

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2035-09-09T04:06:00.140
 Event type : XRgt
 : No Uranus occs
 : Ring occs: geocentric, topocentric
 Gaia source ID : 3380128820888947328
 2Mass ID (if available) : 07001025+2303475

ICRS Star Coord at Epoch: 07h 00m 10.25890s +23:03:47.44593s

RUWE (>1.4 is poor) : 1.05
 K magnitude : 14.954
 G magnitude : 17.603
 RP magnitude : 16.725
 BP magnitude : 18.403
 DUPflag : 0
 Distance (au) : 19.297
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 20.40
 Sun-Target sep (deg) : 62.03
 Sun-Moon sep (deg) : 146.70
 B (ring opening deg) : 62.69
 PA of pole (deg) : 78.20

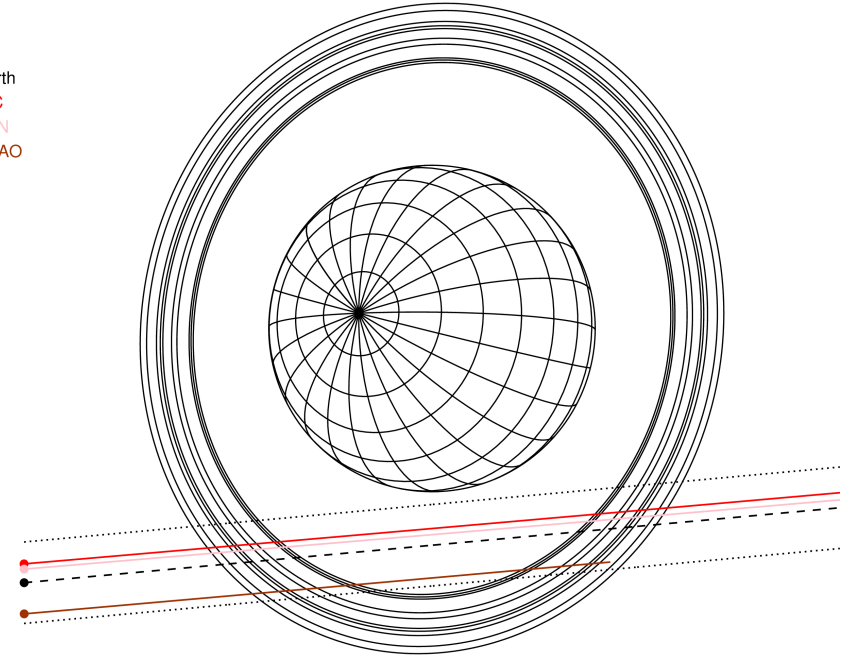
#	a(km)	ring
1	41837.2	6
2	42235.0	5
3	42571.2	4
4	44718.5	alpha
5	45661.1	beta
6	47176.1	eta
7	47626.3	gamma
8	48300.3	delta
9	50026.7	lambda
10	51149.4	epsilon



2035-09-09T04:06:00.1400 α: 07 00 10.2589 s δ: +23 03 47.446 C/A 2.411" PA 5.25 deg v_sky +20.40 km/s D 19.30 AU
 Credit: Styled after SORA/Lucky Star

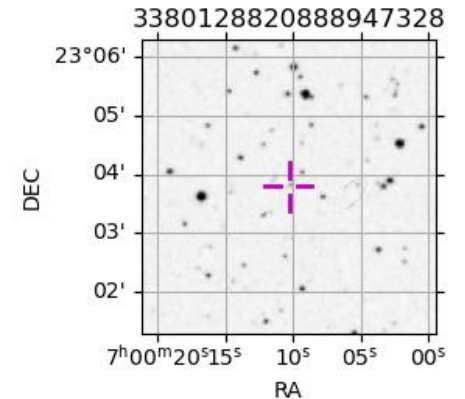
Uranus 2035-09-09T04:06:00 K14.95 G17.60 XRgt

