

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2034-08-20T14:13:53.540
 Event type : PgtRgt
 : Uranus occs: geocentric, topocentric
 : Ring occs: geocentric, topocentric
 Gaia source ID : 3382406699745717248
 2Mass ID (if available) : 06380851+2326076

ICRS Star Coord at Epoch: 06h 38m 08.50306s +23:26:06.69939s

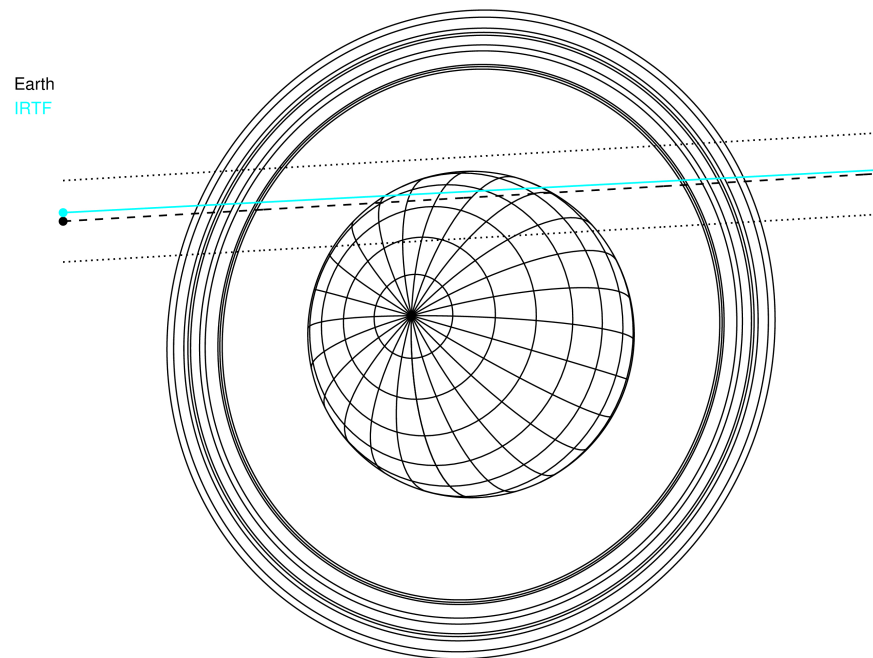
RUWE (>1.4 is poor) : 1.16
 K magnitude : 13.963
 G magnitude : 17.580
 RP magnitude : 16.426
 BP magnitude : 19.036
 DUPflag : 0
 Distance (au) : 19.568
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 26.17
 Sun-Target sep (deg) : 48.43
 Sun-Moon sep (deg) : 122.65
 B (ring opening deg) : 67.49
 PA of pole (deg) : 72.49

#	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



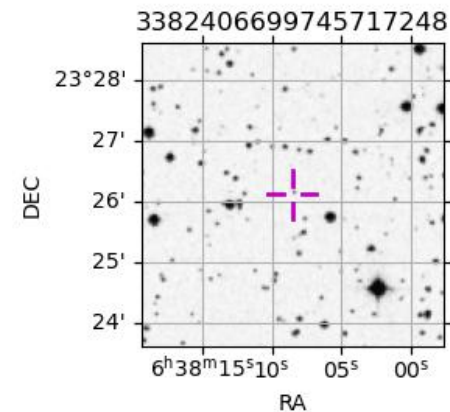
2034-08-20T14:13:53.5400 ex: 06 38 08.5031 s: +23 26 06.699 C/A 1.515° PA 183.35 deg v_sky +26.17 km/s D 19.57 AU
 Credit: Styled after SORA/Lucky Star

