Occultation prediction for Nederland midden
E. Longitude 5 0 0.0, Latitude 52 0 0.0, Alt. 0m;

day	Time	P	Star	Sp	Mag	Mag	%	Elon	Sun	Moon	CA	PA	VA	AA	Libration		A	B	RV	Cct durn	R.A. (J2000)			Dec			Mdist	SV
m	d h m	s	No	D	v	r	V	ill	Alt	Alt	Az	o	o	o	o	L	B	m/o	m/o	"/s	o sec	h	m	s	o	m	s	Mm	m/s
Oct	1 0 58	28.8 r	3536	cM3	4.4	3.5v	99+	169	27	213	-83S	210	191	234	+2.4	+7.2	+0.7	+0.8	.350	-153.1	.02	0	1	57.6	- 6	0	51	401.0	763.2
R3536 = 30 Piscium (YY)																												
3536 is double: ** 5.2 5.2 0.050" 140.0, dT = -0.05sec																												
3536 has been reported as non-instantaneous (OCc1092). Observations are highly desired																												
3536 = YY Psc, 4.31 to 4.41, V, Type SR																												
Oct	2 21 40	0.3 R	109873	A0	7.4	7.3	99-	168	32	132	65S	247	275	269	+0.8	+6.6	+1.0	+1.7	.395	170.9		1	24	54.6	3	20	58	402.7	781.0
Distance of 109873 to Terminator = 17.9"; to 3km sunlit peak = 7.2"																												
Oct	2 22 59	10.9 R	210	DB9	6.6	6.7	99-	167	39	154	41S	222	238	243	+0.6	+6.5	+1.0	+1.7	.366	-165.2		1	26	53.6	3	32	8	402.1	737.9
210 is double: AB 6.7 9.5 5.6" 329.6, dT = +5sec																												
210 is a close double. Observations are highly desired																												
Distance of 210 to Terminator = 9.9"; to 3km sunlit peak = 1.9"																												
Oct	2 23 32	52.0 R	109899	K2	7.6	7.1	99-	167	41	164	82S	263	272	284	+0.5	+6.4	+1.7	+0.7	.334	153.6		1	27	16.6	3	48	19	401.9	727.0
Oct	2 23 47	42.2 r	109904	G5	8.6	8.1	99-	167	42	169	87S	268	275	289	+0.4	+6.4	+1.8	+0.4	.317	148.6		1	27	34.7	3	52	39	401.9	723.7
Oct	3 19 14	57.7 r	303	cK0	6.4	5.9	96-	158	9	89	79N	273	312	292	-0.2	+6.0	+0.1	+1.6	.429	151.2		2	4	51.0	7	44	8	405.3	963.0
303 is double: ** 7.2 7.4 0.40" 115.0, dT = +0.9sec																												
303 has been reported as non-instantaneous (OCc1174). Observations are highly desired																												
Oct	3 23 0	40.4 r	110383	G5	8.2	7.6	96-	157	40	140	63S	234	257	252	-0.6	+5.7	+1.0	+1.8	.387	-175.3		2	10	49.3	8	22	7	402.2	757.8
Oct	3 23 32	19.5 R	322	SG0	5.6	5.3	96-	157	43	150	87S	258	276	276	-0.7	+5.6	+1.5	+1.2	.358	160.5		2	11	21.1	8	34	11	401.9	740.7
R322 = 64 Ceti																												
322 is double: AC 5.7 13.8 282.0, dT = 0.00sec																												
Oct	3 23 37	41.9 D	327	cG8	4.4	3.9s	96-	157	44	151	-43N	34	52	52	-0.7	+5.6	+0.8	+2.1	.346	24.1		2	13	0.0	8	50	48	401.9	739.1
R327 = xi 1 Ceti																												
327 is double: AB 4.3 0.002" 209.3, dT = -0.01sec																												
327 = NSV 749, 4.35 to 4.38, V, Type E:																												
Oct	4 0 20	21.7 r	110404	K5	8.8	8.1	96-	156	46	165	79N	271	280	290	-0.9	+5.6	+1.9	+0.4	.309	146.5		2	12	21.2	8	47	19	401.7	722.4

day	Time	P	Star	Sp	Mag	Mag	%	Elon	Sun	Moon	CA	PA	VA	AA	Libration		A	B	RV	Cct	durn	R.A. (J2000)			Dec			Mdist	SV
m	d h m	s	No	D	v	r	V	ill	Alt	Alt	Az	o	o	o	o	L	B	m/o	m/o	"/s	o	sec	h	m	s	o	m	s	Mm	m/s
Oct	4 0 50	30.9 R	327	cG8	4.4	3.9s	96-	156	47	176	88N	262	265	280	-0.9	+5.5	+1.7	+0.4	.336	156.1		2 13	0.0	8	50	48	401.6	715.8	
R327 = xi 1 Ceti																													
327 is double: AB 4.3 0.002" 209.3, dT = 0.00sec																													
327 = NSV 749, 4.35 to 4.38, V, Type E:																													
Oct	4 22 6	28.6 r	428	A3	8.5	8.4	92-	146	32	112	40N	309	345	325	-1.7	+4.8	+2.1	+0.2	.164	112.6		2 54	37.6	12	56	21	402.3	834.9	
Oct	4 23 17	18.7 r	93192	K2	8.7	8.1	91-	146	42	130	89N	260	289	275	-1.9	+4.7	+1.2	+1.5	.376	161.0		2 56	9.7	12	58	22	401.5	774.7	
Oct	5 5 11	31.9 R	93261	G8	7.4	6.9	91-	144	-6	35	246	39S	208	172	222	-3.0	+4.2	+0.9	+1.1	.301	-138.6	3 4	49.6	13	47	51	401.8	781.2	
Oct	5 21 11	11.6 R	527	wK0	6.2	5.7	86-	136	21	89	83N	267	307	279	-2.9	+3.7	+0.3	+1.7	.451	159.2		3 39	25.8	16	32	12	402.2	940.6	
527 is double: AB 6.2 13.8 36" 156.6, dT = +28sec																													
Oct	6 3 14	51 Gr	93619	kK0	8.6	7.8	85-	134	54	** GRAZE: CA 12.4N; Dist. 4km in az. 159deg. [Lat = 51.96+0.23(E.Long-5.00)]																				
Oct	6 3 14	51 gr	93619	kK0	8.6	7.8	85-	134	55	199	12N	338	325	349	-3.8	+3.1	+9.9	+9.9	.000	90.0		3 49	21.4	17	48	50	398.7	700.7	
