

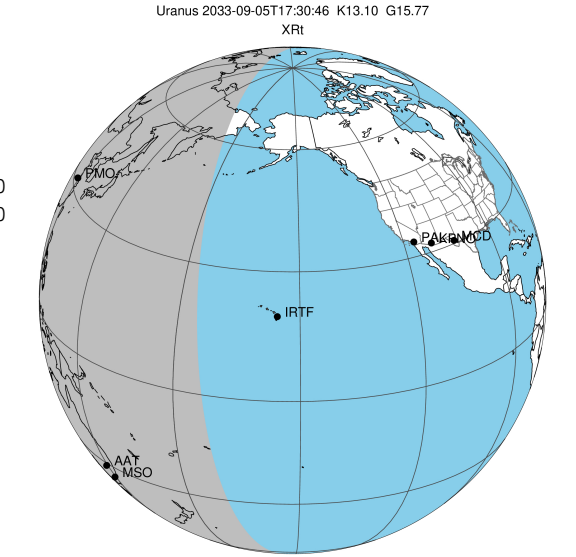
target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2033-09-05T17:30:46.460
 Event type : XRT
 : No Uranus occs
 : Ring occs: topocentric, not geocentric
 Gaia source ID : 3377578778547617664
 2Mass ID (if available) : 06220934+2334397

ICRS Star Coord at Epoch: 06h 22m 09.34782s +23:34:39.54879s

RUWE (>1.4 is poor) : 1.84
 K magnitude : 13.099
 G magnitude : 15.768
 RP magnitude : 14.913
 BP magnitude : 16.494
 DUPflag : 0
 Distance (au) : 19.329
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 17.57
 Sun-Target sep (deg) : 67.93
 Sun-Moon sep (deg) : 157.34
 B (ring opening deg) : 70.89
 PA of pole (deg) : 67.22

a(km) ring

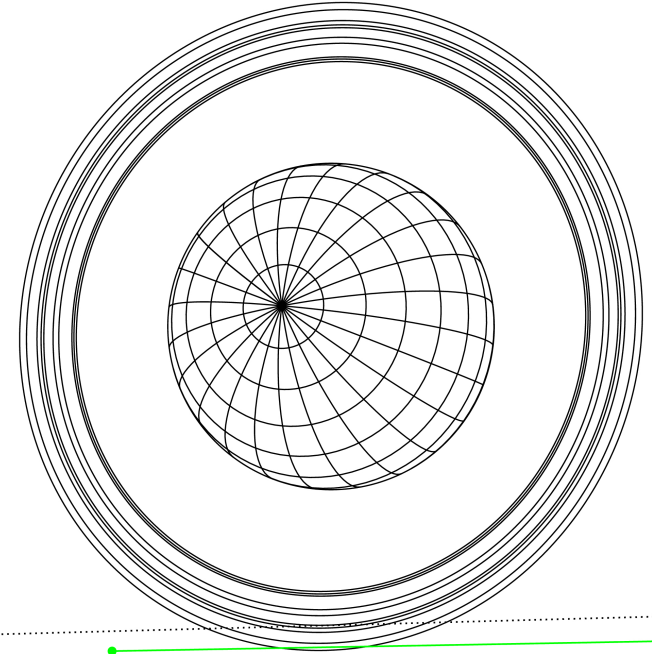
- 1 41837.2 6
- 2 42235.0 5
- 3 42571.2 4
- 4 44718.5 alpha
- 5 45661.1 beta
- 6 47176.1 eta
- 7 47626.3 gamma
- 8 48300.3 delta
- 9 50026.7 lambda
- 10 51149.4 epsilon



2033-09-05T17:30:46.4600 α: 06 22 09.3478 β: +23 34 39.549 C/A 3.788° PA 1.54 deg v_sky +17.57 km/s D 19.33 AU
 Credit: Styled after SORA/Lucky Star

