

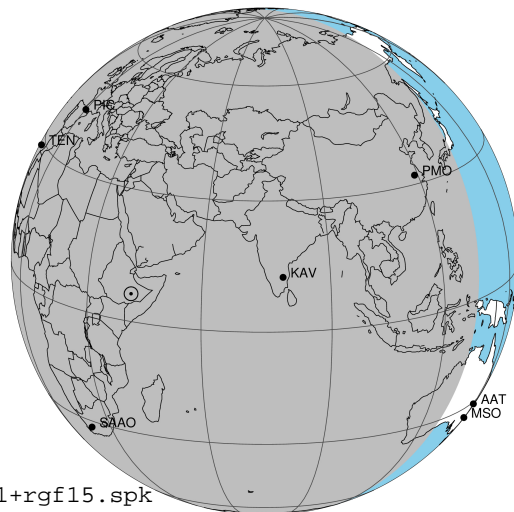
target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2035-10-09T20:57:05.080  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 34356061876157184  
 2Mass ID (if available) : 03063601+1606095

Jupiter 2035-10-09T20:57:05 K9.45 G11.99 Pgt

ICRS Star Coord at Epoch: 03h 06m 36.05411s +16°06'09.22341s

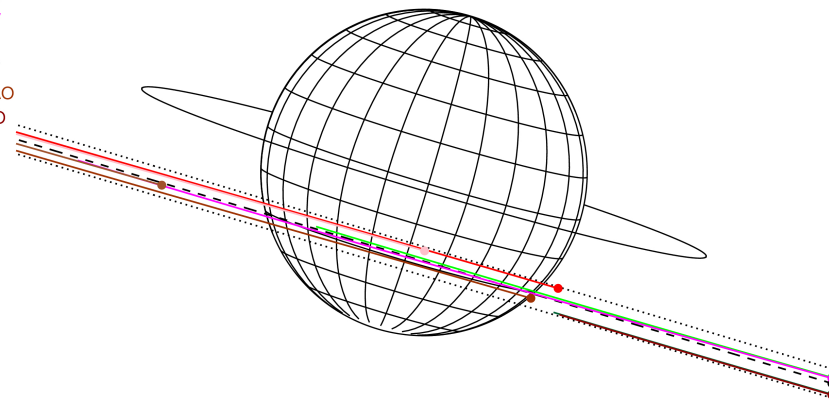
RUWE (>1.4 is poor) : 1.08  
 K magnitude : 9.448  
 G magnitude : 11.987  
 RP magnitude : 11.223  
 BP magnitude : 12.620  
 DUPflag : 0  
 Distance (au) : 4.111  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : -11.81  
 Sun-Target sep (deg) : 147.16  
 Sun-Moon sep (deg) : 117.81  
 B (ring opening deg) : 3.44  
 PA of pole (deg) : -16.58  
 Pole direction: RA (deg): 268.05639  
 Dec (deg): 64.49682  
 C/A sky separation (") : 12.498  
 C/A sky separation (km) : 37262.4  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk

Jupiter 2035-10-09T20:57:05 K9.45 G11.99  
 Pgt



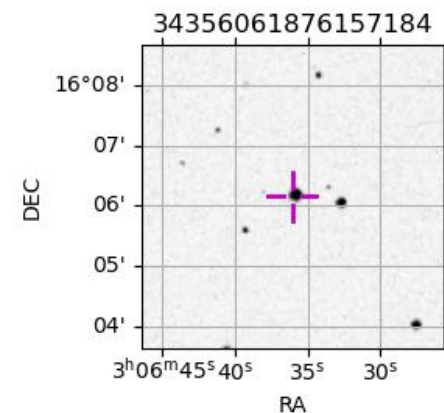
2035-10-09T20:57:05.0800 a: 03 06 36.0541 s +16 06 09.223 C/A \*\*\*\*\* PA 343.34 deg v\_sky -11.81 km/s D 04.11 AU  
 Credit: Styled after SORA/Lucky Star

