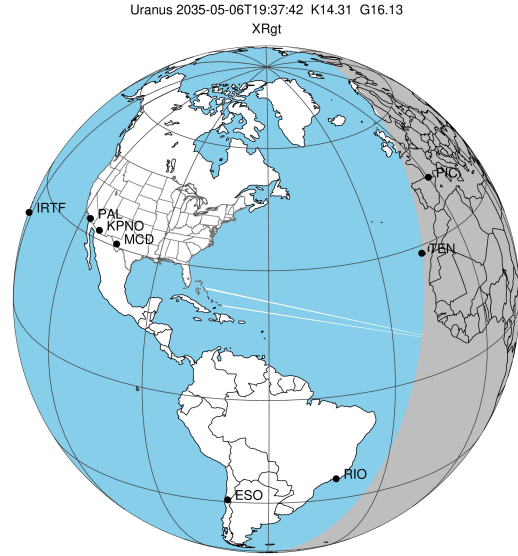


target : Uranus  
 target radius (km) : 25559.00  
 C/A epoch : 2035-05-06T19:37:42.150  
 Event type : XRgt  
 : No Uranus occs  
 : Ring occs: geocentric, topocentric  
 Gaia source ID : 3382600626108889600  
 2Mass ID (if available) : 06312251+2334016

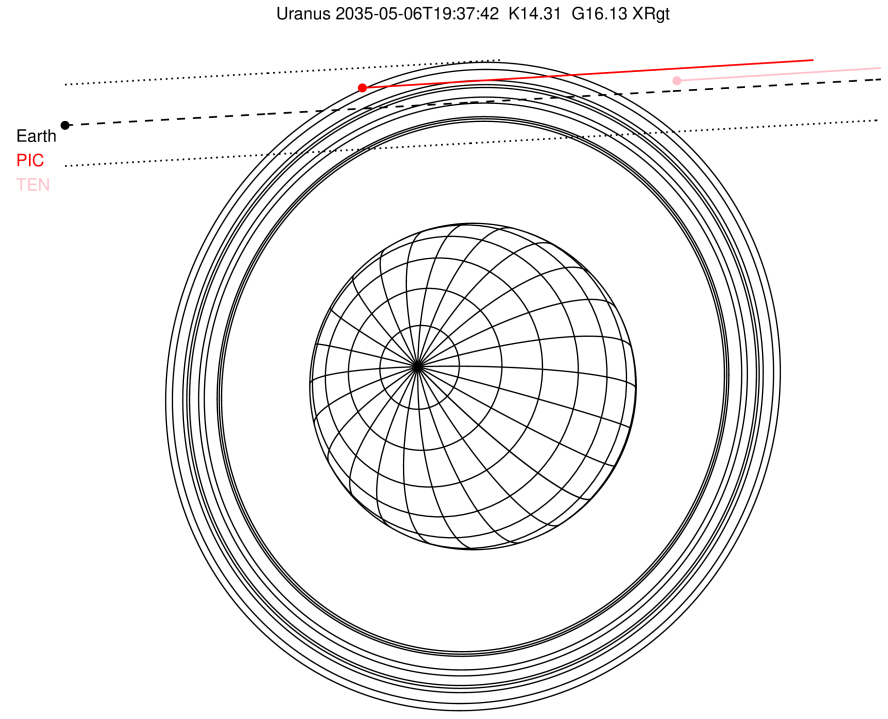
ICRS Star Coord at Epoch: 06h 31m 22.51612s +23:34:01.40868s

RUWE (>1.4 is poor) : 1.14  
 K magnitude : 14.309  
 G magnitude : 16.129  
 RP magnitude : 15.536  
 BP magnitude : 16.519  
 DUPflag : 0  
 Distance (au) : 19.478  
 f0 (km) : 0.000  
 g0 (km) : 0.000  
 skyplane vel. (km/s) : 24.93  
 Sun-Target sep (deg) : 51.55  
 Sun-Moon sep (deg) : 65.76  
 B (ring opening deg) : 68.92  
 PA of pole (deg) : 70.27

#	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

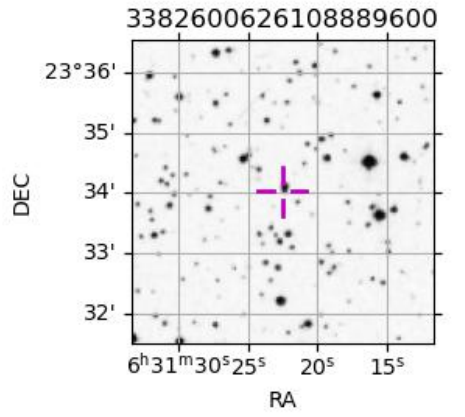


2035-05-06T19:37:42.1500 ex: 06 31 22.5161 8: +23 34 01.409 C/A 3.152° PA 183.22 deg v\_sky +24.93 km/s D 19.48 AU  
 Credit: Styled after SORA/Lucky Star



