

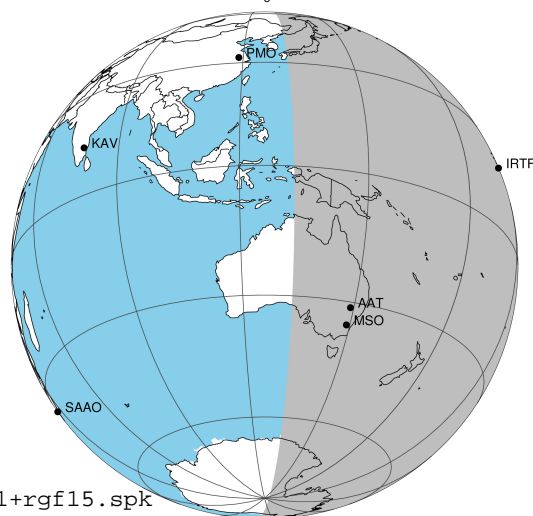
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-09-25T09:01:50.450
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4116526042102867072
 2Mass ID (if available) : 17382706-2314301

Jupiter 2043-09-25T09:01:50 K8.04 G14.44 Pgt

ICRS Star Coord at Epoch: 17h 38m 27.05222s -23:14:30.30359s

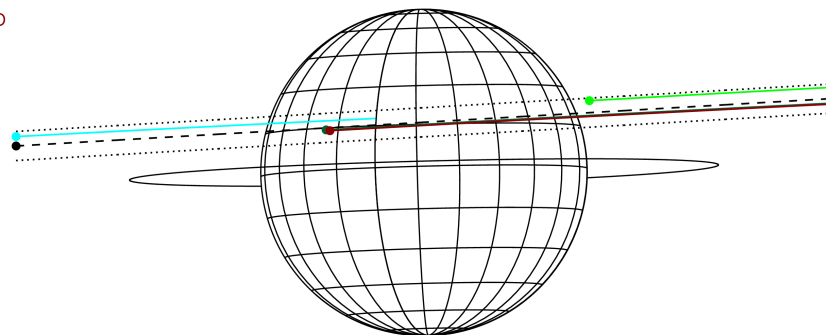
RUWE (>1.4 is poor) : 0.91
 K magnitude : 8.035
 G magnitude : 14.435
 RP magnitude : 12.909
 BP magnitude : 17.745
 DUPflag : 0
 Distance (au) : 5.251
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 16.48
 Sun-Target sep (deg) : 83.46
 Sun-Moon sep (deg) : 174.48
 B (ring opening deg) : -2.22
 PA of pole (deg) : 1.48
 Pole direction: RA (deg): 268.05674
 Dec (deg): 64.49731
 C/A sky separation (") : 5.769
 C/A sky separation (km) : 21970.2
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2043-09-25T09:01:50 K8.04 G14.44
 Pgt



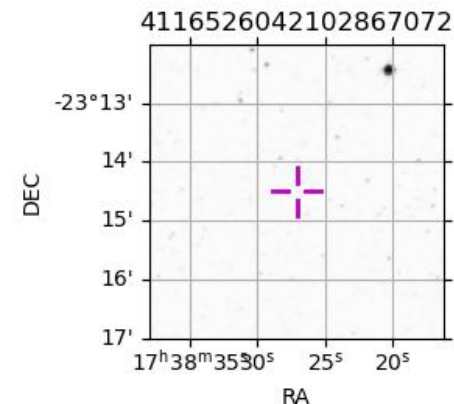
2043-09-25T09:01:50.4500 cc: 17 38 27.0522 2: -23 14 30.304 C/A 5.769° PA 183.32 deg v_sky +16.48 km/s D 05.25 AU
 Credit: Styled after SORA/Lucky Star