Earth  
 PIC  
 PMO  
 TEN  
 KAV  
 RIO  
 AAT  
 SAAO  
 MSO



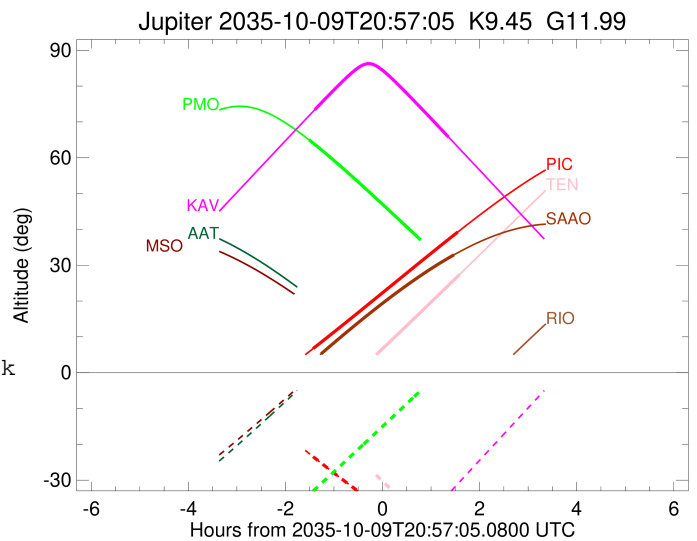
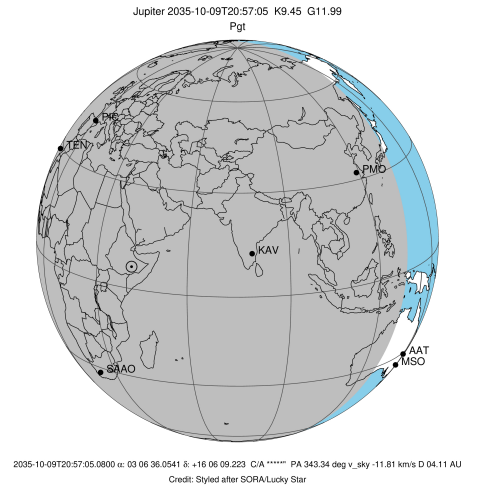
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	OEcode
PIC	Pic du Midi	42.9	0.1	+ +	OCT 09 19:31 - OCT 09 22:30	Pie
PAL	Palomar Mt (200")	33.4	243.1			Pnn
PMO	Purple Mtn Obs. Nanking	32.1	118.8	+	OCT 09 19:26 - OCT 09 19:26	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	+	OCT 09 22:32 - OCT 09 22:32	Pne
IRTF	Mauna Kea/IRTF	19.8	204.5			Pnn
KAV	Kavalur Observatory	12.6	78.8	+ +	OCT 09 19:33 - OCT 09 22:18	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	+ +	OCT 09 19:41 - OCT 09 22:25	Pie
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2035-10-09T21:01:11.510
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : PIC
Location              : Pic du Midi
Latitude (deg)        : 42.93656
E. Longitude (deg)    : 0.14231
Altitude (km)         : 2.890
Gaia source ID        : 34356061876157184
2Mass ID (if available) : 03063601+1606095
ICRS Star Coord at Epoch: 03h 06m 36.05411s +16:06:09.22341s
RUWE (>1.4 is poor) : 1.08
K magnitude           : 9.448
G magnitude           : 11.987
RP magnitude          : 11.223
BP magnitude          : 12.620
DUPflag               : 0
Distance (au)         : 4.111
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -11.81
Sun-Target sep (deg)  : 147.16
Sun-Moon sep (deg)    : 118.35
B (ring opening deg)  : 3.44
PA of pole (deg)      : -16.58
Pole direction: RA (deg): 268.05639
Dec (deg): 64.49682
C/A sky separation (") : 10.857
C/A sky separation (km) : 32367.9
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
    
