

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2034-04-14T12:45:42.300
 Event type : PgtRgt
 : Uranus occs: geocentric, topocentric
 : Ring occs: geocentric, topocentric
 Gaia source ID : 3425390354485868160
 2Mass ID (if available) : 06090811+2341322

Uranus 2034-04-14T12:45:42 K14.81 G16.30 PgtRgt

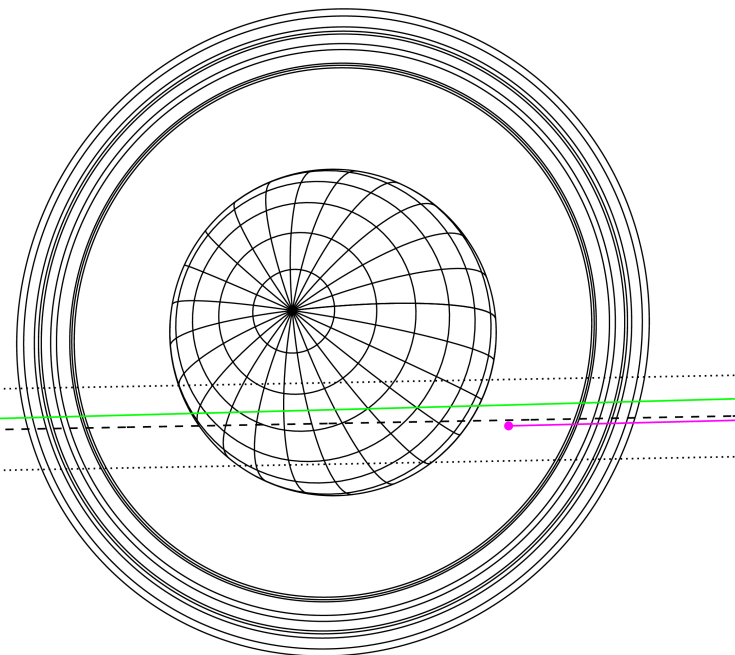
ICRS Star Coord at Epoch: 06h 09m 08.10675s +23:41:32.36877s

RUWE (>1.4 is poor) : 1.04
 K magnitude : 14.811
 G magnitude : 16.298
 RP magnitude : 15.748
 BP magnitude : 16.670
 DUPflag : 0
 Distance (au) : 19.288
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 17.57
 Sun-Target sep (deg) : 67.92
 Sun-Moon sep (deg) : 126.20
 B (ring opening deg) : 73.53
 PA of pole (deg) : 61.58
 # a(km) ring



2034-04-14T12:45:42.3000 α: 06 09 08.10675 s: +23 41 32.36877 C/A 1.0111° PA 1.06 deg v_sky +17.57 km/s D 19.29 AU
 Credit: Styled after SORA/Lucky Star

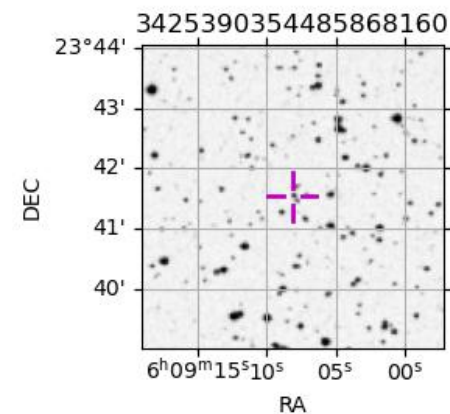
Earth
 PMO
 KAV



- 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

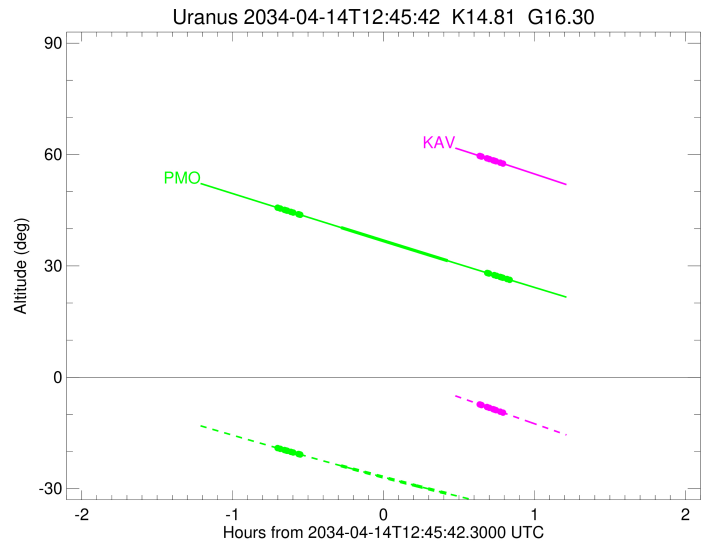
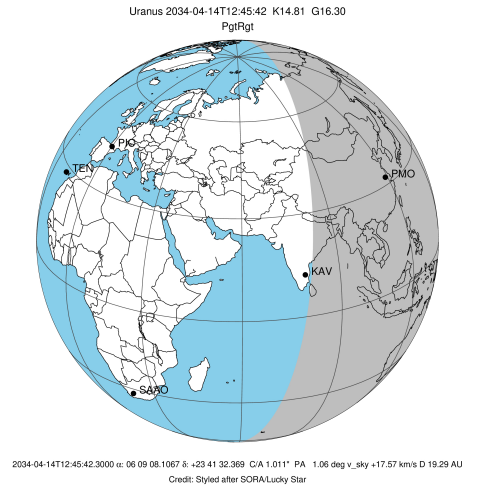
Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

