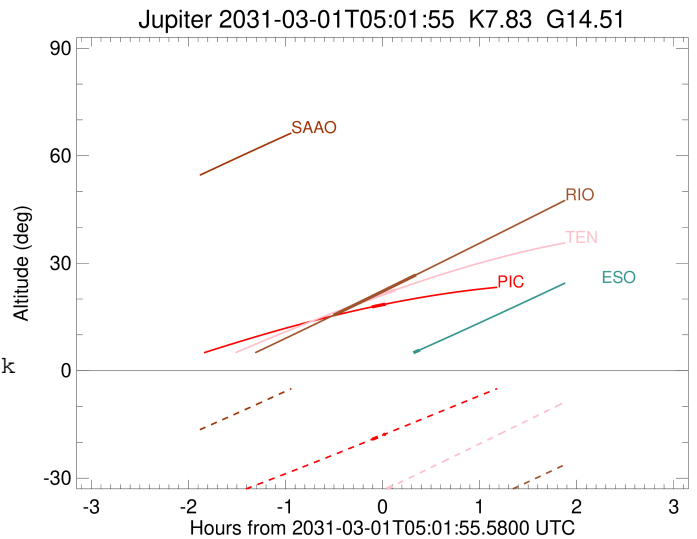
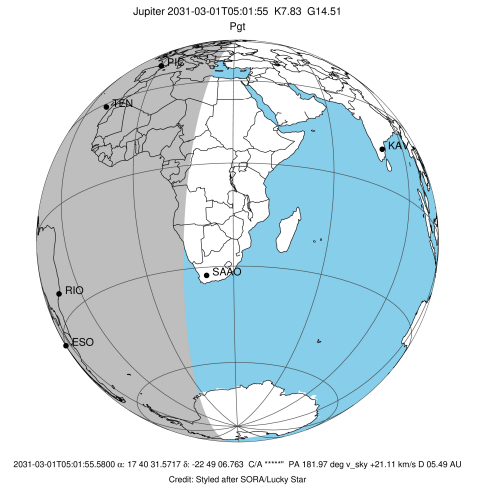



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2031-03-01T04:59:38.120
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        : 4116566487963003136
2Mass ID (if available) : 17403158-2249066
ICRS Star Coord at Epoch: 17h 40m 31.57165s -22:49:06.76296s
RUWE (>1.4 is poor)  : 0.86
K magnitude           : 7.829
G magnitude           : 14.507
RP magnitude          : 12.936
BP magnitude          : 18.385
DUPflag              : 0
Distance (au)         : 5.494
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 21.11
Sun-Target sep (deg)  : 74.46
Sun-Moon sep (deg)   : 164.60
B (ring opening deg) : -2.66
PA of pole (deg)     : 1.26
Pole direction: RA (deg): 268.05701
Dec (deg): 64.49651
C/A sky separation (") : 17.891
C/A sky separation (km) : 71295.3
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
    
