

Occultations table

Observation point: VladimirNebotov
EMail: nebotov@ukr.net
Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')
Maximal Distance = 250.0
Maximal $M_v = 14.00$
Minimal Duration = 0.5s
Maximal Sun Elevation = 0.0
Minimal drop: 0.5
Minimal probability: 0.0
Minimal probability in nearest point: 0.5
Minimal star elevation: 0.0
Program: LinOccult 2.3.1
Author: Plekhanov Andrey andyplekhanov@gmail.com
Events number: 614

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 1		LinOccult 2.3.1			
		Asteroid			Nearest point			Star			Sun			Moon						
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/01 01:24:13	42790 1998 XS93	7.6	16.28	5.85	27	0.7	36°05'07" 50°14'56"	327	3.6 3.8	UCAC4 549-7442	10.43	3 ^h 43 ^m 09.547 ^s 19°40'00.758"	45.2	243	160.3	-29.0	75.1	45.8	45.9	80
2018/11/01 02:33:38	4100 Sumiko	15.1	16.43	3.89	3	5.6	36°19'53" 50°02'35"	99	5.1 5.1	UCAC4 553-27358	12.57	6 ^h 29 ^m 07.917 ^s 20°26'36.302"	57.4	212	121.5	-17.9	36.9	53.6	45.6	118
2018/11/01 03:18:45	34417 2000 RE105	5.5	18.51	6.08	43	0.5	36°37'04" 50°22'10"	33	1.7 1.8	UCAC4 623-15515	12.44	4 ^h 11 ^m 34.869 ^s 34°24'21.636"	42.1	276	148.5	-10.7	67.3	56.7	45.0	122
2018/11/01 14:07:36	7119 Hiera	38.0	17.82	5.67	224	1.3	38°13'11" 48°28'36"	142	3.2 3.7	UCAC4 328-131360	12.16	18 ^h 14 ^m 10.400 ^s -24°35'10.870"	14.2	194	54.4	-0.2	132.7	-17.2	40.0	413
2018/11/01 14:11:07	506 Marion	105.9	13.13	1.12	20	15.8	36°33'52" 50°01'46"	96	39.1 39.8	UCAC4 681-29812	12.49	4 ^h 38 ^m 08.043 ^s 46°04'46.536"	12.2	27	137.9	-0.7	67.2	-17.5	40.0	102
2018/11/01 14:37:44	8055 Arnim	9.1	16.95	3.34	246	1.3	34°48'08" 48°03'42"	206	0.1 3.8	UCAC4 447-135730	13.66	22 ^h 42 ^m 41.448 ^s 0° - 40'00.161"	27.0	129	122.8	-4.8	157.3	-19.7	39.7	96
2018/11/01 15:34:18	76739 2000 JV61	7.2	18.00	5.19	121	0.7	34°58'07" 49°22'04"	231	1.4 2.4	UCAC4 327-200255	12.82	23 ^h 02 ^m 21.293 ^s -24°43'12.602"	9.2	148	116.7	-13.7	158.3	-23.0	39.4	119
2018/11/01 15:56:29	13401 1999 RA133	8.3	17.20	3.40	88	1.8	37°30'38" 50°03'56"	89	2.3 3.3	UCAC4 511-143732	13.85	23 ^h 31 ^m 56.654 ^s 12°00'55.764"	41.7	129	137.6	-17.3	140.4	-23.7	39.1	100
2018/11/01 18:29:15	31891 2000 FR42	5.0	18.21	5.33	60	0.7	35°54'08" 50°31'44"	333	1.7 2.0	UCAC4 593-14721	12.89	4 ^h 52 ^m 17.578 ^s 28°30'52.723"	28.6	79	143.5	-40.9	67.8	-19.8	38.0	101
2018/11/01 20:01:52	33132 1998 CD4	6.3	18.08	4.12	34	0.9	36°41'01" 49°52'36"	124	2.3 2.4	UCAC4 499-41841	13.99	7 ^h 19 ^m 42.041 ^s 9°37'08.631"	6.0	82	108.5	-51.5	36.7	-10.9	37.2	105
2018/11/01 21:16:57	2745 San Martin	7.2	16.52	3.37	63	0.8	35°50'23" 49°33'38"	211	2.7 3.6	UCAC4 417-25711	13.20	7 ^h 06 ^m 13.060 ^s -6°43'18.826"	7.5	110	107.6	-54.7	46.4	-1.3	36.6	79
2018/11/01 21:43:33	9165 Raup	6.3	15.83	2.99	34	0.5	36°29'26" 50°19'30"	25	3.7 4.4	UCAC4 685-19980	12.92	3 ^h 10 ^m 48.333 ^s 46°55'12.123"	85.9	135	146.3	-54.3	85.8	2.4	36.5	57
2018/11/01 22:29:00	3745 Petaev	5.0	19.21	6.05	214	0.6	38°16'20" 48°37'45"	138	0.4 1.6	UCAC4 601-44447	13.16	8 ^h 16 ^m 13.128 ^s 30°09'13.746"	35.5	84	99.6	-51.8	27.1	9.1	36.1	128
2018/11/01 22:56:20	14105 Nakadai	8.3	17.53	4.89	174	0.9	37°53'28" 48°53'14"	138	0.9 2.8	UCAC4 526-9685	12.66	4 ^h 49 ^m 31.458 ^s 15°10'19.070"	54.3	162	145.7	-49.4	73.3	13.2	35.9	117
2018/11/01 23:39:19	6164 Ger-hardmuller	6.6	17.67	7.22	91	3.2	37°21'51" 50°29'30"	57	1.8 2.8	UCAC4 600-34719	10.45	6 ^h 34 ^m 01.855 ^s 29°51'18.147"	62.0	126	121.6	-44.5	48.6	19.8	35.7	94
2018/11/02 00:03:57	29821 1999 DP1	7.9	17.87	5.70	180	1.2	38°08'51" 51°09'24"	47	0.9 2.6	UCAC4 594-22759	12.18	5 ^h 52 ^m 07.833 ^s 28°40'40.071"	67.7	158	130.8	-41.2	58.0	23.5	35.4	122
2018/11/02 00:12:50	133868 2004 FD30	5.0	19.20	5.44	66	0.8	35°24'04" 49°53'21"	254	1.1 1.2	UCAC4 557-31125	13.76	6 ^h 38 ^m 13.971 ^s 21°14'27.387"	57.8	146	120.3	-40.0	47.6	24.9	35.4	170
2018/11/02 00:50:02	18998 2000 RH55	6.3	16.59	3.30	185	0.6	36°30'41" 51°42'22"	5	0.2 3.3	UCAC4 595-8166	13.34	3 ^h 08 ^m 49.775 ^s 28°56'38.086"	51.6	253	162.7	-34.5	93.6	30.5	35.0	76
2018/11/02 02:20:16	1639 Bower	36.4	16.00	2.38	95	1.2	36°12'25" 49°11'57"	183	8.3 10.6	UCAC4 504-51971	13.75	10 ^h 32 ^m 13.404 ^s 10°43'28.426"	36.0	120	63.6	-20.3	8.0	43.0	34.4	137
2018/11/02 15:23:20	1725 CrAO	19.1	16.89	3.26	248	0.5	34°16'40" 51°52'48"	325	1.6 4.4	UCAC4 337-111486	13.69	17 ^h 48 ^m 09.017 ^s -22°39'36.029"	8.5	219	47.4	-12.2	111.8	-22.8	28.6	174

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Asteroid			Nearest point			Star				Sun		Moon								
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/02 16:01:38	19861 Auster	6.0	17.80	5.58	181	1.3	37°58'18'' 51°16'16''	41	0.5	UCAC4	12.23	22 ^h 52 ^m 07.866 ^s 4°09'52.267''	39.9	148	125.4	-18.3	163.2	-25.6	28.2	99
2018/11/02 17:28:29	2642 Vesale	10.0	15.28	3.86	230	1.1	38°04'56'' 51°46'29''	34	0.4	UCAC4	11.45	4 ^h 22 ^m 52.219 ^s 7°09'49.139''	8.5	89	151.4	-32.2	92.2	-28.3	27.7	109
2018/11/02 17:35:35	137 Meliboea	145.4	13.07	0.70	273	5.5	35°40'09'' 52°28'22''	351	5.6	UCAC4	13.17	19 ^h 54 ^m 33.570 ^s -8°54'26.061''	20.1	226	79.2	-33.3	139.7	-28.3	27.7	129
2018/11/02 17:38:37	28922 2000 QK132	10.0	17.12	3.81	198	1.1	37°54'01'' 48°36'47''	144	0.9	UCAC4	13.34	4 ^h 05 ^m 09.296 ^s 49°33'48.199''	41.8	59	140.2	-33.8	86.2	-28.2	27.7	127
2018/11/02 17:52:51	1308 Halleria	43.2	15.25	1.85	51	4.0	36°35'33'' 49°37'55''	155	13.7	UCAC4	13.62	3 ^h 51 ^m 16.716 ^s 27°28'32.403''	32.4	85	157.3	-35.9	94.8	-28.1	27.6	113
2018/11/02 18:09:23	4061 Martelli	19.0	17.66	4.98	40	2.0	36°37'23'' 49°45'35''	143	5.1	UCAC4	12.69	5 ^h 04 ^m 56.935 ^s 24°22'27.501''	29.1	86	142.5	-45.2	79.9	-25.4	27.1	143
2018/11/02 20:59:49	2347 Vinata	18.2	15.20	3.59	124	4.6	37°07'36'' 49°04'18''	151	3.5	UCAC4	11.65	5 ^h 10 ^m 46.879 ^s 37°16'49.084''	56.1	95	138.1	-54.8	78.2	-14.0	26.3	123
2018/11/02 21:26:49	5772 John-lambert	8.3	17.67	3.74	107	1.7	37°12'01'' 49°17'17''	142	1.9	UCAC4	13.97	5 ^h 51 ^m 18.770 ^s 29°52'35.181''	49.2	101	131.7	-54.9	70.5	-10.6	26.1	112
2018/11/02 21:30:24	32386 2000 QB192	5.5	19.37	7.54	229	0.6	37°02'30'' 52°02'40''	14	0.5	UCAC4	11.83	5 ^h 39 ^m 22.051 ^s 42°39'04.989''	59.3	87	131.1	-54.9	72.9	-10.1	26.1	162
2018/11/02 21:42:28	16847 San-poloamos-ciano	8.3	16.88	3.17	36	0.9	36°16'01'' 50°22'03''	358	3.3	UCAC4	13.77	7 ^h 18 ^m 58.078 ^s 20°04'06.367''	30.8	95	111.6	-54.6	50.9	-8.5	25.9	93
2018/11/02 22:05:14	66218 1999 CU43	6.0	17.98	4.68	123	0.7	36°38'14'' 51°08'02''	12	1.2	UCAC4	13.32	4 ^h 20 ^m 28.540 ^s 35°19'14.688''	71.7	137	148.0	-53.7	89.2	-5.4	25.8	142
2018/11/02 22:06:26	83023 2001 QG178	5.0	18.39	5.30	11	0.6	36°21'02'' 50°08'22''	24	1.4	UCAC4	13.10	4 ^h 36 ^m 20.119 ^s 53°12'57.593''	77.7	68	134.4	-53.6	83.0	-5.3	25.8	144
2018/11/03 01:12:01	11046 1990 OE4	6.0	16.45	4.93	221	0.7	36°40'47'' 48°04'58''	173	0.1	UCAC4	11.53	1 ^h 54 ^m 29.315 ^s 10°40'56.022''	22.3	260	170.0	-31.4	130.8	22.5	24.4	81
2018/11/03 02:53:28	29426 1997 CH28	9.5	16.84	4.34	111	0.8	35°36'04'' 49°09'32''	206	2.1	UCAC4	12.52	2 ^h 12 ^m 01.852 ^s 28°31'14.417''	22.1	289	165.6	-15.2	119.5	36.8	23.8	119
2018/11/03 14:53:47	1086 Nata	66.3	14.28	1.04	237	6.5	38°51'44'' 48°44'20''	128	3.4	UCAC4	13.76	4 ^h 08 ^m 33.094 ^s 32°44'03.474''	8.4	48	152.1	-7.8	101.7	-18.4	19.2	121
2018/11/03 17:39:59	8733 Ohsugi	6.6	18.65	6.16	253	0.5	38°27'04'' 48°16'12''	142	0.3	UCAC4	12.49	21 ^h 26 ^m 10.201 ^s -14°48'28.546''	22.3	204	98.2	-34.2	148.2	-32.4	18.2	131
2018/11/03 17:40:16	18364 1990 WF4	6.6	18.32	6.57	108	1.7	37°02'03'' 49°12'11''	150	1.4	UCAC4	11.75	5 ^h 46 ^m 38.272 ^s 17°02'02.148''	5.3	70	133.9	-34.2	84.3	-32.4	18.3	139
2018/11/03 19:10:59	2546 Libitina	18.2	17.34	5.86	208	1.2	37°42'13'' 48°25'31''	151	1.8	UCAC4	11.49	20 ^h 54 ^m 36.882 ^s -14°05'52.824''	10.7	232	91.0	-46.9	139.9	-32.1	17.6	144
2018/11/03 19:39:54	31870 2000 EG101	5.0	17.55	5.42	58	0.5	36°23'12'' 49°31'47''	173	1.6	UCAC4	12.14	4 ^h 05 ^m 03.094 ^s 24°36'46.659''	46.0	107	156.7	-50.0	107.5	-30.7	17.5	107
2018/11/03 20:22:51	31498 1999 CX61	7.2	18.22	4.49	55	1.6	36°49'48'' 49°42'02''	135	2.2	UCAC4	13.75	6 ^h 17 ^m 11.334 ^s 27°56'03.004''	34.1	86	127.2	-53.6	78.2	-27.6	17.2	120

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Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/03 20:32:03	11321 Tosi-matamoto	9.1	17.48	4.41	169	1.4	35°44'13" 51°31'17"	347	1.1	UCAC4 488-215	13.09	0 ^h 08 ^m 28.599 ^s 7°26'24.403"	42.7	215	143.4	-54.1	164.1	-26.8	17.1	122
2018/11/03 20:57:55	6593 1986 UV	6.6	16.92	3.38	15	0.6	36°15'17" 50°10'51"	351	2.8	UCAC4 566-5766	13.59	2 ^h 52 ^m 34.595 ^s 23°07'19.767"	62.4	161	170.9	-55.1	124.3	-24.3	17.0	91
2018/11/03 21:20:00	5834 1992 SZ14	13.2	17.70	4.22	219	1.2	36°15'51" 52°00'49"	360	1.2	UCAC4 505-46134	13.51	8 ^h 02 ^m 29.784 ^s 10°59'26.393"	14.0	90	100.6	-55.3	54.0	-21.9	16.8	152
2018/11/03 21:44:06	82967 2001 QV132	5.0	19.30	5.86	28	0.8	35°56'30" 50°10'15"	299	1.3	UCAC4 501-16207	13.44	5 ^h 49 ^m 36.832 ^s 10°01'05.659"	37.2	124	132.3	-54.9	86.8	-19.0	16.7	147
2018/11/03 21:59:50	2004 Lexell	9.5	14.77	1.38	12	1.3	36°14'41" 50°09'04"	346	6.2	UCAC4 561-6794	13.75	3 ^h 24 ^m 22.589 ^s 22°06'05.703"	62.3	177	166.4	-54.3	118.5	-17.0	16.6	61
2018/11/03 22:43:00	2004 Lexell	9.5	14.77	2.83	48	1.3	36°15'21" 50°28'27"	357	4.6	UCAC4 561-6791	12.02	3 ^h 24 ^m 20.612 ^s 22°06'02.166"	61.4	198	166.4	-51.2	119.0	-11.2	16.3	61
2018/11/03 23:04:16	58877 1998 HM124	7.9	18.97	5.03	53	0.7	35°41'21" 49°45'51"	234	1.8	UCAC4 445-29792	13.95	7 ^h 07 ^m 26.503 ^s -1°04'51.698"	28.0	132	110.8	-49.1	69.5	-8.2	16.2	165
2018/11/04 00:23:39	26216 1997 VE3	6.0	19.10	7.04	125	1.0	37°40'33" 50°44'22"	52	1.1	TYC 775-22-1	12.06	7 ^h 19 ^m 56.346 ^s 14°37'21.084"	49.5	142	111.6	-38.9	66.2	3.6	15.7	144
2018/11/04 01:06:10	87919 2000 SZ316	5.2	18.76	6.21	87	0.6	36°26'46" 50°49'09"	8	1.2	UCAC4 638-17973	12.56	4 ^h 31 ^m 18.664 ^s 37°33'42.866"	66.4	249	146.0	-32.5	101.6	10.1	15.5	148
2018/11/04 01:13:00	16650 Sakushin-gakuin	6.0	17.81	5.32	54	1.0	35°44'11" 50°23'05"	314	2.1	UCAC4 614-39995	12.50	7 ^h 23 ^m 54.422 ^s 32°38'01.518"	70.3	146	113.0	-31.5	67.0	11.1	15.5	98
2018/11/04 03:40:46	6806 Kaufmann	5.2	16.76	2.95	146	0.6	37°26'15" 51°07'57"	34	0.4	UCAC4 582-7829	13.88	3 ^h 19 ^m 09.420 ^s 26°15'05.892"	22.9	284	165.0	-7.9	121.3	32.2	14.6	72
2018/11/04 03:42:20	36260 1999 XQ111	6.3	19.11	5.46	239	0.8	39°37'46" 50°05'19"	89	0.4	UCAC4 499-43124	13.66	7 ^h 25 ^m 52.215 ^s 9°41'49.737"	45.3	214	109.3	-7.7	66.7	32.4	14.6	144
2018/11/04 14:10:25	243 Ida	28.0	15.87	2.56	165	0.7	37°03'59" 48°39'16"	160	4.0	UCAC4 330-113530	13.42	17 ^h 43 ^m 51.691 ^s -24°02'03.021"	12.3	205	44.5	-1.4	83.7	-9.4	11.4	194
2018/11/04 15:46:52	966 Muschi	23.4	15.14	1.91	227	0.6	36°51'08" 48°02'35"	170	2.2	UCAC4 290-194981	13.43	18 ^h 37 ^m 09.614 ^s -32°05'04.778"	1.5	211	56.5	-16.4	94.9	-23.1	10.9	169
2018/11/04 16:39:24	1034 Mozartia	8.1	15.04	2.88	116	1.0	35°07'02" 50°46'25"	314	1.1	UCAC4 592-12218	12.24	4 ^h 30 ^m 05.420 ^s 28°14'40.430"	16.8	66	151.1	-24.9	113.1	-29.4	10.7	69
2018/11/04 16:50:51	49626 1999 GL16	5.8	19.98	6.12	158	0.5	37°09'56" 48°45'10"	156	0.9	UCAC4 377-169822	13.86	21 ^h 29 ^m 07.171 ^s -14°37'43.613"	24.8	191	98.0	-26.7	135.4	-30.6	10.6	183
2018/11/04 18:16:55	18643 van Rysselberghe	7.2	16.99	5.27	44	0.7	36°26'11" 49°39'53"	166	2.6	TYC 1808-1930-1	11.73	3 ^h 47 ^m 23.149 ^s 27°34'12.386"	38.3	91	159.9	-39.9	123.2	-37.0	10.2	102
2018/11/04 18:31:13	114334 2002 XW65	5.5	18.18	4.60	227	0.5	39°27'48" 49°59'55"	91	0.2	UCAC4 371-186129	13.59	23 ^h 12 ^m 22.280 ^s -15°59'37.301"	23.5	190	120.2	-42.0	157.1	-37.5	10.2	102
2018/11/04 19:23:55	6198 Shi-rakawa	6.0	16.41	5.90	63	1.4	36°27'03" 49°29'16"	169	2.3	UCAC4 587-13977	10.51	4 ^h 55 ^m 59.574 ^s 27°18'58.247"	37.9	91	146.0	-48.6	109.3	-38.1	9.9	68
2018/11/04 22:16:12	12199 Sohlman	6.3	16.64	3.16	70	0.9	35°39'12" 50°31'31"	320	2.2	UCAC4 548-10407	13.55	4 ^h 40 ^m 37.830 ^s 19°26'13.247"	57.2	152	150.8	-53.6	116.3	-25.6	9.1	74

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Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}	
2018/11/04 22:32:46	26807 RK1	5.2	19.02	6.96	75	0.6	36°26'00'' 49°22'34''	172	1.4	UCAC4 560-44972	12.06	8 ^h 06 ^m 19.730 ^s 21°56'47.500''	33.9	96	103.1	-52.4	68.6	-23.6	9.0	124	
2018/11/04 23:09:05	26990 Culbertson	6.9	18.93	6.04	1	1.2	36°17'26'' 50°02'06''	168	1.9	UCAC4 587-39222	12.90	7 ^h 31 ^m 31.596 ^s 27°18'40.124''	49.0	106	111.8	-48.9	77.3	-18.7	8.9	149	
2018/11/05 00:39:12	89773 A384	5.0	20.40	7.20	181	3.1	33°52'40'' 50°34'41''	289	0.7	UCAC4 510-35628	13.21	7 ^h 03 ^m 49.679 ^s 11°49'04.038''	49.9	156	115.9	-36.9	84.2	-5.6	8.3	194	
2018/11/05 00:54:08	1705 Tapio	10.7	16.38	4.68	20	2.2	36°04'41'' 50°10'05''	312	5.6	UCAC4 513-16076	11.71	5 ^h 52 ^m 32.563 ^s 12°34'46.985''	52.4	189	133.2	-34.6	101.6	-3.3	8.4	74	
2018/11/05 02:23:06	419 Aurelia	129.0	13.22	0.68	302	11.1	36°34'34'' 52°45'19''	4	1.9	UCAC4 555-10887	13.36	4 ^h 44 ^m 29.589 ^s 20°56'52.405''	44.3	247	149.9	-20.5	117.5	10.2	8.0	115	
2018/11/05 03:09:26	6606 Makino	26.0	18.18	4.43	248	4.4	36°44'27'' 47°50'09''	172	1.4	UCAC4 543-22068	13.77	5 ^h 58 ^m 17.390 ^s 18°29'01.845''	46.2	238	132.6	-13.1	101.1	17.0	7.8	136	
2018/11/05 03:41:42	13839 XF29	7.2	16.72	3.80	216	0.8	36°54'08'' 51°56'44''	12	0.1	UCAC4 518-7494	12.96	4 ^h 09 ^m 59.198 ^s 13°25'05.836''	20.8	266	158.1	-8.0	127.9	21.5	7.7	84	
2018/11/05 03:51:39	2314 Field	6.0	17.26	3.55	100	1.3	37°32'33'' 50°27'06''	63	1.4	UCAC4 592-19661	13.76	5 ^h 36 ^m 25.754 ^s 28°20'10.623''	43.9	263	137.4	-6.5	105.4	22.9	7.6	82	
2018/11/05 03:59:57	81936 OU29	5.5	19.45	6.53	89	0.7	37°12'58'' 50°35'13''	48	1.2	UCAC4 559-44414	12.92	8 ^h 03 ^m 39.177 ^s 21°43'47.589''	57.9	216	103.9	-5.2	72.2	23.9	7.6	154	
2018/11/05 04:13:25	20684 VW44	5.8	17.91	6.39	68	0.7	37°02'44'' 50°24'46''	53	1.7	UCAC4 626-18834	11.52	4 ^h 40 ^m 49.595 ^s 35°05'33.547''	36.0	284	146.6	-3.1	115.4	25.7	7.5	108	
2018/11/05 04:14:28	2283 Bunke	10.5	15.59	4.89	29	1.0	36°38'59'' 50°09'21''	65	5.0	TYC 663-544-1	10.71	3 ^h 41 ^m 04.731 ^s 13°06'46.125''	10.7	278	165.0	-3.0	135.1	25.8	7.5	78	
2018/11/05 14:44:36	1689 Floris-Jan	14.3	15.93	2.85	132	0.8	37°17'36'' 49°03'22''	147	2.5	UCAC4 344-196890	13.16	21 ^h 05 ^m 58.761 ^s -21°20'54.987''	17.6	166	89.8	-6.8	115.9	-11.1	5.2	104	
2018/11/05 15:37:36	3405 Daiwen-sai	22.3	16.99	4.12	111	0.8	36°34'48'' 49°04'09''	169	4.0	UCAC4 403-120383	12.89	19 ^h 31 ^m 55.105 ^s -9°29'56.597''	27.4	205	70.7	-15.2	94.5	-19.2	5.0	183	
2018/11/05 16:09:30	6806 Kaufmann	5.2	16.72	3.72	233	0.6	34°07'34'' 51°38'07''	319	0.0	UCAC4 582-7736	13.04	3 ^h 17 ^m 36.688 ^s 26°12'23.526''	22.3	75	166.6	-20.3	141.7	-23.8	4.9	72	
2018/11/05 17:51:11	8022 Scottcross-field	5.5	17.26	3.55	124	0.9	35°19'38'' 50°58'50''	327	0.8	UCAC4 592-15073	13.76	5 ^h 02 ^m 37.819 ^s 28°13'33.723''	23.3	73	145.3	-36.4	120.5	-36.4	4.6	79	
2018/11/05 19:44:10	45664 EC88	7.6	18.25	5.32	68	1.5	37°13'32'' 50°07'58''	82	2.0	UCAC4 563-28302	12.94	6 ^h 24 ^m 34.361 ^s 22°28'21.212''	24.1	83	127.4	-51.0	104.2	-43.3	4.2	133	
2018/11/05 19:51:41	37586 BP2	6.6	17.13	3.88	103	0.6	35°34'33'' 50°51'21''	331	1.5	UCAC4 715-23263	13.28	2 ^h 49 ^m 40.080 ^s 52°57'57.404''	75.3	70	142.7	-51.7	126.9	-43.3	4.2	90	
2018/11/05 19:52:54	42867 RO113	6.0	16.82	4.74	118	0.7	34°47'28'' 50°30'49''	296	1.1	UCAC4 485-1289	12.10	0 ^h 55 ^m 03.662 ^s 6°55'00.999''	46.8	188	152.2	-51.9	172.5	-43.3	4.2	86	
2018/11/05 19:55:22	1155 Aenna	11.6	16.64	3.18	127	1.2	35°16'30'' 50°59'20''	325	2.2	UCAC4 368-189517	13.52	22 ^h 21 ^m 14.681 ^s -16°35'54.455''	12.7	224	107.9	-52.1	131.4	-43.4	4.2	111	
2018/11/05 21:09:17	10329 GJ1	6.9	16.63	3.59	139	0.6	36°29'59'' 51°17'09''	6	1.0	UCAC4 564-6093	13.08	3 ^h 05 ^m 45.109 ^s 22°41'28.163''	62.2	165	171.2	-55.9	148.7	-41.3	4.0	92	

