

target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2043-05-25T18:18:19.030  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 4069584424693604736  
 2Mass ID (if available) : 18044587-2302251

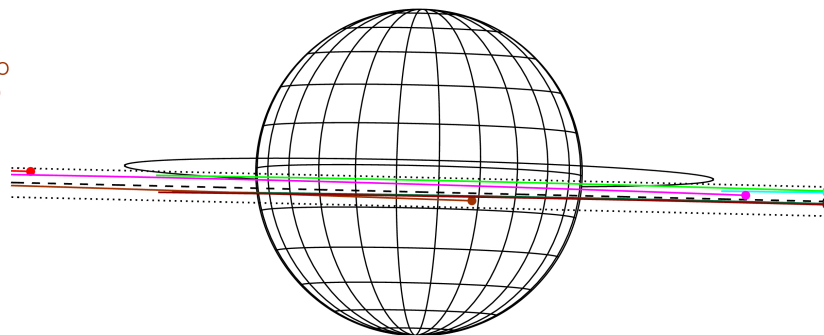
Jupiter 2043-05-25T18:18:19 K5.10 G11.76 Pgt

ICRS Star Coord at Epoch: 18h 04m 45.87252s -23:02:25.38066s  
 RUWE (>1.4 is poor) : 1.04  
 K magnitude : 5.102  
 G magnitude : 11.764  
 RP magnitude : 10.161  
 BP magnitude : 15.371  
 DUPflag : 0  
 Distance (au) : 4.354  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : -13.12  
 Sun-Target sep (deg) : 152.75  
 Sun-Moon sep (deg) : 9.33  
 B (ring opening deg) : -2.43  
 PA of pole (deg) : -1.35  
 Pole direction: RA (deg): 268.05667  
 Dec (deg): 64.49732  
 C/A sky separation (") : 2.705  
 C/A sky separation (km) : 8541.6  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk  
 URKALLv1.spk  
 naif0012.tls  
 nep097.bsp  
 nep101.bsp  
 sat4401.bsp



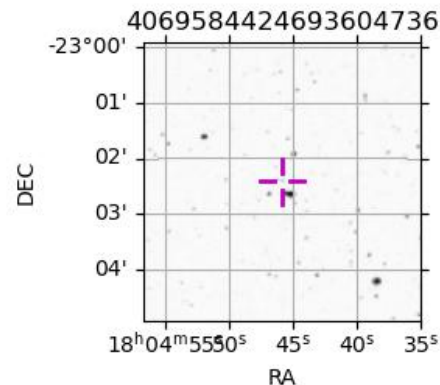
2043-05-25T18:18:19.0300 at: 18 04 45.8725 s: -23 02 25.381 C/A 2.716" PA 358.66 deg v\_sky -13.12 km/s D 04.35 AU  
 Credit: Styled after SORA/Lucky Star

Earth  
 PIC  
 PMO  
 IRTF  
 KAV  
 AAT  
 SAAO  
 MSO



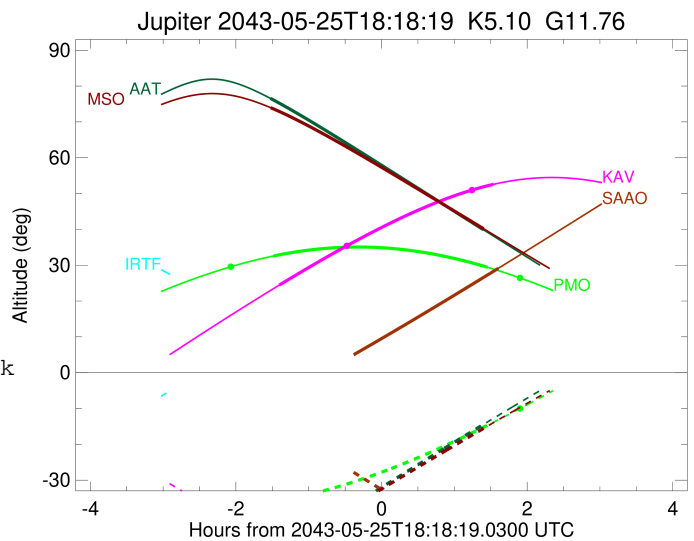
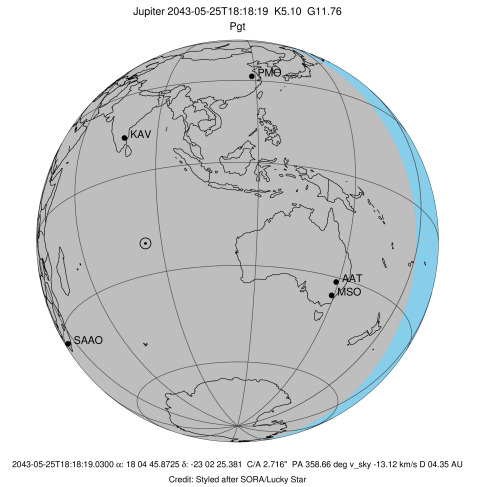
Observable events with sun below -5 deg and altitude above 5 deg