```

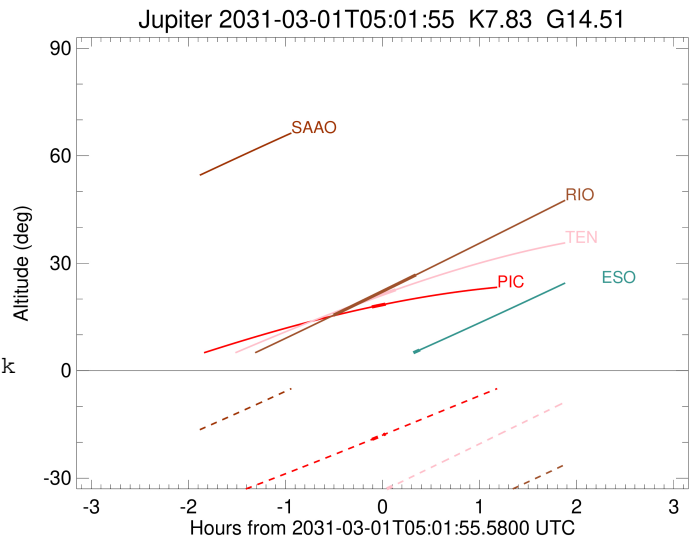
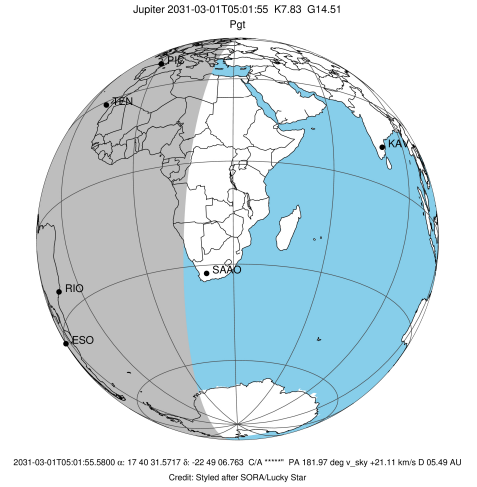


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2031-03-01T04:55:29.658	17.80	-19.18	71482.5	84.27	84.95
Jupiter	E	2031-03-01T05:03:46.610	18.58	-17.67	71482.4	85.83	86.32

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2031-03-01T04:58:08.850
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        : 4116566487963003136
2Mass ID (if available) : 17403158-2249066
ICRS Star Coord at Epoch: 17h 40m 31.57165s -22:49:06.76296s
RUWE (>1.4 is poor) : 0.86
K magnitude           : 7.829
G magnitude           : 14.507
RP magnitude          : 12.936
BP magnitude          : 18.385
DUPflag              : 0
Distance (au)         : 5.494
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 21.11
Sun-Target sep (deg) : 74.46
Sun-Moon sep (deg)   : 164.39
B (ring opening deg) : -2.66
PA of pole (deg)     : 1.26
Pole direction: RA (deg): 268.05701
Dec (deg): 64.49651
C/A sky separation (") : 17.546
C/A sky separation (km) : 69921.4
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
    
```

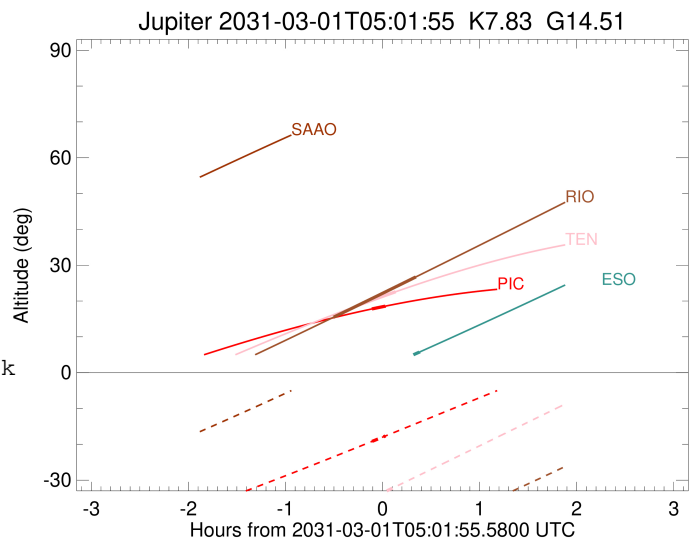
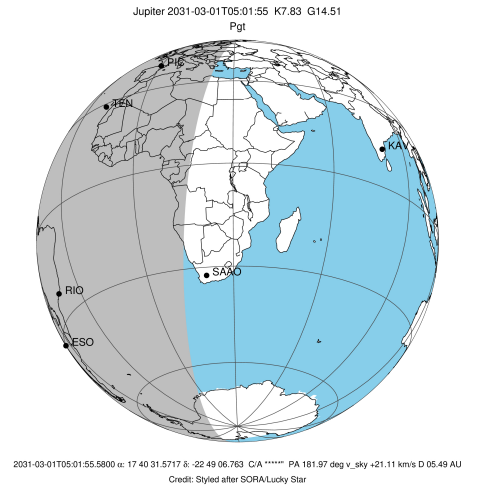


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2031-03-01T04:46:15.816	18.69	-36.97	71482.9	76.67	78.21
Jupiter	E	2031-03-01T05:10:02.564	22.58	-31.81	71482.8	78.75	80.05

