

target : Uranus
 target radius (km) : 25559.00
 C/A epoch : 2036-05-09T17:44:01.480
 Event type : PgtRgt
 : Uranus occs: geocentric, topocentric
 : Ring occs: geocentric, topocentric
 Gaia source ID : 3380326522526582528
 2Mass ID (if available) : 06504572+2318090

Uranus 2036-05-09T17:44:01 K10.68 G11.46 PgtRgt

ICRS Star Coord at Epoch: 06h 50m 45.73281s +23:18:08.59664s

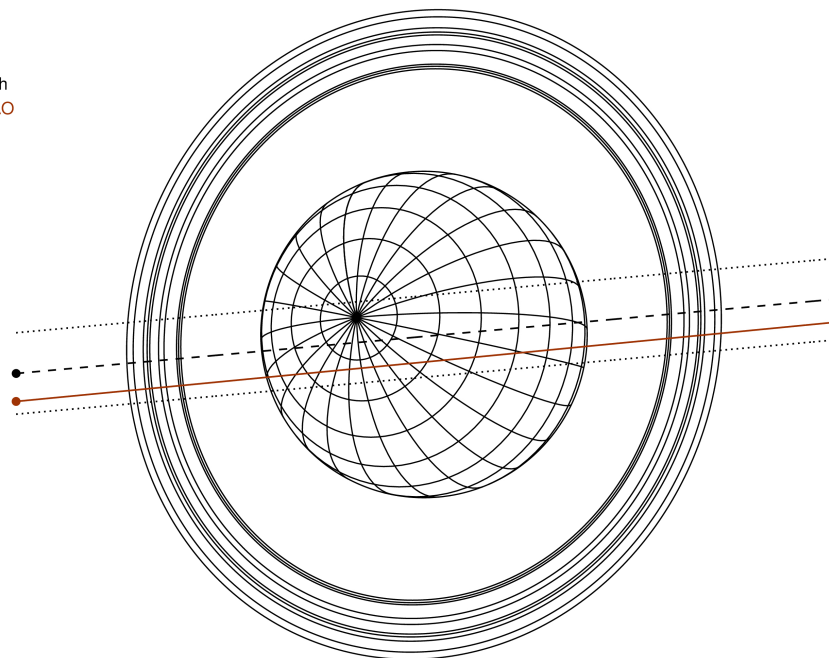
RUWE (>1.4 is poor) : 1.03
 K magnitude : 10.684
 G magnitude : 11.455
 RP magnitude : 11.180
 BP magnitude : 11.608
 DUPflag : 0
 Distance (au) : 19.403
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 24.57
 Sun-Target sep (deg) : 52.47
 Sun-Moon sep (deg) : 120.07
 B (ring opening deg) : 64.74
 PA of pole (deg) : 75.82

#	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



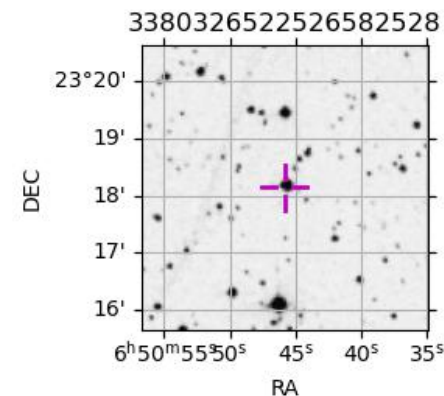
2036-05-09T17:44:01.4800 α: 06 50 45.7328 δ: +23 18 08.597 C/A 0.014" PA 5.37 deg v_sky +24.58 km/s D 19.40 AU
 Credit: Styled after SORA/Lucky Star

Earth
 SAAO



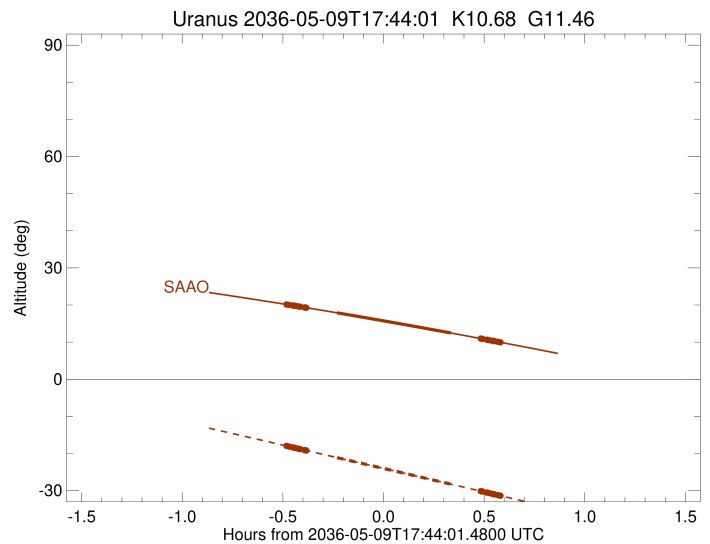
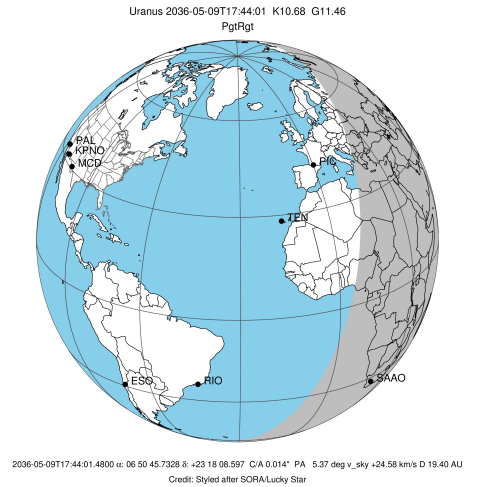
Observable events with sun below -5 deg and altitude above 5 deg unblocked by planet