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.		Table 1		Page 5		LinOccult 2.3.1				
		Asteroid			Nearest point			Star			Sun			Moon						
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/05 21:36:21	5705 Eric-sterken	6.3	16.25	2.47	183	1.2	36°13'06'' 51°41'13''	358	0.1	UCAC4 600-15933	13.90	4 ^h 59 ^m 02.537 ^s 29°57'38.751''	60.4	121	145.7	-55.7	122.9	-39.4	3.9	68
2018/11/05 22:41:12	17487 1991 SY	7.2	17.49	4.72	56	0.5	36°16'05'' 49°32'32''	181	2.2	UCAC4 534-3769	12.79	2 ^h 09 ^m 57.749 ^s 16°46'27.578''	49.5	226	172.0	-52.0	163.3	-32.9	3.7	117
2018/11/05 22:59:22	2178 Kaza-khstania	6.3	15.36	2.45	5	1.0	36°16'35'' 50°00'21''	189	4.3	UCAC4 522-2912	13.03	1 ^h 49 ^m 51.318 ^s 14°13'45.785''	42.5	235	167.1	-50.2	168.3	-30.8	3.6	59
2018/11/05 23:07:08	27867 1995 KF4	7.6	15.81	7.58	126	0.7	35°23'11'' 51°01'19''	329	0.3	TYC 1223-1164-1	8.23	2 ^h 48 ^m 36.453 ^s 15°24'41.654''	49.6	221	178.6	-49.4	157.1	-29.8	3.6	50
2018/11/05 23:23:33	2144 Marietta	18.0	16.92	5.91	87	0.7	35°53'17'' 50°47'28''	341	3.4	UCAC4 502-52677	11.01	10 ^h 19 ^m 03.274 ^s 10°13'44.247''	12.7	89	70.4	-47.5	49.3	-27.7	3.6	190
2018/11/05 23:59:57	6616 Plotinos	5.5	16.94	4.25	156	1.2	34°44'01'' 51°02'15''	315	0.3	UCAC4 523-12387	12.71	5 ^h 19 ^m 58.044 ^s 14°33'50.133''	54.7	182	142.2	-42.8	122.5	-22.7	3.5	72
2018/11/06 00:39:34	7261 Yokootakeo	9.5	16.62	3.09	211	0.9	38°30'34'' 51°18'39''	48	0.3	UCAC4 474-30973	13.60	7 ^h 16 ^m 40.291 ^s 4°46'03.032''	42.5	156	112.1	-37.1	94.0	-16.9	3.4	94
2018/11/06 00:47:29	55940 1998 GU8	8.3	17.29	3.53	176	0.6	34°19'24'' 49°06'10''	233	1.0	UCAC4 592-14461	13.81	4 ^h 56 ^m 45.831 ^s 28°15'07.185''	64.0	221	146.8	-35.9	125.7	-15.7	3.4	134
2018/11/06 01:00:56	2500 Alascat-talo	10.5	15.62	3.04	9	0.9	36°10'50'' 50°00'27''	240	5.1	UCAC4 544-6460	12.65	3 ^h 21 ^m 14.519 ^s 18°39'00.138''	41.8	247	170.5	-33.8	149.7	-13.7	3.3	82
2018/11/06 01:05:11	2745 San Martin	7.2	16.45	3.68	18	0.9	36°29'54'' 50°08'14''	57	3.6	UCAC4 415-26778	12.80	7 ^h 09 ^m 20.961 ^s -7°10'27.841''	32.3	169	110.3	-33.2	95.2	-13.1	3.3	77
2018/11/06 03:29:38	9737 Du-darova	6.0	18.91	8.36	27	0.7	36°40'07'' 50°04'04''	85	1.8	UCAC4 507-42480	10.55	7 ^h 46 ^m 15.456 ^s 11°15'46.148''	48.8	206	106.7	-10.1	88.8	8.8	2.9	129
2018/11/06 14:40:07	356 Liguria	131.3	14.59	1.22	113	3.4	35°23'10'' 50°53'10''	325	21.2	UCAC4 302-124092	13.80	17 ^h 16 ^m 31.855 ^s -29°46'03.770''	1.6	216	37.2	-6.3	51.1	-6.5	1.5	212
2018/11/06 15:55:20	1209 Pumma	25.1	16.29	4.75	254	0.7	34°57'59'' 52°10'18''	338	2.0	UCAC4 324-143588	11.56	18 ^h 16 ^m 43.499 ^s -25°22'00.604''	4.0	221	49.9	-18.2	62.7	-18.3	1.4	175
2018/11/06 16:17:31	59291 1999 CJ56	5.0	16.28	2.66	7	0.6	36°13'51'' 49°59'27''	212	3.0	UCAC4 472-4887	13.71	3 ^h 25 ^m 29.165 ^s 4°18'08.030''	6.6	91	164.8	-21.8	159.6	-21.8	1.4	67
2018/11/06 16:48:03	268 Adorea	139.9	14.40	2.23	118	4.3	34°38'42'' 49°57'48''	265	24.1	UCAC4 337-176428	12.32	18 ^h 55 ^m 14.623 ^s -22°43'54.016''	4.8	225	58.8	-26.7	70.9	-26.4	1.3	187
2018/11/06 17:15:42	28278 1999 CQ27	6.6	18.73	4.90	230	1.5	34°51'39'' 51°54'17''	334	0.5	UCAC4 567-26613	13.84	6 ^h 25 ^m 12.630 ^s 23°13'47.234''	2.9	56	128.2	-31.1	116.0	-30.4	1.3	140
2018/11/06 17:39:29	6324 Kejor-uma	6.9	17.11	7.82	34	0.6	36°27'07'' 49°45'24''	160	2.8	TYC 633-1026-1	9.29	2 ^h 05 ^m 12.833 ^s 10°31'22.172''	36.4	122	168.6	-34.8	177.0	-33.6	1.2	94
2018/11/06 18:24:55	37199 2000 WV92	6.3	18.88	5.07	197	0.5	37°37'18'' 48°30'33''	151	0.7	UCAC4 551-9761	13.82	4 ^h 29 ^m 59.589 ^s 20°03'22.849''	28.6	92	155.0	-41.6	143.7	-39.3	1.2	150
2018/11/06 19:16:05	79997 1999 FW22	7.6	16.36	2.90	97	0.9	35°43'27'' 50°50'22''	335	1.9	UCAC4 591-3246	13.54	1 ^h 15 ^m 58.398 ^s 28°03'32.949''	67.5	162	155.9	-48.3	155.9	-44.4	1.1	93
2018/11/06 19:19:12	17469 1991 BT	6.9	17.97	4.68	124	1.2	35°49'36'' 48°58'44''	195	1.3	UCAC4 428-124194	13.30	22 ^h 33 ^m 32.142 ^s -4°31'55.047''	28.3	219	114.2	-48.6	124.3	-44.6	1.1	106

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.		Table 1		Page 6		LinOccult 2.3.1				
		Asteroid			Nearest point			Star			Sun			Moon						
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/06 19:56:13	6281 Strnad	9.1	16.90	4.22	47	0.8	36°12'04" 50°28'11"	353	3.0	UCAC4 618-13565	12.71	4 ^h 09 ^m 39.792 ^s 33°35'28.485"	55.9	103	154.3	-52.4	142.7	-47.0	1.0	109
2018/11/06 20:52:16	34873 UF6	6.9	16.84	4.86	66	0.7	36°37'38" 49°29'50"	158	2.1	UCAC4 632-8692	12.00	2 ^h 36 ^m 41.445 ^s 36°21'05.756"	76.3	167	159.5	-55.8	151.3	-48.3	0.9	109
2018/11/06 20:59:46	6595 Mu- nizbarreto	5.0	17.64	3.96	251	1.6	38°42'59" 48°26'42"	136	0.0	UCAC4 599-38122	13.71	7 ^h 00 ^m 29.797 ^s 29°39'53.212"	36.2	85	120.7	-56.0	110.3	-48.3	0.9	80
2018/11/06 21:21:16	17998 JN80	6.9	19.12	9.93	22	1.6	36°21'16" 50°14'22"	13	1.8	UCAC4 508-40903	9.19	7 ^h 24 ^m 49.519 ^s 11°28'19.142"	22.5	99	112.6	-56.2	104.2	-47.8	0.9	154
2018/11/06 21:25:45	1523 Piek- samaki	11.5	15.09	3.05	188	1.1	35°35'02" 51°40'40"	345	0.2	UCAC4 567-4560	12.11	2 ^h 21 ^m 25.660 ^s 23°14'21.361"	62.6	197	170.6	-56.2	164.9	-47.6	0.9	74
2018/11/06 21:56:53	3689 Yeates	11.5	17.93	4.41	198	0.6	36°21'14" 48°16'10"	179	1.3	UCAC4 481-46680	13.54	9 ^h 13 ^m 05.139 ^s 6°04'09.633"	6.8	89	85.4	-55.3	77.1	-46.1	0.9	153
2018/11/06 22:05:43	14370 VR2	6.3	16.47	2.97	28	0.7	36°13'18" 49°48'10"	190	2.8	UCAC4 450-4031	13.57	3 ^h 01 ^m 55.277 ^s 0° - 2'24.167"	39.6	191	163.4	-54.9	166.0	-45.5	0.9	87
2018/11/06 22:10:01	27402 EZ108	6.3	18.74	6.05	219	1.1	37°39'17" 51°48'56"	26	0.6	UCAC4 602-32141	12.69	6 ^h 23 ^m 11.427 ^s 30°23'56.890"	53.9	107	128.8	-54.6	118.7	-45.2	0.9	144
2018/11/06 23:14:26	3417 Tamblyn	6.6	17.61	4.10	56	0.5	36°22'12" 49°32'56"	174	2.2	UCAC4 520-7067	13.54	4 ^h 00 ^m 16.864 ^s 13°49'34.029"	52.9	198	162.2	-48.8	154.8	-39.0	0.8	102
2018/11/06 23:48:58	2898 Neuvo	13.8	15.95	4.77	153	2.2	36°43'15" 48°42'22"	168	1.6	TYC 113- 45-1	11.19	5 ^h 28 ^m 46.027 ^s 7°01'34.836"	47.1	176	139.5	-44.5	133.5	-34.8	0.7	95
2018/11/07 01:59:01	15779 Scot- troberts	6.9	15.99	6.48	108	0.7	35°54'34" 49°06'18"	194	1.2	TYC 3685- 2270-1	9.51	2 ^h 11 ^m 20.482 ^s 53°05'09.087"	43.1	306	142.3	-24.9	135.9	-16.1	0.6	71
2018/11/07 02:28:11	33223 FT113	6.0	17.62	3.82	5	0.6	36°19'35" 50°00'53"	142	2.5	UCAC4 506-40286	13.84	7 ^h 25 ^m 33.798 ^s 11°06'12.840"	50.7	193	112.6	-20.2	106.6	-11.6	0.6	96
2018/11/07 02:32:12	48832 YR3	8.7	16.83	6.12	232	1.1	33°03'35" 50°18'07"	277	0.3	UCAC4 547-30352	10.71	6 ^h 37 ^m 24.072 ^s 19°12'20.740"	55.0	216	125.4	-19.5	118.8	-11.0	0.6	110
2018/11/07 03:21:43	31805 NN5	11.5	17.73	4.76	83	1.7	37°10'59" 49°34'17"	130	2.7	UCAC4 551-34538	12.98	6 ^h 55 ^m 05.821 ^s 20°06'07.149"	52.3	228	121.4	-11.6	115.1	-3.4	0.5	144
2018/11/07 04:26:20	31616 GM17	9.5	17.63	4.95	237	0.9	37°59'32" 51°53'26"	31	0.6	UNKNOWN UN- KNOWN	12.70	4 ^h 52 ^m 35.333 ^s 20°06'22.945"	24.2	273	150.2	-1.7	144.3	6.1	0.5	131
2018/11/07 15:57:23	40353 NB13	6.6	17.03	3.15	114	0.5	35°58'34" 51°03'16"	349	1.2	UCAC4 469-131730	13.94	21 ^h 43 ^m 04.933 ^s 3°40'08.871"	43.7	175	103.8	-18.8	102.4	-14.4	0.2	81
2018/11/07 17:30:23	1823 Gliese	10.0	16.08	2.87	170	0.9	37°43'18" 48°50'10"	143	0.6	UCAC4 575-9491	13.29	3 ^h 55 ^m 29.877 ^s 24°58'34.734"	29.6	85	162.4	-33.6	161.2	-28.9	0.2	85
2018/11/07 18:41:39	27758 Michel- son	5.5	18.22	5.23	72	0.8	36°41'25" 49°27'31"	156	1.6	UCAC4 627-22315	13.00	5 ^h 15 ^m 54.314 ^s 35°19'51.824"	35.2	75	142.4	-44.1	141.6	-39.1	0.2	117
2018/11/07 18:55:45	55943 HJ15	6.0	18.30	6.06	208	0.5	35°53'34" 51°54'11"	352	0.6	UCAC4 590-15712	12.24	5 ^h 04 ^m 12.491 ^s 27°56'30.651"	34.3	86	147.0	-46.0	147.3	-41.0	0.2	138
2018/11/07 19:23:58	8171 Stauffen- berg	8.7	17.62	4.50	159	0.8	37°19'34" 48°47'16"	152	1.2	UCAC4 544-2308	13.14	1 ^h 15 ^m 03.786 ^s 18°42'44.087"	58.7	172	157.2	-49.4	153.2	-44.4	0.2	126

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.		Table 1		Page 7		LinOccult 2.3.1				
Asteroid			Nearest point			Star				Sun		Moon								
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/07 20:52:22	56955 2000 ST14	5.0	18.76	7.37	30	1.3	36°14'33" 50°18'54"	354	1.7	TYC 767-1306-1	11.39	7 ^h 20 ^m 31.818 ^s 10°09'21.079"	18.2	96	114.3	-56.1	117.9	-51.7	0.2	110
2018/11/07 21:20:52	52111 3020 P-L	6.3	19.24	7.15	63	0.7	35°57'11" 50°34'32"	338	1.5	UCAC4 544-46166	12.09	8 ^h 31 ^m 50.868 ^s 18°41'46.748"	17.8	82	99.5	-56.5	102.3	-52.6	0.2	150
2018/11/07 22:46:19	8397 Chiaki-tanaka	9.5	16.12	2.38	32	1.8	36°43'54" 50°00'30"	98	4.1	UCAC4 562-24442	13.86	6 ^h 06 ^m 24.914 ^s 22°23'29.161"	55.5	133	133.7	-52.0	137.1	-50.3	0.3	86
2018/11/08 00:14:00	9055 Edwards-son	5.5	19.41	8.40	245	1.2	33°09'01" 50°59'13"	295	0.4	TYC 760-688-1	11.01	6 ^h 56 ^m 14.528 ^s 13°30'08.245"	51.1	153	121.0	-41.3	126.0	-41.6	0.3	143
2018/11/08 03:05:15	16224 2000 DU69	6.9	18.45	4.67	38	1.4	36°09'42" 49°43'01"	194	2.0	UCAC4 556-24286	13.79	6 ^h 09 ^m 05.795 ^s 21°00'05.834"	48.7	239	133.2	-14.5	139.0	-16.7	0.4	129
2018/11/08 03:39:39	22708 1998 RK66	6.3	17.72	4.62	83	0.9	35°58'33" 49°19'47"	196	1.8	UCAC4 566-14085	13.11	5 ^h 08 ^m 04.232 ^s 23°04'23.518"	35.7	264	147.3	-9.0	153.0	-11.4	0.4	104
2018/11/08 14:32:50	8379 Straczynski	7.6	15.89	3.64	221	0.9	34°14'03" 51°33'23"	319	0.1	UCAC4 600-9608	12.29	3 ^h 36 ^m 54.155 ^s 29°49'37.084"	9.9	55	163.4	-5.6	165.2	2.9	1.1	77
2018/11/08 15:16:19	481 Erita	116.0	13.06	0.78	191	17.2	33°57'24" 49°14'07"	242	7.5	UCAC4 365-191298	13.00	23 ^h 19 ^m 59.458 ^s -17°00'31.372"	15.6	143	117.5	-12.4	107.0	-3.4	1.2	94
2018/11/08 15:18:11	17261 2000 JB62	8.3	17.17	5.85	11	0.8	36°22'47" 49°58'04"	143	2.8	UCAC4 572-10808	11.33	4 ^h 17 ^m 20.525 ^s 24°23'42.975"	6.2	59	158.9	-12.7	168.3	-3.6	1.2	119
2018/11/08 17:10:08	14712 2000 CO51	7.9	17.87	4.72	60	0.9	36°36'53" 49°33'14"	157	2.4	UCAC4 445-134385	13.16	22 ^h 14 ^m 19.487 ^s -1°03'39.311"	38.6	190	108.9	-30.7	95.6	-20.9	1.4	119
2018/11/08 18:55:35	2833 Radishchev	14.5	16.25	2.64	11	1.6	36°22'36" 49°58'03"	144	5.3	UCAC4 573-13210	13.71	4 ^h 57 ^m 04.449 ^s 24°35'56.982"	33.8	91	150.3	-46.2	162.7	-37.2	1.5	108
2018/11/08 19:15:58	1016 Anitra	13.8	15.86	2.10	46	1.0	36°41'51" 49°43'58"	140	5.1	UCAC4 376-176952	13.93	21 ^h 54 ^m 03.759 ^s -14°52'22.356"	14.2	225	99.5	-48.7	85.9	-40.1	1.6	97
2018/11/08 19:28:10	27992 1997 VR7	9.5	17.08	4.05	147	0.8	35°51'40" 51°20'30"	348	1.5	UCAC4 501-3062	13.05	2 ^h 04 ^m 02.234 ^s 10°03'39.960"	48.4	158	166.1	-50.1	152.4	-41.8	1.6	119
2018/11/08 20:05:31	3827 Zdenekhorsky	8.3	16.80	3.42	192	1.2	37°12'27" 48°25'35"	160	0.4	UCAC4 596-15877	13.42	5 ^h 02 ^m 57.548 ^s 29°10'32.422"	47.2	100	148.0	-53.8	159.7	-46.7	1.7	92
2018/11/08 21:17:59	51934 2001 QU133	6.6	17.89	3.97	69	0.5	36°44'29" 49°30'07"	152	1.8	UCAC4 540-4239	13.95	2 ^h 18 ^m 22.015 ^s 17°48'11.625"	57.2	196	171.2	-56.8	155.9	-53.9	1.8	129
2018/11/08 21:18:37	38578 1999 XSL1	7.6	17.80	3.93	3	0.6	36°14'42" 50°02'16"	250	2.1	UCAC4 606-7733	13.90	2 ^h 51 ^m 36.732 ^s 31°08'07.761"	71.3	183	165.4	-56.8	158.5	-54.0	1.8	142
2018/11/08 21:50:53	49531 1999 CR51	6.9	18.73	5.43	85	0.9	36°24'42" 49°17'30"	174	1.7	UCAC4 516-46514	13.30	8 ^h 03 ^m 34.194 ^s 13°09'19.070"	23.6	98	105.8	-56.1	121.4	-55.8	1.9	137
2018/11/08 22:31:40	19998 Binoche	5.0	17.34	3.40	245	0.5	36°23'10" 47°50'47"	178	0.1	UCAC4 457-3776	13.98	2 ^h 52 ^m 20.072 ^s 1°21'56.356"	38.8	205	164.7	-53.6	157.3	-56.4	2.0	103
2018/11/08 23:00:15	4105 Tsia	9.1	18.12	5.50	233	1.6	38°29'39" 48°31'44"	137	0.6	UCAC4 532-26093	12.62	6 ^h 26 ^m 53.277 ^s 16°16'44.772"	49.9	137	129.4	-50.9	145.5	-55.8	2.0	131
2018/11/08 23:21:40	52699 1998 FO56	5.5	19.53	6.35	50	0.6	36°26'59" 50°29'07"	13	1.3	UCAC4 622-25759	13.19	5 ^h 40 ^m 33.184 ^s 34°14'57.979"	72.7	150	139.1	-48.5	151.8	-54.7	2.0	167

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 8		LinOccult 2.3.1			
		Asteroid			Nearest point			Star			Sun			Moon						
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/08 23:46:03	13812 1998 YR	12.0	17.13	3.90	250	1.0	36°29'24'' 47°48'28''	177	0.6 3.7	UCAC4 563-2609	13.26	1 ^h 16 ^m 03.144 ^s 22°29'03.061''	35.0	264	156.0	-45.4	139.9	-53.0	2.1	131
2018/11/08 23:49:00	49598 1999 FU17	8.3	18.07	4.92	17	1.2	36°16'52'' 49°53'53''	181	2.6 2.6	UCAC4 454-33	13.16	0 ^h 01 ^m 06.177 ^s 0°47'29.676''	6.2	264	134.3	-45.0	118.0	-52.7	2.1	129
2018/11/08 23:58:07	51917 2001 QQ83	7.9	17.75	5.02	30	0.7	36°03'10'' 49°49'09''	213	2.5 2.6	UCAC4 690-38429	12.75	5 ^h 29 ^m 37.228 ^s 47°54'23.447''	87.9	206	135.6	-43.8	144.0	-51.9	2.1	122
2018/11/09 00:13:32	2275 Cuit-lahuac	10.5	15.17	5.12	247	1.4	37°35'48'' 48°00'22''	158	0.0 6.4	TYC 695-854-1	10.06	4 ^h 43 ^m 30.447 ^s 14°22'37.167''	52.0	207	153.9	-41.6	170.6	-50.4	2.2	65
2018/11/09 00:29:35	25871 2000 LZ26	7.9	17.41	4.40	149	0.6	36°04'17'' 48°43'01''	186	1.2 2.8	UCAC4 591-4688	13.03	1 ^h 53 ^m 42.427 ^s 28°03'34.304''	38.0	270	161.8	-39.3	147.4	-48.7	2.2	112
2018/11/09 00:37:53	1418 1999 Fayeta	10.0	17.12	3.30	206	0.8	35°42'53'' 51°51'47''	349	0.8 3.2	UCAC4 569-45409	13.87	9 ^h 11 ^m 10.230 ^s 23°45'19.914''	47.2	111	93.2	-38.0	109.0	-47.8	2.2	123
2018/11/09 00:52:48	27687 1981 EM23	5.5	17.75	4.40	172	0.8	38°04'04'' 51°05'40''	48	0.7 1.8	UCAC4 636-24294	13.37	5 ^h 17 ^m 40.240 ^s 37°01'47.457''	71.7	232	142.6	-35.8	154.2	-46.0	2.2	120
2018/11/09 14:10:49	15779 2000 Scot-troberts	6.9	15.99	4.00	191	0.7	34°43'13'' 48°40'12''	216	0.1 3.9	UCAC4 713-17040	12.02	2 ^h 08 ^m 37.853 ^s 52°26'12.807''	35.2	48	143.1	-2.6	135.2	9.5	4.2	71
2018/11/09 15:35:30	362 1999 Havnia	52.5	14.51	3.49	243	1.4	33°02'57'' 50°45'02''	289	4.3 12.6	UCAC4 301-233869	11.06	18 ^h 29 ^m 39.999 ^s -29°58'14.759''	2.0	215	49.9	-15.7	27.7	-1.3	4.4	165
2018/11/09 15:41:14	53477 2000 AA54	13.8	19.87	7.65	12	0.7	36°11'10'' 50°08'14''	324	1.6 1.6	UCAC4 365-183282	12.22	20 ^h 24 ^m 06.634 ^s -17°09'45.907''	21.7	195	77.3	-16.6	53.3	-2.1	4.4	338
2018/11/09 15:48:19	2404 1999 Antarc-tica	14.5	17.39	5.04	8	1.0	36°23'42'' 50°03'43''	78	3.3 3.3	UCAC4 369-183073	12.36	21 ^h 40 ^m 10.236 ^s -16°19'55.151''	23.7	177	95.0	-17.7	71.2	-3.1	4.4	174
2018/11/09 17:56:58	4199 1999 Andreev	7.9	15.99	4.74	61	1.2	36°18'40'' 50°35'44''	2	3.1 4.3	UCAC4 465-2065	11.27	1 ^h 35 ^m 32.294 ^s 2°49'08.249''	36.7	142	155.3	-38.1	131.3	-22.6	4.8	73
2018/11/09 18:23:55	138674 2000 SJ6	5.0	18.93	10.35	76	0.6	36°46'40'' 49°26'51''	152	1.5 2.1	UCAC4 603-34712	8.58	6 ^h 32 ^m 19.302 ^s 30°35'27.330''	18.8	65	129.6	-42.1	152.9	-26.8	4.9	95
2018/11/09 18:41:58	37005 2000 TO37	5.2	18.76	7.35	240	1.0	37°28'10'' 48°02'10''	159	0.3 1.5	UCAC4 525-19019	11.41	5 ^h 55 ^m 56.516 ^s 14°54'49.031''	15.7	85	137.3	-44.6	162.7	-29.6	4.9	136
2018/11/09 19:19:37	11076 1992 UR	6.0	16.86	6.34	26	0.6	35°55'20'' 50°03'13''	272	3.1 3.3	UCAC4 379-166545	10.52	23 ^h 29 ^m 27.616 ^s -14°19'06.000''	22.7	204	119.7	-49.4	95.1	-35.5	5.0	73
2018/11/09 19:19:59	14515 1999 Koichisato	8.3	16.11	3.70	250	1.3	33°02'06'' 50°55'16''	293	0.0 4.4	UCAC4 508-10559	12.44	5 ^h 08 ^m 28.425 ^s 11°29'03.860''	26.7	105	148.1	-49.5	171.2	-35.5	5.1	75
2018/11/09 20:22:18	14494 1994 YJ2	7.9	17.59	4.08	138	0.7	36°37'58'' 51°16'05''	10	1.3 2.8	UCAC4 400-1813	13.54	1 ^h 37 ^m 09.781 ^s -10°04'23.127''	29.8	187	146.3	-55.2	124.5	-44.7	5.3	112
2018/11/09 20:26:59	12564 1999 Ikeller	6.3	18.78	4.97	115	1.6	35°50'60'' 51°02'47''	344	1.3 1.9	UCAC4 547-41899	13.82	7 ^h 41 ^m 45.411 ^s 19°22'51.243''	18.9	82	113.2	-55.5	139.7	-45.3	5.3	130
2018/11/09 20:42:38	54871 2001 OH44	6.3	18.18	4.98	206	0.5	37°28'24'' 48°22'15''	156	0.6 1.7	UCAC4 612-11281	13.21	3 ^h 56 ^m 15.914 ^s 32°14'06.833''	65.5	127	159.9	-56.3	161.9	-47.4	5.3	144
2018/11/09 20:50:43	94308 2001 FD15	5.0	19.44	5.47	78	1.5	36°47'12'' 49°25'42''	153	1.1 1.2	UCAC4 554-25792	13.98	6 ^h 25 ^m 47.800 ^s 20°47'32.608''	35.9	100	131.1	-56.6	157.4	-48.5	5.3	163