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	+ +	MAY 25 16:49 - MAY 25 19:45	Pie
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	+ +	MAY 25 16:54 - MAY 25 19:50	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	+ +	MAY 25 16:46 - MAY 25 19:42	Pie
SAAO	So. Afr. Astro. Obs. (Sutherland)	-32.4	20.8		MAY 25 19:54 - MAY 25 19:54	Pne
MSO	Mt. Stromlo Observatory	-35.3	149.0	+ +	MAY 25 16:46 - MAY 25 19:42	Pie



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-05-25T18:17:34.330
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       : 4069584424693604736
2Mass ID (if available) : 18044587-2302251
ICRS Star Coord at Epoch: 18h 04m 45.87252s -23:02:25.38066s
RUWE (>1.4 is poor) : 1.04
K magnitude           : 5.102
G magnitude           : 11.764
RP magnitude         : 10.161
BP magnitude         : 15.371
DUPflag              : 0
Distance (au)        : 4.354
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -13.12
Sun-Target sep (deg) : 152.75
Sun-Moon sep (deg)   : 9.91
B (ring opening deg) : -2.43
PA of pole (deg)     : -1.35
Pole direction: RA (deg): 268.05667
Dec (deg): 64.49732
C/A sky separation (") : 1.060
C/A sky separation (km) : 3347.0
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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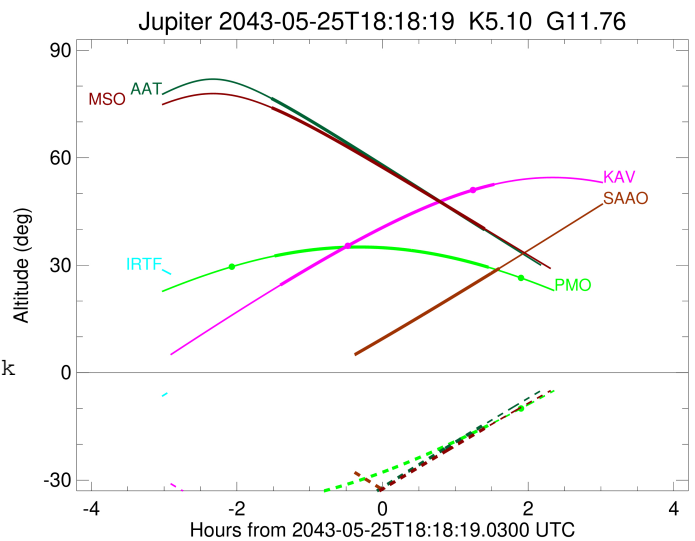
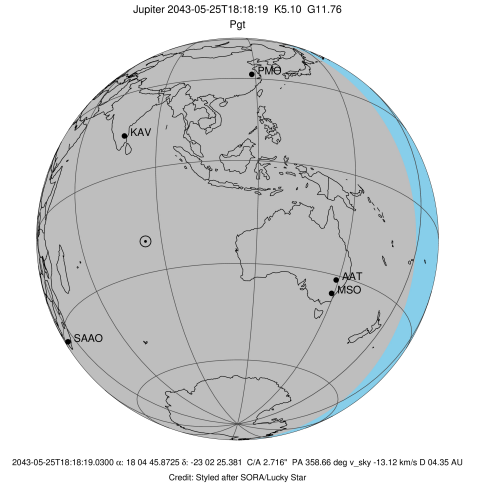


