

target : Uranus  
 target radius (km) : 25559.00  
 C/A epoch : 2030-04-10T17:55:42.790  
 Event type : XRgt  
 : No Uranus occs  
 : Ring occs: geocentric, topocentric  
 Gaia source ID : 3412461815728571648  
 2Mass ID (if available) : 04551641+2239097

ICRS Star Coord at Epoch: 04h 55m 16.41484s +22:39:09.71094s

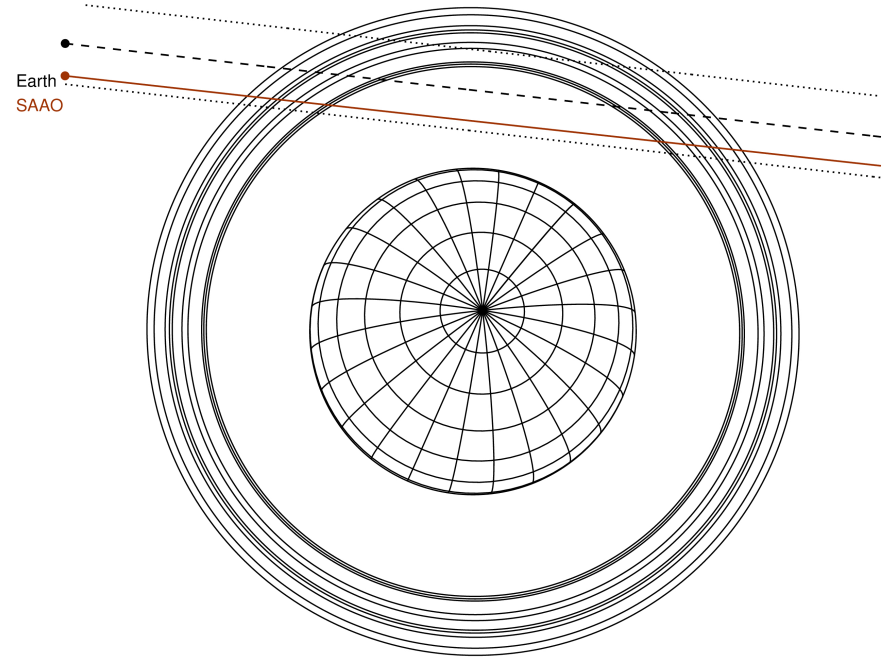
RUWE (>1.4 is poor) : 0.95  
 K magnitude : 14.017  
 G magnitude : 16.402  
 RP magnitude : 15.638  
 BP magnitude : 17.021  
 DUPflag : 0  
 Distance (au) : 19.764  
 f0 (km) : 0.000  
 g0 (km) : 0.000  
 skyplane vel. (km/s) : 23.59  
 Sun-Target sep (deg) : 54.61  
 Sun-Moon sep (deg) : 31.23  
 B (ring opening deg) : 81.83  
 PA of pole (deg) : -24.43

#	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



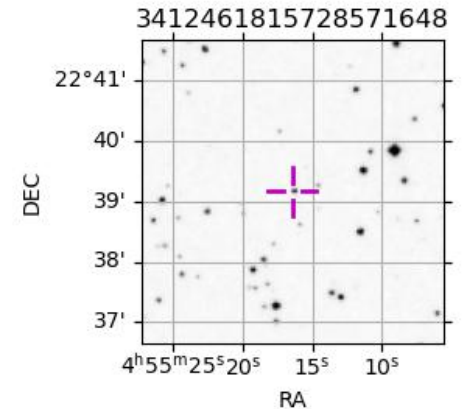
2030-04-10T17:55:42.7900 ex: 04 55 16.4148 s: +22 39 09.711 C/A 2.624" PA 173.47 deg v\_sky +23.59 km/s D 19.76 AU  
 Credit: Styled after SORA/Lucky Star

