

## 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 Mv = 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 2.3.0 BETA  
Author: Plekhanov Andrey andyplekhanov@gmail.com  
Events number: 427

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

Sorted by date/time.

Table 1

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LinOccult 2.3.0 BETA

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 (%)	$\sigma_{km}$
2016/11/01 00:11:36	42759 1998 SR73	5.5	20.25	8.41	29	1.1	36°34'37" 50°13'27"	47	1.2 1.2	UCAC4 511-39501	11.84 12.10	7 <sup>h</sup> 26 <sup>m</sup> 18.219 <sup>s</sup> 12°07'38.017"	-40.0	134	107.1	-47.1	1.7	187
2016/11/01 02:10:01	88015 2000 UC61	5.0	18.82	6.72	232	0.8	39°25'28" 49°32'22"	104	0.4 1.4	UCAC4 636-34013	12.10	6 <sup>h</sup> 16 <sup>m</sup> 13.361 <sup>s</sup> 37°05'09.164"	-21.8	227	124.4	-31.6	1.8	143
2016/11/01 03:41:27	28973 2001 KN42	5.8	18.14	4.30	68	0.6	35°23'19" 49°51'27"	252	1.7 2.1	UCAC4 516-38029	13.87	7 <sup>h</sup> 06 <sup>m</sup> 26.187 <sup>s</sup> 13°04'09.698"	-7.2	219	112.2	-17.6	2.0	110
2016/11/01 03:54:37	13146 Yuriko	8.3	18.79	5.39	101	1.4	35°47'21" 50°53'41"	339	1.7 2.1	UCAC4 578-39639	13.41	7 <sup>h</sup> 24 <sup>m</sup> 36.720 <sup>s</sup> 25°27'09.872"	-5.2	227	109.8	-15.6	2.0	155
2016/11/01 14:31:12	2332 Kalm	29.6	16.85	3.74	38	0.8	36°08'07" 49°43'26"	197	5.9 6.0	UCAC4 298-128433	13.15	17 <sup>h</sup> 32 <sup>m</sup> 03.044 <sup>s</sup> -30°34'25.920"	-3.9	208	45.0	8.0	3.3	196
2016/11/01 17:35:14	2419 Mol- davia	6.9	15.67	2.84	199	0.8	38°09'34" 48°44'31"	137	0.1 4.0	UCAC4 476-3760	12.91	2 <sup>h</sup> 32 <sup>m</sup> 03.653 <sup>s</sup> 5°09'50.264"	-33.1	114	170.5	-19.1	3.7	69
2016/11/01 17:49:21	12884 1998 QL34	8.3	17.37	4.51	227	2.0	34°24'53" 51°42'45"	324	0.3 3.1	UCAC4 553-14378	12.87	5 <sup>h</sup> 21 <sup>m</sup> 58.747 <sup>s</sup> 20°31'07.380"	-35.2	73	138.3	-21.3	3.7	108
2016/11/01 18:05:37	6382 1988 EL	5.8	15.99	2.41	55	0.6	36°38'01" 49°36'17"	153	2.5 3.9	UCAC4 684-13830	13.71	2 <sup>h</sup> 23 <sup>m</sup> 37.218 <sup>s</sup> 46°41'56.297"	-37.7	78	147.8	-23.9	3.8	58
2016/11/01 18:08:13	1374 Isora	7.2	14.56	1.16	87	3.7	35°04'10" 50°06'56"	275	1.3 5.8	UCAC4 534-971	13.85	0 <sup>h</sup> 31 <sup>m</sup> 10.102 <sup>s</sup> 16°46'43.893"	-38.0	150	151.7	-24.3	3.9	50
2016/11/01 18:47:00	86038 1999 NY38	7.2	18.15	4.18	4	1.9	36°20'12" 50°02'58"	86	2.4 2.4	UCAC4 621-39105	13.99	6 <sup>h</sup> 59 <sup>m</sup> 47.221 <sup>s</sup> 34°03'55.259"	-43.4	56	116.4	-30.3	3.9	122
2016/11/01 19:22:40	49385 1998 XA12	6.9	15.09	1.72	189	0.9	33°38'28" 50°03'38"	270	0.0 5.1	UCAC4 704-8811	13.62	1 <sup>h</sup> 12 <sup>m</sup> 42.099 <sup>s</sup> 50°38'43.544"	-47.8	81	140.8	-35.7	4.0	55
2016/11/01 22:44:44	38528 1999 UL4	6.6	19.18	6.86	106	1.3	35°48'17" 49°08'47"	199	1.3 1.7	UCAC4 544-40172	12.32	7 <sup>h</sup> 18 <sup>m</sup> 52.896 <sup>s</sup> 18°38'38.065"	-50.6	109	111.0	-56.0	4.6	155
2016/11/01 22:59:36	1658 Innes	16.4	17.02	3.67	16	2.0	36°23'16" 49°55'21"	152	5.0 5.0	UCAC4 557-43277	13.39	8 <sup>h</sup> 02 <sup>m</sup> 35.422 <sup>s</sup> 21°13'48.285"	-49.2	101	101.4	-56.1	4.6	131
2016/11/01 23:40:24	21799 Ciocia- ria	6.3	18.88	5.32	3	0.7	36°18'58" 50°04'19"	38	1.8 1.8	UCAC4 469-20148	13.56	6 <sup>h</sup> 41 <sup>m</sup> 31.708 <sup>s</sup> 3°37'25.968"	-44.5	144	117.0	-55.2	4.7	141
2016/11/02 01:12:53	2392 Jonathan Murray	6.3	17.23	3.40	16	0.5	36°22'07" 50°10'57"	21	3.1 3.1	UCAC4 538-44297	13.88	7 <sup>h</sup> 47 <sup>m</sup> 39.019 <sup>s</sup> 17°25'30.593"	-31.1	146	104.2	-47.4	4.9	80
2016/11/02 01:42:13	9561 van Eyck	5.5	18.37	7.09	141	0.7	37°00'49" 51°13'27"	22	0.8 2.1	UCAC4 605-21098	11.28	5 <sup>h</sup> 23 <sup>m</sup> 57.679 <sup>s</sup> 30°53'27.627"	-26.5	230	137.1	-43.8	5.0	103
2016/11/02 02:26:58	38398 1999 RC195	6.3	17.30	5.55	42	0.6	36°15'30" 50°25'21"	357	1.9 2.1	UCAC4 564-6202	11.76	3 <sup>h</sup> 08 <sup>m</sup> 38.550 <sup>s</sup> 22°47'20.020"	-19.3	269	167.8	-37.6	5.2	123
2016/11/02 03:43:11	1388 Aphrodite	25.2	17.21	4.18	35	0.6	36°42'23" 49°52'58"	121	4.7 4.8	UCAC4 486-54720	13.06	12 <sup>h</sup> 17 <sup>m</sup> 53.375 <sup>s</sup> 7°05'19.143"	-7.2	118	39.4	-26.1	5.4	211
2016/11/02 14:48:31	591 Irmgard	51.9	16.03	3.27	206	1.3	39°09'41" 49°57'39"	93	6.0 11.4	UCAC4 293-135569	12.82	17 <sup>h</sup> 33 <sup>m</sup> 20.785 <sup>s</sup> -31°29'42.998"	-6.8	211	44.5	9.9	7.5	182
2016/11/02 15:28:39	33290 1998 KZ7	9.1	17.47	4.73	218	1.1	38°23'00" 51°29'29"	43	0.7 2.8	UNKNOWN UN- KNOWN	12.75	0 <sup>h</sup> 15 <sup>m</sup> 02.407 <sup>s</sup> -21°50'42.461"	-13.1	132	130.2	4.9	7.6	132

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 2		LinOccult 2.3.0 BETA			
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 (%)	$\sigma_{km}$
2016/11/02 15:58:24	13678 Shi- mada	10.5	16.74	3.02	94	0.9	36°32'45" 50°52'40"	11	2.7 4.1	UCAC4 475-127064	13.79	21 <sup>h</sup> 41 <sup>m</sup> 10.524 <sup>s</sup> 4°54'38.093"	44.7	170	107.9	-17.9	76.1	0.9	7.7	103
2016/11/02 16:31:20	4989 Joegold- stein	5.8	16.39	3.13	215	0.8	33°46'11" 51°08'15"	304	0.2 2.3	UCAC4 634-6418	13.33	2 <sup>h</sup> 00 <sup>m</sup> 49.397 <sup>s</sup> 36°42'58.882"	43.4	81	157.1	-23.2	138.6	-3.7	7.8	98
2016/11/02 16:48:29	2419 Mol- davia	6.9	15.68	4.42	190	0.8	38°00'43" 48°45'28"	139	0.1 4.0	UCAC4 476-3738	11.28	2 <sup>h</sup> 31 <sup>m</sup> 09.746 <sup>s</sup> 5°02'54.500"	18.6	105	170.1	-26.0	144.5	-6.2	7.9	69
2016/11/02 17:34:26	40119 1998 QB23	5.5	18.36	4.54	46	1.2	36°42'35" 49°44'25"	138	1.6 1.8	UCAC4 595-20809	13.83	5 <sup>h</sup> 33 <sup>m</sup> 18.145 <sup>s</sup> 28°59'54.382"	15.3	63	136.0	-33.2	164.4	-13.2	8.0	124
2016/11/02 18:22:35	45898 2000 XQ49	5.0	16.43	2.83	188	0.6	35°02'59" 51°32'57"	332	0.1 3.0	UCAC4 670-7319	13.69	1 <sup>h</sup> 34 <sup>m</sup> 23.039 <sup>s</sup> 43°57'42.404"	69.4	96	148.4	-40.4	131.1	-20.7	8.2	67
2016/11/02 18:47:45	12121 1999 NX48	5.8	18.26	5.34	243	0.7	38°42'14" 48°32'22"	134	0.2 2.0	UCAC4 415-766	12.93	0 <sup>h</sup> 35 <sup>m</sup> 26.991 <sup>s</sup> -7°10'46.956"	32.5	170	143.5	-43.8	112.1	-24.6	8.3	116
2016/11/02 20:05:37	10938 Loren- zalevy	15.1	16.65	4.85	74	1.0	36°22'23" 49°23'05"	175	3.8 4.4	UCAC4 641-11582	11.81	2 <sup>h</sup> 55 <sup>m</sup> 54.833 <sup>s</sup> 38°06'34.894"	69.5	116	156.2	-52.2	146.9	-36.6	8.6	136
2016/11/02 20:21:59	40855 1999 TG108	6.9	17.93	5.93	78	1.3	37°21'31" 49°55'33"	100	1.9 2.3	UCAC4 561-19126	12.00	5 <sup>h</sup> 40 <sup>m</sup> 34.281 <sup>s</sup> 22°02'11.096"	35.4	97	135.1	-53.4	168.3	-39.1	8.7	119
2016/11/02 20:43:11	21655 Niklauswirth	7.6	17.05	7.68	10	0.6	36°16'58" 50°08'15"	358	2.7 2.8	UCAC4 629-7826	9.37	2 <sup>h</sup> 30 <sup>m</sup> 31.893 <sup>s</sup> 35°40'46.397"	74.8	155	159.2	-54.5	143.1	-42.1	8.7	110
2016/11/02 20:48:22	10720 Danzl	5.0	16.38	4.35	147	0.6	36°51'32" 48°46'35"	164	0.3 3.0	UCAC4 563-7428	12.04	3 <sup>h</sup> 31 <sup>m</sup> 33.324 <sup>s</sup> 22°26'05.331"	57.7	140	164.2	-54.7	159.6	-42.8	8.8	67
2016/11/02 21:44:13	6527 Takashi- ito	6.6	17.16	3.33	184	0.7	37°05'57" 48°28'52"	162	0.2 3.3	UCAC4 567-40239	13.88	7 <sup>h</sup> 45 <sup>m</sup> 47.651 <sup>s</sup> 23°23'25.411"	29.5	88	106.5	-54.7	140.4	-50.0	9.0	80
2016/11/03 00:05:34	814 Tauris	109.5	12.12	0.96	245	16.0	34°13'47" 48°18'27"	217	2.3 43.3	UCAC4 477-8995	11.73	5 <sup>h</sup> 03 <sup>m</sup> 35.236 <sup>s</sup> 5°18'41.555"	45.3	186	141.9	-41.4	167.6	-57.6	9.5	96
2016/11/03 00:18:49	19607 1999 NF55	6.0	18.13	4.58	110	0.5	37°00'05" 50°55'43"	28	1.3 2.2	UCAC4 532-43698	13.56	7 <sup>h</sup> 55 <sup>m</sup> 58.339 <sup>s</sup> 16°12'35.409"	46.0	127	102.9	-39.5	138.8	-57.3	9.6	111
2016/11/03 00:19:28	3879 Machar	7.9	16.59	5.41	145	4.1	34°15'19" 50°03'36"	271	0.7 4.2	UCAC4 626-36284	11.19	6 <sup>h</sup> 41 <sup>m</sup> 01.634 <sup>s</sup> 35°06'29.376"	71.1	135	121.4	-39.4	152.1	-57.2	9.5	76
2016/11/03 03:18:13	88248 2001 DR101	5.8	18.41	4.70	163	0.6	38°31'36" 50°21'25"	78	0.8 1.6	UCAC4 685-32823	13.73	4 <sup>h</sup> 57 <sup>m</sup> 22.186 <sup>s</sup> 46°57'21.730"	54.7	286	136.4	-11.4	150.7	-38.2	10.3	144
2016/11/03 04:12:58	2855 Bastian	7.9	16.36	4.92	182	1.8	36°46'52" 48°26'47"	169	0.3 3.9	UCAC4 631-35593	11.46	6 <sup>h</sup> 27 <sup>m</sup> 20.625 <sup>s</sup> 36°01'34.089"	54.6	264	124.3	-2.9	155.2	-29.9	10.4	82
2016/11/03 14:57:32	32456 2000 SH72	8.3	18.84	4.99	129	1.0	37°40'31" 50°48'09"	50	1.4 1.9	UCAC4 363-201320	13.86	23 <sup>h</sup> 28 <sup>m</sup> 46.180 <sup>s</sup> -17°27'47.716"	10.3	134	123.4	-8.4	83.6	12.9	13.2	175
2016/11/03 15:07:24	2786 Grinevia	13.8	14.40	1.80	94	1.6	36°52'19" 49°17'39"	153	3.5 6.6	UCAC4 569-3867	12.83	1 <sup>h</sup> 49 <sup>m</sup> 38.434 <sup>s</sup> 23°44'55.610"	23.7	81	166.2	-10.0	127.8	11.9	13.2	84
2016/11/03 18:24:08	4016 Sambre	5.0	17.80	5.13	137	0.5	37°16'41" 49°00'06"	149	0.7 2.3	UCAC4 473-1287	12.68	0 <sup>h</sup> 54 <sup>m</sup> 46.012 <sup>s</sup> 4°32'03.468"	42.2	156	152.8	-40.8	109.0	-14.4	14.2	87
2016/11/03 23:32:58	23802 1998 QA39	6.0	17.65	5.13	17	0.5	36°15'58" 50°11'60"	355	2.1 2.1	UCAC4 643-13118	12.53	3 <sup>h</sup> 09 <sup>m</sup> 48.009 <sup>s</sup> 38°32'34.556"	68.6	248	155.6	-45.9	139.7	-56.6	15.6	115

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.				Table 1		Page 3		LinOccult 2.3.0 BETA			
		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 (%)	$\sigma_{km}$	
2016/11/03 23:59:29	1088 Mitaka	17.5	16.53	3.58	118	0.6	35°58'04" 49°00'13"	191	3.5	UCAC4	13.00	11 <sup>h</sup> 08 <sup>m</sup> 26.725 <sup>s</sup> 12°44'23.662"	11.5	84	58.8	-42.5	104.3	-58.1	15.8	134	
2016/11/04 00:42:46	19364 Se-mafor	9.1	17.91	5.47	11	0.6	36°25'58" 50°01'57"	99	2.9	UCAC4	12.45	8 <sup>h</sup> 09 <sup>m</sup> 27.302 <sup>s</sup> 4°37'34.661"	37.5	139	98.0	-36.2	144.2	-58.7	16.0	125	
2016/11/04 03:17:48	24302 1999 XP242	6.6	17.13	4.60	218	0.8	39°20'28" 50°00'53"	91	0.3	UCAC4	12.55	5 <sup>h</sup> 41 <sup>m</sup> 50.120 <sup>s</sup> 34°38'47.007"	54.7	261	134.6	-11.7	163.5	-45.6	16.7	111	
2016/11/04 14:16:10	6781 1990 OD	5.2	17.61	4.34	55	0.5	35°39'53" 49°45'28"	234	1.8	UCAC4	13.29	1 <sup>h</sup> 05 <sup>m</sup> 01.551 <sup>s</sup> 14°56'31.442"	16.7	87	157.2	-2.3	104.5	19.4	20.1	102	
2016/11/04 14:53:07	2214 Carol	25.2	16.71	2.84	231	0.8	36°18'20" 47°58'34"	180	1.5	UNKNOWN	13.96	19 <sup>h</sup> 24 <sup>m</sup> 09.153 <sup>s</sup> -11°16'13.007"	27.8	194	69.0	-8.0	16.3	17.1	20.3	126	
2016/11/04 14:59:46	39834 1998 BW10	8.3	18.50	4.64	239	1.1	35°31'18" 52°08'25"	347	0.6	UCAC4	13.87	21 <sup>h</sup> 55 <sup>m</sup> 39.808 <sup>s</sup> -3°47'25.701"	32.7	152	107.1	-9.0	53.7	16.6	20.3	152	
2016/11/04 15:38:50	23192 Caysvesterby	6.3	17.97	5.11	181	0.5	38°19'32" 49°05'49"	126	0.7	UCAC4	12.87	3 <sup>h</sup> 18 <sup>m</sup> 15.216 <sup>s</sup> 31°39'25.660"	21.2	66	161.6	-15.2	136.1	13.3	20.5	133	
2016/11/04 16:29:14	7750 McEwen	12.4	16.73	5.52	210	1.0	39°05'46" 49°32'21"	106	0.4	UCAC4	11.22	4 <sup>h</sup> 19 <sup>m</sup> 15.982 <sup>s</sup> 26°37'12.120"	15.9	67	154.4	-23.4	149.5	7.9	20.8	90	
2016/11/04 18:39:34	91777 1999 TM206	7.6	18.60	8.77	30	1.0	36°19'33" 49°46'33"	175	1.9	UCAC4	9.83	6 <sup>h</sup> 00 <sup>m</sup> 32.347 <sup>s</sup> 32°10'57.123"	24.4	68	131.8	-43.2	164.8	-9.6	21.5	153	
2016/11/04 19:11:58	14835 Holdridge	7.9	15.99	9.23	25	0.7	36°14'36" 49°49'21"	187	5.7	UCAC4	6.76	6 <sup>h</sup> 14 <sup>m</sup> 31.131 <sup>s</sup> 11°47'48.647"	12.3	86	128.0	-47.4	171.7	-14.5	21.7	48	
2016/11/04 19:29:16	17082 1999 JC3	7.2	18.54	6.55	129	1.1	35°36'14" 51°07'04"	338	1.4	UCAC4	11.99	7 <sup>h</sup> 44 <sup>m</sup> 56.468 <sup>s</sup> 20°06'50.268"	7.2	67	108.1	-49.3	163.3	-17.1	21.9	130	
2016/11/04 20:44:01	9752 1990 QZ1	5.5	18.24	7.91	241	1.1	37°46'05" 48°06'33"	154	0.1	UCAC4	10.33	22 <sup>h</sup> 31 <sup>m</sup> 34.157 <sup>s</sup> -6°59'55.681"	16.5	237	114.3	-55.1	58.4	-28.7	22.1	103	
2016/11/05 00:17:39	92175 1999 XP191	6.3	18.47	4.51	234	0.6	33°40'49" 48°48'30"	233	0.5	UCAC4	13.98	6 <sup>h</sup> 00 <sup>m</sup> 04.328 <sup>s</sup> 27°39'30.223"	67.6	169	132.6	-40.2	166.5	-56.4	23.4	161	
2016/11/05 02:09:49	17120 1999 JP60	6.9	18.62	5.80	44	1.8	36°17'56" 50°26'31"	1	1.9	UCAC4	12.83	7 <sup>h</sup> 26 <sup>m</sup> 21.448 <sup>s</sup> 20°55'10.410"	61.1	184	112.8	-22.8	170.7	-57.4	24.1	136	
2016/11/05 02:26:41	7525 Kiyohira	5.5	16.33	3.48	30	0.9	36°32'43" 50°15'39"	38	2.7	UCAC4	12.89	1 <sup>h</sup> 05 <sup>m</sup> 00.788 <sup>s</sup> 20°47'36.487"	8.8	292	156.5	-20.1	100.1	-56.4	24.3	74	
2016/11/05 03:07:58	43306 2000 GW157	5.2	16.59	2.88	19	0.6	36°18'50" 49°52'44"	174	2.7	UCAC4	13.79	3 <sup>h</sup> 15 <sup>m</sup> 55.003 <sup>s</sup> 26°45'39.943"	27.0	280	166.3	-13.5	130.2	-52.7	24.5	74	
2016/11/05 03:15:06	4742 Caliumi	8.3	15.90	3.13	45	0.9	36°41'46" 49°44'24"	139	3.6	UCAC4	12.83	5 <sup>h</sup> 29 <sup>m</sup> 28.127 <sup>s</sup> 21°23'00.615"	43.2	250	140.0	-12.3	160.7	-51.9	24.5	77	
2016/11/05 14:22:23	223482 2003 YL32	5.5	20.83	9.45	216	0.8	34°50'51" 48°21'10"	209	0.5	UCAC4	11.38	23 <sup>h</sup> 46 <sup>m</sup> 10.023 <sup>s</sup> -15°38'46.373"	6.3	124	126.0	-3.5	64.8	21.4	28.4	339	
2016/11/05 14:29:51	11741 1999 AZ3	6.6	18.44	5.20	200	3.0	38°37'21" 51°03'22"	56	0.6	UCAC4	13.25	23 <sup>h</sup> 09 <sup>m</sup> 47.786 <sup>s</sup> -8°37'45.317"	17.9	129	121.7	-4.6	58.1	21.2	28.3	128	
2016/11/05 17:29:33	13530 Ninne-mann	5.8	17.14	3.42	154	1.5	35°36'43" 51°21'49"	342	0.4	UCAC4	13.76	5 <sup>h</sup> 58 <sup>m</sup> 53.666 <sup>s</sup> 16°44'40.723"	3.1	67	133.4	-33.2	160.3	7.1	29.7	77	