```

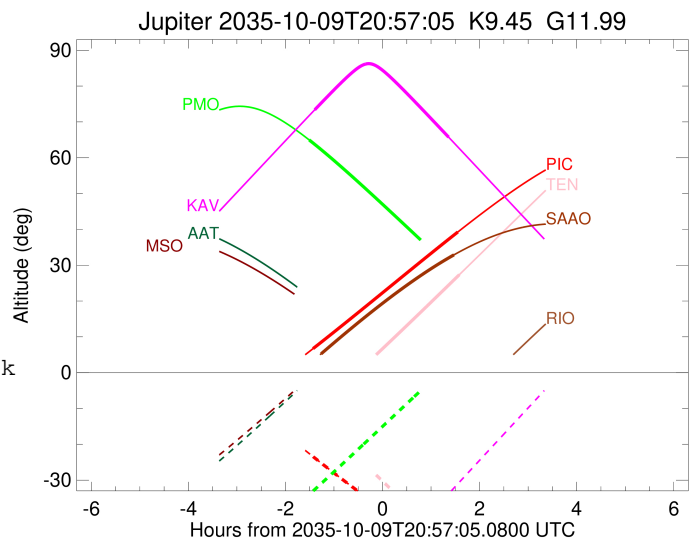
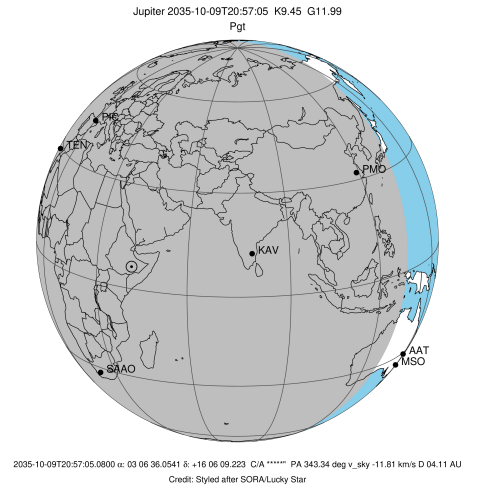


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2035-10-09T19:31:16.821	6.72	-23.44	71488.8	-26.47	-29.61
Jupiter	E	2035-10-09T22:30:03.741	39.24	-49.99	71488.6	-27.39	-30.59

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2035-10-09T20:51:13.040
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       : 34356061876157184
2Mass ID (if available) : 03063601+1606095
ICRS Star Coord at Epoch: 03h 06m 36.05411s +16:06:09.22341s
RUWE (>1.4 is poor) : 1.08
K magnitude          : 9.448
G magnitude          : 11.987
RP magnitude         : 11.223
BP magnitude         : 12.620
DUPflag             : 0
Distance (au)        : 4.111
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -11.81
Sun-Target sep (deg) : 147.16
Sun-Moon sep (deg)   : 118.11
B (ring opening deg) : 3.44
PA of pole (deg)     : -16.58
Pole direction: RA (deg): 268.05639
Dec (deg): 64.49682
C/A sky separation (") : 12.166
C/A sky separation (km) : 36271.9
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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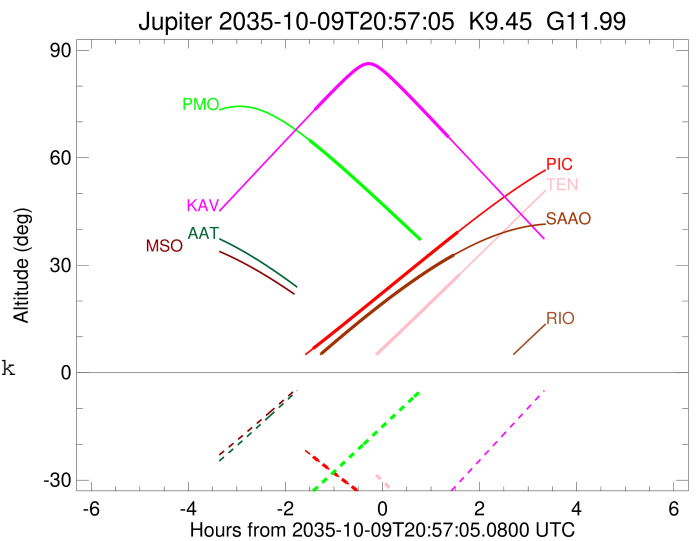
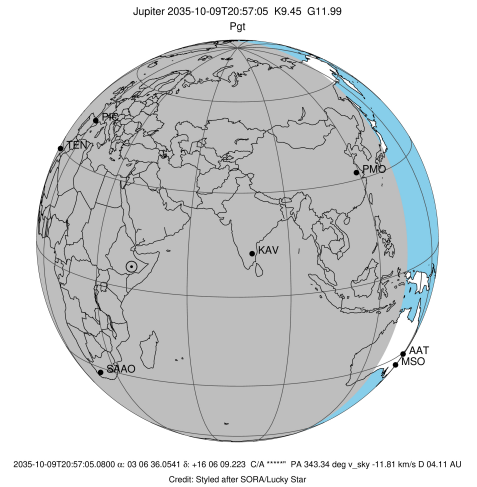


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2035-10-09T19:26:30.827	64.95	-34.00	71487.9	-30.33	-33.72
Jupiter	E	2035-10-09T22:16:24.867	30.20	1.75x	71487.9	-30.26	-33.64

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2035-10-09T21:03:06.090
Event type          : Pgt
                    : Jupiter occs: geocentric, topocentric
                    : Not a ringed target
Observer code       : TEN
Location            : Teide Obs./Tenerife
Latitude (deg)      : 28.30050
E. Longitude (deg)  : 343.48909
Altitude (km)       : 2.395
Gaia source ID      : 34356061876157184