*** A light curve is desired as 93619 is in the Kepler2 program {ID = 210660597}																													
Oct	6 4 3	32.4 R	93630	kG0	7.5	7.2	85-	134	51	217	40S	210	187	221	-4.0	+3.1	+1.2	+1.8	.284	-140.7		3 50	23.0	17	28	35	398.9	711.0	
*** A light curve is desired as 93630 is in the Kepler2 program {ID = 210636095}																													
Oct	6 20 38	45.2 r	93941	kA0	7.5	7.3	79-	125	12	73	55N	298	336	305	-4.1	+2.4	+0.1	+1.1	.368	133.9		4 27	1.6	19	50	36	400.9	1032.7	
*** A light curve is desired as 93941 is in the Kepler2 program {ID = 210798332}																													
Oct	6 22 12	51.2 R	93973	pF6	7.1	6.8	78-	125	25	90	59S	232	273	239	-4.2	+2.3	+0.0	+2.1	.455	-162.5		4 30	18.0	19	50	26	399.3	925.0	
*** A light curve is desired as 93973 is in the Kepler2 program {ID = 210798162}																													
93973 is double: AB 7.2 11.2 0.22" 260.9, dT = -0.43sec																													
93973 is a close double. Observations are highly desired																													
Oct	6 22 50	46.7 r	76638	PG8	8.6	8.2s	78-	124	31	97	75N	278	319	285	-4.2	+2.2	+0.7	+1.4	.399	151.0		4 31	15.7	20	7	59	398.6	882.8	
*** A light curve is highly desired as 76638 is in the Kepler2 program {ID = 210817382}																													
76638 is double: AB 8.7 14.4 19.6" 308.3, dT = -42sec																													
76638 = NSV 16049, 8.58, range 0.03, V																													
Oct	7 1 54	5.7 d	700	cB8	5.9	5.9E	77-	123	55	146	-66N	59	81	66	-4.7	+1.9	+1.2	+1.7	.372	10.4		4 38	15.8	20	41	5	396.4	727.2	
R700 = HU Tauri (129 H1.)																													
700 is double: ** 6.0 7.5 350.0, dT = 0.00sec																													
700 = HU Tau, 5.85 to 6.68, V, Type EA/SD:, Period 2.05630398 days, Phase 70%																													

day	Time	P	Star	Sp	Mag	Mag	%	Elon	Sun	Moon	CA	PA	VA	AA	Libration		A	B	RV	Cct	dur	R.A. (J2000)			Dec			Mdist	SV
m	d	h m s	No	D	v	r	V	ill	Alt	Alt	Az	o	o	o	o	L	B	m/o	m/o	"/s	o	sec	h	m	s	o	m	s	Mm	m/s
Oct	7	3 13 57.6 R	700	cB8	5.9	5.9	E	77-	123	59	180	89S	262	262	268	-4.9	+1.8	+1.6	+0.3	.358	169.8		4	38	15.8	20	41	5	396.0	699.1
R700 = HU Tauri (129 H1.)																													
700 is double: ** 6.0 7.5 350.0, dT = 0.00sec																													
700 = HU Tau, 5.85 to 6.68, V, Type EA/SD:, Period 2.05630398 days, Phase 70%																													
Oct	7	3 34 49.0 r	76687	kF5	8.7	8.4		77-	123	59	189	59S	232	226	239	-5.0	+1.8	+1.4	+1.3	.340	-159.6		4	38	59.5	20	36	14	396.0	697.3
*** A light curve is desired as 76687 is in the Kepler2 program {ID = 247305974}																													
Oct	7	5 15 16.4 R	76708	wK3	8.1	7.5v		77-	122	-6	52	228	88N	266	236	272	-5.3	+1.7	+1.4	-0.8	.371	171.2		4	41	18.9	20	54	5	396.2	721.4
76708 is double: AB 5.8 19.4 14.4" 199.0, dT = -15sec																													
76708 = V0834 Tau, 7.94 to 8.33, V, Type BY, Period 3.980 days																													
Oct	7	21 13 46.1 R	792	G8	5.0	4.5		70-	114	11	69	60S	237	275	239	-5.2	+1.0	-0.4	+1.7	.514	-160.9		5	19	16.6	22	5	47	397.6	1050.1
R792 = 109 Tauri																													
Oct	7	23 25 36.3 r	77147	F5	8.8	8.5		70-	113	31	93	31S	208	250	210	-5.4	+0.7	-0.2	+2.8	.325	-134.0		5	24	19.2	22	18	20	395.3	897.6
Oct	8	1 46 22.0 r	77189	G5	8.7	8.3		69-	112	51	125	58N	299	333	301	-5.7	+0.5	+1.8	-0.1	.284	135.4		5	28	6.0	22	55	50	393.2	760.6
Oct	8	2 0 54.5 R	77191	K0	7.2	6.6		69-	112	53	130	72S	250	280	251	-5.7	+0.5	+1.1	+1.6	.392	-174.5		5	28	25.7	22	44	33	393.0	749.8
Oct	8	4 43 18 m	77253	B2	8.8	8.7		68-	111	-12	61	198	7N	351	339	352	-6.2	+0.3	+9.9	+9.9	.000	90.0		5	33	33.6	23	20	32	392.1	700.6
Oct	8	4 57 21.4 R	77246	wK0	7.9	7.2		68-	111	-9	60	204	70N	288	272	289	-6.2	+0.3	+1.6	-1.3	.330	153.4		5	33	5.4	23	8	32	392.1	703.0
77246 is double: AB 13.0 13.4 11.8" 351.1, dT = -16sec																													
Oct	8	5 3 41.3 R	77249	F8	8.6	8.2		68-	111	-8	59	207	66S	244	226	245	-6.2	+0.3	+1.6	+0.6	.353	-162.2		5	33	19.0	22	57	27	392.1	704.4
Oct	**8**	**22 29 3**	**Gr**	**954**	**cG8**	**6.1**	**5.6**		**60- 102**		**17**	**** GRAZE: CA 11.4N; Dist. 74km in az. 136deg. [Lat = 51.07+0.59(E.Long-5.00)]**																		
Oct	**8**	**22 30 27**	**M**	**954**	**cG8**	**6.1**	**5.6**		**60- 102**		**16**	**72**	**11N**	**350**	**30**	**347**	**-6.2**	**-0.6**	**+9.9**	**+9.9**	**.000**	**90.0**		**6**	**16**	**19.0**	**23**	**58**	**12**	**392.6**	**1023.2**
