

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2039-02-28T04:14:12.590
 Event type : XRT
 : No Uranus occs
 : Ring occs: topocentric, not geocentric
 Gaia source ID : 674541351325538944
 2Mass ID (if available) : 07462929+2144197

ICRS Star Coord at Epoch: 07h 46m 29.42014s +21:44:17.76725s

RUWE (>1.4 is poor) : 0.94
 K magnitude : 11.974
 G magnitude : 13.737
 RP magnitude : 13.155
 BP magnitude : 14.148
 DUPflag : 0
 Distance (au) : 17.916
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : -14.81
 Sun-Target sep (deg) : 135.71
 Sun-Moon sep (deg) : 77.42
 B (ring opening deg) : 52.24
 PA of pole (deg) : 86.87

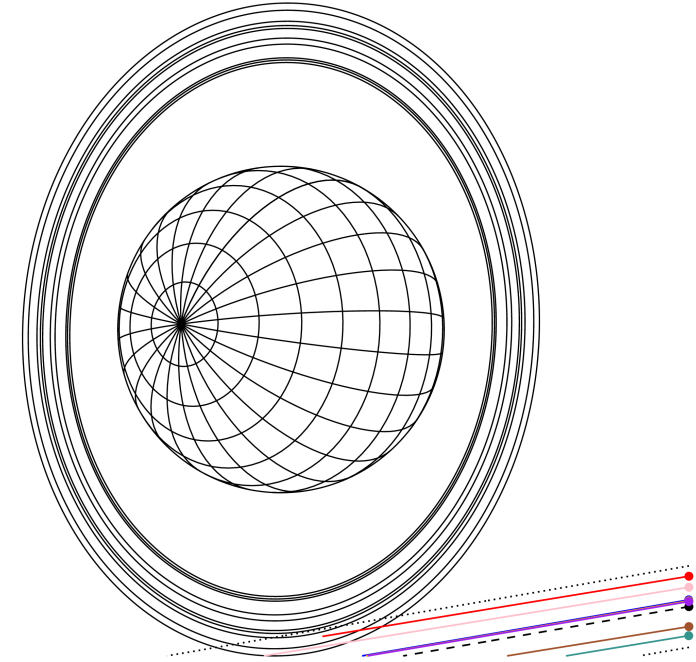
#	a(km)	ring
1	41837.2	6
2	42235.0	5
3	42571.2	4
4	44718.5	alpha
5	45661.1	beta
6	47176.1	eta
7	47626.3	gamma
8	48300.3	delta
9	50026.7	lambda
10	51149.4	epsilon



2039-02-28T04:14:12.5900 a: 07 46 29.4201 s: +21 44 17.767 C/A 4.121" PA 9.78 deg v_sky -14.82 km/s D 17.92 AU
 Credit: Styled after SORA/Lucky Star

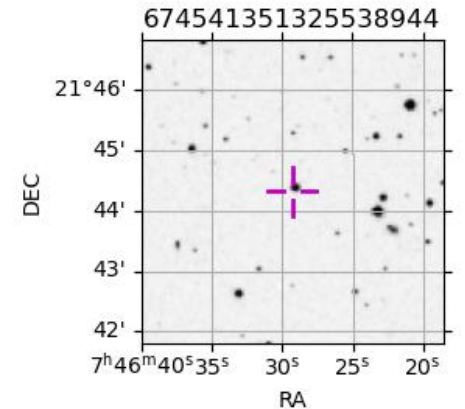
Uranus 2039-02-28T04:14:12 K11.97 G13.74 XRT

Earth
 PIC
 PAL
 KPNO
 MCD
 TEN
 RIO
 ESO



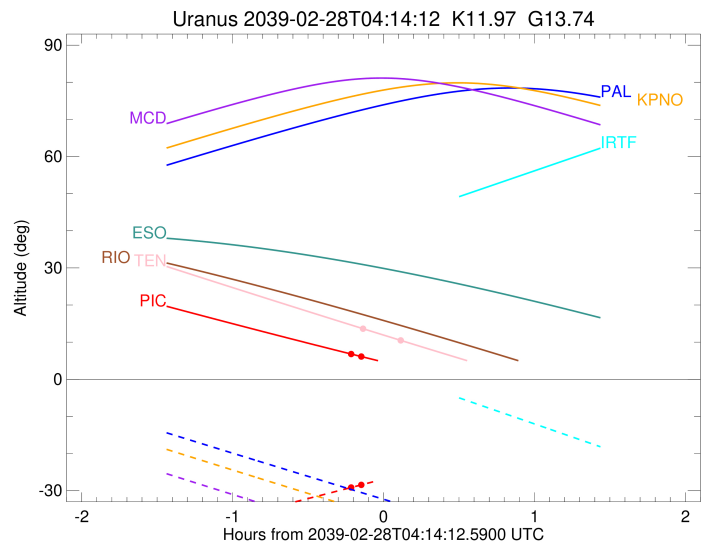
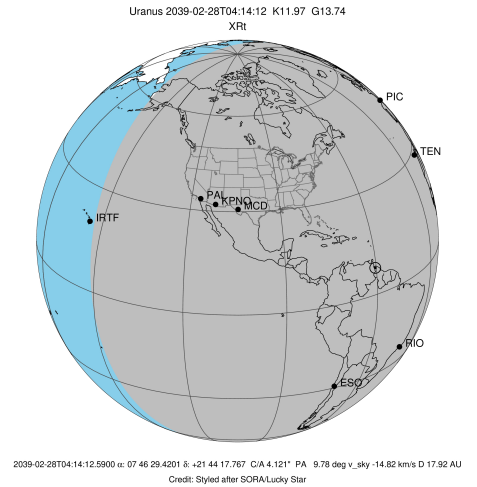
Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