Earth
 PIC
 TEN
 SAAO

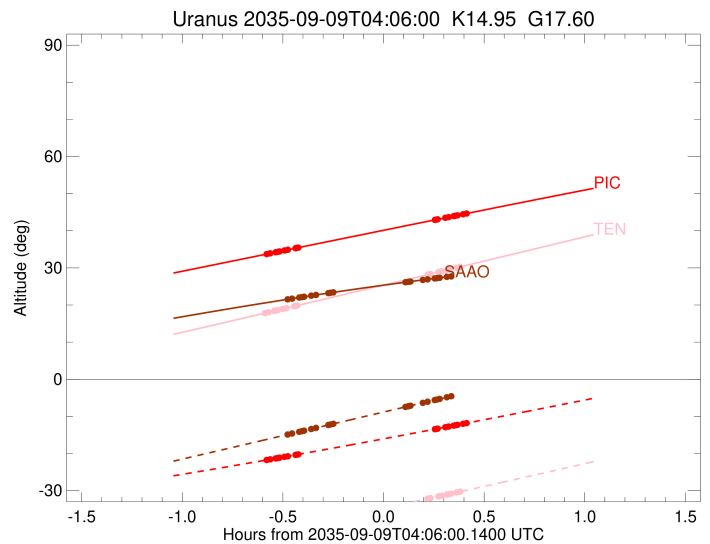
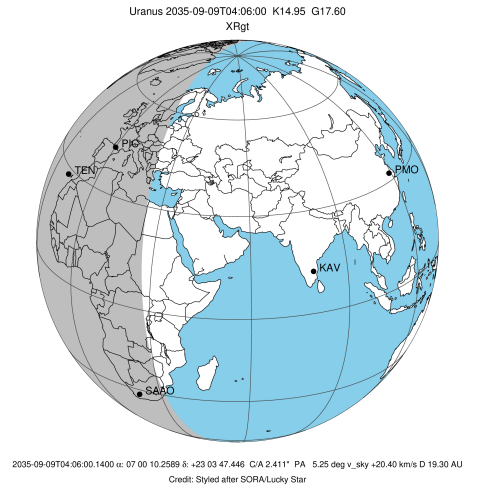


Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

Obs	Location	lat	Elon	Rings I	Planet	Rings E	Observed Events Interval	OEcode
PIC	Pic du Midi	42.9	0.1	+++++		+++++	SEP 09 03:31 - SEP 09 04:31	PnnRie
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	+++++		+++++	SEP 09 03:30 - SEP 09 04:29	PnnRie
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	+++++		+++++	SEP 09 03:37 - SEP 09 04:22	PnnRie
MSO	Mt. Stromlo Observato	-35.3	149.0					PnnRnn



target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2035-09-09T04:02:28.260
 Event type : XRgt
 : No Uranus occs
 : Ring occs: geocentric, topocentric
 Observer code : PIC
 Location : Pic du Midi
 Latitude (deg) : 42.93656
 E. Longitude (deg) : 0.14231
 Altitude (km) : 2.890
 Gaia source ID : 3380128820888947328
 2Mass ID (if available) : 07001025+2303475
 ICRS Star Coord at Epoch: 07h 00m 10.25890s +23:03:47.44593s
 RUWE (>1.4 is poor) : 1.05
 K magnitude : 14.954
 G magnitude : 17.603
 RP magnitude : 16.725
 BP magnitude : 18.403
 DUPflag : 0
 Distance (au) : 19.297
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 20.40
 Sun-Target sep (deg) : 62.03
 Sun-Moon sep (deg) : 146.58
 B (ring opening deg) : 62.69
 PA of pole (deg) : 78.20
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 2.230
 C/A sky separation (km) : 31209.5
 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_itr93_040916.bsp
 earth_720101_070426.bpc
 earth_200101_990628_predict.bpc
 pg3f0000r.bsp
 pg490000r.bsp
 naif0012.tls
 earth_flat_IAU.spk

