

target : Uranus  
 target radius (km) : 25559.00  
 C/A epoch : 2035-05-05T06:36:19.590  
 Event type : PgtRgt  
 : Uranus occs: geocentric, topocentric  
 : Ring occs: geocentric, topocentric  
 Gaia source ID : 3382597907391261312  
 2Mass ID (if available) : 06310562+2334142

Uranus 2035-05-05T06:36:19 K14.66 G18.73 PgtRgt

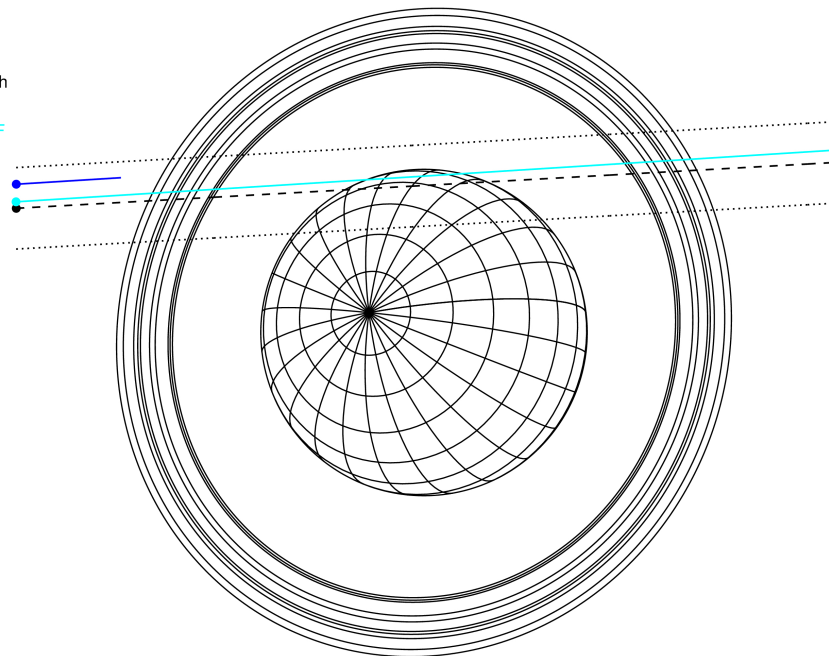
ICRS Star Coord at Epoch: 06h 31m 05.61985s +23:34:12.93156s

RUWE (>1.4 is poor) : 1.00  
 K magnitude : 14.663  
 G magnitude : 18.729  
 RP magnitude : 17.494  
 BP magnitude : 20.293  
 DUPflag : 0  
 Distance (au) : 19.457  
 f0 (km) : 0.000  
 g0 (km) : 0.000  
 skyplane vel. (km/s) : 24.34  
 Sun-Target sep (deg) : 52.98  
 Sun-Moon sep (deg) : 87.81  
 B (ring opening deg) : 68.98  
 PA of pole (deg) : 70.17



2035-05-05T06:36:19.5900 ex: 06 31 05.6198 s: +23 34 12.932 C/A 1.636° PA 183.20 deg v\_sky +24.34 km/s D 19.46 AU  
 Credit: Styled after SORA/Lucky Star

