

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2036-02-26T01:02:50.730
 Event type : PgtRgt
 : Uranus occs: geocentric, topocentric
 : Ring occs: geocentric, topocentric
 Gaia source ID : 3379626825111781248
 2Mass ID (if available) : 06463735+2323436

ICRS Star Coord at Epoch: 06h 46m 37.36127s +23:23:43.65885s

RUWE (>1.4 is poor) : 1.05
 K magnitude : 12.455
 G magnitude : 14.697
 RP magnitude : 14.003
 BP magnitude : 15.232
 DUPflag : 0
 Distance (au) : 18.243
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : -10.32
 Sun-Target sep (deg) : 124.18
 Sun-Moon sep (deg) : 137.11
 B (ring opening deg) : 65.64
 PA of pole (deg) : 74.69

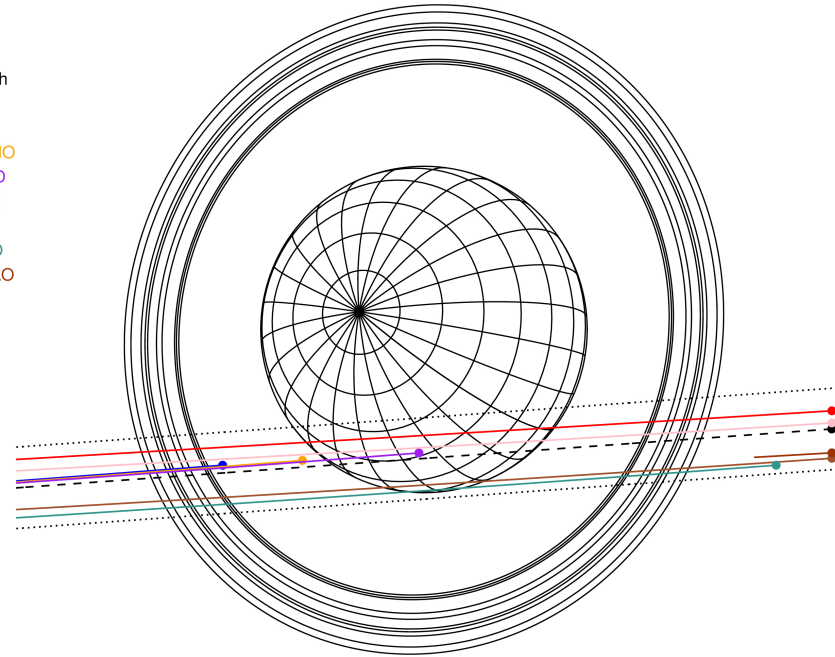
#	a(km)	ring
1	41837.2	6
2	42235.0	5
3	42571.2	4
4	44718.5	alpha
5	45661.1	beta
6	47176.1	eta
7	47626.3	gamma
8	48300.3	delta
9	50026.7	lambda
10	51149.4	epsilon



2036-02-26T01:02:50.7300 α: 06 46 37.3613 δ: +23 23 43.659 C/A 1.516° PA 4.13 deg v_sky -10.32 km/s D 18.24 AU
 Credit: Styled after SORA/Lucky Star

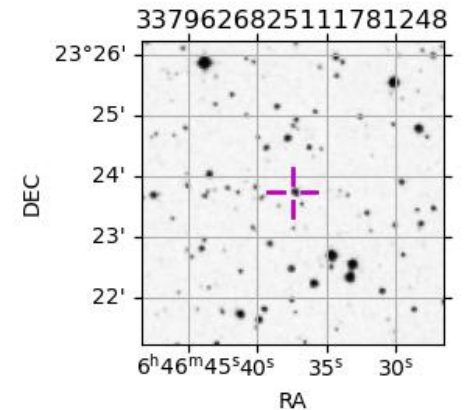
Uranus 2036-02-26T01:02:50 K12.46 G14.70 PgtRgt

Earth
 PIC
 PAL
 KPNO
 MCD
 TEN
 RIO
 ESO
 SAAO

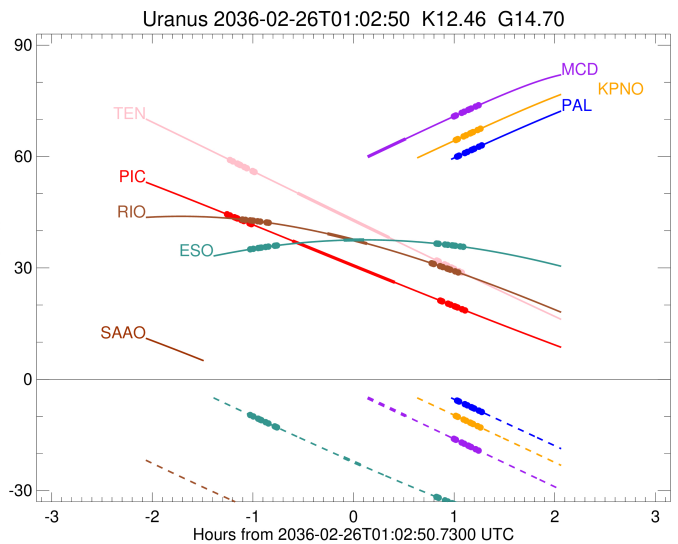
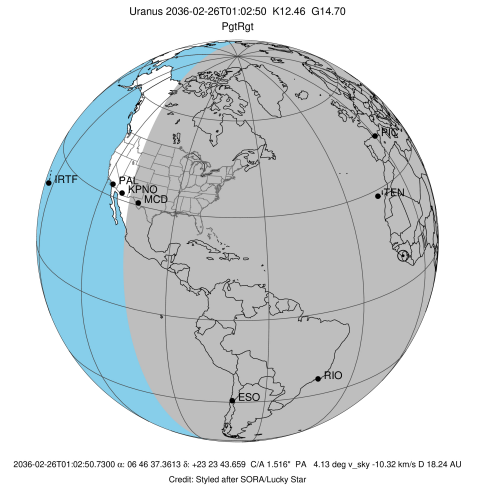


Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

Obs	Location	lat	Elon	Rings I	Planet	Rings E	Observed Events Interval	OEcode
PIC	Pic du Midi	42.9	0.1	+++++	+ +	+++++	FEB 25 23:47 - FEB 26 02:09	PieRie
PAL	Palomar Mt (200")	33.4	243.1			+++++	FEB 26 02:04 - FEB 26 02:19	PnnRne
PMO	Purple Mtn Obs. Nanki	32.1	118.8					PnnRnn
KPNO	Kitt Peak Natl Obs	32.0	248.4			+++++	FEB 26 02:03 - FEB 26 02:19	PnnRne
MCD	McDonald Obs. 2.7m	30.7	256.0		+	+++++	FEB 26 01:33 - FEB 26 02:17	PneRne
TEN	Teide Obs./Tenerife	28.3	343.5	+++++	+ +	+++++	FEB 25 23:49 - FEB 26 02:07	PieRie
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	+++++	+ +	+++++	FEB 25 23:56 - FEB 26 02:05	PieRie
ESO	European Southern Obs	-29.3	289.3	+++++	+ +	+++++	FEB 26 00:01 - FEB 26 02:08	PieRie
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

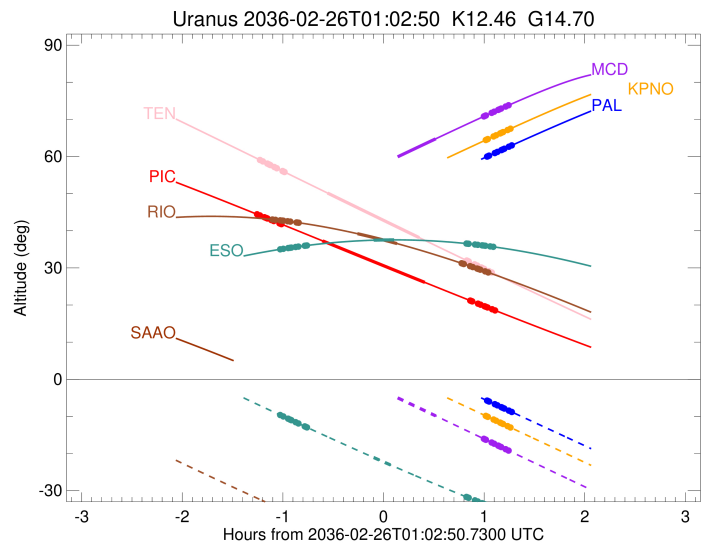
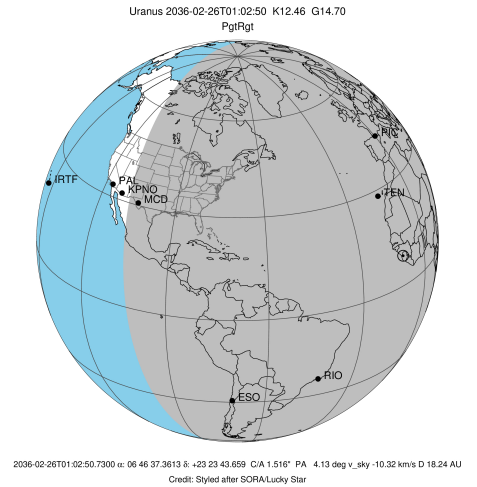


target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2036-02-26T00:56:37.370
 Event type : PgtRgt
 : Uranus occs: geocentric, topocentric
 : Ring occs: geocentric, topocentric
 Observer code : PIC
 Location : Pic du Midi
 Latitude (deg) : 42.93656
 E. Longitude (deg) : 0.14231
 Altitude (km) : 2.890
 Gaia source ID : 3379626825111781248
 2Mass ID (if available) : 06463735+2323436
 ICRS Star Coord at Epoch: 06h 46m 37.36127s +23:23:43.65885s
 RUWE (>1.4 is poor) : 1.05
 K magnitude : 12.455
 G magnitude : 14.697
 RP magnitude : 14.003
 BP magnitude : 15.232
 DUPflag : 0
 Distance (au) : 18.243
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : -10.32
 Sun-Target sep (deg) : 124.18
 Sun-Moon sep (deg) : 137.00
 B (ring opening deg) : 65.64
 PA of pole (deg) : 74.69
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 1.252
 C/A sky separation (km) : 16560.7
 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



