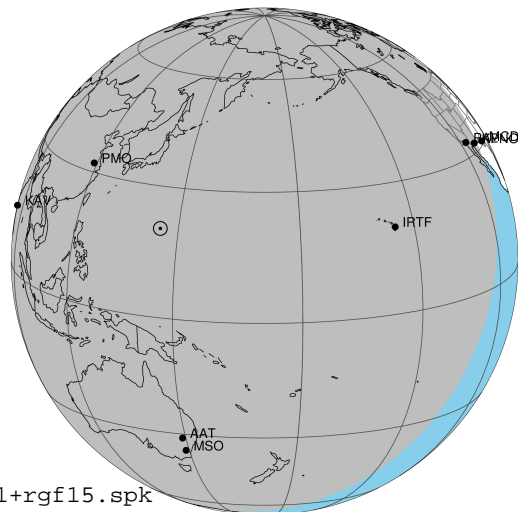


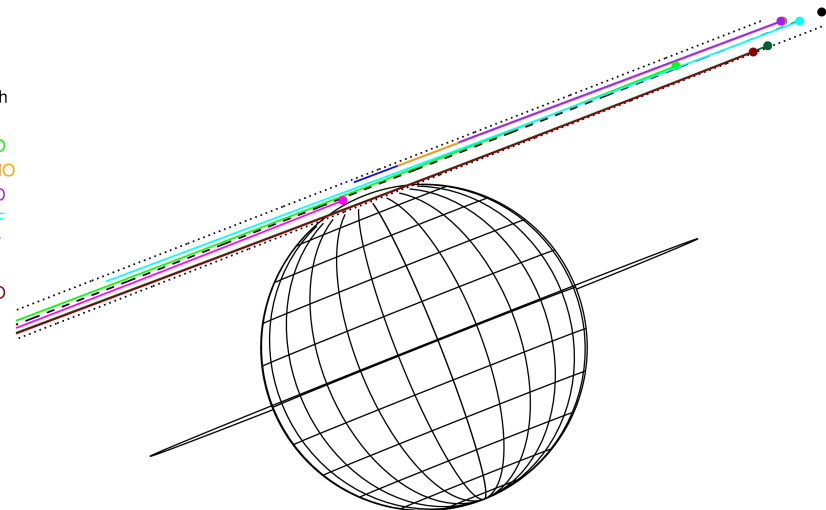
target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2027-01-19T14:29:28.280
 Event type : Pt
 : Jupiter occs: topocentric, not geocentric
 : Not a ringed target
 Gaia source ID : 616178071531699712
 2Mass ID (if available) : 09482202+1419056

Jupiter 2027-01-19T14:29:28 K9.71 G10.89 Pt

ICRS Star Coord at Epoch: 09h 48m 21.94904s +14:19:05.49751s
 RUWE (>1.4 is poor) : 0.97
 K magnitude : 9.713
 G magnitude : 10.892
 RP magnitude : 10.467
 BP magnitude : 11.157
 DUPflag : 0
 Distance (au) : 4.437
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : -14.62
 Sun-Target sep (deg) : 154.44
 Sun-Moon sep (deg) : 66.59
 B (ring opening deg) : -0.49
 PA of pole (deg) : 21.67
 Pole direction: RA (deg): 268.05764
 Dec (deg): 64.49666
 C/A sky separation (") : 22.984
 C/A sky separation (km) : 73959.4
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk



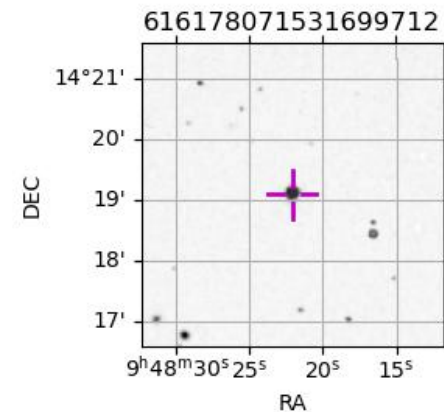
Earth
 PAL
 PMO
 KPNO
 MCD
 IRTF
 KAV
 AAT
 MSO



2027-01-19T14:29:28.2800 a: 09 48 21.9490 s: +14 19 05.498 C/A ***** PA 201.21 deg v_sky -14.62 km/s D 04.44 AU
 Credit: Styled after SORA/Lucky Star

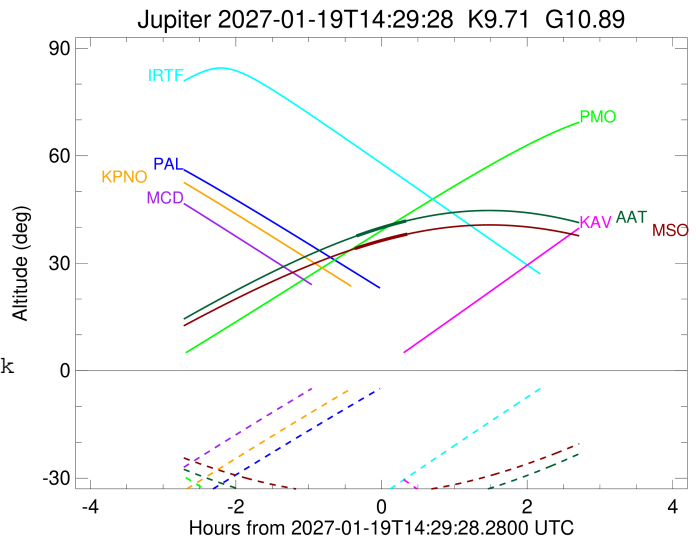
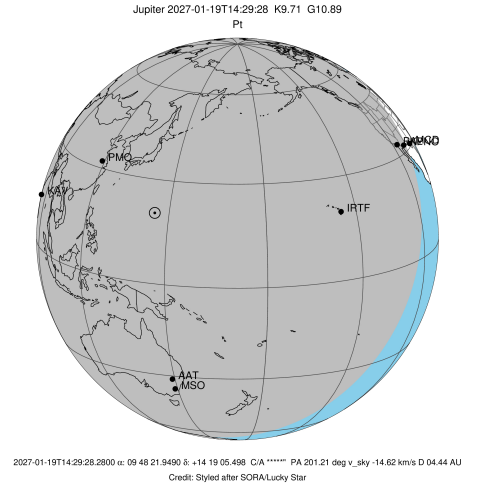
Observable events with sun below -5 deg and altitude above 5 deg

