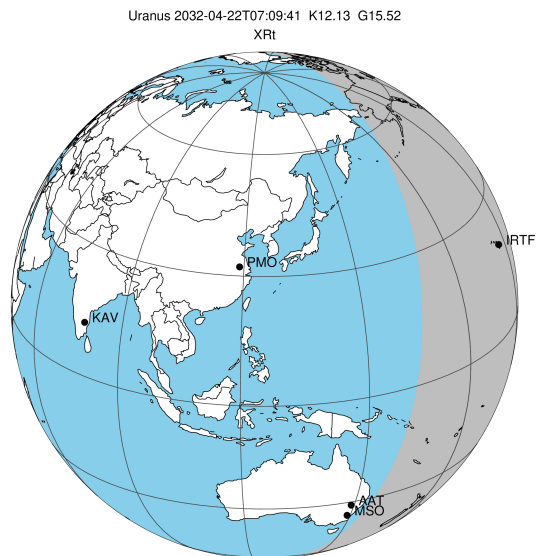


target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2032-04-22T07:09:41.650
 Event type : XRT
 : No Uranus occs
 : Ring occs: topocentric, not geocentric
 Gaia source ID : 3404539967593854592
 2Mass ID (if available) : 05332524+2327234

ICRS Star Coord at Epoch: 05h 33m 25.25275s +23:27:23.42335s

RUWE (>1.4 is poor) : 0.99
 K magnitude : 12.134
 G magnitude : 15.519
 RP magnitude : 14.553
 BP magnitude : 16.460
 DUPflag : 0
 Distance (au) : 19.671
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 24.83
 Sun-Target sep (deg) : 51.63
 Sun-Moon sep (deg) : 89.55
 B (ring opening deg) : 79.95
 PA of pole (deg) : 35.61

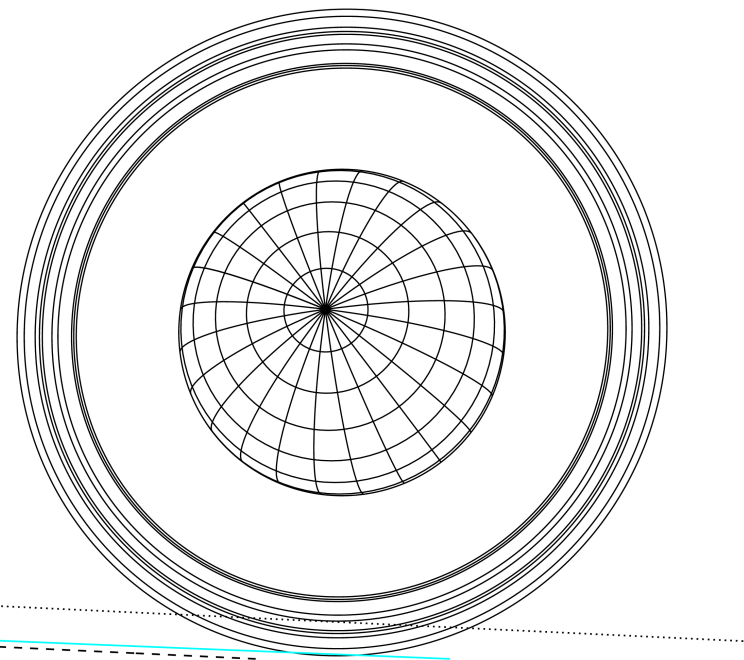
#	a(km)	ring
1	41837.2	6
2	42235.0	5
3	42571.2	4
4	44718.5	alpha
5	45661.1	beta
6	47176.1	eta
7	47626.3	gamma
8	48300.3	delta
9	50026.7	lambda
10	51149.4	epsilon



2032-04-22T07:09:41.6500 ex: 05 33 25.2527 8: +23 27 23.423 C/A 3.618" PA 357.30 deg v_sky +24.83 km/s D 19.67 AU
 Credit: Styled after SORA/Lucky Star

