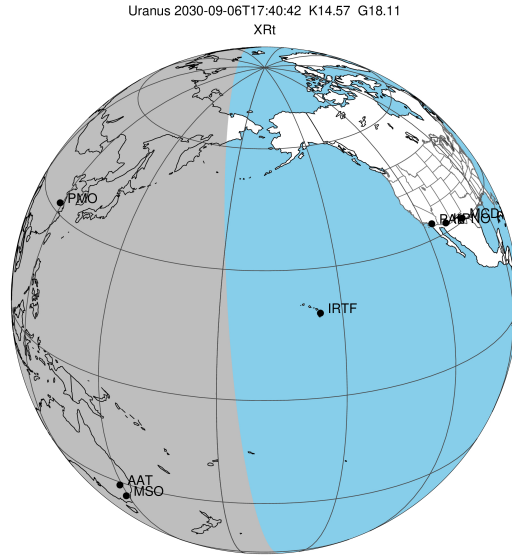


target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2030-09-06T17:40:42.590
 Event type : XRT
 : No Uranus occs
 : Ring occs: topocentric, not geocentric
 Gaia source ID : 3416120715548516096
 2Mass ID (if available) : 05261631+2316564

ICRS Star Coord at Epoch: 05h 26m 16.32980s +23:16:56.35569s

RUWE (>1.4 is poor) : 0.96
 K magnitude : 14.569
 G magnitude : 18.113
 RP magnitude : 17.114
 BP magnitude : 19.151
 DUPflag : 0
 Distance (au) : 19.296
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 10.73
 Sun-Target sep (deg) : 81.50
 Sun-Moon sep (deg) : 164.41
 B (ring opening deg) : 80.95
 PA of pole (deg) : 27.10

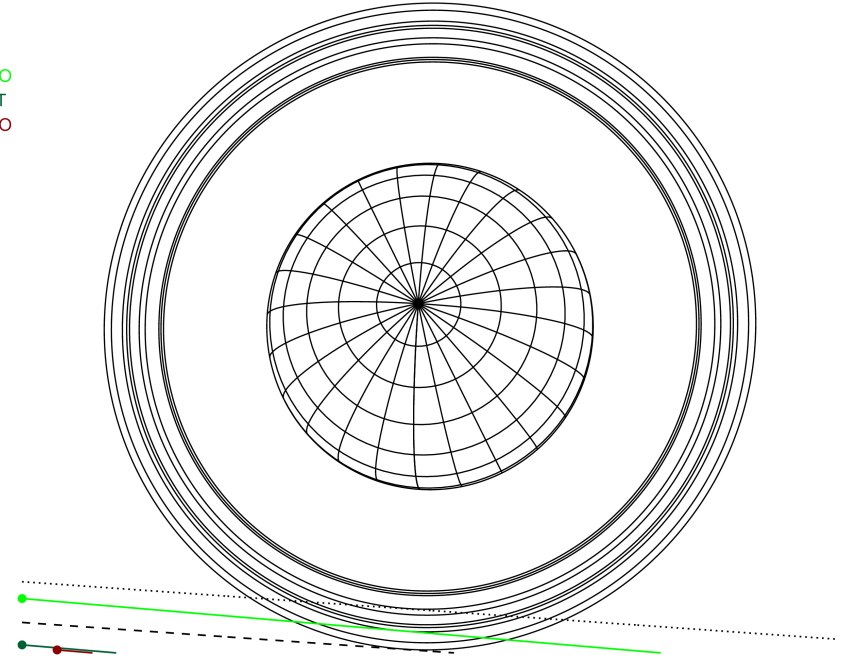
#	a(km)	ring
1	41837.2	6
2	42235.0	5
3	42571.2	4
4	44718.5	alpha
5	45661.1	beta
6	47176.1	eta
7	47626.3	gamma
8	48300.3	delta
9	50026.7	lambda
10	51149.4	epsilon



2030-09-06T17:40:42.5900 ex: 05 26 16.3298 s: +23 16 56.3556 C/A 3.621" PA 355.97 deg v_sky +10.73 km/s D 19.30 AU
 Credit: Styled after SORA/Lucky Star

