

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2032-08-07T13:33:59.800
 Event type : XRgt
 : No Uranus occs
 : Ring occs: geocentric, topocentric
 Gaia source ID : 3424869873169446272
 2Mass ID (if available) : 05584750+2336502

ICRS Star Coord at Epoch: 05h 58m 47.51837s +23:36:49.96798s

RUWE (>1.4 is poor) : 2.11
 K magnitude : 11.968
 G magnitude : 14.538
 RP magnitude : 13.583
 BP magnitude : 15.009
 DUPflag : 0
 Distance (au) : 19.742
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 27.28
 Sun-Target sep (deg) : 45.42
 Sun-Moon sep (deg) : 60.27
 B (ring opening deg) : 75.60
 PA of pole (deg) : 56.36

a(km) ring

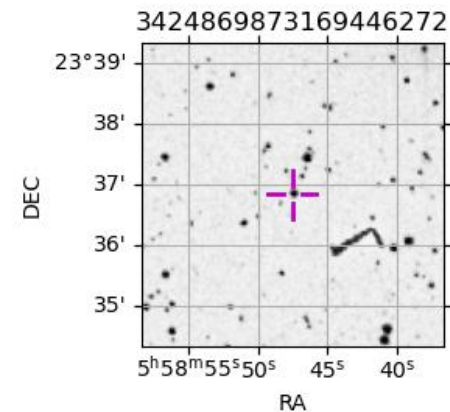
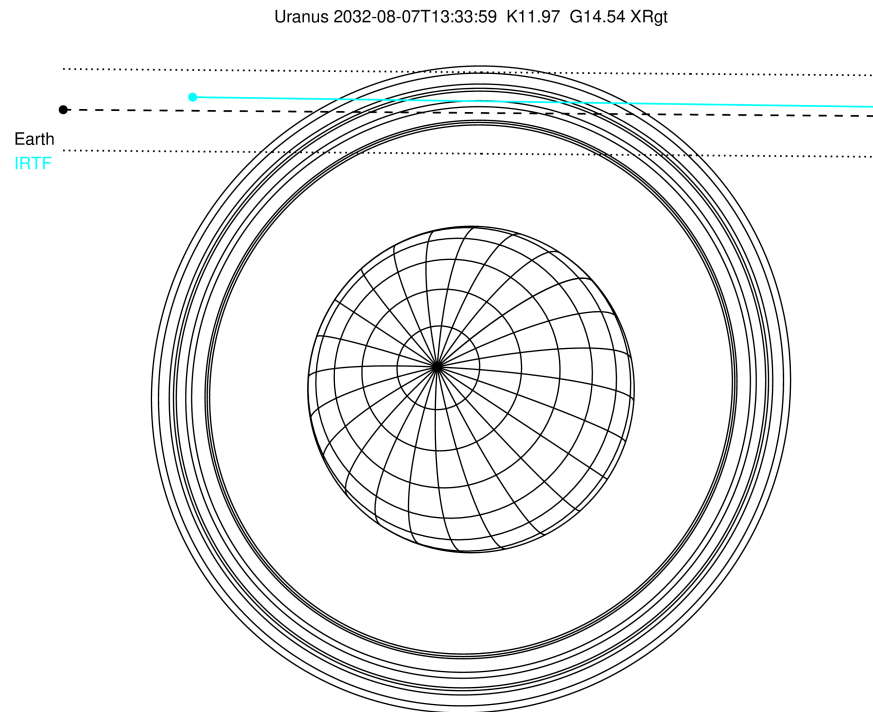
- 1 41837.2 6
- 2 42235.0 5
- 3 42571.2 4
- 4 44718.5 alpha
- 5 45661.1 beta
- 6 47176.1 eta
- 7 47626.3 gamma
- 8 48300.3 delta
- 9 50026.7 lambda
- 10 51149.4 epsilon

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	+++++		+++++	AUG 07 13:17 - AUG 07 13:44	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