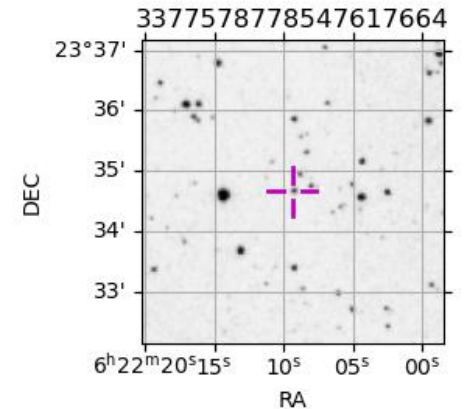
PMO

Uranus 2033-09-05T17:30:46 K13.10 G15.77 XRT



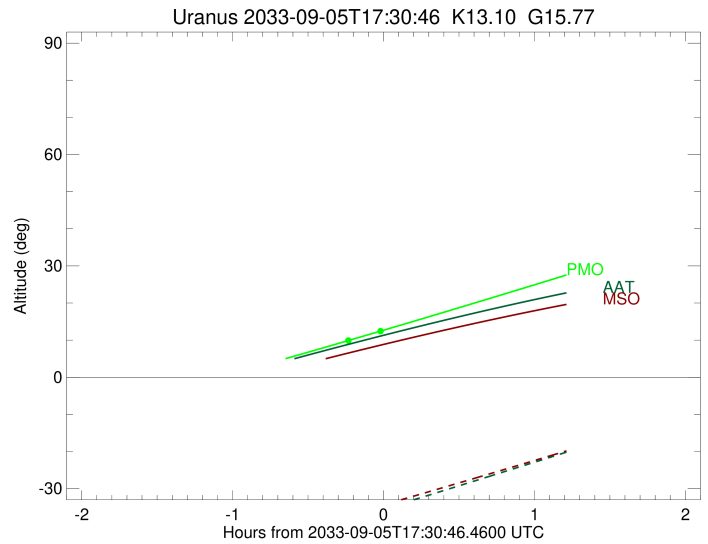
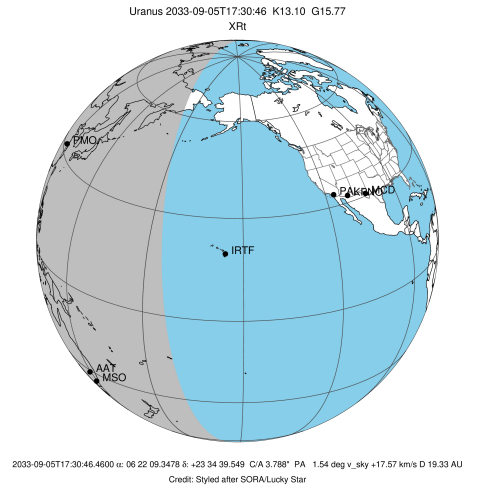
Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

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	+		+	SEP 05 17:20 - SEP 05 17:25	PnnRie
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					PnnRnn
MSO	Mt. Stromlo Observato	-35.3	149.0					PnnRnn



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target                : Uranus
target radius (km)   : 25559.00
C/A epoch            : 2033-09-05T17:25:07.610
Event type           : XRt
: No Uranus occs
: Ring occs: topocentric, not geocentric
Observer code        : PMO
Location             : Purple Mtn Obs. Nanking
Latitude (deg)       : 32.06667
E. Longitude (deg)   : 118.82089
Altitude (km)        : 0.364
Gaia source ID       : 3377578778547617664
2Mass ID (if available) : 06220934+2334397
ICRS Star Coord at Epoch: 06h 22m 09.34782s +23:34:39.54879s
RUWE (>1.4 is poor) : 1.84
K magnitude           : 13.099
G magnitude           : 15.768
RP magnitude          : 14.913
BP magnitude          : 16.494
DUPflag              : 0
Distance (au)         : 19.329
f0 (km)               : 0.000
g0 (km)               : 0.000
skyplane vel. (km/s) : 17.57
Sun-Target sep (deg)  : 67.93
Sun-Moon sep (deg)   : 158.28
B (ring opening deg) : 70.89
PA of pole (deg)     : 67.22
Pole direction: RA (deg): 257.31100
Dec (deg): -15.17500
C/A sky separation (") : 3.582
C/A sky separation (km) : 50212.7
NAIF SPICE kernels   : RAJobs_U111+rgf15.spk
URKALLvl.spk
urall1.bsp
IAU_URANUS_for_RINGFIT.tpc
vgr2.urall1.bsp
ural61.bsp
vgr2.ural61.bsp
peph.ural60.bsp
earthstns_itrff93_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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b: ring blocked by planet  x: target alt < 5.0 deg or sun > -5.0 deg
Ring      I/E      UTC      b? alt  alt-sun  radius  r-dot  lat-geo lat-geodetic
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epsilon   I  2033-09-05T17:20:44.551  10.68 -47.39  50757.01 -1.05
  
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No planet occultations

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epsilon   E  2033-09-05T17:25:39.126  11.65 -46.88  50755.89  1.06
  
```