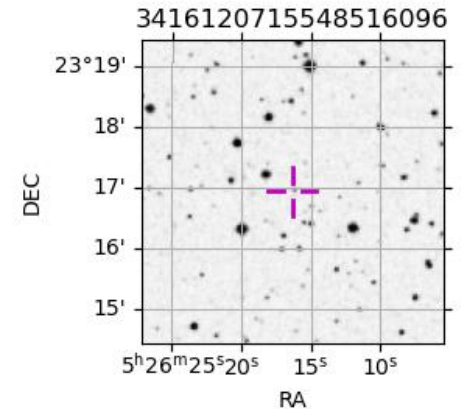
Uranus 2030-09-06T17:40:42 K14.57 G18.11 XRT

PMO
 AAT
 MSO

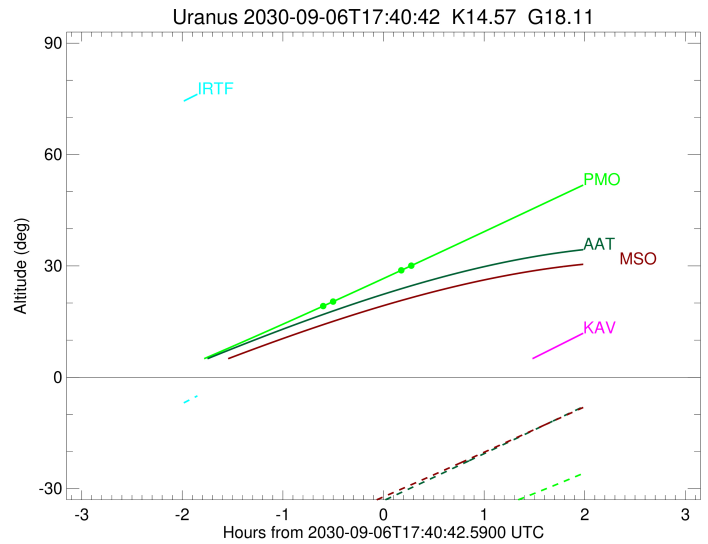
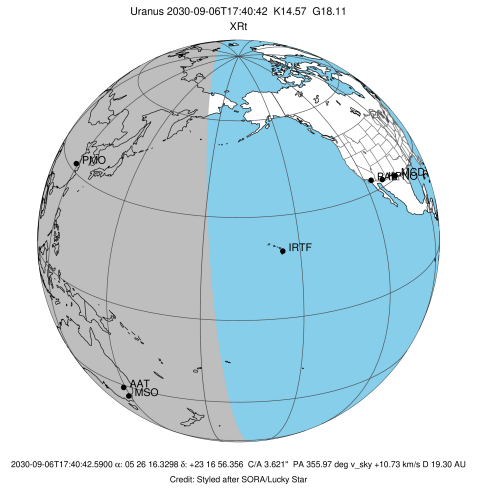


Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

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	++		++	SEP 06 17:06 - SEP 06 17:56	PnnRie
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					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 : 2030-09-06T17:31:47.860
 Event type : XRt
 : No Uranus occs
 : Ring occs: topocentric, not geocentric
 Observer code : PMO
 Location : Purple Mtn Obs. Nanking
 Latitude (deg) : 32.06667
 E. Longitude (deg) : 118.82089
 Altitude (km) : 0.364
 Gaia source ID : 3416120715548516096
 2Mass ID (if available) : 05261631+2316564
 ICRS Star Coord at Epoch: 05h 26m 16.32980s +23:16:56.35569s
 RUWE (>1.4 is poor) : 0.96
 K magnitude : 14.569
 G magnitude : 18.113
 RP magnitude : 17.114
 BP magnitude : 19.151
 DUPflag : 0
 Distance (au) : 19.297
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 10.73
 Sun-Target sep (deg) : 81.50
 Sun-Moon sep (deg) : 165.32
 B (ring opening deg) : 80.95
 PA of pole (deg) : 27.10
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 3.420
 C/A sky separation (km) : 47870.1
 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_itrff93_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	2030-09-06T17:06:28.555	19.53	-48.98	50808.06	-3.36			
lambda	I	2030-09-06T17:10:44.769	20.41	-48.60	50026.71	-2.78			

No planet occultations

lambda	E	2030-09-06T17:51:13.895	28.79	-43.98	50026.71	2.76			
epsilon	E	2030-09-06T17:56:31.437	29.90	-43.26	51005.57	3.33			