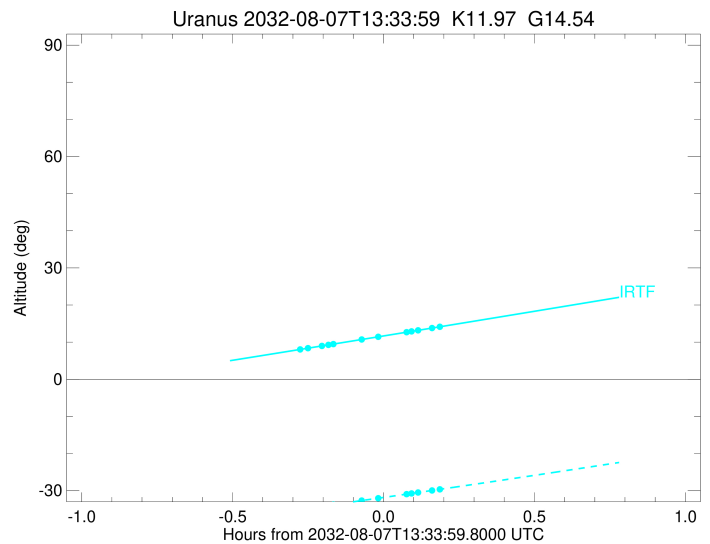
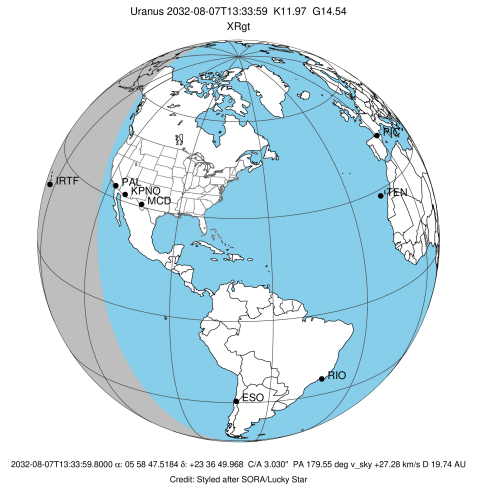


2032-08-07T13:33:59.8000 ex: 05 58 47.5184 s: +23 36 49.968 C/A 3.030" PA 179.55 deg v_sky +27.28 km/s D 19.74 AU
 Credit: Styled after SORA/Lucky Star



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target                : Uranus
target radius (km)   : 25559.00
C/A epoch            : 2032-08-07T13:30:30.970
Event type          : XRgt
: No Uranus occs
: Ring occs: geocentric, topocentric
Observer code       : IRTF
Location            : Mauna Kea/IRTF
Latitude (deg)      : 19.82622
E. Longitude (deg)  : 204.52800
Altitude (km)       : 4.168
Gaia source ID      : 3424869873169446272
2Mass ID (if available) : 05584750+2336502
ICRS Star Coord at Epoch: 05h 58m 47.51837s +23:36:49.96798s
RUWE (>1.4 is poor) : 2.11
K magnitude          : 11.968
G magnitude          : 14.538
RP magnitude         : 13.583
BP magnitude         : 15.009
DUPflag             : 0
Distance (au)        : 19.742
f0 (km)              : 0.000
g0 (km)              : 0.000
skyplane vel. (km/s) : 27.28
Sun-Target sep (deg) : 45.42
Sun-Moon sep (deg)  : 60.85
B (ring opening deg) : 75.60
PA of pole (deg)    : 56.36
Pole direction: RA (deg): 257.31100
Dec (deg): -15.17500
C/A sky separation (") : 3.154
C/A sky separation (km) : 45162.2
NAIF SPICE kernels  : RAJobs_U111+rgf15.spk
URKALLvl1.spk
urall11.bsp
IAU_URANUS_for_RINGFIT.tpc
vgr2.urall11.bsp
ural61.bsp
vgr2.ural61.bsp
peph.ural60.bsp
earthstns_itr93_040916.bsp
earth_720101_070426.bpc
earth_200101_990628_predict.bpc
pg3f0000r.bsp
pg490000r.bsp
naif0012.tls
earth_flat_IAU.spk
    
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Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
epsilon	I	2032-08-07T13:17:57.608		8.15	-34.89	50773.73	-12.20		
lambda	I	2032-08-07T13:19:00.473		8.38	-34.69	50026.71	-11.48		
delta	I	2032-08-07T13:21:47.057		8.99	-34.17	48300.35	-9.20		
gamma	I	2032-08-07T13:23:04.511		9.27	-33.93	47631.09	-8.07		
eta	I	2032-08-07T13:24:04.247		9.49	-33.74	47176.12	-7.16		
beta	I	2032-08-07T13:29:38.312		10.71	-32.68	45680.28	-1.70		

No planet occultations

beta	E	2032-08-07T13:32:58.262		11.44	-32.04	45679.38	1.70		
eta	E	2032-08-07T13:38:33.108		12.67	-30.96	47176.12	7.15		
gamma	E	2032-08-07T13:39:32.662		12.89	-30.76	47629.06	8.06		
delta	E	2032-08-07T13:40:50.475		13.18	-30.51	48300.35	9.19		
lambda	E	2032-08-07T13:43:37.339		13.79	-29.96	50026.71	11.46		
epsilon	E	2032-08-07T13:44:42.200		14.03	-29.75	50796.68	12.18		