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 9		LinOccult 2.3.1				
Asteroid			Nearest point				Star					Sun			Moon						
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}	
2018/11/09 21:17:54	43018 VY2	5.5	17.70	3.74	130	1.4	34°56'04" 50°50'13"	312	0.9	UCAC4 586-22898	13.99	5 ^h 58 ^m 45.273 ^s 27°11'00.539"	49.1	107	137.3	-57.1	162.4	-51.8	5.4	100	
2018/11/09 22:37:59	30433 LJ21	9.5	17.57	5.26	155	1.4	37°33'37" 48°55'48"	144	1.4	UCAC4 592-22303	12.32	5 ^h 51 ^m 11.308 ^s 28°23'58.424"	62.4	133	138.9	-53.3	164.0	-58.4	5.7	127	
2018/11/09 23:00:11	49417 XMF3	5.5	16.81	2.97	168	0.5	36°03'40" 48°32'37"	185	0.3	UCAC4 536-4343	13.91	2 ^h 29 ^m 13.586 ^s 17°08'08.301"	47.9	231	172.9	-51.2	145.3	-59.1	5.8	81	
2018/11/09 23:06:39	106036 SE304	5.0	18.99	6.67	36	0.7	35°48'10" 50°07'23"	284	1.3	UCAC4 526-25164	12.33	6 ^h 19 ^m 21.193 ^s 15°11'38.233"	50.7	144	132.0	-50.5	159.7	-59.2	5.8	146	
2018/11/10 01:21:46	45732 GL136	6.3	18.69	6.10	17	0.7	36°14'21" 50°11'51"	349	1.9	UCAC4 517-13457	12.59	5 ^h 36 ^m 08.904 ^s 13°15'05.629"	49.3	214	142.1	-31.5	169.6	-50.8	6.2	133	
2018/11/10 01:46:30	15799 XN	9.1	17.43	4.31	163	0.8	35°30'45" 48°40'23"	200	1.2	UCAC4 554-1216	13.14	0 ^h 38 ^m 18.127 ^s 20°45'34.394"	8.1	293	146.4	-27.5	118.6	-47.8	6.3	116	
2018/11/10 02:08:48	1756 Giacobini	13.2	14.12	8.43	65	2.6	36°01'44" 49°29'31"	197	4.1	HIP 7358	5.69	1 ^h 34 ^m 49.113 ^s 20°10'21.050"	12.9	286	159.7	-24.0	131.2	-44.8	6.4	44	
2018/11/10 02:44:28	35534 FW73	8.3	18.71	8.31	224	0.6	34°15'38" 48°31'30"	221	0.8	UCAC4 700-28579	10.40	3 ^h 59 ^m 35.902 ^s 49°50'23.501"	48.5	297	144.9	-18.2	146.9	-39.7	6.5	165	
2018/11/10 02:55:28	52421 Daihoji	5.2	19.06	6.07	188	0.8	33°57'60" 49°16'32"	243	0.6	UCAC4 536-29411	12.99	6 ^h 32 ^m 52.279 ^s 17°07'21.228"	48.8	228	129.2	-16.5	158.8	-38.1	6.5	144	
2018/11/10 03:47:22	5196 Bustelli	9.1	16.53	2.81	158	1.1	38°29'40" 50°11'12"	84	0.9	UCAC4 656-31032	13.80	5 ^h 12 ^m 12.839 ^s 41°09'34.886"	45.6	284	142.7	-8.3	158.2	-30.2	6.7	92	
2018/11/10 14:53:56	8419 Teru-mikazumi	7.2	18.12	5.99	145	2.3	36°38'45" 51°19'55"	10	1.2	UCAC4 413-147941	12.14	23 ^h 17 ^m 32.866 ^s -7°32'18.885"	22.9	136	119.3	-9.3	84.3	8.5	9.3	120	
2018/11/10 19:13:29	56299 RT47	6.3	19.12	7.64	64	3.3	36°05'45" 50°36'33"	348	1.5	TYC 2451-1895-1	11.48	7 ^h 16 ^m 02.274 ^s 30°06'56.486"	20.0	67	121.2	-48.9	156.0	-28.1	10.1	148	
2018/11/10 19:31:40	21107 PZ4	7.9	17.04	3.18	43	1.0	36°53'09" 50°02'28"	91	3.0	UCAC4 473-13595	13.92	5 ^h 49 ^m 18.885 ^s 4°25'19.420"	17.3	104	137.2	-51.0	163.7	-30.9	10.3	96	
2018/11/10 20:09:04	2332 Kalm	29.6	15.72	3.09	248	2.3	35°48'11" 52°15'07"	352	1.5	UCAC4 563-10791	12.69	4 ^h 31 ^m 16.541 ^s 22°32'57.997"	49.0	117	158.5	-54.6	163.5	-36.7	10.5	130	
2018/11/10 20:48:53	34794 SS25	5.8	18.20	4.23	161	1.2	35°29'15" 51°24'08"	339	0.7	UCAC4 562-21424	13.99	5 ^h 52 ^m 39.256 ^s 22°21'48.497"	42.6	107	139.8	-56.9	177.1	-42.7	10.6	115	
2018/11/10 21:08:29	9530 Kelleymichael	5.0	18.17	4.93	213	0.6	35°10'55" 51°49'53"	338	0.2	UCAC4 567-11740	13.26	4 ^h 44 ^m 53.845 ^s 23°20'08.404"	55.8	131	155.3	-57.3	166.0	-45.5	10.7	106	
2018/11/10 21:27:59	30945 GW9	6.9	18.64	5.24	144	0.9	36°00'18" 48°45'49"	188	1.2	UCAC4 617-33758	13.41	6 ^h 18 ^m 27.038 ^s 33°17'48.851"	52.4	98	133.4	-57.3	165.2	-48.2	10.8	138	
2018/11/10 21:37:31	26187 XA27	12.6	15.61	1.99	134	1.4	35°42'07" 51°11'19"	342	2.1	UCAC4 667-16098	13.81	3 ^h 15 ^m 43.319 ^s 43°16'25.217"	83.4	191	153.7	-57.1	141.5	-49.5	10.9	102	
2018/11/11 00:33:40	34095 PW11	5.8	18.75	5.69	80	0.8	36°21'14" 49°19'54"	177	1.5	UCAC4 505-21592	13.07	6 ^h 10 ^m 40.456 ^s 10°59'16.730"	51.1	183	134.3	-39.1	169.2	-60.4	11.6	125	
2018/11/11 02:55:50	7887 Bratfest	12.0	15.45	4.41	71	1.3	35°43'27" 49°31'26"	215	4.0	UCAC4 618-4077	11.06	1 ^h 27 ^m 27.533 ^s 33°30'00.027"	14.6	305	153.0	-16.6	119.8	-46.5	12.3	86	

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 10		LinOccult 2.3.1			
		Asteroid			Nearest point			Star			Sun			Moon						
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/11 03:34:02	18341 SJ5	6.0	17.17	3.27	199	0.6	34°56'09" 48°29'26"	209	0.2	UCAC4 569-10248	13.95	4 ^h 15 ^m 58.170 ^s 23°38'40.422"	26.7	276	162.0	-10.6	156.2	-41.0	12.5	86
2018/11/11 14:35:59	82766 QR11	5.8	18.17	7.00	207	0.6	38°42'19" 49°02'30"	123	0.5	UCAC4 633-19416	11.17	4 ^h 43 ^m 45.189 ^s 36°26'13.095"	9.1	42	151.2	-6.7	153.8	13.9	15.5	128
2018/11/11 16:17:06	50964 GF85	5.2	18.34	5.45	149	0.5	35°38'02" 48°46'44"	198	0.8	UCAC4 420-1770	12.89	1 ^h 28 ^m 10.305 ^s −6°09'05.080"	18.9	126	146.2	-22.7	102.1	3.9	16.0	116
2018/11/11 16:56:35	52326 EL7	5.2	18.10	6.99	133	0.5	36°26'24" 51°14'13"	5	1.0	UCAC4 388-3093	11.12	2 ^h 46 ^m 26.077 ^s −12°35'24.020"	8.3	121	149.5	-29.1	116.0	-1.1	16.2	129
2018/11/11 19:25:00	27704 WB4	7.6	18.15	8.11	78	0.6	35°26'51" 49°35'45"	230	2.0	TYC 1133- 727-1	10.04	21 ^h 45 ^m 29.297 ^s 13°07'35.823"	34.1	248	103.0	-50.5	58.6	-22.7	17.0	124
2018/11/11 19:50:42	34228 QF90	6.0	19.12	5.76	10	0.7	36°14'21" 50°07'47"	340	1.6	UCAC4 626-30710	13.37	6 ^h 02 ^m 31.683 ^s 35°03'45.889"	41.0	82	137.2	-53.2	164.6	-26.6	17.1	152
2018/11/11 20:35:50	242370 CM74	5.2	20.02	6.42	166	0.6	37°26'46" 48°45'32"	150	0.7	UCAC4 610-24542	13.60	5 ^h 48 ^m 22.951 ^s 31°53'35.359"	48.6	96	140.8	-56.6	165.1	-33.7	17.3	257
2018/11/11 22:42:50	55331 Putzi	6.9	17.52	4.18	35	0.8	36°32'53" 49°47'10"	147	2.4	UCAC4 571-15743	13.36	5 ^h 13 ^m 05.717 ^s 24°10'53.892"	63.2	159	149.9	-53.4	159.8	-52.0	18.0	111
2018/11/11 22:45:16	18348 BM1	6.9	16.49	3.01	144	0.8	35°48'54" 51°18'32"	347	0.7	UCAC4 451-42109	13.55	7 ^h 58 ^m 50.250 ^s 0°02'09.284"	23.9	122	106.3	-53.2	151.3	-52.3	18.0	81
2018/11/11 22:51:29	7738 Heyman	5.2	17.03	6.26	112	0.5	36°18'17" 49°02'37"	179	1.0	TYC 631- 1248-1	10.77	2 ^h 17 ^m 34.258 ^s 9°09'50.808"	39.7	228	165.3	-52.6	115.9	-53.1	18.1	82
2018/11/11 23:20:45	43064 1999 VK114	5.0	18.30	8.09	92	1.0	36°21'58" 50°52'10"	4	1.3	TYC 2424- 584-1	10.21	6 ^h 11 ^m 58.411 ^s 32°14'48.128"	69.0	141	136.0	-49.4	167.3	-56.3	18.2	100
2018/11/12 00:44:17	57532 2001 TA	6.0	17.32	3.70	98	0.9	36°27'08" 49°10'39"	173	1.5	UCAC4 617-24885	13.65	5 ^h 33 ^m 35.712 ^s 33°14'41.409"	70.1	219	143.7	-37.8	160.3	-61.5	18.6	97
2018/11/12 00:48:38	13391 1999 JF37	9.5	17.80	4.95	157	1.1	37°45'45" 51°06'22"	42	1.4	UCAC4 516-46665	12.86	8 ^h 05 ^m 09.506 ^s 13°02'24.295"	49.1	147	108.5	-37.1	159.1	-61.5	18.7	130
2018/11/12 01:20:39	4308 Maga- rach	10.0	15.67	2.17	146	1.8	35°42'19" 48°47'42"	197	0.9	UCAC4 645-23826	13.66	5 ^h 02 ^m 47.707 ^s 38°50'05.800"	65.0	256	147.1	-32.1	151.8	-61.1	18.9	77
2018/11/12 01:53:25	4100 Sumiko	15.1	16.23	2.70	92	3.5	37°19'55" 50°31'45"	54	3.9	UCAC4 555-28150	13.62	6 ^h 28 ^m 15.581 ^s 20°56'31.007"	57.6	214	132.7	-26.9	175.7	-59.5	19.0	112
2018/11/12 02:37:23	13830 ARLT	6.3	17.65	3.71	95	1.6	35°32'01" 49°20'37"	214	1.6	UCAC4 558-24295	13.98	6 ^h 06 ^m 58.279 ^s 21°32'22.657"	50.5	237	137.7	-19.8	170.3	-55.5	19.2	101
2018/11/12 02:51:58	7887 Bratfest	12.0	15.47	1.77	109	1.3	37°07'14" 50°52'09"	33	2.5	UCAC4 617-4026	13.93	1 ^h 26 ^m 44.588 ^s 33°20'31.497"	14.4	305	152.3	-17.5	109.1	-53.9	19.4	86
2018/11/12 02:52:55	14515 Koichisato	8.3	16.05	4.42	139	1.3	36°42'33" 48°49'51"	167	0.8	UCAC4 507-9676	11.65	5 ^h 07 ^m 10.173 ^s 11°15'58.135"	31.5	248	150.5	-17.3	153.5	-53.8	19.4	74
2018/11/12 03:00:16	2889 Brno	16.6	15.71	2.38	136	1.4	36°19'52" 51°16'14"	1	2.8	UCAC4 533-8535	13.46	4 ^h 20 ^m 07.323 ^s 16°26'12.822"	27.0	264	162.7	-16.2	144.4	-52.9	19.4	109
2018/11/12 03:49:04	30403 2000 KR50	5.5	17.88	3.93	116	1.1	37°49'22" 50°22'45"	71	1.1	UCAC4 539-28285	13.98	6 ^h 31 ^m 09.620 ^s 17°42'24.999"	40.7	247	131.8	-8.5	174.1	-46.5	19.6	104

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 11		LinOccult 2.3.1			
Date Time (UTC)	Asteroid			Nearest point			Star			Sun			Moon							
	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/12 03:52:06	2500 Alascat- talo	10.5	15.38	2.78	135	0.9	35°43'24" 48°53'27"	197	1.3	UCAC4 543-6252	12.68	3 ^h 14 ^m 08.978 ^s 18°31'08.711"	9.7	287	178.2	-8.0	129.1	-46.0	19.7	81
2018/11/12 04:25:30	51318 2000 KT77	5.5	18.47	4.70	55	1.2	36°33'51" 49°35'10"	159	1.6	UCAC4 493-28229	13.79	6 ^h 28 ^m 42.984 ^s 8°31'03.303"	27.6	249	130.5	-3.0	165.9	-41.2	19.9	127
2018/11/12 04:46:18	5497 Sararus- sell	10.5	17.86	4.23	24	0.7	36°04'57" 49°52'42"	218	2.9	UCAC4 475-43940	13.66	9 ^h 01 ^m 53.921 ^s 4°54'20.114"	40.8	212	93.0	-0.0	144.7	-38.0	19.9	142
2018/11/12 16:17:59	3974 Verveer	12.0	16.48	3.92	83	1.6	35°24'58" 50°32'17"	311	3.4	UCAC4 649-37729	12.59	6 ^h 16 ^m 52.935 ^s 39°38'19.114"	13.2	42	134.2	-23.1	157.5	9.3	23.6	101
2018/11/12 17:01:26	8670 1991 OM1	6.0	18.26	6.63	17	0.7	36°04'19" 49°59'00"	245	2.2	UCAC4 574-21133	11.64	5 ^h 56 ^m 07.587 ^s 24°47'36.723"	9.4	62	140.9	-30.1	160.6	4.6	23.9	107
2018/11/12 17:10:43	138674 2000 SJ6	5.0	18.89	5.26	149	0.6	35°05'15" 51°08'60"	325	0.8	UCAC4 605-33662	13.64	6 ^h 31 ^m 27.771 ^s 30°57'21.525"	10.7	54	132.7	-31.5	165.5	3.5	23.9	141
2018/11/12 17:51:19	11992 1995 XH	6.3	17.46	3.95	129	0.7	37°08'13" 49°01'35"	152	1.1	UCAC4 571-13267	13.54	4 ^h 57 ^m 09.574 ^s 24°07'50.279"	25.6	82	154.3	-37.9	146.8	-1.6	24.2	97
2018/11/12 18:02:54	7348 1993 FJ22	8.7	17.72	3.98	55	1.3	35°49'19" 50°26'24"	323	2.6	UCAC4 573-20394	13.77	5 ^h 48 ^m 49.700 ^s 24°30'34.229"	19.5	75	142.6	-39.6	158.5	-3.2	24.3	120
2018/11/12 18:13:15	27149 1998 YN3	5.5	17.90	3.94	58	1.0	35°55'08" 50°31'03"	333	1.9	UCAC4 571-24029	13.99	6 ^h 06 ^m 16.097 ^s 24°06'07.181"	18.2	74	138.6	-41.2	162.4	-4.6	24.3	97
2018/11/12 19:18:28	59919 1999 RP161	5.0	19.66	6.18	218	0.7	34°49'24" 51°46'21"	331	0.5	UCAC4 571-24596	13.49	6 ^h 07 ^m 31.532 ^s 24°05'29.331"	28.3	85	138.4	-50.0	162.1	-14.0	24.7	161
2018/11/12 19:39:30	6058 Carl- nielsen	6.6	16.80	3.77	73	0.8	36°51'52" 49°30'46"	145	2.2	UCAC4 577-15527	13.06	5 ^h 24 ^m 41.053 ^s 25°23'15.573"	39.5	97	148.0	-52.3	152.1	-17.1	24.8	77
2018/11/12 21:46:36	69222 4210 T- 3	6.0	18.95	8.71	119	1.3	34°40'07" 49°49'02"	258	1.2	UCAC4 491-32673	10.24	6 ^h 48 ^m 15.726 ^s 8°02'40.765"	32.8	120	126.4	-57.4	163.5	-36.8	25.6	147
2018/11/12 21:53:22	8345 Ul- merspatz	9.5	14.76	1.32	27	1.2	35°59'08" 50°11'21"	306	5.8	UCAC4 715-24317	13.83	2 ^h 57 ^m 48.582 ^s 52°58'30.162"	81.8	296	144.6	-57.2	119.8	-37.8	25.6	59
2018/11/12 23:55:35	36307 2000 JY65	6.3	17.21	3.49	61	1.2	36°33'42" 50°33'46"	19	2.2	UCAC4 512-18172	13.76	6 ^h 03 ^m 51.051 ^s 12°15'54.862"	52.3	174	138.1	-45.1	156.7	-54.5	26.3	92
2018/11/13 00:22:45	34812 2001 SB109	7.6	16.71	4.58	76	1.1	35°17'26" 49°49'28"	251	2.4	UCAC4 658-42536	12.15	6 ^h 10 ^m 52.535 ^s 41°29'30.173"	81.7	187	135.1	-41.2	152.8	-57.2	26.5	89
2018/11/13 00:28:19	14477 1994 CN	6.9	17.29	4.61	177	0.6	35°30'60" 48°32'17"	198	0.7	UCAC4 563-8085	12.70	3 ^h 46 ^m 01.337 ^s 22°28'11.539"	49.1	242	170.6	-40.4	127.0	-57.7	26.6	117
2018/11/13 00:37:45	11962 1994 PX	6.3	17.85	5.75	29	0.8	36°02'07" 50°15'28"	323	2.3	UCAC4 471-12849	12.10	5 ^h 41 ^m 40.987 ^s 4°06'19.108"	43.1	197	140.8	-39.0	147.5	-58.5	26.6	107
2018/11/13 01:05:20	9056 Piskunov	6.9	17.01	5.98	186	0.6	36°11'40" 48°22'53"	182	0.5	UCAC4 541-6647	11.04	3 ^h 30 ^m 24.498 ^s 18°01'31.703"	37.8	252	175.5	-34.7	122.2	-60.2	26.8	98
2018/11/13 01:41:57	6198 Shi- rakawa	6.0	16.16	3.35	189	1.0	37°42'35" 51°29'07"	32	0.1	UCAC4 589-14219	12.87	4 ^h 50 ^m 10.478 ^s 27°42'56.896"	51.7	250	155.3	-28.9	141.3	-61.1	27.0	65
2018/11/13 02:35:27	15499 Cloyd	8.7	17.49	3.75	162	2.9	37°51'05" 49°00'19"	136	1.1	UCAC4 498-32309	13.77	6 ^h 44 ^m 51.503 ^s 9°26'56.342"	44.2	217	127.8	-20.3	162.3	-59.5	27.4	115