Obs	Location	lat	Elon	Rings I	Planet	Rings E	Observed Events Interval	OEcode
PIC	Pic du Midi	42.9	0.1	++			FEB 28 04:00 - FEB 28 04:05	PnnRin
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	+		+	FEB 28 04:04 - FEB 28 04:22	PnnRie
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					PnnRnn
MSO	Mt. Stromlo Observato	-35.3	149.0					PnnRnn



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target                : Uranus
target radius (km)    : 25559.00
C/A epoch             : 2039-02-28T04:10:25.560
Event type           : XRt
: No Uranus occs
: Ring occs: topocentric, not geocentric
Observer code        : PIC
Location             : Pic du Midi
Latitude (deg)       : 42.93656
E. Longitude (deg)   : 0.14231
Altitude (km)        : 2.890
Gaia source ID       : 674541351325538944
2Mass ID (if available) : 07462929+2144197
ICRS Star Coord at Epoch: 07h 46m 29.42014s +21:44:17.76725s
RUWE (>1.4 is poor) : 0.94
K magnitude           : 11.974
G magnitude           : 13.737
RP magnitude          : 13.155
BP magnitude          : 14.148
DUPflag              : 0
Distance (au)        : 17.916
f0 (km)              : 0.000
g0 (km)              : 0.000
skyplane vel. (km/s) : -14.81
Sun-Target sep (deg) : 135.71
Sun-Moon sep (deg)   : 77.62
B (ring opening deg) : 52.24
PA of pole (deg)     : 86.87
Pole direction: RA (deg): 257.31100
Dec (deg): -15.17500
C/A sky separation (") : 3.731
C/A sky separation (km) : 48484.0
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_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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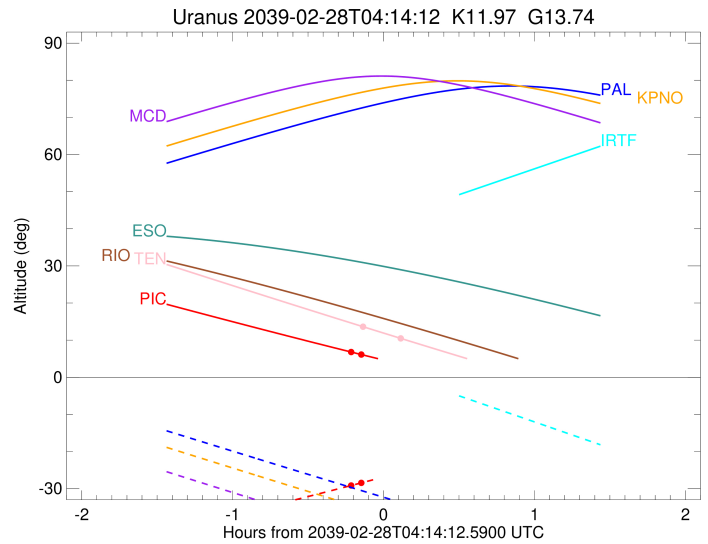
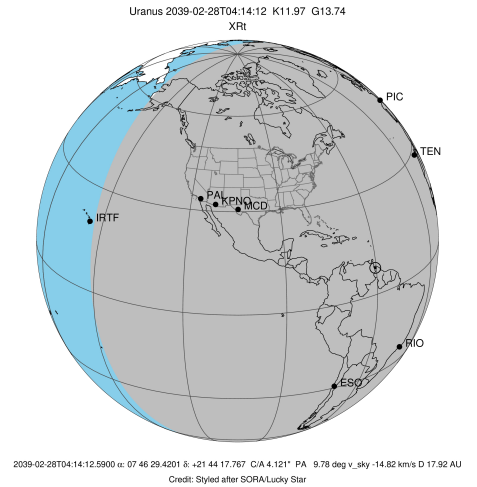


Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
epsilon	I	2039-02-28T04:00:13.030		6.99	-29.36	51546.38	-5.78		
lambda	I	2039-02-28T04:05:26.665		6.11	-28.44	50026.71	-3.85		

No planet occultations

lambda	E	2039-02-28T04:24:16.026		2.98x	-25.09	50026.71	3.84		
epsilon	E	2039-02-28T04:29:08.128		2.19x	-24.22	51418.15	5.77		

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2039-02-28T04:09:05.650
 Event type : XRt
 : No Uranus occs
 : Ring occs: topocentric, not geocentric
 Observer code : TEN
 Location : Teide Obs./Tenerife
 Latitude (deg) : 28.30050
 E. Longitude (deg) : 343.48909
 Altitude (km) : 2.395
 Gaia source ID : 674541351325538944
 2Mass ID (if available) : 07462929+2144197
 ICRS Star Coord at Epoch: 07h 46m 29.42014s +21:44:17.76725s
 RUWE (>1.4 is poor) : 0.94
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 Sun-Target sep (deg) : 135.71
 Sun-Moon sep (deg) : 77.76
 B (ring opening deg) : 52.24
 PA of pole (deg) : 86.87
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 3.850
 C/A sky separation (km) : 50029.1
 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_itrf93_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	2039-02-28T04:04:15.262		14.01	-46.10	51533.86	-3.70		

No planet occultations

epsilon	E	2039-02-28T04:22:31.453		10.17	-42.25	51451.60	3.69		
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