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.		Table 1		Page 4		LinOccult 2.3.0 BETA				
Date Time (UTC)	Asteroid			Nearest point			Star					Sun		Moon			$\sigma_{km}$			
	Number Name	Diam (km)	Mag	Drop	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt		Phase (%)		
2016/11/05 18:09:30	16924 FL61	12.6	16.20	4.74	15	1.0	36°15'36'' 50°11'02''	353	4.0	UCAC4 591-6959	11.47	2 <sup>h</sup> 49 <sup>m</sup> 21.010 <sup>s</sup> 28°01'29.836''	47.6	103	167.7	-39.2	117.3	2.0	29.8	125
2016/11/05 18:53:19	6842 Krosigk	5.8	18.23	4.81	241	0.5	35°05'38'' 48°01'29''	201	0.2	UCAC4 452-120945	13.43	21 <sup>h</sup> 59 <sup>m</sup> 35.608 <sup>s</sup> 0°20'03.589''	32.1	223	108.1	-45.3	42.5	-4.0	30.1	110
2016/11/05 19:08:22	56208 GY35	6.0	18.82	5.29	69	0.6	36°56'21'' 49°35'47''	137	1.5	UCAC4 383-163225	13.54	22 <sup>h</sup> 01 <sup>m</sup> 31.790 <sup>s</sup> −13°31'22.265''	18.2	219	104.1	-47.2	38.1	-6.1	30.2	146
2016/11/05 20:41:40	15214 DY	5.0	19.32	6.10	94	1.0	36°56'55'' 49°19'16''	150	1.2	UCAC4 586-25909	13.23	6 <sup>h</sup> 08 <sup>m</sup> 22.053 <sup>s</sup> 27°04'54.073''	39.6	94	131.7	-55.3	159.6	-20.2	30.7	131
2016/11/05 20:50:00	11635 XQ32	5.0	16.66	4.47	113	0.6	35°23'02'' 50°53'18''	325	0.9	UCAC4 510-2670	12.21	1 <sup>h</sup> 47 <sup>m</sup> 46.052 <sup>s</sup> 11°51'39.573''	51.6	192	165.6	-55.6	98.2	-21.5	30.9	78
2016/11/05 21:53:31	13856 XZ105	8.3	15.57	2.00	23	1.0	36°25'37'' 49°51'52''	154	3.3	UCAC4 546-3428	13.76	1 <sup>h</sup> 46 <sup>m</sup> 58.802 <sup>s</sup> 19°06'33.115''	54.1	220	165.8	-55.3	99.5	-31.4	31.3	97
2016/11/05 22:02:02	33770 RF128	7.2	17.26	3.95	77	0.6	36°45'54'' 49°25'48''	154	1.9	UCAC4 512-5055	13.34	3 <sup>h</sup> 21 <sup>m</sup> 38.472 <sup>s</sup> 12°22'07.166''	52.5	183	170.4	-54.9	119.9	-32.7	31.3	122
2016/11/05 22:54:04	371 Bohemia	54.6	13.43	0.82	40	9.8	36°24'51'' 49°41'44''	167	19.4	UCAC4 593-22291	13.30	5 <sup>h</sup> 47 <sup>m</sup> 34.125 <sup>s</sup> 28°30'58.480''	63.2	135	136.2	-50.9	153.7	-40.4	31.6	103
2016/11/06 00:21:39	30010 CJ56	7.2	19.05	6.52	37	0.5	36°29'12'' 49°44'20''	157	1.9	UCAC4 584-43923	12.53	9 <sup>h</sup> 17 <sup>m</sup> 22.661 <sup>s</sup> 26°46'47.523''	44.4	101	90.3	-39.9	154.9	-51.5	32.2	150
2016/11/06 01:35:52	1969 Alain	24.4	17.47	4.64	207	0.7	36°25'23'' 51°54'25''	3	2.8	UCAC4 462-47549	12.85	11 <sup>h</sup> 14 <sup>m</sup> 55.397 <sup>s</sup> 2°12'11.412''	18.9	110	55.1	-28.5	124.7	-57.2	32.7	191
2016/11/06 02:48:51	9718 Gerbe- fremov	5.5	17.00	3.94	198	3.6	33°36'27'' 50°32'34''	286	0.1	UCAC4 555-22658	13.09	6 <sup>h</sup> 01 <sup>m</sup> 15.225 <sup>s</sup> 20°59'57.489''	50.7	235	133.5	-16.8	156.6	-57.0	32.9	72
2016/11/06 17:13:08	40133 QF53	6.6	19.08	5.47	194	1.1	34°28'36'' 51°21'45''	319	0.8	UCAC4 575-25482	13.61	6 <sup>h</sup> 12 <sup>m</sup> 14.007 <sup>s</sup> 24°54'57.316''	5.9	58	131.7	-30.8	151.0	15.5	38.8	152
2016/11/06 19:41:01	3094 Chukokkala	22.5	16.83	3.06	120	3.5	36°28'37'' 51°07'06''	7	4.5	UCAC4 470-23214	13.84	6 <sup>h</sup> 49 <sup>m</sup> 09.822 <sup>s</sup> 3°58'02.942''	6.7	92	119.8	-51.1	154.9	-2.5	40.0	112
2016/11/06 20:12:44	20954 1158 T- 3	7.2	19.04	7.20	153	0.7	35°26'08'' 51°18'52''	337	1.1	UCAC4 521-46093	11.84	8 <sup>h</sup> 21 <sup>m</sup> 57.921 <sup>s</sup> 14°09'31.351''	4.8	74	100.2	-53.9	177.6	-7.1	40.2	155
2016/11/06 21:52:09	25906 YV139	6.9	17.59	4.33	80	0.6	37°10'38'' 50°29'25''	52	1.7	UCAC4 404-10878	13.28	6 <sup>h</sup> 01 <sup>m</sup> 07.508 <sup>s</sup> −9°17'04.508''	21.6	138	126.0	-55.7	136.7	-22.3	40.8	139
2016/11/06 22:19:06	13933 Charleville	7.9	17.70	4.64	92	0.9	36°29'41'' 50°51'38''	9	2.0	UCAC4 591-18052	13.08	5 <sup>h</sup> 22 <sup>m</sup> 27.848 <sup>s</sup> 28°04'35.240''	62.1	133	142.7	-54.2	136.9	-26.4	41.0	110
2016/11/06 22:54:09	3543 Ningbo	13.2	18.18	5.93	245	13.6	36°47'27'' 52°13'15''	8	1.3	UCAC4 554-38361	12.26	7 <sup>h</sup> 28 <sup>m</sup> 27.466 <sup>s</sup> 20°45'30.504''	43.8	112	114.2	-51.2	165.4	-31.8	41.7	203
2016/11/06 23:03:34	14802 DJ2	5.8	18.38	8.41	141	0.7	34°29'34'' 49°31'50''	246	0.9	UCAC4 489-30003	9.97	6 <sup>h</sup> 48 <sup>m</sup> 44.756 <sup>s</sup> 7°40'31.434''	39.5	135	121.0	-50.2	155.0	-33.2	41.4	114
2016/11/06 23:44:23	4238 Audrey	7.6	17.77	4.02	135	0.5	36°23'08'' 48°50'16''	177	1.3	UCAC4 535-48006	13.78	8 <sup>h</sup> 41 <sup>m</sup> 48.645 <sup>s</sup> 16°48'02.347''	37.3	110	96.4	-45.3	176.2	-39.1	41.6	104
2016/11/06 23:47:45	34645 WT67	5.2	18.92	6.19	227	0.7	36°01'54'' 48°00'43''	185	0.4	UCAC4 531-15916	12.73	5 <sup>h</sup> 38 <sup>m</sup> 43.747 <sup>s</sup> 16°08'16.448''	56.1	172	139.4	-44.8	139.9	-39.6	41.6	145

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.		Table 1		Page 5		LinOccult 2.3.0 BETA				
Date Time (UTC)	Asteroid			Nearest point			Star					Sun			Moon					
	Number Name	Diam (km)	Mag	Drop (km)	Dist (km)	Durat (sec)	Longitude Latitude	Az	Prob (%)	Catalog Number	Mag	RA Dec	Alt	Az	Dist	Alt	Dist	Alt	Phase (%)	$\sigma_{km}$
2016/11/07 01:08:11	71160 1999 XS195	5.0	18.65	5.01	3	0.8	36°14'30" 50°02'35"	261	1.8	UCAC4 599-36779	13.65	6 <sup>h</sup> 51 <sup>m</sup> 06.585 <sup>s</sup> 29°40'29.459"	69.8	173	123.4	-33.1	153.7	-49.7	42.1	113
2016/11/07 02:35:55	1189 Terentia	55.9	14.08	1.21	25	7.3	36°13'56" 49°49'39"	189	22.3	UCAC4 601-16222	13.31	5 <sup>h</sup> 01 <sup>m</sup> 40.616 <sup>s</sup> 30°01'38.322"	50.1	258	146.9	-19.1	129.9	-55.7	42.8	96
2016/11/07 02:51:34	44271 1998 QY67	5.0	18.56	5.05	24	0.7	36°19'22" 49°50'11"	174	1.8	UCAC4 535-17436	13.52	5 <sup>h</sup> 42 <sup>m</sup> 43.111 <sup>s</sup> 16°51'04.000"	43.9	239	138.6	-16.5	139.2	-56.0	42.9	109
2016/11/07 04:12:05	11497 1989 CG1	10.0	16.89	2.97	225	1.5	38°45'51" 51°19'33"	51	0.4	UCAC4 651-30880	13.99	5 <sup>h</sup> 27 <sup>m</sup> 04.617 <sup>s</sup> 40°11'51.069"	45.0	283	138.5	-4.0	132.4	-53.2	43.5	103
2016/11/07 04:15:35	3104 Durer	22.3	15.08	1.88	181	2.1	38°37'10" 49°25'41"	112	2.3	UCAC4 388-7085	13.42	5 <sup>h</sup> 01 <sup>m</sup> 26.497 <sup>s</sup> -12°31'25.145"	1.8	248	136.5	-3.4	119.8	-52.9	43.5	117
2016/11/07 14:50:28	46852 1998 QC41	5.8	18.04	6.48	6	0.7	36°16'07" 50°05'53"	347	1.9	UNKNOWN UN- KNOWN	11.56	0 <sup>h</sup> 36 <sup>m</sup> 15.814 <sup>s</sup> 17°00'42.210"	30.3	100	147.6	-8.2	62.4	25.0	48.0	120
2016/11/07 16:17:46	3642 Frieden	35.1	17.11	3.28	258	1.0	35°11'39" 52°15'57"	342	2.7	UCAC4 354-132428	13.88	18 <sup>h</sup> 26 <sup>m</sup> 25.380 <sup>s</sup> -19°18'56.343"	7.2	228	50.9	-22.1	37.4	24.6	48.6	174
2016/11/07 16:31:58	9158 Plate	6.3	16.09	2.78	140	0.7	35°44'57" 51°15'20"	344	0.7	UCAC4 461-4020	13.39	2 <sup>h</sup> 53 <sup>m</sup> 39.319 <sup>s</sup> 2°11'29.584"	13.3	103	165.7	-24.4	88.5	24.1	48.7	80
2016/11/07 17:28:15	32456 2000 SH72	8.3	18.90	5.37	173	1.0	38°37'13" 50°28'02"	74	1.2	UCAC4 365-191471	13.54	23 <sup>h</sup> 27 <sup>m</sup> 46.230 <sup>s</sup> -17°09'04.670"	22.7	174	119.4	-33.4	34.6	20.7	49.0	177
2016/11/07 19:41:24	92061 1999 WA8	5.5	18.52	8.03	88	0.8	36°58'01" 49°23'20"	146	1.3	UCAC4 612-19522	10.49	5 <sup>h</sup> 18 <sup>m</sup> 26.065 <sup>s</sup> 32°16'01.138"	42.6	88	143.5	-51.4	124.7	6.3	50.0	140
2016/11/07 20:43:49	2789 Foshan	6.6	16.80	3.87	240	1.5	35°46'38" 52°11'01"	351	0.0	UCAC4 553-37853	12.96	7 <sup>h</sup> 15 <sup>m</sup> 14.313 <sup>s</sup> 20°26'32.326"	25.7	88	118.1	-56.0	151.3	-2.5	50.7	72
2016/11/07 21:06:01	3269 Vibert- Douglas	10.0	16.02	3.41	168	1.0	35°58'39" 48°32'52"	188	1.1	UCAC4 679-21963	12.66	3 <sup>h</sup> 38 <sup>m</sup> 42.260 <sup>s</sup> 45°38'57.261"	79.5	109	149.2	-56.6	104.5	-5.7	50.7	105
2016/11/07 21:25:20	9363 1992 GR	7.2	16.99	3.99	13	1.0	36°20'05" 50°09'48"	15	3.1	UCAC4 576-15000	13.03	5 <sup>h</sup> 16 <sup>m</sup> 55.109 <sup>s</sup> 25°09'33.292"	54.0	121	145.4	-56.6	123.7	-8.6	50.7	91
2016/11/07 22:44:51	66085 1998 RG67	5.2	19.66	6.24	168	0.8	35°55'23" 51°32'08"	351	0.7	UCAC4 554-41793	13.42	8 <sup>h</sup> 12 <sup>m</sup> 37.670 <sup>s</sup> 20°42'51.344"	36.1	101	105.0	-52.3	163.3	-20.8	51.5	148
2016/11/07 23:30:27	26178 1996 GV2	6.9	18.95	5.76	90	0.8	35°20'13" 50°35'18"	312	1.6	UCAC4 563-45502	13.20	8 <sup>h</sup> 25 <sup>m</sup> 37.636 <sup>s</sup> 22°35'41.938"	42.7	106	102.5	-47.3	164.7	-27.8	51.7	139
2016/11/08 00:04:57	7916 1981 EN	12.1	17.85	4.31	224	2.8	39°12'03" 50°49'24"	67	0.2	UCAC4 495-30157	13.56	6 <sup>h</sup> 36 <sup>m</sup> 34.989 <sup>s</sup> 8°52'02.445"	47.4	159	125.2	-42.7	139.8	-32.9	52.1	83
2016/11/08 01:16:07	23247 2000 WG174	6.6	18.96	5.41	25	0.7	36°08'49" 50°15'10"	336	1.8	UCAC4 550-44981	13.56	8 <sup>h</sup> 20 <sup>m</sup> 50.569 <sup>s</sup> 19°59'52.246"	55.4	142	103.0	-32.1	164.1	-42.6	52.5	142
2016/11/08 02:19:07	41406 2000 AD188	9.1	18.88	7.03	131	0.8	34°49'11" 50°45'31"	307	1.6	UCAC4 468-19761	11.85	6 <sup>h</sup> 36 <sup>m</sup> 50.381 <sup>s</sup> 3°32'16.386"	40.8	206	123.7	-22.0	137.6	-49.3	53.0	165
2016/11/08 03:11:51	4671 Drtikol	7.6	16.43	2.75	19	0.8	36°08'51" 49°53'59"	211	3.7	UCAC4 591-11030	13.77	4 <sup>h</sup> 00 <sup>m</sup> 42.273 <sup>s</sup> 28°11'14.745"	32.6	276	160.7	-13.5	103.8	-52.6	53.4	80
2016/11/08 03:34:02	2997 Cabrera	9.5	17.54	4.95	101	1.5	36°03'54" 50°56'29"	351	2.3	UCAC4 595-43176	12.60	8 <sup>h</sup> 09 <sup>m</sup> 01.053 <sup>s</sup> 28°54'19.058"	66.1	214	107.5	-10.0	156.1	-53.2	53.4	113

