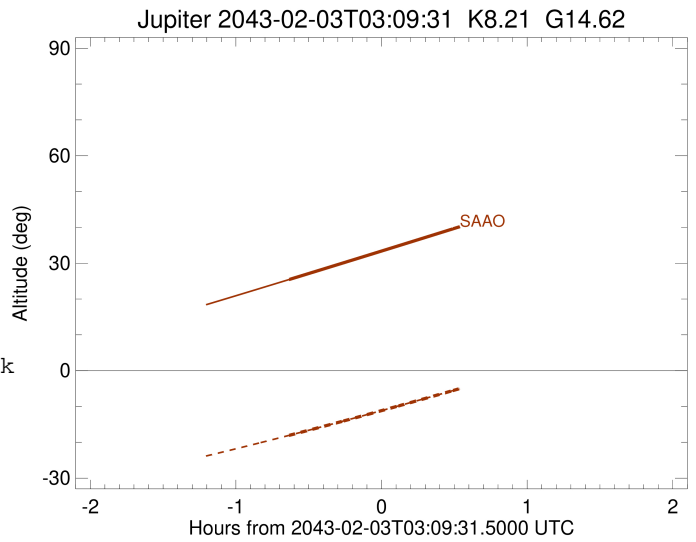
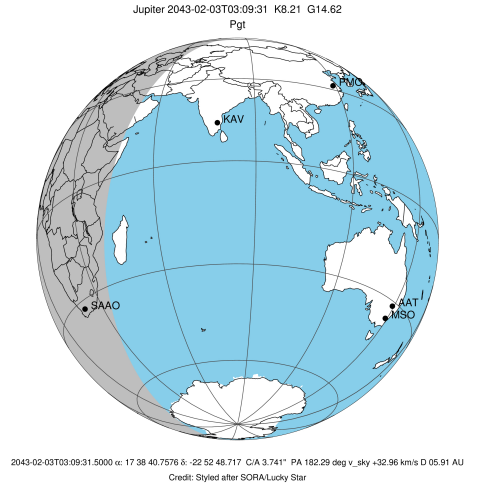



```

target                : Jupiter
target radius (km)   : 71492.00
C/A epoch             : 2043-02-03T03:07:04.470
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       : 4116752030421388160
2Mass ID (if available) : 17384077-2252484
ICRS Star Coord at Epoch: 17h 38m 40.75758s -22:52:48.71657s
RUWE (>1.4 is poor) : 0.94
K magnitude           : 8.209
G magnitude           : 14.618
RP magnitude          : 13.068
BP magnitude          : 17.920
DUPflag              : 0
Distance (au)        : 5.914
f0 (km)               : 0.00
g0 (km)               : 0.00
skyplane vel. (km/s) : 32.96
Sun-Target sep (deg) : 48.48
Sun-Moon sep (deg)   : 31.06
B (ring opening deg) : -2.58
PA of pole (deg)     : 1.46
Pole direction: RA (deg): 268.05661
Dec (deg): 64.49732
C/A sky separation (") : 3.191
C/A sky separation (km) : 13687.7
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
    
```



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	2043-02-03T02:31:27.380	25.44	-18.06	71491.7	9.93	11.32
Jupiter	E	2043-02-03T03:42:45.845	40.39	-4.81x	71491.6	12.10	13.77