

target : Uranus  
 target radius (km) : 25559.00  
 C/A epoch : 2034-05-08T19:09:48.210  
 Event type : PgRgt  
 : Uranus occs: geocentric, not topocentric  
 : Ring occs: geocentric, topocentric  
 Gaia source ID : 3425256862605580288  
 2Mass ID (if available) : 06131340+2340225

ICRS Star Coord at Epoch: 06h 13m 13.40995s +23:40:22.35859s

RUWE (>1.4 is poor) : 0.98  
 K magnitude : 13.281  
 G magnitude : 17.161  
 RP magnitude : 16.479  
 BP magnitude : 17.673  
 DUPflag : 0  
 Distance (au) : 19.627  
 f0 (km) : 0.000  
 g0 (km) : 0.000  
 skyplane vel. (km/s) : 27.35  
 Sun-Target sep (deg) : 45.23  
 Sun-Moon sep (deg) : 165.66  
 B (ring opening deg) : 72.71  
 PA of pole (deg) : 63.47  
 # 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

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

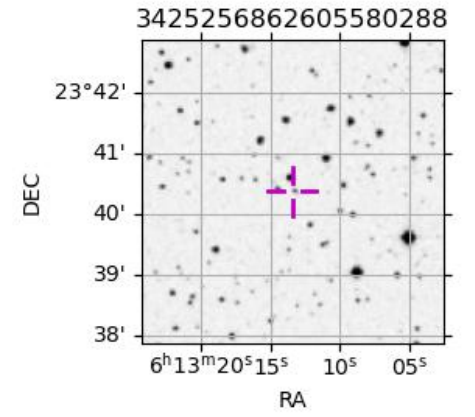
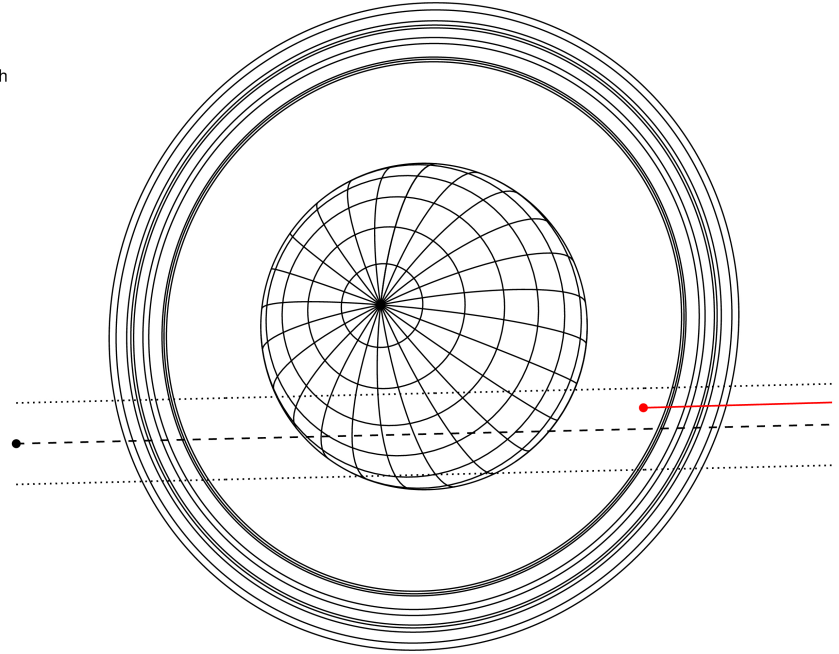
Obs	Location	lat	Elon	Rings I	Planet	Rings E	Observed Events Interval	OEcode
PIC	Pic du Midi	42.9	0.1			+++++	MAY 08 19:35 - MAY 08 19:41	PnnRne
PAL	Palomar Mt (200")	33.4	243.1					PnnRnn
PMO	Purple Mtn Obs. Nanki	32.1	118.8					PnnRnn
KPNO	Kitt Peak Natl Obs	32.0	248.4					PnnRnn
MCD	McDonald Obs. 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