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.				Table 1		Page 12		LinOccult 2.3.1			
		Asteroid			Nearest point			Star				Sun			Moon						
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}	
2018/11/13 02:37:24	16356 Uni- vbaltech	10.0	17.35	7.88	98	0.7	35°49'21" 49°13'20"	200	2.3	TYC 1235- 256-1	9.47	3 ^h 36 ^m 49.134 ^s 15°19'45.888"	22.2	268	173.5	-20.0	122.2	-59.4	27.3	134	
2018/11/13 03:34:37	11639 1997 AO4	6.9	17.78	5.50	8	0.7	36°11'37" 50°00'36"	238	2.5	UCAC4 531-13047	12.29	5 ^h 19 ^m 39.830 ^s 16°03'57.062"	30.0	259	149.5	-11.0	145.9	-54.2	27.7	109	
2018/11/13 03:37:07	28922 2000 QK132	10.0	16.96	3.44	165	0.9	38°18'50" 50°46'02"	61	1.3	UCAC4 700-28097	13.57	3 ^h 54 ^m 16.838 ^s 49°55'50.859"	38.9	305	146.7	-10.6	126.9	-53.9	27.7	123	
2018/11/13 14:04:01	1162 Larissa	56.8	15.90	2.46	232	1.3	37°07'07" 48°02'03"	165	5.9	UCAC4 332-84983	13.56	16 ^h 55 ^m 50.102 ^s -23°38'11.080"	5.9	221	24.5	-2.4	43.6	19.8	31.4	230	
2018/11/13 15:04:05	7851 Azumino	6.9	17.10	3.18	46	0.6	36°35'39" 49°41'06"	151	2.9	UCAC4 441-126865	13.98	22 ^h 35 ^m 32.229 ^s -1°58'50.420"	34.2	151	108.7	-11.5	40.8	18.8	31.8	82	
2018/11/13 16:28:20	5077 Favaloro	5.8	17.11	4.32	171	0.6	37°55'28" 48°56'22"	136	0.3	UCAC4 606-14315	12.81	4 ^h 38 ^m 15.600 ^s 31°10'21.685"	21.3	66	156.8	-24.9	131.7	13.8	32.3	80	
2018/11/13 17:21:08	10065 1988 XK	8.7	17.11	3.48	208	2.5	37°23'50" 48°19'43"	157	0.5	UCAC4 544-31885	13.68	6 ^h 41 ^m 11.987 ^s 18°45'13.200"	1.6	62	131.1	-33.4	158.7	8.8	32.7	108	
2018/11/13 17:31:10	10632 1998 CV1	12.0	18.45	6.42	147	0.8	37°47'49" 49°09'35"	132	1.9	UCAC4 347-189450	12.03	21 ^h 37 ^m 57.415 ^s -20°42'12.694"	15.3	206	88.9	-34.9	20.3	7.7	32.7	190	
2018/11/13 18:24:29	49638 1999 HK9	6.3	18.16	6.03	73	1.1	36°50'45" 50°36'04"	33	1.7	UCAC4 518-24955	12.14	6 ^h 23 ^m 50.799 ^s 13°25'22.796"	9.8	81	134.3	-43.0	153.0	1.3	33.0	121	
2018/11/13 18:26:58	33549 1999 JS13	5.2	18.33	6.41	220	0.6	34°12'57" 48°35'52"	223	0.2	UCAC4 533-25227	11.93	6 ^h 20 ^m 45.095 ^s 16°24'55.485"	12.9	80	135.6	-43.3	153.0	1.0	33.0	107	
2018/11/13 18:29:05	8363 1990 RV	9.5	16.65	2.86	244	1.0	34°36'11" 51°57'53"	331	0.2	UCAC4 542-9270	13.87	4 ^h 28 ^m 00.692 ^s 18°14'54.102"	32.7	101	162.6	-43.6	127.0	0.7	33.0	102	
2018/11/13 18:53:06	55439 2001 T284	5.5	19.74	7.17	177	0.8	34°47'55" 51°19'59"	323	0.7	UCAC4 559-24602	12.57	6 ^h 10 ^m 56.222 ^s 21°47'49.980"	22.7	83	138.5	-47.0	151.3	-2.5	33.1	193	
2018/11/13 20:15:22	8640 Ri- taschulz	6.6	16.51	3.33	71	0.7	35°59'56" 50°39'24"	343	2.2	UCAC4 498-4947	13.24	3 ^h 13 ^m 43.507 ^s 9°24'12.629"	47.6	157	171.4	-55.8	106.4	-14.4	33.7	90	
2018/11/13 20:50:06	3827 Zdenekhorsky	8.3	16.69	3.36	192	1.0	37°01'57" 48°23'46"	164	0.4	UCAC4 596-15423	13.38	4 ^h 59 ^m 09.226 ^s 29°11'43.528"	57.7	117	153.7	-57.7	134.2	-19.6	33.9	91	
2018/11/13 20:57:08	1194 Aletta	55.4	15.25	1.74	40	5.6	36°03'57" 50°22'25"	337	18.4	UCAC4 618-19351	13.75	5 ^h 04 ^m 31.900 ^s 33°25'04.724"	61.0	112	151.0	-57.9	135.1	-20.7	33.9	112	
2018/11/13 21:06:31	1593 Fagnes	8.3	16.17	2.86	124	0.7	35°56'23" 51°08'26"	348	1.2	UCAC4 488-7818	13.39	4 ^h 37 ^m 04.437 ^s 7°27'05.021"	43.3	147	157.4	-58.1	125.0	-22.2	34.0	76	
2018/11/13 22:15:30	30403 2000 KR50	5.5	17.84	4.00	175	1.0	37°17'28" 51°29'06"	24	0.5	UCAC4 540-28841	13.87	6 ^h 30 ^m 33.970 ^s 17°49'49.077"	47.8	127	133.7	-56.2	153.9	-32.9	34.4	103	
2018/11/13 22:21:31	30469 2000 OZ16	5.2	17.62	9.92	249	0.6	36°59'37" 47°51'19"	168	0.0	TYC 637- 304-1	7.70	2 ^h 20 ^m 34.093 ^s 12°47'47.011"	45.8	223	165.8	-55.8	94.1	-33.8	34.5	85	
2018/11/13 23:10:56	5629 Kuwana	14.5	16.52	2.73	188	5.3	38°22'48" 49°02'53"	127	1.3	UCAC4 506-30421	13.88	6 ^h 46 ^m 20.085 ^s 11°10'41.725"	46.4	144	128.7	-51.0	155.1	-41.2	34.8	115	
2018/11/13 23:11:20	54342 2000 KF24	7.9	18.43	5.55	40	1.6	35°53'38" 49°47'10"	224	2.2	UCAC4 582-36207	12.89	7 ^h 08 ^m 20.997 ^s 26°22'27.899"	57.2	125	125.9	-51.0	161.6	-41.2	34.7	136	

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.				Table 1		Page 13		LinOccult 2.3.1			
Asteroid			Nearest point			Star				Sun		Moon									
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}	
2018/11/13 23:56:25	80034 JQ21	7.2	19.11	5.48	232	0.7	33°02'29'' 50°09'38''	273	0.6	UCAC4 467-26281	13.64	7 ^h 06 ^m 51.464 ^s 3°20'38.945''	-45.2	156	121.6	-45.2	154.9	-47.5	35.1	163	
2018/11/14 00:09:00	11489 SN	5.5	17.98	4.49	236	0.8	34°40'13'' 51°54'44''	331	0.1	UCAC4 594-42499	13.51	8 ^h 21 ^m 40.560 ^s 28°38'21.347''	-43.4	117	110.1	-43.4	170.9	-49.2	35.2	94	
2018/11/14 00:31:10	54592 QA216	5.0	19.17	6.56	235	0.5	34°40'20'' 48°13'21''	210	0.4	UCAC4 615-25149	12.62	5 ^h 39 ^m 48.528 ^s 32°56'23.120''	-40.2	212	144.4	-40.2	140.8	-51.9	35.3	145	
2018/11/14 02:23:18	3702 Trubetskaya	17.2	17.02	3.49	161	0.9	36°27'54'' 48°36'33''	175	2.6	UCAC4 520-51090	13.58	10 ^h 16 ^m 46.401 ^s 13°49'11.177''	-22.5	137	80.3	-22.5	153.8	-59.6	36.0	171	
2018/11/14 02:48:17	16237 2000 GX76	6.0	18.15	8.70	198	0.5	36°21'48'' 51°49'25''	2	0.4	TYC 1287-1849-1	9.46	5 ^h 13 ^m 50.583 ^s 17°06'22.168''	-18.5	252	151.9	-18.5	133.3	-59.5	36.2	110	
2018/11/14 03:06:41	2331 Parvulesco	20.7	15.57	1.83	134	3.8	37°36'02'' 50°54'37''	44	1.7	UCAC4 557-39397	13.97	7 ^h 20 ^m 36.627 ^s 21°17'28.961''	-15.6	225	122.7	-15.6	163.3	-58.9	36.3	67	
2018/11/14 03:38:50	664 Judith	72.7	16.15	3.77	209	9.1	36°33'35'' 48°10'32''	175	8.0	UCAC4 514-27952	12.42	6 ^h 36 ^m 43.107 ^s 12°41'36.785''	-10.5	241	131.5	-10.5	151.4	-57.0	36.5	169	
2018/11/14 15:20:27	10562 1993 UB1	8.3	16.05	2.50	102	0.8	35°08'24'' 50°35'54''	307	1.8	UCAC4 732-35346	13.67	4 ^h 30 ^m 49.018 ^s 56°20'26.924''	-14.2	39	139.5	-14.2	118.3	21.5	40.9	75	
2018/11/14 17:15:53	3552 Don Quixote	8.7	16.89	6.58	56	0.7	36°55'31'' 49°45'48''	125	2.9	UCAC4 713-9201	10.31	1 ^h 08 ^m 04.193 ^s 52°32'26.349''	-32.7	71	137.3	-32.7	88.7	15.6	41.7	103	
2018/11/14 18:15:36	16843 1997 XX3	12.6	18.72	4.90	61	1.0	36°41'53'' 49°34'10''	151	2.4	UCAC4 535-18852	13.84	5 ^h 48 ^m 24.040 ^s 16°55'59.786''	-41.9	84	144.3	-41.9	133.9	9.7	42.0	203	
2018/11/14 19:33:03	6449 Kudara	5.0	16.72	4.33	149	1.6	37°22'16'' 48°54'52''	148	0.3	UCAC4 581-18146	12.41	5 ^h 44 ^m 30.880 ^s 26°03'05.279''	-52.1	92	145.5	-52.1	133.3	0.1	42.5	67	
2018/11/14 20:30:01	23938 Kurosaki	5.0	18.96	7.22	246	0.6	35°08'06'' 52°07'51''	340	0.2	UCAC4 560-23732	11.74	6 ^h 03 ^m 32.816 ^s 21°57'59.466''	-57.0	104	141.3	-57.0	136.9	-8.0	42.9	123	
2018/11/14 20:56:45	1347 Patria	32.4	15.43	1.95	170	4.7	35°24'09'' 48°37'43''	202	2.6	UCAC4 506-39915	13.68	7 ^h 23 ^m 17.221 ^s 11°07'34.187''	-58.2	101	120.8	-58.2	153.8	-11.9	43.2	93	
2018/11/14 21:52:12	14558 Wang-ganchang	7.9	17.41	4.55	43	1.4	35°54'14'' 50°21'03''	321	2.6	UCAC4 508-548	12.87	0 ^h 18 ^m 57.854 ^s 11°34'32.200''	-57.7	248	136.0	-57.7	55.1	-20.4	43.5	113	
2018/11/14 21:57:47	6024 Ochano-mizu	8.7	16.21	2.82	174	1.5	35°13'51'' 48°38'23''	206	0.3	UCAC4 610-29621	13.47	6 ^h 09 ^m 44.338 ^s 31°51'34.265''	-57.5	114	139.4	-57.5	137.2	-21.3	43.4	75	
2018/11/14 22:00:09	4146 Rudolffnum	5.8	16.80	3.50	223	1.5	34°02'44'' 51°28'00''	315	0.0	UCAC4 528-20771	13.34	5 ^h 59 ^m 10.922 ^s 15°29'49.199''	-57.4	135	141.7	-57.4	134.4	-21.7	43.5	70	
2018/11/14 22:09:18	62764 2000 UL13	5.8	19.03	5.35	223	0.9	38°28'09'' 51°29'58''	44	0.5	UCAC4 510-42294	13.69	7 ^h 37 ^m 24.352 ^s 11°50'24.431''	-56.9	113	117.7	-56.9	156.7	-23.1	43.7	145	
2018/11/14 22:23:57	18691 1998 HE1	7.2	18.92	5.53	102	0.8	36°27'34'' 50°57'41''	7	1.5	UCAC4 615-32087	13.40	6 ^h 13 ^m 14.327 ^s 32°48'09.142''	-55.8	121	138.5	-55.8	137.5	-25.3	43.6	155	
2018/11/14 23:56:25	6030 Zolensky	10.0	17.40	5.37	63	1.2	36°30'29'' 49°29'56''	165	2.8	UCAC4 531-17724	12.04	5 ^h 47 ^m 12.223 ^s 16°01'00.958''	-45.4	184	144.7	-45.4	130.6	-39.3	44.3	124	
2018/11/14 23:57:49	33214 1998 FP90	8.3	16.91	3.15	15	0.7	36°27'13'' 50°07'40''	53	3.1	UCAC4 713-33452	13.82	4 ^h 26 ^m 42.872 ^s 52°34'05.024''	-45.3	289	143.3	-45.3	114.8	-39.5	44.3	106	

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.		Table 1		Page 14		LinOccult 2.3.1				
Asteroid			Nearest point			Star			Sun		Moon									
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Phase (%)	σ_{km}		
2018/11/15 00:19:12	40564 RZ123	6.6	18.14	4.45	194	1.2	34°46'13" 51°30'18"	326	0.5	UCAC4 576-31272	13.71	6 ^h 34 ^m 28.514 ^s 25°07'19.747"	65.2	173	134.5	-42.2	-42.5	44.4	114	
2018/11/15 00:29:20	804 Hispania	157.2	12.51	1.42	241	17.7	38°24'14" 51°45'23"	39	7.0	TYC 2937-281-1	11.43	6 ^h 04 ^m 59.784 ^s 44°57'14.036"	83.5	223	136.6	-40.7	-43.9	44.5	111	
2018/11/15 00:46:00	141 Lumen	131.0	14.36	1.22	81	4.5	36°54'00" 50°39'23"	33	26.4	UCAC4 450-51402	13.57	11 ^h 27 ^m 37.650 ^s 0° - 4'03.860"	12.7	106	59.8	-38.2	-46.1	44.6	175	
2018/11/15 01:06:28	58925 LZ2	6.3	18.95	7.73	251	0.6	33°21'32" 48°50'02"	237	0.4	UCAC4 467-37708	11.22	8 ^h 09 ^m 30.397 ^s 3°17'58.564"	41.7	159	107.7	-35.0	-48.6	44.8	156	
2018/11/15 01:17:01	8429 YK4	8.7	18.28	5.91	184	1.0	37°25'49" 51°32'18"	26	1.1	UCAC4 604-28712	12.38	6 ^h 03 ^m 57.859 ^s 30°42'33.340"	66.4	223	140.9	-33.3	-49.8	44.8	143	
2018/11/15 01:23:38	49461 AK5	7.9	16.71	2.80	58	0.7	36°39'56" 50°30'29"	28	2.5	UCAC4 586-6885	13.99	2 ^h 59 ^m 32.693 ^s 27°10'42.657"	35.4	271	170.0	-32.3	-50.6	44.9	113	
2018/11/15 02:56:17	13112 Montmorency	5.0	18.24	7.60	173	0.5	37°15'08" 51°28'34"	23	0.5	UCAC4 575-13037	10.64	4 ^h 57 ^m 48.098 ^s 24°55'39.951"	37.9	264	156.4	-17.4	-57.1	45.5	106	
2018/11/15 03:02:20	8278 1991 JJ	11.5	16.74	3.23	87	1.1	35°25'43" 49°29'32"	225	3.1	UCAC4 586-17807	13.57	5 ^h 30 ^m 42.269 ^s 27°10'18.490"	43.8	261	148.7	-16.5	-57.2	45.5	108	
2018/11/15 03:29:18	55331 Putzi	6.9	17.45	5.94	167	0.7	35°54'01" 48°34'20"	190	0.8	UCAC4 570-15358	11.52	5 ^h 10 ^m 54.597 ^s 23°54'46.119"	34.0	268	153.6	-12.2	-57.3	45.7	110	
2018/11/15 16:59:42	5636 Jacobson	9.1	17.47	4.72	69	1.3	36°59'40" 49°37'40"	133	2.7	UCAC4 556-25444	12.76	6 ^h 15 ^m 39.061 ^s 21°01'58.474"	5.1	63	139.3	-30.3	22.5	50.9	111	
2018/11/15 18:31:51	52632 WN21	5.8	16.96	3.45	103	0.6	36°09'41" 50°57'59"	355	1.3	UCAC4 520-11027	13.55	5 ^h 11 ^m 54.058 ^s 13°59'14.089"	24.2	97	153.4	-44.4	112.9	15.3	92	
2018/11/15 19:36:32	23236 2000 WX100	6.0	18.16	4.20	236	1.0	35°33'58" 52°06'57"	347	0.2	UCAC4 558-33076	13.99	6 ^h 42 ^m 12.457 ^s 21°29'09.726"	25.7	87	133.3	-52.7	134.5	8.0	109	
2018/11/15 21:30:02	2033 Basilea	8.7	15.21	5.40	186	1.1	35°36'46" 51°39'33"	345	0.1	TYC 2323-1270-1	9.82	2 ^h 28 ^m 16.747 ^s 31°42'38.057"	68.1	220	161.9	-58.6	80.0	-7.9	52.8	64
2018/11/15 22:00:45	8804 Eliason	13.8	17.64	8.12	6	1.6	36°21'10" 50°01'03"	125	3.6	TYC 2484-176-1	9.52	8 ^h 45 ^m 16.682 ^s 32°03'26.113"	36.5	82	107.6	-57.6	156.1	-12.6	52.9	154
2018/11/15 22:30:48	9449 Petr-bondy	10.0	17.36	6.35	70	0.9	36°06'31" 50°40'06"	350	2.7	TYC 1756-103-1	11.01	1 ^h 41 ^m 54.035 ^s 23°38'47.882"	47.4	248	155.8	-55.5	66.7	-17.2	53.2	127
2018/11/15 22:49:48	391 Ingeborg	22.9	14.33	1.85	27	1.9	36°36'38" 50°10'42"	58	10.9	UCAC4 420-29880	12.70	7 ^h 15 ^m 09.546 ^s -6°10'06.052"	26.2	140	117.8	-53.8	134.1	-20.1	53.3	79
2018/11/16 01:36:07	2264 Sabrina	27.5	17.15	8.07	162	2.6	36°51'08" 51°27'15"	14	4.0	TYC 1402-1460-1	9.08	9 ^h 25 ^m 03.108 ^s 15°01'14.738"	49.4	140	94.5	-30.5	170.3	-44.1	54.4	200
2018/11/16 03:05:13	30882 Tomhenning	6.9	18.09	4.37	92	0.7	35°49'11" 50°49'12"	339	1.7	UCAC4 475-14118	13.74	5 ^h 58 ^m 22.722 ^s 4°59'32.509"	29.7	239	140.0	-16.2	117.9	-52.5	55.0	114
2018/11/16 03:41:46	9875 FH25	6.3	17.94	5.57	224	2.4	34°28'52" 51°42'37"	325	0.2	UCAC4 531-38184	12.38	7 ^h 10 ^m 23.306 ^s 16°04'53.059"	43.8	237	126.2	-10.5	136.7	-54.0	55.3	100
2018/11/16 04:31:20	34812 SB109	7.6	16.64	4.50	235	1.1	33°15'52" 50°55'19"	294	0.1	UCAC4 660-42272	12.16	6 ^h 09 ^m 48.184 ^s 41°58'29.757"	44.4	287	137.9	-3.1	121.3	-53.8	55.5	87

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.				Table 1		Page 15		LinOccult 2.3.1			
Asteroid			Nearest point				Star				Sun			Moon							
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}	
2018/11/16 13:56:59	2234 Schmadel	12.0	16.77	3.64	91	0.8	35°10'27'' 50°26'57''	299	3.0 4.1	UCAC4 652-8142	13.17	2 ^h 09 ^m 27.433 ^s 40°12'38.820''	28.9	61	152.9	-1.9	73.5	19.9	59.2	118	
2018/11/16 14:50:20	36686 RH4	5.2	16.38	3.58	200	0.6	37°15'02'' 48°21'49''	160	0.1	UCAC4 527-5267	12.84	2 ^h 58 ^m 57.513 ^s 15°16'28.353''	11.5	80	172.6	-9.8	72.0	24.3	59.5	72	
2018/11/16 15:05:14	3406 Omsk	13.6	16.63	3.54	38	1.1	35°48'30'' 50°11'48''	296	3.5 3.7	UCAC4 549-2924	13.14	1 ^h 31 ^m 31.862 ^s 19°47'07.272''	31.3	96	152.9	-12.1	54.9	25.3	59.6	148	
2018/11/16 15:09:40	1030 Vitja	64.1	16.39	3.31	35	1.6	36°37'49'' 50°16'38''	44	12.4 12.6	UNKNOWN UN- KNOWN	13.13	18 ^h 29 ^m 02.665 ^s -11°15'59.040''	18.6	224	44.6	-12.8	59.2	25.6	59.6	203	
2018/11/16 15:30:41	80076 JO101	8.7	17.27	3.97	110	1.1	37°21'31'' 50°45'51''	44	1.9	UCAC4 611-34988	13.32	6 ^h 41 ^m 09.029 ^s 32°10'50.386''	1.0	36	134.4	-16.1	123.8	26.6	59.7	115	
2018/11/16 16:12:27	109324 QA140	5.0	17.30	4.35	114	0.7	35°07'05'' 50°44'52''	313	1.1	UCAC4 676-34887	12.97	5 ^h 15 ^m 15.344 ^s 45°03'23.980''	25.7	50	145.3	-22.8	106.1	27.7	60.0	103	
2018/11/16 17:11:43	213 Lilaea	83.0	13.76	1.23	247	2.3	33°03'32'' 50°53'03''	292	5.4 22.8	UCAC4 337-190083	12.95	19 ^h 33 ^m 17.925 ^s -22°43'24.544''	1.8	230	57.4	-32.4	44.5	27.2	60.4	143	
2018/11/16 17:20:50	2710 Veverka	7.2	16.95	14.50	56	0.9	35°46'18'' 50°25'31''	319	2.4 8.0	HIP 25945	2.45	5 ^h 32 ^m 12.753 ^s 18°35'39.161''	13.6	77	150.3	-33.8	107.1	26.9	60.5	36	
2018/11/16 18:08:30	32197 OV	5.0	18.54	5.67	206	0.6	37°47'30'' 48°28'47''	148	0.4	UCAC4 599-21744	12.88	5 ^h 34 ^m 41.078 ^s 29°38'56.597''	28.8	77	149.0	-41.2	108.3	24.4	60.8	128	
2018/11/16 18:21:02	10766 UB1	13.2	15.64	3.37	179	1.1	35°36'11'' 51°35'60''	344	1.2 4.9	UCAC4 603-10491	12.32	3 ^h 45 ^m 42.387 ^s 30°33'47.991''	48.8	99	167.4	-43.0	85.2	23.5	60.9	107	
2018/11/16 18:21:12	21847 TA116	5.8	17.01	3.19	130	0.7	35°23'40'' 51°04'07''	331	0.9	UCAC4 567-4239	13.87	2 ^h 12 ^m 46.317 ^s 23°18'26.379''	56.7	133	162.1	-43.1	63.4	23.5	60.9	91	
2018/11/16 19:29:51	4674 Pauling	5.5	16.00	3.00	217	0.5	34°56'25'' 48°18'35''	206	0.0 3.9	UCAC4 496-26895	13.07	6 ^h 26 ^m 11.160 ^s 9°07'27.834''	18.6	98	135.6	-52.1	117.6	17.0	61.4	56	
2018/11/16 19:47:58	15427 Shabas	10.0	18.21	5.19	223	0.6	36°28'30'' 48°02'46''	177	0.9 2.6	UCAC4 433-117573	13.03	21 ^h 24 ^m 39.710 ^s -3°34'55.545''	11.2	251	88.3	-54.1	20.5	15.0	61.4	152	
2018/11/16 20:32:47	50668 EO105	7.6	17.47	4.37	72	0.5	36°24'13'' 49°24'33''	173	2.1 2.4	UCAC4 535-6695	13.12	3 ^h 36 ^m 17.683 ^s 16°57'52.982''	55.3	157	177.2	-57.6	78.1	9.4	61.7	125	
2018/11/16 20:49:51	10143 Kamogawa	11.0	17.20	4.85	69	0.9	36°35'39'' 49°27'23''	162	2.9 3.4	UCAC4 640-4417	12.36	1 ^h 14 ^m 48.937 ^s 37°53'26.006''	68.0	247	145.4	-58.4	61.0	7.1	61.9	129	
2018/11/16 21:50:50	51369 WD158	7.2	17.37	6.32	47	1.0	35°40'08'' 49°54'09''	250	2.5 2.8	TYC 2453-425-1	11.06	7 ^h 31 ^m 20.869 ^s 30°00'26.917''	46.0	97	124.0	-58.3	131.6	-1.6	62.2	102	
2018/11/16 21:58:40	6198 Shirakawa	6.0	16.05	4.67	27	0.9	36°18'33'' 50°17'15''	3	3.4 3.7	UCAC4 590-14079	11.39	4 ^h 46 ^m 40.546 ^s 27°51'45.286''	66.8	158	159.7	-58.0	95.7	-2.8	62.3	64	
2018/11/16 22:21:05	18792 JL60	6.3	18.28	4.47	209	0.6	35°20'29'' 51°49'50''	341	0.5 2.1	UCAC4 560-2787	13.82	1 ^h 19 ^m 41.123 ^s 21°58'33.517''	43.6	251	149.9	-56.6	50.4	-6.2	62.5	121	
2018/11/16 22:31:28	9757 Felixdejager	6.9	17.86	5.25	177	0.7	36°40'51'' 48°28'39''	171	0.7 2.5	UCAC4 570-16136	12.62	5 ^h 17 ^m 25.980 ^s 23°49'08.287''	63.0	161	154.0	-55.7	101.7	-7.8	62.5	110	
2018/11/16 22:34:46	20493 OD5	5.8	18.06	4.37	113	0.8	36°33'56'' 49°02'48''	170	1.2 2.2	UCAC4 487-18861	13.71	6 ^h 12 ^m 34.222 ^s 7°18'47.466''	43.6	149	138.3	-55.4	112.6	-8.3	62.5	106	