R954 = 8 Geminorum																													
954 is double: ** 6.9 6.9 0.10" 90.0																													
954 has been reported as non-instantaneous (OCc 288). Observations are highly desired																													
Oct	8	23 12 3.9 R	956	B3	6.2	6.0v		60-	102	22	80	80S	262	304	259	-6.2	-0.6	+0.1	+1.6	.511	177.9		6	16	58.7	23	44	27	391.8	972.3
R956 = 9 Geminorum																													
956 = PX Gem, 6.23 to 6.30, V, Type ACYG, Period 13.700 days, Phase 30%																													
Oct	8	23 37 43.2 r	78192	M0	8.4	7.5v		60-	102	26	84	77N	285	328	282	-6.2	-0.7	+0.4	+1.2	.448	154.6		6	17	56.1	23	52	52	391.4	941.9
78192 = ASAS J061756+2352.9, 8.3, range 0.09, V, Type MISC, Period 33.310481 days, Phase 92%																													

day	Time	P	Star	Sp	Mag	Mag	%	Elon	Sun	Moon	CA	PA	VA	AA	Libration		A	B	RV	Cct	durn	R.A. (J2000)			Dec			Mdist	SV
m	d h m	s	No	D	v	r	V	ill	Alt	Alt	Az	o	o	o	o	L	B	m/o	m/o	"/s	o	sec	h	m	s	o	m	s	Mm	m/s
Oct	8 23 49	2.4 R	960	G5	6.6	6.1	60-	101	28	86	25S	207	249	203	-6.2	-0.7	-0.5	+3.1	.294	-126.9		6	18	54.4	23	36	12	391.2	929.0
R960 = 10 Geminorum																													
Oct	8 23 51	9.4 r	78197	wK0	8.2	7.6	60-	101	28	87	84S	266	309	263	-6.2	-0.7	+0.3	+1.6	.485	173.8		6	18	22.3	23	48	58	391.1	926.0
78197 is double: AB 8.3 14.9 17.6" 149.7, dT = +16sec																													
Oct	9 1 8 58.6	R	78258	cG0	8.2	7.9	59-	101	40	102	81N	281	322	277	-6.4	-0.9	+0.9	+1.2	.415	159.2		6	20	59.5	23	59	15	389.8	839.7
78258 is double: 7.0 9.3 350.0, dT = 0.00sec																													
Oct	9 1 23 5.9	R	972	K0	7.3	6.6	59-	101	42	105	38S	220	261	216	-6.4	-0.9	+0.3	+2.9	.332	-139.5		6	21	49.2	23	45	38	389.6	825.6
Oct	9 2 20 20.1	r	78304	pF5	9.0	8.7	59-	100	50	119	67N	295	331	291	-6.5	-1.0	+1.5	+0.3	.341	146.3		6	23	16.2	24	7	46	388.7	774.0
*** A light curve is desired as 78304 is in the Kepler2 program {ID = 202073466}																													
78304 is double: ** 9.8 9.8 0.050" 350.0, dT = -0.08sec																													
78304 has been reported as non-instantaneous (OCc1310). Observations are highly desired																													
Oct	9 2 30 47.1	R	78312	A2	8.6	8.5	59-	100	51	122	89S	272	307	268	-6.5	-1.0	+1.2	+1.1	.400	169.9		6	23	28.5	24	2	20	388.6	765.7
Oct	9 2 46 17	d	78336	F8	7.7	7.4	59-	100	53	126	4N	359	32	355	-6.6	-1.0	+9.9	+9.9	.045	83.5		6	25	0.9	24	18	8	388.4	755.6
Oct	9 2 50 34	Gr	78336	F8	7.7	7.4	59-	100	54	** GRAZE: CA 10.1N; Dist. 13km in az. 338deg. [Lat = 52.12+0.25(E.Long-5.00)]																				
Oct	9 2 54 42	R	78336	F8	7.7	7.4	59-	100	54	129	17N	346	18	342	-6.6	-1.0	+9.9	+9.9	.045	96.5		6	25	0.9	24	18	8	388.3	749.7
Oct	9 3 23 32.2	r X	87620	8.9	8.1S	59-	100	57	140	75N	287	313	283	-6.7	-1.1	+1.6	+0.1	.355	156.0		6	25	2.5	24	9	11	388.0	732.1
X 87620 = NSV 2949, 10.3,																													
Oct	9 22 47 29	M	1092	F5	5.9	5.6	50-	90	11	65	11N	356	34	348	-6.8	-2.0	+9.9	+9.9	.000	90.0		7	12	26.4	24	7	43	387.9	1067.8
R1092 = 48 Geminorum																													
Oct	9 23 52	8.2 r	79190	A0	8.9	8.9	50-	90	21	77	60N	308	349	299	-6.8	-2.1	+0.5	+0.7	.395	138.5		7	14	12.8	24	1	9	386.7	989.7
Oct	10 0 2 32.8	r	79194	F5	8.7	8.5	50-	90	22	79	65N	303	344	294	-6.8	-2.1	+0.4	+0.8	.418	143.4		7	14	33.3	24	0	28	386.5	977.2
Oct	10 0 32 20.1	R	79214	G5	7.9	7.4	49-	89	26	84	76S	264	306	255	-6.8	-2.2	+0.2	+1.6	.502	-177.4		7	15	29.6	23	51	24	385.9	941.3
Oct	10 1 3 21.4	R	79236	F8	8.1	7.9	49-	89	31	90	78S	266	308	257	-6.8	-2.2	+0.4	+1.6	.484	-179.4		7	16	36.3	23	52	59	385.4	905.2
Oct	10 1 33 56.7	r	79251	cK0	8.7	8.2	49-	89	36	96	80N	288	331	279	-6.9	-2.3	+0.8	+1.0	.435	158.6		7	17	43.1	23	59	47	384.8	871.3
79251 is double: 6.4 9.5 350.0, dT = 0.00sec																													
Oct	10 1 38 43.1	R	79257	cF5	8.4		49-	89	36	97	60N	308	350	299	-6.9	-2.3	+1.1	+0.3	.349	138.7		7	18	4.0	24	4	39	384.7	866.4
79257 is double: AB 8.72 9.81 0.40" 165.4, dT = +0.9sec																													
79257 is a close double. Observations are highly desired																													
Oct	10 1 58 20.4	r	1107	A0	9.0	9.0	49-	89	39	101	50N	318	0	309	-6.9	-2.3	+1.3	-0.4	.285	128.9		7	18	51.5	24	7	6	384.4	846.1

day	Time	P	Star	Sp	Mag	Mag	%	Elon	Sun	Moon	CA	PA	VA	AA	Libration		A	B	RV	Cct	dur	R.A. (J2000)			Dec			Mdist	SV