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2031-03-01T04:57:04.550
Event type            : Pgt
: Jupiter occs: geocentric, topocentric
: Not a ringed target
Observer code         : RIO
Location              : Rio de Janeiro
Latitude (deg)        : -22.89506
E. Longitude (deg)    : 316.77708
Altitude (km)         : 0.033
Gaia source ID        : 4116566487963003136
2Mass ID (if available) : 17403158-2249066
ICRS Star Coord at Epoch: 17h 40m 31.57165s -22:49:06.76296s
RUWE (>1.4 is poor) : 0.86
K magnitude           : 7.829
G magnitude           : 14.507
RP magnitude          : 12.936
BP magnitude          : 18.385
DUPflag              : 0
Distance (au)         : 5.494
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 21.11
Sun-Target sep (deg) : 74.46
Sun-Moon sep (deg)   : 164.23
B (ring opening deg) : -2.66
PA of pole (deg)     : 1.26
Pole direction: RA (deg): 268.05701
Dec (deg): 64.49651
C/A sky separation (") : 16.050
C/A sky separation (km) : 63959.0
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
    
```

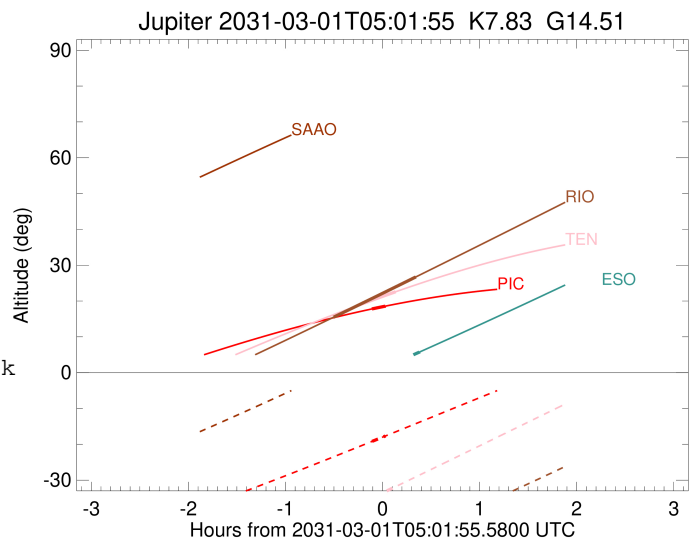
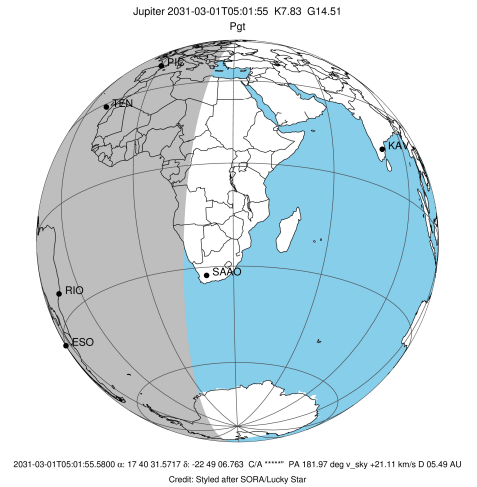


x: target alt < 5.0 deg or sun > -5.0 deg

Target	I/E	UTC	alt	alt-sun	radius	lat-geo	lat-geodetic
Jupiter	I	2031-03-01T04:31:46.620	15.50	-52.94	71484.5	62.19	65.10
Jupiter	E	2031-03-01T05:22:26.536	26.70	-44.72	71484.2	64.50	67.22

```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch            : 2031-03-01T04:57:22.670
Event type          : Pgt
                    : Jupiter occs: geocentric, topocentric
                    : Not a ringed target
Observer code       : ESO
Location            : European Southern Obs. (3.6m)
Latitude (deg)      : -29.26097
E. Longitude (deg)  : 289.26831
Altitude (km)       : 2.400
Gaia source ID      : 4116566487963003136
2Mass ID (if available) : 17403158-2249066
ICRS Star Coord at Epoch: 17h 40m 31.57165s -22:49:06.76296s
RUWE (>1.4 is poor) : 0.86
K magnitude          : 7.829
G magnitude          : 14.507
RP magnitude         : 12.936
BP magnitude         : 18.385
DUPflag             : 0
Distance (au)       : 5.494
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : 21.11
Sun-Target sep (deg) : 74.46
Sun-Moon sep (deg)  : 164.18
B (ring opening deg) : -2.66
PA of pole (deg)    : 1.26
Pole direction: RA (deg): 268.05701
Dec (deg): 64.49651
C/A sky separation ("): 15.641
C/A sky separation (km): 62328.8
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	2031-03-01T04:29:54.616	-5.02x	-52.73	71484.9	59.47	62.57
Jupiter	E	2031-03-01T05:24:55.236	5.78	-52.57	71484.6	61.69	64.63