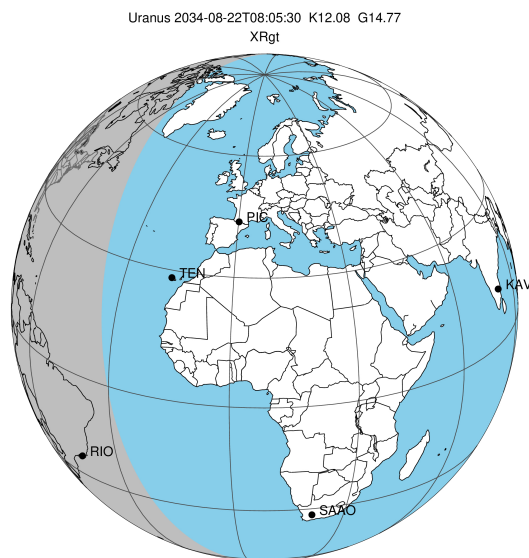


target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2034-08-22T08:05:30.370
 Event type : XRgt
 : No Uranus occs
 : Ring occs: geocentric, topocentric
 Gaia source ID : 3382396254385222656
 2Mass ID (if available) : 06382840+2325460

ICRS Star Coord at Epoch: 06h 38m 28.40840s +23:25:46.00867s

RUWE (>1.4 is poor) : 1.01
 K magnitude : 12.083
 G magnitude : 14.775
 RP magnitude : 13.974
 BP magnitude : 15.460
 DUPflag : 0
 Distance (au) : 19.545
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 25.54
 Sun-Target sep (deg) : 50.03
 Sun-Moon sep (deg) : 143.06
 B (ring opening deg) : 67.42
 PA of pole (deg) : 72.59

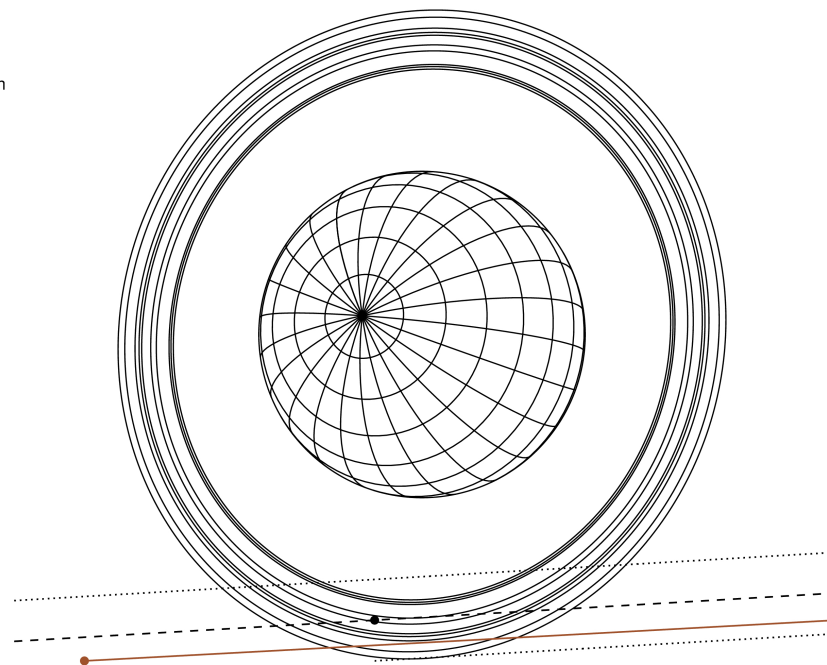
#	a(km)	ring
1	41837.2	6
2	42235.0	5
3	42571.2	4
4	44718.5	alpha
5	45661.1	beta
6	47176.1	eta
7	47626.3	gamma
8	48300.3	delta
9	50026.7	lambda
10	51149.4	epsilon



2034-08-22T08:05:30.3700 α: 06 38 28.4084 δ: +23 25 46.009 C/A 3.115° PA 3.36 deg v_sky +25.54 km/s D 19.55 AU
 Credit: Styled after SORA/Lucky Star

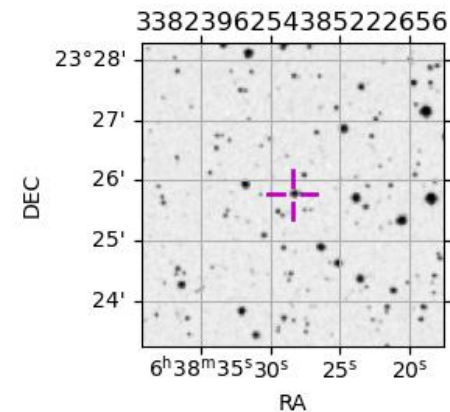
Uranus 2034-08-22T08:05:30 K12.08 G14.77 XRgt