2Mass ID (if available) : 03063601+1606095
ICRS Star Coord at Epoch: 03h 06m 36.05411s +16:06:09.22341s
RUWE (>1.4 is poor) : 1.08
K magnitude         : 9.448
G magnitude         : 11.987
RP magnitude        : 11.223
BP magnitude        : 12.620
DUPflag            : 0
Distance (au)       : 4.111
f0 (km)             : 0.00
g0 (km)             : 0.00
skyplane vel. (km/s) : -11.81
Sun-Target sep (deg) : 147.16
Sun-Moon sep (deg)  : 118.23
B (ring opening deg) : 3.44
PA of pole (deg)    : -16.58
Pole direction: RA (deg): 268.05639
Dec (deg): 64.49682
C/A sky separation (") : 11.039
C/A sky separation (km) : 32910.9
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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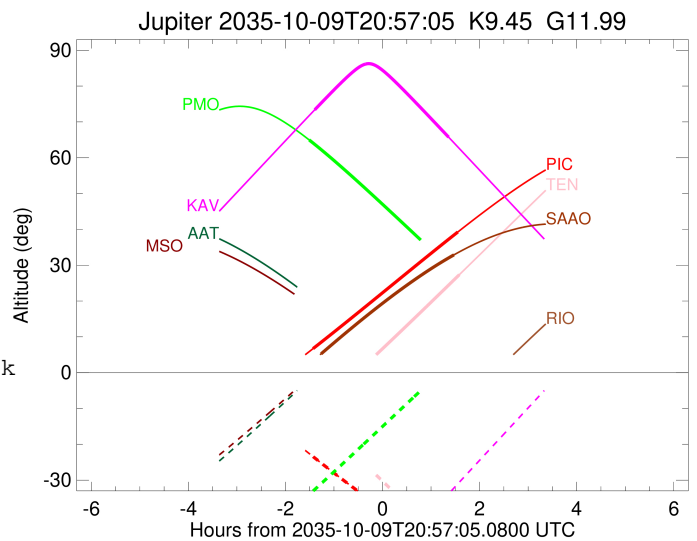
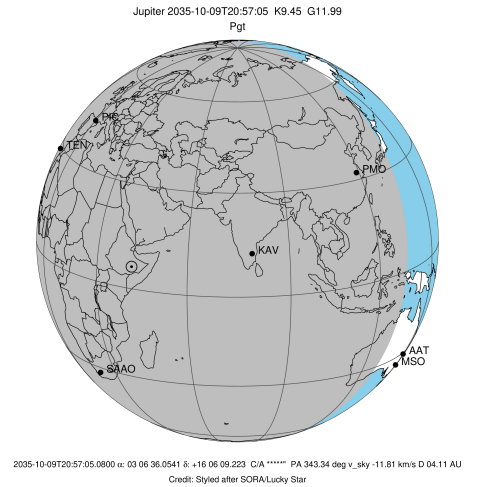


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2035-10-09T19:32:47.489	-10.83x	-11.74	71488.7	-27.03	-30.21
Jupiter	E	2035-10-09T22:32:08.597	27.37	-50.24	71488.5	-27.90	-31.14

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2035-10-09T20:56:08.070
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        : 34356061876157184
2Mass ID (if available) : 03063601+1606095
ICRS Star Coord at Epoch: 03h 06m 36.05411s +16:06:09.22341s
RUWE (>1.4 is poor) : 1.08
K magnitude           : 9.448
G magnitude           : 11.987
RP magnitude          : 11.223
BP magnitude          : 12.620
DUPflag              : 0
Distance (au)         : 4.111
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : -11.81
Sun-Target sep (deg) : 147.16
Sun-Moon sep (deg)   : 118.58
B (ring opening deg) : 3.44
PA of pole (deg)     : -16.58
Pole direction: RA (deg): 268.05639
Dec (deg): 64.49682
C/A sky separation (") : 12.673
C/A sky separation (km) : 37783.8
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
    
```