m	d h m	s	No	D	v	r	V	ill	Alt	Alt	Az	o	o	o	o	L	B	m/o	m/o	"/s	o	sec	h	m	s	o	m	s	Mm	m/s
Oct	10 23 56	4.8 r	79997	K0	8.0	7.3	39-	78		12	69	66N	307	346	294	-6.9	-3.4	+0.1	+0.6	.466	144.9		8	10	54.7	22	43	43	381.7	1054.9
Oct	11 2 10	32 Gr	80065	F8	8.8	8.5	38-	77		32	** GRAZE: CA 9.7N; Dist. 93km in az. 337deg. [Lat = 52.92+0.27(E.Long-5.00)]																			
Oct	11 2 18	29.7 r	80065	F8	8.8	8.5	38-	77		33	95	27N	347	29	333	-7.0	-3.6	+1.9	-3.7	.141	106.9		8	16	58.3	22	45	45	379.0	889.2
Oct	13 2 12	30 m	98983	wK2	8.4	8.0	19-	51		11	78	10N	15	53	353	-5.8	-5.5	+9.9	+9.9	.000	90.0		10	10	39.7	16	2	15	369.0	1049.9
	98983 is double: AB 7.0 10.4 18.6" 302.1																													
Oct	13 2 15	48.3 R	98974	G5	8.6	8.1	19-	51		11	79	66N	319	358	297	-5.8	-5.5	+0.2	+0.2	.484	146.0		10	9	43.4	15	55	59	368.9	1044.7
Oct	13 2 50	45.8 R	98984	F0	8.0	7.8	18-	51		16	85	79S	283	323	261	-5.8	-5.6	+0.2	+1.2	.562	-177.4		10	10	42.9	15	42	16	368.2	1004.4
Oct	13 5 20	31.5 r	99030	F8	8.8	8.4	18-	50	-7	38	117	83N	302	336	280	-5.8	-5.7	+0.9	+0.2	.475	168.6		10	16	0.0	15	23	42	365.5	858.2
Oct	13 8 17	53.3 r	1514	A1	6.2	6.2s	17-	48	18	53	174	41N	344	348	322	-6.1	-5.6	+0.6	-2.6	.306	132.6		10	21	50.3	14	58	33	363.6	797.3
	R1514 = 42 Leonis																													
	1514 = NSV 4828, 6.09 to 6.17, V																													
Oct	14 4 23	18.0 R	99474	cF8	8.4		10-	37		18	97	44S	254	292	230	-4.3	-6.1	+0.3	+2.2	.442	-142.0		11	9	48.2	10	9	26	362.3	985.7
	99474 is double: AB 8.59 9.87 0.59" 302.4, dT = -0.9sec																													
	99474 is a close double. Observations are highly desired																													
Oct	20 17 44	23.8 D	2510	K0	6.2	5.6	21+	54	-11	7	215	85S	99	76	97	+6.3	+1.1	+1.1	-1.2	.465	-3.3		17	25	6.2	-24	14	37	368.4	831.4
Oct	20 18 21	22.4 D	2513	cA3	4.2	4.0	21+	55		3	223	75N	79	51	77	+6.3	+1.1	+0.8	-1.1	.464	15.5		17	26	22.2	-24	10	31	368.9	860.8
	R2513 = 44 Ophiuchi																													
	2513 is double: ** 5.1 5.1 0.10" 270.0, dT = -0.21sec																													
	2513 has been reported as non-instantaneous (OCc 64). Observations are highly desired																													
Oct	21 18 26	58.2 D	2672	wK1	2.8	2.3	31+	68		7	212	64N	62	41	67	+7.0	+2.7	+1.0	-0.7	.402	25.3	.01	18	27	58.2	-25	25	18	374.4	808.0
	R2672 = Kaus Borealis = lambda Sagittarii																													
	2672 is double: AB 2.9 9.9 82" 184.7, dT = -110sec																													
Oct	23 18 24	50 d	189244	F6	7.7	7.5	52+	92		14	187	12N	358	354	13	+7.3	+5.4	-0.6	+2.9	.089	76.9		20	24	19.6	-23	28	33	385.4	734.6
Oct	24 19 26	0.4 D	190252	F2	7.2	7.0	62+	104		17	189	79S	82	76	101	+6.8	+6.3	+1.6	-0.2	.375	-14.1		21	21	3.2	-20	49	16	390.6	732.8
Oct	26 20 4	4 m	3374	K3	6.1	5.4	80+	127		25	176	3S	150	152	173	+5.2	+7.4	+9.9	+9.9	.000	-90.0		22	59	35.7	-13	4	15	397.9	719.4
	Distance of 3374 to Terminator = 2.2"; to 3km sunlit peak = 0.0"																													
Oct	28 20 38	40.2 D	60	K2	6.9	6.1	93+	149		34	161	66N	33	45	56	+3.1	+7.2	+0.9	+1.7	.344	23.0		0	29	39.1	- 2	50	26	401.6	728.0

day	Time	P	Star	Sp	Mag	Mag	%	Elon	Sun	Moon	CA	PA	VA	AA	Libration		A	B	RV	Cct	dur	R.A. (J2000)			Dec			Mdist	SV
m	d h m	s	No	D	v	r	V	ill	Alt	Alt	Az	o	o	o	o	L	B	m/o	m/o	"/s	o	sec	h	m	s	o	m	s	Mm	m/s
Oct 28	21 35	24.3 d	128803	cK2	8.6	7.8	93+	150	35	178	47S	100	101	123	+2.9	+7.2	+2.2	-0.3	.264	-44.5	0	31	15.2	-	2	53	43	401.5	721.4
128803 is double: ** 8.9 10.0 0.35" 64.0, dT = +1.1sec																													
128803 has been reported as non-instantaneous (OCc1028). Observations are highly desired																													
Oct 29	23 25	21.5 D	188	F0	7.6	7.4	97+	161	39	200	75N	37	25	59	+1.4	+6.5	+1.0	+1.1	.352	19.2	1	16	36.0	2	44	6		402.1	727.1
Oct 30	1 55	6.4 d	109805	K0	7.5	6.9	98+	162	25	241	42N	5	332	26	+1.0	+6.4	+0.3	+2.4	.229	56.4	1	19	24.3	3	17	23		403.5	809.1
Oct 31	0 36	22.7 D	298	cF2	7.1	6.8	99+	172	42	212	87N	35	15	54	+0.0	+5.6	+1.0	+1.2	.339	24.9	2	1	52.5	7	51	52		402.1	729.1
298 is double: ** 8.0 8.0 0.10" 90.0, dT = +0.17sec																													
298 has been reported as non-instantaneous (OCc1172). Observations are highly desired																													
Distance of 298 to Terminator = 9.4"; to 3km sunlit peak = 1.6"																													