Obs	Location	lat	Elon	Rings I	Planet	Rings E	Observed Events Interval	OEcode
PIC	Pic du Midi	42.9	0.1					PnnRnn
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	+++++	++	+++++	MAY 09 17:15 - MAY 09 18:19	PieRie
MSO	Mt. Stromlo Observato	-35.3	149.0					PnnRnn



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target                : Uranus
target radius (km)    : 25559.00
C/A epoch              : 2036-05-09T17:47:12.780
Event type             : PgtRgt
: Uranus occs: geocentric, topocentric
: Ring occs: geocentric, topocentric
Observer code         : SAAO
Location               : So. Afr. Astro. Obs. (Sutherland)
Latitude (deg)        : -32.37953
E. Longitude (deg)    : 20.81070
Altitude (km)         : 1.768
Gaia source ID        : 3380326522526582528
2Mass ID (if available) : 06504572+2318090
ICRS Star Coord at Epoch: 06h 50m 45.73281s +23:18:08.59664s
RUWE (>1.4 is poor)  : 1.03
K magnitude           : 10.684
G magnitude           : 11.455
RP magnitude          : 11.180
BP magnitude          : 11.608
DUPflag              : 0
Distance (au)         : 19.403
f0 (km)               : 0.000
g0 (km)               : 0.000
skyplane vel. (km/s)  : 24.57
Sun-Target sep (deg)  : 52.47
Sun-Moon sep (deg)    : 120.61
B (ring opening deg)  : 64.74
PA of pole (deg)      : 75.82
Pole direction: RA (deg): 257.31100
Dec (deg): -15.17500
C/A sky separation (") : 0.306
C/A sky separation (km) : 4303.5
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_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	2036-05-09T17:15:21.947		20.11	-18.01	50774.64	-26.49		
lambda	I	2036-05-09T17:15:50.192		20.04	-18.11	50026.71	-26.48		
delta	I	2036-05-09T17:16:55.398		19.88	-18.34	48300.35	-26.47		
gamma	I	2036-05-09T17:17:21.061		19.82	-18.43	47620.99	-26.47		
eta	I	2036-05-09T17:17:37.869		19.78	-18.49	47176.12	-26.47		
beta	I	2036-05-09T17:18:35.807		19.64	-18.69	45641.32	-26.46		
alpha	I	2036-05-09T17:19:09.504		19.55	-18.80	44746.00	-26.45		
4	I	2036-05-09T17:20:32.695		19.35	-19.09	42555.90	-26.45		
5	I	2036-05-09T17:20:43.745		19.32	-19.13	42276.15	-26.45		
6	I	2036-05-09T17:21:01.519		19.28	-19.19	41795.85	-26.45		
Uranus	I	2036-05-09T17:30:12.669		17.89	-21.12	25194.45		21.79	22.72
Uranus	E	2036-05-09T18:04:07.516		12.46	-28.25	25094.28		-24.86	-25.88
6	E	2036-05-09T18:13:02.860		10.96	-30.14	41879.74	26.54		
5	E	2036-05-09T18:13:13.922		10.93	-30.18	42180.44	26.54		
4	E	2036-05-09T18:13:29.972		10.88	-30.23	42594.91	26.55		
alpha	E	2036-05-09T18:14:49.576		10.66	-30.51	44695.40	26.55		
beta	E	2036-05-09T18:15:26.502		10.55	-30.64	45679.98	26.56		
eta	E	2036-05-09T18:16:22.749		10.39	-30.84	47176.12	26.57		
gamma	E	2036-05-09T18:16:39.879		10.34	-30.90	47631.34	26.58		
delta	E	2036-05-09T18:17:05.050		10.27	-30.99	48300.35	26.58		
lambda	E	2036-05-09T18:18:09.985		10.09	-31.22	50026.71	26.59		
epsilon	E	2036-05-09T18:19:07.065		9.92	-31.42	51544.76	26.60		