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.		Table 1		Page 16		LinOccult 2.3.1				
Asteroid			Nearest point				Star			Sun		Moon								
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/16 22:36:58	10317 SAl15	5.5	16.52	3.11	106	1.5	37°11'14" 49°17'43"	142	0.9	UCAC4 567-21957	13.48	6 ^h 03 ^m 28.749 ^s 23°14'41.742"	59.4	143	143.5	-55.3	112.1	-8.6	62.6	66
2018/11/17 00:55:59	48525 GB	5.8	17.87	6.59	191	0.7	34°23'21" 48°51'01"	226	0.3	UCAC4 626-31372	11.28	6 ^h 06 ^m 22.023 ^s 35°10'34.385"	71.9	221	141.4	-37.1	111.7	-29.8	63.4	98
2018/11/17 01:10:20	45664 EC88	7.6	18.06	5.43	182	0.9	35°23'03" 51°34'45"	339	0.9	UCAC4 560-27285	12.64	6 ^h 20 ^m 29.393 ^s 21°53'23.596"	59.8	208	139.6	-34.8	114.6	-31.8	63.6	127
2018/11/17 02:35:22	80041 JK38	6.0	18.85	7.88	100	0.6	35°00'14" 50°24'21"	294	1.3	UCAC4 445-33776	10.97	7 ^h 17 ^m 27.441 ^s -1°03'22.005"	35.7	207	120.3	-21.2	124.9	-42.7	64.1	149
2018/11/17 02:51:36	2952 Liliputia	5.0	16.33	2.47	112	1.0	35°33'40" 49°09'34"	208	0.7	UCAC4 597-17020	13.98	5 ^h 15 ^m 51.034 ^s 29°16'39.754"	43.3	266	153.4	-18.6	99.7	-44.4	64.3	63
2018/11/17 02:53:57	4308 Magarach	10.0	15.57	1.90	202	1.5	37°40'22" 51°38'28"	29	0.1	UCAC4 644-22492	13.88	4 ^h 58 ^m 32.173 ^s 38°44'24.083"	46.1	279	152.1	-18.2	97.4	-44.6	64.3	76
2018/11/17 03:10:05	18984 Olathe	8.7	18.06	5.06	179	0.7	35°10'10" 48°36'39"	207	1.1	UCAC4 597-3520	13.01	1 ^h 25 ^m 43.190 ^s 29°18'57.263"	6.1	310	150.2	-15.7	54.0	-46.1	64.4	146
2018/11/17 04:05:17	14515 Koichisato	8.3	15.93	15.93	32	1.1	36°15'34" 49°45'32"	183	6.2	UNKNOWN UN-	0.00	5 ^h 03 ^m 50.169 ^s 10°48'20.727"	16.1	268	155.6	-7.1	93.6	-49.7	64.7	37
2018/11/17 04:52:54	2660 Wasser-man	10.3	16.83	4.61	239	1.1	36°10'15" 52°11'34"	358	0.4	UCAC4 495-24039	12.24	6 ^h 18 ^m 54.393 ^s 8°50'44.785"	19.0	261	137.6	-0.2	111.2	-50.5	65.0	116
2018/11/17 16:12:10	808 Mexia	32.5	15.76	3.13	135	0.8	35°13'14" 51°03'03"	326	5.1	UCAC4 352-124507	12.69	18 ^h 16 ^m 29.392 ^s -19°39'42.632"	1.6	236	39.0	-22.9	74.0	30.4	69.2	203
2018/11/17 16:45:45	32253 OP51	15.1	16.41	2.81	112	1.6	34°57'40" 50°35'15"	302	3.2	UCAC4 697-37338	13.68	5 ^h 22 ^m 32.081 ^s 49°22'35.990"	32.4	50	142.2	-28.4	96.6	31.6	69.4	125
2018/11/17 17:09:36	8819 Chrisbondi	6.0	17.35	3.52	117	0.5	37°07'27" 49°09'09"	149	1.2	UCAC4 489-6138	13.87	4 ^h 08 ^m 47.787 ^s 7°46'10.575"	17.6	99	165.5	-32.2	73.3	31.9	69.6	99
2018/11/17 18:57:37	2726 Kotelnikov	34.0	15.59	2.17	11	3.1	36°19'50" 49°57'23"	163	14.1	UCAC4 553-6372	13.58	3 ^h 17 ^m 59.017 ^s 20°25'19.180"	51.2	128	176.6	-48.3	63.8	27.9	70.3	95
2018/11/17 19:16:51	34715 PO12	7.9	18.06	5.04	134	1.9	35°17'12" 51°03'56"	328	1.4	UCAC4 519-44898	13.03	7 ^h 59 ^m 38.582 ^s 13°37'25.239"	5.6	75	115.7	-50.8	129.0	26.3	70.4	125
2018/11/17 19:49:23	12014 Bobhawkes	5.8	17.91	5.41	77	0.6	36°44'13" 49°25'09"	155	1.7	UCAC4 502-2574	12.51	1 ^h 48 ^m 01.572 ^s 10°23'43.339"	50.5	185	153.6	-54.4	39.5	23.3	70.6	99
2018/11/17 19:51:49	11198 CV40	7.2	17.78	5.01	38	0.7	36°12'01" 50°22'57"	351	2.3	UCAC4 609-20475	12.78	5 ^h 29 ^m 03.093 ^s 31°39'29.946"	48.2	96	150.7	-54.6	94.5	23.0	70.6	121
2018/11/17 20:54:06	100508 AY14	5.0	19.33	5.92	95	1.0	37°00'31" 49°20'14"	147	1.1	UCAC4 636-39831	13.42	7 ^h 06 ^m 14.098 ^s 37°08'53.403"	46.1	83	130.0	-58.8	113.9	15.7	70.9	147
2018/11/17 22:30:25	17910 Mun-yan	5.2	17.90	8.00	81	1.1	35°47'46" 49°23'48"	206	1.6	TYC 586-938-1	9.90	23 ^h 47 ^m 33.038 ^s 0°25'10.919"	10.6	258	122.0	-56.1	8.7	2.2	71.5	92
2018/11/18 01:20:17	49603 FC25	5.8	18.59	5.37	149	1.6	37°17'43" 51°13'38"	29	0.9	UCAC4 562-35804	13.23	6 ^h 52 ^m 46.914 ^s 22°16'10.523"	61.3	200	133.2	-33.5	109.9	-23.6	72.6	122
2018/11/18 01:31:03	41567 RN73	6.3	18.89	5.61	181	1.4	35°02'02" 51°27'54"	330	0.8	UCAC4 516-36328	13.28	6 ^h 59 ^m 56.533 ^s 13°01'14.622"	52.1	198	129.9	-31.8	111.3	-25.2	72.7	138

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.				Table 1		Page 17		LinOccult 2.3.1			
Asteroid			Nearest point				Star				Sun		Moon								
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}	
2018/11/18 02:18:12	31805 NN5	11.5	17.54	4.21	191	1.3	34°49'47" 51°29'39"	327	1.3	UCAC4 546-35269	13.35	6 ^h 52 ^m 35.172 ^s 19°09'41.721"	132.9	222	132.9	-24.2	109.3	-31.7	73.0	137	
2018/11/18 03:10:34	5133 Philli- padams	25.2	17.95	4.72	192	1.1	36°21'11" 51°46'02"	1	3.2	UCAC4 528-53137	13.24	11 ^h 15 ^m 05.444 ^s 15°24'54.967"	72.1	137	72.1	-15.8	169.0	-38.0	73.3	184	
2018/11/18 04:34:25	12003 Hideo- sugai	12.6	16.80	2.92	198	1.2	34°00'58" 49°03'23"	236	1.2	UCAC4 628-22767	13.96	5 ^h 15 ^m 16.910 ^s 35°29'47.011"	152.1	290	152.1	-3.1	87.8	-44.9	73.8	128	
2018/11/18 15:19:37	15939 Fes- senden	11.0	18.12	6.04	9	1.5	36°16'13" 50°07'51"	353	2.8	UCAC4 391-1029	12.08	0 ^h 55 ^m 52.928 ^s −11°59'32.493"	129.9	129	129.9	-14.7	14.8	27.0	77.5	155	
2018/11/18 17:45:10	7803 Adachi	7.2	17.28	3.70	225	0.7	37°17'47" 48°08'11"	161	0.2	UCAC4 488-3634	13.61	2 ^h 30 ^m 27.171 ^s 7°25'18.554"	160.4	131	160.4	-37.9	36.9	36.3	78.4	101	
2018/11/18 18:12:48	2878 Panacea	13.8	16.19	2.54	142	1.1	37°31'18" 49°03'36"	141	2.3	UCAC4 620-10309	13.77	3 ^h 18 ^m 52.277 ^s 33°58'38.766"	164.8	101	164.8	-42.1	58.3	36.2	78.5	115	
2018/11/18 18:13:45	8457 Billgo- lisch	6.0	17.28	3.34	242	3.1	34°33'24" 51°55'49"	329	0.0	UCAC4 569-39459	13.99	7 ^h 25 ^m 54.621 ^s 23°37'01.080"	126.5	64	126.5	-42.3	108.3	36.2	78.8	84	
2018/11/18 18:14:42	5780 La- fontaine	12.0	16.91	3.65	180	0.9	37°54'24" 48°49'16"	140	1.4	UCAC4 547-10598	13.30	4 ^h 44 ^m 17.635 ^s 19°15'53.785"	163.7	98	163.7	-42.4	71.1	36.2	78.6	130	
2018/11/18 19:08:47	8127 Beuf	6.9	17.43	5.57	188	0.8	34°59'03" 51°31'34"	331	0.6	UCAC4 672-37636	11.86	5 ^h 31 ^m 08.562 ^s 44°16'26.528"	145.2	73	145.2	-49.9	85.2	34.3	78.8	107	
2018/11/18 19:50:09	27149 1998 YN3	5.5	17.77	5.97	130	0.7	36°35'05" 48°53'39"	171	0.9	UCAC4 572-23097	11.81	6 ^h 02 ^m 53.303 ^s 24°21'58.895"	145.5	97	145.5	-54.7	89.0	31.4	79.1	95	
2018/11/18 20:41:43	7579 1990 TN1	5.8	16.40	4.50	202	0.7	37°33'14" 48°25'50"	153	0.0	UCAC4 680-10647	11.92	1 ^h 52 ^m 31.802 ^s 45°54'40.611"	145.9	256	145.9	-58.5	53.8	26.4	79.4	65	
2018/11/18 23:44:45	6013 Ar- danike	5.5	18.37	5.83	221	1.6	34°37'25" 48°23'18"	213	0.2	UCAC4 542-43959	12.54	7 ^h 59 ^m 44.560 ^s 18°17'35.457"	118.0	133	118.0	-47.9	114.0	1.1	80.5	104	
2018/11/19 01:37:46	17437 Stekene	8.7	18.00	4.72	72	0.8	35°29'21" 50°26'34"	308	2.2	UCAC4 428-17172	13.29	6 ^h 30 ^m 07.513 ^s −4°32'51.646"	131.0	205	131.0	-30.9	91.0	-16.1	81.1	137	
2018/11/19 02:36:09	4223 Shikoku	22.9	17.12	4.16	47	0.6	35°43'16" 49°49'35"	239	4.3	UCAC4 385-61466	12.99	12 ^h 44 ^m 31.390 ^s −13°06'21.457"	41.7	123	41.7	-21.5	164.1	-24.4	81.4	207	
2018/11/19 02:57:53	72396 2001 CU20	6.3	16.22	2.87	161	0.8	34°09'14" 50°31'30"	289	0.3	UCAC4 516-32024	13.43	6 ^h 45 ^m 57.665 ^s 13°02'51.295"	134.3	233	134.3	-18.0	95.0	-27.3	81.4	73	
2018/11/19 04:31:27	31381 1998 XW86	6.0	16.59	3.67	253	0.6	35°00'11" 47°56'15"	201	0.0	UCAC4 550-10523	12.95	4 ^h 37 ^m 21.097 ^s 19°51'44.355"	165.8	285	165.8	-3.7	64.1	-37.3	82.0	74	
2018/11/19 15:27:18	46735 1997 UG1	6.9	17.20	3.30	101	0.6	37°04'34" 49°17'55"	146	1.6	UCAC4 590-10608	13.95	3 ^h 56 ^m 59.692 ^s 27°53'19.851"	170.5	69	170.5	-16.0	52.2	26.7	85.4	122	
2018/11/19 18:36:18	72396 2001 CU20	6.3	16.20	4.81	64	0.8	36°15'54" 49°28'30"	181	2.4	TYC 758- 159-1	11.40	6 ^h 45 ^m 50.573 ^s 13°12'27.323"	135.0	83	135.0	-45.7	86.8	41.1	86.3	73	
2018/11/19 18:47:21	1820 Lohmann	7.6	16.59	2.75	8	0.8	36°23'37" 50°03'34"	80	3.9	UCAC4 529-16640	13.93	5 ^h 45 ^m 53.761 ^s 15°42'29.048"	149.7	95	149.7	-47.3	72.2	41.1	86.4	77	
2018/11/19 20:45:05	2962 Otto	19.1	15.11	1.62	202	1.9	35°47'46" 48°15'36"	190	0.8	UCAC4 615-27953	13.77	5 ^h 53 ^m 12.131 ^s 32°53'38.829"	147.4	103	147.4	-58.9	74.8	34.9	86.9	94	

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 18		LinOccult 2.3.1		
Date Time (UTC)	Asteroid			Nearest point			Star			Sun			Moon						
	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Phase (%)	σ_{km}	
2018/11/20 00:08:14	3631 Sigyn	35.2	16.28	3.56	136	3.8	35°31'43" 51°10'04"	337	6.3	UCAC4 477-17252	12.76	6 ^h 13 ^m 50.830 ^s 5°19'54.589"	45.4	185	140.0	-44.9	8.0	87.9	144
2018/11/20 00:27:02	12720 1991 NU3	6.0	15.95	3.60	213	0.9	36°08'39" 48°07'59"	183	0.0	UCAC4 571-5190	12.39	2 ^h 26 ^m 00.197 ^s 24°07'15.274"	33.8	268	162.2	-42.1	28.6	5.2	67
2018/11/20 00:28:47	35552 1998 FE115	7.6	17.86	4.99	229	1.2	33°27'09" 51°02'02"	298	0.4	UCAC4 508-36095	12.88	7 ^h 02 ^m 26.344 ^s 11°34'11.116"	51.7	175	130.9	-41.9	87.6	4.9	113
2018/11/20 01:17:20	45155 1999 XW113	5.2	18.28	5.32	217	0.5	37°46'19" 51°45'25"	29	0.3	UCAC4 587-3222	12.97	1 ^h 21 ^m 58.970 ^s 27°18'24.119"	18.1	291	147.4	-34.4	25.2	-2.6	114
2018/11/20 02:21:50	37334 2001 QW197	5.5	18.45	4.60	243	0.7	35°10'58" 47°59'17"	199	0.3	UCAC4 593-27633	13.86	6 ^h 05 ^m 23.750 ^s 28°31'50.311"	53.4	249	145.9	-24.0	73.7	-12.2	122
2018/11/20 02:37:57	20685 1999 VX48	7.6	17.23	6.90	246	0.6	37°40'40" 52°04'27"	24	0.2	TYC 1791- 446-1	10.33	3 ^h 05 ^m 45.742 ^s 26°42'55.740"	21.1	287	169.2	-21.4	36.0	-14.5	110
2018/11/20 04:08:41	992 Swasey	27.3	15.94	3.52	38	2.1	36°47'06" 50°10'05"	69	7.4	UCAC4 469-40815	12.46	9 ^h 07 ^m 44.232 ^s 3°46'22.227"	40.7	208	99.1	-7.3	117.2	-26.3	141
2018/11/20 13:47:21	82009 2000 RF68	6.3	18.55	4.73	19	0.5	36°02'10" 50°06'37"	291	1.9	UCAC4 457-119849	13.83	22 ^h 23 ^m 19.587 ^s 1°21'35.869"	33.9	139	100.0	-1.2	48.5	9.0	132
2018/11/20 14:14:03	15779 Scot- troberts	6.9	16.05	4.89	200	0.6	37°53'08" 51°31'49"	35	0.1	TYC 3288- 2110-1	11.17	1 ^h 59 ^m 29.502 ^s 49°05'09.108"	40.4	58	144.0	-5.0	44.6	13.2	73
2018/11/20 15:29:39	417 Suevia	40.7	15.04	1.77	160	1.0	36°38'59" 48°37'52"	171	5.9	UCAC4 360-138047	13.50	18 ^h 15 ^m 31.018 ^s -18°08'44.198"	6.8	231	36.0	-16.6	111.8	24.7	196
2018/11/20 15:41:31	26428 1999 XR169	5.8	16.77	3.77	109	0.6	37°40'54" 49°39'55"	113	1.2	UCAC4 617-13106	13.03	4 ^h 06 ^m 51.730 ^s 33°22'05.578"	24.7	67	165.3	-18.4	44.2	26.4	83
2018/11/20 15:46:24	581 Taunto- nia	63.7	16.01	3.10	175	1.8	38°35'14" 49°32'25"	109	8.6	UCAC4 310-249111	12.98	19 ^h 14 ^m 09.084 ^s -28°04'00.408"	2.8	218	48.6	-19.2	98.4	27.1	207
2018/11/20 18:06:00	31307 1998 FK105	7.2	18.85	4.98	7	0.6	36°21'20" 50°00'31"	131	1.9	UCAC4 528-15887	13.88	5 ^h 41 ^m 58.549 ^s 15°32'01.727"	19.5	89	151.5	-41.4	58.7	42.9	153
2018/11/20 18:49:12	82540 2001 OC66	5.5	18.65	5.36	100	1.0	36°16'36" 49°09'02"	180	1.3	UCAC4 503-43924	13.30	7 ^h 34 ^m 17.943 ^s 10°26'28.810"	4.6	79	123.8	-47.7	85.6	45.2	123
2018/11/20 20:03:47	52068 2002 QX40	9.1	18.43	10.77	200	0.5	34°19'45" 48°46'47"	225	0.4	HIP 109344	7.66	22 ^h 09 ^m 06.295 ^s -18°29'06.271"	1.0	239	89.5	-56.3	59.7	45.3	95
2018/11/20 20:20:19	8721 AMOS	17.4	17.35	3.84	176	1.7	35°01'16" 51°24'48"	329	2.4	UCAC4 568-25416	13.54	6 ^h 12 ^m 30.394 ^s 23°29'33.125"	42.0	104	145.3	-57.7	65.2	44.7	171
2018/11/20 20:47:18	12129 1999 RB138	8.7	18.73	6.60	206	1.1	36°58'15" 48°14'50"	166	0.9	UCAC4 571-34957	12.13	6 ^h 50 ^m 34.750 ^s 24°10'07.169"	40.8	101	136.7	-59.2	73.7	43.1	156
2018/11/20 21:05:04	33956 2000 NN3	7.6	16.97	3.90	220	1.2	36°08'37" 52°01'06"	357	0.2	UCAC4 495-25748	13.10	6 ^h 23 ^m 09.492 ^s 8°54'11.879"	35.5	124	140.1	-59.8	67.2	41.7	91
2018/11/20 21:15:22	8359 1989 WD	7.2	16.87	3.42	112	1.0	36°28'40" 51°02'40"	7	1.4	UCAC4 584-24968	13.50	6 ^h 07 ^m 28.993 ^s 26°38'41.250"	53.5	116	146.4	-59.9	63.9	40.9	82
2018/11/20 21:34:13	109428 2001 QO195	5.8	19.59	5.98	176	0.6	35°26'34" 51°31'60"	340	0.8	UCAC4 618-410	13.61	0 ^h 07 ^m 21.056 ^s 33°30'56.202"	45.1	271	130.2	-59.8	36.8	39.1	183

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.				Table 1		Page 19		LinOccult 2.3.1			
		Asteroid			Nearest point			Star				Sun			Moon						
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}	
2018/11/20 21:36:15	6673 Degas	6.6	16.74	2.85	58	0.7	36°19'48'' 49°31'28''	177	2.6	UCAC4 583-15161	13.97	5 ^h 11 ^m 05.357 ^s 26°24'18.280''	63.0	144	158.9	-59.7	51.2	38.8	93.3	77	
2018/11/20 21:57:58	27758 Michel-son	5.5	17.96	4.09	43	0.6	36°17'42'' 50°25'51''	1	1.8	UCAC4 630-21283	13.90	5 ^h 06 ^m 14.258 ^s 35°51'45.579''	74.0	147	155.8	-59.0	53.0	36.5	93.4	113	
2018/11/20 21:58:37	34364 2000 RZ30	5.5	19.04	5.81	25	0.6	36°26'17'' 49°50'43''	154	1.5	UCAC4 586-26097	13.24	6 ^h 09 ^m 01.857 ^s 27°06'01.936''	59.6	129	146.1	-58.9	63.8	36.4	93.4	148	
2018/11/20 22:15:38	27158 1998 YZ29	8.7	17.18	4.10	100	0.8	36°35'09'' 50°55'30''	12	2.1	UCAC4 574-14071	13.11	5 ^h 09 ^m 11.386 ^s 24°46'24.752''	64.4	165	159.7	-57.9	50.0	34.4	93.4	118	
2018/11/20 22:41:07	3036 Krat	42.4	14.95	2.45	212	3.1	37°23'17'' 51°49'09''	22	3.3	UCAC4 610-7603	12.62	2 ^h 36 ^m 13.593 ^s 31°48'31.148''	57.0	251	160.5	-55.8	27.2	31.2	93.5	126	
2018/11/20 22:58:43	27181 1999 CX1	7.9	16.85	5.92	110	1.7	36°38'06'' 51°00'34''	13	1.7	UCAC4 492-31218	10.94	6 ^h 45 ^m 24.530 ^s 8°21'30.244''	45.2	151	134.8	-54.0	71.7	28.8	93.6	93	
2018/11/20 23:18:37	135187 2001 RH10	5.8	18.94	5.01	187	0.5	36°37'09'' 48°22'45''	173	0.7	UCAC4 598-174	13.94	0 ^h 04 ^m 01.242 ^s 29°29'39.880''	25.3	286	129.5	-51.7	35.2	26.1	93.7	152	
2018/11/21 01:02:43	30945 1994 GW9	6.9	18.47	8.73	84	0.7	35°31'37'' 49°28'21''	220	1.7	TYC 2428-126-1	9.74	6 ^h 13 ^m 22.967 ^s 33°58'40.401''	69.1	227	144.2	-36.9	64.0	10.5	94.0	134	
2018/11/21 01:42:03	5746 1991 CK	6.9	15.91	4.74	38	1.2	36°31'39'' 50°21'02''	27	3.5	TYC 2409-972-1	11.19	5 ^h 46 ^m 40.491 ^s 32°29'37.335''	58.9	249	150.0	-30.6	57.9	4.5	94.2	67	
2018/11/21 02:01:31	8105 1994 WH2	5.5	16.58	4.43	94	1.0	36°13'07'' 50°53'23''	357	1.2	UCAC4 522-14890	12.17	5 ^h 42 ^m 16.286 ^s 14°14'23.991''	41.2	238	151.4	-27.5	54.2	1.5	94.3	68	
2018/11/21 02:01:42	5221 Fab-ribudweis	10.5	17.96	4.19	203	1.0	35°19'01'' 48°20'25''	200	1.1	UCAC4 576-23856	13.79	6 ^h 06 ^m 02.041 ^s 25°07'44.436''	53.3	241	147.0	-27.5	60.6	1.5	94.3	144	
2018/11/21 02:50:33	3916 Maeva	22.0	18.06	5.07	39	0.7	36°34'14'' 50°20'53''	31	4.9	UCAC4 457-49707	13.00	11 ^h 59 ^m 37.251 ^s 1°22'47.826''	30.4	131	59.1	-19.6	147.7	-5.8	94.4	176	
2018/11/21 03:50:15	10951 Spes-sart	6.0	18.89	6.46	25	0.6	35°58'20'' 49°57'16''	245	1.8	UCAC4 477-45315	12.43	9 ^h 01 ^m 59.502 ^s 5°20'26.123''	42.9	205	101.9	-10.3	103.0	-14.1	94.6	134	
2018/11/21 13:54:24	6723 Chrisclark	11.0	16.98	5.32	132	1.2	34°26'24'' 50°00'36''	268	2.0	UCAC4 675-50055	11.67	7 ^h 17 ^m 25.475 ^s 44°59'23.895''	6.0	11	130.1	-2.3	71.1	6.1	96.4	117	
2018/11/21 14:05:35	32436 2000 RQ97	7.6	17.02	3.57	65	0.6	35°25'17'' 49°52'59''	254	2.4	UCAC4 687-21106	13.49	3 ^h 14 ^m 42.855 ^s 47°22'55.703''	29.0	50	151.7	-3.9	39.4	7.9	96.5	103	
2018/11/21 15:42:29	31090 1997 BJ5	8.3	16.89	5.62	181	0.8	38°34'28'' 49°22'55''	114	0.8	UCAC4 617-8784	11.28	2 ^h 59 ^m 29.265 ^s 33°20'24.506''	35.7	79	162.8	-18.7	24.6	23.1	96.7	115	
2018/11/21 15:47:53	10607 Amar-dahatton	6.9	18.18	6.35	152	0.7	35°53'18'' 51°23'29''	349	1.0	UCAC4 591-33026	11.84	6 ^h 30 ^m 41.501 ^s 28°01'54.917''	2.5	47	142.0	-19.6	58.9	23.9	96.7	119	
2018/11/21 16:27:29	65633 5291 T-3	5.5	19.57	5.59	155	0.7	38°11'19'' 49°23'32''	118	0.8	UCAC4 624-39258	13.99	7 ^h 34 ^m 01.534 ^s 34°46'17.805''	5.7	39	128.2	-25.9	72.4	29.9	96.8	172	
2018/11/21 16:29:17	7605 Cindy-graber	17.4	16.78	3.02	102	1.3	37°38'26'' 49°46'17''	108	3.2	UCAC4 685-8121	13.83	1 ^h 23 ^m 32.302 ^s 46°59'42.008''	65.8	83	140.2	-26.2	40.1	30.2	96.9	187	
2018/11/21 16:52:14	15398 1997 UZ23	22.9	18.77	5.08	153	0.8	37°02'04'' 51°20'00''	20	2.6	UCAC4 464-114789	13.70	20 ^h 04 ^m 35.421 ^s 2°40'42.354''	27.4	238	67.0	-29.9	96.8	33.5	96.9	305	