Oct 31	2 2	45.3 d	110316	F5	7.2	6.9	100+	172	33	236	78S	48	17	67	-0.2	+5.6	+0.9	+0.1	.383	14.5	2	4	0.1	8	5	42		402.9	773.8
Distance of 110316 to Terminator = 8.0"; to 3km sunlit peak = 0.8"																													
Oct 31	3 22	46.3 d	308	M4	6.3	5.4v	100+	173	23	254	53S	71	35	90	-0.4	+5.5	+0.6	-1.0	.427	-5.8	2	6	12.3	8	14	53		403.9	840.7
R308 = WZ Piscium																													
308 = WZ Psc, 6.2 to 6.38, V, Type SR, Period 20. days, Phase 52%																													
Distance of 308 to Terminator = 4.8"; to 3km sunlit peak = 0.0"																													
Nov	1 22	34 10.1 r	93452	pF0	8.3	8.1	98-	165	48	138	45N	312	337	324	-2.0	+3.6	+3.2	-1.8	.138	110.8	3	29	19.6	16	11	54		400.1	754.3
*** A light curve is desired as 93452 is in the Kepler2 program {ID = 210548838}																													
93452 is double: ** 9.3 9.3 0.060" 311.0, dT = -0.44sec																													
93452 has been reported as non-instantaneous (OCc 937). Observations are highly desired																													
Distance of 93452 to Terminator = 15.9"; to 3km sunlit peak = 5.8"																													
Nov	2 1 17	24.6 R	93484	pF5	7.0	6.8	98-	164	53	201	58N	298	285	310	-2.5	+3.4	+2.2	-2.3	.224	127.9	3	32	57.5	16	35	54		399.6	707.1
*** A light curve is desired as 93484 is in the Kepler2 program {ID = 210575096}																													
93484 is quadruple: Aa,Ab 7.0 10.5 350.0, dT = 0.00sec : AB 7.1 16.9 467" 91.4, dT = +1864sec : AB 7.1 16.9 467" 91.4, dT = +1864sec																													
Nov	2 20 11	8.5 r	93825	F0	8.1	8.0v	95-	155	25	91	27S	202	242	210	-2.8	+2.6	-0.3	+2.6	.327	-133.2	4	14	15.0	18	53	38		400.7	928.3
93825 = HIP 19763, 8.135, range 0.01, 7w, Type VAR, Period 0.3589 days, Phase 56%																													
Distance of 93825 to Terminator = 19.7"; to 3km sunlit peak = 7.9"																													
Nov	2 20 44	37.1 r	93834	K0	8.3	7.8	95-	155	30	97	23S	197	238	206	-2.9	+2.5	-0.3	+2.8	.292	-129.6	4	15	20.9	18	59	10		400.2	891.3
Distance of 93834 to Terminator = 14.8"; to 3km sunlit peak = 4.6"																													

day	Time	P	Star	Sp	Mag	Mag	%	Elon	Sun	Moon	CA	PA	VA	AA	Libration		A	B	RV	Cct	dur	R.A. (J2000)			Dec			Mdist	SV
m	d h m	s	No	D	v	r	V	ill	Alt	Alt	Az	o	o	o	o	L	B	m/o	m/o	"/s	o	sec	h	m	s	o	m	s	Mm	m/s
Nov	2 21 48	42 m	93840	cF5	7.2			95-	155	40	111	17N	337	15	345	-3.0	+2.4	+9.9	+9.9	.000	90.0		4	17	1.2	19	40	33	399.2	826.0
93840 is double: AB 7.38 9.06 0.37" 354.0																													
93840 is a close double. Observations are highly desired																													
Distance of 93840 to Terminator = 9.2"; to 3km sunlit peak = 1.1"																													
Nov	2 22 32	11.4 R	93844	K0	7.6	6.9		95-	154	46	122	76N	278	312	286	-3.1	+2.3	+1.4	+1.0	.348	148.8		4	17	38.2	19	33	39	398.7	786.0
Nov	2 23 36	13.9 r	93862	F5	8.5	8.2		95-	154	53	141	76N	278	302	286	-3.3	+2.2	+1.7	+0.6	.331	149.7		4	19	16.7	19	43	28	398.0	739.9
Nov	3 3 23	9.2 r	93917	F	9.0	8.8		94-	153	50	230	73S	247	216	254	-4.0	+1.9	+1.3	-0.2	.374	-171.7		4	24	57.7	20	3	24	397.9	729.5
Nov	3 19 37	10.4 R	752	cA7	4.6	4.5		91-	145	15	74	52S	228	268	232	-3.9	+1.2	-0.4	+1.9	.474	-154.2		5	3	5.7	21	35	24	399.6	1021.6
R752 = iota Tauri																													
752 is double: ** 5.4 5.4 0.10" 0.0																													
752 has been reported as non-instantaneous (OCc 230). Observations are highly desired																													
Nov	3 20 9	31.0 r	76940	pB3	8.0			91-	144	20	80	43S	219	260	223	-3.9	+1.2	-0.3	+2.2	.421	-146.0		5	4	22.1	21	38	37	399.0	984.2
*** A light curve is desired as 76940 is in the Kepler2 program {ID = 247430338}																													
76940 is triple: AB 8.69 8.86 0.20" 302.5, dT = -0.05sec : AC 8.7 13.7 1.1" 217.9, dT = -2.5sec																													
76940 is a close double. Observations are highly desired																													
Nov	3 22 53	43.2 R	76997	A2	7.8	7.6		90-	143	44	113	24S	200	238	203	-4.2	+0.9	+0.0	+3.4	.258	-128.1		5	9	52.7	21	59	16	396.4	805.3
Nov	3 23 23	18.4 R	77003	cA0	7.6			90-	143	48	120	57S	234	269	237	-4.3	+0.8	+0.8	+2.2	.384	-161.3		5	10	12.9	22	8	12	396.0	778.8
77003 is double: AB 7.90 9.09 0.10" 328.8, dT = +0.02sec																													
