

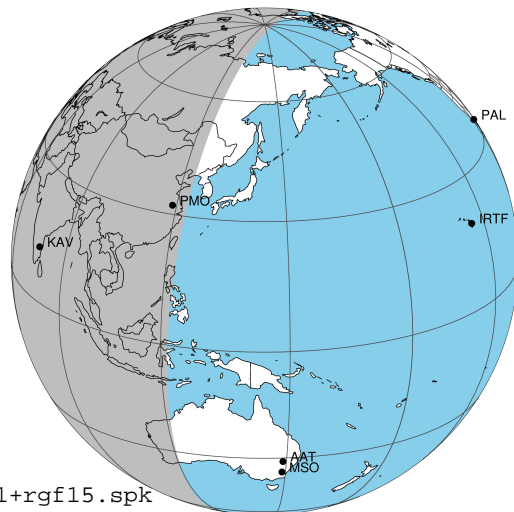
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2037-09-28T21:44:12.350
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 673781073396089984
 2Mass ID (if available) : 07505579+2106095

Jupiter 2037-09-28T21:44:12 K8.79 G11.31 Pgt

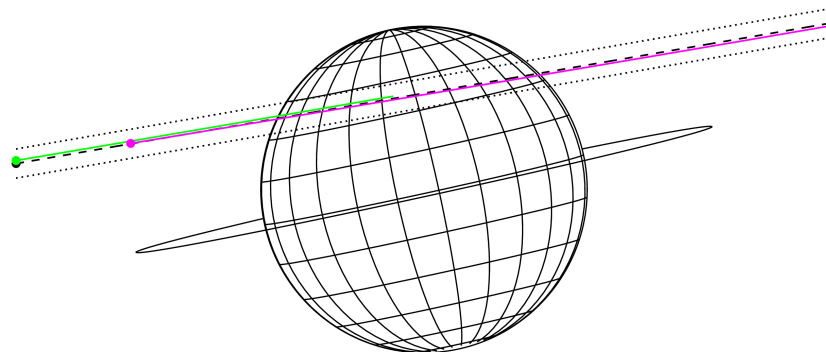
ICRS Star Coord at Epoch: 07h 50m 55.80086s +21:06:09.32109s

RUWE (>1.4 is poor) : 1.67
 K magnitude : 8.794
 G magnitude : 11.310
 RP magnitude : 10.549
 BP magnitude : 11.945
 DUPflag : 0
 Distance (au) : 5.453
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 22.52
 Sun-Target sep (deg) : 69.86
 Sun-Moon sep (deg) : 61.45
 B (ring opening deg) : 1.38
 PA of pole (deg) : 12.31
 Pole direction: RA (deg): 268.05624
 Dec (deg): 64.49689
 C/A sky separation (") : 10.509
 C/A sky separation (km) : 41564.1
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

Jupiter 2037-09-28T21:44:12 K8.79 G11.31
 Pgt



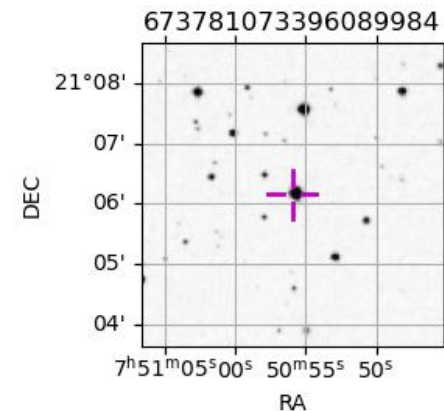
Earth
 PMO
 KAV



2037-09-28T21:44:12.3500 α: 07 50 55.8009 δ: +21 06 09.321 C/A ***** PA 189.78 deg v_sky +22.52 km/s D 05.45 AU
 Credit: Styled after SORA/Lucky Star

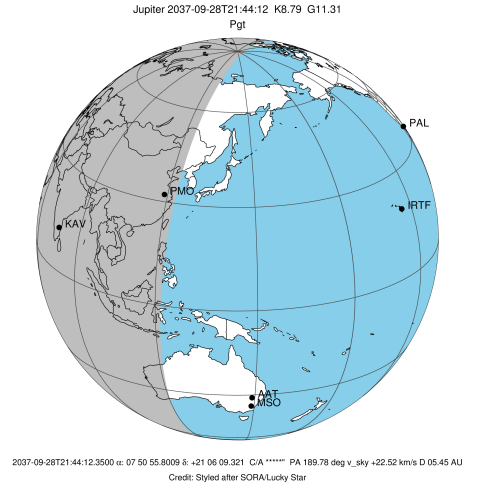
Observable events with sun below -5 deg and altitude above 5 deg

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	+	SEP 28 20:59 - SEP 28 20:59	Pin
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 28 20:56 - SEP 28 22:23	Pie
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			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn

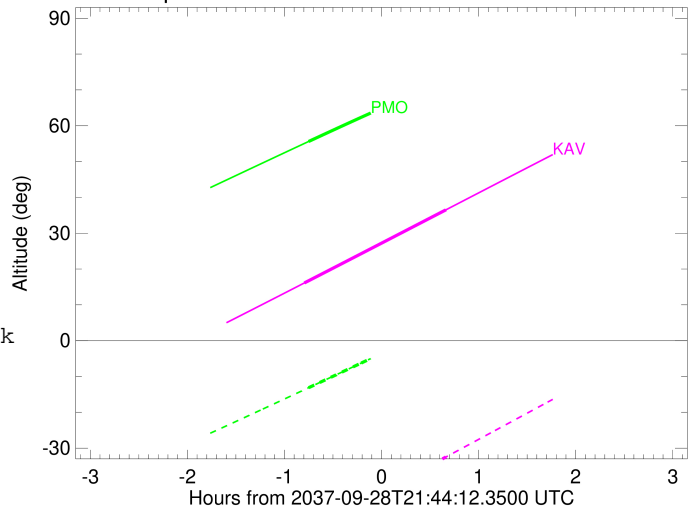


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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2037-09-28T21:42:18.280
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : PMO
Location              : Purple Mtn Obs. Nanking
Latitude (deg)        : 32.06667
E. Longitude (deg)    : 118.82089
Altitude (km)         : 0.364
Gaia source ID        : 673781073396089984
2Mass ID (if available) : 07505579+2106095
ICRS Star Coord at Epoch: 07h 50m 55.80086s +21:06:09.32109s
RUWE (>1.4 is poor) : 1.67
K magnitude           : 8.794
G magnitude           : 11.310
RP magnitude          : 10.549
BP magnitude          : 11.945
DUPflag              : 0
Distance (au)         : 5.453
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 22.52
Sun-Target sep (deg) : 69.86
Sun-Moon sep (deg)   : 62.02
B (ring opening deg) : 1.38
PA of pole (deg)     : 12.31
Pole direction: RA (deg): 268.05624
Dec (deg): 64.49689
C/A sky separation (") : 10.753
C/A sky separation (km) : 42532.0
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
    
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Jupiter 2037-09-28T21:44:12 K8.79 G11.31

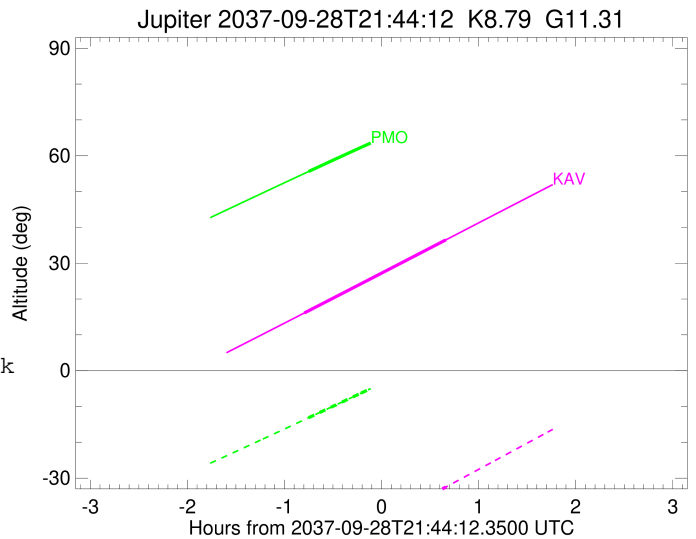
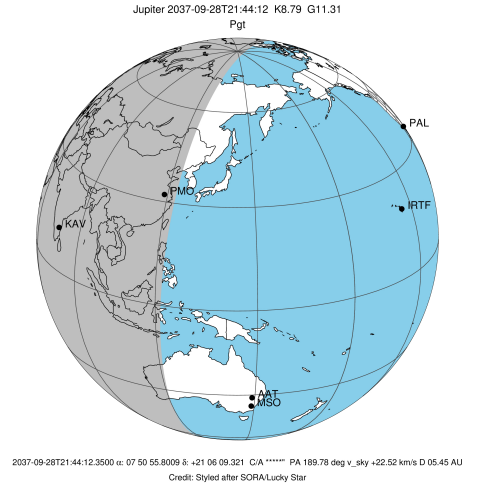


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2037-09-28T20:59:09.087	55.59	-13.14	71491.0	39.06	42.75
Jupiter	E	2037-09-28T22:25:32.380	72.72	5.16x	71491.2	34.01	37.57

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2037-09-28T21:40:09.180
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       : 673781073396089984
2Mass ID (if available) : 07505579+2106095
ICRS Star Coord at Epoch: 07h 50m 55.80086s +21:06:09.32109s
RUWE (>1.4 is poor) : 1.67
K magnitude           : 8.794
G magnitude           : 11.310
RP magnitude          : 10.549
BP magnitude          : 11.945
DUPflag              : 0
Distance (au)         : 5.453
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 22.52
Sun-Target sep (deg) : 69.86
Sun-Moon sep (deg)   : 61.43
B (ring opening deg) : 1.38
PA of pole (deg)     : 12.31
Pole direction: RA (deg): 268.05624
Dec (deg): 64.49689
C/A sky separation (") : 10.357
C/A sky separation (km) : 40964.2
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	2037-09-28T20:56:30.083	16.10	-53.57	71491.0	37.80	41.48
Jupiter	E	2037-09-28T22:23:58.793	36.51	-32.48	71491.3	32.16	35.64