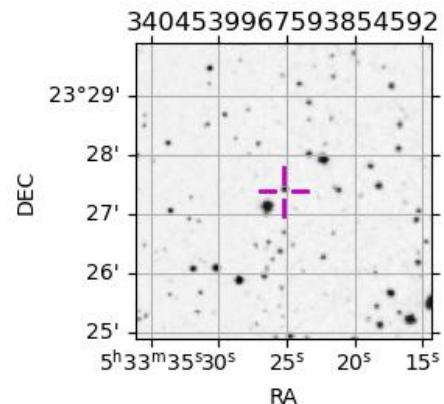
Uranus 2032-04-22T07:09:41 K12.13 G15.52 XRT

IRTF

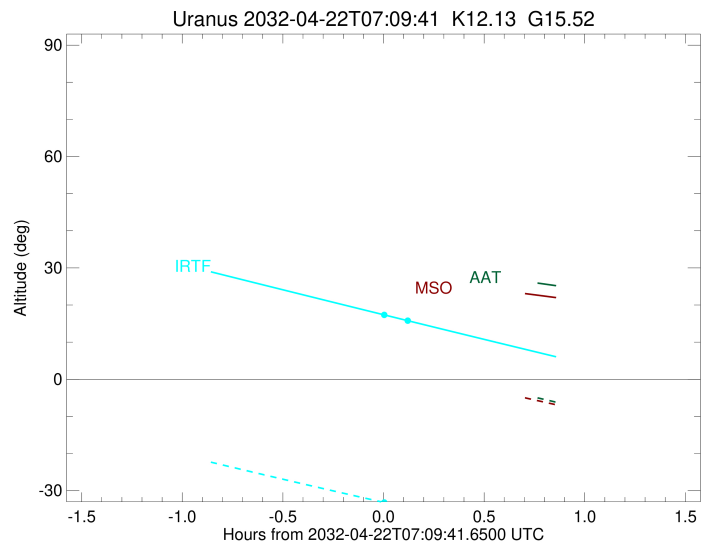
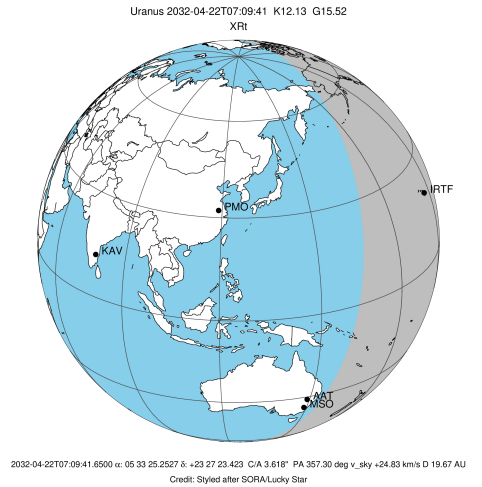


Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

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	+		+	APR 22 07:11 - APR 22 07:16	PnnRie
KAV	Kavalur Observatory	12.6	78.8					PnnRnn
RIO	Rio de Janeiro	-22.9	316.8					PnnRnn
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 : 2032-04-22T07:13:56.260
 Event type : XRt
 : No Uranus occs
 : Ring occs: topocentric, not geocentric
 Observer code : IRTF
 Location : Mauna Kea/IRTF
 Latitude (deg) : 19.82622
 E. Longitude (deg) : 204.52800
 Altitude (km) : 4.168
 Gaia source ID : 3404539967593854592
 2Mass ID (if available) : 05332524+2327234
 ICRS Star Coord at Epoch: 05h 33m 25.25275s +23:27:23.42335s
 RUWE (>1.4 is poor) : 0.99
 K magnitude : 12.134
 G magnitude : 15.519
 RP magnitude : 14.553
 BP magnitude : 16.460
 DUPflag : 0
 Distance (au) : 19.671
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 24.83
 Sun-Target sep (deg) : 51.63
 Sun-Moon sep (deg) : 89.83
 B (ring opening deg) : 79.95
 PA of pole (deg) : 35.61
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 3.532
 C/A sky separation (km) : 50395.7
 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	2032-04-22T07:11:46.157		16.93	-33.57	50906.61	0.63		

No planet occultations

epsilon	E	2032-04-22T07:16:03.904		15.97	-34.43	50906.56	-0.40		
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