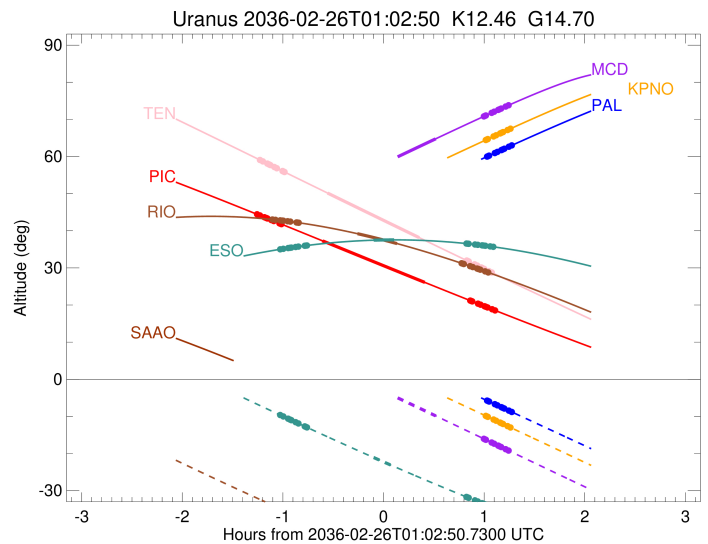
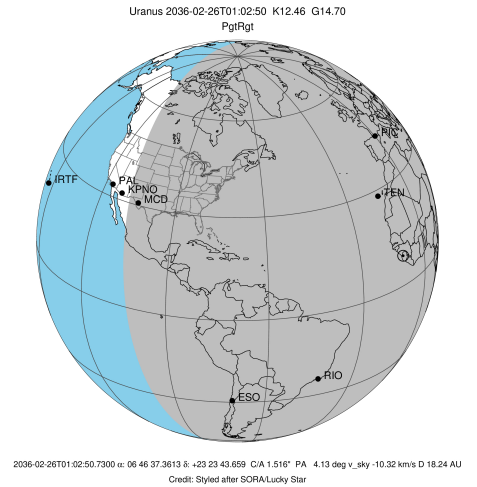
Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
epsilon	I	2036-02-25T23:47:33.436		44.42	-55.78	51091.74	-10.87		
lambda	I	2036-02-25T23:49:11.816		44.13	-55.83	50026.71	-10.81		
delta	I	2036-02-25T23:51:51.904		43.64	-55.91	48300.35	-10.76		
gamma	I	2036-02-25T23:52:54.681		43.45	-55.94	47625.79	-10.73		
eta	I	2036-02-25T23:53:36.604		43.32	-55.96	47176.12	-10.72		
beta	I	2036-02-25T23:55:59.155		42.89	-56.02	45653.65	-10.66		
alpha	I	2036-02-25T23:57:27.043		42.62	-56.05	44722.15	-10.62		
4	I	2036-02-26T00:00:51.598		42.00	-56.11	42542.84	-10.52		
5	I	2036-02-26T00:01:15.153		41.92	-56.12	42291.40	-10.52		
6	I	2036-02-26T00:02:01.851		41.78	-56.13	41794.95	-10.49		
Uranus	I	2036-02-26T00:26:29.259		37.29	-56.06	25142.91		-22.40	-23.35
Uranus	E	2036-02-26T01:27:30.810		26.09	-52.39	25429.98		12.15	12.71
6	E	2036-02-26T01:54:35.658		21.19	-49.45	41863.13	10.30		
5	E	2036-02-26T01:55:12.538		21.08	-49.37	42237.16	10.33		
4	E	2036-02-26T01:55:43.299		20.99	-49.31	42565.50	10.33		
alpha	E	2036-02-26T01:59:07.533		20.38	-48.89	44692.59	10.42		
beta	E	2036-02-26T02:00:42.334		20.10	-48.69	45679.29	10.46		
eta	E	2036-02-26T02:03:05.211		19.67	-48.39	47176.12	10.50		
gamma	E	2036-02-26T02:03:48.414		19.54	-48.30	47630.09	10.51		
delta	E	2036-02-26T02:04:52.104		19.35	-48.17	48300.35	10.53		
lambda	E	2036-02-26T02:07:35.659		18.87	-47.81	50026.71	10.58		
epsilon	E	2036-02-26T02:09:48.864		18.47	-47.52	51437.75	10.63		

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2036-02-26T01:09:00.830
 Event type : PgtRgt
 : Uranus occs: geocentric, topocentric
 : Ring occs: geocentric, topocentric
 Observer code : PAL
 Location : Palomar Mt (200")
 Latitude (deg) : 33.35622
 E. Longitude (deg) : 243.13601
 Altitude (km) : 1.706
 Gaia source ID : 3379626825111781248
 2Mass ID (if available) : 06463735+2323436
 ICRS Star Coord at Epoch: 06h 46m 37.36127s +23:23:43.65885s
 RUWE (>1.4 is poor) : 1.05
 K magnitude : 12.455
 G magnitude : 14.697
 RP magnitude : 14.003
 BP magnitude : 15.232
 DUPflag : 0
 Distance (au) : 18.243
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : -10.32
 Sun-Target sep (deg) : 124.18
 Sun-Moon sep (deg) : 137.99
 B (ring opening deg) : 65.64
 PA of pole (deg) : 74.69
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 1.413
 C/A sky separation (km) : 18696.5
 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_itrff93_040916.bsp
 earth_720101_070426.bpc
 earth_200101_990628_predict.bpc
 pg3f0000r.bsp
 pg490000r.bsp
 naif0012.tls
 earth_flat_IAU.spk



