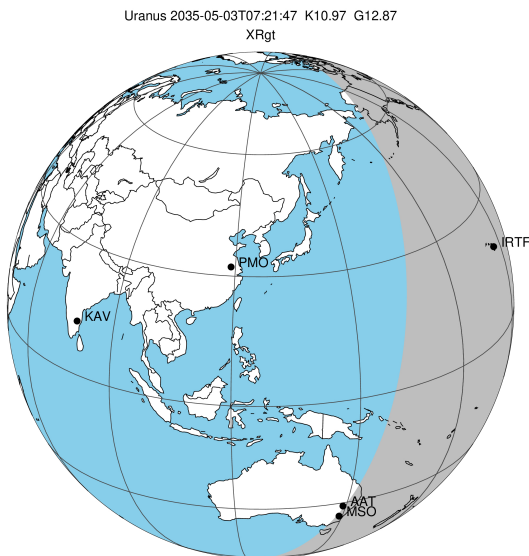


target : Uranus  
 target radius (km) : 25559.00  
 C/A epoch : 2035-05-03T07:21:47.220  
 Event type : XRgt  
 : No Uranus occs  
 : Ring occs: geocentric, topocentric  
 Gaia source ID : 3382598457147089792  
 2Mass ID (if available) : 06304459+2334244

ICRS Star Coord at Epoch: 06h 30m 44.62088s +23:34:24.63477s

RUWE (>1.4 is poor) : 0.99  
 K magnitude : 10.973  
 G magnitude : 12.875  
 RP magnitude : 12.258  
 BP magnitude : 13.329  
 DUPflag : 0  
 Distance (au) : 19.431  
 f0 (km) : 0.000  
 g0 (km) : 0.000  
 skyplane vel. (km/s) : 23.57  
 Sun-Target sep (deg) : 54.81  
 Sun-Moon sep (deg) : 114.45  
 B (ring opening deg) : 69.06  
 PA of pole (deg) : 70.06

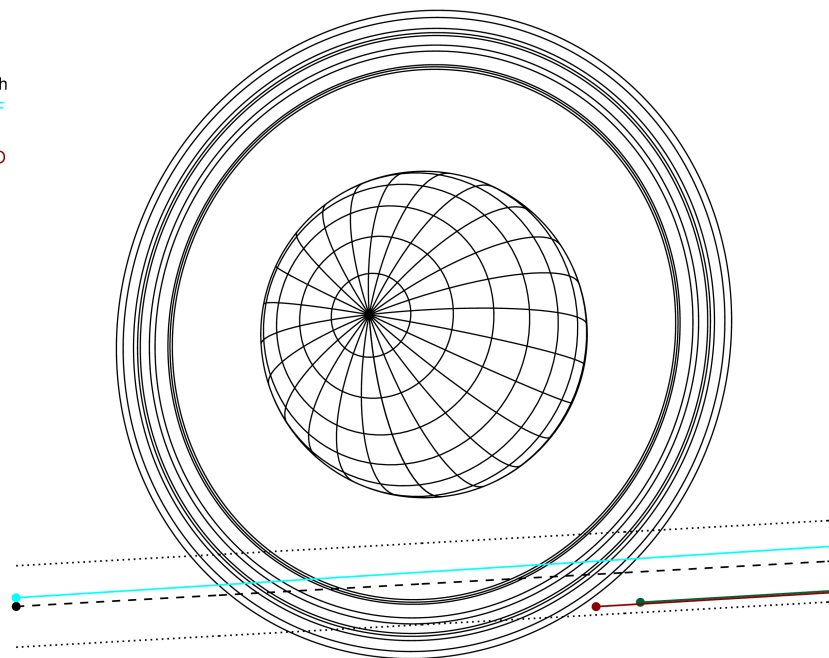
#	a(km)	ring
1	41837.2	6
2	42235.0	5
3	42571.2	4
4	44718.5	alpha
5	45661.1	beta
6	47176.1	eta
7	47626.3	gamma
8	48300.3	delta
9	50026.7	lambda
10	51149.4	epsilon



2035-05-03T07:21:47.2200 α: 06 30 44.6209 β: +23 34 24.635 C/A 2.759° PA 3.18 deg v\_sky +23.57 km/s D 19.43 AU  
 Credit: Styled after SORA/Lucky Star

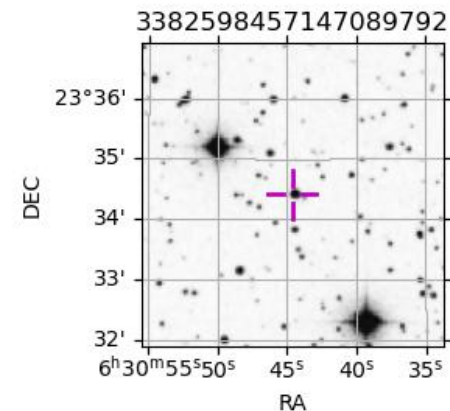
Uranus 2035-05-03T07:21:47 K10.97 G12.87 XRgt

