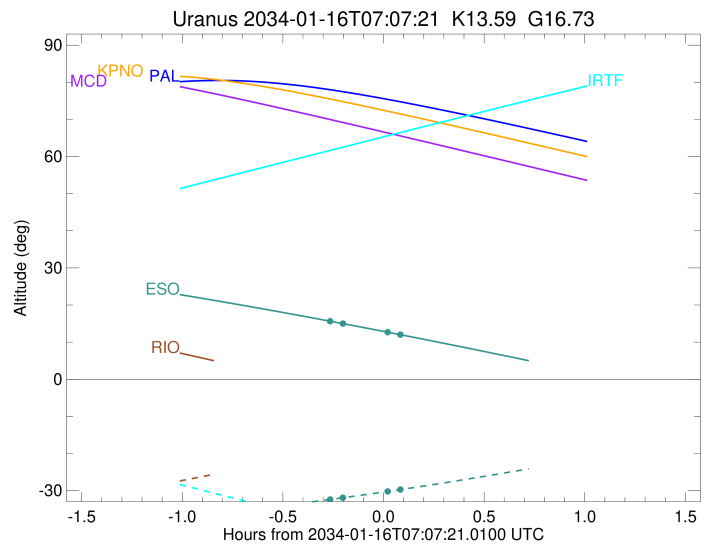
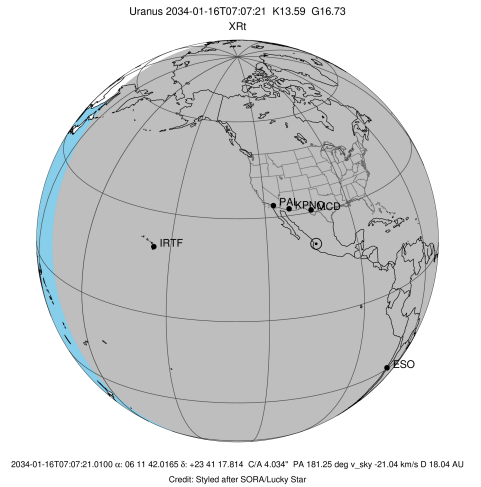




target : Uranus  
 target radius (km) : 25559.00  
 C/A epoch : 2034-01-16T07:03:17.380  
 Event type : XRt  
 : No Uranus occs  
 : Ring occs: topocentric, not geocentric  
 Observer code : ESO  
 Location : European Southern Obs. (3.6m)  
 Latitude (deg) : -29.26097  
 E. Longitude (deg) : 289.26831  
 Altitude (km) : 2.400  
 Gaia source ID : 3425424813006230656  
 2Mass ID (if available) : 06114201+2341178  
 ICRS Star Coord at Epoch: 06h 11m 42.01650s +23:41:17.81403s  
 RUWE (>1.4 is poor) : 1.03  
 K magnitude : 13.586  
 G magnitude : 16.731  
 RP magnitude : 15.807  
 BP magnitude : 17.622  
 DUPflag : 0  
 Distance (au) : 18.041  
 f0 (km) : 0.000  
 g0 (km) : 0.000  
 skyplane vel. (km/s) : -21.03  
 Sun-Target sep (deg) : 156.94  
 Sun-Moon sep (deg) : 154.20  
 B (ring opening deg) : 73.01  
 PA of pole (deg) : 62.76  
 Pole direction: RA (deg): 257.31100  
 Dec (deg): -15.17500  
 C/A sky separation (") : 3.728  
 C/A sky separation (km) : 48774.0  
 NAIF SPICE kernels : RAJobs\_U111+rgf15.spk  
 URKALLv1.spk  
 ura111.bsp  
 IAU\_URANUS\_for\_RINGFIT.tpc  
 vgr2.ura111.bsp  
 ura161.bsp  
 vgr2.ura161.bsp  
 peph.ura160.bsp  
 earthstns\_itrf93\_040916.bsp  
 earth\_720101\_070426.bpc  
 earth\_200101\_990628\_predict.bpc  
 pg3f0000r.bsp  
 pg490000r.bsp  
 naif0012.tls  
 earth\_flat\_IAU.spk



Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
epsilon	I	2034-01-16T06:52:38.136		15.44	-32.23	50758.07	-5.27		
lambda	I	2034-01-16T06:55:17.465		14.99	-31.91	50026.71	-3.85		

No planet occultations

lambda	E	2034-01-16T07:08:31.560		12.69	-30.22	50026.71	3.85		
epsilon	E	2034-01-16T07:11:10.120		12.23	-29.87	50752.93	5.27		