Uranus 2034-08-20T14:13:53 K13.96 G17.58 PgtRgt



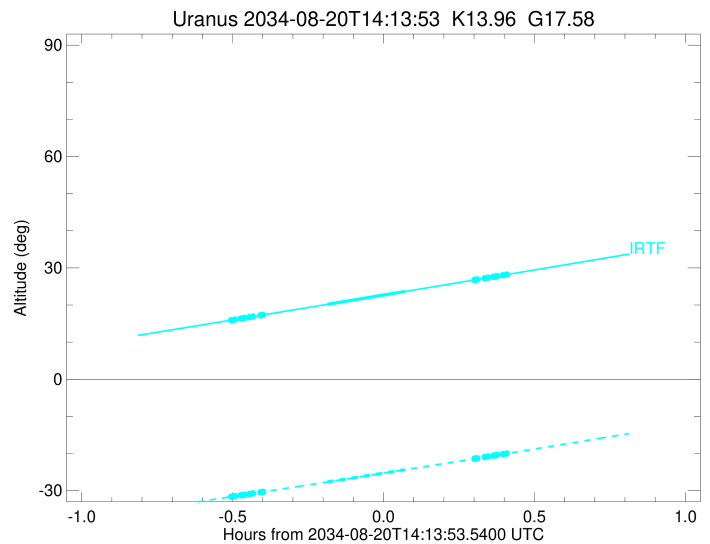
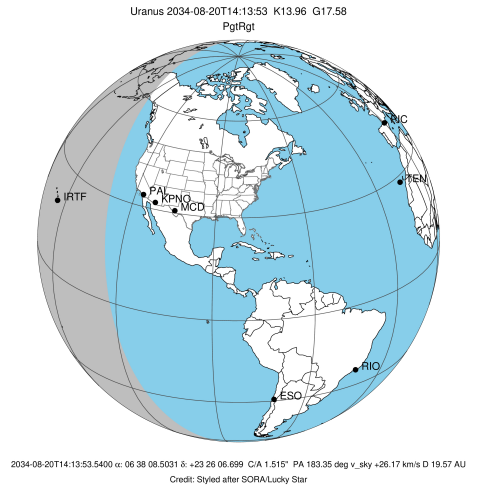
Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

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 20 13:43 - AUG 20 14:38	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



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target                : Uranus
target radius (km)   : 25559.00
C/A epoch            : 2034-08-20T14:10:15.500
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       : 3382406699745717248
2Mass ID (if available) : 06380851+2326076
ICRS Star Coord at Epoch: 06h 38m 08.50306s +23:26:06.69939s
RUWE (>1.4 is poor) : 1.16
K magnitude           : 13.963
G magnitude           : 17.580
RP magnitude          : 16.426
BP magnitude          : 19.036
DUPflag              : 0
Distance (au)        : 19.568
f0 (km)              : 0.000
g0 (km)              : 0.000
skyplane vel. (km/s) : 26.17
Sun-Target sep (deg) : 48.43
Sun-Moon sep (deg)   : 122.51
B (ring opening deg) : 67.49
PA of pole (deg)     : 72.49
Pole direction: RA (deg): 257.31100
Dec (deg): -15.17500
C/A sky separation (") : 1.577
C/A sky separation (km) : 22381.2
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_itrfr93_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	2034-08-20T13:43:27.541		15.89	-31.67	51391.91	-25.06		
lambda	I	2034-08-20T13:44:22.029		16.09	-31.48	50026.71	-24.97		
delta	I	2034-08-20T13:45:31.494		16.34	-31.25	48300.35	-24.73		
gamma	I	2034-08-20T13:45:59.005		16.45	-31.15	47621.32	-24.63		
eta	I	2034-08-20T13:46:17.105		16.51	-31.09	47176.12	-24.56		
beta	I	2034-08-20T13:47:18.443		16.74	-30.88	45678.55	-24.31		
alpha	I	2034-08-20T13:47:58.927		16.89	-30.74	44692.44	-24.13		
4	I	2034-08-20T13:49:25.956		17.21	-30.44	42604.26	-23.72		
5	I	2034-08-20T13:49:42.660		17.28	-30.38	42217.96	-23.59		
6	I	2034-08-20T13:49:58.672		17.34	-30.33	41838.53	-23.55		
Uranus	I	2034-08-20T14:02:44.486		20.19	-27.65	25277.91		16.58	17.32
Uranus	E	2034-08-20T14:18:08.719		23.64	-24.38	25548.22		-3.18	-3.33
6	E	2034-08-20T14:32:00.601		26.76	-21.38	41875.27	23.47		
5	E	2034-08-20T14:32:13.140		26.81	-21.34	42171.33	23.51		
4	E	2034-08-20T14:32:30.322		26.88	-21.27	42584.62	23.64		
alpha	E	2034-08-20T14:33:59.462		27.21	-20.95	44712.36	24.04		
beta	E	2034-08-20T14:34:38.036		27.36	-20.81	45643.63	24.22		
eta	E	2034-08-20T14:35:41.021		27.59	-20.58	47176.12	24.47		
gamma	E	2034-08-20T14:35:59.570		27.66	-20.51	47630.60	24.53		
delta	E	2034-08-20T14:36:26.813		27.77	-20.42	48300.35	24.63		
lambda	E	2034-08-20T14:37:36.564		28.03	-20.16	50026.71	24.86		
epsilon	E	2034-08-20T14:38:05.342		28.14	-20.06	50743.53	24.95		