Obs	Location	lat	Elon	Rings I	Planet	Rings E	Observed Events Interval	OEcode
PIC	Pic du Midi	42.9	0.1					PnnRnn
PAL	Palomar Mt (200")	33.4	243.1					PnnRnn
PMO	Purple Mtn Obs. Nanki	32.1	118.8	+++++	+ +	+++++	APR 14 12:04 - APR 14 13:36	PieRie
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			+++++	APR 14 13:23 - APR 14 13:33	PnnRne
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



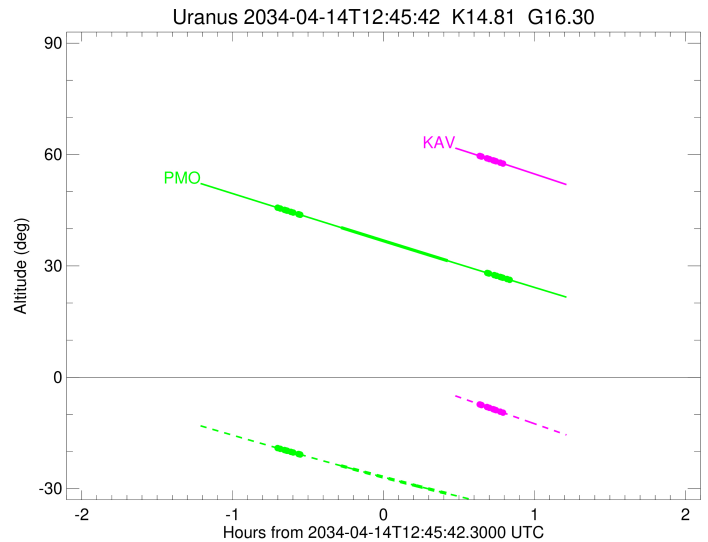
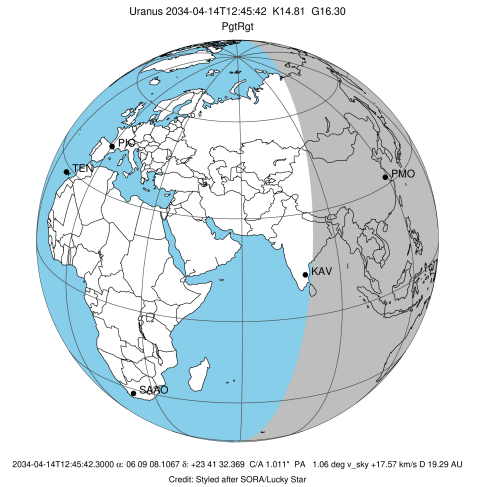
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target                : Uranus
target radius (km)   : 25559.00
C/A epoch            : 2034-04-14T12:50:15.610
Event type           : PgtRgt
: Uranus occs: geocentric, topocentric
: Ring occs: geocentric, topocentric
Observer code        : PMO
Location              : Purple Mtn Obs. Nanking
Latitude (deg)       : 32.06667
E. Longitude (deg)   : 118.82089
Altitude (km)        : 0.364
Gaia source ID       : 3425390354485868160
2Mass ID (if available) : 06090811+2341322
ICRS Star Coord at Epoch: 06h 09m 08.10675s +23:41:32.36877s
RUWE (>1.4 is poor) : 1.04
K magnitude           : 14.811
G magnitude           : 16.298
RP magnitude          : 15.748
BP magnitude          : 16.670
DUPflag              : 0
Distance (au)        : 19.288
f0 (km)              : 0.000
g0 (km)              : 0.000
skyplane vel. (km/s) : 17.57
Sun-Target sep (deg) : 67.92
Sun-Moon sep (deg)   : 126.27
B (ring opening deg) : 73.53
PA of pole (deg)     : 61.58
Pole direction: RA (deg): 257.31100
Dec (deg): -15.17500
C/A sky separation (") : 0.864
C/A sky separation (km) : 12089.8
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_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	2034-04-14T12:03:59.536		45.60	-19.15	50760.91	-17.32		
lambda	I	2034-04-14T12:04:41.918		45.45	-19.29	50026.71	-17.32		
delta	I	2034-04-14T12:06:21.723		45.10	-19.61	48300.35	-17.28		
gamma	I	2034-04-14T12:07:00.637		44.96	-19.73	47628.29	-17.26		
eta	I	2034-04-14T12:07:26.839		44.86	-19.82	47176.12	-17.25		
beta	I	2034-04-14T12:08:54.592		44.55	-20.10	45663.47	-17.21		
alpha	I	2034-04-14T12:09:51.670		44.35	-20.28	44684.88	-17.18		
4	I	2034-04-14T12:11:53.689		43.92	-20.66	42589.65	-17.11		
5	I	2034-04-14T12:12:12.322		43.85	-20.72	42262.98	-17.11		
6	I	2034-04-14T12:12:38.898		43.76	-20.81	41808.25	-17.08		
Uranus	I	2034-04-14T12:28:48.619		40.33	-23.84	25407.33		8.55	8.95
Uranus	E	2034-04-14T13:11:14.358		31.38	-31.36	25020.80		-16.47	-17.20
6	E	2034-04-14T13:26:56.069		28.10	-33.94	41843.78	17.22		
5	E	2034-04-14T13:27:19.854		28.02	-34.00	42253.25	17.25		
4	E	2034-04-14T13:27:35.890		27.97	-34.05	42533.03	17.25		
alpha	E	2034-04-14T13:29:43.695		27.52	-34.39	44749.35	17.33		
beta	E	2034-04-14T13:30:36.892		27.34	-34.53	45669.45	17.36		
eta	E	2034-04-14T13:32:03.553		27.04	-34.75	47176.12	17.41		
gamma	E	2034-04-14T13:32:29.164		26.95	-34.82	47622.08	17.42		
delta	E	2034-04-14T13:33:08.082		26.81	-34.92	48300.35	17.44		
lambda	E	2034-04-14T13:34:46.958		26.47	-35.18	50026.71	17.48		
epsilon	E	2034-04-14T13:36:07.520		26.19	-35.39	51436.41	17.49		