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 6		LinOccult 2.3.0 BETA			
		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 (%)	$\sigma_{km}$
2016/11/08 04:18:02	3127 Bagra-tion	31.0	18.16	6.36	28	1.9	36°10'14" 49°48'39"	197	8.4	UCAC4 520-49900	11.81	9 <sup>h</sup> 31 <sup>m</sup> 30.672 <sup>s</sup> 13°54'31.469"	53.8	189	85.3	-3.3	178.8	-52.9	53.8	145
2016/11/08 13:56:04	12667 DF	7.2	17.44	4.87	212	0.5	36°39'57" 48°09'35"	173	0.4	UCAC4 507-2687	12.58	1 <sup>h</sup> 52 <sup>m</sup> 02.067 <sup>s</sup> 11°19'58.626"	5.8	79	163.7	-0.3	64.7	21.6	58.0	107
2016/11/08 16:25:07	17609 UR	5.5	16.56	2.97	250	0.8	39°41'26" 49°35'52"	102	0.0	UCAC4 761-18332	13.67	2 <sup>h</sup> 27 <sup>m</sup> 48.309 <sup>s</sup> 62°03'19.580"	52.9	45	134.4	-23.5	90.4	28.6	59.0	89
2016/11/08 23:33:55	45675 EG112	5.5	17.94	4.12	33	0.9	36°20'35" 50°20'39"	7	2.0	UCAC4 593-43031	13.84	7 <sup>h</sup> 56 <sup>m</sup> 27.840 <sup>s</sup> 28°33'22.089"	52.6	109	111.0	-47.1	143.7	-18.1	62.3	104
2016/11/09 00:55:20	94313 FE41	6.6	17.28	5.35	34	0.6	36°44'12" 50°09'28"	69	1.9	UCAC4 734-32214	11.94	3 <sup>h</sup> 55 <sup>m</sup> 40.376 <sup>s</sup> 56°42'21.512"	65.6	301	138.6	-35.5	96.2	-30.3	62.8	133
2016/11/09 01:40:34	9166 SC6	9.5	17.52	9.50	206	0.8	35°59'13" 48°12'23"	186	0.0	UCAC4 548-8930	8.02	4 <sup>h</sup> 14 <sup>m</sup> 20.966 <sup>s</sup> 19°34'45.911"	42.4	248	161.6	-28.4	93.2	-36.4	63.2	63
2016/11/09 14:03:19	3259 Brown-lee	37.5	16.27	4.36	253	1.1	35°37'30" 52°16'43"	349	3.2	UCAC4 394-98972	11.93	18 <sup>h</sup> 55 <sup>m</sup> 32.693 <sup>s</sup> -11°17'10.558"	27.9	194	57.3	-1.5	55.8	20.4	68.5	186
2016/11/09 16:13:06	11842 Kap'bos	5.2	16.04	2.35	82	0.6	35°21'02" 50°28'39"	306	1.5	UCAC4 559-5706	13.83	2 <sup>h</sup> 51 <sup>m</sup> 24.498 <sup>s</sup> 21°42'03.353"	26.6	87	174.9	-21.8	66.8	31.3	69.4	68
2016/11/09 16:33:43	2763 Jeans	11.5	15.25	3.35	224	1.5	38°29'18" 48°37'57"	135	0.1	UCAC4 591-14004	11.95	4 <sup>h</sup> 46 <sup>m</sup> 45.396 <sup>s</sup> 28°02'42.243"	16.5	66	153.1	-25.1	93.5	32.0	69.5	77
2016/11/09 16:43:09	13074 RK15	5.2	17.09	4.37	14	0.7	36°05'40" 50°04'35"	283	2.7	UCAC4 603-16775	12.74	4 <sup>h</sup> 58 <sup>m</sup> 52.230 <sup>s</sup> 30°24'27.744"	17.9	64	149.8	-26.6	96.3	32.2	69.5	75
2016/11/09 17:06:30	20712 XF13	7.9	17.19	3.47	198	1.0	37°29'38" 48°26'54"	154	0.4	UCAC4 543-15819	13.77	5 <sup>h</sup> 29 <sup>m</sup> 17.479 <sup>s</sup> 18°29'02.100"	7.8	70	144.5	-30.4	102.1	32.5	69.7	96
2016/11/09 20:01:14	26257 QL84	6.9	16.60	6.10	48	1.4	35°51'53" 50°23'02"	321	2.7	UCAC4 641-23526	10.51	5 <sup>h</sup> 12 <sup>m</sup> 10.317 <sup>s</sup> 38°08'08.025"	51.7	88	144.3	-53.8	97.8	22.3	70.9	90
2016/11/09 20:19:38	7408 Yoshi-hide	5.0	17.27	5.92	89	0.6	35°51'01" 50°47'37"	339	1.3	UCAC4 591-15881	11.36	5 <sup>h</sup> 05 <sup>m</sup> 59.982 <sup>s</sup> 28°04'39.116"	49.2	105	149.2	-55.2	95.6	20.2	71.1	73
2016/11/09 22:32:42	7173 Sepkoski	5.5	17.16	3.94	43	0.5	36°44'20" 50°17'59"	49	2.7	UCAC4 515-41368	13.25	7 <sup>h</sup> 25 <sup>m</sup> 16.036 <sup>s</sup> 12°59'30.552"	36.7	117	116.4	-54.0	126.6	2.0	72.1	67
2016/11/10 01:32:07	6367 FY2	5.8	16.63	2.86	147	0.7	36°45'49" 51°20'01"	13	0.4	UCAC4 508-2917	13.85	1 <sup>h</sup> 48 <sup>m</sup> 10.632 <sup>s</sup> 11°35'15.055"	14.1	271	161.4	-30.0	43.7	-25.0	73.4	70
2016/11/10 02:30:47	42229 DC99	8.7	18.35	6.17	71	0.8	37°00'23" 49°36'57"	133	2.1	UCAC4 427-11862	12.18	6 <sup>h</sup> 00 <sup>m</sup> 03.233 <sup>s</sup> -4°40'23.127"	28.2	219	130.9	-20.6	101.9	-32.9	73.8	147
2016/11/10 04:27:51	25934 DC74	5.8	19.12	5.17	87	0.8	37°23'54" 49°44'41"	113	1.4	UCAC4 634-38370	13.95	7 <sup>h</sup> 03 <sup>m</sup> 57.389 <sup>s</sup> 36°45'58.257"	54.1	267	123.6	-2.3	115.3	-43.9	74.5	129
2016/11/10 04:37:55	38516 TQ248	10.0	18.37	5.76	137	0.9	36°29'34" 48°49'16"	174	1.7	UCAC4 478-14888	12.62	5 <sup>h</sup> 58 <sup>m</sup> 04.287 <sup>s</sup> 5°33'16.150"	19.6	255	135.5	-0.9	101.3	-44.4	74.6	153
2016/11/10 16:21:25	3044 Saltykov	21.7	17.11	4.43	196	0.5	35°08'55" 51°39'29"	336	2.7	UCAC4 376-112605	12.69	18 <sup>h</sup> 20 <sup>m</sup> 42.456 <sup>s</sup> -14°52'02.050"	8.3	235	47.2	-23.3	79.4	33.0	79.2	198
2016/11/10 17:33:06	3818 Gorlitsa	10.2	17.83	6.44	110	1.1	37°15'04" 49°16'49"	141	2.1	UCAC4 564-14153	11.39	5 <sup>h</sup> 09 <sup>m</sup> 32.262 <sup>s</sup> 22°45'47.068"	18.8	77	150.1	-34.8	83.6	36.7	79.7	84

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.				Table 1		Page 7		LinOccult 2.3.0 BETA				
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 (%)	$\sigma_{km}$		
2016/11/10 18:52:09	12898 Mignard	7.6	18.26	4.43	91	0.6	36°50'05'' 49°18'26''	155	1.8	UCAC4 517-8501	13.85	4 <sup>h</sup> 40 <sup>m</sup> 22.988 <sup>s</sup> 13°15'10.263''	29.1	105	156.5	-46.3	74.7	36.0	80.2	134		
2016/11/10 19:00:01	23303 AD17	8.3	17.71	4.66	216	0.8	37°53'25'' 48°24'32''	148	0.5	UCAC4 646-27106	13.06	5 <sup>h</sup> 18 <sup>m</sup> 36.130 <sup>s</sup> 39°08'05.944''	42.1	76	143.6	-47.3	86.5	35.6	80.2	113		
2016/11/10 19:52:33	20602 RC198	12.6	15.77	2.95	33	1.3	36°27'46'' 49°46'08''	158	4.2	UCAC4 643-9873	12.89	2 <sup>h</sup> 31 <sup>m</sup> 49.016 <sup>s</sup> 38°24'58.060''	75.3	136	157.7	-53.3	55.9	32.2	80.6	114		
2016/11/10 19:53:52	1795 Woltjer	27.1	16.60	3.25	160	2.8	37°33'54'' 48°52'18''	145	3.3	UCAC4 476-2106	13.41	1 <sup>h</sup> 22 <sup>m</sup> 34.147 <sup>s</sup> 5°04'58.520''	45.1	186	152.2	-53.4	24.7	32.1	80.6	107		
2016/11/10 19:57:19	19621 RE1	6.0	18.10	4.44	85	0.7	35°31'52'' 50°38'21''	321	1.5	UCAC4 578-1108	13.68	0 <sup>h</sup> 27 <sup>m</sup> 12.850 <sup>s</sup> 25°24'31.564''	61.5	218	142.6	-53.7	29.7	31.8	80.7	131		
2016/11/10 20:34:17	3747 Belinskij	26.7	16.06	3.74	52	2.1	36°41'49'' 50°25'42''	35	6.7	UCAC4 685-47239	12.36	7 <sup>h</sup> 23 <sup>m</sup> 34.882 <sup>s</sup> 46°51'24.455''	41.9	63	119.8	-56.3	107.7	28.3	80.9	149		
2016/11/10 20:40:53	34864 TG114	6.6	18.09	6.25	25	1.1	36°35'01'' 50°10'24''	57	1.8	UCAC4 480-136302	11.85	23 <sup>h</sup> 01 <sup>m</sup> 38.399 <sup>s</sup> 5°58'16.710''	28.6	242	119.6	-56.7	14.9	27.6	80.9	141		
2016/11/10 21:31:25	41058 VC24	5.2	18.26	4.80	170	0.8	35°10'41'' 51°24'19''	332	0.6	UCAC4 577-16272	13.48	5 <sup>h</sup> 33 <sup>m</sup> 22.783 <sup>s</sup> 25°15'52.387''	54.3	121	144.7	-57.4	86.8	21.6	81.2	117		
2016/11/10 21:53:09	3870 Mayre	14.5	16.90	3.85	188	1.9	38°53'12'' 49°49'08''	98	1.8	UCAC4 494-29645	13.08	6 <sup>h</sup> 35 <sup>m</sup> 53.227 <sup>s</sup> 8°46'15.715''	35.2	123	128.1	-56.8	100.9	18.7	81.4	160		
2016/11/10 21:55:18	70445 TR13	5.5	17.06	3.43	134	0.6	36°51'06'' 51°11'33''	18	0.9	UCAC4 640-16410	13.68	4 <sup>h</sup> 03 <sup>m</sup> 14.323 <sup>s</sup> 37°54'18.097''	77.6	161	155.8	-56.7	70.3	18.4	81.4	99		
2016/11/10 22:46:49	72 Feronia	86.1	12.53	0.74	219	12.3	34°35'59'' 51°42'13''	327	0.8	UCAC4 538-17479	12.56	5 <sup>h</sup> 40 <sup>m</sup> 18.929 <sup>s</sup> 17°32'11.051''	55.1	152	143.1	-52.9	87.1	11.2	81.7	74		
2016/11/11 02:04:13	10207 Come-niana	6.0	17.05	4.36	206	0.7	37°33'34'' 51°42'56''	26	0.1	UCAC4 617-17107	12.71	4 <sup>h</sup> 47 <sup>m</sup> 09.988 <sup>s</sup> 33°15'12.177''	52.5	261	152.2	-25.1	75.2	-18.5	82.9	83		
2016/11/11 04:31:21	14473 TL17	5.5	18.25	4.77	136	0.6	36°33'26'' 51°15'39''	8	0.9	UCAC4 501-10275	13.50	5 <sup>h</sup> 07 <sup>m</sup> 40.338 <sup>s</sup> 10°04'53.062''	15.5	267	149.6	-2.1	75.2	-36.1	83.8	109		
2016/11/11 15:21:03	7535 WU2	9.1	16.64	2.91	71	0.7	35°53'48'' 50°37'52''	337	2.6	UCAC4 544-5594	13.80	3 <sup>h</sup> 00 <sup>m</sup> 11.106 <sup>s</sup> 18°38'50.560''	15.9	80	177.8	-13.8	40.2	25.0	87.5	114		
2016/11/11 18:07:14	7685 EP17	6.6	17.16	5.05	154	1.2	37°57'58'' 49°11'20''	129	0.5	UCAC4 535-20667	12.12	5 <sup>h</sup> 54 <sup>m</sup> 13.372 <sup>s</sup> 16°59'32.930''	13.5	80	140.5	-40.2	78.8	40.8	88.4	81		
2016/11/11 18:09:24	23513 PZ3	5.0	16.67	3.80	115	1.3	35°23'51'' 50°54'30''	326	0.7	UCAC4 626-27634	12.90	5 <sup>h</sup> 44 <sup>m</sup> 16.842 <sup>s</sup> 35°11'31.948''	28.5	68	141.2	-40.5	78.1	40.9	88.3	65		
2016/11/11 20:21:45	18880 Tod-blumberg	5.0	17.74	4.09	81	0.5	36°20'30'' 49°19'27''	177	1.3	UCAC4 543-3819	13.67	2 <sup>h</sup> 04 <sup>m</sup> 19.019 <sup>s</sup> 18°27'53.970''	58.6	184	164.7	-55.9	25.6	38.6	89.1	133		
2016/11/11 21:11:21	38439 SQ4	6.9	18.26	4.76	33	0.6	35°56'20'' 50°14'13''	310	2.0	UCAC4 483-10706	13.52	5 <sup>h</sup> 10 <sup>m</sup> 17.168 <sup>s</sup> 6°32'25.102''	39.1	137	148.4	-57.8	65.8	34.3	89.3	136		
2016/11/11 22:15:27	6136 Gryphon	15.8	16.26	3.74	208	3.3	34°43'31'' 51°37'47''	328	1.4	UCAC4 502-21208	12.56	6 <sup>h</sup> 12 <sup>m</sup> 30.315 <sup>s</sup> 10°22'50.303''	42.8	136	135.0	-55.8	80.6	26.8	89.6	131		
2016/11/11 22:16:42	37696 WE27	6.0	18.56	5.03	168	0.6	36°49'59'' 48°34'53''	167	0.9	UCAC4 582-1658	13.54	0 <sup>h</sup> 41 <sup>m</sup> 08.232 <sup>s</sup> 26°14'40.924''	44.2	259	144.7	-55.7	24.0	26.6	89.7	187		



Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 8		LinOccult 2.3.0 BETA			
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 (%)	$\sigma_{km}$
2016/11/11 23:55:43	17618 1995 VO	8.7	17.42	3.98	176	0.8	37°13'12" 51°30'41"	22	1.0 2.9	UCAC4 594-14433	13.47	4 <sup>h</sup> 56 <sup>m</sup> 31.880 <sup>s</sup> 28°37'12.409"	66.8	209	153.1	-45.0	63.3	12.6	90.2	121
2016/11/12 00:13:14	8986 Kineyaya- suyo	8.3	16.59	3.33	163	1.0	36°25'20" 51°30'27"	3	1.0 3.1	UCAC4 521-3542	13.31	2 <sup>h</sup> 06 <sup>m</sup> 00.858 <sup>s</sup> 14°10'52.263"	30.2	255	164.4	-42.5	21.1	10.0	90.3	108
2016/11/12 01:43:59	13707 1998 QS9	7.9	16.47	4.45	136	1.0	35°14'50" 49°01'40"	213	1.2 3.2	UCAC4 660-24938	12.04	4 <sup>h</sup> 37 <sup>m</sup> 28.268 <sup>s</sup> 41°54'12.006"	58.5	272	149.3	-28.5	62.5	-3.8	90.7	99
2016/11/12 02:09:46	6092 Johmma- son	6.3	16.08	4.17	115	0.7	36°14'06" 51°04'59"	358	0.9 3.7	UCAC4 458-5154	11.94	3 <sup>h</sup> 40 <sup>m</sup> 26.906 <sup>s</sup> 1°35'19.620"	16.9	252	162.2	-24.4	40.5	-7.7	90.8	68
2016/11/12 04:11:07	106989 2000 YN102	5.2	17.67	3.86	207	0.7	36°52'54" 51°52'03"	12	0.5 1.6	UCAC4 624-25492	13.85	5 <sup>h</sup> 40 <sup>m</sup> 05.528 <sup>s</sup> 34°41'44.105"	40.8	278	142.6	-5.3	70.9	-24.1	91.4	130
2016/11/12 04:19:30	20542 1999 RD94	6.3	18.35	4.79	28	0.7	36°25'36" 50°16'47"	21	1.8 1.9	UCAC4 508-17271	13.58	5 <sup>h</sup> 55 <sup>m</sup> 34.867 <sup>s</sup> 11°29'10.680"	25.4	257	139.6	-4.0	72.6	-25.1	91.5	134
2016/11/12 04:25:22	60721 2000 GA73	5.8	19.03	5.69	55	0.7	36°18'46" 49°33'14"	178	1.6 1.7	UCAC4 517-23257	13.35	6 <sup>h</sup> 18 <sup>m</sup> 46.458 <sup>s</sup> 13°14'59.717"	29.5	255	134.5	-3.2	78.2	-25.7	91.5	132
2016/11/12 14:17:50	50403 2000 CB114	8.3	15.49	2.38	229	0.6	33°58'16" 51°29'32"	314	0.1 4.3	UCAC4 621-14136	13.23	4 <sup>h</sup> 06 <sup>m</sup> 22.281 <sup>s</sup> 34°11'50.298"	10.1	47	159.5	-4.3	46.8	11.3	94.0	77
2016/11/12 14:19:38	19927 1980 FM4	6.3	18.02	6.02	234	0.6	38°54'43" 48°48'51"	126	0.4 2.0	UCAC4 624-17447	12.00	4 <sup>h</sup> 36 <sup>m</sup> 01.250 <sup>s</sup> 34°43'22.707"	7.3	42	154.7	-4.6	52.5	11.6	94.0	127
2016/11/12 18:03:26	16966 1998 SM63	5.2	17.22	6.91	238	1.8	34°29'09" 51°51'50"	328	0.0 2.6	UCAC4 611-29630	10.31	6 <sup>h</sup> 09 <sup>m</sup> 43.267 <sup>s</sup> 32°09'58.497"	22.3	66	137.7	-39.8	68.8	41.7	94.8	80
2016/11/12 20:12:08	11735 1998 KN56	5.5	19.17	7.70	18	1.4	36°23'22" 49°54'06"	156	1.6 1.6	UCAC4 588-36441	11.47	6 <sup>h</sup> 55 <sup>m</sup> 07.518 <sup>s</sup> 27°29'36.299"	32.0	84	128.2	-55.4	77.0	46.4	95.2	133
2016/11/12 20:14:47	0 2009 KS5	7.3	20.92	7.14	237	0.6	36°32'59" 52°10'05"	5	0.6 0.7	UCAC4 652-46971	13.78	7 <sup>h</sup> 54 <sup>m</sup> 19.362 <sup>s</sup> 40°13'43.906"	31.8	64	116.3	-55.6	88.2	46.4	95.3	442
2016/11/12 20:47:50	67199 2000 CP96	6.0	19.41	7.41	17	0.7	36°05'28" 50°08'17"	306	1.5 1.5	UCAC4 491-48294	12.00	8 <sup>h</sup> 01 <sup>m</sup> 49.150 <sup>s</sup> 8°03'55.288"	12.7	93	109.3	-57.5	93.7	45.1	95.5	161
2016/11/12 21:57:54	25399 Von- negut	8.3	17.20	3.83	44	0.8	36°35'15" 50°23'28"	29	2.8 3.0	UCAC4 726-36548	13.40	5 <sup>h</sup> 33 <sup>m</sup> 11.010 <sup>s</sup> 55°06'39.430"	73.9	62	134.2	-57.1	65.9	39.5	95.7	111
2016/11/12 23:59:04	8675 1991 YZ	10.0	17.66	3.93	93	1.7	36°22'33" 50°52'37"	4	2.3 2.9	UCAC4 521-236	13.76	0 <sup>h</sup> 08 <sup>m</sup> 20.815 <sup>s</sup> 14°02'03.324"	12.9	277	135.4	-44.7	26.1	24.0	96.1	139
2016/11/13 01:13:02	4527 Schoen- berg	5.5	17.40	5.39	244	0.8	36°21'07" 47°51'28"	179	0.0 2.8	UCAC4 535-18483	12.02	5 <sup>h</sup> 47 <sup>m</sup> 06.148 <sup>s</sup> 16°54'48.352"	53.2	214	143.5	-33.7	57.6	13.0	96.3	78
2016/11/13 01:13:05	16638 1993 QN3	5.5	18.10	5.17	6	0.5	36°16'47" 50°05'50"	355	2.2 2.2	UCAC4 528-10592	12.93	4 <sup>h</sup> 59 <sup>m</sup> 09.232 <sup>s</sup> 15°27'06.883"	46.8	229	154.7	-33.7	46.1	13.0	96.3	101
2016/11/13 02:16:40	7879 1992 EX17	5.0	17.42	7.43	76	0.6	35°25'56" 49°38'55"	234	1.6 2.7	UCAC4 501-45535	9.99	7 <sup>h</sup> 43 <sup>m</sup> 15.648 <sup>s</sup> 10°09'00.297"	49.9	191	114.5	-23.5	85.5	3.3	96.5	75
2016/11/13 03:33:57	72864 2001 HD54	6.3	17.62	6.73	31	1.0	36°41'17" 49°57'12"	110	1.9 2.0	UCAC4 519-37456	10.90	7 <sup>h</sup> 07 <sup>m</sup> 16.674 <sup>s</sup> 13°41'57.244"	43.7	231	124.0	-11.2	75.7	-8.0	96.7	126
2016/11/13 04:43:53	16442 1989 GM1	6.0	17.67	4.18	223	0.8	35°53'42" 52°02'08"	353	0.2 2.4	UNKNOWN UN- KNOWN	13.52	6 <sup>h</sup> 15 <sup>m</sup> 11.802 <sup>s</sup> 12°22'14.916"	24.7	260	136.1	-0.7	62.2	-17.3	97.0	99

