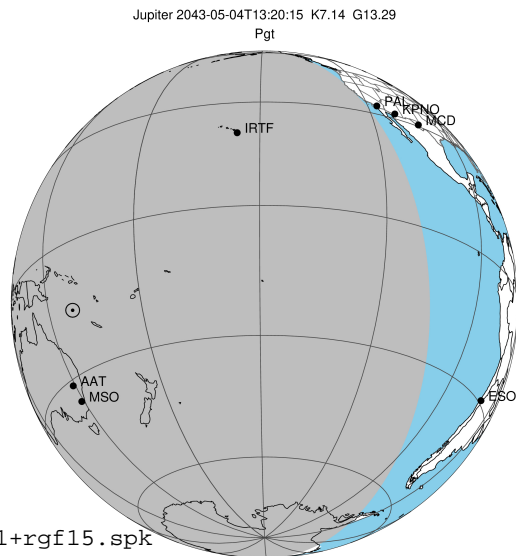


target : Jupiter
 target radius (km) : 71492.00
 C/A epoch : 2043-05-04T13:20:15.130
 Event type : Pgt
 : Jupiter occs: geocentric, topocentric
 : Not a ringed target
 Gaia source ID : 4066624195838810752
 2Mass ID (if available) : 18113367-2259105

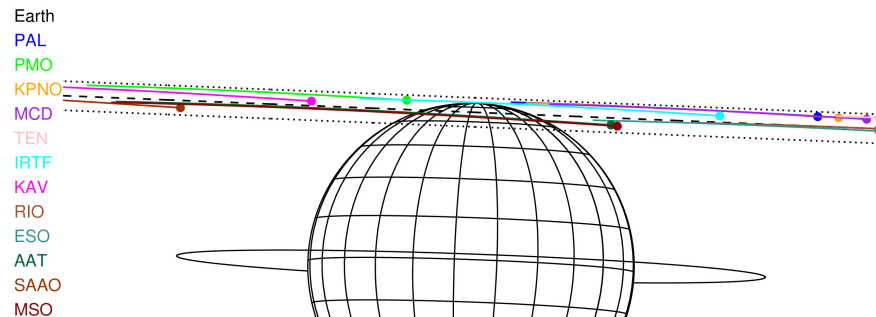
Jupiter 2043-05-04T13:20:15 K7.14 G13.29 Pgt

ICRS Star Coord at Epoch: 18h 11m 33.66751s -22:59:10.47778s

RUWE (>1.4 is poor) : 0.93
 K magnitude : 7.140
 G magnitude : 13.288
 RP magnitude : 11.895
 BP magnitude : 15.707
 DUPflag : 0
 Distance (au) : 4.569
 f0 (km) : 0.00
 g0 (km) : 0.00
 skyplane vel. (km/s) : -6.15
 Sun-Target sep (deg) : 130.73
 Sun-Moon sep (deg) : 67.80
 B (ring opening deg) : -2.44
 PA of pole (deg) : -2.08
 Pole direction: RA (deg): 268.05666
 Dec (deg): 64.49732
 C/A sky separation (") : 20.383
 C/A sky separation (km) : 67545.5
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk

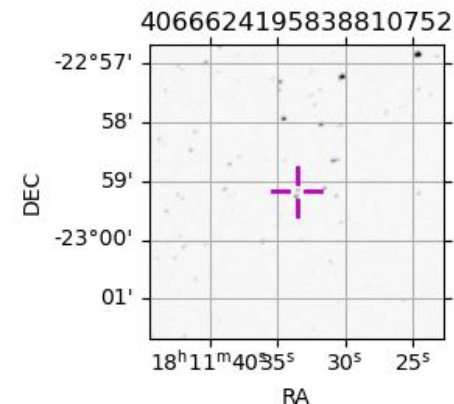


2043-05-04T13:20:15.1300 α: 18 11 33.6675 δ: -22 59 10.478 C/A ***** PA 177.67 deg v_sky - 6.15 km/s D 04.57 AU
 Credit: Styled after SORA/Lucky Star



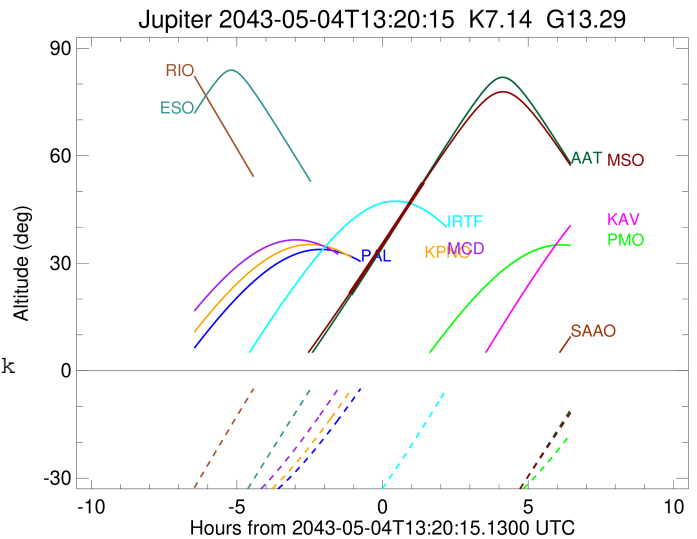
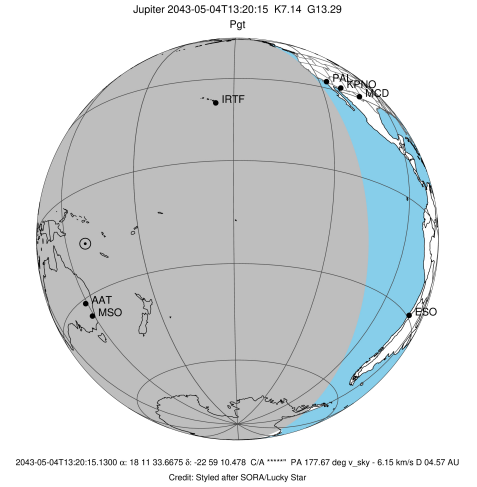
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	OEcode
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	+ +	MAY 04 12:15 - MAY 04 14:42	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8			Pnn
MSO	Mt. Stromlo Observatory	-35.3	149.0	+ +	MAY 04 12:12 - MAY 04 14:44	Pie