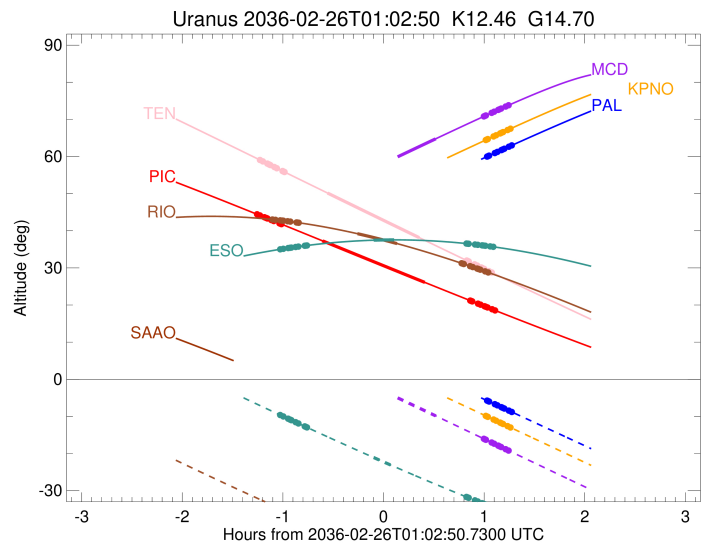
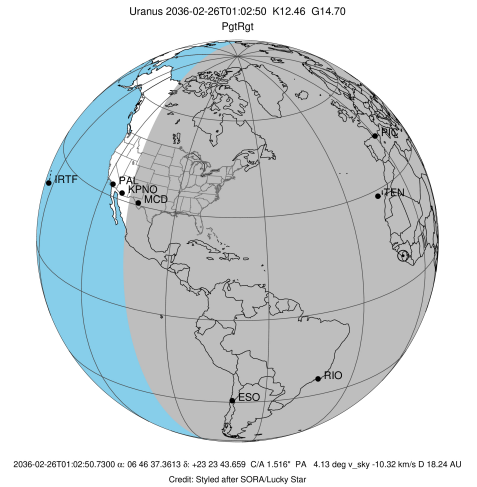
Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
epsilon	I	2036-02-26T00:01:40.133		34.29	18.92x	51101.71	-10.65		
lambda	I	2036-02-26T00:03:21.578		34.64	18.60x	50026.71	-10.58		
delta	I	2036-02-26T00:06:05.227		35.21	18.08x	48300.35	-10.52		
gamma	I	2036-02-26T00:07:09.425		35.44	17.87x	47625.94	-10.49		
eta	I	2036-02-26T00:07:52.335		35.58	17.74x	47176.12	-10.47		
beta	I	2036-02-26T00:10:18.231		36.09	17.27x	45654.24	-10.41		
alpha	I	2036-02-26T00:11:48.453		36.41	16.98x	44721.04	-10.36		
4	I	2036-02-26T00:15:18.370		37.14	16.31x	42541.58	-10.24		
5	I	2036-02-26T00:15:42.303		37.22	16.23x	42293.45	-10.24		
6	I	2036-02-26T00:16:30.457		37.39	16.08x	41794.82	-10.20		
Uranus	I	2036-02-26T00:42:25.656		42.81	11.00x	25178.13		-21.36	-22.28
Uranus	E	2036-02-26T01:36:15.230		54.09	0.11x	25483.59		9.24	9.67
6	E	2036-02-26T02:04:38.351		59.99	-5.75	41860.50	10.29		
5	E	2036-02-26T02:05:16.124		60.12	-5.88	42243.17	10.33		
4	E	2036-02-26T02:05:45.999		60.22	-5.99	42562.16	10.34		
alpha	E	2036-02-26T02:09:10.021		60.92	-6.69	44691.10	10.46		
beta	E	2036-02-26T02:10:44.518		61.25	-7.02	45679.85	10.52		
eta	E	2036-02-26T02:13:06.359		61.73	-7.51	47176.12	10.58		
gamma	E	2036-02-26T02:13:49.232		61.88	-7.66	47630.33	10.60		
delta	E	2036-02-26T02:14:52.334		62.09	-7.88	48300.35	10.63		
lambda	E	2036-02-26T02:17:34.194		62.64	-8.44	50026.71	10.70		
epsilon	E	2036-02-26T02:19:47.409		63.10	-8.90	51455.28	10.77		

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2036-02-26T01:08:32.350
 Event type : PgtRgt
 : Uranus occs: geocentric, topocentric
 : Ring occs: geocentric, topocentric
 Observer code : KPNO
 Location : Kitt Peak Natl Obs
 Latitude (deg) : 31.96333
 E. Longitude (deg) : 248.40000
 Altitude (km) : 2.120
 Gaia source ID : 3379626825111781248
 2Mass ID (if available) : 06463735+2323436
 ICRS Star Coord at Epoch: 06h 46m 37.36127s +23:23:43.65885s
 RUWE (>1.4 is poor) : 1.05
 K magnitude : 12.455
 G magnitude : 14.697
 RP magnitude : 14.003
 BP magnitude : 15.232
 DUPflag : 0
 Distance (au) : 18.243
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : -10.32
 Sun-Target sep (deg) : 124.18
 Sun-Moon sep (deg) : 137.99
 B (ring opening deg) : 65.64
 PA of pole (deg) : 74.69
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 1.432
 C/A sky separation (km) : 18949.0
 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



