

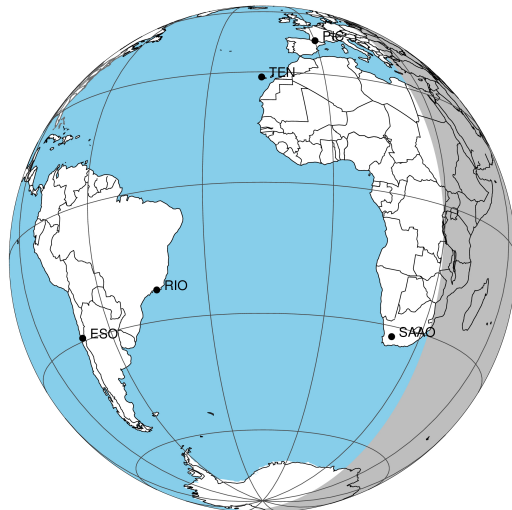
target : Saturn
 target radius (km) : 60268.00
 C/A epoch : 2044-10-04T15:50:19.130
 Event type : PgRgt
 : Saturn occs: geocentric, not topocentric
 : Ring occs: geocentric, topocentric
 Gaia source ID : 6261212227582346624
 2Mass ID (if available) : 15384622-1734321

Saturn 2044-10-04T15:50:19 K9.65 G12.28 PgRgt

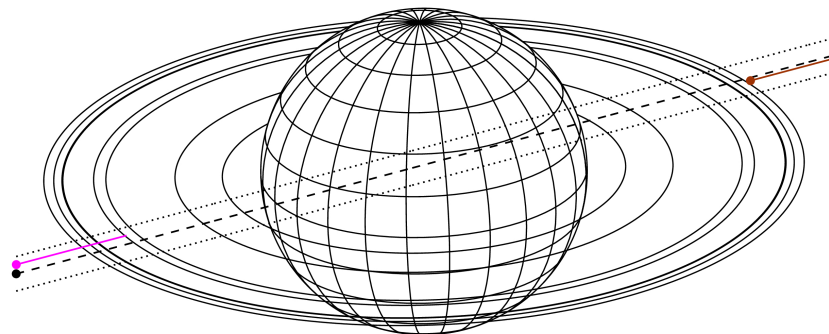
ICRS Star Coord at Epoch: 15h 38m 46.20882s -17:34:32.50682s

RUWE (>1.4 is poor) : 0.99
 K magnitude : 9.655
 G magnitude : 12.278
 RP magnitude : 11.468
 BP magnitude : 12.972
 DUPflag : 0
 Distance (au) : 10.649
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 30.60
 Sun-Target sep (deg) : 45.13
 Sun-Moon sep (deg) : 106.29
 B (ring opening deg) : 23.87
 PA of pole (deg) : 1.73

Saturn 2044-10-04T15:50:19 K9.65 G12.28 PgRgt



Earth
 KAV
 SAAO

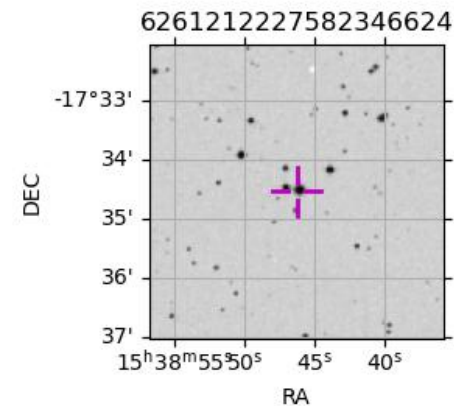


2044-10-04T15:50:19.1300 α: 15 38 46.2088 δ: -17 34 32.507 C/A 0.309° PA 194.96 deg v_sky +30.60 km/s D 10.65 AU
 Credit: Styled after SORA/Lucky Star

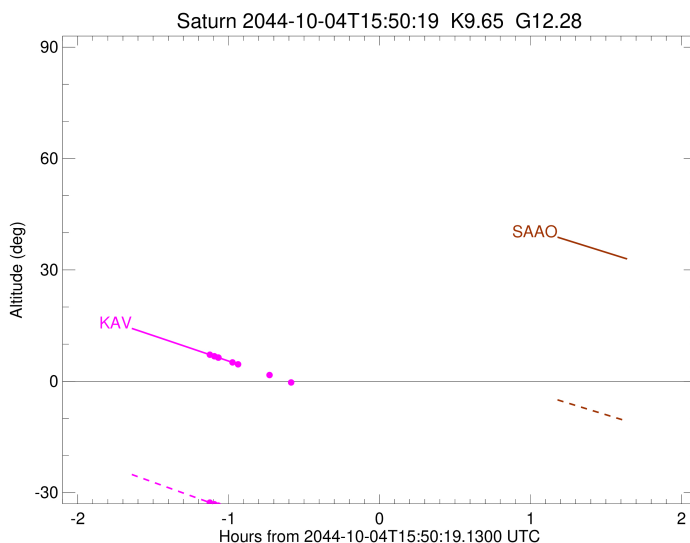
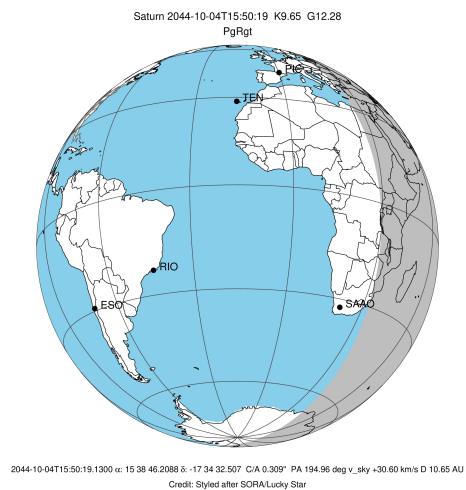
- 1 74490.6 C (IER)
- 2 91984.7 B (IER)
- 3 117571.2 B (OER)
- 4 122050.4 A (IER)
- 5 133423.3 Encke (IEG)
- 6 133744.9 Encke (OEG)
- 7 136774.4 A (OER)
- 8 140461.0 F ring

