

target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2048-08-19T13:35:07.180
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 3404219910928409856
 2Mass ID (if available) : 05381379+2249126

Jupiter 2048-08-19T13:35:07 K3.03 G9.04 Pgt

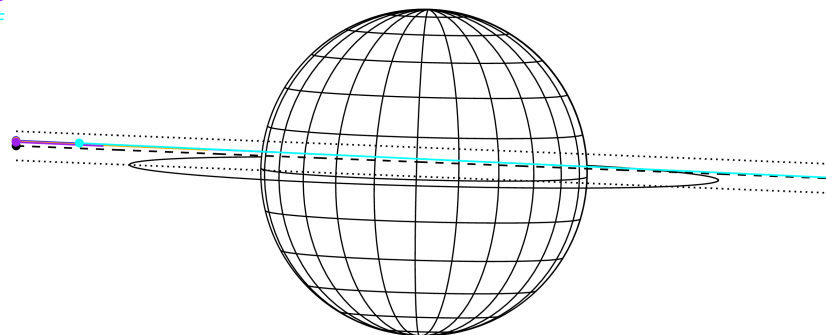
ICRS Star Coord at Epoch: 05h 38m 13.82080s +22:49:12.67217s

RUWE (>1.4 is poor) : 1.04
 K magnitude : 3.030
 G magnitude : 9.043
 RP magnitude : 7.717
 BP magnitude : 11.411
 DUPflag : 0
 Distance (au) : 5.469
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : 26.78
 Sun-Target sep (deg) : 61.59
 Sun-Moon sep (deg) : 174.68
 B (ring opening deg) : 2.64
 PA of pole (deg) : -1.51
 Pole direction: RA (deg): 268.05732
 Dec (deg): 64.49722
 C/A sky separation (") : 1.138
 C/A sky separation (km) : 4515.7
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk



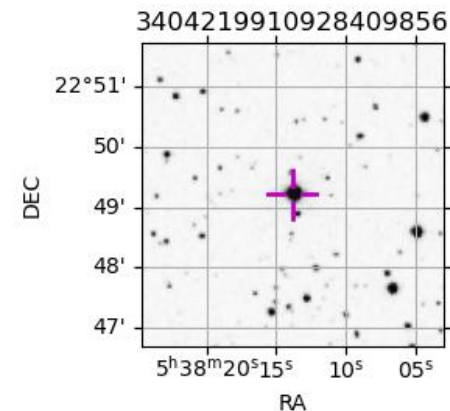
2048-08-19T13:35:07.1800 ex: 05 38 13.8208 s: +22 49 12.672 C/A 1.148" PA 177.71 deg v_sky +26.78 km/s D 05.47 AU
 Credit: Styled after SORA/Lucky Star

Earth
 PAL
 KPNO
 MCD
 IRTF



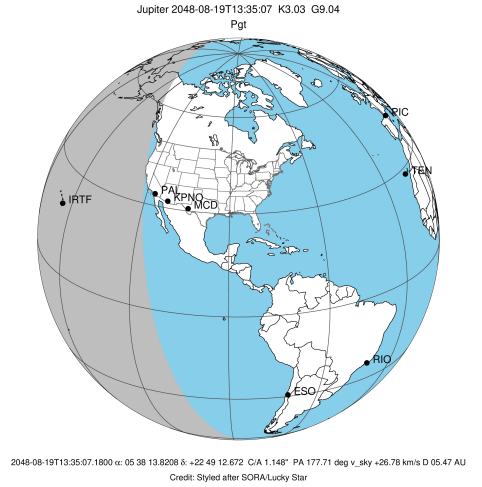
Observable events with sun below -5 deg and altitude above 5 deg

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	+	AUG 19 12:48 - AUG 19 12:48	Pin
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	+ +	AUG 19 12:47 - AUG 19 14:16	Pie
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			Pnn
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn

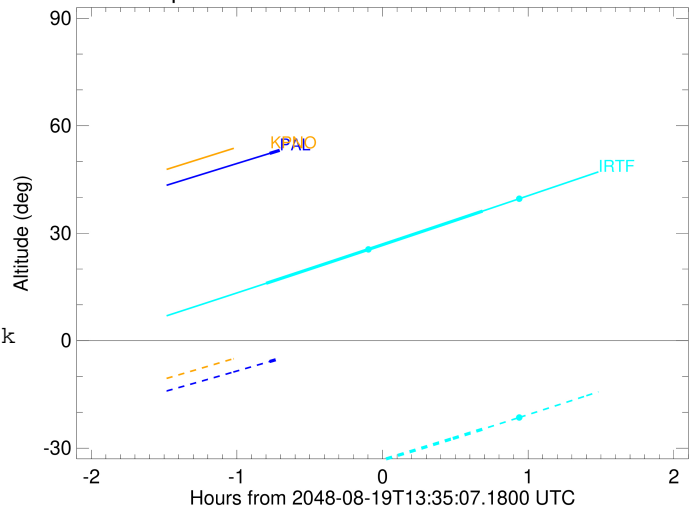


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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2048-08-19T13:33:29.730
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : PAL
Location              : Palomar Mt (200")
Latitude (deg)        : 33.35622
E. Longitude (deg)   : 243.13601
Altitude (km)         : 1.706
Gaia source ID        : 3404219910928409856
2Mass ID (if available) : 05381379+2249126
ICRS Star Coord at Epoch: 05h 38m 13.82080s +22:49:12.67217s
RUWE (>1.4 is poor) : 1.04
K magnitude           : 3.030
G magnitude           : 9.043
RP magnitude          : 7.717
BP magnitude          : 11.411
DUPflag              : 0
Distance (au)         : 5.469
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 26.78
Sun-Target sep (deg) : 61.59
Sun-Moon sep (deg)   : 175.15
B (ring opening deg) : 2.64
PA of pole (deg)     : -1.51
Pole direction: RA (deg): 268.05732
Dec (deg): 64.49722
C/A sky separation (") : 1.521
C/A sky separation (km) : 6032.5
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 2048-08-19T13:35:07 K3.03 G9.04

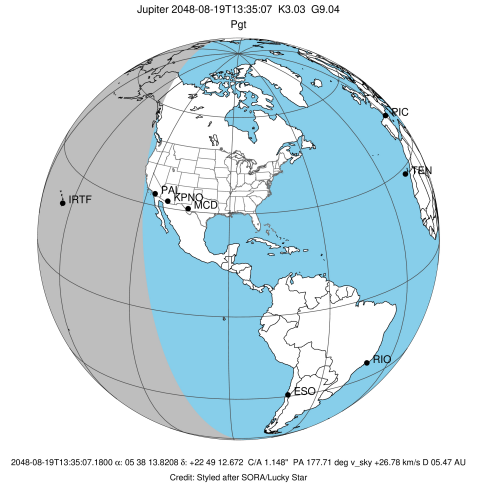


x: target alt < 5.0 deg or sun > -5.0 deg

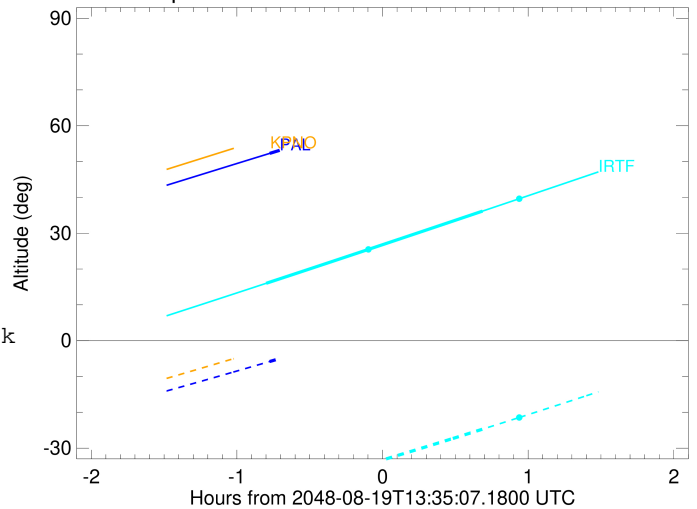
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2048-08-19T12:48:39.443	52.27	-5.81	71491.9	5.84	6.67
Jupiter	E	2048-08-19T14:18:25.375	70.41	12.46x	71492.0	3.89	4.44

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2048-08-19T13:31:40.470
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      : 3404219910928409856
2Mass ID (if available) : 05381379+2249126
ICRS Star Coord at Epoch: 05h 38m 13.82080s +22:49:12.67217s
RUWE (>1.4 is poor) : 1.04
K magnitude          : 3.030
G magnitude          : 9.043
RP magnitude         : 7.717
BP magnitude         : 11.411
DUPflag             : 0
Distance (au)       : 5.469
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 26.78
Sun-Target sep (deg) : 61.59
Sun-Moon sep (deg)  : 175.57
B (ring opening deg) : 2.64
PA of pole (deg)    : -1.51
Pole direction: RA (deg): 268.05732
Dec (deg): 64.49722
C/A sky separation (") : 1.479
C/A sky separation (km) : 5866.8
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
    
```



Jupiter 2048-08-19T13:35:07 K3.03 G9.04



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	2048-08-19T12:47:10.144	16.01	-42.54	71491.9	5.85	6.68
Jupiter	E	2048-08-19T14:16:20.165	36.16	-24.70	71492.0	3.58	4.09