Earth
 PMO
 IRTF
 AAT
 MSO



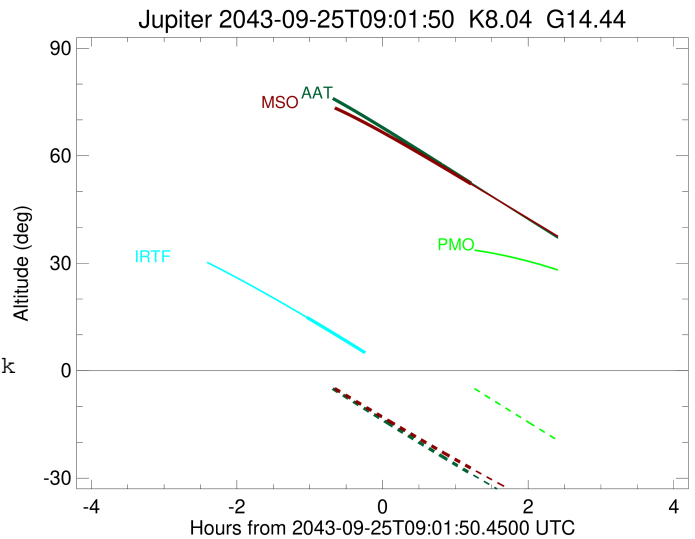
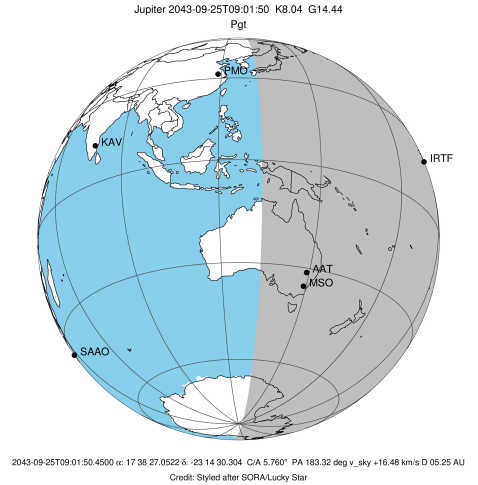
Observable events with sun below -5 deg and altitude above 5 deg

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	+	SEP 25 07:59 - SEP 25 07:59	Pin
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			Pnn
AAT	Siding Spring (AAT)	-31.3	149.1	+	SEP 25 10:14 - SEP 25 10:14	Pne
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+	SEP 25 10:14 - SEP 25 10:14	Pne



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-09-25T09:07:56.800
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : IRTF
Location              : Mauna Kea/IRTF
Latitude (deg)        : 19.82622
E. Longitude (deg)    : 204.52800
Altitude (km)         : 4.168
Gaia source ID        : 4116526042102867072
2Mass ID (if available) : 17382706-2314301
ICRS Star Coord at Epoch: 17h 38m 27.05222s -23:14:30.30359s
RUWE (>1.4 is poor) : 0.91
K magnitude           : 8.035
G magnitude           : 14.435
RP magnitude          : 12.909
BP magnitude          : 17.745
DUPflag              : 0
Distance (au)         : 5.251
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 16.48
Sun-Target sep (deg) : 83.46
Sun-Moon sep (deg)   : 174.59
B (ring opening deg) : -2.22
PA of pole (deg)     : 1.48
Pole direction: RA (deg): 268.05674
Dec (deg): 64.49731
C/A sky separation (") : 6.475
C/A sky separation (km) : 24658.1
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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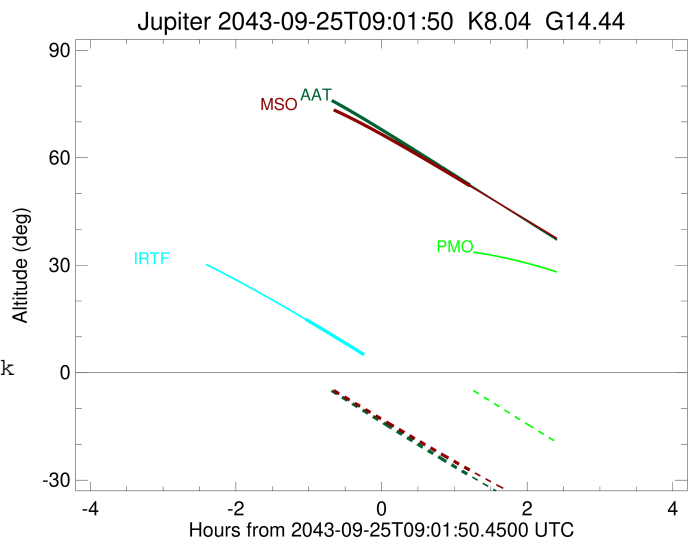
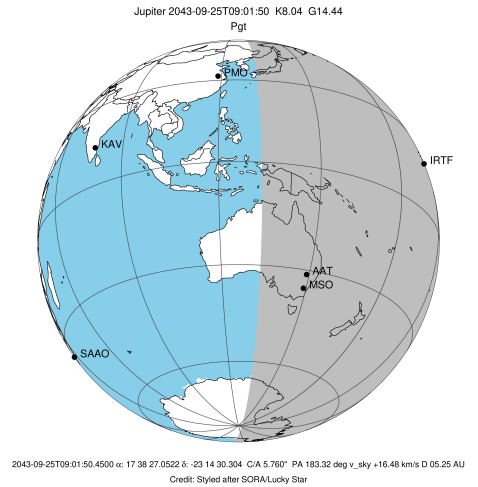