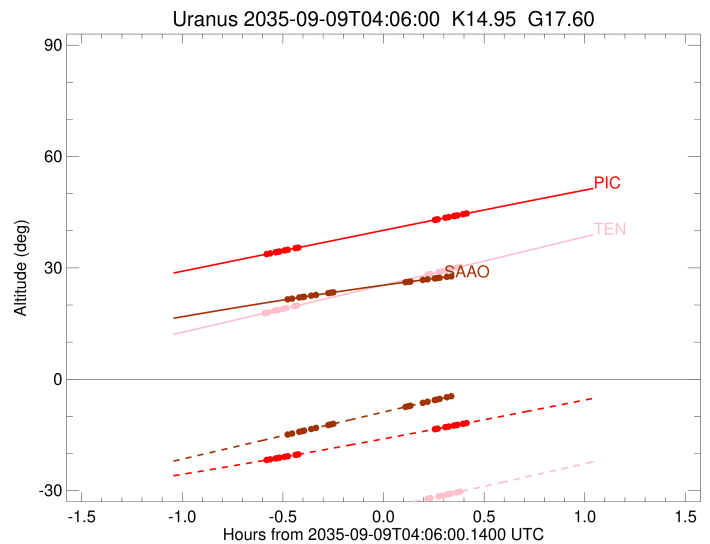
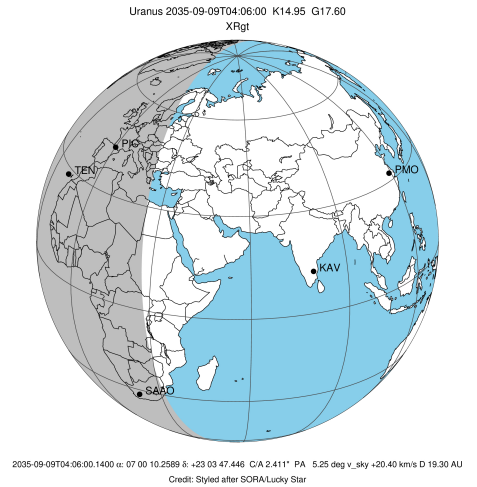


Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
epsilon	I	2035-09-09T03:31:31.734		33.79	-21.69	50786.93	-17.77		
lambda	I	2035-09-09T03:32:14.847		33.92	-21.57	50026.71	-17.55		
delta	I	2035-09-09T03:33:54.426		34.23	-21.31	48300.35	-17.12		
gamma	I	2035-09-09T03:34:33.985		34.35	-21.21	47626.71	-16.94		
eta	I	2035-09-09T03:35:00.690		34.43	-21.13	47176.12	-16.81		
beta	I	2035-09-09T03:36:30.864		34.71	-20.89	45680.26	-16.35		
alpha	I	2035-09-09T03:37:32.523		34.89	-20.73	44684.78	-16.01		
4	I	2035-09-09T03:39:50.210		35.32	-20.36	42529.74	-15.17		
5	I	2035-09-09T03:40:05.227		35.36	-20.32	42303.97	-15.05		
6	I	2035-09-09T03:40:38.917		35.47	-20.23	41795.10	-14.83		

No planet occultations

6	E	2035-09-09T04:21:17.872	42.93	-13.45	41836.92	14.78
5	E	2035-09-09T04:21:41.931	43.00	-13.38	42202.00	15.00
4	E	2035-09-09T04:22:08.537	43.08	-13.31	42585.31	15.12
alpha	E	2035-09-09T04:24:25.124	43.50	-12.92	44715.37	15.95
beta	E	2035-09-09T04:25:24.280	43.68	-12.75	45666.37	16.29
eta	E	2035-09-09T04:26:55.793	43.95	-12.48	47176.12	16.74
gamma	E	2035-09-09T04:27:22.890	44.04	-12.40	47631.46	16.87
delta	E	2035-09-09T04:28:02.335	44.15	-12.29	48300.35	17.05
lambda	E	2035-09-09T04:29:42.352	44.46	-12.00	50026.71	17.47
epsilon	E	2035-09-09T04:31:01.019	44.70	-11.77	51412.84	17.69

