

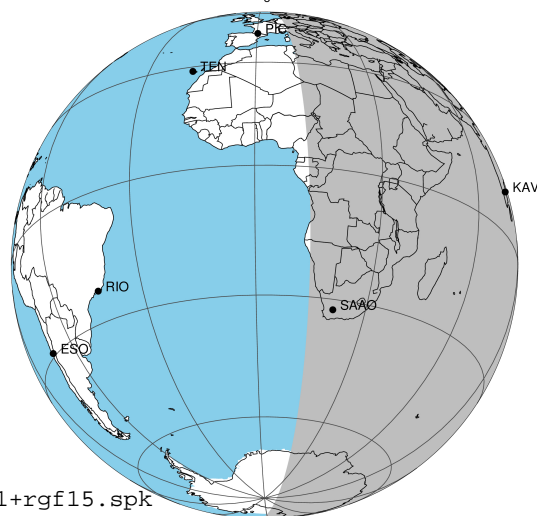
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-09-29T17:00:42.060
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4116536904222768384
 2Mass ID (if available) : 17403053-2316172

Jupiter 2043-09-29T17:00:42 K9.14 G13.15 Pgt

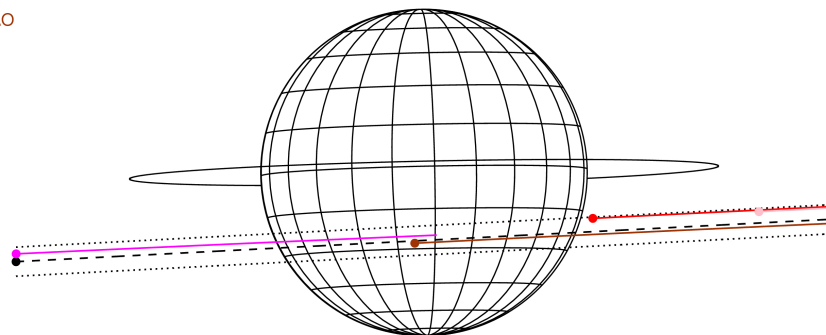
ICRS Star Coord at Epoch: 17h 40m 30.53197s -23:16:17.40082s

RUWE (>1.4 is poor) : 0.93
 K magnitude : 9.140
 G magnitude : 13.147
 RP magnitude : 12.071
 BP magnitude : 14.352
 DUPflag : 0
 Distance (au) : 5.317
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 18.43
 Sun-Target sep (deg) : 79.68
 Sun-Moon sep (deg) : 119.99
 B (ring opening deg) : -2.20
 PA of pole (deg) : 1.26
 Pole direction: RA (deg): 268.05674
 Dec (deg): 64.49731
 C/A sky separation (") : 7.707
 C/A sky separation (km) : 29717.0
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2043-09-29T17:00:42 K9.14 G13.15
 Pgt



Earth
 PIC
 TEN
 KAV
 SAAO

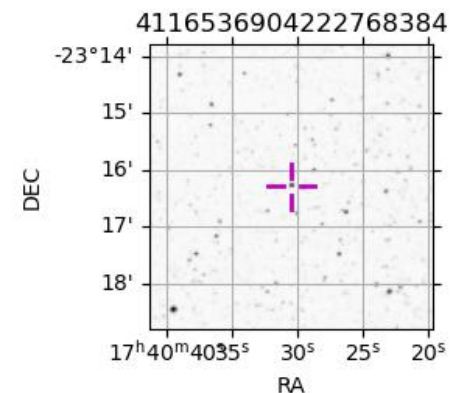


2043-09-29T17:00:42.0600 az: 17 40 30.5320 δ: -23 16 17.401 C/A 7.715" PA 2.98 deg v_sky +18.43 km/s D 05.32 AU

Credit: Styled after SORA/Lucky Star

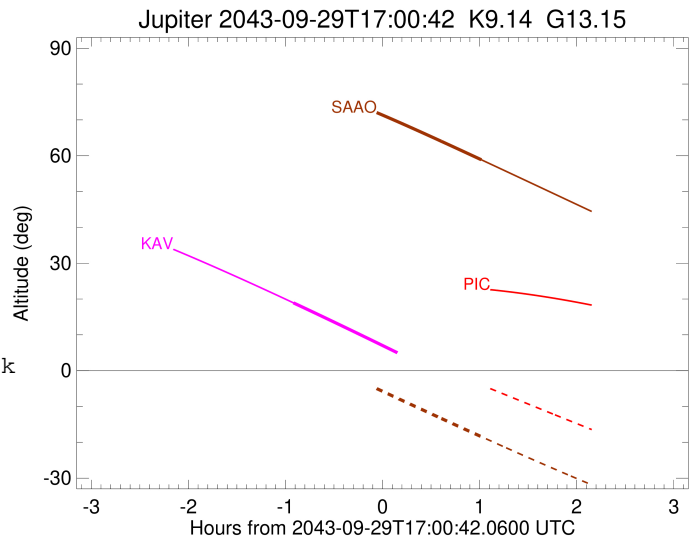
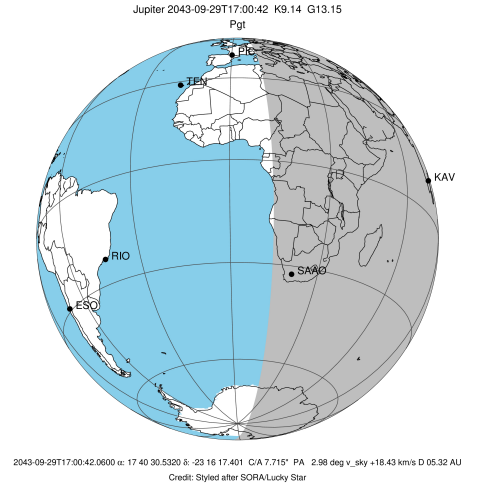
Observable events with sun below -5 deg and altitude above 5 deg