77003 is a close double. Observations are highly desired																													
Nov	3 23 49	28.5 R	77022	F2	8.1	7.7		90-	143	51	128	32S	208	240	211	-4.4	+0.8	+0.5	+3.2	.281	-135.4		5	11	17.9	22	7	1	395.7	758.4
Nov	4 0 12	5.2 R	77024	B8	8.1	8.0		90-	143	54	135	89S	266	294	269	-4.4	+0.7	+1.4	+1.1	.378	167.6		5	11	20.1	22	21	46	395.5	742.6
Nov	4 2 4	5.2 r	77045	G5	8.4	7.8		89-	142	61	182	65N	292	290	294	-4.8	+0.6	+1.8	-1.1	.300	145.2		5	14	19.0	22	39	36	394.9	700.3
Nov	4 4 4	33.5 r	77083	DF5	8.7	8.4		89-	141	53	230	57N	300	268	302	-5.1	+0.5	+1.3	-2.4	.302	142.6		5	17	32.4	22	49	45	395.2	728.9
77083 is double: AB 9.16 11.07 2.40" 190.6, dT = +2.6sec																													
77083 is a close double. Observations are highly desired																													
Nov	4 21 5	43.5 r	77792	M0	7.9	7.0s		84-	133	22	79	85N	275	316	273	-5.0	-0.4	+0.2	+1.4	.486	163.3		5	58	38.2	23	39	58	395.6	973.9
77792 = NSV 2745, 7.76 to 7.88, V																													
Nov	4 22 27	1.3 R	77851	A0	7.4	7.3v		84-	132	34	94	71S	252	294	250	-5.1	-0.5	+0.4	+1.9	.457	-173.7		6	1	29.2	23	42	14	394.3	879.2
77851 = HD 40678, 7.37 to 7.39, V, Type ACV, Period 22.029 days, Phase 17%																													

day	Time	P	Star	Sp	Mag	Mag	%	Elon	Sun	Moon	CA	PA	VA	AA	Libration		A	B	RV	Cct	dur	R.A. (J2000)			Dec			Mdist	SV
m	d h	m	s	No	D	v	r	V	ill	Alt	Alt	Az	o	o	o	o	L	B	m/o	m/o	"/s	o	sec	h	m	s	o	m	s	Mm	m/s
Nov	4 22	29	18.7	r	77852	A0	8.2	8.2	V	84-	132	34	95	79S	259	301	257	-5.1	-0.5	+0.5	+1.8	.458	178.9	6	1	31.5	23	44	19	394.2	876.7
77852 = HD 40696, 8.24, , Type ACV, Period 0.9828 days, Phase 55%																														
Nov	5 2	2	41.4	R	78010	A0	8.2	8.2		83-	131	61	157	38S	218	233	216	-5.6	-0.9	+1.2	+2.9	.268	-135.8	6	8	11.0	23	51	40	391.8	710.9
Nov	5 2	11	36	m	78031	B2	8.2	8.2		83-	131	62	161	8N	353	6	350	-5.7	-0.9	+9.9	+9.9	.000	90.0	6	8	56.5	24	21	36	391.7	708.5
Distance of 78031 to Terminator = 11.2"; to 3km sunlit peak = 0.5"																														
Nov	5 2	37	41.3	r	X 8417	wK5	8.6	7.9		83-	131	62	173	46N	314	319	312	-5.7	-0.9	+1.9	-2.4	.235	129.4	6	9	0.9	24	15	56	391.6	703.2
X 8417 is double: AB 8.7 12.7 10.5" 135.3, dT = +45sec																														
Nov	5 2	58	49.4	r	X 8438	dB8	8.8	8.8		82-	130	62	184	56N	304	302	301	-5.8	-0.9	+1.7	-1.8	.285	140.6	6	9	27.4	24	14	37	391.6	701.8
X 8438 is double: AB 12.8 13.7 9.4" 297.1, dT = -33sec																														
X 8438 is a close double. Observations are highly desired																														
Nov	5 3	15	24.4	r	X 8450	A2	8.7	8.7	V	82-	130	62	192	83N	278	270	275	-5.9	-0.9	+1.6	-0.5	.361	167.4	6	9	43.4	24	8	43	391.5	702.4
X 8450 = HD 42066, 8.67, , Type ACV, Period 2.1025 days, Phase 68%																														
Nov	5 3	15	54.8	R	78051	A2	7.6	7.5		82-	130	62	192	66N	294	286	292	-5.9	-0.9	+1.7	-1.3	.324	151.0	6	9	49.5	24	12	55	391.5	702.5
Nov	5 3	44	30	M	936	cK0	5.8	5.3		82-	130	61	204	4N	357	341	354	-5.9	-1.0	+9.9	+9.9	.000	90.0	6	11	32.3	24	25	13	391.5	707.3
R936 = 5 Geminorum																														
936 is double: ** 6.7 6.7 0.050" 350.0																														
936 has been reported as non-instantaneous (OCc1300). Observations are highly desired																														
Distance of 936 to Terminator = 2.9"; to 3km sunlit peak = 0.0"																														
Nov	5 5	42	25.3	R	78122	W	7.9	7.5		82-	130	-10	48	245	44S	225	187	222	-6.3	-1.0	+1.5	+0.7	.282	-134.0	6	14	9.2	23	57	17	392.1	772.4
78122 is double: BA 7.9 7.6 114" 358.0, dT = +275sec																														
Nov	5 5	46	14.6	R	78121	WF0	7.5	7.3	v	82-	130	-9	47	246	54S	235	197	232	-6.3	-1.0	+1.4	+0.1	.327	-143.4	6	14	8.9	23	59	11	392.1	775.7
78121 is double: AB 7.6 7.9 114" 178.0, dT = -191sec																														
78121 = PV Gem, 7.58 to 7.64, Hp, Type DSCTC, Period 0.188065 days, Phase 74%																														
Nov	5 6	56	27.9	r	954	cG8	6.1	5.6		82-	129	1	37	262	54S	236	194	232	-6.4	-1.0	+1.0	-0.4	.352	-142.6	6	16	19.0	23	58	12	392.8	843.4
R954 = 8 Geminorum																														
954 is double: ** 6.9 6.9 0.10" 90.0, dT = +0.23sec																														
954 has been reported as non-instantaneous (OCc 288). Observations are highly desired																														