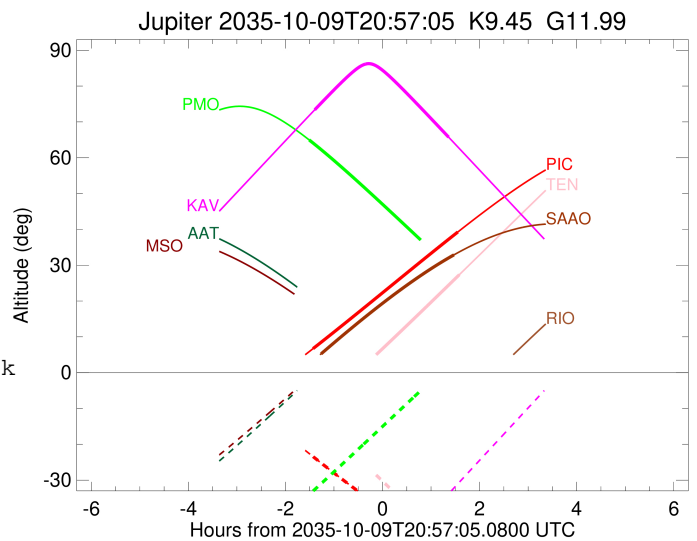
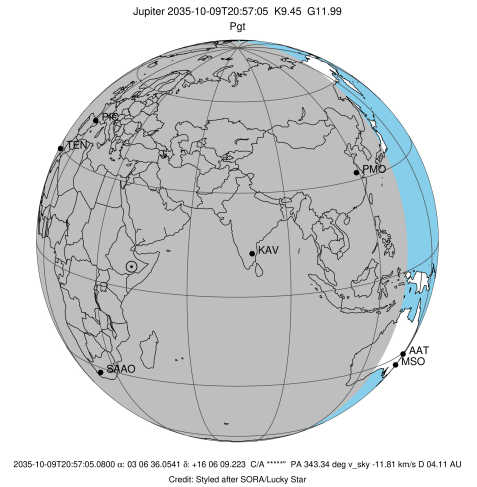


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2035-10-09T19:33:21.024	73.38	-73.68	71487.7	-31.27	-34.71
Jupiter	E	2035-10-09T22:18:49.326	65.73	-33.80	71487.4	-32.20	-35.68

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2035-10-09T21:03:48.230
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      : 34356061876157184
2Mass ID (if available) : 03063601+1606095
ICRS Star Coord at Epoch: 03h 06m 36.05411s +16:06:09.22341s
RUWE (>1.4 is poor) : 1.08
K magnitude          : 9.448
G magnitude          : 11.987
RP magnitude         : 11.223
BP magnitude         : 12.620
DUPflag             : 0
Distance (au)       : 4.111
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -11.81
Sun-Target sep (deg) : 147.16
Sun-Moon sep (deg)  : 118.42
B (ring opening deg) : 3.44
PA of pole (deg)    : -16.58
Pole direction: RA (deg): 268.05639
Dec (deg): 64.49682
C/A sky separation (") : 13.441
C/A sky separation (km) : 40072.9
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	2035-10-09T19:41:17.078	5.27	-35.32	71487.1	-33.42	-36.96
Jupiter	E	2035-10-09T22:25:28.510	32.89	-51.32	71486.8	-34.66	-38.25