Uranus 2030-04-10T17:55:42 K14.02 G16.40 XRgt



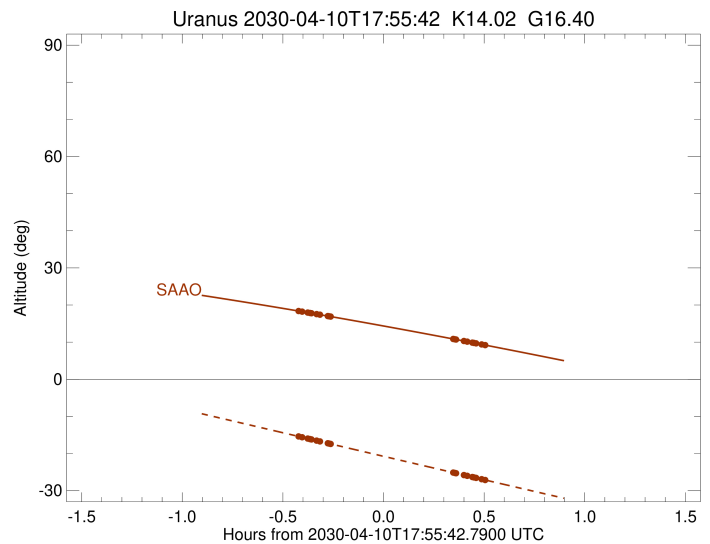
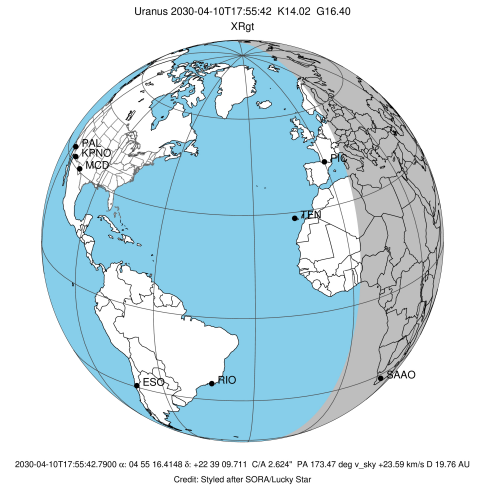
Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

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					PnnRnn
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	+++++		+++++	APR 10 17:30 - APR 10 18:25	PnnRie
MSO	Mt. Stromlo Observato	-35.3	149.0					PnnRnn



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target                : Uranus
target radius (km)    : 25559.00
C/A epoch              : 2030-04-10T17:58:23.110
Event type             : XRgt
: No Uranus occs
: Ring occs: geocentric, topocentric
Observer code         : SAAO
Location              : So. Afr. Astro. Obs. (Sutherland)
Latitude (deg)        : -32.37953
E. Longitude (deg)    : 20.81070
Altitude (km)         : 1.768
Gaia source ID        : 3412461815728571648
2Mass ID (if available) : 04551641+2239097
ICRS Star Coord at Epoch: 04h 55m 16.41484s +22:39:09.71094s
RUWE (>1.4 is poor)  : 0.95
K magnitude           : 14.017
G magnitude           : 16.402
RP magnitude          : 15.638
BP magnitude          : 17.021
DUPflag              : 0
Distance (au)         : 19.764
f0 (km)               : 0.000
g0 (km)               : 0.000
skyplane vel. (km/s)  : 23.59
Sun-Target sep (deg)  : 54.61
Sun-Moon sep (deg)    : 30.82
B (ring opening deg)  : 81.83
PA of pole (deg)      : -24.43
Pole direction: RA (deg): 257.31100
Dec (deg): -15.17500
C/A sky separation (") : 2.286
C/A sky separation (km) : 32762.0
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_itrf93_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	2030-04-10T17:30:11.397		18.41	-15.35	51384.12	-17.76		
lambda	I	2030-04-10T17:31:28.172		18.22	-15.62	50026.71	-17.50		
delta	I	2030-04-10T17:33:08.211		17.96	-15.98	48300.35	-17.00		
gamma	I	2030-04-10T17:33:47.921		17.86	-16.12	47629.41	-16.79		
eta	I	2030-04-10T17:34:15.043		17.79	-16.21	47176.12	-16.64		
beta	I	2030-04-10T17:35:46.842		17.55	-16.54	45673.77	-16.08		
alpha	I	2030-04-10T17:36:46.736		17.39	-16.75	44721.95	-15.72		
4	I	2030-04-10T17:39:11.045		17.02	-17.26	42529.66	-14.66		
5	I	2030-04-10T17:39:36.445		16.95	-17.35	42155.15	-14.47		
6	I	2030-04-10T17:40:01.538		16.88	-17.43	41800.84	-14.27		

No planet occultations

6	E	2030-04-10T18:16:29.671		10.86	-25.14	41849.33	14.31		
5	E	2030-04-10T18:16:55.616		10.78	-25.23	42223.69	14.51		
4	E	2030-04-10T18:17:17.658		10.72	-25.30	42544.91	14.70		
alpha	E	2030-04-10T18:19:42.478		10.30	-25.81	44752.43	15.77		
beta	E	2030-04-10T18:20:38.479		10.14	-26.01	45646.16	16.14		
eta	E	2030-04-10T18:22:11.666		9.87	-26.33	47176.12	16.69		
gamma	E	2030-04-10T18:22:38.757		9.79	-26.43	47630.43	16.85		
delta	E	2030-04-10T18:23:18.269		9.68	-26.57	48300.35	17.06		
lambda	E	2030-04-10T18:24:57.946		9.39	-26.92	50026.71	17.57		
epsilon	E	2030-04-10T18:25:40.869		9.26	-27.07	50785.17	17.82		