

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2030-08-06T15:35:36.300
 Event type : PRgt
 : Uranus occs: not geocentric or topocentric
 : Ring occs: geocentric, topocentric
 Gaia source ID : 3416339380923488256
 2Mass ID (if available) : 05221123+2313091

ICRS Star Coord at Epoch: 05h 22m 11.24021s +23:13:09.09101s

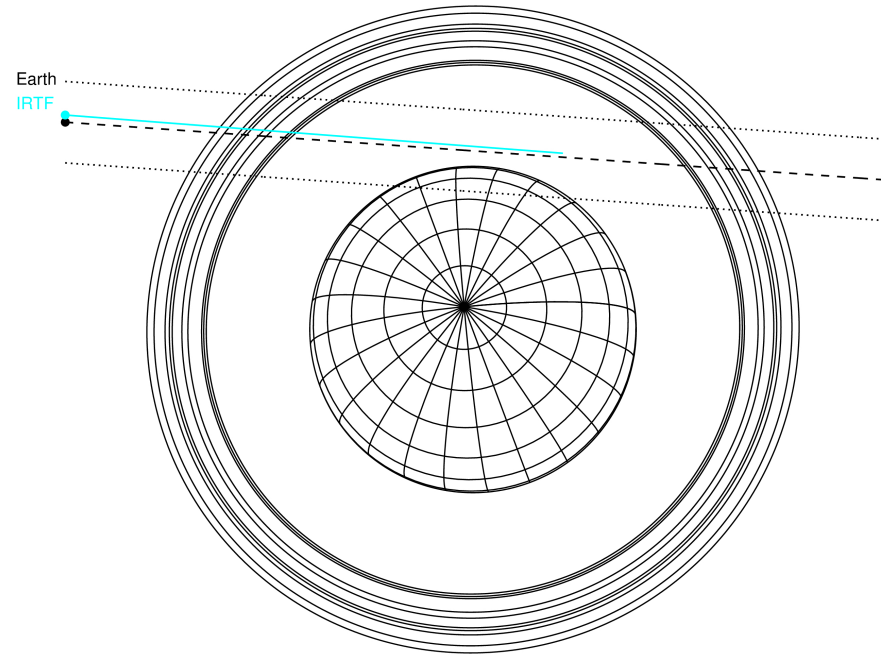
RUWE (>1.4 is poor) : 1.05
 K magnitude : 13.332
 G magnitude : 16.171
 RP magnitude : 15.249
 BP magnitude : 17.029
 DUPflag : 0
 Distance (au) : 19.780
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 24.47
 Sun-Target sep (deg) : 52.49
 Sun-Moon sep (deg) : 141.80
 B (ring opening deg) : 81.40
 PA of pole (deg) : 21.36

#	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



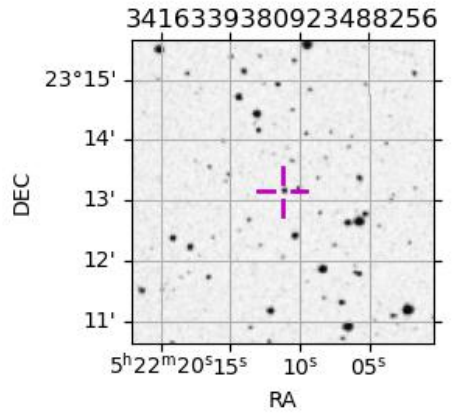
2030-08-06T15:35:36.3000 ex: 05 22 11.2402 s +23 13 09.091 C/A 1.949° PA 175.97 deg v_sky +24.47 km/s D 19.78 AU
 Credit: Styled after SORA/Lucky Star

