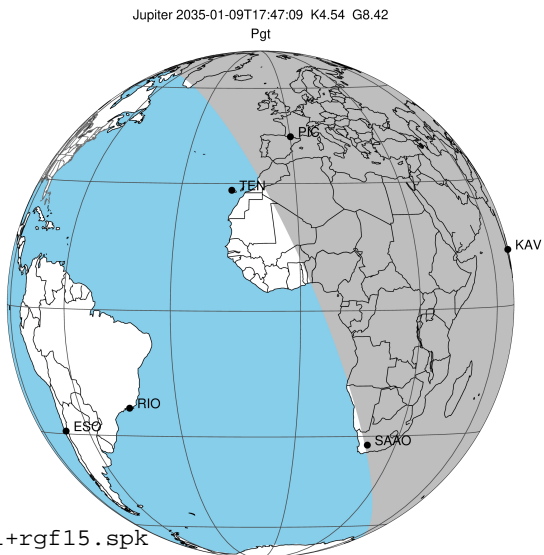


target : Jupiter  
 target radius (km) : 71492.00  
 C/A epoch : 2035-01-09T17:47:09.760  
 Event type : Pgt  
 : Jupiter occs: geocentric, topocentric  
 : Not a ringed target  
 Gaia source ID : 2547038618688047232  
 2Mass ID (if available) : 00252609+0122097

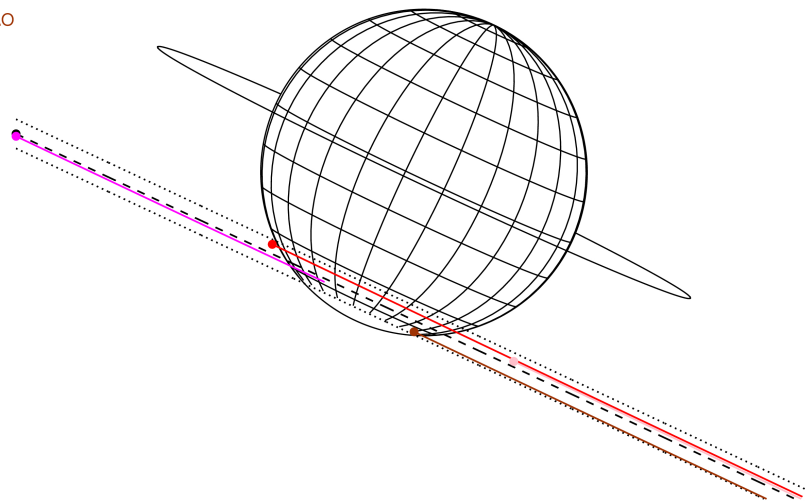
Jupiter 2035-01-09T17:47:09 K4.54 G8.42 Pgt

ICRS Star Coord at Epoch: 00h 25m 26.06476s +01:22:09.00817s  
 RUWE (>1.4 is poor) : 0.98  
 K magnitude : 4.537  
 G magnitude : 8.424  
 RP magnitude : 7.289  
 BP magnitude : 9.730  
 DUPflag : 0  
 Distance (au) : 5.071  
 f0 (km) : 0.00  
 g0 (km) : 0.00  
 skyplane vel. (km/s) : 19.93  
 Sun-Target sep (deg) : 77.58  
 Sun-Moon sep (deg) : 76.44  
 B (ring opening deg) : 2.33  
 PA of pole (deg) : -25.24  
 Pole direction: RA (deg): 268.05640  
 Dec (deg): 64.49676  
 C/A sky separation (") : 16.455  
 C/A sky separation (km) : 60512.1  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk



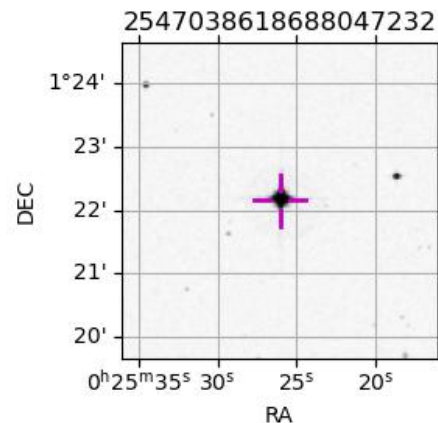
2035-01-09T17:47:09.7600 α: 00 25 26.0648 δ: +01 22 09.008 C/A \*\*\*\*\* PA 334.89 deg v\_sky +19.93 km/s D 05.07 AU  
 Credit: Styled after SORA/Lucky Star