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-05-04T13:29:44.850
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      : 4066624195838810752
2Mass ID (if available) : 18113367-2259105
ICRS Star Coord at Epoch: 18h 11m 33.66751s -22:59:10.47778s
RUWE (>1.4 is poor) : 0.93
K magnitude          : 7.140
G magnitude          : 13.288
RP magnitude         : 11.895
BP magnitude         : 15.707
DUPflag             : 0
Distance (au)       : 4.569
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -6.15
Sun-Target sep (deg) : 130.73
Sun-Moon sep (deg)  : 68.58
B (ring opening deg) : -2.44
PA of pole (deg)    : -2.08
Pole direction: RA (deg): 268.05666
Dec (deg): 64.49732
C/A sky separation ("): 19.862
C/A sky separation (km): 65816.4
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
    
```

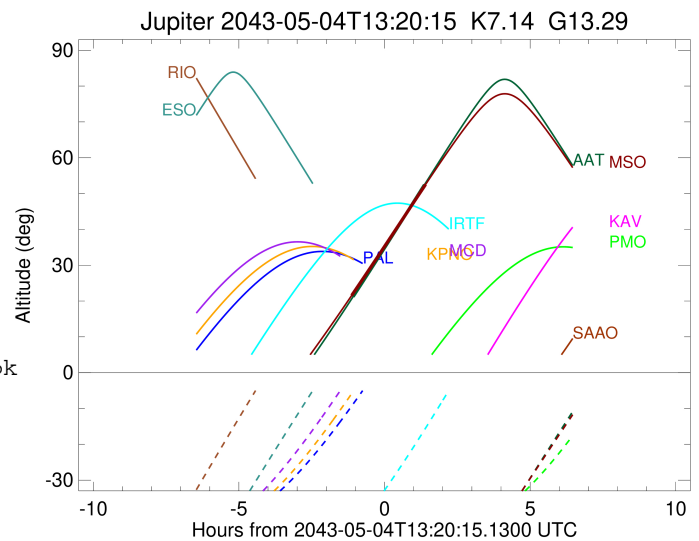
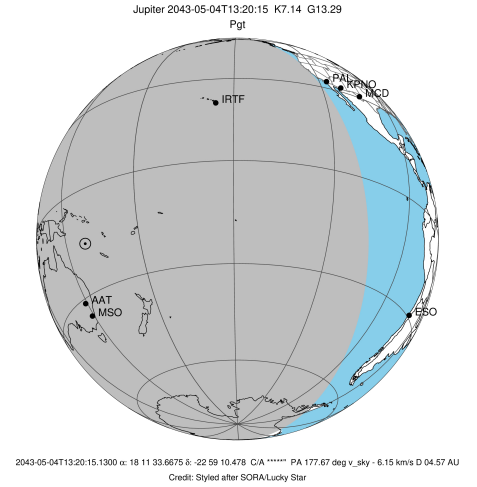


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-05-04T12:15:23.474	21.17	-61.71	71485.3	65.41	68.05
Jupiter	E	2043-05-04T14:42:43.131	52.47	-72.13	71485.0	68.11	70.51

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-05-04T13:29:24.310
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       : 4066624195838810752
2Mass ID (if available) : 18113367-2259105
ICRS Star Coord at Epoch: 18h 11m 33.66751s -22:59:10.47778s
RUWE (>1.4 is poor) : 0.93
K magnitude           : 7.140
G magnitude           : 13.288
RP magnitude          : 11.895
BP magnitude          : 15.707
DUPflag              : 0
Distance (au)        : 4.569
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -6.15
Sun-Target sep (deg) : 130.73
Sun-Moon sep (deg)   : 68.58
B (ring opening deg) : -2.44
PA of pole (deg)     : -2.08
Pole direction: RA (deg): 268.05666
Dec (deg): 64.49732
C/A sky separation ("): 19.739
C/A sky separation (km): 65408.6
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	2043-05-04T12:12:26.088	21.51	-59.18	71485.4	64.64	67.35
Jupiter	E	2043-05-04T14:44:56.653	52.55	-68.50	71485.1	67.24	69.72