Earth
 RIO

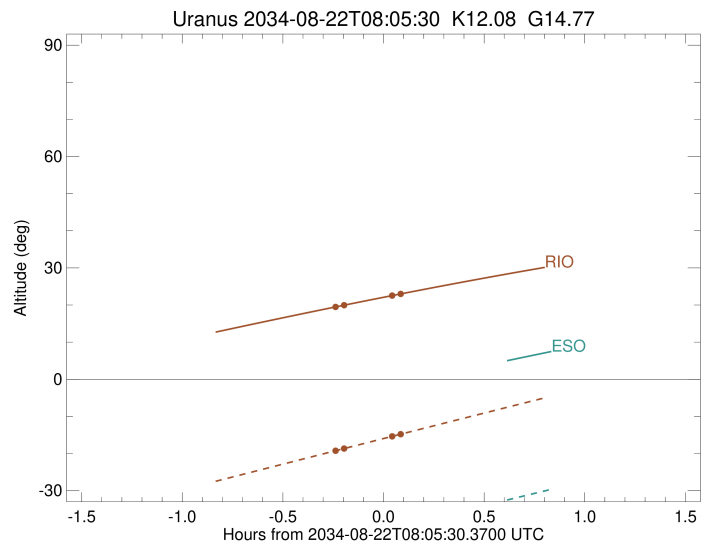
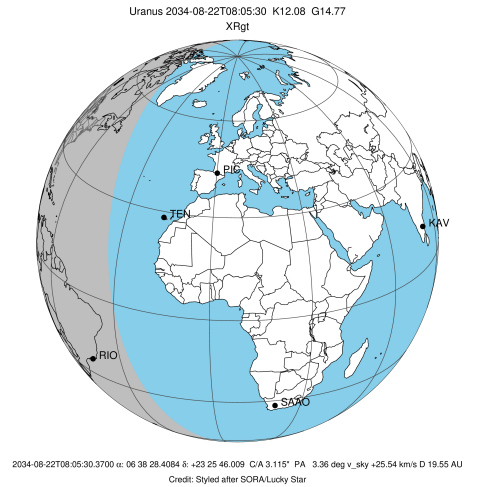


Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

Obs	Location	lat	Elon	Rings I	Planet	Rings E	Observed Events Interval	OEcode
PIC	Pic du Midi	42.9	0.1					PnnRnn
PAL	Palomar Mt (200")	33.4	243.1					PnnRnn
PMO	Purple Mtn Obs. Nanki	32.1	118.8					PnnRnn
KPNO	Kitt Peak Natl Obs	32.0	248.4					PnnRnn
MCD	McDonald Obs. 2.7m	30.7	256.0					PnnRnn
TEN	Teide Obs./Tenerife	28.3	343.5					PnnRnn
IRTF	Mauna Kea/IRTF	19.8	204.5					PnnRnn
KAV	Kavalur Observatory	12.6	78.8					PnnRnn
RIO	Rio de Janeiro	-22.9	316.8	++		++	AUG 22 07:50 - AUG 22 08:10	PnnRie
ESO	European Southern Obs	-29.3	289.3					PnnRnn
AAT	Siding Spring (AAT)	-31.3	149.1					PnnRnn
SAAO	So. Afr. Astro. Obs.	-32.4	20.8					PnnRnn
MSO	Mt. Stromlo Observato	-35.3	149.0					PnnRnn



target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2034-08-22T08:02:29.490
 Event type : XRgt
 : No Uranus occs
 : Ring occs: geocentric, topocentric
 Observer code : RIO
 Location : Rio de Janeiro
 Latitude (deg) : -22.89506
 E. Longitude (deg) : 316.77708
 Altitude (km) : 0.033
 Gaia source ID : 3382396254385222656
 2Mass ID (if available) : 06382840+2325460
 ICRS Star Coord at Epoch: 06h 38m 28.40840s +23:25:46.00867s
 RUWE (>1.4 is poor) : 1.01
 K magnitude : 12.083
 G magnitude : 14.775
 RP magnitude : 13.974
 BP magnitude : 15.460
 DUPflag : 0
 Distance (au) : 19.545
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 25.54
 Sun-Target sep (deg) : 50.03
 Sun-Moon sep (deg) : 142.71
 B (ring opening deg) : 67.42
 PA of pole (deg) : 72.59
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 3.401
 C/A sky separation (km) : 48208.7
 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	2034-08-22T07:50:39.847		19.39	-19.38	51450.26	-8.67		
lambda	I	2034-08-22T07:53:48.126		19.96	-18.66	50026.71	-6.28		

No planet occultations

lambda	E	2034-08-22T08:08:02.939		22.53	-15.39	50026.71	6.28		
epsilon	E	2034-08-22T08:10:45.199		23.01	-14.77	51223.88	8.66		