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 9		LinOccult 2.3.0 BETA				
		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 (%)	$\sigma_{km}$	
2016/11/13 04:44:26	20867 2000 VT37	9.1	16.95	4.64	43	0.7	36°50'23'' 50°12'18''	66	3.2 3.4	UCAC4 592-10484	12.32	3 <sup>h</sup> 56 <sup>m</sup> 00.558 <sup>s</sup> 28°15'41.801''	14.7	297	165.9	-0.6	33.5	-17.3	97.0	106	
2016/11/13 14:40:30	5901 1986 WB1	5.0	16.65	3.64	207	0.5	33°56'18'' 51°09'54''	307	0.0 2.8	UCAC4 539-4490	13.05	2 <sup>h</sup> 32 <sup>m</sup> 43.690 <sup>s</sup> 17°37'40.524''	14.3	79	169.7	-7.9	7.8	9.5	98.4	72	
2016/11/13 18:37:58	20375 Sher-rigten	5.0	17.91	4.09	166	0.5	38°00'26'' 49°03'55''	132	0.5 1.9	UCAC4 538-2462	13.85	1 <sup>h</sup> 22 <sup>m</sup> 03.824 <sup>s</sup> 17°26'51.010''	56.4	160	152.7	-45.0	19.3	43.7	98.9	103	
2016/11/13 19:18:00	33290 1998 KZ7	9.1	17.66	4.75	199	1.0	33°30'29'' 50°08'29''	273	0.9 2.6	UCAC4 348-240	12.93	0 <sup>h</sup> 12 <sup>m</sup> 11.650 <sup>s</sup> -20°24'23.230''	18.2	196	120.5	-50.2	47.5	47.5	98.9	140	
2016/11/13 19:45:37	1139 Atami	10.4	13.40	0.70	180	1.4	35°21'10'' 48°33'14''	202	0.0 12.3	UCAC4 475-17237	13.50	6 <sup>h</sup> 15 <sup>m</sup> 40.436 <sup>s</sup> 4°52'29.157''	17.9	104	134.4	-53.3	53.8	49.4	99.0	34	
2016/11/13 20:09:19	57356 2001 QG293	7.2	16.20	2.40	153	0.7	38°08'35'' 49°22'51''	119	0.7 3.3	UCAC4 661-30311	13.93	5 <sup>h</sup> 00 <sup>m</sup> 55.309 <sup>s</sup> 42°09'20.312''	59.5	88	147.3	-55.4	43.8	50.5	99.0	87	
2016/11/13 20:30:58	2277 Moreau	13.2	16.68	2.90	163	0.9	35°37'59'' 51°27'09''	343	1.6 4.8	UCAC4 539-47547	13.85	9 <sup>h</sup> 13 <sup>m</sup> 15.527 <sup>s</sup> 17°40'04.500''	6.7	70	96.3	-56.9	94.1	51.1	99.0	110	
2016/11/13 21:04:19	4512 Simuhe	15.1	15.03	2.66	243	2.2	35°23'49'' 52°09'14''	345	0.1 7.4	UCAC4 495-9764	12.46	5 <sup>h</sup> 03 <sup>m</sup> 08.826 <sup>s</sup> 8°52'49.316''	42.1	138	152.6	-58.2	34.7	51.0	99.1	82	
2016/11/13 23:06:45	23192 Caystvesterby	6.3	17.87	4.29	176	0.5	36°17'13'' 48°27'60''	180	0.8 1.9	UCAC4 607-8542	13.60	3 <sup>h</sup> 09 <sup>m</sup> 27.990 <sup>s</sup> 31°13'34.036''	61.5	240	166.8	-51.6	20.5	42.2	99.3	132	
2016/11/14 00:36:45	6937 Valadon	11.0	17.39	5.99	137	2.2	38°12'32'' 50°01'33''	91	1.9 3.7	UCAC4 505-38735	11.40	7 <sup>h</sup> 11 <sup>m</sup> 55.945 <sup>s</sup> 10°51'55.152''	50.3	166	123.1	-39.5	63.6	30.4	99.4	119	
2016/11/14 02:21:03	12044 Fabbri	9.5	15.26	2.00	208	0.9	37°54'58'' 51°36'08''	34	0.3 4.1	UCAC4 530-4814	13.45	2 <sup>h</sup> 46 <sup>m</sup> 48.552 <sup>s</sup> 15°48'44.089''	16.2	275	172.2	-23.0	4.5	14.7	99.5	93	
2016/11/14 03:49:35	19251 Totziens	6.3	18.04	4.73	59	1.1	36°55'45'' 49°43'07''	129	2.1 2.4	UCAC4 453-34228	13.33	7 <sup>h</sup> 19 <sup>m</sup> 37.566 <sup>s</sup> 0°27'03.590''	31.2	225	118.2	-9.0	65.4	1.4	99.6	104	
2016/11/14 04:21:04	68192 2001 BV61	5.5	18.51	7.08	95	1.0	34°58'15'' 50°09'05''	277	1.3 1.8	UCAC4 661-49090	11.43	7 <sup>h</sup> 04 <sup>m</sup> 12.404 <sup>s</sup> 42°02'41.994''	55.6	276	126.8	-4.3	60.3	-3.1	99.6	122	
2016/11/14 04:42:05	1139 Atami	10.4	13.39	3.87	65	1.4	36°43'35'' 49°32'32''	151	2.0 12.3	UCAC4 474-16755	9.55	6 <sup>h</sup> 15 <sup>m</sup> 46.089 <sup>s</sup> 4°42'59.134''	18.6	255	134.6	-1.2	48.4	-6.0	99.6	34	
2016/11/14 14:19:39	4031 Mueller	7.6	15.02	2.05	24	1.0	36°02'30'' 50°11'44''	313	4.6 5.0	UCAC4 722-27592	13.15	2 <sup>h</sup> 55 <sup>m</sup> 26.801 <sup>s</sup> 54°14'18.372''	34.4	45	143.7	-4.9	41.0	0.4	99.8	61	
2016/11/14 17:37:11	3137 Horky	7.2	16.30	3.05	237	3.3	38°11'46'' 48°19'23''	145	0.0 4.4	UCAC4 571-38208	13.31	7 <sup>h</sup> 09 <sup>m</sup> 57.764 <sup>s</sup> 24°09'16.882''	5.0	58	126.6	-36.1	51.1	30.8	99.8	65	
2016/11/14 19:01:04	86287 1999 UX44	6.3	17.82	4.09	163	1.4	38°30'28'' 49°43'08''	103	0.9 1.8	UCAC4 526-187	13.76	0 <sup>h</sup> 05 <sup>m</sup> 27.270 <sup>s</sup> 15°10'03.874''	53.4	204	133.3	-48.3	51.4	42.7	99.7	143	
2016/11/14 19:54:07	38439 1999 SQ4	6.9	18.21	4.42	99	0.6	35°05'06'' 50°29'59''	300	1.6 2.0	UCAC4 482-9865	13.81	5 <sup>h</sup> 08 <sup>m</sup> 28.532 <sup>s</sup> 6°14'23.481''	30.8	121	151.1	-54.3	23.1	48.9	99.7	135	
2016/11/14 20:52:38	1588 Descamisada	18.2	15.68	2.70	67	1.4	36°26'32'' 49°27'10''	170	5.5 6.6	UCAC4 502-6445	13.08	4 <sup>h</sup> 09 <sup>m</sup> 45.214 <sup>s</sup> 10°13'20.461''	47.5	152	165.7	-58.2	7.9	53.5	99.7	110	
2016/11/14 21:28:04	3131 Mason-Dixon	13.2	17.53	3.78	185	0.7	37°26'25'' 48°34'05''	153	1.6 3.8	UCAC4 520-50953	13.79	10 <sup>h</sup> 10 <sup>m</sup> 59.816 <sup>s</sup> 13°50'20.561''	4.3	73	83.0	-58.5	92.6	54.8	99.7	139	

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.		Table 1		Page 10		LinOccult 2.3.0 BETA				
		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 (%)	$\sigma_{km}$
2016/11/14 21:37:11	84905 UD98	5.0	19.02	8.48	29	0.6	36°15'51'' 49°47'25''	183	1.2	UCAC4 538-17569	10.54	5 <sup>h</sup> 40 <sup>m</sup> 41.311 <sup>s</sup> 17°33'22.490''	49.7	132	146.9	-58.4	28.0	54.9	99.7	161
2016/11/14 22:00:09	27118 WD8	5.5	18.07	4.94	181	0.8	36°06'52'' 48°25'39''	184	0.5	UCAC4 572-20556	13.14	5 <sup>h</sup> 50 <sup>m</sup> 29.288 <sup>s</sup> 24°20'29.234''	57.1	131	144.9	-57.5	30.8	54.8	99.6	108
2016/11/14 22:34:17	20231 YK	5.2	15.97	2.53	124	0.7	34°56'06'' 50°45'24''	309	0.3	UCAC4 632-25237	13.55	5 <sup>h</sup> 23 <sup>m</sup> 38.646 <sup>s</sup> 36°23'01.341''	74.2	144	147.7	-55.1	30.4	53.6	99.6	57
2016/11/14 22:59:28	299473 BO132	5.0	22.07	8.51	151	0.5	36°12'48'' 51°24'16''	358	0.5	UCAC4 527-49298	13.56	9 <sup>h</sup> 19 <sup>m</sup> 48.456 <sup>s</sup> 15°16'40.109''	28.1	100	95.2	-52.7	79.3	52.0	99.6	386
2016/11/14 23:18:13	37284 YG76	6.0	17.92	4.17	158	0.9	36°38'30'' 51°26'47''	9	0.8	UCAC4 519-16666	13.77	5 <sup>h</sup> 52 <sup>m</sup> 53.805 <sup>s</sup> 13°47'45.255''	53.4	167	143.4	-50.5	30.0	50.4	99.6	114
2016/11/14 23:22:33	23880 Tongil	9.1	16.55	7.44	30	1.1	36°38'04'' 49°53'53''	124	3.8	UCAC4 474-12377	9.11	5 <sup>h</sup> 43 <sup>m</sup> 19.824 <sup>s</sup> 4°40'56.291''	44.7	174	142.8	-50.0	29.8	50.1	99.6	91
2016/11/14 23:29:57	7144 Dos-sobuono	6.0	16.77	8.72	86	0.6	36°27'36'' 49°17'05''	172	0.8	UCAC4 499-6142	8.05	3 <sup>h</sup> 59 <sup>m</sup> 00.418 <sup>s</sup> 9°46'53.308''	45.5	214	167.5	-49.1	5.7	49.3	99.6	44
2016/11/15 01:19:56	34243 QR100	6.9	17.51	4.04	92	0.8	36°43'16'' 49°15'57''	160	1.7	UCAC4 483-11172	13.50	5 <sup>h</sup> 15 <sup>m</sup> 04.085 <sup>s</sup> 6°27'55.225''	39.0	223	150.0	-33.0	21.5	35.6	99.5	121
2016/11/15 02:36:26	25409 VD36	5.0	18.22	4.54	55	0.6	37°02'02'' 50°10'18''	75	1.7	UCAC4 514-44253	13.70	7 <sup>h</sup> 49 <sup>m</sup> 08.919 <sup>s</sup> 12°37'44.058''	51.4	200	115.8	-20.7	55.9	24.2	99.4	105
2016/11/15 03:52:12	34409 RB95	5.0	18.52	6.26	154	0.6	34°17'40'' 49°31'39''	248	0.8	UCAC4 619-29383	12.26	5 <sup>h</sup> 57 <sup>m</sup> 10.491 <sup>s</sup> 33°42'21.440''	44.1	273	142.3	-8.8	31.8	12.6	99.3	143
2016/11/15 14:49:14	24510 BY31	9.1	18.30	5.06	175	0.7	33°52'40'' 50°20'12''	281	1.3	UCAC4 700-36977	13.25	5 <sup>h</sup> 11 <sup>m</sup> 41.727 <sup>s</sup> 49°49'59.917''	20.6	35	142.1	-9.6	34.3	-1.6	98.2	163
2016/11/15 20:39:44	61961 RC20	5.8	18.22	5.76	187	0.6	35°09'04'' 51°33'48''	334	0.7	UCAC4 572-3217	12.46	1 <sup>h</sup> 28 <sup>m</sup> 30.731 <sup>s</sup> 24°13'23.611''	60.3	218	152.3	-57.9	46.3	49.6	97.3	142
2016/11/15 20:51:54	19632 RP39	6.3	17.87	5.53	138	1.7	37°56'44'' 49°25'15''	120	1.1	UCAC4 443-226	12.34	0 <sup>h</sup> 10 <sup>m</sup> 31.409 <sup>s</sup> -1°32'02.549''	27.3	229	128.1	-58.4	70.0	51.0	97.3	145
2016/11/15 20:59:36	54908 OY80	7.9	17.47	7.83	143	0.6	37°14'57'' 48°55'16''	151	1.3	UCAC4 590-6099	9.64	2 <sup>h</sup> 29 <sup>m</sup> 55.117 <sup>s</sup> 27°49'59.178''	67.0	201	164.3	-58.6	33.0	51.8	97.2	125
2016/11/15 21:35:45	62535 SU257	5.0	18.47	5.08	154	0.6	36°51'34'' 51°22'53''	15	0.8	UCAC4 626-29547	13.40	5 <sup>h</sup> 55 <sup>m</sup> 37.867 <sup>s</sup> 35°11'58.423''	61.8	109	142.9	-58.7	23.5	54.9	97.1	126
2016/11/16 01:22:29	16579 GO	8.3	17.72	7.69	190	0.7	36°58'55'' 48°24'08''	165	0.7	UCAC4 472-10715	10.03	5 <sup>h</sup> 23 <sup>m</sup> 04.858 <sup>s</sup> 4°13'45.349''	37.1	221	148.0	-32.8	14.8	45.6	96.5	116
2016/11/16 04:06:15	4221 Picasso	10.0	17.54	4.18	252	1.2	39°18'09'' 48°55'17''	120	0.3	UCAC4 448-39462	13.38	7 <sup>h</sup> 39 <sup>m</sup> 00.478 <sup>s</sup> 0° - 35°03.344''	29.7	226	115.1	-6.9	42.1	21.6	95.9	116
2016/11/16 17:18:24	18716 HV121	8.7	17.20	5.48	226	0.8	35°28'22'' 52°00'36''	345	0.4	UCAC4 501-9010	11.73	4 <sup>h</sup> 54 <sup>m</sup> 08.030 <sup>s</sup> 10°07'29.148''	13.3	90	157.6	-33.5	13.7	12.4	93.0	115
2016/11/16 17:47:29	18870 US13	5.5	17.82	6.20	22	0.6	36°09'18'' 50°13'27''	334	2.1	UCAC4 583-15648	11.62	5 <sup>h</sup> 19 <sup>m</sup> 11.388 <sup>s</sup> 26°25'30.921''	25.9	79	153.5	-38.0	9.3	16.8	92.9	101
2016/11/16 17:56:35	6174 Polybius	20.6	17.47	3.88	158	2.2	37°38'27'' 48°56'17''	142	3.1	UCAC4 652-43794	13.62	6 <sup>h</sup> 56 <sup>m</sup> 19.699 <sup>s</sup> 40°20'57.021''	23.0	54	130.9	-39.4	27.3	18.2	92.9	168

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 11		LinOccult 2.3.0 BETA			
		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 (%)	$\sigma_{km}$
2016/11/16 17:59:58	49614 1999 FB39	5.5	19.31	7.36	100	0.6	37°17'47" 49°25'57"	133	1.1 1.3	UCAC4 424-132240	11.95	22 <sup>h</sup> 27 <sup>m</sup> 42.573 <sup>s</sup> −5°12'28.474"	30.6	210	102.1	-40.0	108.9	18.7	92.8	165
2016/11/16 18:49:06	3589 Loyola	6.0	17.07	6.54	183	0.5	34°37'16" 51°18'43"	320	0.2 3.2	UCAC4 386-152461	10.53	23 <sup>h</sup> 01 <sup>m</sup> 20.064 <sup>s</sup> −12°54'41.480"	22.1	211	106.8	-47.1	103.7	26.3	92.6	76
2016/11/16 19:02:13	30427 2000 LX8	5.2	18.16	5.69	152	1.2	37°19'03" 48°51'34"	151	0.8 1.8	UCAC4 477-1492	12.47	1 <sup>h</sup> 03 <sup>m</sup> 42.842 <sup>s</sup> 5°15'03.564"	45.4	183	142.0	-48.8	69.4	28.3	92.5	116
2016/11/16 19:06:11	992 Swasey	27.3	16.28	3.67	220	2.7	35°31'07" 48°08'18"	194	2.6 7.0	UCAC4 442-127467	12.64	22 <sup>h</sup> 28 <sup>m</sup> 41.414 <sup>s</sup> −1°36'04.738"	27.3	229	103.5	-49.3	108.3	28.9	92.5	155
2016/11/16 19:10:40	5518 Mari-obotta	8.7	17.05	3.16	90	0.9	35°55'35" 50°49'27"	343	2.3 3.8	UCAC4 524-17193	13.95	5 <sup>h</sup> 51 <sup>m</sup> 34.019 <sup>s</sup> 14°45'15.828"	25.6	98	145.7	-49.9	4.2	29.6	92.5	92
2016/11/16 20:22:49	15059 1998 YL27	6.6	18.08	4.68	15	1.1	36°13'11" 50°10'36"	342	2.4 2.4	UCAC4 553-25757	13.41	6 <sup>h</sup> 23 <sup>m</sup> 51.934 <sup>s</sup> 20°29'39.328"	36.3	101	139.0	-57.1	8.9	40.5	92.2	108
2016/11/16 20:33:26	29834 1999 FE1	5.8	18.11	4.38	185	0.7	36°57'24" 48°26'24"	165	0.6 2.0	UCAC4 501-2188	13.75	1 <sup>h</sup> 28 <sup>m</sup> 47.224 <sup>s</sup> 10°10'49.581"	47.4	208	149.6	-57.8	63.0	42.0	92.1	116
2016/11/16 21:27:05	121646 1999 WZ7	6.3	18.10	5.24	7	0.5	36°12'10" 50°00'58"	240	2.0 2.0	UCAC4 657-23270	12.87	4 <sup>h</sup> 35 <sup>m</sup> 11.007 <sup>s</sup> 41°18'16.592"	76.9	126	153.5	-59.0	27.8	49.2	91.9	128
2016/11/16 21:37:06	10613 Kushinadahime	5.0	17.05	5.09	18	0.7	36°14'06" 50°12'33"	348	2.6 2.7	UCAC4 521-10949	11.97	5 <sup>h</sup> 10 <sup>m</sup> 26.314 <sup>s</sup> 14°04'22.925"	50.5	148	155.4	-58.9	10.6	50.4	91.8	74
2016/11/16 21:52:20	45013 1999 WK	6.6	16.86	3.98	87	1.0	36°46'42" 50°45'41"	24	1.8 3.2	UCAC4 597-23193	12.91	5 <sup>h</sup> 50 <sup>m</sup> 10.640 <sup>s</sup> 29°15'04.264"	61.2	126	146.4	-58.4	10.7	52.1	91.8	82
2016/11/16 22:21:08	351 Yrsa	39.6	12.46	0.97	88	3.6	36°19'03" 50°50'28"	1	10.8 18.8	UCAC4 504-6384	12.07	4 <sup>h</sup> 01 <sup>m</sup> 11.577 <sup>s</sup> 10°39'57.526"	50.3	192	168.8	-56.7	28.0	54.9	91.6	83
2016/11/16 22:57:46	4152 Weber	18.2	16.84	5.28	7	1.2	36°23'03" 50°01'33"	109	5.3 5.4	UCAC4 478-4783	11.57	3 <sup>h</sup> 12 <sup>m</sup> 56.063 <sup>s</sup> 5°27'57.550"	39.4	218	165.9	-53.3	41.4	57.5	91.5	135
2016/11/16 23:31:28	73536 2003 OX14	5.2	20.08	6.96	138	0.5	35°13'24" 49°00'54"	213	0.9 1.2	UCAC4 496-52986	13.13	8 <sup>h</sup> 54 <sup>m</sup> 33.160 <sup>s</sup> 9°02'49.322"	33.1	119	101.2	-49.4	44.3	58.7	91.3	179
2016/11/16 23:55:34	14860 1989 WD3	5.2	17.09	3.29	199	0.5	36°36'13" 48°16'17"	173	0.2 2.2	UCAC4 546-5927	13.86	3 <sup>h</sup> 06 <sup>m</sup> 22.920 <sup>s</sup> 19°02'23.612"	42.9	246	174.4	-46.1	40.2	58.8	91.2	94
2016/11/16 23:58:00	28141 1998 TC	6.6	16.83	3.93	65	0.7	36°09'06" 49°28'00"	188	2.3 3.0	UCAC4 590-3462	12.93	1 <sup>h</sup> 24 <sup>m</sup> 22.252 <sup>s</sup> 27°57'51.132"	32.9	276	149.9	-45.8	62.5	58.8	91.1	89
2016/11/17 00:35:39	12557 Caracol	9.1	18.00	4.85	20	2.2	36°08'37" 50°11'56"	329	2.9 2.9	UCAC4 543-37640	13.16	6 <sup>h</sup> 59 <sup>m</sup> 31.209 <sup>s</sup> 18°27'30.384"	58.6	174	130.6	-40.3	14.5	57.4	91.0	125
2016/11/17 01:04:56	14385 1990 QG1	5.2	17.69	4.00	18	0.9	36°10'21" 49°54'02"	207	2.4 2.4	UCAC4 618-34362	13.72	6 <sup>h</sup> 19 <sup>m</sup> 07.881 <sup>s</sup> 33°33'55.693"	70.7	218	139.7	-35.8	15.6	55.3	90.9	86
2016/11/17 02:50:50	11794 1978 VW8	7.2	16.90	3.78	58	0.8	35°45'28" 49°39'29"	221	2.3 2.7	UCAC4 518-4638	13.16	2 <sup>h</sup> 44 <sup>m</sup> 03.900 <sup>s</sup> 13°29'32.194"	7.4	282	167.6	-18.9	48.2	42.9	90.3	108
2016/11/17 15:56:22	6348 1995 CHI	7.2	17.43	4.61	55	0.6	36°43'47" 49°38'32"	145	2.5 2.9	UCAC4 429-117613	12.84	22 <sup>h</sup> 29 <sup>m</sup> 29.795 <sup>s</sup> −4°22'51.574"	35.6	174	101.9	-20.5	121.7	-6.9	86.3	99
2016/11/17 17:08:18	12232 1986 QZ2	6.9	18.21	7.26	11	0.8	36°26'41" 50°03'13"	87	2.5 2.5	UCAC4 631-34296	10.95	6 <sup>h</sup> 18 <sup>m</sup> 59.159 <sup>s</sup> 36°00'02.739"	18.8	56	139.9	-32.0	17.9	2.3	85.9	112