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2035-09-09T04:01:15.760
 Event type : XRgt
 : No Uranus occs
 : Ring occs: geocentric, topocentric
 Observer code : TEN
 Location : Teide Obs./Tenerife
 Latitude (deg) : 28.30050
 E. Longitude (deg) : 343.48909
 Altitude (km) : 2.395
 Gaia source ID : 3380128820888947328
 2Mass ID (if available) : 07001025+2303475
 ICRS Star Coord at Epoch: 07h 00m 10.25890s +23:03:47.44593s
 RUWE (>1.4 is poor) : 1.05
 K magnitude : 14.954
 G magnitude : 17.603
 RP magnitude : 16.725
 BP magnitude : 18.403
 DUPflag : 0
 Distance (au) : 19.297
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 20.40
 Sun-Target sep (deg) : 62.03
 Sun-Moon sep (deg) : 146.30
 B (ring opening deg) : 62.69
 PA of pole (deg) : 78.20
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 2.299
 C/A sky separation (km) : 32174.9
 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_itr93_040916.bsp
 earth_720101_070426.bpc
 earth_200101_990628_predict.bpc
 pg3f0000r.bsp
 pg490000r.bsp
 naif0012.tls
 earth_flat_IAU.spk

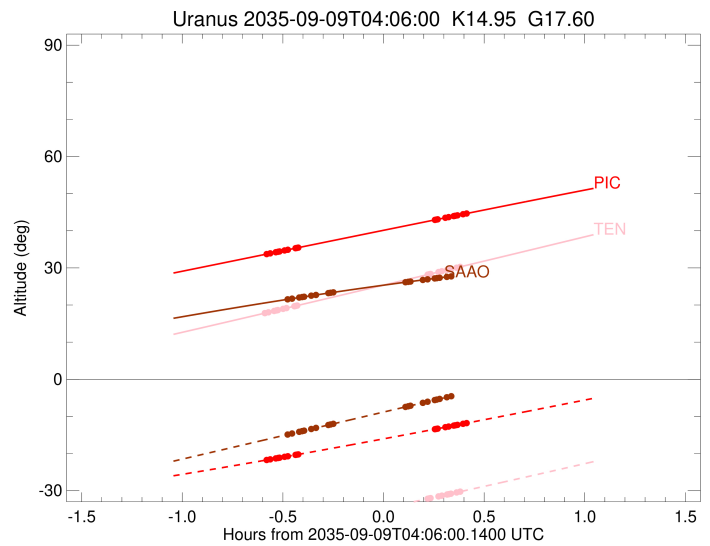
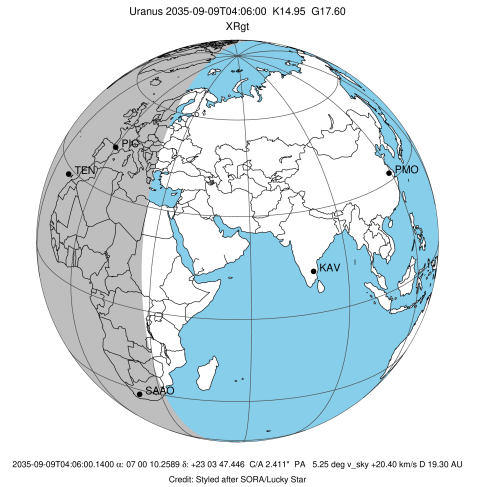


Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
epsilon	I	2035-09-09T03:30:58.697		17.89	-41.15	50791.08	-17.50		
lambda	I	2035-09-09T03:31:42.754		18.04	-41.02	50026.71	-17.25		
delta	I	2035-09-09T03:33:24.151		18.40	-40.72	48300.35	-16.79		
gamma	I	2035-09-09T03:34:04.506		18.54	-40.60	47626.85	-16.59		
eta	I	2035-09-09T03:34:31.790		18.64	-40.52	47176.12	-16.45		
beta	I	2035-09-09T03:36:04.080		18.96	-40.25	45680.43	-15.95		
alpha	I	2035-09-09T03:37:07.393		19.19	-40.06	44684.69	-15.57		
4	I	2035-09-09T03:39:29.460		19.69	-39.64	42530.35	-14.64		
5	I	2035-09-09T03:39:45.140		19.75	-39.59	42302.58	-14.51		
6	I	2035-09-09T03:40:20.048		19.87	-39.49	41795.32	-14.26		