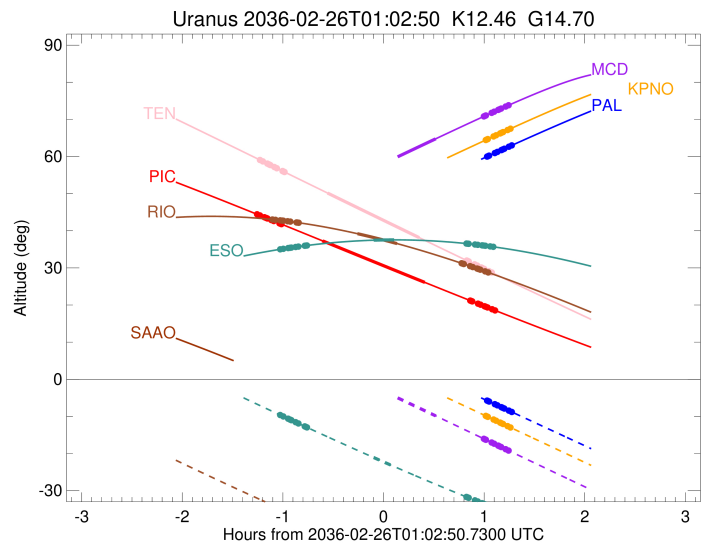
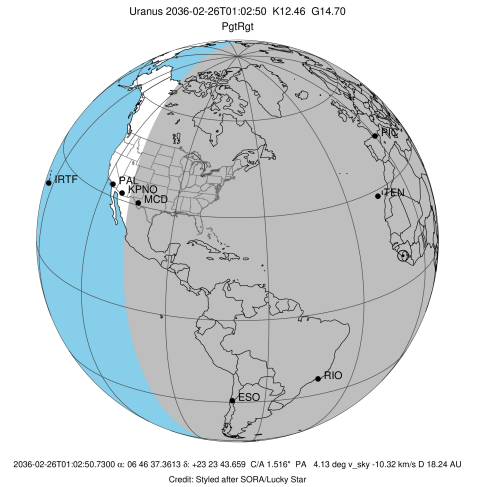
Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
epsilon	I	2036-02-26T00:01:33.174		38.52	15.40x	51104.19	-10.66		
lambda	I	2036-02-26T00:03:14.755		38.88	15.06x	50026.71	-10.59		
delta	I	2036-02-26T00:05:58.273		39.46	14.52x	48300.35	-10.53		
gamma	I	2036-02-26T00:07:02.426		39.68	14.31x	47625.98	-10.50		
eta	I	2036-02-26T00:07:45.314		39.84	14.16x	47176.12	-10.48		
beta	I	2036-02-26T00:10:11.135		40.35	13.68x	45654.37	-10.41		
alpha	I	2036-02-26T00:11:41.370		40.67	13.38x	44720.80	-10.36		
4	I	2036-02-26T00:15:11.295		41.41	12.68x	42541.32	-10.24		
5	I	2036-02-26T00:15:35.182		41.50	12.60x	42293.87	-10.23		
6	I	2036-02-26T00:16:23.383		41.67	12.44x	41794.81	-10.20		
Uranus	I	2036-02-26T00:42:27.417		47.22	7.14x	25184.44		-21.17	-22.08
Uranus	E	2036-02-26T01:35:17.388		58.45	-3.84x	25488.31		8.95	9.36
6	E	2036-02-26T02:03:51.823		64.46	-9.87	41860.30	10.28		
5	E	2036-02-26T02:04:29.715		64.59	-10.01	42243.63	10.32		
4	E	2036-02-26T02:04:59.563		64.69	-10.11	42561.91	10.33		
alpha	E	2036-02-26T02:08:23.832		65.40	-10.83	44690.99	10.45		
beta	E	2036-02-26T02:09:58.421		65.73	-11.17	45679.89	10.51		
eta	E	2036-02-26T02:12:20.358		66.21	-11.67	47176.12	10.58		
gamma	E	2036-02-26T02:13:03.258		66.36	-11.82	47630.35	10.60		
delta	E	2036-02-26T02:14:06.392		66.58	-12.04	48300.35	10.63		
lambda	E	2036-02-26T02:16:48.318		67.13	-12.61	50026.71	10.69		
epsilon	E	2036-02-26T02:19:01.676		67.59	-13.09	51456.42	10.77		

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2036-02-26T01:07:43.570
 Event type : PgtRgt
 : Uranus occs: geocentric, topocentric
 : Ring occs: geocentric, topocentric
 Observer code : MCD
 Location : McDonald Obs. 2.7m
 Latitude (deg) : 30.67158
 E. Longitude (deg) : 255.97844
 Altitude (km) : 2.075
 Gaia source ID : 3379626825111781248
 2Mass ID (if available) : 06463735+2323436
 ICRS Star Coord at Epoch: 06h 46m 37.36127s +23:23:43.65885s
 RUWE (>1.4 is poor) : 1.05
 K magnitude : 12.455
 G magnitude : 14.697
 RP magnitude : 14.003
 BP magnitude : 15.232
 DUPflag : 0
 Distance (au) : 18.243
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : -10.32
 Sun-Target sep (deg) : 124.18
 Sun-Moon sep (deg) : 137.97
 B (ring opening deg) : 65.64
 PA of pole (deg) : 74.69
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 1.452
 C/A sky separation (km) : 19214.1
 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_itr93_040916.bsp
 earth_720101_070426.bpc
 earth_200101_990628_predict.bpc
 pg3f0000r.bsp
 pg490000r.bsp
 naif0012.tls
 earth_flat_IAU.spk