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-09-25T07:59:24.523	14.90	-52.16	71491.3	18.87	21.32
Jupiter	E	2043-09-25T10:15:50.883	-14.13x	-71.18	71491.1	21.40	24.11

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-09-25T09:04:11.610
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : AAT
Location              : Siding Spring (AAT)
Latitude (deg)        : -31.27703
E. Longitude (deg)    : 149.06608
Altitude (km)         : 1.164
Gaia source ID        : 4116526042102867072
2Mass ID (if available) : 17382706-2314301
ICRS Star Coord at Epoch: 17h 38m 27.05222s -23:14:30.30359s
RUWE (>1.4 is poor) : 0.91
K magnitude            : 8.035
G magnitude           : 14.435
RP magnitude          : 12.909
BP magnitude          : 17.745
DUPflag               : 0
Distance (au)         : 5.251
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 16.48
Sun-Target sep (deg)  : 83.46
Sun-Moon sep (deg)    : 174.34
B (ring opening deg) : -2.22
PA of pole (deg)      : 1.48
Pole direction: RA (deg): 268.05674
Dec (deg): 64.49731
C/A sky separation (") : 5.523
C/A sky separation (km) : 21035.0
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
    
```

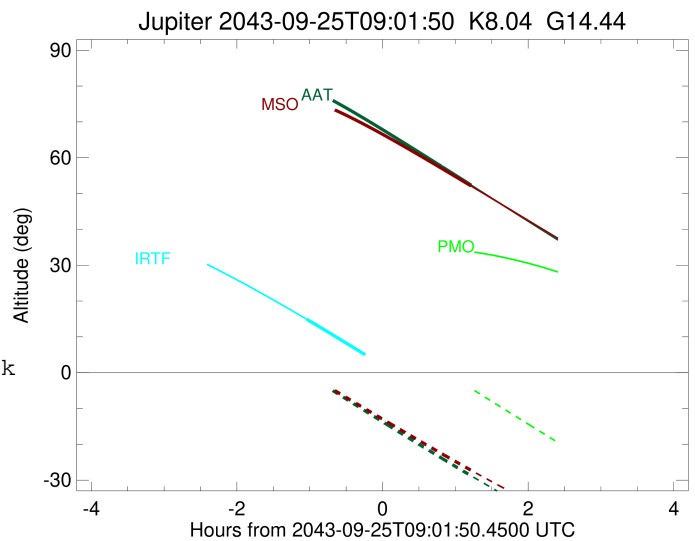
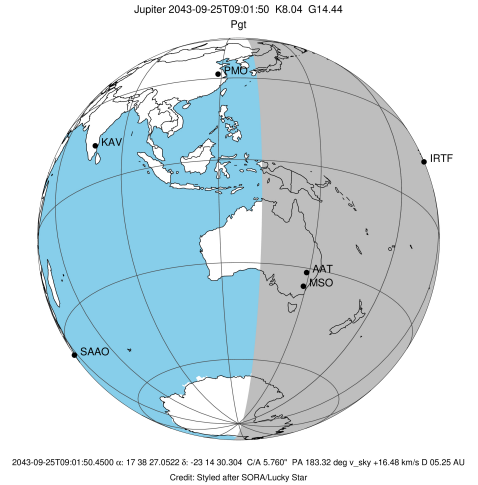


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-09-25T07:53:20.439	80.42	0.88x	71491.5	15.33	17.39
Jupiter	E	2043-09-25T10:14:43.742	52.38	-28.75	71491.3	18.70	21.14

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-09-25T09:04:06.290
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : MSO
Location              : Mt. Stromlo Observatory
Latitude (deg)        : -35.32000
E. Longitude (deg)    : 149.00833
Altitude (km)         : 0.770
Gaia source ID        : 4116526042102867072
2Mass ID (if available) : 17382706-2314301
ICRS Star Coord at Epoch: 17h 38m 27.05222s -23:14:30.30359s
RUWE (>1.4 is poor) : 0.91
K magnitude           : 8.035
G magnitude           : 14.435
RP magnitude          : 12.909
BP magnitude          : 17.745
DUPflag              : 0
Distance (au)         : 5.251
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 16.48
Sun-Target sep (deg) : 83.46
Sun-Moon sep (deg)   : 174.28
B (ring opening deg) : -2.22
PA of pole (deg)     : 1.48
Pole direction: RA (deg): 268.05674
Dec (deg): 64.49731
C/A sky separation (") : 5.409
C/A sky separation (km) : 20598.0
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	2043-09-25T07:53:11.526	77.00	0.99x	71491.6	14.96	16.98
Jupiter	E	2043-09-25T10:14:42.624	52.14	-27.22	71491.3	18.34	20.75