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			Pnn
IRTF	Mauna Kea/IRTF	19.8	204.5			Pnn
KAV	Kavalur Observatory	12.6	78.8	+	SEP 29 16:05 - SEP 29 16:05	Pin
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	+	SEP 29 18:01 - SEP 29 18:01	Pne
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-09-29T17:05:53.400
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : KAV
Location              : Kavalur Observatory
Latitude (deg)        : 12.57556
E. Longitude (deg)    : 78.83167
Altitude (km)         : 0.722
Gaia source ID        : 4116536904222768384
2Mass ID (if available) : 17403053-2316172
ICRS Star Coord at Epoch: 17h 40m 30.53197s -23:16:17.40082s
RUWE (>1.4 is poor)  : 0.93
K magnitude           : 9.140
G magnitude           : 13.147
RP magnitude          : 12.071
BP magnitude          : 14.352
DUPflag              : 0
Distance (au)         : 5.317
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 18.43
Sun-Target sep (deg)  : 79.68
Sun-Moon sep (deg)    : 119.66
B (ring opening deg) : -2.20
PA of pole (deg)      : 1.26
Pole direction: RA (deg): 268.05674
Dec (deg): 64.49731
C/A sky separation (") : 7.170
C/A sky separation (km) : 27648.1
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
    
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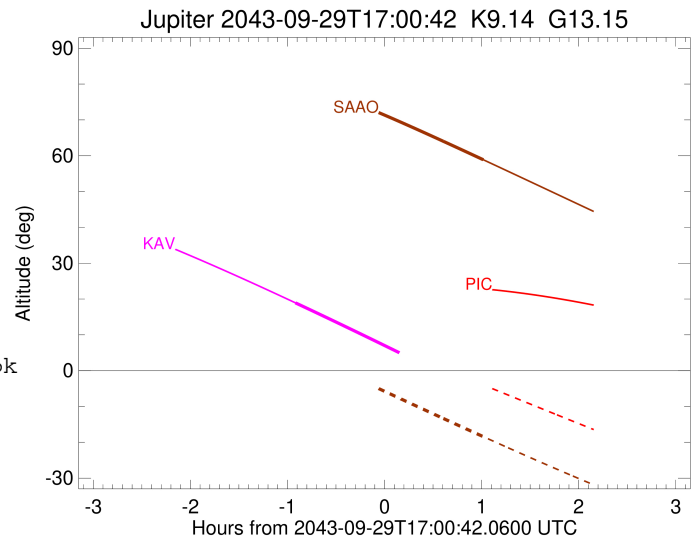
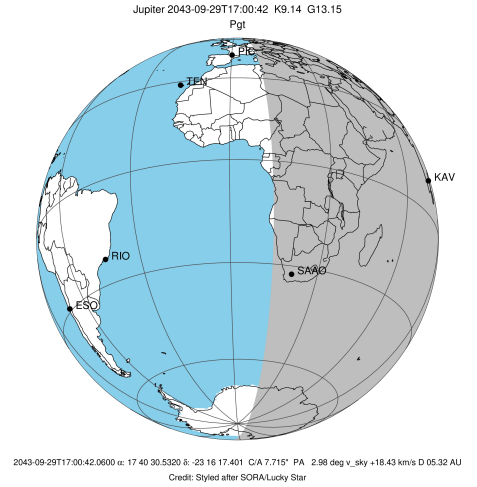


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-09-29T16:05:44.599	18.91	-51.78	71490.9	-23.95	-26.89
Jupiter	E	2043-09-29T18:05:35.842	-7.48x	-77.72	71491.1	-21.57	-24.30

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-09-29T17:02:16.830
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        : 4116536904222768384
2Mass ID (if available) : 17403053-2316172
ICRS Star Coord at Epoch: 17h 40m 30.53197s -23:16:17.40082s
RUWE (>1.4 is poor) : 0.93
K magnitude           : 9.140
G magnitude           : 13.147
RP magnitude          : 12.071
BP magnitude          : 14.352
DUPflag              : 0
Distance (au)         : 5.317
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 18.43
Sun-Target sep (deg)  : 79.68
Sun-Moon sep (deg)    : 120.62
B (ring opening deg) : -2.20
PA of pole (deg)      : 1.26
Pole direction: RA (deg): 268.05674
Dec (deg): 64.49731
C/A sky separation (") : 7.971
C/A sky separation (km) : 30736.0
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	2043-09-29T16:02:40.359	80.40	6.49x	71490.6	-27.12	-30.31
Jupiter	E	2043-09-29T18:01:43.117	58.88	-18.41	71490.9	-23.89	-26.83