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					PnnRnn
PAL	Palomar Mt (20	33.4	243.1					PnnRnn
PMO	Purple Mtn Obs	32.1	118.8					PnnRnn
KPNO	Kitt Peak Natl	32.0	248.4					PnnRnn
MCD	McDonald Obs.	30.7	256.0					PnnRnn
TEN	Teide Obs./Ten	28.3	343.5					PnnRnn
IRTF	Mauna Kea/IRTF	19.8	204.5					PnnRnn
KAV	Kavalur Observ	12.6	78.8	+			OCT 04 14:42 - OCT 04 14:51	PnnRin
RIO	Rio de Janeiro	-22.9	316.8					PnnRnn
ESO	European South	-29.3	289.3					PnnRnn
AAT	Siding Spring	-31.3	149.1					PnnRnn
SAAO	So. Afr. Astro	-32.4	20.8					PnnRnn
MSO	Mt. Stromlo Ob	-35.3	149.0					PnnRnn



target : Saturn
 target radius (km) : 60268.00
 C/A epoch : 2044-10-04T15:53:26.360
 Event type : PgRgt
 : Saturn occs: geocentric, not 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 : 6261212227582346624
 2Mass ID (if available) : 15384622-1734321
 ICRS Star Coord at Epoch: 15h 38m 46.20882s -17:34:32.50682s
 RUWE (>1.4 is poor) : 0.99
 K magnitude : 9.655
 G magnitude : 12.278
 RP magnitude : 11.468
 BP magnitude : 12.972
 DUPflag : 0
 Distance (au) : 10.649
 f0 (km) : 0.000
 g0 (km) : 0.000
 skyplane vel. (km/s) : 30.60
 Sun-Target sep (deg) : 45.13
 Sun-Moon sep (deg) : 106.40
 B (ring opening deg) : 23.87
 PA of pole (deg) : 1.73
 Pole direction: RA (deg): 40.60000
 Dec (deg): 83.50000
 C/A sky separation (") : 0.653
 C/A sky separation (km) : 5042.0
 NAIF SPICE kernels : RAJobs_U111+rgf15.spk
 URKALLvl.spk
 Saturn_ring_plane.tf
 sat378.bsp
 sat286.bsp
 vgr1.sat286.bsp
 vgr2.sat286.bsp
 HST1081HSPephemUTC.bsp
 pfb10000r.bsp
 cassini.bsp
 earthstns_itrf93_040916.bsp
 earth_200101_990628_predict.bpc
 earth_720101_070426.bpc
 cpck28Mar2008.tpc
 pck.sat440.tpc
 IAU_SATURN_for_RINGFIT.tpc
 naif0012.tls
 earth_flat_IAU.spk



Ring	I/E	UTC	b?	alt	alt-sun	radius	r-dot	lat-geo	lat-geodetic
F ring	I	2044-10-04T14:42:51.057		7.16	-32.68	140461.00	-34.06		
A (OER)	I	2044-10-04T14:44:39.286		6.75	-33.12	136774.40	-34.06		
Encke (OEG)	I	2044-10-04T14:46:08.232		6.40	-33.48	133744.89	-34.06		
Encke (IEG)	I	2044-10-04T14:46:17.673		6.37	-33.52	133423.31	-34.06		
A (IER)	I	2044-10-04T14:51:51.663		5.09	-34.88	122050.38	-34.04		
B (OER)	I	2044-10-04T14:54:03.249		4.58x	-35.41	117571.16	-34.04		
B (IER)	I	2044-10-04T15:06:35.726		1.68x	-38.47	91984.69	-33.96		
C (IER)	I	2044-10-04T15:15:11.726		-0.32x	-40.56	74490.58	-33.83		
Saturn	I	2044-10-04T15:20:42.557		-1.60x	-41.91	60248.85		-7.48	-9.16
Saturn	E	2044-10-04T16:26:03.366		-16.95x	-57.71	60180.17		16.20	19.62
C (IER)	E	2044-10-04T16:26:43.036		-17.11x	-57.87	74490.58	33.96		
B (IER)	E	2044-10-04T16:35:16.783		-19.13x	-59.92	91984.69	34.13		
B (OER)	E	2044-10-04T16:47:44.964		-22.09x	-62.88	117571.16	34.26		
A (IER)	E	2044-10-04T16:49:55.683		-22.60x	-63.40	122050.38	34.27		
Encke (IEG)	E	2044-10-04T16:55:27.322		-23.91x	-64.70	133423.31	34.31		
Encke (OEG)	E	2044-10-04T16:55:36.695		-23.95x	-64.74	133744.89	34.31		
A (OER)	E	2044-10-04T16:57:04.977		-24.30x	-65.09	136774.40	34.32		
F ring	E	2044-10-04T16:58:52.378		-24.73x	-65.51	140461.00	34.33		