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			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	+ +	JAN 19 14:08 - JAN 19 14:49	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+ +	JAN 19 14:07 - JAN 19 14:50	Pie



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2027-01-19T14:29:18.950
Event type           : Pt
: Jupiter occs: topocentric, not geocentric
: 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       : 616178071531699712
2Mass ID (if available) : 09482202+1419056
ICRS Star Coord at Epoch: 09h 48m 21.94904s +14:19:05.49751s
RUWE (>1.4 is poor) : 0.97
K magnitude           : 9.713
G magnitude           : 10.892
RP magnitude         : 10.467
BP magnitude         : 11.157
DUPflag              : 0
Distance (au)        : 4.437
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -14.62
Sun-Target sep (deg) : 154.44
Sun-Moon sep (deg)   : 67.18
B (ring opening deg) : -0.49
PA of pole (deg)     : 21.67
Pole direction: RA (deg): 268.05764
Dec (deg): 64.49666
C/A sky separation (") : 21.468
C/A sky separation (km) : 69081.1
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
    
```

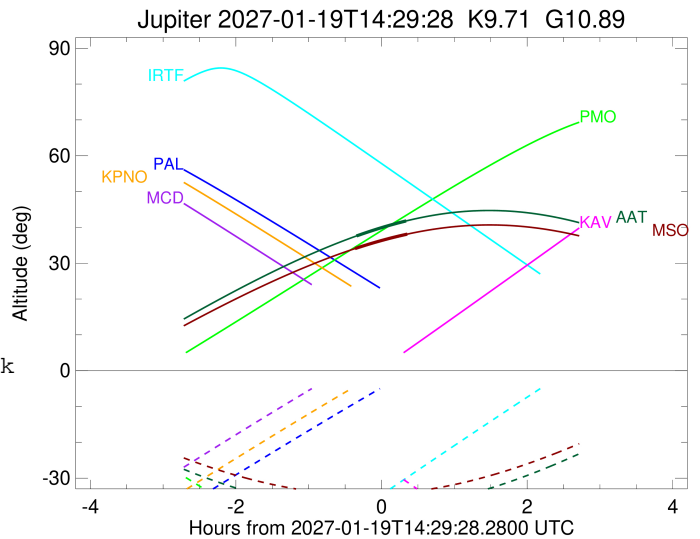
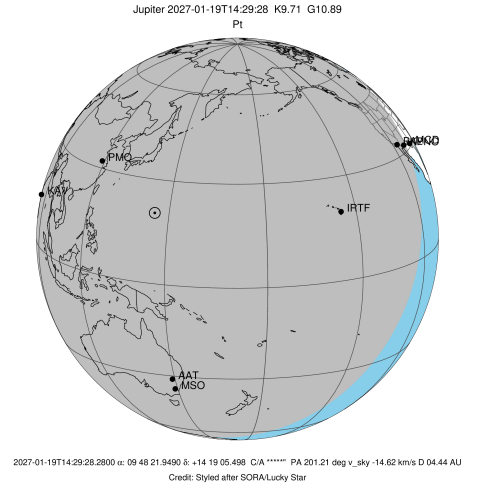


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2027-01-19T14:08:51.454	37.60	-38.58	71491.7	74.26	76.05
Jupiter	E	2027-01-19T14:49:45.473	41.79	-37.90	71491.7	75.93	77.55

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2027-01-19T14:29:07.520
Event type            : Pt
: Jupiter occs: topocentric, not geocentric
: 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        : 616178071531699712
2Mass ID (if available) : 09482202+1419056
ICRS Star Coord at Epoch: 09h 48m 21.94904s +14:19:05.49751s
RUWE (>1.4 is poor) : 0.97
K magnitude           : 9.713
G magnitude           : 10.892
RP magnitude          : 10.467
BP magnitude          : 11.157
DUPflag              : 0
Distance (au)         : 4.437
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -14.62
Sun-Target sep (deg)  : 154.44
Sun-Moon sep (deg)    : 67.15
B (ring opening deg) : -0.49
PA of pole (deg)     : 21.67
Pole direction: RA (deg): 268.05764
Dec (deg): 64.49666
C/A sky separation (") : 21.389
C/A sky separation (km) : 68826.3
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
    
```



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	2027-01-19T14:07:36.433	34.07	-34.54	71491.7	73.50	75.37
Jupiter	E	2027-01-19T14:50:37.551	38.10	-33.91	71491.7	75.14	76.84