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 12		LinOccult 2.3.0 BETA			
		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 (%)	$\sigma_{km}$
2016/11/17 17:33:46	12518 1998 HM52	5.8	16.47	6.15	20	0.5	36°14'14" 50°13'25"	350	2.9	UCAC4 534-8196	10.32	4 <sup>h</sup> 15 <sup>m</sup> 27.386 <sup>s</sup> 16°40'43.266"	27.5	97	169.6	-36.1	34.8	5.9	85.8	77
2016/11/17 17:41:43	4681 Ermak	12.6	16.66	3.44	26	2.1	36°39'17" 50°03'54"	86	4.1	UCAC4 421-48	13.26	0 <sup>h</sup> 02 <sup>m</sup> 04.607 <sup>s</sup> −5°57'29.705"	34.1	178	122.3	-37.3	101.2	7.1	85.8	119
2016/11/17 19:07:20	630 Euphemia	17.2	14.85	2.88	28	2.2	36°18'33" 49°47'56"	177	7.5	UCAC4 509-12880	12.05	5 <sup>h</sup> 38 <sup>m</sup> 32.083 <sup>s</sup> 11°43'35.468"	25.5	103	149.0	-49.7	17.5	19.9	85.2	87
2016/11/17 19:14:25	5638 Deikoon	26.3	18.37	5.38	38	3.9	36°24'26" 49°43'05"	167	3.7	UCAC4 511-38131	13.00	7 <sup>h</sup> 18 <sup>m</sup> 21.644 <sup>s</sup> 12°03'45.231"	10.9	84	125.6	-50.5	10.3	21.0	85.2	278
2016/11/17 19:34:03	23065 1999 XF54	5.8	19.58	5.75	123	1.2	37°01'44" 49°02'60"	154	1.1	UCAC4 551-37692	13.84	7 <sup>h</sup> 12 <sup>m</sup> 19.442 <sup>s</sup> 20°06'01.133"	21.0	83	128.7	-52.9	6.3	24.0	85.1	149
2016/11/17 23:27:06	1139 Atami	10.4	13.31	0.79	229	1.5	33°07'51" 49°43'27"	261	0.0	UCAC4 466-16054	13.24	6 <sup>h</sup> 16 <sup>m</sup> 32.566 <sup>s</sup> 3°07'09.524"	42.7	168	137.2	-50.2	18.4	55.4	83.6	33
2016/11/18 00:38:29	0 2014 RE12	9.9	20.18	6.83	80	1.2	35°51'10" 49°23'04"	203	0.7	UCAC4 600-240	13.35	0 <sup>h</sup> 05 <sup>m</sup> 45.572 <sup>s</sup> 29°48'05.475"	15.4	298	131.8	-40.1	92.0	58.7	83.2	585
2016/11/18 01:10:20	4643 Cisneros	6.6	17.02	3.27	150	0.5	36°41'43" 51°22'14"	11	0.6	UCAC4 549-9655	13.81	4 <sup>h</sup> 27 <sup>m</sup> 42.104 <sup>s</sup> 19°46'24.968"	43.8	246	167.4	-35.2	36.2	58.3	83.0	84
2016/11/18 01:36:41	26718 2001 HP5	12.0	18.17	6.67	113	0.5	37°10'04" 50°53'35"	34	2.3	UCAC4 400-49281	11.51	10 <sup>h</sup> 06 <sup>m</sup> 27.347 <sup>s</sup> −10°00'08.562"	23.3	144	79.2	-31.0	53.7	57.1	82.9	166
2016/11/18 03:50:48	23612 Ramzel	5.8	17.97	4.15	93	0.9	35°22'23" 49°27'21"	225	1.5	UCAC4 535-30920	13.84	6 <sup>h</sup> 38 <sup>m</sup> 04.736 <sup>s</sup> 16°57'51.956"	37.0	251	136.5	-9.7	7.2	42.6	82.1	105
2016/11/18 03:57:16	25637 2000 AL63	5.0	19.73	6.60	153	1.8	34°12'30" 49°45'09"	258	0.8	UCAC4 567-39654	13.13	7 <sup>h</sup> 39 <sup>m</sup> 09.615 <sup>s</sup> 23°23'09.264"	50.1	243	123.3	-8.7	8.9	41.7	82.1	156
2016/11/18 04:55:24	30072 2000 EP93	7.9	18.80	4.82	243	0.7	33°00'45" 49°30'34"	256	0.5	UCAC4 462-44105	13.99	9 <sup>h</sup> 13 <sup>m</sup> 33.609 <sup>s</sup> 2°23'35.052"	36.4	217	95.8	-0.2	34.1	33.1	81.7	145
2016/11/18 14:31:13	20114 1995 UQ44	6.3	17.33	3.80	192	0.5	34°00'47" 50°58'58"	303	0.5	UCAC4 635-17303	13.57	4 <sup>h</sup> 19 <sup>m</sup> 48.188 <sup>s</sup> 36°54'14.739"	15.1	50	160.0	-7.3	46.5	-20.2	78.1	111
2016/11/18 14:49:37	9784 Yotsu-ashi	6.9	17.86	4.78	249	2.1	33°15'56" 48°57'53"	241	0.3	UCAC4 437-118747	13.09	23 <sup>h</sup> 58 <sup>m</sup> 30.164 <sup>s</sup> −2°38'55.636"	25.9	131	122.1	-10.1	113.5	-19.2	78.1	122
2016/11/18 14:57:12	2324 Janice	16.6	16.70	5.37	104	1.1	37°26'25" 49°29'07"	127	3.7	UCAC4 561-9904	11.34	4 <sup>h</sup> 23 <sup>m</sup> 26.129 <sup>s</sup> 22°06'34.945"	6.4	63	168.7	-11.3	45.0	-18.7	77.9	134
2016/11/18 15:09:19	318 Mag-dalena	43.7	15.84	2.15	75	1.1	35°37'53" 50°34'44"	322	7.6	UCAC4 373-106127	13.85	17 <sup>h</sup> 51 <sup>m</sup> 30.536 <sup>s</sup> −15°34'15.935"	9.2	232	32.3	-13.1	155.0	-17.9	77.8	214
2016/11/18 17:16:09	1913 Sekanina	15.8	15.84	2.81	13	4.2	36°22'31" 49°56'55"	150	6.0	UCAC4 486-1246	13.11	0 <sup>h</sup> 54 <sup>m</sup> 57.520 <sup>s</sup> 7°09'05.012"	44.1	152	138.8	-33.4	98.6	-5.1	77.0	105
2016/11/18 20:50:52	8167 Ishii	6.9	16.20	3.64	83	1.4	36°36'55" 49°19'49"	164	1.9	UCAC4 535-17611	12.60	5 <sup>h</sup> 43 <sup>m</sup> 38.040 <sup>s</sup> 16°48'57.828"	44.8	123	150.0	-59.0	30.0	26.1	75.6	69
2016/11/18 21:47:11	1338 Duponta	10.0	16.22	2.55	135	1.1	36°49'10" 48°52'51"	164	1.0	UCAC4 564-44673	13.78	8 <sup>h</sup> 46 <sup>m</sup> 57.423 <sup>s</sup> 22°46'54.609"	29.8	89	108.7	-59.1	13.9	34.7	75.1	74
2016/11/18 22:45:10	2023 Asaph	15.8	15.22	1.78	237	1.5	34°49'00" 48°09'07"	206	0.3	UCAC4 724-33373	13.68	4 <sup>h</sup> 22 <sup>m</sup> 27.901 <sup>s</sup> 54°47'33.624"	81.9	311	143.6	-55.1	54.9	43.0	74.8	94

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 13		LinOccult 2.3.0 BETA			
		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 (%)	$\sigma_{km}$
2016/11/18 23:21:03	5558 John-napier	5.0	16.62	5.30	40	2.0	35°43'56'' 50°00'01''	262	2.4	UCAC4 380-20873	11.33	6 <sup>h</sup> 55 <sup>m</sup> 12.263 <sup>s</sup> -14°11'19.309''	23.8	160	121.0	-51.1	35.1	47.6	74.3	71
2016/11/19 01:14:07	53938 2000 GZ45	5.0	18.81	5.30	193	0.9	36°29'15'' 48°19'20''	176	0.4	UCAC4 543-32588	13.51	6 <sup>h</sup> 41 <sup>m</sup> 11.826 <sup>s</sup> 18°25'00.802''	56.9	203	136.9	-34.8	18.9	56.9	73.7	114
2016/11/19 02:20:31	32423 2000 RO43	7.6	17.36	3.46	31	0.9	36°43'21'' 50°01'48''	94	2.2	UCAC4 554-2987	13.95	1 <sup>h</sup> 35 <sup>m</sup> 57.763 <sup>s</sup> 20°40'20.844''	6.0	295	151.2	-24.1	90.1	56.5	73.2	131
2016/11/19 02:37:40	1139 Atami	10.4	13.29	1.44	49	1.5	35°42'43'' 50°17'36''	304	4.1	UCAC4 464-15974	12.18	6 <sup>h</sup> 16 <sup>m</sup> 37.134 <sup>s</sup> 2°38'46.338''	31.9	229	137.9	-21.4	30.1	55.5	73.1	33
2016/11/19 04:12:05	4672 Takuboku	35.7	17.32	5.57	150	0.8	36°52'28'' 48°45'20''	164	5.0	UCAC4 405-61000	11.76	15 <sup>h</sup> 13 <sup>m</sup> 35.005 <sup>s</sup> -9°03'14.289''	5.3	111	12.1	-6.7	108.4	46.2	72.5	232
2016/11/19 13:53:02	2688 Halley	21.5	17.32	4.66	101	0.5	36°48'28'' 49°12'15''	158	4.2	UCAC4 331-180842	12.67	18 <sup>h</sup> 44 <sup>m</sup> 57.789 <sup>s</sup> -23°57'49.417''	13.5	201	42.8	-1.9	154.2	-23.9	68.5	174
2016/11/19 16:03:40	41103 1999 VE67	5.8	17.62	5.26	172	0.7	38°35'30'' 49°37'36''	106	0.8	UCAC4 518-3496	12.37	2 <sup>h</sup> 03 <sup>m</sup> 33.036 <sup>s</sup> 13°24'33.938''	32.8	110	155.9	-21.9	93.7	-19.9	67.6	146
2016/11/19 16:27:35	0 2010 MY27	5.5	18.57	6.05	211	0.5	38°00'06'' 48°30'47''	144	0.2	UCAC4 620-33098	12.52	6 <sup>h</sup> 17 <sup>m</sup> 57.759 <sup>s</sup> 33°52'42.185''	13.0	52	142.4	-25.8	35.8	-18.0	67.5	98
2016/11/19 18:21:33	1586 Thiele	16.0	17.50	4.14	57	0.6	36°40'29'' 49°36'10''	151	3.7	UCAC4 355-197411	13.38	20 <sup>h</sup> 55 <sup>m</sup> 05.659 <sup>s</sup> -19°08'05.530''	4.5	233	73.2	-43.6	175.0	-5.5	66.6	162
2016/11/19 19:12:41	21154 1993 NS1	5.0	18.86	4.90	98	1.4	37°06'12'' 49°20'55''	143	1.2	UCAC4 535-46881	13.97	8 <sup>h</sup> 20 <sup>m</sup> 20.363 <sup>s</sup> 16°52'18.424''	5.8	71	114.2	-50.7	5.5	1.5	66.2	117
2016/11/19 19:17:35	40234 1998 UG4	6.3	17.97	6.11	146	0.5	35°50'18'' 51°19'38''	347	1.0	UCAC4 606-15832	11.86	4 <sup>h</sup> 56 <sup>m</sup> 50.065 <sup>s</sup> 31°03'53.882''	49.1	98	159.5	-51.3	53.4	2.2	66.2	128
2016/11/19 19:46:37	13805 1998 XN3	7.2	19.61	7.24	101	1.0	36°09'06'' 50°56'55''	355	1.4	UCAC4 539-47736	12.37	9 <sup>h</sup> 18 <sup>m</sup> 57.663 <sup>s</sup> 17°40'16.005''	2.7	65	101.0	-54.6	8.7	6.4	65.9	167
2016/11/19 20:06:20	42186 2001 CH32	7.6	18.64	5.83	227	0.7	37°47'53'' 48°15'42''	151	0.6	UCAC4 598-25767	12.81	5 <sup>h</sup> 55 <sup>m</sup> 01.309 <sup>s</sup> 29°35'53.416''	46.6	98	148.2	-56.5	41.3	9.3	65.9	147
2016/11/19 23:05:42	3780 Maury	12.6	17.91	4.92	256	0.6	36°40'04'' 47°45'38''	174	1.1	UCAC4 492-54342	13.00	10 <sup>h</sup> 39 <sup>m</sup> 52.946 <sup>s</sup> 8°15'09.586''	14.1	94	79.4	-53.2	27.4	36.5	64.5	206
2016/11/19 23:07:47	67102 2000 AB80	6.3	18.35	6.68	157	0.8	34°34'24'' 50°56'35''	309	0.9	UCAC4 560-33508	11.67	6 <sup>h</sup> 41 <sup>m</sup> 36.158 <sup>s</sup> 21°52'36.044''	58.8	147	138.2	-52.9	31.4	36.8	64.5	126
2016/11/19 23:24:29	27675 1981 CH	6.6	17.00	6.88	235	1.1	35°01'48'' 52°00'21''	338	0.1	UCAC4 666-54134	10.12	8 <sup>h</sup> 48 <sup>m</sup> 53.366 <sup>s</sup> 43°09'26.828''	58.6	85	112.9	-50.9	28.1	39.1	64.4	85
2016/11/19 23:42:22	14835 Holdridge	7.9	15.73	2.13	29	0.7	35°56'48'' 50°11'08''	302	4.2	UCAC4 486-17581	13.76	6 <sup>h</sup> 06 <sup>m</sup> 32.692 <sup>s</sup> 7°02'25.938''	47.2	180	142.8	-48.6	41.5	41.5	64.3	69
2016/11/20 01:18:32	4071 Rostov-don	13.8	16.09	2.60	202	1.5	35°58'45'' 51°50'55''	354	0.9	UCAC4 584-18682	13.59	5 <sup>h</sup> 38 <sup>m</sup> 50.530 <sup>s</sup> 26°42'05.224''	57.1	237	152.5	-34.3	47.3	51.9	63.6	109
2016/11/20 01:30:57	10448 Schawlow	7.6	17.84	4.27	33	1.0	36°22'28'' 50°20'33''	11	2.7	UCAC4 554-23273	13.59	6 <sup>h</sup> 14 <sup>m</sup> 17.196 <sup>s</sup> 20°39'08.297''	54.8	223	144.5	-32.3	39.0	52.8	63.5	109
2016/11/20 02:41:47	20665 1999 UQ8	6.9	17.93	4.06	117	0.5	36°26'07'' 51°05'45''	5	1.4	UCAC4 549-10647	13.90	4 <sup>h</sup> 42 <sup>m</sup> 41.906 <sup>s</sup> 19°46'46.785''	30.7	265	165.9	-20.9	61.2	54.9	63.0	128

