22:57:39.82726s
RUWE (>1.4 is poor) : 0.93
K magnitude           : 9.639
G magnitude           : 14.823
RP magnitude         : 13.537
BP magnitude         : 16.739
DUPflag              : 0
Distance (au)        : 5.685
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 26.78
Sun-Target sep (deg) : 62.84
Sun-Moon sep (deg)   : 162.17
B (ring opening deg) : -2.54
PA of pole (deg)     : 0.09
Pole direction: RA (deg): 268.05662
Dec (deg): 64.49732
C/A sky separation (" ) : 15.665
C/A sky separation (km) : 64584.7
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
    
```



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	2043-02-20T04:37:31.606	6.72	-49.58	71485.0	63.22	66.04
Jupiter	E	2043-02-20T05:15:41.631	14.98	-43.78	71484.7	65.78	68.39