Nov	5 21	49	17.4	R	1052	KF8	6.8	6.5		76-	121	21	77	82N	283	324	276	-5.8	-1.9	+0.2	+1.3	.488	161.3	6	54	42.8	24	14	44	391.9	980.3
*** A light curve is highly desired as 1052 is in the Kepler2 program {ID = 202061312}																														

day	Time	P	Star	Sp	Mag	Mag	%	Elon	Sun	Moon	CA	PA	VA	AA	Libration		A	B	RV	Cct	dur	R.A. (J2000)			Dec			Mdist	SV
m	d h m s		No	D	v	r	V	ill	Alt	Alt	Az	o	o	o	o	L	B	m/o	m/o	"/s	o	sec	h	m	s	o	m	s	Mm	m/s
Nov	5 22 3 38.0	r	78870	B2	7.8	7.9	S	76-	121	23	80	35S	220	262	213	-5.8	-1.9	-0.4	+2.6	.365	-136.1		6	55	37.2	24	0	29	391.7	963.3
78870 = NSV 17230, 7.77, , Type VAR:																													
Nov	5 22 34 47.2	r	78887	K0	8.8	8.1		75-	121	28	86	70S	255	298	248	-5.9	-2.0	+0.2	+1.8	.483	-171.4		6	56	23.0	24	9	58	391.1	925.8
Nov	5 22 46 38.4	r	78894	wK0	8.7	8.2		75-	121	30	88	82N	283	326	276	-5.9	-2.0	+0.5	+1.2	.455	161.0		6	56	47.6	24	17	51	390.9	912.0
78894 is double: AB 8.8 13.1 13.3" 291.3, dT = -29sec																													
Nov	6 0 33 2.8	d	1070	G5	5.2	4.7	v	75-	120	45	109	-72S	113	153	106	-6.1	-2.2	+1.2	+0.6	.376	-27.7		7	2	24.8	24	12	56	389.2	801.6
R1070 = omega Geminorum																													
1070 = ome Gem, 5.18 to 5.20, V, Type L:																													
Nov	6 0 45 30.0	R	78967	A2	8.1	8.0		75-	120	47	113	57N	308	347	300	-6.1	-2.2	+1.5	-0.2	.309	137.8		7	0	52.9	24	28	51	389.0	788.8
Nov	6 1 30 15.6	R	78989	A0	8.5	8.5		75-	119	53	125	86S	271	304	263	-6.2	-2.2	+1.3	+1.0	.399	176.2		7	1	58.8	24	20	47	388.5	754.0
Nov	6 1 39 46.1	R	1070	G5	5.2	4.7	v	75-	119	54	129	54S	240	272	232	-6.2	-2.2	+1.1	+2.1	.351	-152.2		7	2	24.8	24	12	56	388.4	747.9
R1070 = omega Geminorum																													
1070 = ome Gem, 5.18 to 5.20, V, Type L:																													
Nov	6 1 44 33	Gr	79013	K2	8.8	8.3		75-	119	55	** GRAZE: CA 7.7N; Dist. 52km in az. 344deg. [Lat = 52.48+0.17(E.Long-5.00)]																			
Nov	6 1 49 23.0	r X	10317	K0	8.9	8.4		74-	119	55	131	58N	308	339	300	-6.3	-2.3	+1.6	-0.8	.301	139.9		7	2	46.3	24	30	18	388.3	742.1
Nov	6 1 52 41	r	79013	K2	8.8	8.3		74-	119	56	132	21N	345	15	337	-6.3	-2.3	+2.8	-8.0	.089	103.1		7	3	27.7	24	35	47	388.3	740.6
Nov	6 2 30 34.8	r	79020	F8	8.8	8.5		74-	119	59	147	90N	276	297	268	-6.4	-2.3	+1.5	+0.4	.381	173.7		7	3	42.8	24	22	47	387.9	722.1
Nov	6 2 36 10.4	r	79028	dA0	8.5	8.5		74-	119	60	149	56S	241	262	233	-6.4	-2.3	+1.4	+1.8	.337	-151.6		7	4	0.2	24	13	52	387.9	720.2
79028 is double: AB 8.5 14.8 5.1" 177.1, dT = -7sec																													
79028 is a close double. Observations are highly desired																													
Nov	6 4 30 49.9	R	1080	wM1	6.7	5.9	s	74-	118	61	202	46S	232	217	224	-6.7	-2.4	+1.8	+1.5	.280	-137.2		7	7	16.9	24	10	6	387.5	716.7
1080 is double: AB 6.9 12.8 39" 8.9, dT = +102sec																													
1080 = NSV 17340, 6.78 to 6.86, Hp, Type SRB																													
Nov	6 4 55 0.4	r	79087	K0	8.8	8.3		74-	118	60	212	68N	298	276	289	-6.8	-2.4	+1.3	-1.7	.358	158.2		7	7	50.6	24	25	53	387.5	725.3
Nov	6 6 24 7.0	d	1092	F5	5.9	5.6		73-	118	-4	50	242	-71S	116	79	107	-7.0	-2.4	+0.9	-2.0	.397	-17.0		7	12	26.4	24	7	43	387.9	780.6
R1092 = 48 Geminorum																													
Nov	6 6 25 18.6	R	79133	F5	7.9	7.7		73-	118	-3	49	242	53S	240	203	231	-7.0	-2.4	+1.5	-0.1	.324	-141.1		7	10	29.6	24	6	29	387.9	782.5
Nov	6 7 32 30.4	r	1092	F5	5.9	5.6		73-	117	6	40	259	76S	263	221	254	-7.1	-2.4	+0.8	-1.3	.430	-163.2		7	12	26.4	24	7	43	388.4	846.1
R1092 = 48 Geminorum																													

day	Time	P	Star	Sp	Mag	Mag	%	Elon	Sun	Moon	CA	PA	VA	AA	Libration		A	B	RV	Cct	durn	R.A. (J2000)			Dec			Mdist	SV
m	d h m s		No	D	v	r	V	ill	Alt	Alt	Az	o	o	o	o	L	B	m/o	m/o	"/s	o	sec	h	m	s	o	m	s	Mm	m/s
Nov	6 23 37 52.6	r	79781	K2	8.8	8.2		66-	108	29	88	74N	296	338	284	-6.5	-3.4	+0.6	+0.9	.440	154.7		7	54	14.3	23	30	14	386.4	912.6
Nov	6 23 59 57	M	79804	cG0	7.4			66-	108	32	92	9N	1	44	349	-6.5	-3.4	+9.9	+9.9	.000	90.0		7	56	2.8	23	41	33	386.0	888.7
79804 is double: AB 7.90 8.57 0.16" 54.0																													
79804 is a close double. Observations are highly desired																													
Nov	7 0 4 40	Gr	1195	B8	6.8	6.9		66-	108	33	** GRAZE: CA 8.9N; Dist.191km in az. 334deg. [Lat = 53.92+0.30(E.Long-5.00)]																			