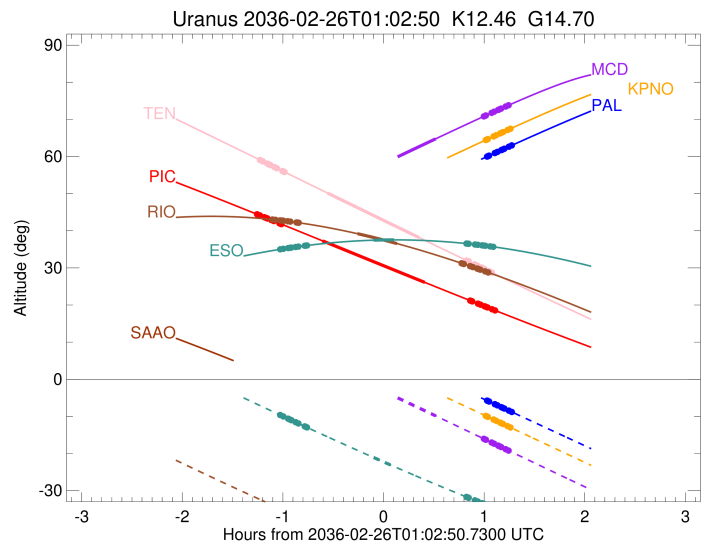
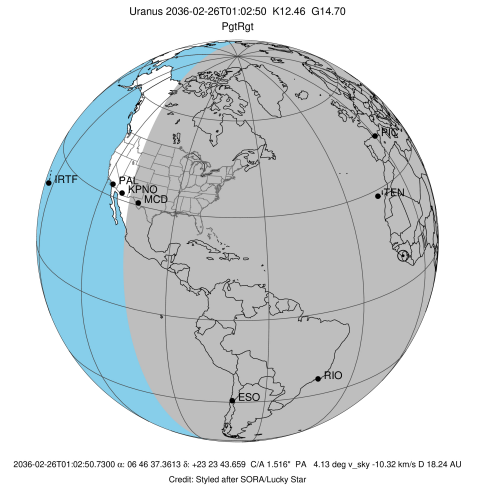
Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
epsilon	I	2036-02-26T00:01:09.508		44.79	9.75x	51107.01	-10.68		
lambda	I	2036-02-26T00:02:51.169		45.16	9.40x	50026.71	-10.61		
delta	I	2036-02-26T00:05:34.418		45.74	8.84x	48300.35	-10.54		
gamma	I	2036-02-26T00:06:38.472		45.97	8.62x	47626.02	-10.51		
eta	I	2036-02-26T00:07:21.305		46.13	8.47x	47176.12	-10.49		
beta	I	2036-02-26T00:09:46.934		46.65	7.97x	45654.52	-10.43		
alpha	I	2036-02-26T00:11:17.117		46.98	7.65x	44720.53	-10.37		
4	I	2036-02-26T00:14:46.898		47.73	6.93x	42541.04	-10.25		
5	I	2036-02-26T00:15:10.714		47.82	6.84x	42294.33	-10.24		
6	I	2036-02-26T00:15:58.932		47.99	6.68x	41794.79	-10.20		
Uranus	I	2036-02-26T00:42:11.801		53.65	1.17x	25191.56		-20.96	-21.86
Uranus	E	2036-02-26T01:33:56.462		64.77	-9.86	25493.01		8.64	9.04
6	E	2036-02-26T02:02:42.798		70.82	-16.04	41860.10	10.27		
5	E	2036-02-26T02:03:20.805		70.95	-16.18	42244.06	10.31		
4	E	2036-02-26T02:03:50.629		71.05	-16.29	42561.67	10.31		
alpha	E	2036-02-26T02:07:15.142		71.75	-17.02	44690.89	10.45		
beta	E	2036-02-26T02:08:49.823		72.07	-17.36	45679.92	10.50		
eta	E	2036-02-26T02:11:11.854		72.56	-17.87	47176.12	10.57		
gamma	E	2036-02-26T02:11:54.780		72.70	-18.02	47630.36	10.59		
delta	E	2036-02-26T02:12:57.945		72.91	-18.25	48300.35	10.62		
lambda	E	2036-02-26T02:15:39.937		73.46	-18.83	50026.71	10.69		
epsilon	E	2036-02-26T02:17:53.429		73.90	-19.31	51457.47	10.77		

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2036-02-26T00:56:23.680
 Event type : PgtRgt
 : Uranus occs: geocentric, topocentric
 : Ring occs: geocentric, topocentric
 Observer code : TEN
 Location : Teide Obs./Tenerife
 Latitude (deg) : 28.30050
 E. Longitude (deg) : 343.48909
 Altitude (km) : 2.395
 Gaia source ID : 3379626825111781248
 2Mass ID (if available) : 06463735+2323436
 ICRS Star Coord at Epoch: 06h 46m 37.36127s +23:23:43.65885s
 RUWE (>1.4 is poor) : 1.05
 K magnitude : 12.455
 G magnitude : 14.697
 RP magnitude : 14.003
 BP magnitude : 15.232
 DUPflag : 0
 Distance (au) : 18.243
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : -10.32
 Sun-Target sep (deg) : 124.18
 Sun-Moon sep (deg) : 137.08
 B (ring opening deg) : 65.64
 PA of pole (deg) : 74.69
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 1.395
 C/A sky separation (km) : 18461.7
 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_itrff93_040916.bsp
 earth_720101_070426.bpc
 earth_200101_990628_predict.bpc
 pg3f0000r.bsp
 pg490000r.bsp
 naif0012.tls
 earth_flat_IAU.spk