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-05-25T16:49:24.901	32.58	-35.87	71492.0	-2.69	-3.08
Jupiter	E	2043-05-25T19:45:43.681	29.41	-14.67	71492.0	-2.92	-3.34

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-05-25T18:22:40.630
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      : 4069584424693604736
2Mass ID (if available) : 18044587-2302251
ICRS Star Coord at Epoch: 18h 04m 45.87252s -23:02:25.38066s
RUWE (>1.4 is poor) : 1.04
K magnitude          : 5.102
G magnitude          : 11.764
RP magnitude         : 10.161
BP magnitude         : 15.371
DUPflag             : 0
Distance (au)       : 4.354
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -13.12
Sun-Target sep (deg) : 152.75
Sun-Moon sep (deg)  : 9.31
B (ring opening deg) : -2.43
PA of pole (deg)    : -1.35
Pole direction: RA (deg): 268.05667
Dec (deg): 64.49732
C/A sky separation (" ) : 1.633
C/A sky separation (km) : 5158.0
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
    
```



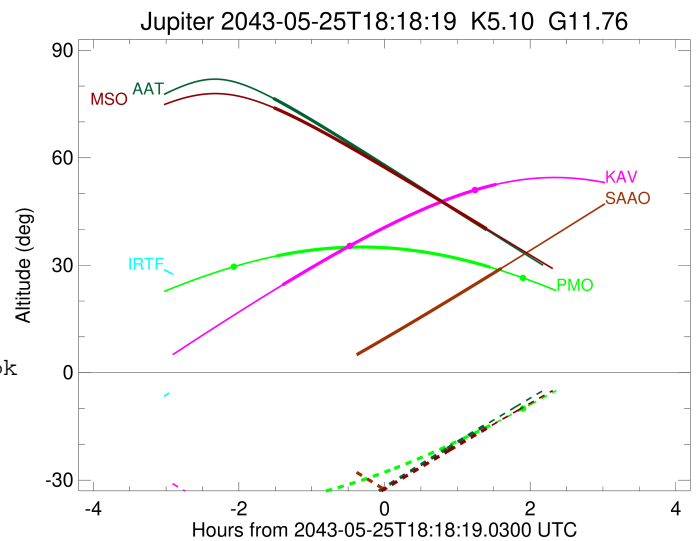
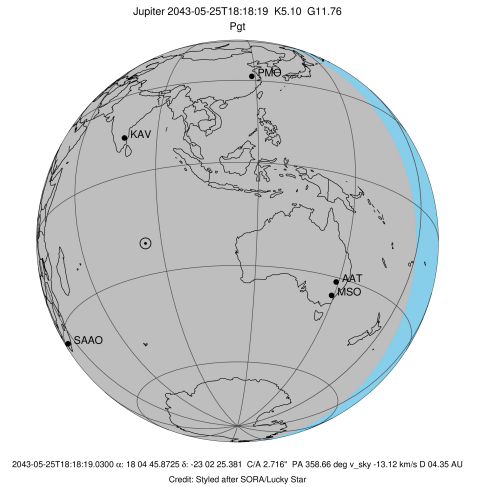
x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-05-25T16:54:13.003	24.47	-47.35	71491.9	-4.62	-5.28
Jupiter	E	2043-05-25T19:50:25.445	52.55	-52.45	71492.0	-3.91	-4.46



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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-05-25T18:25:27.000
Event type          : Pgt
                    : Jupiter occs: geocentric, topocentric
                    : Not a ringed target
Observer code       : SAAO
Location            : So. Afr. Astro. Obs. (Sutherland)
Latitude (deg)      : -32.37953
E. Longitude (deg)  : 20.81070
Altitude (km)       : 1.768
Gaia source ID      : 4069584424693604736
2Mass ID (if available) : 18044587-2302251
ICRS Star Coord at Epoch: 18h 04m 45.87252s -23:02:25.38066s
RUWE (>1.4 is poor) : 1.04
K magnitude          : 5.102
G magnitude          : 11.764
RP magnitude         : 10.161
BP magnitude         : 15.371
DUPflag             : 0
Distance (au)       : 4.354
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : -13.12
Sun-Target sep (deg) : 152.75
Sun-Moon sep (deg)  : 8.47
B (ring opening deg) : -2.43
PA of pole (deg)    : -1.35
Pole direction: RA (deg): 268.05667
Dec (deg): 64.49732
C/A sky separation (") : 3.663
C/A sky separation (km) : 11569.1
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
    
```

