

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2041-10-04T15:01:13.640
 Event type : PRgt
 : Uranus occs: not geocentric or topocentric
 : Ring occs: geocentric, topocentric
 Gaia source ID : 612279718696494080
 2Mass ID (if available) : 08554576+1758318

Uranus 2041-10-04T15:01:13 K15.00 G16.94 PRgt

ICRS Star Coord at Epoch: 08h 55m 45.77457s +17:58:31.60853s

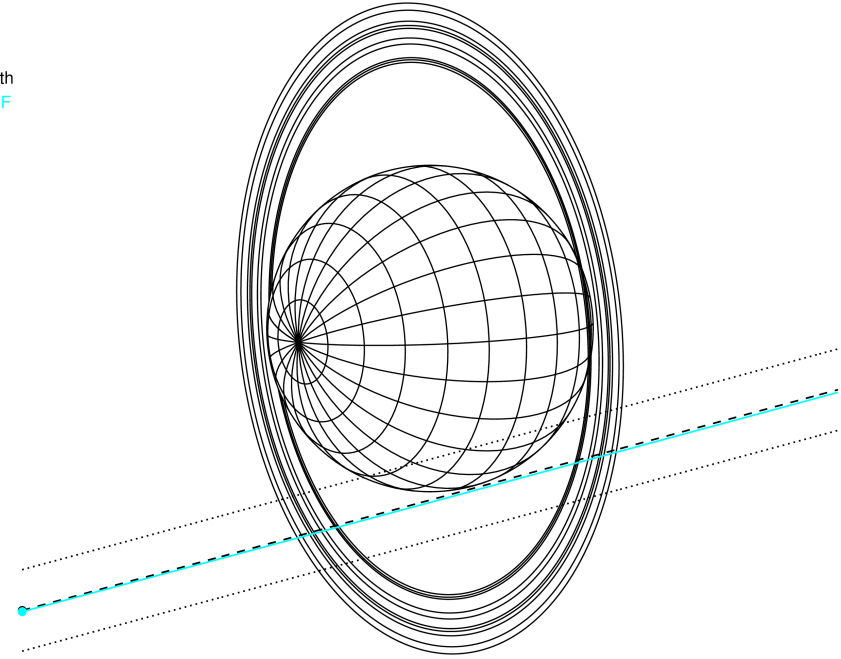
RUWE (>1.4 is poor) : 1.04
 K magnitude : 14.999
 G magnitude : 16.938
 RP magnitude : 16.360
 BP magnitude : 17.340
 DUPflag : 0
 Distance (au) : 18.982
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 21.55
 Sun-Target sep (deg) : 59.89
 Sun-Moon sep (deg) : 168.06
 B (ring opening deg) : 35.86
 PA of pole (deg) : 96.03

#	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



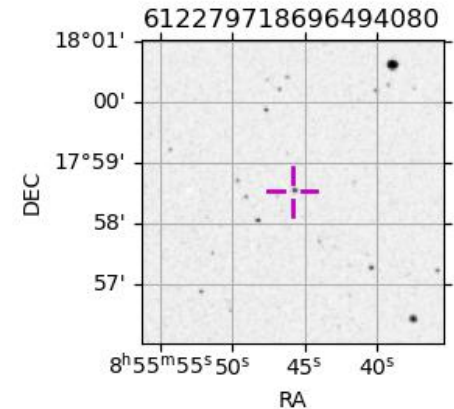
2041-10-04T15:01:13.6400 ra: 08 55 45.7746 s: +17 58 31.609 C/A 1.882° PA 15.14 deg v_sky +21.55 km/s D 18.98 AU
 Credit: Styled after SORA/Lucky Star