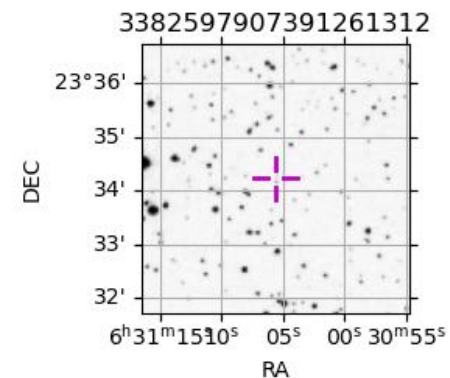
Earth  
 PAL  
 IRTF



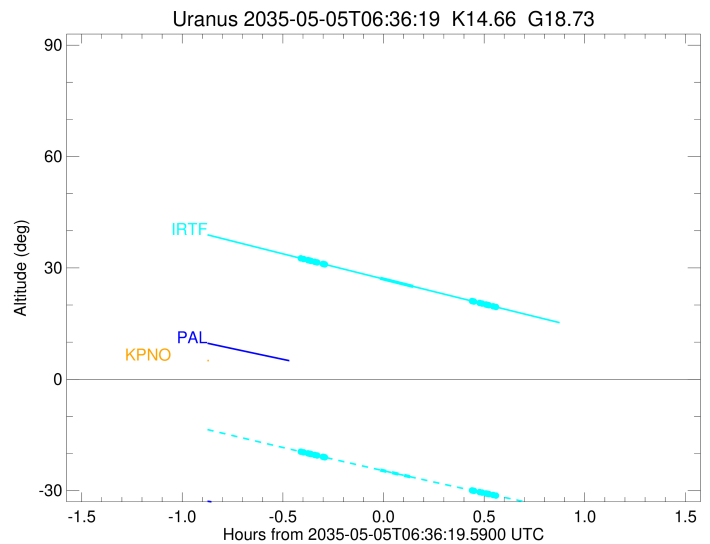
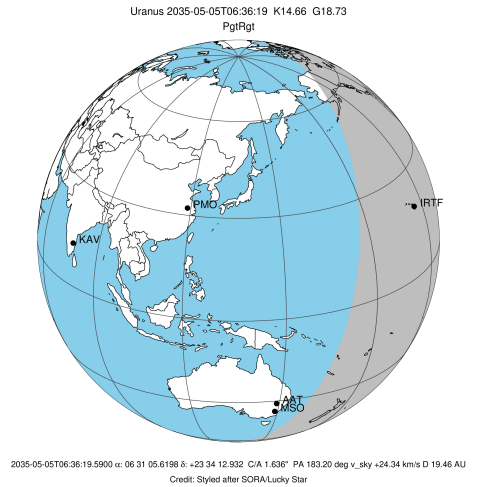
#	a(km)	ring
1	41837.2	6
2	42235.0	5
3	42571.2	4
4	44718.5	alpha
5	45661.1	beta
6	47176.1	eta
7	47626.3	gamma
8	48300.3	delta
9	50026.7	lambda
10	51149.4	epsilon

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	+++++	+	+++++	MAY 05 06:11 - MAY 05 07:09	PieRie
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 : 2035-05-05T06:39:59.950  
 Event type : PgtRgt  
 : Uranus occs: geocentric, topocentric  
 : 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 : 3382597907391261312  
 2Mass ID (if available) : 06310562+2334142  
 ICRS Star Coord at Epoch: 06h 31m 05.61985s +23:34:12.93156s  
 RUWE (>1.4 is poor) : 1.00  
 K magnitude : 14.663  
 G magnitude : 18.729  
 RP magnitude : 17.494  
 BP magnitude : 20.293  
 DUPflag : 0  
 Distance (au) : 19.457  
 f0 (km) : 0.000  
 g0 (km) : 0.000  
 skyplane vel. (km/s) : 24.34  
 Sun-Target sep (deg) : 52.98  
 Sun-Moon sep (deg) : 88.29  
 B (ring opening deg) : 68.98  
 PA of pole (deg) : 70.17  
 Pole direction: RA (deg): 257.31100  
 Dec (deg): -15.17500  
 C/A sky separation (") : 1.732  
 C/A sky separation (km) : 24440.5  
 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	2035-05-05T06:11:28.713		32.62	-19.47	51431.38	-22.37		
lambda	I	2035-05-05T06:12:31.560		32.38	-19.69	50026.71	-22.25		
delta	I	2035-05-05T06:13:49.586		32.09	-19.96	48300.35	-21.99		
gamma	I	2035-05-05T06:14:20.214		31.97	-20.07	47628.44	-21.88		
eta	I	2035-05-05T06:14:40.921		31.90	-20.14	47176.12	-21.80		
beta	I	2035-05-05T06:15:51.683		31.63	-20.39	45641.75	-21.52		
alpha	I	2035-05-05T06:16:33.388		31.47	-20.53	44751.31	-21.35		
4	I	2035-05-05T06:18:16.340		31.08	-20.89	42570.01	-20.86		
5	I	2035-05-05T06:18:32.030		31.02	-20.95	42258.62	-20.74		
6	I	2035-05-05T06:18:52.185		30.95	-21.02	41834.09	-20.67		
Uranus	I	2035-05-05T06:35:21.108		27.22	-24.44	25354.53		13.01	13.60
Uranus	E	2035-05-05T06:45:07.969		25.02	-26.43	25552.32		2.32	2.43
6	E	2035-05-05T07:02:44.769		21.06	-29.95	41878.57	20.75		
5	E	2035-05-05T07:02:57.901		21.01	-29.99	42154.84	20.82		
4	E	2035-05-05T07:03:19.871		20.93	-30.06	42614.42	20.94		
alpha	E	2035-05-05T07:04:58.810		20.56	-30.39	44713.61	21.44		
beta	E	2035-05-05T07:05:43.388		20.40	-30.53	45673.97	21.62		
eta	E	2035-05-05T07:06:52.367		20.14	-30.76	47176.12	21.90		
gamma	E	2035-05-05T07:07:13.031		20.06	-30.82	47629.55	21.98		
delta	E	2035-05-05T07:07:43.468		19.95	-30.92	48300.35	22.10		
lambda	E	2035-05-05T07:09:01.123		19.66	-31.17	50026.71	22.36		
epsilon	E	2035-05-05T07:09:33.500		19.54	-31.28	50752.40	22.49		