No planet occultations

6	E	2035-09-09T04:19:08.441		28.18	-32.19	41835.30	14.21		
5	E	2035-09-09T04:19:33.791		28.27	-32.11	42204.74	14.45		
4	E	2035-09-09T04:20:01.057		28.37	-32.02	42583.72	14.58		
alpha	E	2035-09-09T04:22:22.180		28.88	-31.56	44714.25	15.50		
beta	E	2035-09-09T04:23:23.074		29.10	-31.36	45666.99	15.87		
eta	E	2035-09-09T04:24:56.803		29.43	-31.05	47176.12	16.36		
gamma	E	2035-09-09T04:25:24.512		29.53	-30.96	47631.49	16.50		
delta	E	2035-09-09T04:26:04.801		29.68	-30.83	48300.35	16.70		
lambda	E	2035-09-09T04:27:46.763		30.05	-30.49	50026.71	17.16		
epsilon	E	2035-09-09T04:29:06.310		30.33	-30.23	51404.56	17.39		

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2035-09-09T04:03:43.220
 Event type : XRgt
 : No Uranus occs
 : Ring occs: geocentric, topocentric
 Observer code : SAAO
 Location : So. Afr. Astro. Obs. (Sutherland)
 Latitude (deg) : -32.37953
 E. Longitude (deg) : 20.81070
 Altitude (km) : 1.768
 Gaia source ID : 3380128820888947328
 2Mass ID (if available) : 07001025+2303475
 ICRS Star Coord at Epoch: 07h 00m 10.25890s +23:03:47.44593s
 RUWE (>1.4 is poor) : 1.05
 K magnitude : 14.954
 G magnitude : 17.603
 RP magnitude : 16.725
 BP magnitude : 18.403
 DUPflag : 0
 Distance (au) : 19.297
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 20.40
 Sun-Target sep (deg) : 62.03
 Sun-Moon sep (deg) : 146.50
 B (ring opening deg) : 62.69
 PA of pole (deg) : 78.20
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 2.781
 C/A sky separation (km) : 38916.4
 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_itrfr93_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	2035-09-09T03:37:47.929		21.59	-14.81	50833.97	-14.32		
lambda	I	2035-09-09T03:38:45.347		21.72	-14.61	50026.71	-13.88		
delta	I	2035-09-09T03:40:53.501		22.02	-14.15	48300.35	-13.04		
gamma	I	2035-09-09T03:41:45.779		22.14	-13.97	47628.00	-12.68		
eta	I	2035-09-09T03:42:21.801		22.23	-13.84	47176.12	-12.41		
beta	I	2035-09-09T03:44:27.039		22.51	-13.40	45681.22	-11.44		
alpha	I	2035-09-09T03:45:57.135		22.72	-13.08	44685.25	-10.68		
4	I	2035-09-09T03:49:39.117		23.22	-12.30	42538.30	-8.60		
5	I	2035-09-09T03:50:09.011		23.29	-12.19	42285.50	-8.25		
6	I	2035-09-09T03:51:09.869		23.42	-11.98	41799.93	-7.65		

No planet occultations

6	E	2035-09-09T04:12:27.065		26.13	-7.47	41821.71	7.64		
5	E	2035-09-09T04:13:18.176		26.23	-7.29	42229.12	8.24		
4	E	2035-09-09T04:13:59.998		26.32	-7.15	42570.09	8.59		
alpha	E	2035-09-09T04:17:40.844		26.75	-6.37	44705.85	10.66		
beta	E	2035-09-09T04:19:08.393		26.92	-6.06	45671.41	11.41		
eta	E	2035-09-09T04:21:14.960		27.16	-5.61	47176.12	12.38		
gamma	E	2035-09-09T04:21:51.360		27.23	-5.48	47631.57	12.64		
delta	E	2035-09-09T04:22:43.500		27.33	-5.30	48300.35	13.01		
lambda	E	2035-09-09T04:24:52.031		27.57	-4.85x	50026.71	13.84		
epsilon	E	2035-09-09T04:26:25.205		27.74	-4.52x	51342.31	14.27		