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 14		LinOccult 2.3.0 BETA				
		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 (%)	$\sigma_{km}$	
2016/11/20 02:43:56	9329 Niko-laimedtnr	5.5	17.56	8.97	242	0.6	36°45'19'' 52°12'16''	8	0.0	UCAC4 558-19599	8.60	5 <sup>h</sup> 44 <sup>m</sup> 56.236 <sup>s</sup> 21°27'38.442''	41.4	253	151.4	-20.6	46.6	54.9	63.0	43	
2016/11/20 02:52:36	27023 1998 QE54	5.5	17.64	4.09	145	0.5	36°44'20'' 51°19'02''	13	0.7	UCAC4 559-4259	13.58	2 <sup>h</sup> 07 <sup>m</sup> 42.019 <sup>s</sup> 21°47'31.951''	6.3	297	157.7	-19.2	96.2	54.8	62.9	97	
2016/11/20 03:14:10	293307 2007 DQ37	6.6	21.17	8.21	168	0.8	34°21'59'' 50°56'23''	306	0.7	UCAC4 435-42134	12.96	7 <sup>h</sup> 51 <sup>m</sup> 18.336 <sup>s</sup> −3°09'16.062''	32.2	212	114.9	-15.8	24.8	54.1	62.7	320	
2016/11/20 04:09:32	104453 2000 GS7	5.5	15.87	2.92	107	0.5	35°17'30'' 49°20'06''	222	1.2	UCAC4 547-7628	13.02	3 <sup>h</sup> 48 <sup>m</sup> 00.816 <sup>s</sup> 19°21'28.699''	7.8	291	178.8	-7.3	74.7	50.2	62.4	92	
2016/11/20 04:35:32	10073 1989 GJ2	5.5	16.43	4.81	91	0.7	36°31'51'' 50°50'57''	11	1.4	UCAC4 544-11408	11.63	4 <sup>h</sup> 56 <sup>m</sup> 12.337 <sup>s</sup> 18°37'28.600''	13.7	283	162.7	-3.5	59.2	47.6	62.1	70	
2016/11/20 04:39:35	890 Waltraut	27.3	15.89	2.25	218	3.3	36°18'14'' 48°05'14''	180	2.1	UCAC4 496-26311	13.79	6 <sup>h</sup> 24 <sup>m</sup> 36.850 <sup>s</sup> 9°04'42.477''	20.0	260	139.6	-2.9	39.4	47.2	62.1	131	
2016/11/20 04:59:24	109 Felicitas	89.4	14.03	0.80	234	3.3	37°55'17'' 51°53'05''	30	5.3	UCAC4 488-54387	13.93	11 <sup>h</sup> 32 <sup>m</sup> 37.724 <sup>s</sup> 7°26'30.277''	47.6	177	67.4	-0.1	37.0	44.8	62.0	127	
2016/11/20 14:37:21	13297 1998 RX	10.0	17.26	3.40	110	0.9	34°58'21'' 50°34'17''	302	2.2	UCAC4 638-22388	13.91	5 <sup>h</sup> 08 <sup>m</sup> 48.917 <sup>s</sup> 37°27'07.851''	11.4	44	154.6	-8.5	61.5	-26.6	57.9	125	
2016/11/20 15:19:20	999 Zachia	21.2	14.61	3.76	69	1.6	36°20'51'' 50°39'44''	4	6.5	UCAC4 444-130919	10.88	22 <sup>h</sup> 57 <sup>m</sup> 20.005 <sup>s</sup> −1°12'09.042''	36.6	157	106.5	-15.0	154.7	-26.8	57.6	105	
2016/11/20 16:29:23	3608 Kataev	17.4	16.23	2.64	19	1.2	36°16'30'' 49°52'44''	183	4.2	UCAC4 526-7271	13.69	3 <sup>h</sup> 55 <sup>m</sup> 28.644 <sup>s</sup> 15°08'43.523''	21.1	91	174.8	-26.2	80.5	-24.3	57.1	164	
2016/11/20 17:11:32	33003 1997 EJ	9.5	17.54	5.25	200	1.2	37°53'31'' 48°35'13''	145	0.8	UCAC4 634-34244	12.30	6 <sup>h</sup> 27 <sup>m</sup> 00.364 <sup>s</sup> 36°46'45.572''	20.3	57	141.0	-32.9	47.4	-21.3	56.8	118	
2016/11/20 17:49:05	427 Galene	30.0	14.91	1.32	209	2.5	34°28'58'' 51°32'05''	322	2.1	UNKNOWN UN- KNOWN	13.98	5 <sup>h</sup> 16 <sup>m</sup> 36.169 <sup>s</sup> 28°08'15.212''	30.3	81	157.6	-38.9	61.1	-17.8	56.5	118	
2016/11/20 19:40:22	12549 1998 QO26	7.2	18.04	5.65	52	0.9	35°52'54'' 50°25'54''	326	2.0	UCAC4 497-2127	12.40	1 <sup>h</sup> 33 <sup>m</sup> 54.464 <sup>s</sup> 9°18'19.212''	48.9	192	146.5	-54.1	117.2	-4.2	55.6	132	
2016/11/20 20:01:13	9403 Sand- uleak	7.9	17.14	9.87	40	0.9	36°11'27'' 50°24'05''	350	4.0	UCAC4 495-3144	7.27	2 <sup>h</sup> 08 <sup>m</sup> 19.508 <sup>s</sup> 8°51'00.079''	48.8	187	154.0	-56.2	109.4	-1.2	55.5	67	
2016/11/20 20:05:55	65213 Peter- hobbs	5.2	19.06	5.89	77	0.6	35°29'45'' 50°30'48''	313	1.3	UCAC4 481-19782	13.17	6 <sup>h</sup> 22 <sup>m</sup> 41.721 <sup>s</sup> 6°09'05.174''	25.2	112	139.6	-56.6	48.4	-0.6	55.5	138	
2016/11/20 20:46:29	23911 1998 SF128	6.3	18.76	5.14	85	0.7	35°18'02'' 50°28'20''	304	1.5	UCAC4 471-18314	13.63	6 <sup>h</sup> 23 <sup>m</sup> 33.954 <sup>s</sup> 4°07'26.153''	29.2	122	138.5	-59.3	49.0	5.4	55.2	134	
2016/11/20 20:46:45	5535 An- nefrank	6.0	16.04	3.36	134	0.6	35°50'53'' 51°13'23''	347	0.5	UCAC4 519-6938	12.73	4 <sup>h</sup> 02 <sup>m</sup> 42.264 <sup>s</sup> 13°45'44.945''	52.5	160	172.7	-59.3	81.4	5.4	55.2	66	
2016/11/20 21:03:12	8134 Minin	5.0	16.28	2.69	107	0.6	36°55'20'' 49°10'55''	155	0.9	UCAC4 525-6945	13.69	3 <sup>h</sup> 50 <sup>m</sup> 12.904 <sup>s</sup> 14°59'32.925''	54.9	171	175.1	-59.8	84.3	7.9	55.1	73	
2016/11/20 21:30:44	3029 Sanders	9.1	16.03	7.82	243	0.8	35°20'39'' 52°09'04''	344	0.0	UCAC4 567-6206	8.21	3 <sup>h</sup> 06 <sup>m</sup> 13.274 <sup>s</sup> 23°15'42.451''	61.7	205	170.1	-59.9	92.8	12.1	54.9	41	
2016/11/20 22:36:49	9657 Ucka	9.1	18.51	4.67	143	0.9	36°32'18'' 48°46'19''	173	1.5	UCAC4 562-27852	13.85	6 <sup>h</sup> 22 <sup>m</sup> 26.688 <sup>s</sup> 22°22'07.841''	58.5	144	143.6	-56.3	48.7	22.3	54.4	149	

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.		Table 1		Page 15		LinOccult 2.3.0 BETA				
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 (%)	$\sigma_{km}$
2016/11/20 22:55:42	2580 Smilevskia	8.3	14.96	2.98	151	1.2	36°11'21" 51°23'54"	357	0.3	UCAC4 521-5180	12.05	3 <sup>h</sup> 00 <sup>m</sup> 45.279 <sup>s</sup> 14°02'50.859"	44.1	231	167.6	-54.5	97.2	25.2	54.2	63
2016/11/20 23:15:16	4173 Thick- sten	6.3	17.11	3.83	236	1.2	36°17'50" 52°09'55"	0	0.1	UCAC4 462-1957	13.31	1 <sup>h</sup> 26 <sup>m</sup> 15.818 <sup>s</sup> 2°21'07.601"	18.3	251	141.5	-52.3	123.1	28.1	54.1	84
2016/11/20 23:25:32	31816 1999 RZ117	8.7	17.90	4.09	22	0.9	36°23'27" 49°51'40"	160	2.6	UCAC4 595-27694	13.83	6 <sup>h</sup> 04 <sup>m</sup> 26.358 <sup>s</sup> 28°57'43.568"	69.1	173	147.4	-51.0	53.7	29.6	54.1	130
2016/11/21 01:22:23	10225 1997 VQ1	9.1	16.95	3.36	229	1.4	35°04'10" 48°09'14"	202	0.6	UCAC4 522-1853	13.64	1 <sup>h</sup> 11 <sup>m</sup> 04.266 <sup>s</sup> 14°21'21.820"	4.9	287	142.5	-33.9	123.6	44.8	53.1	127
2016/11/21 01:28:12	15168 Marijn- franx	5.8	18.36	5.44	201	0.8	37°38'37" 51°38'30"	29	0.4	UCAC4 603-34202	12.93	6 <sup>h</sup> 29 <sup>m</sup> 25.461 <sup>s</sup> 30°27'41.086"	64.9	227	142.0	-33.0	49.7	45.4	53.2	108
2016/11/21 02:36:15	9368 Esashi	6.6	16.71	2.87	206	0.7	37°23'38" 51°45'55"	22	0.1	UCAC4 571-4459	13.92	2 <sup>h</sup> 05 <sup>m</sup> 19.501 <sup>s</sup> 24°07'12.811"	9.5	296	156.1	-22.0	108.5	50.7	52.6	82
2016/11/21 14:17:08	50607 2000 EE56	6.3	17.56	5.57	86	0.5	37°21'32" 49°41'36"	117	1.6	UCAC4 598-8474	12.00	3 <sup>h</sup> 11 <sup>m</sup> 56.733 <sup>s</sup> 29°35'36.451"	18.4	66	167.2	-5.6	98.6	-26.9	47.7	123
2016/11/21 14:27:09	546 Herodias	66.0	15.52	2.12	152	1.9	34°15'27" 50°28'52"	288	10.3	UCAC4 282-209466	13.57	19 <sup>h</sup> 43 <sup>m</sup> 25.814 <sup>s</sup> -33°43'55.759"	4.8	195	53.3	-7.1	137.7	-27.5	47.6	171
2016/11/21 16:55:26	9043 1991 EJ4	10.0	18.18	7.07	64	1.7	35°27'46" 50°16'58"	294	2.6	UCAC4 579-36680	11.11	7 <sup>h</sup> 14 <sup>m</sup> 21.965 <sup>s</sup> 25°41'05.768"	3.8	53	132.8	-30.5	47.0	-28.8	46.7	137
2016/11/21 17:42:17	106759 2000 XT6	5.8	16.06	3.18	90	0.7	36°16'26" 50°51'08"	359	1.5	UCAC4 556-6201	12.94	3 <sup>h</sup> 13 <sup>m</sup> 18.962 <sup>s</sup> 21°01'53.897"	44.3	112	171.4	-37.9	102.4	-25.9	46.3	105
2016/11/21 19:00:32	7160 Tokunaga	7.2	15.26	2.13	161	1.1	37°28'24" 48°49'30"	148	0.3	UCAC4 540-5625	13.30	3 <sup>h</sup> 01 <sup>m</sup> 30.997 <sup>s</sup> 17°55'24.563"	53.3	142	168.4	-49.4	106.7	-18.4	45.7	68
2016/11/21 19:53:18	3935 Toaten- mongakkai	11.4	14.75	1.22	73	4.4	37°00'02" 49°34'40"	136	3.8	UCAC4 613-38011	13.96	6 <sup>h</sup> 47 <sup>m</sup> 37.657 <sup>s</sup> 32°32'57.709"	39.2	84	138.6	-55.6	55.5	-11.8	45.5	72
2016/11/21 20:10:25	57356 2001 QG293	7.2	16.06	2.33	179	0.6	38°20'02" 49°07'58"	125	0.4	UCAC4 654-24639	13.86	4 <sup>h</sup> 50 <sup>m</sup> 30.638 <sup>s</sup> 40°46'35.311"	65.7	100	155.6	-57.2	79.8	-9.5	45.2	86
2016/11/21 20:11:45	65595 2430 T- 3	6.3	18.81	4.85	229	0.7	39°25'07" 50°30'53"	77	0.5	UCAC4 470-26822	13.97	7 <sup>h</sup> 04 <sup>m</sup> 51.763 <sup>s</sup> 3°55'18.508"	18.5	107	130.0	-57.3	50.8	-9.3	45.2	140
2016/11/21 20:23:51	187692 2008 DM56	9.1	20.35	6.58	232	0.7	36°32'60" 47°58'13"	175	0.6	UCAC4 720-46255	13.78	7 <sup>h</sup> 11 <sup>m</sup> 16.285 <sup>s</sup> 53°50'57.170"	51.5	59	129.1	-58.2	59.5	-7.6	45.1	552
2016/11/21 20:57:32	60721 2000 GA73	5.8	18.86	5.11	157	0.5	37°30'27" 48°52'43"	146	0.8	UCAC4 514-21778	13.76	6 <sup>h</sup> 13 <sup>m</sup> 55.167 <sup>s</sup> 12°44'32.071"	39.8	123	144.9	-59.9	62.8	-2.8	44.9	128
2016/11/21 21:19:01	32509 2001 MW29	7.2	18.12	4.63	176	0.6	37°36'29" 48°43'21"	147	0.8	UCAC4 571-21685	13.50	5 <sup>h</sup> 54 <sup>m</sup> 46.980 <sup>s</sup> 24°05'52.561"	54.6	125	150.9	-60.2	67.2	0.4	44.7	121
2016/11/21 21:19:44	5357 Sekiguchi	15.1	15.99	3.54	169	2.7	37°07'06" 48°37'51"	159	1.6	UCAC4 606-34252	12.49	6 <sup>h</sup> 37 <sup>m</sup> 38.210 <sup>s</sup> 31°09'36.480"	53.8	105	140.9	-60.2	58.2	0.5	44.8	107
2016/11/21 22:42:33	46062 2001 DT91	5.0	18.65	6.01	10	0.8	36°19'50" 50°08'01"	18	1.7	UCAC4 506-1141	12.65	0 <sup>h</sup> 41 <sup>m</sup> 44.331 <sup>s</sup> 11°08'54.239"	22.8	260	133.8	-56.0	142.4	13.2	44.0	120
2016/11/22 00:36:34	25503 1999 XW93	6.6	18.32	6.31	72	2.6	35°16'39" 49°59'30"	265	1.9	UCAC4 532-43778	12.01	7 <sup>h</sup> 56 <sup>m</sup> 50.033 <sup>s</sup> 16°20'15.844"	55.1	159	121.8	-41.2	39.7	30.2	43.5	112



Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.				Table 1		Page 16		LinOccult 2.3.0 BETA			
		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 (%)	$\sigma_{km}$	
2016/11/22 01:05:40	517 Edith	91.1	15.08	3.93	201	4.7	36°58'54" 51°48'07"	14	9.7	UCAC4 483-51386	11.18	10 <sup>h</sup> 35 <sup>m</sup> 49.179 <sup>s</sup> 6°24'41.657"	32.7	124	81.8	-36.7	2.2	34.1	43.1	145	
2016/11/22 01:49:45	3948 Bohr	6.9	16.27	2.99	247	0.6	36°56'54" 52°13'26"	11	0.0	UCAC4 540-9208	13.36	4 <sup>h</sup> 24 <sup>m</sup> 41.096 <sup>s</sup> 17°48'31.773"	33.4	258	171.7	-29.7	91.0	39.5	42.8	76	
2016/11/22 02:12:56	41296 1999 XY119	6.9	18.31	5.33	198	0.5	37°13'48" 51°43'34"	20	0.8	UCAC4 578-4332	12.99	1 <sup>h</sup> 59 <sup>m</sup> 44.196 <sup>s</sup> 25°34'32.038"	12.7	295	153.8	-26.0	120.9	41.9	42.6	156	
2016/11/22 04:50:28	4767 Sutoku	9.1	17.43	4.26	243	1.0	36°08'02" 52°13'31"	357	0.3	UCAC4 478-21403	13.19	6 <sup>h</sup> 27 <sup>m</sup> 32.502 <sup>s</sup> 5°28'16.551"	14.7	261	139.4	-1.8	64.2	47.4	41.5	107	
2016/11/22 16:16:05	7741 Fedoseev	7.6	16.67	3.59	136	0.6	37°03'18" 48°55'46"	156	1.0	UCAC4 384-158339	13.12	23 <sup>h</sup> 25 <sup>m</sup> 12.350 <sup>s</sup> -13°22'02.950"	26.2	170	105.9	-24.3	171.7	-33.8	37.0	83	
2016/11/22 19:04:20	22279 1984 DM	9.5	17.96	4.91	57	0.8	35°50'58" 50°28'20"	327	2.5	UCAC4 652-33043	13.06	5 <sup>h</sup> 35 <sup>m</sup> 25.632 <sup>s</sup> 40°20'15.707"	48.3	80	150.5	-50.0	82.2	-26.3	35.9	139	
2016/11/22 19:33:28	47114 1999 CP61	9.1	17.47	4.81	165	0.8	37°13'52" 48°41'43"	156	1.3	UCAC4 494-11244	12.68	5 <sup>h</sup> 18 <sup>m</sup> 48.252 <sup>s</sup> 8°44'04.965"	33.0	119	156.5	-53.7	88.2	-23.2	35.7	141	
2016/11/22 20:40:47	91652 1999 TZ100	7.9	18.55	6.20	37	1.0	36°47'07" 49°58'15"	103	1.8	UCAC4 411-752	12.36	0 <sup>h</sup> 38 <sup>m</sup> 31.070 <sup>s</sup> -7°48'53.948"	23.0	223	124.2	-59.4	159.7	-14.7	35.3	175	
2016/11/22 21:16:29	17465 In-awashiroko	5.0	18.01	5.91	244	0.8	37°06'25" 47°55'29"	166	0.1	UCAC4 559-23683	12.11	6 <sup>h</sup> 05 <sup>m</sup> 56.690 <sup>s</sup> 21°37'22.075"	51.3	125	149.3	-60.4	77.0	-9.7	35.0	103	
2016/11/23 01:29:09	8889 Mock-turtle	12.6	15.95	2.26	6	1.2	36°14'37" 50°05'29"	328	4.2	UCAC4 631-9978	13.84	2 <sup>h</sup> 52 <sup>m</sup> 25.953 <sup>s</sup> 36°08'08.187"	34.1	288	159.0	-33.2	117.0	28.0	33.3	120	
2016/11/23 02:03:34	20117 1995 VN1	7.2	16.01	2.98	182	0.7	38°23'17" 50°59'17"	55	0.3	UCAC4 566-13833	13.11	5 <sup>h</sup> 06 <sup>m</sup> 28.811 <sup>s</sup> 23°08'53.855"	41.1	257	163.3	-27.7	93.1	32.4	33.1	82	
2016/11/23 02:14:28	69234 1978 VO2	5.2	17.44	3.96	177	0.6	36°49'18" 51°35'58"	12	0.4	UCAC4 536-3953	13.51	2 <sup>h</sup> 14 <sup>m</sup> 19.049 <sup>s</sup> 17°06'31.238"	7.5	288	155.9	-25.9	133.7	33.7	33.0	97	
2016/11/23 02:58:34	19278 1995 YN	8.3	17.38	3.48	138	1.0	37°42'07" 50°53'34"	47	1.4	UCAC4 532-24395	13.94	6 <sup>h</sup> 20 <sup>m</sup> 58.741 <sup>s</sup> 16°17'17.905"	38.9	247	145.3	-18.9	76.5	38.4	32.8	111	
2016/11/23 03:37:59	1130 Skuld	13.2	15.37	2.26	205	1.7	35°29'22" 48°17'06"	196	0.2	UCAC4 555-26157	13.25	6 <sup>h</sup> 21 <sup>m</sup> 05.206 <sup>s</sup> 20°51'37.065"	36.3	259	146.0	-12.7	76.8	41.6	32.5	78	
2016/11/23 16:24:18	48689 1996 GP1	6.0	17.72	6.11	18	0.6	36°13'05" 50°12'00"	344	2.2	UCAC4 731-40127	11.61	5 <sup>h</sup> 42 <sup>m</sup> 59.461 <sup>s</sup> 56°06'03.159"	34.8	42	139.3	-25.7	89.8	-36.6	27.8	109	
2016/11/23 17:49:59	1495 Helsinki	18.4	16.04	2.22	178	1.5	34°45'43" 51°19'25"	323	1.8	UCAC4 651-34524	13.98	5 <sup>h</sup> 45 <sup>m</sup> 05.659 <sup>s</sup> 40°05'10.846"	35.7	68	149.9	-39.4	91.2	-37.7	27.3	111	
2016/11/23 17:50:21	5374 Hokuto-sei	17.4	16.43	2.69	25	1.7	35°59'39" 50°10'28"	304	3.4	UCAC4 621-31176	13.83	6 <sup>h</sup> 01 <sup>m</sup> 44.688 <sup>s</sup> 34°00'19.822"	29.3	71	149.5	-39.4	88.1	-37.7	27.3	204	
2016/11/23 18:01:44	18156 Kami-saibara	10.5	17.09	3.31	196	1.0	38°05'23" 48°44'01"	139	1.0	UCAC4 578-4248	13.84	1 <sup>h</sup> 56 <sup>m</sup> 48.835 <sup>s</sup> 25°35'06.593"	61.6	141	151.7	-41.2	140.2	-37.4	27.2	128	
2016/11/23 18:17:51	7964 1995 DD2	10.5	16.90	3.82	11	0.8	36°14'03" 49°57'06"	199	3.7	UCAC4 486-8148	13.12	4 <sup>h</sup> 46 <sup>m</sup> 25.840 <sup>s</sup> 7°11'16.498"	26.0	111	162.3	-43.6	107.8	-36.8	27.1	112	
2016/11/23 18:59:23	14835 Holdridge	7.9	15.67	3.71	178	0.6	33°59'12" 49°27'04"	248	0.2	UCAC4 480-15421	12.00	6 <sup>h</sup> 03 <sup>m</sup> 15.055 <sup>s</sup> 5°53'22.707"	19.5	105	146.4	-49.5	89.2	-34.3	26.9	68	