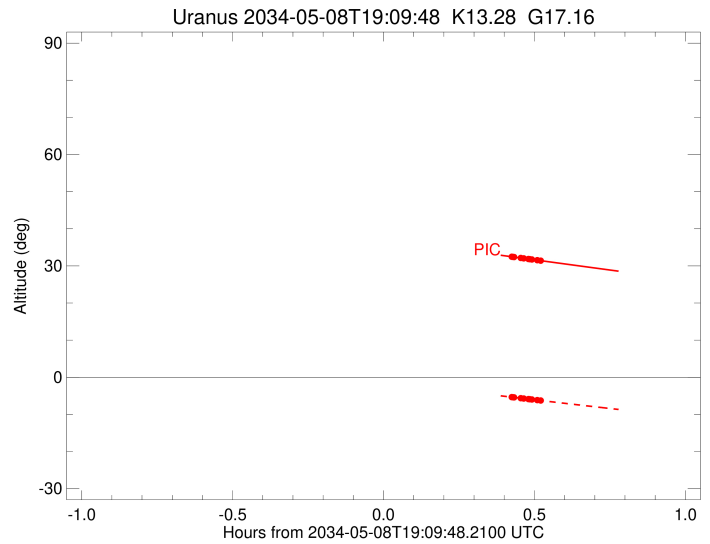
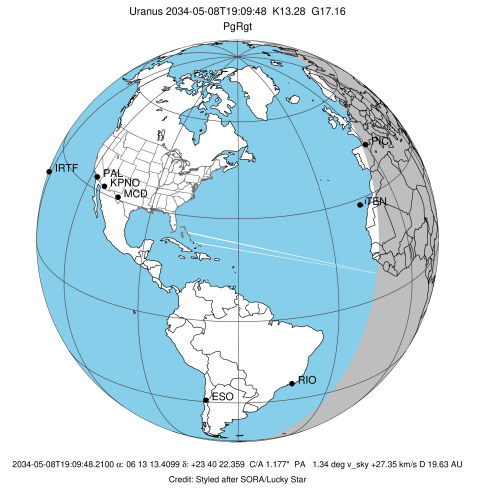
2034-05-08T19:09:48.2100 α: 06 13 13.4099 β: +23 40 22.359 C/A 1.177" PA 1.34 deg v\_sky +27.35 km/s D 19.63 AU  
 Credit: Styled after SORA/Lucky Star

Uranus 2034-05-08T19:09:48 K13.28 G17.16 PgRgt

Earth  
 PIC



target : Uranus  
 target radius (km) : 25559.00  
 C/A epoch : 2034-05-08T19:12:17.150  
 Event type : PgRgt  
 : Uranus occs: geocentric, not topocentric  
 : 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 : 3425256862605580288  
 2Mass ID (if available) : 06131340+2340225  
 ICRS Star Coord at Epoch: 06h 13m 13.40995s +23:40:22.35859s  
 RUWE (>1.4 is poor) : 0.98  
 K magnitude : 13.281  
 G magnitude : 17.161  
 RP magnitude : 16.479  
 BP magnitude : 17.673  
 DUPflag : 0  
 Distance (au) : 19.627  
 f0 (km) : 0.000  
 g0 (km) : 0.000  
 skyplane vel. (km/s) : 27.35  
 Sun-Target sep (deg) : 45.23  
 Sun-Moon sep (deg) : 165.43  
 B (ring opening deg) : 72.71  
 PA of pole (deg) : 63.47  
 Pole direction: RA (deg): 257.31100  
 Dec (deg): -15.17500  
 C/A sky separation (") : 0.962  
 C/A sky separation (km) : 13688.6  
 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\_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	2034-05-08T18:43:00.746		42.08	3.34x	50878.82	-27.04		
lambda	I	2034-05-08T18:43:32.232		41.98	3.25x	50026.71	-27.04		
delta	I	2034-05-08T18:44:36.161		41.79	3.06x	48300.35	-26.96		
gamma	I	2034-05-08T18:45:01.001		41.71	2.99x	47631.01	-26.93		
eta	I	2034-05-08T18:45:17.900		41.66	2.94x	47176.12	-26.91		
beta	I	2034-05-08T18:46:14.750		41.49	2.78x	45648.01	-26.82		
alpha	I	2034-05-08T18:46:50.461		41.38	2.68x	44694.11	-26.76		
4	I	2034-05-08T18:48:08.396		41.14	2.46x	42616.40	-26.62		
5	I	2034-05-08T18:48:24.364		41.09	2.41x	42180.93	-26.60		
6	I	2034-05-08T18:48:36.662		41.05	2.38x	41853.18	-26.55		
Uranus	I	2034-05-08T18:59:08.680		39.12	0.59x	25428.11		8.36	8.75
Uranus	E	2034-05-08T19:25:07.581		34.34	-3.71x	25029.29		-17.22	-17.99
6	E	2034-05-08T19:35:16.259		32.47	-5.35	41800.15	26.62		
5	E	2034-05-08T19:35:35.500		32.41	-5.40	42314.18	26.67		
4	E	2034-05-08T19:35:43.124		32.39	-5.42	42533.27	26.69		
alpha	E	2034-05-08T19:37:04.969		32.14	-5.63	44724.34	26.84		
beta	E	2034-05-08T19:37:40.733		32.03	-5.73	45680.65	26.90		
eta	E	2034-05-08T19:38:36.198		31.86	-5.88	47176.12	26.99		
gamma	E	2034-05-08T19:38:52.675		31.81	-5.92	47621.00	27.01		
delta	E	2034-05-08T19:39:17.809		31.73	-5.99	48300.35	27.05		
lambda	E	2034-05-08T19:40:21.536		31.54	-6.15	50026.71	27.13		
epsilon	E	2034-05-08T19:41:05.352		31.40	-6.27	51216.69	27.13		