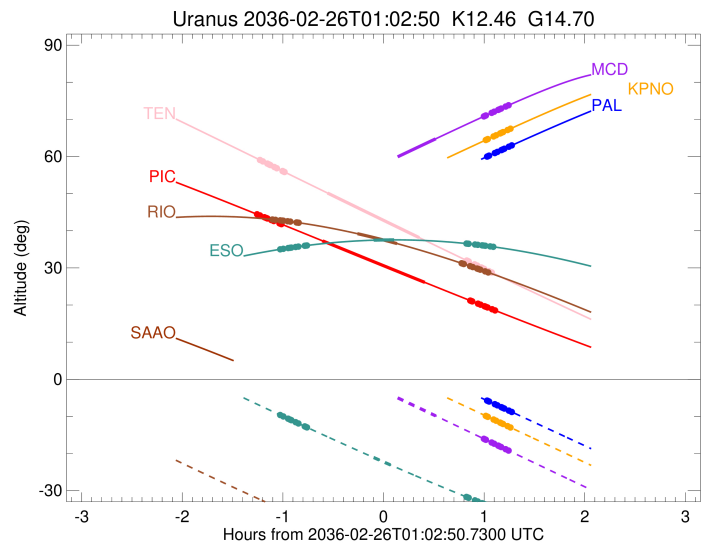
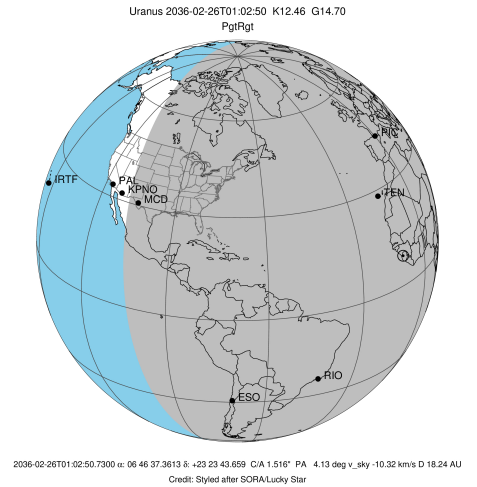
Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
epsilon	I	2036-02-25T23:49:16.736		59.05	-61.49	51107.87	-10.84		
lambda	I	2036-02-25T23:50:56.997		58.68	-61.78	50026.71	-10.76		
delta	I	2036-02-25T23:53:37.874		58.09	-62.24	48300.35	-10.70		
gamma	I	2036-02-25T23:54:40.996		57.85	-62.41	47626.02	-10.67		
eta	I	2036-02-25T23:55:23.205		57.70	-62.53	47176.12	-10.65		
beta	I	2036-02-25T23:57:46.703		57.17	-62.93	45654.51	-10.58		
alpha	I	2036-02-25T23:59:15.551		56.84	-63.18	44720.56	-10.53		
4	I	2036-02-26T00:02:42.176		56.08	-63.73	42541.11	-10.40		
5	I	2036-02-26T00:03:05.646		55.99	-63.80	42294.21	-10.40		
6	I	2036-02-26T00:03:53.112		55.82	-63.92	41794.79	-10.36		
Uranus	I	2036-02-26T00:29:25.854		50.18	-67.55	25181.53		-21.26	-22.17
Uranus	E	2036-02-26T01:24:08.698		38.15	-70.76	25470.78		10.01	10.47
6	E	2036-02-26T01:52:31.485		31.97	-69.23	41861.44	10.18		
5	E	2036-02-26T01:53:09.362		31.84	-69.17	42241.05	10.22		
4	E	2036-02-26T01:53:39.882		31.73	-69.12	42563.34	10.22		
alpha	E	2036-02-26T01:57:06.229		30.98	-68.79	44691.63	10.34		
beta	E	2036-02-26T01:58:41.872		30.64	-68.63	45679.65	10.38		
eta	E	2036-02-26T02:01:05.641		30.12	-68.37	47176.12	10.44		
gamma	E	2036-02-26T02:01:49.103		29.96	-68.30	47630.24	10.46		
delta	E	2036-02-26T02:02:53.110		29.73	-68.18	48300.35	10.48		
lambda	E	2036-02-26T02:05:37.368		29.14	-67.86	50026.71	10.54		
epsilon	E	2036-02-26T02:07:52.016		28.66	-67.60	51448.49	10.60		