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.				Table 1		Page 17		LinOccult 2.3.0 BETA			
		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 (%)	$\sigma_{km}$	
2016/11/23 20:57:26	997 Priska	18.7	17.38	4.02	149	2.1	37°40'53" 49°03'37"	138	2.8 6.4	UCAC4 534-36230	13.39	6 <sup>h</sup> 58 <sup>m</sup> 29.955 <sup>s</sup> 16°47'23.190"	37.7	111	137.4	-60.3	76.6	-21.7	26.2	116	
2016/11/23 22:09:04	3889 Men- shikov	7.9	16.08	2.50	18	1.1	36°18'05" 49°53'12"	177	3.6 3.7	UCAC4 504-4375	13.69	2 <sup>h</sup> 50 <sup>m</sup> 33.992 <sup>s</sup> 10°38'33.876"	44.0	222	160.8	-59.1	137.6	-11.6	25.7	86	
2016/11/23 23:25:23	5516 Jaw- illiamson	7.2	17.47	4.14	96	0.6	36°40'59" 49°13'21"	163	1.8 2.8	UCAC4 467-9016	13.35	5 <sup>h</sup> 10 <sup>m</sup> 52.550 <sup>s</sup> 3°14'23.104"	42.1	198	155.4	-51.7	104.5	0.0	25.3	102	
2016/11/24 03:41:47	7038 Toko- rozawa	9.1	16.86	4.68	170	1.2	35°14'31" 48°40'41"	206	0.8 3.8	UCAC4 570-22497	12.20	5 <sup>h</sup> 58 <sup>m</sup> 28.910 <sup>s</sup> 23°54'12.828"	33.6	268	152.4	-12.3	94.2	34.7	23.8	96	
2016/11/24 04:30:31	26678 2001 EN19	6.9	17.07	5.44	163	0.7	37°52'11" 51°06'44"	44	0.9 2.4	UCAC4 620-15238	11.64	4 <sup>h</sup> 20 <sup>m</sup> 07.247 <sup>s</sup> 33°55'48.258"	18.2	301	165.8	-5.0	114.1	38.3	23.5	113	
2016/11/24 15:11:51	12704 Tupolev	6.3	17.01	3.28	186	0.5	38°02'46" 48°49'51"	137	0.3 2.8	UCAC4 557-7193	13.78	3 <sup>h</sup> 34 <sup>m</sup> 26.864 <sup>s</sup> 21°16'54.267"	19.1	79	173.6	-14.3	132.9	-30.1	20.1	91	
2016/11/24 16:41:30	1510 Charlois	23.8	15.06	2.53	17	2.9	36°24'20" 49°55'14"	149	11.1 11.3	UCAC4 660-36414	12.64	5 <sup>h</sup> 32 <sup>m</sup> 33.156 <sup>s</sup> 41°50'06.470"	29.4	59	151.5	-28.6	103.9	-38.9	19.6	84	
2016/11/24 18:01:47	86048 1999 PP1	5.0	18.51	5.84	7	0.6	36°15'46" 50°06'37"	346	1.6 1.6	UCAC4 637-35291	12.67	6 <sup>h</sup> 29 <sup>m</sup> 14.655 <sup>s</sup> 37°17'17.100"	29.7	66	144.1	-41.3	94.1	-42.0	19.2	122	
2016/11/24 18:09:19	8404 1995 AN	5.8	16.04	2.96	233	0.8	38°14'02" 48°23'15"	143	0.0 3.8	UCAC4 710-19700	13.15	2 <sup>h</sup> 25 <sup>m</sup> 38.923 <sup>s</sup> 51°49'00.046"	75.0	74	143.6	-42.4	125.7	-42.0	19.1	60	
2016/11/24 18:59:20	3390 De- manet	7.2	16.65	3.54	125	0.6	35°30'26" 51°03'27"	334	1.1 3.6	UCAC4 590-14106	13.15	4 <sup>h</sup> 46 <sup>m</sup> 55.569 <sup>s</sup> 27°57'09.454"	48.7	104	167.5	-49.6	117.1	-40.8	18.9	80	
2016/11/24 21:08:29	472 Roma	47.3	13.32	0.54	38	5.2	36°18'30" 49°42'28"	178	18.4 20.0	UCAC4 506-49429	13.79	9 <sup>h</sup> 12 <sup>m</sup> 52.694 <sup>s</sup> 11°10'20.838"	14.6	90	105.5	-60.8	55.8	-29.1	18.1	93	
2016/11/24 22:01:57	3225 Hoag	7.6	16.17	3.39	117	0.7	37°53'07" 50°17'36"	77	0.9 4.7	UCAC4 357-17945	12.83	6 <sup>h</sup> 40 <sup>m</sup> 52.171 <sup>s</sup> -18°37'17.012"	16.0	149	123.3	-59.7	89.8	-22.0	17.9	64	
2016/11/24 22:21:32	122726 2000 SB43	5.5	17.08	4.32	153	0.6	37°21'41" 51°14'38"	30	0.6 2.4	UCAC4 656-37354	12.78	5 <sup>h</sup> 42 <sup>m</sup> 07.679 <sup>s</sup> 41°03'09.639"	79.0	140	150.8	-58.5	104.9	-19.2	17.8	90	
2016/11/24 22:59:16	18896 2000 GN113	7.6	16.12	2.53	174	0.9	35°03'01" 48°42'25"	211	0.2 4.3	UCAC4 612-25539	13.70	5 <sup>h</sup> 50 <sup>m</sup> 59.933 <sup>s</sup> 32°15'05.838"	72.4	174	153.4	-55.0	104.7	-13.6	17.6	70	
2016/11/25 01:36:02	2068 Dan- green	33.6	15.19	1.86	231	5.4	33°43'40" 48°48'09"	233	0.5 15.3	UCAC4 552-33981	13.54	6 <sup>h</sup> 54 <sup>m</sup> 28.086 <sup>s</sup> 20°13'41.236"	56.0	217	140.1	-32.5	92.0	10.4	16.9	87	
2016/11/25 01:48:52	23318 Sal- vadorsanchez	11.0	17.46	5.93	184	0.8	36°18'06" 48°23'40"	180	1.3 3.2	UCAC4 478-8504	11.54	4 <sup>h</sup> 50 <sup>m</sup> 46.533 <sup>s</sup> 5°32'42.669"	26.1	245	161.0	-30.4	122.3	12.2	16.8	139	
2016/11/25 02:00:27	22662 1998 QL18	6.6	17.83	3.88	235	1.1	37°55'25" 51°53'12"	30	0.3 2.4	UCAC4 597-34184	13.98	6 <sup>h</sup> 41 <sup>m</sup> 55.661 <sup>s</sup> 29°12'23.888"	59.2	239	143.4	-28.6	95.4	13.9	16.7	111	
2016/11/25 15:13:18	643 Scheherezade	71.6	16.26	2.49	110	2.0	35°27'32" 50°52'52"	327	12.0 13.9	UCAC4 388-129078	13.89	19 <sup>h</sup> 26 <sup>m</sup> 24.609 <sup>s</sup> -12°33'30.355"	19.2	219	48.5	-14.6	89.4	-28.0	13.0	205	
2016/11/25 16:36:53	1755 Lorbach	27.9	16.99	4.04	248	0.8	34°12'32" 51°50'53"	323	2.6 5.3	UCAC4 367-169791	12.97	19 <sup>h</sup> 44 <sup>m</sup> 01.137 <sup>s</sup> -16°47'49.768"	7.8	232	51.4	-27.9	92.5	-38.4	12.7	209	
2016/11/25 18:58:31	39499 1981 EJ29	5.2	18.98	5.52	231	1.1	36°15'16" 47°58'15"	181	0.3 1.6	UCAC4 488-46273	13.47	8 <sup>h</sup> 05 <sup>m</sup> 14.433 <sup>s</sup> 7°35'51.265"	2.5	81	121.1	-49.6	82.6	-45.8	12.0	128	

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.				Table 1		Page 18		LinOccult 2.3.0 BETA			
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 (%)	$\sigma_{km}$	
2016/11/25 18:58:51	13530 Ninne- mann	5.8	16.61	2.96	130	0.8	37°28'20" 49°09'53"	139	0.6	UCAC4 526-17051	13.73	5 <sup>h</sup> 49 <sup>m</sup> 14.577 <sup>s</sup> 15°04'01.908"	30.0	103	155.0	-49.7	116.1	-45.8	12.1	70	
2016/11/25 19:16:58	94209 2001 BB33	5.5	18.83	5.56	245	1.5	37°42'30" 48°03'08"	155	0.3	UCAC4 634-41389	13.28	7 <sup>h</sup> 49 <sup>m</sup> 56.610 <sup>s</sup> 36°45'05.815"	29.2	66	129.4	-52.1	89.8	-45.5	12.1	131	
2016/11/25 19:27:12	19517 Rober- tocarlos	7.9	17.28	5.04	124	1.1	35°52'18" 51°08'01"	346	1.5	UCAC4 550-30038	12.25	6 <sup>h</sup> 35 <sup>m</sup> 02.573 <sup>s</sup> 19°49'38.916"	30.8	95	145.3	-53.3	105.4	-45.2	12.0	99	
2016/11/25 19:29:17	4188 Kitezh	8.7	15.95	5.36	31	1.3	36°21'25" 49°46'11"	171	4.5	UCAC4 524-22973	10.60	6 <sup>h</sup> 13 <sup>m</sup> 49.992 <sup>s</sup> 14°45'26.194"	30.7	104	149.2	-53.6	110.4	-45.1	12.0	70	
2016/11/25 19:57:27	6334 Rob- leonard	6.6	16.60	3.26	100	0.7	36°00'00" 50°55'23"	348	1.5	UCAC4 567-15608	13.40	5 <sup>h</sup> 17 <sup>m</sup> 48.437 <sup>s</sup> 23°20'32.062"	50.0	117	163.4	-56.6	123.3	-43.7	11.8	76	
2016/11/25 20:57:02	97319 1999 XH215	6.6	18.51	4.82	77	0.8	36°23'42" 50°44'14"	6	1.6	UCAC4 511-30663	13.70	6 <sup>h</sup> 49 <sup>m</sup> 55.734 <sup>s</sup> 12°09'25.822"	36.4	118	140.1	-60.7	102.3	-38.7	11.6	136	
2016/11/25 22:04:05	28401 1999 RT165	6.3	17.60	6.43	93	0.6	36°29'10" 49°13'03"	171	1.6	UCAC4 576-12427	11.17	4 <sup>h</sup> 53 <sup>m</sup> 24.979 <sup>s</sup> 25°06'56.987"	65.3	178	168.6	-59.8	129.5	-30.7	11.3	115	
2016/11/25 22:21:00	6359 Dubinin	16.6	15.86	2.06	197	1.4	35°54'45" 48°17'50"	188	1.9	UCAC4 546-13788	13.98	5 <sup>h</sup> 17 <sup>m</sup> 06.099 <sup>s</sup> 19°00'08.641"	59.1	176	163.5	-58.7	125.3	-28.4	11.2	154	
2016/11/25 22:55:39	735 Marghanna	74.3	13.96	0.99	29	7.9	36°00'23" 49°51'23"	223	27.8	UCAC4 652-46802	13.52	7 <sup>h</sup> 49 <sup>m</sup> 52.160 <sup>s</sup> 40°16'51.718"	65.8	101	129.3	-55.6	92.0	-23.5	11.1	100	
2016/11/25 23:11:33	2222 Lermnon- tov	25.3	15.46	2.55	19	6.3	36°19'53" 50°12'55"	10	10.0	UCAC4 562-37514	13.02	7 <sup>h</sup> 01 <sup>m</sup> 23.803 <sup>s</sup> 22°22'17.216"	59.9	150	139.7	-53.8	101.2	-21.1	11.0	99	
2016/11/25 23:12:48	707 Steina	12.6	14.43	5.68	188	2.3	36°40'13" 48°22'49"	172	0.0	UCAC4 553-4418	8.76	2 <sup>h</sup> 18 <sup>m</sup> 57.616 <sup>s</sup> 20°31'09.923"	37.9	256	154.6	-53.6	163.0	-20.9	10.9	41	
2016/11/25 23:59:15	5338 Michel- blanc	10.5	16.34	6.85	18	1.0	36°10'33" 49°54'14"	206	4.3	UCAC4 558-14100	9.49	5 <sup>h</sup> 11 <sup>m</sup> 42.746 <sup>s</sup> 21°31'09.172"	56.2	222	165.1	-47.5	127.0	-13.9	10.8	95	
2016/11/26 00:09:21	44393 1998 SJ66	5.0	19.76	5.85	47	0.6	36°10'46" 50°28'04"	351	1.3	UCAC4 522-48631	13.92	9 <sup>h</sup> 34 <sup>m</sup> 15.042 <sup>s</sup> 14°22'24.082"	42.2	124	102.8	-46.1	64.8	-12.3	10.7	149	
2016/11/26 01:19:15	62 Erato	95.4	14.71	1.94	159	5.1	36°48'27" 51°26'03"	14	14.5	UCAC4 488-53585	12.96	10 <sup>h</sup> 56 <sup>m</sup> 46.594 <sup>s</sup> 7°31'35.208"	34.8	125	81.4	-35.4	44.0	-1.6	10.5	160	
2016/11/26 03:34:34	10630 1998 BV12	7.2	17.74	4.97	66	0.6	36°49'59" 50°31'17"	37	2.2	UCAC4 576-16787	12.78	5 <sup>h</sup> 34 <sup>m</sup> 54.671 <sup>s</sup> 25°10'35.127"	30.6	274	159.7	-13.8	123.0	17.7	9.9	107	
2016/11/26 04:26:16	4978 Seitz	6.9	16.14	2.34	63	1.0	36°02'49" 49°30'16"	196	2.6	UCAC4 514-14028	13.93	5 <sup>h</sup> 43 <sup>m</sup> 29.175 <sup>s</sup> 12°47'36.408"	14.6	273	155.9	-6.0	122.3	23.7	9.7	71	
2016/11/26 14:56:56	76818 2000 RG79	6.0	15.49	4.86	40	0.7	35°48'15" 49°52'13"	240	3.4	UCAC4 693-15648	10.64	2 <sup>h</sup> 26 <sup>m</sup> 35.744 <sup>s</sup> 48°25'12.148"	45.9	64	145.6	-12.2	140.1	-22.1	7.5	55	
2016/11/26 17:49:27	34384 2000 RW61	7.9	17.93	4.12	148	0.8	37°15'53" 48°52'46"	152	1.3	UCAC4 576-29242	13.83	6 <sup>h</sup> 26 <sup>m</sup> 14.956 <sup>s</sup> 25°08'35.635"	21.0	75	148.7	-39.6	118.3	-44.7	6.9	125	
2016/11/26 20:31:11	7527 Marples	5.5	17.12	5.26	215	0.8	35°17'33" 51°52'43"	341	0.0	UCAC4 607-33666	11.87	6 <sup>h</sup> 37 <sup>m</sup> 13.693 <sup>s</sup> 31°16'22.903"	49.4	98	145.9	-59.6	116.8	-47.7	6.4	75	
2016/11/26 20:39:32	8064 Lisitsa	7.6	17.78	4.15	153	0.5	36°45'21" 48°42'25"	167	1.1	UCAC4 611-15517	13.66	4 <sup>h</sup> 35 <sup>m</sup> 36.063 <sup>s</sup> 32°09'05.931"	68.5	139	167.6	-60.1	141.4	-47.2	6.3	119	

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Page 19			LinOccult 2.3.0 BETA				
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 (%)	$\sigma_{km}$
2016/11/26 21:06:44	21764 1999 RY205	5.5	17.93	4.58	91	1.0	35°23'35'' 50°37'51''	315	1.4	UCAC4 489-1632	13.36	1 <sup>h</sup> 11 <sup>m</sup> 26.483 <sup>s</sup> 7°41'40.681''	35.6	233	134.6	-61.1	162.5	-45.1	6.2	103
2016/11/26 21:20:45	68085 2000 YH104	9.5	18.45	9.53	205	0.9	36°10'25'' 48°12'30''	182	0.3	UCAC4 708-46973	8.92	7 <sup>h</sup> 31 <sup>m</sup> 25.411 <sup>s</sup> 51°31'36.929''	58.8	68	130.9	-61.2	105.3	-43.9	6.2	86
2016/11/26 21:20:58	8563 1995 US	15.1	16.54	3.36	111	1.2	36°32'49'' 49°04'01''	170	3.3	UCAC4 711-38934	13.23	5 <sup>h</sup> 27 <sup>m</sup> 43.052 <sup>s</sup> 52°08'19.392''	77.8	73	145.6	-61.2	123.2	-43.8	6.2	127
2016/11/26 21:51:09	2717 Tellervo	12.0	15.45	4.97	232	1.3	36°57'40'' 48°00'24''	168	0.1	UCAC4 540-24168	10.49	6 <sup>h</sup> 12 <sup>m</sup> 44.177 <sup>s</sup> 17°59'14.230''	53.3	142	151.3	-60.6	123.7	-40.7	6.1	79
2016/11/27 00:25:52	12914 1998 SJ141	9.5	16.62	2.79	125	0.7	37°16'31'' 50°58'55''	34	1.7	UCAC4 632-17036	13.92	4 <sup>h</sup> 16 <sup>m</sup> 30.226 <sup>s</sup> 36°14'16.637''	55.1	264	164.8	-43.8	144.0	-19.1	5.6	101
2016/11/27 01:35:05	295347 2008 HS24	7.2	21.43	10.50	155	1.0	38°15'02'' 50°39'14''	64	0.6	UCAC4 435-50997	10.93	9 <sup>h</sup> 23 <sup>m</sup> 15.091 <sup>s</sup> -3°07'01.752''	35.6	162	100.3	-33.0	76.4	-8.4	5.4	444
2016/11/27 02:50:38	2031 BAM	8.7	15.30	1.71	63	1.5	36°25'16'' 50°36'18''	9	3.3	UCAC4 523-22628	13.84	6 <sup>h</sup> 11 <sup>m</sup> 24.949 <sup>s</sup> 14°29'15.371''	34.8	249	151.0	-20.9	126.6	2.9	5.2	58
2016/11/27 02:51:51	18640 1998 EF9	7.9	15.81	4.71	213	0.6	37°22'10'' 51°50'09''	21	0.2	UCAC4 610-12227	11.12	4 <sup>h</sup> 10 <sup>m</sup> 35.968 <sup>s</sup> 31°58'01.484''	28.1	287	169.1	-20.7	148.7	3.1	5.2	89
2016/11/27 03:41:01	1935 Lucerna	8.3	15.55	1.95	181	1.1	36°32'47'' 51°40'05''	6	0.2	UCAC4 495-12153	13.80	5 <sup>h</sup> 27 <sup>m</sup> 15.600 <sup>s</sup> 8°58'06.642''	15.7	265	158.3	-13.0	137.4	10.0	5.0	69
2016/11/27 05:02:32	37319 2001 QL37	5.2	17.01	3.61	53	0.9	36°26'38'' 50°30'50''	12	2.0	UCAC4 500-17582	13.44	5 <sup>h</sup> 56 <sup>m</sup> 38.847 <sup>s</sup> 9°53'50.924''	8.0	276	152.7	-1.1	130.9	19.8	4.8	90
2016/11/27 19:47:33	8425 Zi-ran rankxuejijin	5.5	16.57	5.29	217	0.5	35°16'49'' 51°53'44''	341	0.0	UCAC4 524-7797	11.29	4 <sup>h</sup> 14 <sup>m</sup> 22.470 <sup>s</sup> 14°41'56.204''	50.1	144	173.5	-55.9	163.0	-52.4	2.7	72
2016/11/27 20:02:39	6382 1988 EL	5.8	16.18	2.37	61	0.8	36°32'52'' 49°31'24''	162	2.3	UCAC4 678-9073	13.94	1 <sup>h</sup> 39 <sup>m</sup> 09.725 <sup>s</sup> 45°24'17.265''	76.3	258	140.0	-57.4	142.3	-52.7	2.7	61
2016/11/27 20:47:10	3276 Porta Coeli	11.0	17.29	3.78	32	3.9	35°59'20'' 50°15'41''	318	3.7	UCAC4 552-44354	13.55	8 <sup>h</sup> 44 <sup>m</sup> 34.516 <sup>s</sup> 20°17'25.406''	24.4	87	117.7	-60.6	99.7	-52.2	2.6	113
2016/11/27 22:29:06	1801 Titicaca	23.2	15.64	3.24	60	3.0	35°54'22'' 49°33'57''	207	6.8	UCAC4 582-34625	12.46	6 <sup>h</sup> 57 <sup>m</sup> 11.476 <sup>s</sup> 26°23'42.488''	60.5	134	142.9	-58.5	125.3	-44.1	2.4	119
2016/11/27 22:29:11	12750 Berthollet	8.3	17.07	3.36	108	0.8	36°18'36'' 49°04'32''	179	1.9	UCAC4 425-3910	13.76	3 <sup>h</sup> 08 <sup>m</sup> 38.602 <sup>s</sup> -5°11'21.701''	27.7	219	148.8	-58.5	161.9	-44.1	2.4	105
2016/11/27 22:50:25	16413 Abulghazi	11.5	16.62	3.21	100	1.0	35°43'03'' 50°52'11''	336	2.7	UCAC4 566-18396	13.47	5 <sup>h</sup> 39 <sup>m</sup> 10.440 <sup>s</sup> 23°09'50.479''	63.4	183	160.7	-56.5	143.5	-41.6	2.4	116
2016/11/27 23:30:43	22279 1984 DM	9.5	17.87	4.77	43	0.7	36°22'14'' 50°25'41''	8	2.7	UCAC4 652-32141	13.11	5 <sup>h</sup> 30 <sup>m</sup> 42.982 <sup>s</sup> 40°23'16.806''	76.6	230	155.1	-51.8	139.1	-36.2	2.3	137
2016/11/28 00:17:35	6481 Tenzing	6.9	16.92	3.51	234	0.5	36°57'54'' 52°06'21''	12	0.1	UCAC4 600-9851	13.45	3 <sup>h</sup> 40 <sup>m</sup> 30.591 <sup>s</sup> 29°50'54.128''	45.9	263	168.2	-45.2	162.1	-29.4	2.2	87
2016/11/28 00:50:14	3322 Lidiya	9.5	16.09	2.49	160	0.5	38°09'54'' 50°51'07''	56	1.2	UCAC4 422-49273	13.72	9 <sup>h</sup> 10 <sup>m</sup> 09.856 <sup>s</sup> -5°40'28.302''	31.4	155	103.2	-40.3	89.9	-24.5	2.1	108
2016/11/28 04:14:42	90755 1993 RT5	5.2	17.70	3.92	106	0.5	37°38'22'' 50°27'11''	65	1.1	UCAC4 666-23778	13.81	4 <sup>h</sup> 17 <sup>m</sup> 19.199 <sup>s</sup> 43°03'04.928''	24.6	308	158.2	-8.1	148.1	6.1	1.8	136