Earth  
 IRTF  
 AAT  
 MSO



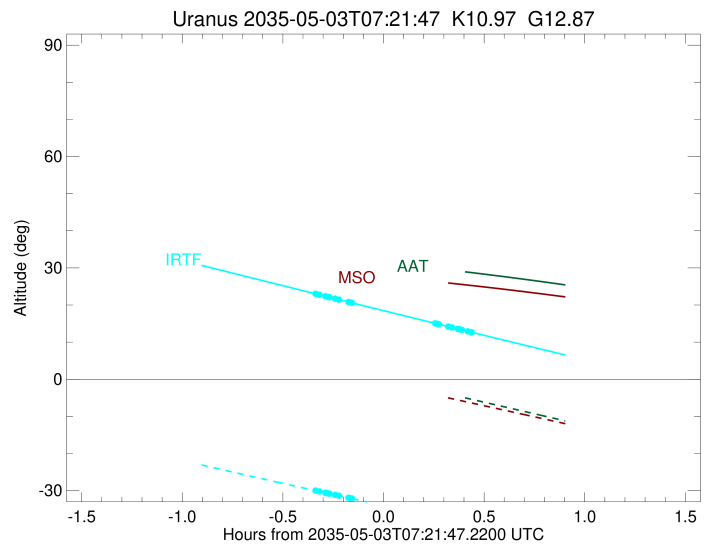
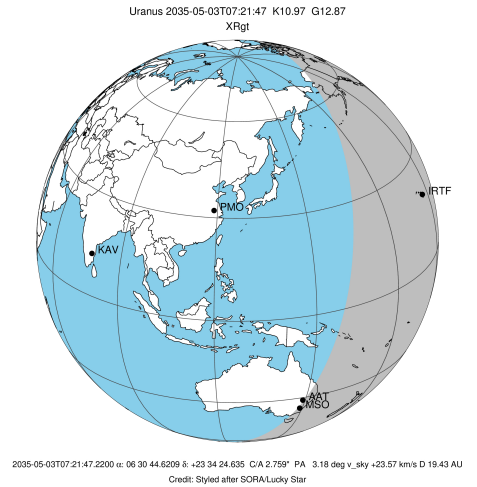
Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

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					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	+++++		+++++	MAY 03 07:01 - MAY 03 07:47	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            : 2035-05-03T07:26:04.880
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      : 3382598457147089792
2Mass ID (if available) : 06304459+2334244
ICRS Star Coord at Epoch: 06h 30m 44.62088s +23:34:24.63477s
RUWE (>1.4 is poor) : 0.99
K magnitude         : 10.973
G magnitude         : 12.875
RP magnitude        : 12.258
BP magnitude        : 13.329
DUPflag            : 0
Distance (au)       : 19.431
f0 (km)             : 0.000
g0 (km)             : 0.000
skyplane vel. (km/s) : 23.57
Sun-Target sep (deg) : 54.81
Sun-Moon sep (deg)  : 114.37
B (ring opening deg) : 69.06
PA of pole (deg)    : 70.06
Pole direction: RA (deg): 257.31100
Dec (deg): -15.17500
C/A sky separation (") : 2.635
C/A sky separation (km) : 37131.4
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_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	2035-05-03T07:01:11.223		23.10	-29.93	51490.73	-16.93		
lambda	I	2035-05-03T07:02:38.757		22.77	-30.22	50026.71	-16.43		
delta	I	2035-05-03T07:04:26.350		22.37	-30.58	48300.35	-15.65		
gamma	I	2035-05-03T07:05:10.215		22.20	-30.72	47621.56	-15.30		
eta	I	2035-05-03T07:05:39.555		22.09	-30.82	47176.12	-15.06		
beta	I	2035-05-03T07:07:23.487		21.71	-31.16	45656.59	-14.17		
alpha	I	2035-05-03T07:08:32.055		21.45	-31.38	44707.11	-13.50		
4	I	2035-05-03T07:11:24.651		20.81	-31.94	42527.28	-11.70		
5	I	2035-05-03T07:11:43.864		20.73	-32.01	42303.93	-11.45		
6	I	2035-05-03T07:12:29.029		20.57	-32.15	41797.24	-10.95		

No planet occultations

6	E	2035-05-03T07:37:09.668		15.07	-36.82	41824.09	10.98		
5	E	2035-05-03T07:37:46.581		14.93	-36.93	42241.13	11.48		
4	E	2035-05-03T07:38:14.827		14.83	-37.02	42555.87	11.73		
alpha	E	2035-05-03T07:41:02.467		14.21	-37.53	44684.72	13.54		
beta	E	2035-05-03T07:42:14.287		13.95	-37.74	45677.87	14.21		
eta	E	2035-05-03T07:43:56.350		13.57	-38.05	47176.12	15.12		
gamma	E	2035-05-03T07:44:25.663		13.46	-38.14	47622.75	15.36		
delta	E	2035-05-03T07:45:09.289		13.30	-38.27	48300.35	15.70		
lambda	E	2035-05-03T07:46:56.461		12.91	-38.59	50026.71	16.50		
epsilon	E	2035-05-03T07:47:52.054		12.70	-38.75	50954.55	17.01		