Earth
 IRTF



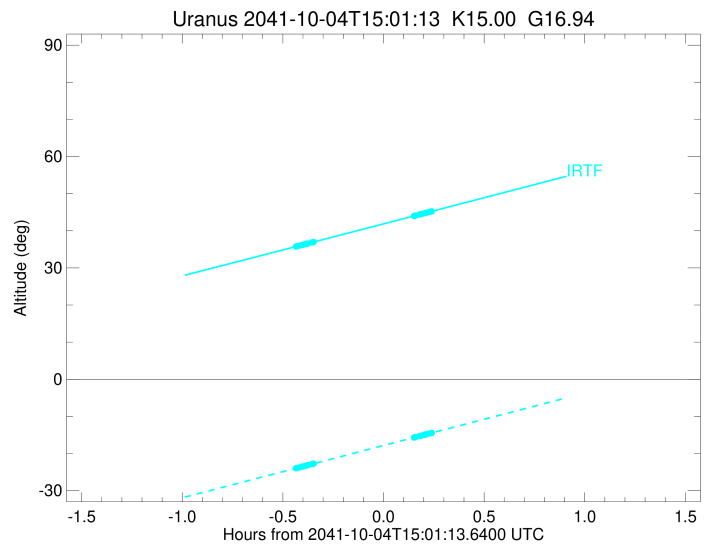
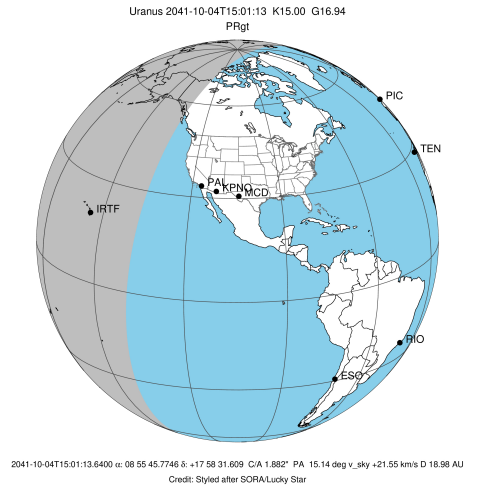
Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

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	+++++		+++++	OCT 04 14:35 - OCT 04 15:15	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



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target                : Uranus
target radius (km)   : 25559.00
C/A epoch            : 2041-10-04T14:57:29.080
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       : 612279718696494080
2Mass ID (if available) : 08554576+1758318
ICRS Star Coord at Epoch: 08h 55m 45.77457s +17:58:31.60853s
RUWE (>1.4 is poor) : 1.04
K magnitude           : 14.999
G magnitude          : 16.938
RP magnitude         : 16.360
BP magnitude         : 17.340
DUPflag              : 0
Distance (au)        : 18.982
f0 (km)              : 0.000
g0 (km)              : 0.000
skyplane vel. (km/s) : 21.55
Sun-Target sep (deg) : 59.89
Sun-Moon sep (deg)   : 167.56
B (ring opening deg) : 35.86
PA of pole (deg)     : 96.03
Pole direction: RA (deg): 257.31100
Dec (deg): -15.17500
C/A sky separation (") : 1.911
C/A sky separation (km) : 26304.7
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	2041-10-04T14:35:01.261		35.72	-24.00	51372.38	-30.76		
lambda	I	2041-10-04T14:35:45.045		35.89	-23.83	50026.71	-30.58		
delta	I	2041-10-04T14:36:41.906		36.12	-23.60	48300.35	-30.14		
gamma	I	2041-10-04T14:37:04.172		36.20	-23.52	47631.36	-29.95		
eta	I	2041-10-04T14:37:19.405		36.26	-23.46	47176.12	-29.82		
beta	I	2041-10-04T14:38:11.237		36.46	-23.25	45643.61	-29.34		
alpha	I	2041-10-04T14:38:41.338		36.58	-23.14	44752.43	-29.03		
4	I	2041-10-04T14:39:58.680		36.88	-22.83	42527.14	-28.17		
5	I	2041-10-04T14:40:11.905		36.93	-22.78	42171.24	-28.02		
6	I	2041-10-04T14:40:24.401		36.98	-22.73	41795.04	-27.84		

No planet occultations

6	E	2041-10-04T15:10:18.198		43.98	-15.70	41840.48	27.77		
5	E	2041-10-04T15:10:37.066		44.06	-15.63	42295.96	27.95		
4	E	2041-10-04T15:10:45.931		44.09	-15.59	42591.13	28.09		
alpha	E	2041-10-04T15:12:00.388		44.38	-15.30	44708.45	28.95		
beta	E	2041-10-04T15:12:32.821		44.51	-15.17	45657.54	29.25		
eta	E	2041-10-04T15:13:24.161		44.71	-14.97	47176.12	29.73		
gamma	E	2041-10-04T15:13:39.252		44.77	-14.91	47625.72	29.86		
delta	E	2041-10-04T15:14:01.777		44.86	-14.83	48300.35	30.04		
lambda	E	2041-10-04T15:14:58.822		45.08	-14.60	50026.71	30.48		
epsilon	E	2041-10-04T15:15:22.357		45.17	-14.51	50745.96	30.66		