Earth  
 PIC  
 TEN  
 KAV  
 SAAO



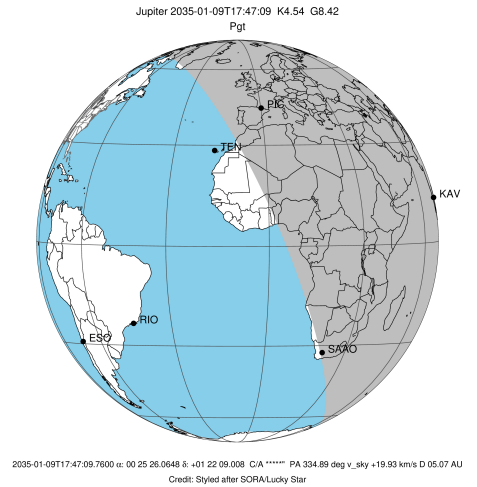
Observable events with sun below -5 deg and altitude above 5 deg

Obs	Location	lat	Elon	Target	Observed Events Interval	OEcode
PIC	Pic du Midi	42.9	0.1	+ +	JAN 09 17:12 - JAN 09 18:25	Pie
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	+	JAN 09 17:22 - JAN 09 17:22	Pin
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	+	JAN 09 18:13 - JAN 09 18:13	Pne
MSO	Mt. Stromlo Observatory	-35.3	149.0			Pnn

