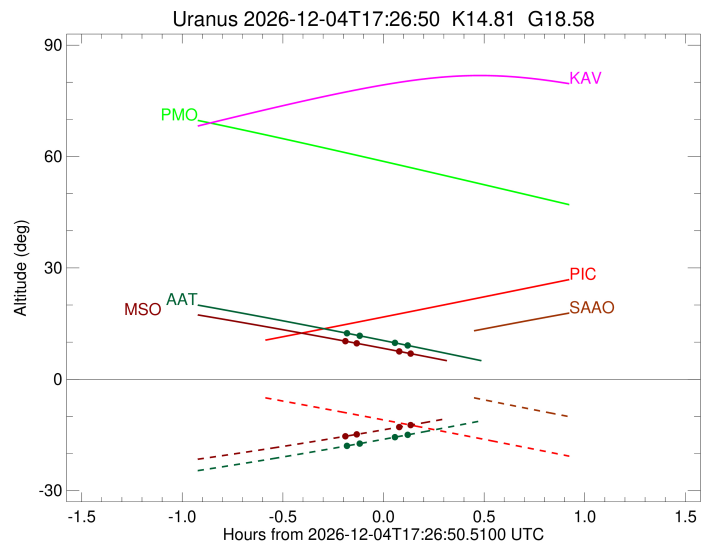
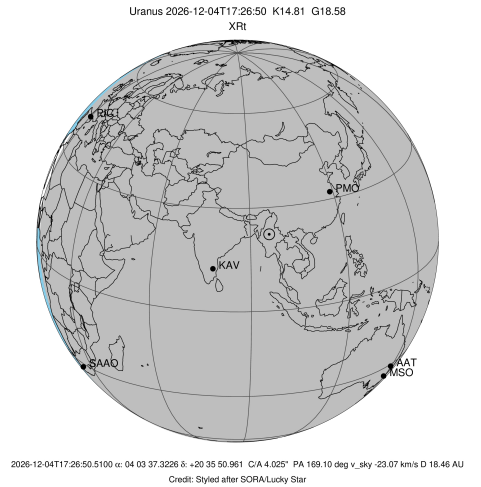


target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2026-12-04T17:23:49.030
 Event type : XRt
 : No Uranus occs
 : Ring occs: topocentric, not geocentric
 Observer code : AAT
 Location : Siding Spring (AAT)
 Latitude (deg) : -31.27703
 E. Longitude (deg) : 149.06608
 Altitude (km) : 1.164
 Gaia source ID : 52147087726499712
 2Mass ID (if available) : 04033731+2035514
 ICRS Star Coord at Epoch: 04h 03m 37.32259s +20:35:50.96148s
 RUWE (>1.4 is poor) : 0.99
 K magnitude : 14.810
 G magnitude : 18.584
 RP magnitude : 17.379
 BP magnitude : 20.017
 DUPflag : 0
 Distance (au) : 18.456
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : -23.07
 Sun-Target sep (deg) : 170.72
 Sun-Moon sep (deg) : 141.28
 B (ring opening deg) : 73.48
 PA of pole (deg) : -73.51
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 3.662
 C/A sky separation (km) : 49017.8
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk
 URKALLvl.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

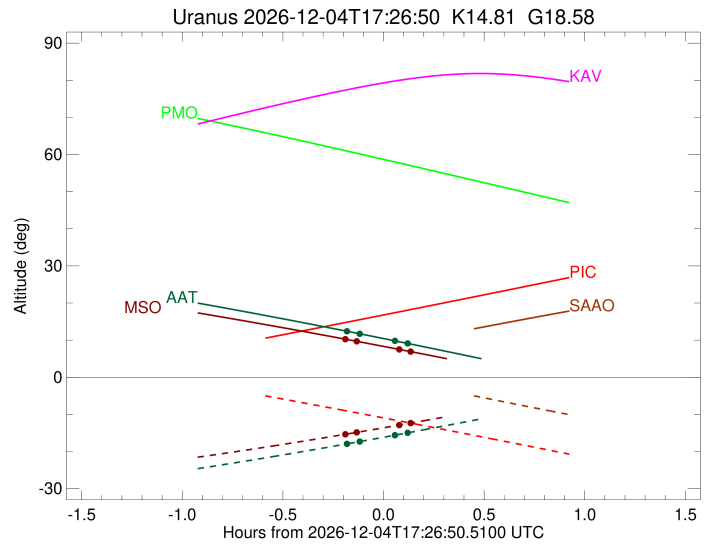
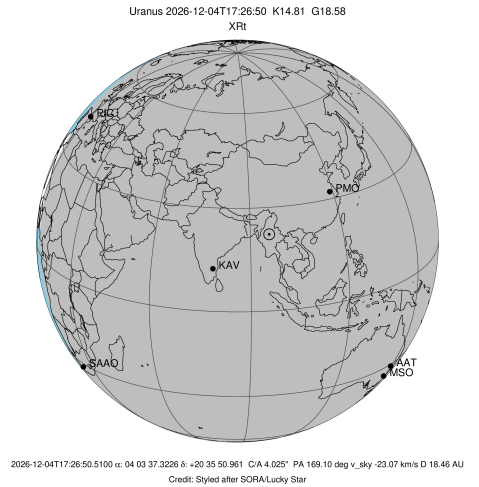


Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
epsilon	I	2026-12-04T17:16:21.722		12.32	-17.88	51014.29	-5.72		
lambda	I	2026-12-04T17:19:49.151		11.70	-17.32	50026.71	-3.60		

No planet occultations

lambda	E	2026-12-04T17:30:11.176		9.82	-15.61	50026.71	3.60		
epsilon	E	2026-12-04T17:33:10.694		9.27	-15.11	50853.08	5.71		

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2026-12-04T17:24:01.250
 Event type : XRt
 : No Uranus occs
 : Ring occs: topocentric, not geocentric
 Observer code : MSO
 Location : Mt. Stromlo Observatory
 Latitude (deg) : -35.32000
 E. Longitude (deg) : 149.00833
 Altitude (km) : 0.770
 Gaia source ID : 52147087726499712
 2Mass ID (if available) : 04033731+2035514
 ICRS Star Coord at Epoch: 04h 03m 37.32259s +20:35:50.96148s
 RUWE (>1.4 is poor) : 0.99
 K magnitude : 14.810
 G magnitude : 18.584
 RP magnitude : 17.379
 BP magnitude : 20.017
 DUPflag : 0
 Distance (au) : 18.456
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : -23.07
 Sun-Target sep (deg) : 170.72
 Sun-Moon sep (deg) : 141.23
 B (ring opening deg) : 73.48
 PA of pole (deg) : -73.51
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 3.642
 C/A sky separation (km) : 48753.8
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk
 URKALLvl.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	2026-12-04T17:15:50.069		10.20	-15.30	51022.30	-6.21		
lambda	I	2026-12-04T17:18:54.938		9.68	-14.84	50026.71	-4.37		

No planet occultations

lambda	E	2026-12-04T17:31:29.117		7.51	-12.89	50026.71	4.36		
epsilon	E	2026-12-04T17:34:06.058		7.06	-12.47	50847.26	6.20		