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2034-04-14T12:47:53.080
 Event type : PgtRgt
 : Uranus occs: geocentric, topocentric
 : Ring occs: geocentric, topocentric
 Observer code : KAV
 Location : Kavalur Observatory
 Latitude (deg) : 12.57556
 E. Longitude (deg) : 78.83167
 Altitude (km) : 0.722
 Gaia source ID : 3425390354485868160
 2Mass ID (if available) : 06090811+2341322
 ICRS Star Coord at Epoch: 06h 09m 08.10675s +23:41:32.36877s
 RUWE (>1.4 is poor) : 1.04
 K magnitude : 14.811
 G magnitude : 16.298
 RP magnitude : 15.748
 BP magnitude : 16.670
 DUPflag : 0
 Distance (au) : 19.288
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 17.57
 Sun-Target sep (deg) : 67.92
 Sun-Moon sep (deg) : 126.72
 B (ring opening deg) : 73.53
 PA of pole (deg) : 61.58
 Pole direction: RA (deg): 257.31100
 Dec (deg): -15.17500
 C/A sky separation (") : 1.091
 C/A sky separation (km) : 15261.4
 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	2034-04-14T12:01:46.746		75.80	12.47x	50754.49	-16.81		
lambda	I	2034-04-14T12:02:30.051		75.69	12.30x	50026.71	-16.79		
delta	I	2034-04-14T12:04:13.043		75.44	11.88x	48300.35	-16.73		
gamma	I	2034-04-14T12:04:53.266		75.33	11.72x	47627.96	-16.70		
eta	I	2034-04-14T12:05:20.333		75.26	11.61x	47176.12	-16.68		
beta	I	2034-04-14T12:06:51.060		75.03	11.24x	45664.84	-16.62		
alpha	I	2034-04-14T12:07:50.263		74.87	11.00x	44685.27	-16.57		
4	I	2034-04-14T12:09:57.219		74.53	10.49x	42586.47	-16.45		
5	I	2034-04-14T12:10:16.074		74.48	10.42x	42268.61	-16.45		
6	I	2034-04-14T12:10:44.217		74.40	10.30x	41805.95	-16.40		
Uranus	I	2034-04-14T12:28:02.690		71.30	6.12x	25471.15		6.49	6.79
Uranus	E	2034-04-14T13:07:09.768		63.27	-3.30x	25030.28		-16.31	-17.04
6	E	2034-04-14T13:23:56.115		59.62	-7.32	41840.21	16.47		
5	E	2034-04-14T13:24:21.575		59.52	-7.42	42259.70	16.52		
4	E	2034-04-14T13:24:37.887		59.46	-7.48	42531.14	16.52		
alpha	E	2034-04-14T13:26:51.110		58.97	-8.01	44748.15	16.65		
beta	E	2034-04-14T13:27:46.589		58.77	-8.23	45670.83	16.70		
eta	E	2034-04-14T13:29:16.542		58.44	-8.59	47176.12	16.77		
gamma	E	2034-04-14T13:29:43.108		58.34	-8.70	47621.85	16.79		
delta	E	2034-04-14T13:30:23.492		58.19	-8.86	48300.35	16.82		
lambda	E	2034-04-14T13:32:05.947		57.81	-9.27	50026.71	16.88		
epsilon	E	2034-04-14T13:33:28.122		57.51	-9.59	51416.14	16.90		