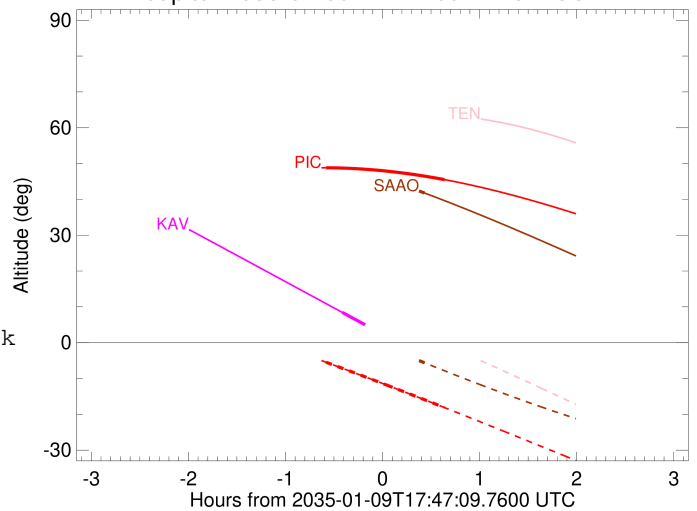


```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2035-01-09T17:48:54.150
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     : 2547038618688047232
2Mass ID (if available) : 00252609+0122097
ICRS Star Coord at Epoch: 00h 25m 26.06476s +01:22:09.00817s
RUWE (>1.4 is poor) : 0.98
K magnitude        : 4.537
G magnitude        : 8.424
RP magnitude       : 7.289
BP magnitude       : 9.730
DUPflag           : 0
Distance (au)     : 5.071
f0 (km)           : 0.00
g0 (km)           : 0.00
skyplane vel. (km/s) : 19.93
Sun-Target sep (deg) : 77.58
Sun-Moon sep (deg) : 77.16
B (ring opening deg) : 2.33
PA of pole (deg)  : -25.24
Pole direction: RA (deg): 268.05640
Dec (deg): 64.49676
C/A sky separation (") : 15.512
C/A sky separation (km) : 57045.7
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 2035-01-09T17:47:09 K4.54 G8.42

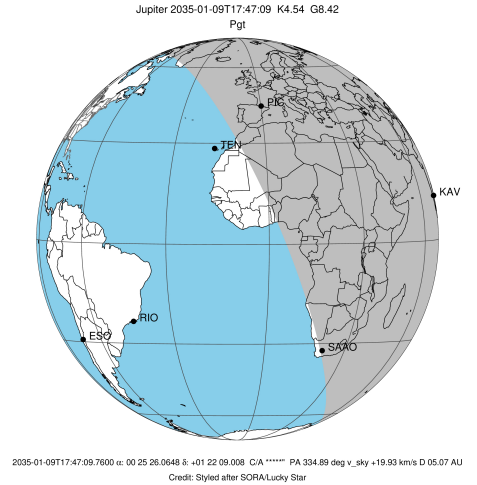


x: target alt < 5.0 deg or sun > -5.0 deg

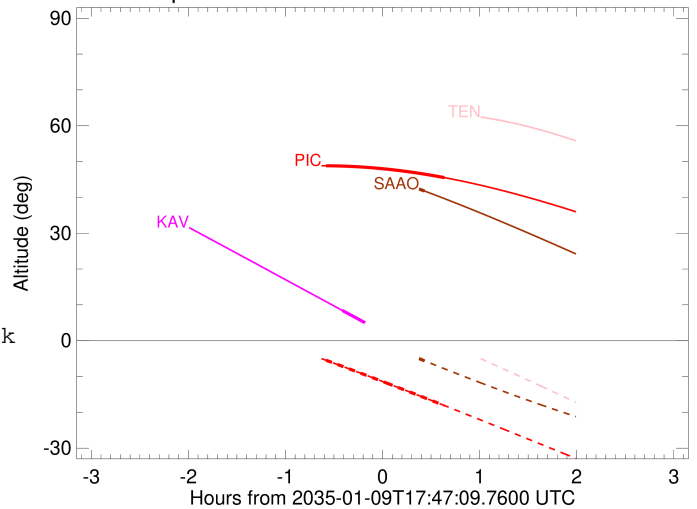
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2035-01-09T17:12:17.804	48.82	-5.47	71487.3	-52.59	-56.07
Jupiter	E	2035-01-09T18:25:28.365	45.51	-18.12	71487.3	-53.15	-56.61

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2035-01-09T17:52:23.290
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        : 2547038618688047232
2Mass ID (if available) : 00252609+0122097
ICRS Star Coord at Epoch: 00h 25m 26.06476s +01:22:09.00817s
RUWE (>1.4 is poor) : 0.98
K magnitude           : 4.537
G magnitude           : 8.424
RP magnitude          : 7.289
BP magnitude          : 9.730
DUPflag              : 0
Distance (au)         : 5.071
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 19.93
Sun-Target sep (deg) : 77.58
Sun-Moon sep (deg)   : 76.68
B (ring opening deg) : 2.33
PA of pole (deg)     : -25.24
Pole direction: RA (deg): 268.05640
Dec (deg): 64.49676
C/A sky separation ("): 16.833
C/A sky separation (km): 61904.7
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 2035-01-09T17:47:09 K4.54 G8.42

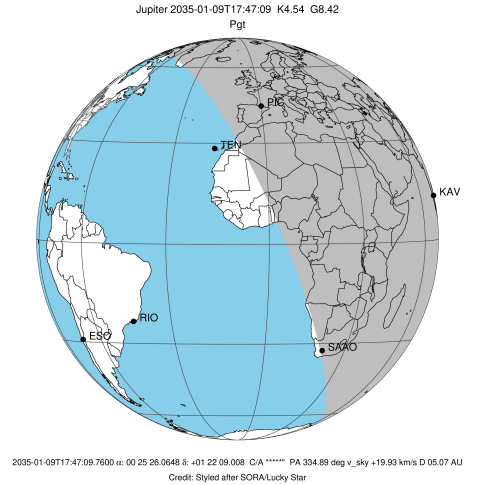


x: target alt < 5.0 deg or sun > -5.0 deg

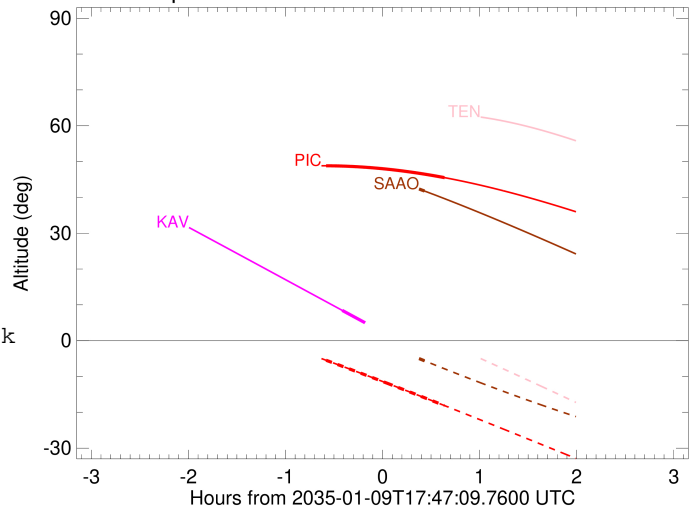
Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2035-01-09T17:22:23.979	8.42	-66.67	71486.5	-60.03	-63.09
Jupiter	E	2035-01-09T18:22:16.786	-6.22x	-78.14	71486.5	-59.72	-62.80

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2035-01-09T17:47:34.220
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     : 2547038618688047232
2Mass ID (if available) : 00252609+0122097
ICRS Star Coord at Epoch: 00h 25m 26.06476s +01:22:09.00817s
RUWE (>1.4 is poor) : 0.98
K magnitude         : 4.537
G magnitude         : 8.424
RP magnitude        : 7.289
BP magnitude        : 9.730
DUPflag            : 0
Distance (au)      : 5.071
f0 (km)            : 0.00
g0 (km)            : 0.00
skyplane vel. (km/s) : 19.93
Sun-Target sep (deg) : 77.58
Sun-Moon sep (deg)  : 77.12
B (ring opening deg) : 2.33
PA of pole (deg)   : -25.24
Pole direction: RA (deg): 268.05640
Dec (deg): 64.49676
C/A sky separation (") : 17.634
C/A sky separation (km) : 64847.9
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
    
```



Jupiter 2035-01-09T17:47:09 K4.54 G8.42



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	2035-01-09T17:21:59.193	49.51	4.02x	71486.0	-64.72	-67.42
Jupiter	E	2035-01-09T18:13:07.116	41.77	-5.62	71485.9	-65.27	-67.93