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 20		LinOccult 2.3.1			
Date Time (UTC)	Asteroid			Nearest point			Star			Sun			Moon			σ_{km}				
	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist		Alt	Dist	Alt	Phase (%)
2018/11/21 17:07:01	55940 GU8	8.3	16.97	4.00	249	0.5	35°04'49" 52°09'09"	340	0.4	UCAC4 603-15019	13.00	4 ^h 41 ^m 10.580 ^s 30°34'37.879"	31.2	78	163.8	-32.3	36.0	35.5	96.9	129
2018/11/21 18:40:46	17013 CA82	5.8	17.39	4.48	234	0.5	38°12'24" 48°21'51"	144	0.1	UCAC4 594-6232	12.93	2 ^h 31 ^m 01.839 ^s 28°37'21.063"	63.7	136	160.5	-46.6	18.6	46.2	97.2	91
2018/11/21 18:44:12	8773 Torquilla	7.9	16.50	4.34	181	0.9	37°58'22" 48°51'01"	138	0.6	UCAC4 604-7317	12.18	2 ^h 42 ^m 41.091 ^s 30°39'00.602"	64.4	130	161.8	-47.1	20.5	46.5	97.2	96
2018/11/21 18:53:19	11194 Mirna	5.5	17.44	4.19	62	1.0	35°42'23" 50°27'46"	318	2.0	UCAC4 554-26618	13.27	6 ^h 28 ^m 40.943 ^s 20°47'19.799"	24.2	86	142.4	-48.4	56.2	47.3	97.2	81
2018/11/21 18:54:35	1145 Robel- monte	23.2	15.42	2.52	163	2.4	37°23'01" 48°45'50"	151	2.3	UCAC4 614-25605	13.01	5 ^h 48 ^m 03.947 ^s 32°44'21.427"	39.2	83	150.3	-48.5	49.0	47.4	97.2	96
2018/11/21 19:01:45	29929 JR39	7.9	17.69	5.87	57	0.8	36°38'51" 49°35'28"	153	2.3	UCAC4 596-21894	11.82	5 ^h 39 ^m 37.068 ^s 29°01'32.790"	39.2	90	153.1	-49.5	46.2	47.9	97.2	121
2018/11/21 19:23:01	9036 SJ16	6.9	17.14	7.72	224	0.7	34°29'14" 51°42'19"	325	0.2	TYC 1857- 1468-1	9.42	5 ^h 04 ^m 44.682 ^s 28°41'52.844"	48.0	102	160.4	-52.2	38.6	49.2	97.3	99
2018/11/21 19:26:09	3730 Hurban	26.3	16.49	2.98	208	1.1	37°35'58" 48°23'03"	153	1.9	UCAC4 398-133951	13.58	21 ^h 23 ^m 57.347 ^s -10°24'57.981"	5.9	246	80.9	-52.6	81.2	49.4	97.3	118
2018/11/21 19:27:28	56928 RF27	5.2	18.55	4.60	28	0.6	36°02'03" 50°14'07"	319	1.5	UCAC4 648-33909	13.96	5 ^h 45 ^m 20.033 ^s 39°26'55.925"	49.0	82	148.1	-52.7	50.4	49.4	97.3	136
2018/11/21 19:36:32	62076 RH80	5.2	18.83	5.03	25	0.6	36°15'39" 49°49'11"	184	1.6	UCAC4 481-43633	13.81	8 ^h 21 ^m 55.256 ^s 6°04'12.528"	1.9	83	112.3	-53.8	84.3	49.8	97.3	129
2018/11/21 20:24:29	14879 AL2	5.5	16.95	7.48	146	0.5	34°57'13" 51°03'08"	320	0.5	TYC 67-1500-1	9.47	3 ^h 35 ^m 52.925 ^s 4°43'53.036"	44.0	165	164.5	-58.2	14.5	50.6	97.4	81
2018/11/21 20:29:18	7662 RM1	11.5	17.17	8.62	3	0.8	36°15'48" 50°03'56"	321	6.6	TYC 68-447-1	8.55	3 ^h 42 ^m 09.134 ^s 4°37'36.486"	43.8	165	164.6	-58.5	16.0	50.6	97.4	69
2018/11/21 20:31:33	41488 Sind- bad	11.0	18.44	5.15	74	0.8	37°15'10" 49°48'44"	111	2.3	UCAC4 500-54496	13.30	9 ^h 40 ^m 28.051 ^s 9°54'49.017"	1.2	76	95.1	-58.6	102.1	50.5	97.5	176
2018/11/21 20:42:39	2443 Tomeileen	30.9	15.81	3.29	135	6.0	37°33'11" 49°09'17"	138	5.4	UCAC4 378-175910	12.57	23 ^h 59 ^m 04.902 ^s -14°25'18.268"	13.1	228	114.0	-59.2	47.5	50.3	97.4	156
2018/11/21 20:42:48	16182 AH137	6.3	16.19	2.58	252	0.9	36°58'27" 47°49'55"	169	0.0	UCAC4 519-15439	13.71	5 ^h 47 ^m 10.389 ^s 13°37'44.248"	41.9	125	150.8	-59.2	45.2	50.3	97.5	64
2018/11/21 21:01:49	32436 RQ97	7.6	17.02	5.49	249	0.6	38°07'26" 48°09'26"	148	0.2	UCAC4 687-20953	11.54	3 ^h 14 ^m 22.184 ^s 47°20'32.247"	86.4	226	151.7	-59.9	37.4	49.6	97.5	103
2018/11/21 23:52:14	37923 FD113	7.6	19.21	7.83	106	0.6	37°41'25" 50°21'55"	71	1.5	UCAC4 421-46581	11.39	8 ^h 24 ^m 34.048 ^s -5°50'35.510"	28.2	145	107.5	-47.6	85.0	32.0	97.9	169
2018/11/22 02:05:02	10329 GJ1	6.9	16.73	3.20	48	0.6	36°01'46" 49°39'11"	203	2.6	UCAC4 565-5548	13.59	2 ^h 46 ^m 54.890 ^s 22°59'25.293"	19.4	283	165.3	-27.1	11.6	12.1	98.2	91
2018/11/22 02:22:44	52551 AL	5.5	18.53	5.39	53	0.6	36°37'12" 50°28'24"	27	1.5	UCAC4 616-25871	13.15	5 ^h 40 ^m 43.588 ^s 33°03'51.231"	51.3	263	151.9	-24.3	43.5	9.4	98.2	135
2018/11/22 03:09:33	123583 XR40	5.2	16.31	5.11	99	0.7	35°36'09" 49°16'44"	210	1.2	TYC 2873- 2991-1	11.21	3 ^h 28 ^m 50.197 ^s 44°45'36.619"	31.3	304	154.8	-16.8	33.7	2.3	98.3	84

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.				Table 1		Page 21		LinOccult 2.3.1			
		Asteroid			Nearest point			Star				Sun			Moon						
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}	
2018/11/22 03:10:31	8535 Pellesvanslos	6.9	18.46	5.30	72	0.5	35°53'25'' 49°27'10''	203	1.8	UCAC4 563-16367	13.17	5 ^h 23 ^m 27.013 ^s 22°26'52.219''	33.6	266	157.9	-16.6	36.5	2.2	98.3	132	
2018/11/22 03:37:05	4308 Magarach	10.0	15.48	1.92	184	1.3	34°55'50'' 48°38'56''	212	0.3	UCAC4 643-21789	13.76	4 ^h 53 ^m 37.877 ^s 38°32'20.329''	35.4	290	156.8	-12.5	37.1	-1.7	98.4	75	
2018/11/22 04:11:12	3827 Zdenekhorsky	8.3	16.51	3.67	67	0.8	35°42'60'' 49°33'58''	217	2.8	UCAC4 596-14682	12.88	4 ^h 51 ^m 37.821 ^s 29°07'36.495''	23.6	288	163.2	-7.3	31.3	-6.5	98.4	89	
2018/11/22 04:21:27	2538 Vanderlinden	7.6	16.42	2.78	181	1.2	36°27'08'' 51°40'19''	4	0.2	UCAC4 574-42189	13.72	8 ^h 21 ^m 39.212 ^s 24°42'31.501''	51.8	243	117.5	-5.8	76.6	-7.8	98.4	71	
2018/11/22 15:04:56	5124 Muraoka	6.0	16.57	3.26	10	0.5	36°15'45'' 49°57'36''	190	3.0	UCAC4 558-8008	13.37	3 ^h 49 ^m 08.937 ^s 21°32'10.319''	14.3	73	178.5	-12.9	9.9	12.5	99.4	81	
2018/11/22 16:21:41	37005 2000 TO37	5.2	18.51	5.59	237	0.6	37°12'46'' 48°00'22''	164	0.3	UCAC4 526-17069	12.93	5 ^h 49 ^m 18.392 ^s 15°01'49.151''	2.8	70	151.5	-25.1	34.6	24.6	99.4	131	
2018/11/22 16:31:44	33214 1998 FP90	8.3	16.84	4.91	83	0.7	37°10'37'' 49°34'12''	130	2.3	UCAC4 717-31881	11.94	4 ^h 15 ^m 27.598 ^s 53°14'05.031''	43.9	54	146.5	-26.7	40.5	26.1	99.5	105	
2018/11/22 17:18:24	2666 Gramme	39.3	17.77	4.22	122	1.1	34°41'57'' 50°27'48''	292	6.4	UCAC4 396-114509	13.57	19 ^h 21 ^m 25.356 ^s -10°49'22.435''	5.8	245	51.2	-34.2	123.2	33.3	99.5	204	
2018/11/22 18:32:31	1826 Miller	24.4	15.22	2.10	134	2.5	34°56'11'' 50°53'03''	314	4.2	UCAC4 591-17956	13.29	5 ^h 21 ^m 41.862 ^s 28°03'39.291''	37.4	89	158.1	-45.6	29.0	43.6	99.6	110	
2018/11/22 18:39:20	16765 Agnesi	5.2	18.54	6.56	87	0.8	36°43'44'' 49°19'13''	159	1.4	UCAC4 644-42200	11.98	7 ^h 22 ^m 11.201 ^s 38°36'48.408''	27.0	61	131.4	-46.6	56.0	44.5	99.6	112	
2018/11/22 19:18:12	45750 2000 JC65	5.8	18.96	5.53	150	0.6	35°08'29'' 51°10'38''	327	0.9	UCAC4 509-25431	13.43	6 ^h 29 ^m 16.249 ^s 11°37'19.051''	21.9	98	141.3	-51.8	42.9	48.9	99.6	134	
2018/11/22 19:23:41	20103 de Vico	5.8	17.16	4.05	154	0.7	36°02'34'' 51°25'31''	354	0.5	UCAC4 467-3529	13.13	2 ^h 39 ^m 34.474 ^s 3°14'51.836''	42.5	165	155.5	-52.4	17.4	49.4	99.6	84	
2018/11/22 19:35:53	9096 Tamotsu	12.6	17.58	5.60	199	2.7	39°03'01'' 49°52'20''	96	1.3	UCAC4 570-44675	11.99	8 ^h 38 ^m 29.246 ^s 23°52'19.308''	13.4	69	114.3	-53.9	71.7	50.6	99.6	141	
2018/11/22 19:51:11	54847 2001 OM5	6.0	17.39	4.15	59	0.8	35°43'59'' 50°26'19''	318	2.1	UCAC4 454-2619	13.26	2 ^h 09 ^m 10.836 ^s 0°44'28.823''	40.8	185	148.2	-55.5	25.3	51.8	99.6	93	
2018/11/22 19:52:41	8597 Sandvicensis	7.6	18.05	4.40	55	0.7	36°06'55'' 50°31'58''	347	2.2	UCAC4 654-39036	13.67	5 ^h 58 ^m 39.847 ^s 40°43'43.973''	52.2	83	146.1	-55.6	40.8	52.0	99.6	123	
2018/11/22 20:28:30	8866 Tane-gashima	12.6	16.23	3.67	244	2.7	35°02'51'' 52°05'47''	339	0.3	UCAC4 634-36284	12.59	6 ^h 42 ^m 43.119 ^s 36°42'19.541''	48.6	87	139.4	-58.6	47.0	54.1	99.6	106	
2018/11/22 21:27:10	83635 2001 SF325	5.0	19.01	5.40	139	0.8	36°23'07'' 51°17'37''	3	0.9	UCAC4 542-34215	13.62	6 ^h 51 ^m 37.944 ^s 18°13'45.971''	43.4	117	137.8	-60.3	46.4	54.7	99.7	136	
2018/11/22 21:44:19	15071 Hallerstein	7.9	16.23	2.75	207	2.5	33°53'34'' 49°01'29''	236	0.1	UCAC4 602-39988	13.57	7 ^h 18 ^m 20.592 ^s 30°16'52.502''	51.0	103	132.8	-60.0	52.5	54.2	99.7	73	
2018/11/22 23:37:26	49635 1999 GA47	7.2	18.76	5.60	197	0.8	37°54'06'' 48°37'14''	144	0.8	UCAC4 586-45326	13.17	9 ^h 30 ^m 12.560 ^s 27°07'06.405''	45.9	102	103.9	-49.8	80.2	44.3	99.8	144	
2018/11/23 00:08:22	66802 1999 TJ270	5.0	18.86	5.85	206	1.2	39°06'42'' 49°42'27''	101	0.4	UCAC4 528-44240	13.01	7 ^h 44 ^m 45.724 ^s 15°26'19.713''	53.3	154	124.9	-45.5	57.6	40.3	99.8	118	

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.		Table 1		Page 22		LinOccult 2.3.1				
Date Time (UTC)	Asteroid			Nearest point			Star					Sun		Moon						
	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/23 00:21:35	27508 GSI42	2000	17.35	4.55	246	1.1	37°28'22" 52°07'46"	20	0.4	UCAC4 543-27088	12.81	6 ^h 23 ^m 07.020 ^s 18°28'14.928"	58.0	194	144.6	-43.6	37.9	38.5	99.8	118
2018/11/23 00:39:24	35649 ML4	1998	18.63	5.43	149	0.9	35°21'48" 51°15'19"	334	1.3	UCAC4 436-20558	13.21	6 ^h 43 ^m 07.791 ^s −2°57'11.137"	36.8	189	132.3	-40.9	47.5	36.0	99.8	151
2018/11/23 01:45:03	8312 TJ12	1996	17.78	6.27	35	0.7	36°36'40" 50°16'45"	42	2.5	UCAC4 612-22826	11.52	5 ^h 38 ^m 18.912 ^s 32°23'24.375"	55.8	254	153.6	-30.5	30.1	26.3	99.8	127
2018/11/23 02:29:07	17038 Wake	5.0	18.58	4.67	111	0.7	36°15'41" 49°03'03"	181	1.1	UCAC4 553-29704	13.93	6 ^h 37 ^m 00.368 ^s 20°25'15.418"	48.9	237	141.7	-23.4	39.8	19.5	99.8	107
2018/11/23 02:34:58	6643 Morikubo	8.3	18.07	6.67	127	0.8	36°39'35" 51°10'03"	12	1.6	UCAC4 539-48217	11.40	9 ^h 35 ^m 39.830 ^s 17°41'16.423"	57.4	168	100.0	-22.5	81.9	18.6	99.8	131
2018/11/23 03:12:49	8170 PZ11	1991	17.33	4.55	152	0.7	35°05'09" 48°55'23"	214	1.2	UCAC4 633-23536	12.79	5 ^h 12 ^m 00.808 ^s 36°25'12.555"	40.1	282	156.4	-16.5	27.3	12.8	99.8	112
2018/11/23 04:46:54	1575 Winifred	12.6	16.17	2.49	161	1.0	37°31'42" 48°51'02"	146	1.2	UCAC4 399-21993	13.80	7 ^h 12 ^m 59.010 ^s −10°22'33.114"	9.2	242	122.2	-2.4	55.5	−0.8	99.9	91
2018/11/23 04:56:32	700 Auravix- trix	15.4	14.50	1.37	14	2.4	36°22'49" 50°09'12"	30	8.0	UCAC4 552-24307	13.49	6 ^h 18 ^m 04.419 ^s 20°17'12.992"	23.0	275	146.2	-1.0	33.9	-2.2	99.9	75
2018/11/23 14:15:53	1847 Stobbe	23.9	16.43	3.04	241	0.5	37°18'21" 47°59'11"	162	2.2	UCAC4 344-101828	13.45	17 ^h 36 ^m 25.947 ^s −21°21'55.512"	6.7	225	23.6	-5.7	161.1	-0.1	99.7	182
2018/11/23 16:43:28	28283 CR35	1999	17.64	4.09	79	0.8	36°39'24" 49°22'32"	161	2.1	UCAC4 590-28277	13.57	6 ^h 08 ^m 54.747 ^s 27°53'25.171"	13.6	63	148.8	-28.7	26.3	22.2	99.6	119
2018/11/23 18:33:33	30408 KW55	2000	18.55	4.88	167	0.9	37°07'43" 48°39'15"	159	0.8	UCAC4 567-33423	13.68	6 ^h 52 ^m 42.435 ^s 23°13'12.043"	20.2	78	139.1	-45.9	34.2	39.1	99.5	126
2018/11/23 19:04:00	23499 VY12	1991	16.83	10.89	113	0.7	35°13'50" 50°48'39"	318	0.5	HIP 12893	5.94	2 ^h 45 ^m 43.107 ^s 17°01'16.532"	54.6	152	163.0	-50.1	24.8	43.5	99.5	57
2018/11/23 20:11:34	4807 Noboru	6.3	15.65	2.17	45	2.4	36°27'41" 49°39'29"	164	3.3	UCAC4 572-26318	13.64	6 ^h 13 ^m 57.452 ^s 24°20'01.585"	42.9	103	148.0	-57.5	24.7	51.9	99.4	54
2018/11/23 20:51:17	60595 EN150	2000	16.88	3.60	196	0.5	37°51'28" 48°37'04"	145	0.2	UCAC4 618-15945	13.32	4 ^h 30 ^m 03.235 ^s 33°30'34.207"	70.1	139	164.9	-60.0	15.5	55.6	99.4	84
2018/11/23 21:07:15	89465 XF16	2001	19.20	5.93	175	0.7	37°31'54" 51°24'16"	31	0.7	UCAC4 540-45951	13.28	8 ^h 13 ^m 06.662 ^s 17°49'08.262"	28.1	95	119.8	-60.4	51.6	56.7	99.3	168
2018/11/23 21:35:25	39740 AG4	1997	17.49	5.07	29	0.6	36°12'08" 50°18'05"	348	2.0	UCAC4 648-24040	12.43	4 ^h 57 ^m 43.193 ^s 39°32'07.459"	76.9	138	156.8	-60.4	21.9	58.0	99.3	95
2018/11/23 22:37:35	520 Franziska	28.7	14.59	1.91	225	2.9	35°17'51" 48°08'11"	198	1.2	UCAC4 622-23525	12.88	5 ^h 27 ^m 54.837 ^s 34°21'48.470"	74.4	170	155.5	-56.8	19.5	57.7	99.2	107
2018/11/24 00:43:01	15459 YY9	1998	18.34	8.18	138	0.7	36°02'37" 48°48'49"	187	0.9	UCAC4 556-24389	10.16	6 ^h 09 ^m 44.881 ^s 21°07'41.052"	58.2	212	149.1	-40.5	20.4	45.9	99.1	118
2018/11/24 01:59:29	4558 Janesick	10.0	17.55	4.97	202	0.7	38°57'18" 50°41'21"	69	0.8	UCAC4 424-51022	12.59	9 ^h 29 ^m 40.986 ^s −5°16'15.839"	33.7	164	94.6	-28.4	73.6	35.0	99.0	120
2018/11/24 02:10:41	3112 Velimir	7.2	16.81	5.13	124	0.6	35°36'42" 49°01'08"	203	1.1	UCAC4 568-16089	11.69	5 ^h 18 ^m 08.645 ^s 23°31'38.750"	41.8	257	161.1	-26.6	8.7	33.3	98.9	84

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.		Table 1		Page 23		LinOccult 2.3.1				
Date Time (UTC)	Asteroid			Nearest point			Star					Sun			Moon					
	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/24 02:28:36	2377 Shche- glov	12.6	16.16	2.50	188	1.5	35°32'31" 48°25'50"	196	0.8	UCAC4 568-20350	13.78	5 ^h 50 ^m 44.732 ^s 23°31'25.542"	44.1	253	153.6	-23.7	15.4	30.6	98.9	98
2018/11/24 02:40:23	901 Brunsia	17.8	14.59	3.37	38	2.3	36°10'35" 49°42'45"	192	8.5	UCAC4 570-27094	11.28	6 ^h 18 ^m 45.536 ^s 23°48'45.728"	46.8	250	147.2	-21.8	21.6	28.8	98.9	72
2018/11/24 03:13:13	4452 Ul- lacharles	12.0	15.67	2.20	74	1.4	36°52'21" 50°36'06"	34	3.8	UCAC4 633-6245	13.62	1 ^h 52 ^m 45.040 ^s 36°25'12.697"	11.5	314	148.4	-16.6	42.6	23.7	98.8	90
2018/11/24 04:25:58	2948 Amosov	9.5	16.72	3.32	51	1.3	36°10'02" 50°29'49"	350	3.4	UCAC4 489-26482	13.46	6 ^h 34 ^m 17.253 ^s 7°45'30.233"	20.5	257	140.1	-5.6	27.0	12.7	98.7	98
2018/11/24 04:59:36	1024 Hale	41.4	16.97	3.65	157	1.0	35°46'52" 48°40'18"	193	5.6	UCAC4 396-58483	13.36	14 ^h 45 ^m 29.885 ^s -10°52'41.294"	16.6	131	19.9	-0.8	147.9	7.8	98.7	235
2018/11/24 05:04:43	60595 2000 EN150	5.5	16.88	3.67	19	0.5	36°10'60" 49°53'39"	203	2.6	UCAC4 618-15891	13.24	4 ^h 29 ^m 39.197 ^s 33°28'09.959"	14.8	305	165.2	-0.1	15.5	7.0	98.6	84
2018/11/24 13:36:20	8127 Beuf	6.9	17.32	5.13	213	0.7	33°20'31" 50°23'01"	280	0.3	UCAC4 673-38227	12.20	5 ^h 25 ^m 11.359 ^s 44°29'16.211"	11.4	29	150.1	-0.2	24.8	-9.8	97.6	105
2018/11/24 13:56:19	56297 1999 RT42	7.2	18.69	4.71	201	0.6	39°03'31" 49°47'40"	98	0.8	UCAC4 654-40851	13.99	6 ^h 14 ^m 16.108 ^s 40°41'22.798"	5.8	26	145.0	-3.0	24.3	-7.6	97.6	152
2018/11/24 14:43:39	7609 1995 WX3	10.0	16.74	3.33	201	0.9	38°40'50" 49°07'30"	121	0.6	UCAC4 646-30205	13.47	5 ^h 32 ^m 54.399 ^s 39°07'50.474"	12.4	42	152.6	-9.9	19.5	-1.8	97.5	105
2018/11/24 15:26:12	2544 Gubarev	9.2	16.15	3.84	96	0.8	37°35'03" 49°50'59"	103	2.3	UCAC4 697-39701	12.35	5 ^h 42 ^m 25.031 ^s 49°15'16.660"	24.1	41	144.7	-16.5	29.7	3.9	97.3	97
2018/11/24 16:51:45	892 Seeligeria	75.9	16.10	2.26	200	2.7	36°25'47" 48°14'57"	177	9.2	UCAC4 412-127604	13.98	20 ^h 34 ^m 08.681 ^s -7°40'22.696"	20.8	228	67.3	-30.2	132.3	16.4	97.1	193
2018/11/24 17:24:20	20800 2000 SV172	5.5	17.48	4.55	198	0.5	37°12'44" 48°22'18"	160	0.4	UCAC4 585-17453	12.95	5 ^h 33 ^m 34.452 ^s 26°55'32.832"	25.0	77	157.7	-35.4	7.1	21.5	97.0	109
2018/11/24 17:27:27	10077 1989 UL1	7.9	16.88	3.35	186	0.8	34°51'05" 51°26'59"	327	0.5	UCAC4 612-24322	13.58	5 ^h 46 ^m 12.954 ^s 32°19'21.889"	27.3	71	153.6	-35.9	13.1	21.9	97.0	99
2018/11/24 17:33:23	7103 Wich- mann	9.1	17.49	6.55	145	0.7	37°17'10" 48°55'24"	150	1.5	UCAC4 482-4441	10.94	3 ^h 06 ^m 16.324 ^s 6°14'04.075"	33.3	125	160.6	-36.8	36.5	22.9	97.0	124
2018/11/24 19:36:08	26171 1996 BY2	5.0	16.69	8.36	88	0.9	35°53'15" 50°48'01"	341	0.6	TYC 45-515-1	8.33	2 ^h 28 ^m 44.002 ^s 7°14'00.261"	47.3	175	154.1	-54.2	45.9	41.7	96.7	44
2018/11/24 19:37:06	603 Timandra	13.7	15.15	2.57	193	1.3	35°10'17" 51°38'01"	336	0.4	UCAC4 605-8916	12.69	3 ^h 08 ^m 54.091 ^s 30°59'25.478"	68.9	148	164.4	-54.3	33.5	41.8	96.7	81
2018/11/24 19:40:47	378 Holmia	26.7	13.18	1.40	79	2.7	37°00'30" 49°30'40"	139	8.1	UCAC4 546-12875	12.13	5 ^h 08 ^m 56.225 ^s 19°06'31.529"	44.7	117	163.9	-54.7	5.3	42.4	96.7	86
2018/11/24 19:58:51	70019 1998 YE12	6.9	17.62	4.12	53	0.7	36°14'25" 50°31'07"	356	2.1	UCAC4 536-17902	13.52	5 ^h 43 ^m 25.695 ^s 17°02'49.945"	40.7	115	155.4	-56.6	4.3	45.0	96.6	119
2018/11/24 20:17:00	8115 Sakabe	5.5	17.98	4.05	153	0.7	35°52'36" 51°24'00"	349	0.6	UCAC4 596-36716	13.96	6 ^h 47 ^m 37.112 ^s 29°05'57.613"	42.4	94	141.4	-58.2	19.2	47.5	96.6	93
2018/11/24 21:26:47	56297 1999 RT42	7.2	18.68	6.26	226	0.6	37°14'37" 48°07'06"	162	0.6	UCAC4 654-40831	12.43	6 ^h 14 ^m 01.531 ^s 40°41'33.693"	66.1	101	145.3	-60.7	21.9	55.8	96.3	152

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')

Sorted by date/time.