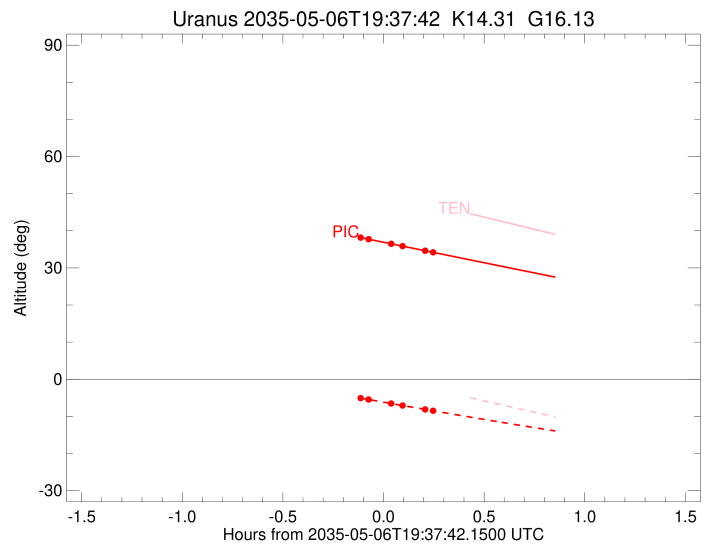
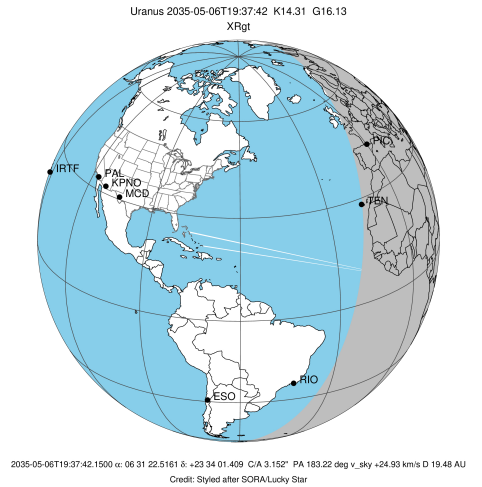
Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

Obs	Location	lat	Elon	Rings I	Planet	Rings E	Observed Events Interval	OEncode
PIC	Pic du Midi	42.9	0.1	+++		+++	MAY 06 19:30 - MAY 06 19:51	PnnRie
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					PnnRnn
MSO	Mt. Stromlo Observato	-35.3	149.0					PnnRnn



```

target                : Uranus
target radius (km)   : 25559.00
C/A epoch            : 2035-05-06T19:40:09.110
Event type          : XRgt
: No Uranus occs
: Ring occs: geocentric, topocentric
Observer code       : PIC
Location            : Pic du Midi
Latitude (deg)      : 42.93656
E. Longitude (deg)  : 0.14231
Altitude (km)       : 2.890
Gaia source ID      : 3382600626108889600
2Mass ID (if available) : 06312251+2334016
ICRS Star Coord at Epoch: 06h 31m 22.51612s +23:34:01.40868s
RUWE (>1.4 is poor) : 1.14
K magnitude          : 14.309
G magnitude          : 16.129
RP magnitude         : 15.536
BP magnitude         : 16.519
DUPflag             : 0
Distance (au)       : 19.478
f0 (km)              : 0.000
g0 (km)              : 0.000
skyplane vel. (km/s) : 24.93
Sun-Target sep (deg) : 51.55
Sun-Moon sep (deg)  : 66.58
B (ring opening deg) : 68.92
PA of pole (deg)    : 70.27
Pole direction: RA (deg): 257.31100
Dec (deg): -15.17500
C/A sky separation (") : 3.379
C/A sky separation (km) : 47737.0
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_itr93_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	2035-05-06T19:30:54.779	38.16	-5.08	51147.70	-8.53		
lambda	I	2035-05-06T19:33:17.507	37.72	-5.46	50026.71	-6.96		
delta	I	2035-05-06T19:40:10.718	36.46	-6.56	48300.35	-1.30		

No planet occultations

delta	E	2035-05-06T19:43:12.054	35.90	-7.04	48300.35	1.30		
lambda	E	2035-05-06T19:50:04.999	34.63	-8.12	50026.71	6.97		
epsilon	E	2035-05-06T19:51:58.467	34.29	-8.41	50898.55	8.55		