Uranus 2030-08-06T15:35:36 K13.33 G16.17 PRgt



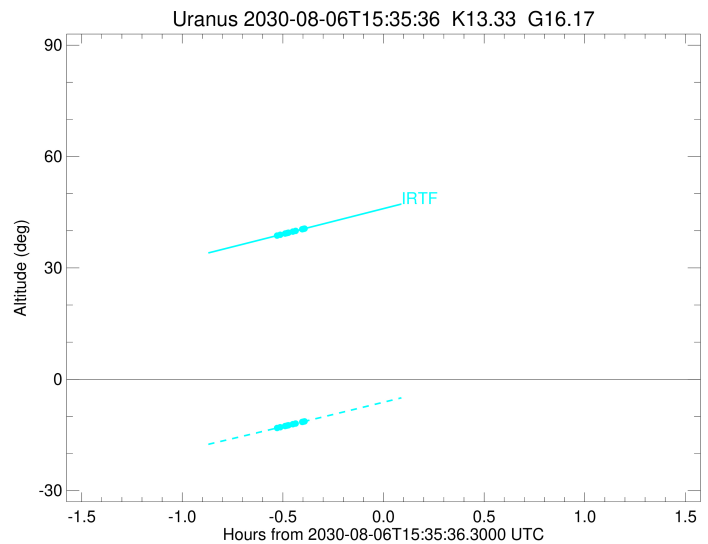
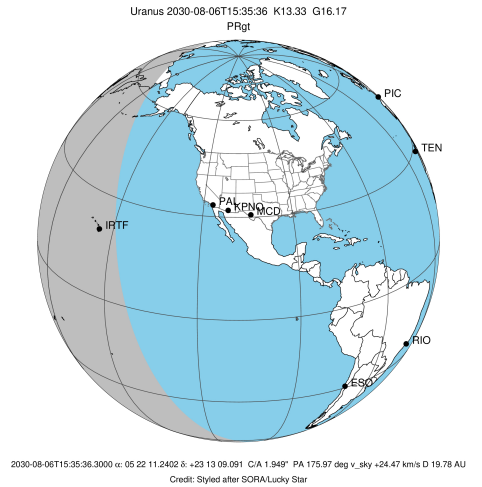
Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

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 06 15:04 - AUG 06 15:12	PnnRin
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



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target                : Uranus
target radius (km)   : 25559.00
C/A epoch            : 2030-08-06T15:32:42.240
Event type          : PRgt
: Uranus occs: not geocentric or 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      : 3416339380923488256
2Mass ID (if available) : 05221123+2313091
ICRS Star Coord at Epoch: 05h 22m 11.24021s +23:13:09.09101s
RUWE (>1.4 is poor) : 1.05
K magnitude         : 13.332
G magnitude         : 16.171
RP magnitude        : 15.249
BP magnitude        : 17.029
DUPflag            : 0
Distance (au)       : 19.780
f0 (km)            : 0.000
g0 (km)            : 0.000
skyplane vel. (km/s) : 24.47
Sun-Target sep (deg) : 52.49
Sun-Moon sep (deg)  : 141.70
B (ring opening deg) : 81.40
PA of pole (deg)    : 21.36
Pole direction: RA (deg): 257.31100
Dec (deg): -15.17500
C/A sky separation (") : 1.993
C/A sky separation (km) : 28595.0
NAIF SPICE kernels  : RAJobs_U111+rgf15.spk
URKALLvl1.spk
urall1.bsp
IAU_URANUS_for_RINGFIT.tpc
vgr2.urall1.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	2030-08-06T15:04:10.682		38.78	-13.06	50798.22	-20.04		
lambda	I	2030-08-06T15:04:49.438		38.92	-12.92	50026.71	-19.83		
delta	I	2030-08-06T15:06:17.286		39.26	-12.60	48300.35	-19.47		
gamma	I	2030-08-06T15:06:52.284		39.39	-12.48	47621.82	-19.31		
eta	I	2030-08-06T15:07:15.432		39.48	-12.39	47176.12	-19.20		
beta	I	2030-08-06T15:08:34.860		39.78	-12.10	45665.99	-18.81		
alpha	I	2030-08-06T15:09:27.346		39.98	-11.91	44685.52	-18.52		
4	I	2030-08-06T15:11:24.013		40.43	-11.49	42567.06	-17.82		
5	I	2030-08-06T15:11:45.524		40.51	-11.41	42180.88	-17.67		
6	I	2030-08-06T15:12:07.831		40.59	-11.33	41795.55	-17.54		

No planet occultations

6	E	2030-08-06T15:53:41.995		50.13	-2.16x	41830.95	17.49		
5	E	2030-08-06T15:54:01.670		50.21	-2.09x	42179.29	17.61		
4	E	2030-08-06T15:54:21.436		50.28	-2.02x	42526.60	17.76		
alpha	E	2030-08-06T15:56:22.202		50.74	-1.57x	44716.33	18.46		
beta	E	2030-08-06T15:57:13.926		50.94	-1.38x	45679.25	18.75		
eta	E	2030-08-06T15:58:32.945		51.25	-1.08x	47176.12	19.13		
gamma	E	2030-08-06T15:58:56.324		51.34	-0.99x	47624.65	19.24		
delta	E	2030-08-06T15:59:31.306		51.47	-0.86x	48300.35	19.39		
lambda	E	2030-08-06T16:00:59.495		51.81	-0.53x	50026.71	19.75		
epsilon	E	2030-08-06T16:02:11.872		52.08	-0.26x	51466.26	19.95		