Table 1

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Date Time (UTC)	Asteroid			Nearest point			Star				Sun			Moon						
	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/24 21:32:38	35961 LH7	8.3	17.38	3.91	152	1.2	35°29'40" 48°47'13"	202	1.1	UCAC4 508-37834	13.50	7 ^h 08 ^m 56.708 ^s 11°24'37.563"	37.3	121	134.0	-60.7	24.2	56.4	96.4	105
2018/11/24 22:06:53	57750 VQ	6.3	16.99	6.13	57	1.0	35°34'34" 49°49'06"	243	1.9	UCAC4 383-22811	10.87	7 ^h 00 ^m 37.830 ^s −13°34'19.446"	20.1	145	124.1	-59.4	39.8	59.0	96.2	115
2018/11/24 22:21:03	8906 Yano	9.1	16.71	2.90	47	1.4	36°14'16" 50°27'52"	356	3.3	UCAC4 558-25071	13.89	6 ^h 11 ^m 51.053 ^s 21°28'47.693"	58.5	148	149.5	-58.4	8.1	59.8	96.2	99
2018/11/24 22:30:20	33398 CQ58	5.8	16.79	5.48	83	0.7	35°40'50" 49°24'32"	211	1.7	UCAC4 722-36405	11.32	4 ^h 55 ^m 26.356 ^s 54°17'53.197"	84.9	333	144.7	-57.7	34.8	60.2	96.1	92
2018/11/24 23:24:39	4710 Wade	7.9	15.78	2.18	28	1.0	36°18'52" 49°47'60"	176	4.3	UCAC4 583-15318	13.75	5 ^h 12 ^m 54.283 ^s 26°30'04.433"	64.6	208	162.6	-51.9	8.7	60.3	96.0	67
2018/11/25 00:18:30	26556 DG107	5.0	18.07	5.23	242	0.6	36°13'40" 52°13'07"	359	0.1	UCAC4 435-2942	12.85	2 ^h 20 ^m 53.880 ^s −3°05'39.678"	10.5	252	145.8	-44.4	54.9	57.1	95.8	106
2018/11/25 00:19:09	3476 Dong- guan	31.5	16.34	5.16	40	2.8	36°50'37" 50°00'10"	97	10.2	TYC 2981- 980-1	11.19	8 ^h 32 ^m 29.115 ^s 43°59'55.900"	73.3	102	120.0	-44.3	42.1	57.1	95.8	115
2018/11/25 00:21:52	5196 Bustelli	9.1	16.23	2.77	35	0.9	35°59'02" 49°47'55"	218	3.9	UCAC4 663-31180	13.55	4 ^h 58 ^m 21.820 ^s 42°33'38.245"	67.5	263	154.9	-43.9	23.9	56.8	95.8	87
2018/11/25 00:33:55	2107 Ilmari	15.6	15.22	6.46	187	2.0	35°03'38" 51°32'14"	332	0.0	UCAC4 522-23368	8.76	6 ^h 20 ^m 00.400 ^s 14°14'10.628"	52.7	202	146.4	-42.1	10.8	55.7	95.7	36
2018/11/25 00:39:45	15037 Chas- sagne	7.9	17.90	7.67	36	0.7	36°14'03" 50°21'56"	354	2.4	UCAC4 476-4254	10.23	2 ^h 51 ^m 15.586 ^s 5°04'35.880"	18.4	256	156.9	-41.2	44.7	55.1	95.7	128
2018/11/25 01:08:41	990 Yerkes	18.5	15.00	3.59	22	2.0	36°29'17" 50°11'43"	41	8.9	UCAC4 638-24543	11.45	5 ^h 19 ^m 47.002 ^s 37°32'59.224"	60.7	259	156.0	-36.7	17.8	51.8	95.6	80
2018/11/25 01:11:22	74119 QH52	5.5	17.44	3.80	139	0.8	35°36'39" 48°52'49"	200	0.7	UCAC4 619-31788	13.67	6 ^h 13 ^m 31.995 ^s 33°40'52.124"	65.8	237	148.0	-36.3	14.5	51.5	95.6	88
2018/11/25 01:12:17	2377 Shche- glov	12.6	16.14	2.84	236	1.4	35°41'21" 47°57'49"	190	0.3	UCAC4 568-20228	13.38	5 ^h 50 ^m 03.741 ^s 23°30'57.079"	54.4	233	154.7	-36.2	3.1	51.4	95.6	98
2018/11/25 01:23:55	2630 Hermod	13.8	15.98	2.19	65	2.0	36°32'48" 50°36'43"	16	3.7	UCAC4 523-3591	13.95	2 ^h 02 ^m 20.400 ^s 14°26'47.166"	10.6	280	151.0	-34.3	53.4	50.0	95.6	131
2018/11/25 01:27:14	66011 QR17	6.6	18.81	4.97	98	0.6	36°49'39" 50°51'27"	23	1.5	UCAC4 518-50733	13.85	9 ^h 46 ^m 09.654 ^s 13°24'20.017"	48.4	143	98.2	-33.8	57.6	49.5	95.6	136
2018/11/25 01:40:23	2172 Plavsk	12.0	15.51	3.12	245	1.3	37°24'37" 52°08'04"	19	0.1	UCAC4 557-11782	12.45	4 ^h 55 ^m 26.201 ^s 21°14'57.589"	40.7	254	167.4	-31.7	11.9	47.8	95.5	86
2018/11/25 01:46:17	7145 Linzexu	10.0	16.31	2.76	101	1.8	37°31'28" 50°29'50"	61	2.3	UCAC4 485-45241	13.63	8 ^h 15 ^m 41.175 ^s 6°49'11.275"	46.9	184	117.2	-30.7	38.6	47.0	95.5	83
2018/11/25 01:46:35	1307 Cimme- ria	11.7	14.15	1.30	29	1.4	36°11'33" 49°47'53"	194	6.9	UCAC4 550-9492	13.24	4 ^h 19 ^m 11.284 ^s 19°59'06.854"	33.1	262	175.8	-30.7	20.5	47.0	95.5	61
2018/11/25 01:49:25	2098 Zyskin	17.8	16.13	2.51	47	2.1	36°33'16" 50°25'51"	24	7.0	UCAC4 617-33223	13.73	6 ^h 14 ^m 23.657 ^s 33°16'44.720"	60.1	249	148.0	-30.2	14.0	46.6	95.5	87
2018/11/25 02:50:35	30433 LJ21	9.5	17.25	3.98	71	0.8	36°13'02" 49°24'28"	184	2.7	UCAC4 588-20601	13.30	5 ^h 41 ^m 40.186 ^s 27°32'59.702"	41.4	265	156.2	-20.4	7.0	37.7	95.3	121

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 25		LinOccult 2.3.1			
		Asteroid			Nearest point			Star			Sun			Moon						
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/25 03:15:03	17543 Sosva	9.5	17.93	5.09	163	0.6	34°49'07" 48°56'13"	220	1.4	UCAC4 666-22888	12.85	4 ^h 10 ^m 48.028 ^s 43°07'04.361"	33.6	299	157.4	-16.5	30.5	34.0	95.2	147
2018/11/25 03:24:49	46323 2001 QH115	6.3	18.33	5.77	189	0.5	37°15'41" 51°37'35"	22	0.7	UCAC4 589-20416	12.57	5 ^h 40 ^m 45.512 ^s 27°47'10.771"	35.9	272	156.4	-15.0	7.4	32.5	95.2	129
2018/11/25 04:22:33	18543 1997 AE	7.2	17.62	4.50	122	0.6	35°18'12" 49°09'27"	215	1.4	UCAC4 612-21800	13.14	5 ^h 31 ^m 52.033 ^s 32°18'54.938"	28.4	288	156.8	-6.3	12.4	23.6	95.0	106
2018/11/25 17:29:12	239 Adrastea	41.5	14.33	1.27	108	8.0	35°30'50" 50°53'08"	329	9.0	UCAC4 518-34605	13.47	6 ^h 55 ^m 19.286 ^s 13°31'37.196"	3.7	73	138.7	-36.3	10.4	14.0	91.9	91
2018/11/25 17:45:36	43940 1996 XY5	10.0	18.51	5.08	148	0.5	37°38'42" 49°03'12"	139	1.6	UCAC4 359-204390	13.44	22 ^h 10 ^m 56.471 ^s -18°13'33.982"	15.3	214	85.1	-38.8	127.6	16.5	91.8	180
2018/11/25 18:46:48	8170 1991 PZ11	8.7	17.27	5.94	251	0.7	34°08'12" 51°50'42"	322	0.3	UCAC4 632-22559	11.34	5 ^h 09 ^m 18.275 ^s 36°21'34.048"	48.9	88	158.9	-48.0	23.1	25.8	91.6	112
2018/11/25 19:06:36	16972 Neish	5.8	18.20	7.19	238	0.6	35°34'20" 47°57'57"	192	0.2	TYC 37-518-1	11.01	2 ^h 02 ^m 46.419 ^s 2°11'03.887"	42.3	176	145.0	-50.7	67.9	28.9	91.5	115
2018/11/25 19:34:48	7109 Heine	8.7	16.31	2.48	163	1.3	34°45'08" 51°08'21"	318	0.8	UCAC4 484-3175	13.95	2 ^h 20 ^m 44.706 ^s 6°40'08.141"	46.8	179	151.1	-54.2	62.4	33.2	91.3	91
2018/11/25 20:15:21	3488 Brahic	7.9	16.92	3.13	172	0.8	37°41'38" 48°48'25"	144	0.6	UCAC4 363-44	13.86	0 ^h 02 ^m 15.985 ^s -17°28'17.427"	12.1	223	109.3	-58.2	103.4	39.4	91.2	90
2018/11/25 20:28:39	8073 Johnharmon	8.7	15.73	3.66	64	1.1	36°53'38" 49°37'31"	137	3.2	TYC 2335-798-1	12.10	2 ^h 26 ^m 37.334 ^s 35°49'30.061"	73.7	215	153.7	-59.2	55.4	41.4	91.1	77
2018/11/25 20:33:39	56479 2000 GT114	5.2	18.48	4.61	196	0.8	37°23'51" 48°26'19"	156	0.4	UCAC4 463-135306	13.88	23 ^h 51 ^m 21.015 ^s 2°27'17.946"	25.7	240	115.7	-59.5	99.0	42.2	91.1	113
2018/11/25 23:29:28	11661 1997 FK4	6.6	16.78	3.97	107	0.8	35°55'48" 49°07'02"	194	1.5	UCAC4 586-6003	12.84	2 ^h 37 ^m 51.298 ^s 27°00'36.423"	43.2	261	159.1	-51.4	55.6	61.1	90.2	92
2018/11/25 23:47:22	17437 Stekene	8.7	17.90	4.19	12	0.8	36°26'01" 49°59'21"	122	2.6	UCAC4 424-15847	13.73	6 ^h 27 ^m 11.615 ^s -5°22'19.084"	34.7	181	136.5	-49.1	27.2	61.6	90.1	134
2018/11/26 00:33:32	5527 1991 UQ3	6.0	17.28	3.48	137	0.6	36°40'43" 51°15'14"	12	0.8	UCAC4 553-20508	13.85	5 ^h 55 ^m 18.704 ^s 20°30'36.347"	56.4	217	154.4	-42.4	11.7	60.9	89.9	85
2018/11/26 00:50:35	4710 Wade	7.9	15.74	2.09	152	0.9	36°08'51" 48°41'08"	184	0.4	UCAC4 583-15209	13.83	5 ^h 11 ^m 48.364 ^s 26°26'41.299"	54.0	243	163.9	-39.7	22.1	60.0	89.8	67
2018/11/26 03:06:27	17850 1998 HR150	6.6	17.24	3.39	93	1.0	37°20'16" 49°33'58"	125	1.7	UCAC4 474-32595	13.90	7 ^h 24 ^m 06.812 ^s 4°36'29.939"	35.1	227	129.3	-18.1	18.5	44.8	89.1	93
2018/11/26 04:22:25	16774 1996 VP1	7.2	18.11	4.31	36	1.3	35°56'02" 50°16'58"	316	2.4	UCAC4 520-47079	13.82	8 ^h 23 ^m 59.341 ^s 13°49'51.346"	41.0	237	118.5	-6.5	22.3	33.4	88.7	114
2018/11/26 04:23:58	2207 Antenor	85.1	16.81	3.12	258	2.3	34°53'08" 47°55'23"	203	7.5	UCAC4 417-57096	13.75	13 ^h 44 ^m 25.947 ^s -6°37'56.999"	24.2	137	37.1	-6.2	103.8	33.2	88.8	338
2018/11/26 16:13:53	4933 Tylerlin-der	6.0	17.40	5.62	17	0.6	36°28'25" 50°08'06"	54	2.7	TYC 1306-189-1	11.79	5 ^h 36 ^m 49.304 ^s 20°30'12.136"	10.1	70	159.3	-24.3	25.4	-4.4	84.9	89
2018/11/26 17:18:34	1333 Cevenola	16.6	14.85	2.46	82	3.0	36°34'11" 49°20'11"	166	4.9	UCAC4 503-28280	12.51	6 ^h 29 ^m 57.172 ^s 10°34'34.343"	4.3	79	144.5	-34.7	17.5	3.7	84.6	80

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 26		LinOccult 2.3.1			
	Asteroid			Nearest point			Star			Sun			Moon							
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Phase (%)	σ_{km}		
2018/11/26 18:00:50	32466 SNI53	7.6	18.23	5.12	165	0.5	35°04'35'' 51°19'09''	329	1.0 2.3	UCAC4 653-37954	13.12	5 ^h 48 ^m 22.651 ^s 40°30'53.407''	38.6	70	151.1	-41.3	29.0	9.6	84.3	130
2018/11/26 18:28:33	19118 SD2	6.3	16.50	3.01	62	1.9	36°29'04'' 50°35'40''	13	2.4 3.4	UCAC4 512-2513	13.56	1 ^h 40 ^m 39.639 ^s 12°18'00.792''	52.1	170	143.6	-45.5	83.4	13.6	84.1	75
2018/11/26 19:19:48	27187 CQ40	6.6	17.59	4.49	150	0.6	36°36'29'' 48°43'06''	171	1.0 2.3	UCAC4 579-15529	13.11	5 ^h 27 ^m 09.312 ^s 25°44'08.507''	45.0	104	161.4	-52.5	29.3	21.4	83.8	117
2018/11/26 19:25:46	10865 The1-maruby	7.9	17.71	5.14	209	0.6	35°10'22'' 51°47'08''	338	0.7 2.4	UCAC4 564-10139	12.58	4 ^h 23 ^m 34.941 ^s 22°45'12.430''	52.9	125	176.1	-53.2	44.0	22.3	83.8	130
2018/11/26 19:36:10	13728 QC98	5.5	16.99	4.88	162	0.8	37°04'52'' 48°41'00''	159	0.3 3.0	UCAC4 484-15731	12.12	6 ^h 02 ^m 07.430 ^s 6°47'57.289''	27.5	114	149.2	-54.5	26.5	23.9	83.7	74
2018/11/26 19:41:13	51283 KN7	5.5	17.22	3.33	87	0.5	36°10'41'' 49°16'00''	185	1.5 2.0	UCAC4 507-5705	13.94	3 ^h 52 ^m 24.426 ^s 11°13'15.901''	47.7	149	169.5	-55.0	54.0	24.6	83.7	109
2018/11/26 19:47:43	15446 XQ4	5.2	16.85	3.66	213	0.6	37°55'32'' 48°27'48''	146	0.1 2.7	UCAC4 582-6454	13.22	2 ^h 46 ^m 21.659 ^s 26°12'48.592''	66.3	174	160.4	-55.7	65.5	25.6	83.6	78
2018/11/26 19:50:01	3356 Resnik	8.3	16.28	2.92	147	0.8	36°44'54'' 48°45'30''	167	0.8 4.1	UCAC4 547-14087	13.43	5 ^h 19 ^m 28.804 ^s 19°16'34.044''	45.8	119	163.4	-56.0	31.8	26.0	83.6	80
2018/11/26 20:28:51	18341 SJ5	6.0	16.80	5.00	114	0.5	36°30'10'' 49°02'02''	172	1.1 2.9	UCAC4 569-9035	11.81	3 ^h 58 ^m 09.894 ^s 23°39'58.239''	62.7	159	176.3	-59.3	50.3	32.0	83.4	84
2018/11/26 20:57:37	14984 TN26	6.0	17.26	4.18	216	1.5	38°56'23'' 51°00'27''	61	0.2 2.5	UCAC4 510-1840	13.10	1 ^h 14 ^m 26.590 ^s 11°59'41.985''	41.1	233	137.3	-60.8	91.1	36.4	83.2	95
2018/11/26 21:12:10	40564 RZ123	6.6	17.86	5.70	183	0.7	37°45'09'' 48°42'18''	145	0.6 2.5	UCAC4 573-29757	12.16	6 ^h 28 ^m 26.229 ^s 24°33'15.428''	51.8	118	147.8	-61.1	16.5	38.6	83.1	107
2018/11/26 21:29:08	7145 Linzexu	10.0	16.27	3.23	25	2.0	36°14'04'' 49°49'39''	189	4.7 4.9	UCAC4 484-44054	13.10	8 ^h 16 ^m 15.299 ^s 6°39'37.453''	24.3	110	118.8	-61.1	16.8	41.1	82.9	82
2018/11/26 22:23:23	6537 Adamovich	5.5	16.43	3.76	11	0.5	36°12'20'' 50°07'56''	328	3.0 3.1	UCAC4 532-8906	12.70	4 ^h 35 ^m 49.539 ^s 16°12'50.700''	55.6	195	172.2	-58.6	44.2	48.7	82.7	71
2018/11/26 23:02:21	1763 Williams	9.1	15.32	3.19	79	0.9	36°23'59'' 49°20'18''	174	2.6 5.7	UCAC4 595-15357	12.19	4 ^h 59 ^m 08.879 ^s 28°56'14.375''	67.0	210	166.2	-54.9	37.9	53.6	82.4	64
2018/11/26 23:29:46	1811 Bruwer	21.9	17.16	3.92	160	1.2	36°39'49'' 51°27'57''	10	3.3 4.8	UCAC4 469-44065	13.27	10 ^h 52 ^m 38.976 ^s 3°47'58.290''	16.6	104	81.4	-51.6	48.7	56.4	82.3	181
2018/11/26 23:50:56	40716 1999 SL	6.3	16.17	2.90	199	0.7	37°31'15'' 51°39'36''	26	0.1 3.3	UCAC4 606-12981	13.35	4 ^h 24 ^m 47.093 ^s 31°10'13.598''	58.8	246	169.2	-48.8	45.9	58.3	82.1	76
2018/11/26 23:57:22	2020 Ukko	21.5	15.53	1.85	55	1.9	36°24'18'' 49°33'21''	171	5.9 6.5	UCAC4 484-10129	13.90	5 ^h 12 ^m 12.691 ^s 6°42'33.571''	42.6	212	159.2	-47.9	39.8	58.7	82.1	132
2018/11/27 00:32:14	813 Baumeia	13.5	14.17	1.52	113	1.4	36°54'42'' 50°58'59''	23	1.9 8.2	UCAC4 585-15056	12.96	5 ^h 11 ^m 47.862 ^s 26°59'10.112''	56.4	239	164.6	-42.8	35.9	60.6	81.9	66
2018/11/27 00:46:13	9776 VL3	7.9	17.12	5.49	161	0.7	36°47'37'' 51°27'32''	13	0.9 3.0	UCAC4 555-12019	11.63	4 ^h 56 ^m 32.317 ^s 20°50'16.293''	47.5	241	169.1	-40.6	39.9	60.9	81.8	106
2018/11/27 00:47:40	1763 Williams	9.1	15.32	2.28	59	0.9	36°24'27'' 50°34'22''	8	3.7 5.7	UCAC4 595-15346	13.18	4 ^h 59 ^m 03.165 ^s 28°56'01.384''	53.8	249	166.3	-40.4	39.0	60.9	81.8	64

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 27		LinOccult 2.3.1			
Asteroid			Nearest point			Star					Sun			Moon						
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/27 00:57:07	14540 R _{J10}	7.6	17.43	3.82	173	0.8	35°57'18" 48°30'23"	188	0.9	UCAC4 552-20559	13.64	5 ^h 56 ^m 11.977 ^s 20°20'55.031"	53.4	226	155.2	-38.9	26.2	61.0	81.7	116
2018/11/27 01:15:17	18710 HF100	5.8	17.94	7.84	166	1.7	35°35'11" 48°37'31"	198	0.6	UCAC4 545-39510	10.10	7 ^h 12 ^m 48.612 ^s 18°50'41.071"	57.4	203	137.1	-36.1	8.8	60.8	81.6	98
2018/11/27 01:23:30	51078 GZ163	7.6	17.13	5.96	8	0.8	36°12'49" 49°59'56"	224	2.9	UCAC4 570-25400	11.17	6 ^h 10 ^m 57.753 ^s 23°57'43.511"	55.0	233	152.0	-34.8	23.0	60.6	81.6	106
2018/11/27 01:29:05	686 Gersuind	41.1	13.49	0.77	18	3.3	36°08'37" 50°11'04"	326	18.1	UCAC4 533-19051	13.45	5 ^h 50 ^m 03.204 ^s 16°32'06.175"	45.4	235	156.0	-33.9	28.6	60.4	81.5	88
2018/11/27 01:53:41	14420 Massey	9.1	17.09	3.50	246	0.7	35°32'25" 47°53'33"	193	0.3	UCAC4 500-10132	13.64	5 ^h 05 ^m 00.982 ^s 9°54'13.342"	30.1	248	162.8	-29.9	41.3	59.2	81.4	115
2018/11/27 02:10:00	6227 Alan-rubin	7.9	18.36	6.01	128	0.7	37°31'13" 50°53'29"	43	1.5	UCAC4 520-3923	12.35	2 ^h 24 ^m 02.642 ^s 13°59'45.231"	5.2	286	153.8	-27.3	77.7	58.0	81.2	140
2018/11/27 02:22:55	29470 Higgs	8.3	17.17	4.56	132	0.6	35°16'36" 49°03'41"	213	1.5	UCAC4 587-13357	12.63	4 ^h 47 ^m 20.856 ^s 27°19'19.680"	35.7	271	169.4	-25.2	42.4	56.9	81.2	114
2018/11/27 02:23:59	4862 Loke	8.7	18.50	5.81	33	0.9	36°21'41" 49°45'16"	171	2.3	UCAC4 509-35656	12.70	7 ^h 07 ^m 54.330 ^s 11°36'51.890"	44.0	225	136.5	-25.0	14.0	56.8	81.2	147
2018/11/27 02:53:17	10562 UB1	8.3	16.02	3.68	83	0.8	35°10'23" 49°50'51"	254	2.4	UCAC4 740-33216	12.37	4 ^h 06 ^m 54.452 ^s 57°48'33.118"	43.2	313	143.1	-20.3	55.0	53.8	81.0	75
2018/11/27 03:53:35	22100 GV93	6.9	18.01	4.21	219	0.7	35°24'54" 48°10'02"	197	0.4	UCAC4 506-19961	13.82	6 ^h 06 ^m 28.649 ^s 11°10'21.182"	22.0	261	150.5	-11.0	27.9	46.1	80.6	121
2018/11/27 14:12:41	3447 Burckhalter	11.5	15.24	2.46	203	2.6	38°36'58" 49°02'07"	124	0.1	UCAC4 614-2483	12.90	0 ^h 51 ^m 02.308 ^s 32°41'56.776"	45.3	90	134.1	-5.6	96.9	-19.6	76.6	67
2018/11/27 14:23:18	5258 AU1	28.8	18.52	5.11	145	0.8	34°58'51" 51°03'06"	320	2.8	UCAC4 359-186546	13.42	19 ^h 18 ^m 15.954 ^s -18°17'09.932"	17.1	209	43.7	-7.2	164.8	-19.3	76.5	383
2018/11/27 18:12:45	54521 Al-addin	8.3	18.59	4.69	134	0.8	37°25'51" 49°06'06"	142	1.5	UCAC4 587-3594	13.92	1 ^h 32 ^m 18.456 ^s 27°16'47.053"	66.9	164	143.0	-43.2	93.6	1.7	74.8	160
2018/11/27 18:51:48	56297 RT42	7.2	18.64	4.95	229	0.6	34°11'04" 51°37'21"	319	0.6	UCAC4 654-40507	13.70	6 ^h 11 ^m 41.050 ^s 40°42'18.798"	43.6	75	148.2	-48.9	36.9	7.1	74.6	151
2018/11/27 19:54:41	3942 Churi-vannia	7.6	16.44	4.90	74	0.7	36°31'21" 49°24'14"	167	2.5	UCAC4 575-8589	11.55	3 ^h 41 ^m 49.732 ^s 24°59'12.084"	63.0	152	171.8	-56.6	67.6	16.3	74.1	83
2018/11/27 20:03:38	6093 Makoto	8.3	16.25	3.06	41	0.9	36°09'12" 50°24'11"	346	3.7	UCAC4 515-14122	13.26	5 ^h 42 ^m 42.603 ^s 12°58'08.346"	39.8	122	157.2	-57.5	42.1	17.7	74.1	80
2018/11/27 20:22:50	28261 C _J	8.7	16.89	3.34	169	0.8	36°32'26" 48°32'33"	174	0.9	UCAC4 641-25089	13.61	5 ^h 19 ^m 16.724 ^s 38°03'56.416"	65.0	107	157.9	-59.1	46.7	20.6	74.0	107
2018/11/27 20:23:17	17736 BA12	6.0	18.23	5.19	30	0.9	36°28'32" 49°48'29"	153	2.1	UCAC4 576-37502	13.05	7 ^h 06 ^m 34.610 ^s 25°04'11.626"	39.5	97	140.2	-59.1	21.7	20.7	74.0	109
2018/11/27 20:32:28	21899 VU8	5.8	17.68	4.63	36	1.0	36°36'11" 50°17'47"	39	2.0	UCAC4 407-2592	13.06	2 ^h 16 ^m 37.501 ^s -8°41'51.287"	29.6	199	138.6	-59.7	97.8	22.1	73.9	111
2018/11/27 21:17:29	40333 NO1	7.2	17.94	7.50	59	0.6	37°00'17" 49°47'35"	119	2.2	UCAC4 549-37941	10.45	7 ^h 11 ^m 20.975 ^s 19°36'40.290"	43.1	113	138.5	-61.3	20.9	29.0	73.6	114