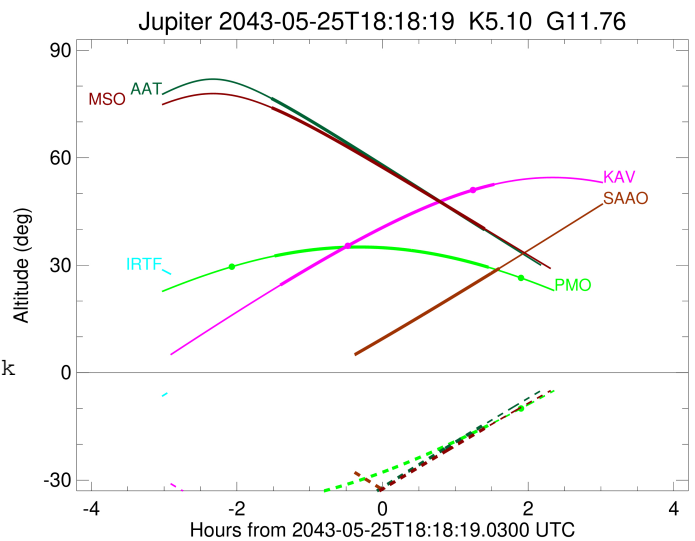
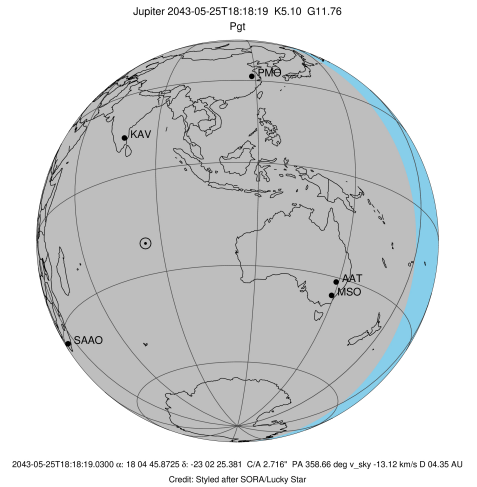


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2043-05-25T16:55:12.479	-6.24x	-15.38	71491.8	-9.96	-11.35
Jupiter	E	2043-05-25T19:54:32.771	29.12	-52.96	71491.8	-8.68	-9.90

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target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2043-05-25T18:14:34.870
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       : 4069584424693604736
2Mass ID (if available) : 18044587-2302251
ICRS Star Coord at Epoch: 18h 04m 45.87252s -23:02:25.38066s
RUWE (>1.4 is poor) : 1.04
K magnitude           : 5.102
G magnitude           : 11.764
RP magnitude         : 10.161
BP magnitude         : 15.371
DUPflag              : 0
Distance (au)        : 4.354
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -13.12
Sun-Target sep (deg) : 152.75
Sun-Moon sep (deg)   : 9.67
B (ring opening deg) : -2.43
PA of pole (deg)     : -1.35
Pole direction: RA (deg): 268.05667
Dec (deg): 64.49732
C/A sky separation ("): 3.264
C/A sky separation (km): 10308.1
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	2043-05-25T16:46:58.508	73.96	-51.08	71491.8	-7.98	-9.11
Jupiter	E	2043-05-25T19:42:38.162	40.13	-15.51	71491.8	-8.78	-10.01