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 20		LinOccult 2.3.0 BETA				
Date Time (UTC)	Asteroid			Nearest point			Star			Sun			Moon			$\sigma_{km}$					
	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 (%)	
2016/11/28 13:35:45	47435 XK176	5.5	18.27	5.31	188	0.6	33°55'26" 49°19'54"	245	0.6 1.7	UCAC4 607-3367	12.97	1 <sup>h</sup> 15 <sup>m</sup> 08.950 <sup>s</sup> 31°22'40.236"	35.5	82	138.0	-0.6	142.8	-0.6	1.0	128	
2016/11/28 15:59:16	18865 RQ204	9.5	17.27	7.41	179	1.1	34°24'19" 51°07'45"	312	1.0 3.4	UCAC4 575-32271	9.86	6 <sup>h</sup> 41 <sup>m</sup> 54.908 <sup>s</sup> 24°58'33.991"	3.7	54	147.1	-22.1	137.4	-22.7	0.8	114	
2016/11/28 16:11:44	9566 Rykhlova	5.2	16.98	3.71	102	1.4	36°23'50" 50°57'33"	4	1.2 2.5	UCAC4 492-1423	13.30	0 <sup>h</sup> 56 <sup>m</sup> 21.802 <sup>s</sup> 8°21'15.657"	42.9	143	129.5	-24.1	138.1	-24.7	0.8	85	
2016/11/28 16:36:24	46992 TZ17	11.0	16.29	6.01	36	1.1	35°56'41" 50°17'17"	318	4.3 4.7	UCAC4 674-38178	10.28	5 <sup>h</sup> 31 <sup>m</sup> 46.429 <sup>s</sup> 44°43'02.468"	32.8	58	152.2	-28.1	142.6	-28.5	0.8	94	
2016/11/28 17:45:24	42985 TR230	5.5	17.58	4.02	14	0.6	36°27'28" 49°59'05"	120	2.0 2.0	UCAC4 496-16300	13.59	5 <sup>h</sup> 52 <sup>m</sup> 15.956 <sup>s</sup> 9°03'29.771"	15.1	94	154.5	-39.1	149.2	-38.8	0.7	110	
2016/11/28 18:24:38	13163 Koya- machuya	6.6	16.92	6.10	154	0.8	35°39'03" 51°22'08"	343	0.6 3.1	UCAC4 626-37812	10.82	6 <sup>h</sup> 53 <sup>m</sup> 37.602 <sup>s</sup> 35°08'28.077"	30.4	70	143.7	-45.1	134.2	-44.1	0.7	85	
2016/11/28 19:39:39	66174 VZ52	7.2	18.33	4.67	4	0.5	36°14'29" 50°01'39"	235	2.0 2.0	UCAC4 710-34541	13.68	4 <sup>h</sup> 39 <sup>m</sup> 04.884 <sup>s</sup> 51°50'21.605"	70.8	73	149.3	-55.1	142.1	-52.1	0.6	147	
2016/11/28 19:40:16	23106 XM191	9.5	17.67	4.18	240	0.8	33°50'46" 51°33'12"	314	0.6 2.8	UCAC4 621-35390	13.52	6 <sup>h</sup> 29 <sup>m</sup> 49.214 <sup>s</sup> 34°10'49.538"	45.5	88	148.7	-55.2	139.8	-52.2	0.6	138	
2016/11/28 20:59:05	20380 KW47	7.2	17.94	4.58	20	2.3	36°08'57" 50°12'28"	331	2.7 2.8	UCAC4 537-44197	13.38	7 <sup>h</sup> 52 <sup>m</sup> 56.724 <sup>s</sup> 17°14'52.431"	33.0	103	129.8	-61.2	123.0	-55.4	0.6	104	
2016/11/28 21:02:02	33228 FZ121	8.3	17.29	3.54	206	0.7	37°02'29" 48°16'01"	165	0.6 2.8	UCAC4 483-7819	13.79	4 <sup>h</sup> 33 <sup>m</sup> 27.031 <sup>s</sup> 6°34'37.637"	46.2	168	164.8	-61.3	167.2	-55.4	0.6	120	
2016/11/28 21:33:01	1879 Broeder- stroom	8.7	14.44	1.10	169	1.3	36°51'57" 48°34'22"	166	0.1 6.1	UNKNOWN UN- KNOWN	13.82	4 <sup>h</sup> 42 <sup>m</sup> 07.990 <sup>s</sup> 22°16'22.583"	62.4	174	174.8	-61.5	167.1	-54.8	0.5	57	
2016/11/28 21:33:20	157 Dejanira	19.1	13.88	2.36	195	2.4	37°35'09" 51°35'34"	28	0.2 11.2	UCAC4 601-27857	11.65	5 <sup>h</sup> 59 <sup>m</sup> 36.292 <sup>s</sup> 30°02'40.763"	64.2	132	156.0	-61.5	148.1	-54.8	0.5	68	
2016/11/28 21:52:23	4893 Seitter	12.0	17.72	4.04	176	2.1	37°00'58" 48°32'08"	163	1.5 3.5	UCAC4 490-42957	13.70	7 <sup>h</sup> 34 <sup>m</sup> 06.745 <sup>s</sup> 7°55'49.288"	36.0	127	131.4	-61.0	126.4	-53.8	0.5	137	
2016/11/28 22:36:32	68147 AW44	7.9	19.10	5.51	203	3.2	35°36'44" 48°16'52"	194	0.9 1.9	UCAC4 601-45564	13.59	8 <sup>h</sup> 44 <sup>m</sup> 18.745 <sup>s</sup> 30°03'31.842"	49.6	101	120.7	-58.0	113.3	-50.4	0.5	164	
2016/11/28 22:46:20	56982 SE189	7.2	18.00	4.30	142	0.8	36°11'35" 48°46'37"	183	1.2 1.7	UCAC4 590-6442	13.73	2 <sup>h</sup> 38 <sup>m</sup> 50.263 <sup>s</sup> 27°49'04.719"	48.6	255	156.1	-57.1	157.7	-49.5	0.5	172	
2016/11/29 00:45:09	42783 VV53	11.0	17.71	6.82	127	1.0	37°55'45" 49°37'48"	112	2.1 3.2	UCAC4 478-41189	10.89	7 <sup>h</sup> 49 <sup>m</sup> 55.534 <sup>s</sup> 5°32'19.404"	45.7	178	127.0	-41.3	123.5	-34.1	0.4	139	
2016/11/29 01:30:34	17733 BS1	5.5	16.81	2.93	233	0.8	37°57'20" 51°51'13"	31	0.0 2.8	UCAC4 606-26966	13.95	5 <sup>h</sup> 57 <sup>m</sup> 51.404 <sup>s</sup> 31°06'52.647"	56.3	250	156.3	-34.1	149.9	-27.2	0.4	78	
2016/11/29 02:04:27	22718 SY15	7.6	17.64	4.55	23	0.8	36°24'26" 50°14'22"	22	2.7 2.8	UCAC4 571-26870	13.11	6 <sup>h</sup> 15 <sup>m</sup> 52.150 <sup>s</sup> 24°11'38.563"	48.8	247	153.4	-28.7	148.3	-22.0	0.4	109	
2016/11/29 03:09:14	2422 Per- ovskaya	7.6	16.93	3.94	26	0.7	36°05'53" 49°50'42"	211	3.4 3.6	UCAC4 518-17812	13.02	5 <sup>h</sup> 55 <sup>m</sup> 23.317 <sup>s</sup> 13°31'42.312"	27.5	258	156.2	-18.3	153.9	-12.0	0.3	85	
2016/11/29 14:56:52	88015 UC61	5.0	18.25	6.44	209	0.5	33°47'50" 51°03'05"	302	0.4 1.6	UCAC4 649-35907	11.81	6 <sup>h</sup> 04 <sup>m</sup> 06.061 <sup>s</sup> 39°38'31.126"	13.2	42	151.9	-12.4	149.5	-7.5	0.2	126	

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 21		LinOccult 2.3.0 BETA				
		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 (%)	$\sigma_{km}$	
2016/11/29 16:50:01	19926 YQ	7.6	16.70	3.81	126	0.6	34°37'39'' 50°26'20''	290	1.2 3.5	UCAC4 394-96	12.92	0 <sup>h</sup> 04 <sup>m</sup> 12.210 <sup>s</sup> −11°20'20.817''	28.7	176	108.4	-30.3	107.3	-25.0	0.2	87	
2016/11/29 17:21:26	28009 YY1	5.8	17.42	4.44	92	0.8	36°58'57'' 49°21'22''	147	1.5 2.5	UCAC4 564-27953	13.00	6 <sup>h</sup> 29 <sup>m</sup> 20.550 <sup>s</sup> 22°39'09.888''	16.1	74	150.9	-35.4	152.8	-30.0	0.2	91	
2016/11/29 17:42:36	2658 Gin-gerich	11.0	16.69	4.21	133	0.8	37°20'17'' 49°04'18''	145	1.9 3.9	UCAC4 520-8725	12.50	4 <sup>h</sup> 42 <sup>m</sup> 53.953 <sup>s</sup> 13°53'41.188''	30.0	105	171.1	-38.7	176.6	-33.2	0.2	113	
2016/11/29 18:25:09	22636 1998 MV13	5.5	17.38	4.68	173	0.6	38°27'24'' 49°22'38''	116	0.4 2.4	UCAC4 641-36415	12.72	6 <sup>h</sup> 31 <sup>m</sup> 54.769 <sup>s</sup> 38°06'46.353''	36.3	72	147.9	-45.3	147.4	-39.6	0.2	93	
2016/11/29 19:48:25	22086 2000 AG170	8.3	17.89	5.08	30	0.8	36°18'45'' 50°19'04''	4	2.5 2.6	UCAC4 508-26246	12.82	6 <sup>h</sup> 27 <sup>m</sup> 03.318 <sup>s</sup> 11°33'08.586''	31.5	111	149.0	-56.2	153.8	-50.4	0.3	128	
2016/11/29 21:56:58	7921 Huebner	5.2	16.49	2.94	63	0.6	36°07'28'' 50°36'08''	349	2.0 3.3	UCAC4 546-15008	13.63	5 <sup>h</sup> 25 <sup>m</sup> 46.931 <sup>s</sup> 19°01'49.082''	58.8	168	165.4	-61.0	170.4	-57.4	0.3	63	
2016/11/29 22:29:42	1944 Gunter	5.8	17.21	6.59	46	0.7	36°04'08'' 50°26'20''	340	2.6 3.2	UCAC4 528-34533	10.62	6 <sup>h</sup> 51 <sup>m</sup> 13.864 <sup>s</sup> 15°32'29.802''	52.1	148	144.8	-58.8	150.2	-56.3	0.4	73	
2016/11/29 22:31:10	6983 Komat-susakyo	12.0	17.30	5.38	77	1.1	36°07'24'' 49°21'57''	189	3.1 3.7	UCAC4 548-29774	11.93	6 <sup>h</sup> 34 <sup>m</sup> 04.001 <sup>s</sup> 19°24'50.827''	57.3	153	149.7	-58.7	154.5	-56.2	0.4	130	
2016/11/29 23:42:44	45199 1999 XF170	6.0	17.84	5.04	114	0.7	35°52'60'' 51°02'16''	345	1.3 2.4	UCAC4 590-34925	12.81	6 <sup>h</sup> 40 <sup>m</sup> 34.938 <sup>s</sup> 27°49'25.816''	68.0	183	148.7	-50.6	152.4	-50.2	0.4	101	
2016/11/30 01:19:43	6102 Visby	5.8	18.45	4.68	150	0.7	35°47'57'' 48°44'16''	193	0.8 2.2	UCAC4 570-38007	13.79	7 <sup>h</sup> 11 <sup>m</sup> 47.756 <sup>s</sup> 23°53'42.045''	60.7	214	141.6	-36.0	147.0	-37.3	0.5	106	
2016/11/30 02:16:00	68014 2000 YF10	8.7	17.87	5.57	185	0.7	35°12'29'' 48°32'31''	205	1.0 2.6	UCAC4 668-44148	12.31	5 <sup>h</sup> 57 <sup>m</sup> 30.469 <sup>s</sup> 43°24'34.043''	55.6	279	151.0	-27.0	150.9	-28.8	0.5	134	
2016/11/30 02:28:48	642 Clara	33.4	14.33	2.14	266	3.5	38°56'12'' 51°45'39''	45	0.4 13.3	UCAC4 627-31064	12.36	6 <sup>h</sup> 07 <sup>m</sup> 59.549 <sup>s</sup> 35°12'20.003''	50.7	268	153.8	-24.9	156.1	-26.8	0.5	100	
2016/11/30 03:43:20	44283 1998 QP78	5.2	17.88	7.25	99	0.7	35°41'20'' 50°51'09''	335	1.3 2.1	UCAC4 450-26659	10.63	6 <sup>h</sup> 58 <sup>m</sup> 18.418 <sup>s</sup> 0° − 4'51.984''	20.5	243	136.9	-13.2	145.5	-15.3	0.6	98	
2016/11/30 14:08:36	17606 Wn-mengchao	5.0	18.05	5.38	237	1.0	36°24'22'' 52°10'38''	2	0.3 1.6	UCAC4 504-2497	12.68	1 <sup>h</sup> 38 <sup>m</sup> 15.727 <sup>s</sup> 10°46'25.535''	23.5	102	138.1	-5.3	126.3	4.7	1.2	129	
2016/11/30 15:35:35	4469 Utting	6.0	17.40	4.02	79	0.6	35°21'07'' 50°26'17''	303	1.8 2.4	UCAC4 652-37097	13.41	5 <sup>h</sup> 58 <sup>m</sup> 15.110 <sup>s</sup> 40°20'38.487''	19.4	50	153.2	-18.5	156.5	-7.4	1.4	100	
2016/11/30 17:14:58	15556 2000 FW49	5.5	17.30	4.37	206	0.5	38°13'31'' 48°41'30''	137	0.1 2.7	UCAC4 595-25007	12.95	5 <sup>h</sup> 55 <sup>m</sup> 01.448 <sup>s</sup> 28°59'24.127''	25.7	75	159.1	-34.4	167.4	-22.6	1.5	82	
2016/11/30 18:36:34	12518 1998 HM52	5.8	16.50	2.84	22	0.5	36°21'39'' 49°51'12''	166	2.8 2.9	UCAC4 534-7585	13.74	3 <sup>h</sup> 59 <sup>m</sup> 57.227 <sup>s</sup> 16°40'04.684''	46.8	128	171.7	-47.0	158.8	-35.2	1.6	79	
2016/11/30 19:37:53	11330 1995 WZ6	7.6	17.61	5.15	175	0.9	36°25'40'' 48°28'45''	177	0.8 2.7	UCAC4 598-38318	12.47	7 <sup>h</sup> 01 <sup>m</sup> 05.601 <sup>s</sup> 29°27'12.602''	38.3	88	144.9	-55.1	156.6	-44.2	1.7	112	
2016/11/30 19:54:07	5349 Paulhar-ris	8.7	14.63	1.57	243	2.1	38°52'45'' 51°29'33''	49	0.2 3.5	UCAC4 800-356	13.36	0 <sup>h</sup> 09 <sup>m</sup> 37.563 <sup>s</sup> 69°52'04.715''	61.8	330	119.0	-56.9	110.5	-46.4	1.8	100	
2016/11/30 20:14:26	71119 1999 XJ161	6.3	17.00	4.26	141	0.6	37°15'51'' 48°57'06''	150	1.0 2.5	UCAC4 651-16095	12.76	3 <sup>h</sup> 38 <sup>m</sup> 59.644 <sup>s</sup> 40°10'56.575''	79.9	160	158.7	-58.8	147.3	-49.0	1.8	102	

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')										Sorted by date/time.			Table 1		Page 22		LinOccult 2.3.0 BETA				
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 (%)	$\sigma_{km}$	
2016/11/30 21:22:21	4285 Hulkower	10.0	17.53	3.85	253	2.9	36°52'38'' 52°17'25''	10	0.8 2.4	UCAC4 483-47485	13.71	8 <sup>h</sup> 50 <sup>m</sup> 13.197 <sup>s</sup> 6°25'05.418''	20.6	105	115.2	-61.9	131.2	-55.9	2.0	168	
2016/11/30 21:24:47	90519 EA64	5.0	16.94	3.92	97	0.9	35°11'53'' 50°34'42''	307	1.2 2.3	UCAC4 468-21239	13.05	6 <sup>h</sup> 43 <sup>m</sup> 56.931 <sup>s</sup> 3°35'49.223''	35.9	138	142.5	-61.9	157.5	-56.1	1.9	85	
2016/11/30 21:58:47	29793 CH65	7.2	17.78	5.79	90	1.0	35°40'07'' 50°45'14''	331	1.9 2.7	UCAC4 534-37512	11.99	7 <sup>h</sup> 03 <sup>m</sup> 55.375 <sup>s</sup> 16°41'56.938''	49.1	134	143.1	-61.0	159.0	-58.1	2.0	105	
2016/11/30 22:30:36	12318 Kast- ner	7.2	18.30	4.99	131	1.1	36°11'24'' 51°13'29''	357	1.3 2.4	UCAC4 507-37628	13.32	7 <sup>h</sup> 14 <sup>m</sup> 54.709 <sup>s</sup> 11°22'10.791''	46.5	144	139.0	-58.9	155.3	-58.7	2.0	123	
2016/11/30 23:17:59	17923 GY16	5.2	17.47	4.09	213	0.6	36°23'45'' 51°57'45''	2	0.1 2.4	UCAC4 482-4582	13.41	3 <sup>h</sup> 12 <sup>m</sup> 32.512 <sup>s</sup> 6°20'03.517''	30.9	239	155.9	-53.9	142.3	-57.4	2.1	89	
2016/11/30 23:38:51	15697 QO1	6.6	17.76	5.77	243	0.5	35°58'07'' 47°52'26''	185	0.2 2.4	UCAC4 524-6612	12.00	3 <sup>h</sup> 44 <sup>m</sup> 18.693 <sup>s</sup> 14°39'20.381''	39.3	242	167.2	-51.3	152.1	-56.1	2.2	112	
2016/11/30 23:46:01	22306 SF4	5.0	19.61	7.89	33	0.5	35°57'25'' 49°50'45''	226	1.4 1.5	UCAC4 459-45813	11.72	9 <sup>h</sup> 37 <sup>m</sup> 20.269 <sup>s</sup> 1°41'46.817''	30.5	130	102.7	-50.3	119.5	-55.5	2.2	137	