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 28		LinOccult 2.3.1		
Date Time (UTC)	Asteroid			Nearest point			Star			Sun			Moon						
	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Phase (%)	σ_{km}	
2018/11/27 21:34:39	1812 Gil- gamesh	19.2	15.41	2.74	7	1.7	36°13'46" 49°59'58"	217	7.5	UCAC4 483-6922	12.76	4 ^h 15 ^m 38.281 ^s 6°34'22.484"	46.7	184	165.4	-61.2	31.6	73.4	102
2018/11/27 21:45:49	41049 Van Citters	5.8	18.37	5.06	18	0.7	36°13'40" 49°53'23"	193	2.0	UCAC4 597-40301	13.32	7 ^h 34 ^m 19.211 ^s 29°15'19.169"	51.1	105	134.2	-60.9	33.3	73.4	115
2018/11/27 21:54:00	700 Auravic- trix	15.4	14.36	1.08	2	2.0	36°19'04" 50°02'45"	94	8.3	UCAC4 553-23769	13.78	6 ^h 14 ^m 44.993 ^s 20°28'53.021"	55.8	141	151.8	-60.6	34.4	73.3	74
2018/11/28 00:07:53	13934 Kan- nami	6.0	16.37	2.80	241	0.5	35°17'19" 47°59'12"	197	0.0	UCAC4 543-10085	13.66	4 ^h 37 ^m 01.347 ^s 18°32'16.255"	47.6	235	174.0	-46.6	58.8	72.3	76
2018/11/28 00:29:12	99 Dike	71.9	14.12	0.84	236	5.0	38°04'40" 51°50'23"	33	3.3	UCAC4 626-24583	13.95	5 ^h 26 ^m 18.092 ^s 35°02'36.530"	64.4	245	158.9	-43.4	47.2	72.2	116
2018/11/28 01:23:11	2458 Veni- akaverin	24.0	18.24	4.39	62	1.5	36°23'54" 50°35'54"	7	4.9	UCAC4 493-56758	13.87	10 ^h 44 ^m 47.377 ^s 8°33'26.454"	38.4	130	86.1	-35.0	29.6	71.8	183
2018/11/28 01:29:53	78470 2002 RM45	6.6	18.29	5.17	83	1.9	36°23'31" 50°47'12"	5	1.4	UCAC4 505-2340	13.13	1 ^h 30 ^m 20.253 ^s 10°57'52.816"	0.2	287	139.4	-33.9	105.1	71.6	169
2018/11/28 01:35:24	4215 Kamo	10.0	17.08	4.00	67	0.6	35°47'45" 49°32'17"	212	3.1	UCAC4 480-48297	13.11	10 ^h 04 ^m 08.319 ^s 5°48'56.676"	41.6	147	94.5	-33.0	22.1	71.7	105
2018/11/28 01:35:35	18911 2000 OY31	7.6	18.52	4.56	57	0.8	36°30'53" 49°33'12"	163	2.0	UCAC4 454-21171	13.98	6 ^h 42 ^m 43.413 ^s 0°44'33.920"	36.0	213	138.4	-33.0	36.2	71.7	143
2018/11/28 02:00:11	69222 4210 T- 3	6.0	18.70	5.74	55	0.8	36°02'18" 50°31'04"	341	1.6	UCAC4 487-27638	12.97	6 ^h 43 ^m 56.192 ^s 7°18'30.474"	39.7	223	141.3	-29.1	33.1	71.5	139
2018/11/28 02:02:46	2780 Monnig	6.3	17.19	8.20	64	0.7	36°23'37" 50°37'05"	7	1.8	TYC 1210- 229-1	8.99	2 ^h 07 ^m 30.033 ^s 19°40'52.873"	7.6	292	150.3	-28.6	93.7	71.4	40
2018/11/28 02:29:46	4779 Whitley	11.0	16.79	5.51	90	0.9	36°38'24" 50°49'26"	16	2.8	UCAC4 557-11931	11.29	4 ^h 56 ^m 44.193 ^s 21°23'12.798"	31.3	267	170.2	-24.3	55.2	71.3	116
2018/11/28 03:02:22	7370 Krasno- golovets	7.9	17.26	3.42	138	0.8	37°23'51" 51°03'52"	35	1.2	UCAC4 584-26569	13.89	6 ^h 14 ^m 15.828 ^s 26°41'38.826"	42.2	262	152.2	-19.1	37.6	71.0	100
2018/11/28 03:05:13	3592 Nedbal	6.0	15.57	2.13	21	0.8	36°32'22" 50°08'11"	61	3.8	UCAC4 610-9748	13.60	3 ^h 23 ^m 35.541 ^s 31°54'25.250"	18.8	298	164.3	-18.6	74.3	71.0	60
2018/11/28 04:56:44	67779 2000 UU81	8.7	16.33	2.58	202	0.6	36°30'00" 48°14'07"	176	0.4	UCAC4 528-37154	13.86	7 ^h 00 ^m 55.270 ^s 15°35'16.842"	23.3	267	140.4	-2.0	28.4	70.2	96
2018/11/28 13:51:24	245 Vera	79.5	13.95	2.26	123	1.9	34°56'35" 50°44'39"	309	12.7	UCAC4 320-162413	11.83	18 ^h 18 ^m 18.073 ^s -26°05'37.375"	7.2	213	28.2	-2.7	137.0	66.3	209
2018/11/28 13:56:46	515 Athalia	38.2	17.54	3.80	52	1.0	36°00'11" 50°28'25"	337	7.0	UCAC4 341-188937	13.77	19 ^h 26 ^m 31.258 ^s -21°58'32.869"	15.7	200	44.0	-3.5	152.7	66.2	210
2018/11/28 14:58:35	866 Fatme	88.3	15.49	1.82	291	2.0	33°54'58" 47°57'01"	216	6.2	UCAC4 326-154390	13.89	18 ^h 25 ^m 41.443 ^s -24°58'24.287"	2.1	226	29.8	-12.6	138.0	65.7	201
2018/11/28 15:22:48	1279 Uganda	10.4	16.40	3.49	218	0.7	38°28'26" 48°42'33"	134	0.4	UCAC4 604-13581	12.96	4 ^h 31 ^m 25.604 ^s 30°45'44.373"	21.1	67	169.9	-16.3	67.2	65.6	98
2018/11/28 16:06:50	65474 2003 AZ5	6.6	17.59	6.93	171	0.6	38°23'31" 49°19'49"	118	0.7	UCAC4 665-42436	10.66	5 ^h 54 ^m 46.891 ^s 42°51'59.927"	24.4	52	150.3	-23.3	51.5	65.3	107

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.		Table 1		Page 29		LinOccult 2.3.1				
Date Time (UTC)	Asteroid			Nearest point			Star				Sun			Moon						
	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/28 16:32:26	80057 JV71	6.0	18.57	4.80	217	0.6	34°41'02" 51°43'00"	328	0.5 1.8	UCAC4 596-34172	13.78	6 ^h 33 ^m 40.659 ^s 29°10'03.101"	12.3	59	148.2	-27.4	41.4	-18.1	65.1	130
2018/11/28 17:14:54	10623 YP7	9.1	17.32	4.25	147	0.9	35°29'48" 51°15'54"	337	1.5 3.0	UCAC4 533-4591	13.10	2 ^h 39 ^m 03.610 ^s 16°28'29.484"	45.2	125	156.3	-34.2	96.6	-14.4	64.7	123
2018/11/28 17:18:23	7273 Gary- huss	5.8	17.04	3.79	188	0.8	38°13'08" 48°55'27"	132	0.2 2.8	UCAC4 656-40887	13.28	6 ^h 07 ^m 27.317 ^s 41°09'05.856"	31.2	62	149.4	-34.8	49.4	-14.1	64.7	83
2018/11/28 18:01:10	10940 CE52	6.9	16.16	4.94	151	1.0	35°26'24" 51°17'49"	336	0.3 4.1	TYC 1888- 1220-1	11.23	6 ^h 34 ^m 14.152 ^s 27°23'48.661"	24.1	75	148.3	-41.5	41.9	-9.5	64.4	67
2018/11/28 18:05:30	12199 Sohlman	6.3	16.07	4.66	212	0.6	38°13'41" 48°37'31"	139	0.0 3.5	UCAC4 536-8509	11.42	4 ^h 18 ^m 59.607 ^s 17°05'32.390"	38.7	112	175.8	-42.2	74.0	-9.0	64.3	71
2018/11/28 19:08:24	2497 Kn- likovskij	7.9	17.11	3.28	54	0.8	36°40'01" 49°37'56"	150	2.7 3.1	UCAC4 569-5202	13.88	2 ^h 28 ^m 10.013 ^s 23°43'59.862"	63.5	168	154.7	-51.2	97.6	-1.0	63.8	101
2018/11/28 19:14:12	3379 Oishi	12.9	15.37	5.34	205	1.6	35°19'28" 51°47'13"	340	0.0 8.1	TYC 664- 685-1	10.04	3 ^h 49 ^m 29.529 ^s 14°32'50.350"	49.3	141	170.5	-52.0	82.2	-0.2	63.8	63
2018/11/28 19:21:14	14902 Miyairi	11.5	17.34	4.68	44	2.5	36°25'38" 49°40'00"	167	3.4 3.6	UCAC4 561-45900	12.68	8 ^h 10 ^m 31.479 ^s 22°07'27.715"	17.8	77	126.2	-52.9	20.3	0.8	63.9	126
2018/11/28 20:17:12	8707 Arakihi- roshi	5.2	17.68	6.57	71	0.7	35°58'18" 50°39'04"	341	1.7 2.5	UCAC4 570-31493	11.11	6 ^h 37 ^m 53.154 ^s 23°48'16.394"	42.7	104	147.6	-58.8	42.3	8.8	63.4	84
2018/11/28 20:26:16	54663 UT82	5.2	19.57	6.80	51	1.1	36°16'39" 49°35'07"	181	1.3 1.3	UCAC4 522-46775	12.77	8 ^h 43 ^m 39.439 ^s 14°20'48.645"	17.1	88	116.8	-59.5	13.1	10.2	63.1	156
2018/11/28 20:47:11	19214 FT22	5.8	18.44	11.03	238	0.9	35°02'12" 52°02'23"	338	0.0 3.5	HIP 33251	7.41	6 ^h 55 ^m 04.439 ^s 22°33'36.862"	43.8	108	143.6	-60.7	38.6	13.3	63.1	66
2018/11/28 20:52:50	1279 Uganda	10.4	16.40	2.64	12	0.7	36°17'09" 49°56'29"	180	4.2 4.2	UCAC4 604-13547	13.86	4 ^h 31 ^m 09.148 ^s 30°45'14.693"	69.4	154	170.1	-60.9	70.4	14.2	63.0	98
2018/11/28 21:48:58	23843 QU106	6.6	16.59	4.04	238	0.7	36°08'18" 47°54'58"	183	0.1 2.9	UCAC4 541-6869	12.58	3 ^h 34 ^m 56.658 ^s 18°07'11.067"	55.3	210	169.4	-61.0	86.2	22.8	62.6	91
2018/11/28 22:58:32	40113 QZ13	6.3	19.06	5.55	229	0.7	36°39'28" 52°05'16"	7	0.5 1.8	UCAC4 497-54037	13.52	9 ^h 47 ^m 49.607 ^s 9°18'33.936"	27.3	109	100.4	-55.7	6.8	33.3	62.0	141
2018/11/28 23:39:03	5950 Leukip- pos	10.0	17.01	3.65	78	0.9	36°09'50" 49°20'53"	186	2.8 3.5	UCAC4 624-26043	13.40	5 ^h 44 ^m 18.762 ^s 34°38'58.698"	72.2	216	156.9	-50.8	56.5	39.1	61.7	115
2018/11/29 00:06:53	13593 NF1	5.5	17.33	4.55	194	0.5	35°33'52" 48°22'13"	195	0.2 2.7	UCAC4 546-21231	12.80	5 ^h 56 ^m 02.550 ^s 19°04'44.131"	56.5	210	157.0	-46.9	54.6	42.9	61.5	82
2018/11/29 01:55:10	29167 WC2	6.6	17.56	4.40	108	0.5	35°58'38" 50°59'50"	348	1.5 2.6	UCAC4 562-48607	13.18	9 ^h 58 ^m 41.667 ^s 22°15'55.985"	59.5	149	102.3	-30.0	7.1	53.8	60.7	100
2018/11/29 02:21:22	591 Irmgard	51.9	15.38	2.68	131	4.3	37°13'44" 51°03'44"	31	9.4 17.8	UCAC4 607-5770	12.80	2 ^h 09 ^m 48.384 ^s 31°20'04.800"	13.7	303	149.6	-25.8	102.2	55.0	60.4	115
2018/11/29 02:23:07	34794 SS25	5.8	17.81	5.76	34	0.6	36°30'53" 50°18'60"	29	2.0 2.1	UCAC4 562-19097	12.06	5 ^h 41 ^m 37.388 ^s 22°21'44.988"	39.6	258	160.8	-25.5	59.0	55.1	60.4	109
2018/11/29 02:39:26	10292 PM	5.8	17.87	4.49	10	0.6	36°21'46" 50°07'12"	34	2.4 2.4	UCAC4 587-31117	13.40	6 ^h 33 ^m 00.601 ^s 27°18'12.776"	48.6	254	149.0	-22.9	47.4	55.5	60.3	95

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.		Table 1		Page 30		LinOccult 2.3.1				
Asteroid			Nearest point			Star			Sun			Moon								
Date Time (UTC)	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	σ_{km}
2018/11/29 02:42:40	58494 UF1	5.8	18.06	4.46	109	0.5	36°12'58'' 51°01'20''	357	1.3	UCAC4 524-16967	13.62	5 ^h 50 ^m 48.355 ^s 14°37'19.630''	-22.4	254	157.2	-22.4	58.0	55.5	60.3	115
2018/11/29 02:43:08	2878 Panacea	13.8	16.29	4.54	174	1.2	37°48'47'' 51°16'21''	39	1.6	UCAC4 616-9240	11.77	3 ^h 09 ^m 24.015 ^s 33°10'35.097''	-22.3	298	160.6	-22.3	90.1	55.5	60.3	117
2018/11/29 03:04:23	5196 Bustelli	9.1	16.17	5.25	185	0.9	38°28'55'' 50°57'16''	57	0.4	TYC 2902-47-1	10.93	4 ^h 53 ^m 29.201 ^s 42°48'03.613''	-19.0	293	157.3	-19.0	68.5	55.5	60.1	86
2018/11/29 03:04:54	51037 GX130	6.3	17.99	5.73	61	0.6	36°49'30'' 50°28'06''	39	1.9	UCAC4 557-28207	12.26	6 ^h 26 ^m 53.804 ^s 21°12'56.973''	-18.9	256	150.2	-18.9	48.9	55.5	60.1	116
2018/11/29 03:22:11	46302 2001 OG13	10.0	18.51	4.74	88	0.7	36°48'05'' 50°45'46''	25	2.0	UCAC4 557-6130	13.79	3 ^h 07 ^m 33.905 ^s 21°21'57.622''	-16.2	297	163.4	-16.2	94.7	55.1	60.0	181
2018/11/29 03:46:10	20185 1997 AC7	6.0	17.73	5.84	69	1.1	36°26'09'' 50°39'24''	9	1.9	UCAC4 497-35105	11.89	6 ^h 57 ^m 00.783 ^s 9°12'09.343''	-12.5	249	140.1	-12.5	43.7	54.0	59.7	97
2018/11/29 03:47:04	109572 2001 QJ269	6.0	18.44	4.78	2	0.5	36°17'34'' 50°03'51''	13	1.9	UCAC4 534-23814	13.67	6 ^h 13 ^m 20.711 ^s 16°41'48.199''	-12.3	264	152.6	-12.3	53.0	54.0	59.8	128
2018/11/29 15:28:24	8770 Totanus	9.1	17.04	5.77	165	0.9	34°51'47'' 51°13'16''	322	1.1	TYC 1862-1129-1	11.27	5 ^h 45 ^m 49.257 ^s 23°43'45.312''	-17.3	60	160.3	-17.3	65.5	-26.7	54.4	109
2018/11/29 17:16:32	30587 2001 PC33	6.0	16.60	3.55	194	0.9	38°00'18'' 48°42'30''	141	0.3	UCAC4 641-10118	13.09	2 ^h 37 ^m 52.547 ^s 38°04'54.846''	-34.6	102	152.2	-34.6	101.9	-22.6	53.5	96
2018/11/29 18:04:48	29309 1993 VF1	6.9	15.57	2.09	67	0.5	36°33'01'' 50°37'38''	16	2.5	UCAC4 545-7383	13.65	3 ^h 38 ^m 35.596 ^s 18°49'12.485''	-42.2	121	169.6	-42.2	97.0	-18.4	53.1	77
2018/11/29 18:21:39	8755 Queredula	8.3	18.34	4.75	66	0.6	35°45'58'' 50°32'07''	326	2.1	UCAC4 409-139348	13.60	22 ^h 55 ^m 46.863 ^s -8°18'32.195''	-44.7	220	94.8	-44.7	171.8	-16.7	53.0	143
2018/11/29 18:47:11	42600 1997 YF10	5.0	17.11	3.57	241	0.5	34°15'35'' 51°47'59''	323	0.0	UCAC4 558-47632	13.58	9 ^h 00 ^m 57.555 ^s 21°25'56.106''	-48.4	62	115.7	-48.4	22.8	-13.9	52.7	66
2018/11/29 20:15:09	27508 2000 GSI42	10.0	17.22	3.63	206	0.9	36°29'56'' 48°12'08''	176	0.7	UCAC4 544-25087	13.62	6 ^h 18 ^m 45.885 ^s 18°43'51.710''	-58.7	114	152.5	-58.7	61.0	-2.4	52.1	116
2018/11/29 20:46:31	87441 2000 QE110	5.8	17.64	4.88	5	1.8	36°14'55'' 50°05'21''	330	2.5	UCAC4 633-42131	12.77	7 ^h 37 ^m 24.301 ^s 36°30'09.462''	-60.8	86	135.2	-60.8	46.0	2.1	52.0	90
2018/11/29 21:23:57	955 Alstede	17.3	15.48	2.45	101	1.1	36°23'21'' 49°08'19''	176	4.0	UCAC4 631-15931	13.15	4 ^h 07 ^m 19.722 ^s 36°04'54.509''	-61.7	194	165.0	-61.7	88.2	7.6	51.5	120
2018/11/29 22:33:29	638 Moira	65.6	14.87	2.13	36	11.1	36°07'31'' 49°44'23''	199	21.6	UCAC4 555-40208	12.91	7 ^h 30 ^m 21.859 ^s 20°50'11.329''	-58.4	131	136.3	-58.4	45.5	18.3	51.0	114
2018/11/29 22:47:03	8383 1992 UA3	6.0	17.04	8.24	82	0.8	36°22'52'' 50°46'50''	5	1.7	UCAC4 537-4876	8.80	2 ^h 47 ^m 25.383 ^s 17°15'49.502''	-57.1	244	157.2	-57.1	111.9	20.3	50.8	66
2018/11/30 00:47:28	87790 2000 SS120	5.5	18.50	4.62	191	1.0	38°49'22'' 50°37'16''	71	0.5	UCAC4 608-43234	13.89	8 ^h 04 ^m 09.659 ^s 31°32'18.809''	-41.0	169	130.0	-41.0	41.5	37.7	50.0	112
2018/11/30 01:42:12	5256 Farquhar	13.8	17.14	3.81	41	1.8	36°48'37'' 49°53'23''	115	4.1	UCAC4 456-43535	13.36	8 ^h 23 ^m 02.540 ^s 1°05'24.313''	-32.3	187	118.1	-32.3	36.8	44.2	49.4	128
2018/11/30 01:46:17	231 Vin-dobona	82.3	14.59	2.87	18	5.9	36°13'36'' 49°53'25''	194	25.2	UCAC4 603-23263	11.80	5 ^h 34 ^m 51.011 ^s 30°26'05.438''	-31.6	260	161.6	-31.6	73.5	44.7	49.4	127

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.				Table 1		Page 31		LinOccult 2.3.1			
Date Time (UTC)	Asteroid			Nearest point			Star				Sun			Moon			σ_{km}				
	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt		Phase (%)			
2018/11/30 02:23:36	3527 McCord	9.5	16.37	5.16	139	1.4	36°22'22" 48°47'51"	177	1.1 4.6	TYC 1331- 723-1	11.22	6 ^h 51 ^m 51.749 ^s 16°17'28.318"	44.6	236	144.5	-25.6	57.0	48.0	49.1	83	
2018/11/30 03:10:15	6311 Porub- can	5.8	15.50	2.02	245	1.3	38°40'20" 51°38'58"	44	0.0 4.4	UCAC4 622-29136	13.67	5 ^h 58 ^m 20.825 ^s 34°20'57.289"	42.2	276	155.5	-18.2	69.3	50.7	48.7	52	
2018/11/30 03:28:58	32497 2000 XF18	9.5	17.67	7.43	18	1.2	36°27'51" 50°09'59"	44	3.1 3.2	TYC 2457- 854-1	10.24	7 ^h 34 ^m 12.282 ^s 32°40'19.150"	53.5	259	136.5	-15.3	49.5	51.2	48.6	121	
2018/11/30 04:13:56	28659 2000 GB36	6.3	17.98	5.12	201	0.6	37°42'17" 51°36'53"	30	0.5 2.1	UCAC4 572-24103	12.87	6 ^h 07 ^m 12.076 ^s 24°21'46.280"	26.7	277	156.0	-8.5	68.2	50.9	48.2	121	
2018/11/30 04:15:27	2276 Warck	8.7	16.53	4.80	23	0.6	35°58'19" 49°59'38"	255	2.4 2.4	UCAC4 550-10849	11.74	4 ^h 41 ^m 16.869 ^s 19°59'33.565"	9.7	290	175.6	-8.2	88.4	50.9	48.2	145	
2018/11/30 15:09:05	19983 1990 DW	7.2	16.24	3.95	11	0.8	36°25'53" 50°04'20"	75	3.9 3.9	UCAC4 620-26798	12.32	5 ^h 41 ^m 47.462 ^s 33°58'39.776"	13.0	52	159.1	-14.3	79.3	-29.5	43.2	74	
2018/11/30 16:06:11	19641 1999 RV91	6.3	18.33	4.55	83	0.9	35°22'56" 50°31'32"	309	1.7 2.2	UCAC4 622-39985	13.80	7 ^h 32 ^m 01.965 ^s 34°23'15.455"	7.0	42	137.3	-23.3	57.2	-31.3	42.8	116	
2018/11/30 16:33:21	498 Tokio	82.8	13.26	1.89	29	3.3	36°34'59" 49°52'31"	132	29.8 30.9	UCAC4 348-195619	11.58	22 ^h 26 ^m 02.277 ^s -20°31'17.068"	17.8	197	82.6	-27.7	162.8	-31.3	42.5	104	
2018/11/30 17:54:55	16615 1993 FW40	5.0	19.51	10.22	77	0.7	35°33'00" 50°33'29"	317	1.1 1.3	TYC 5256- 247-1	9.29	23 ^h 55 ^m 55.055 ^s -3°07'07.530"	35.3	199	109.6	-40.7	169.7	-27.9	42.0	157	
2018/11/30 19:54:46	1886 Lowell	20.7	16.26	3.68	234	2.1	34°33'06" 48°16'58"	212	0.6 8.2	UCAC4 458-3399	12.62	2 ^h 32 ^m 14.828 ^s 1°28'44.824"	41.3	189	145.7	-56.9	132.4	-15.9	41.0	101	
2018/11/30 19:55:20	29929 1999 JR39	7.9	17.52	4.20	202	0.7	36°54'35" 48°16'53"	167	0.6 2.7	UCAC4 597-20219	13.34	5 ^h 32 ^m 02.316 ^s 29°18'41.739"	54.7	111	163.3	-57.0	84.6	-15.8	41.0	119	
2018/11/30 21:48:30	67036 1999 XSI71	5.5	18.44	7.76	178	0.6	36°16'51" 51°38'41"	360	0.6 1.9	UCAC4 601-36152	10.68	6 ^h 44 ^m 12.631 ^s 30°02'49.530"	61.2	123	148.0	-61.4	70.0	-0.0	40.1	115	
2018/11/30 22:21:02	54369 2000 KS50	6.9	18.71	5.05	116	1.2	36°57'24" 50°59'41"	24	1.4 2.0	UCAC4 554-40776	13.67	7 ^h 57 ^m 22.326 ^s 20°36'06.640"	48.1	120	131.1	-59.6	53.0	4.9	40.0	137	
2018/11/30 22:27:23	54601 2000 RZ13	6.6	18.06	7.54	165	0.6	38°04'22" 49°07'41"	129	0.9 1.9	TYC 4794- 1454-1	10.53	6 ^h 05 ^m 46.592 ^s -7°23'59.664"	32.2	170	142.1	-59.1	82.5	5.9	39.8	138	