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2036-02-26T00:58:42.900
 Event type : PgtRgt
 : Uranus occs: geocentric, topocentric
 : Ring occs: geocentric, topocentric
 Observer code : RIO
 Location : Rio de Janeiro
 Latitude (deg) : -22.89506
 E. Longitude (deg) : 316.77708
 Altitude (km) : 0.033
 Gaia source ID : 3379626825111781248
 2Mass ID (if available) : 06463735+2323436
 ICRS Star Coord at Epoch: 06h 46m 37.36127s +23:23:43.65885s
 RUWE (>1.4 is poor) : 1.05
 K magnitude : 12.455
 G magnitude : 14.697
 RP magnitude : 14.003
 BP magnitude : 15.232
 DUPflag : 0
 Distance (au) : 18.243
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : -10.32
 Sun-Target sep (deg) : 124.18
 Sun-Moon sep (deg) : 137.17
 B (ring opening deg) : 65.64
 PA of pole (deg) : 74.69
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 1.838
 C/A sky separation (km) : 24322.9
 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_itrff93_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	2036-02-25T23:56:36.357		43.04	-33.88	51157.71	-10.30		
lambda	I	2036-02-25T23:58:27.068		42.95	-34.25	50026.71	-10.18		
delta	I	2036-02-26T00:01:17.647		42.80	-34.82	48300.35	-10.06		
gamma	I	2036-02-26T00:02:24.778		42.75	-35.05	47626.74	-10.01		
eta	I	2036-02-26T00:03:09.881		42.71	-35.20	47176.12	-9.97		
beta	I	2036-02-26T00:05:43.302		42.56	-35.71	45657.28	-9.85		
alpha	I	2036-02-26T00:07:19.733		42.47	-36.03	44715.57	-9.75		
4	I	2036-02-26T00:11:04.045		42.24	-36.76	42536.17	-9.53		
5	I	2036-02-26T00:11:28.615		42.21	-36.84	42302.04	-9.51		
6	I	2036-02-26T00:12:21.180		42.16	-37.02	41795.03	-9.44		
Uranus	I	2036-02-26T00:47:21.491		39.21	-43.60	25391.38		-13.89	-14.53
Uranus	E	2036-02-26T01:10:57.897		36.54	-47.64	25558.86		-0.41	-0.43
6	E	2036-02-26T01:49:25.806		31.24	-53.21	41855.21	9.35		
5	E	2036-02-26T01:50:09.101		31.14	-53.30	42254.26	9.41		
4	E	2036-02-26T01:50:40.161		31.06	-53.37	42556.10	9.43		
alpha	E	2036-02-26T01:54:23.150		30.49	-53.81	44688.76	9.65		
beta	E	2036-02-26T01:56:05.668		30.22	-54.02	45680.62	9.74		
eta	E	2036-02-26T01:58:38.292		29.83	-54.31	47176.12	9.86		
gamma	E	2036-02-26T01:59:24.328		29.71	-54.39	47630.70	9.89		
delta	E	2036-02-26T02:00:31.864		29.53	-54.52	48300.35	9.94		
lambda	E	2036-02-26T02:03:24.561		29.07	-54.83	50026.71	10.05		
epsilon	E	2036-02-26T02:05:48.689		28.69	-55.08	51481.69	10.16		

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2036-02-26T01:02:36.300
 Event type : PgtRgt
 : Uranus occs: geocentric, topocentric
 : Ring occs: geocentric, topocentric
 Observer code : ESO
 Location : European Southern Obs. (3.6m)
 Latitude (deg) : -29.26097
 E. Longitude (deg) : 289.26831
 Altitude (km) : 2.400
 Gaia source ID : 3379626825111781248
 2Mass ID (if available) : 06463735+2323436
 ICRS Star Coord at Epoch: 06h 46m 37.36127s +23:23:43.65885s
 RUWE (>1.4 is poor) : 1.05
 K magnitude : 12.455
 G magnitude : 14.697
 RP magnitude : 14.003
 BP magnitude : 15.232
 DUPflag : 0
 Distance (au) : 18.243
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : -10.32
 Sun-Target sep (deg) : 124.18
 Sun-Moon sep (deg) : 137.45
 B (ring opening deg) : 65.64
 PA of pole (deg) : 74.69
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 1.904
 C/A sky separation (km) : 25192.7
 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_itrff93_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	2036-02-26T00:01:14.831		35.01	-9.63	51163.11	-10.15		
lambda	I	2036-02-26T00:03:07.721		35.14	-10.02	50026.71	-10.03		
delta	I	2036-02-26T00:06:00.962		35.34	-10.63	48300.35	-9.90		
gamma	I	2036-02-26T00:07:09.180		35.42	-10.87	47626.82	-9.85		
eta	I	2036-02-26T00:07:55.044		35.47	-11.03	47176.12	-9.81		
beta	I	2036-02-26T00:10:31.103		35.64	-11.57	45657.61	-9.67		
alpha	I	2036-02-26T00:12:09.402		35.74	-11.91	44714.98	-9.57		
4	I	2036-02-26T00:15:58.202		35.97	-12.71	42535.62	-9.33		
5	I	2036-02-26T00:16:23.177		35.99	-12.79	42302.90	-9.31		
6	I	2036-02-26T00:17:16.945		36.05	-12.98	41795.14	-9.24		
Uranus	I	2036-02-26T00:56:57.243		37.46	-21.08	25453.05		-10.99	-11.49
Uranus	E	2036-02-26T01:09:10.954		37.55	-23.50	25544.64		-4.01	-4.20
6	E	2036-02-26T01:52:18.674		36.55	-31.70	41853.94	9.22		
5	E	2036-02-26T01:53:02.983		36.52	-31.83	42256.75	9.29		
4	E	2036-02-26T01:53:34.084		36.49	-31.93	42554.74	9.31		
alpha	E	2036-02-26T01:57:19.870		36.31	-32.61	44688.29	9.55		
beta	E	2036-02-26T01:59:03.460		36.22	-32.92	45680.75	9.65		
eta	E	2036-02-26T02:01:37.384		36.08	-33.38	47176.12	9.78		
gamma	E	2036-02-26T02:02:23.781		36.03	-33.52	47630.78	9.82		
delta	E	2036-02-26T02:03:31.793		35.97	-33.72	48300.35	9.87		
lambda	E	2036-02-26T02:06:25.553		35.80	-34.23	50026.71	10.00		
epsilon	E	2036-02-26T02:08:50.982		35.65	-34.66	51487.63	10.12		