Nov	7 0 15 8.6	R	1195	B8	6.8	6.9		66-	108	34	95	33N	337	20	325	-6.5	-3.4	+1.6	-2.0	.189	113.9		7	56	6.5	23	37	26	385.7	871.4
Nov	7 2 24 48.0	R	1200	K0	6.9	6.4		65-	107	52	127	43S	234	267	221	-6.8	-3.6	+1.1	+2.7	.306	-138.7		7	59	42.6	23	10	58	383.9	758.1
Nov	7 2 34 39	Gr	1208	DK1	6.4			65-	107	54	** GRAZE: CA 5.1N; Dist. 36km in az. 353deg. [Lat = 52.33+0.08(E.Long-5.00)]																			
Nov	7 2 41 41	R	1208	DK1	6.4			65-	107	54	132	16N	355	25	342	-6.8	-3.6	+9.9	+9.9	.078	101.1		8	1	0.8	23	34	59	383.7	749.0
1208 is double: AB 6.48 9.95 1.97" 325.6, dT = -22sec																													
1208 is a close double. Observations are highly desired																													
Nov	7 4 47 59.8	r	79906	K2	8.7	8.1		64-	106	61	185	49N	322	319	309	-7.1	-3.7	+1.2	-2.4	.295	139.2		8	3	58.9	23	24	21	382.8	724.8
Nov	7 6 19 43	m	79951	G5	7.8	7.2		64-	106	-4	55	223	3S	194	167	181	-7.4	-3.7	+9.9	+9.9	.000	-90.0		8	6	56.2	22	46	31	382.9	760.8
Distance of 79951 to Terminator = 13.4"; to 3km sunlit peak = 0.0"																													
Nov	8 0 23 12.8	r	1325	pG0	8.6			55-	96	26	88	55S	251	292	234	-6.7	-4.6	+0.2	+2.1	.447	-153.2		8	51	22.6	21	4	49	381.5	925.7
*** A light curve is desired as 1325 is in the Kepler2 program {ID = 212048998}																													
1325 is double: AB 9.49 9.01 0.40" 335.8, dT = -0.08sec																													
1325 is a close double. Observations are highly desired																													
Nov	8 3 38 56	Gr	1342	KG5	7.6	7.3		54-	95	53	** GRAZE: CA 2.1N; Dist. 34km in az. 184deg. [Lat = 51.70-0.04(E.Long-5.00)]																			
Nov	8 3 39 3	m	1342	KG5	7.6	7.3		54-	95	53	135	2N	14	42	357	-7.0	-4.7	+9.9	+9.9	.000	90.0		8	58	55.7	21	9	59	378.4	760.8
*** A light curve is highly desired as 1342 is in the Kepler2 program {ID = 212053807}																													
Nov	8 3 48 11.8	R	80537	kF8	8.7	8.4		54-	95	53	139	60S	256	282	239	-7.0	-4.7	+1.5	+1.4	.364	-152.0		8	57	49.3	20	49	41	378.4	756.3
*** A light curve is desired as 80537 is in the Kepler2 program {ID = 212034471}																													
Nov	8 5 24 11.9	R	80571	K2	8.7	8.1		54-	94	59	177	82S	279	281	261	-7.2	-4.8	+1.5	-0.3	.400	-170.6		9	0	28.5	20	44	53	377.7	742.8
Nov	9 0 13 56.9	r	98751	G5	8.3	7.7		45-	84	14	79	79N	301	341	281	-6.4	-5.4	+0.2	+0.7	.522	161.4		9	46	1.1	17	53	21	377.2	1008.3
Nov	9 2 16 12.6	r	98802	F6	8.8	8.6		44-	83	32	103	50N	331	10	310	-6.5	-5.6	+0.9	-0.8	.341	135.1		9	50	42.3	17	44	0	374.9	875.3
Nov	9 3 2 39.6	R	98813	SF8	8.4	8.1		43-	83	39	113	86S	287	323	266	-6.6	-5.6	+1.0	+0.8	.460	-179.3		9	51	39.1	17	28	33	374.2	834.2
98813 is quadruple: AB 8.4 12.9 55" 302.5, dT = -116sec : AC 8.4 14.2 93" 296.7, dT = -198sec : AD 8.4 13.5 104" 299.8, dT = -221sec																													
Nov	10 2 55 4	Gr	99287	pK0	8.4	7.9		33-	70	27	** GRAZE: CA 3.2N; Dist.143km in az. 358deg. [Lat = 53.29+0.02(E.Long-5.00)]																			

day	Time	P	Star	Sp	Mag	Mag	%	Elon	Sun	Moon	CA	PA	VA	AA	Libration		A	B	RV	Cct	durn	R.A. (J2000)			Dec			Mdist	SV
m	d h m s		No	D	v	r	V	ill	Alt	Alt	Az	o	o	o	o	L	B	m/o	m/o	"/s	o	sec	h	m	s	o	m	s	Mm	m/s
Nov	10 3 5 49.3	R	99287	pK0	8.4	7.9		33-	70	28	105	25N	359	37	336	-5.8	-6.1	+0.7	-3.7	.190	112.2		10	47	0.2	13	1	47	369.6	899.9
*** A light curve is desired as 99287 is in the Kepler2 program {ID = 248892906}																													
99287 is double: AB 8.5 9.5 43" 36.9, dT = -180sec																													
Nov	10 3 18 27.2	R	1569	kA2	6.9	6.8V		33-	70	30	10 9	71S	276	312	253	-5.8	-6.1	+0.7	+1.3	.476	-163.9		10	46	19.3	12	44	52	369.3	887.7
*** A light curve is desired as 1569 is in the Kepler2 program {ID = 248882918}																													
1569 = HD 93273, 6.903, , Type VAR																													
Nov	10 5 50 51.6	R	99317	kK0	8.1	7.6		32-	68	-9	47 150	74S	278	296	255	-6.0	-6.1	+1.4	+0.4	.423	-160.7		10	50	45.6	12	16	3	367.3	798.0
*** A light curve is desired as 99317 is in the Kepler2 program {ID = 248864364}																													
Nov	11 2 45 50.0	R	118969	K0	8.9	8.3		22-	57	13	95	71S	278	316	254	-4.6	-6.3	+0.3	+1.3	.541	-164.5		11	38	46.7	7	23	45	365.9	997.0
Nov	11 5 22 8	Gr	119030	K0	7.1	6.6		22-	55	36	** GRAZE: CA -1.8N; Dist.174km in az. 200deg. [Lat = 50.33-0.23(E.Long-5.00)]																				
Distance of 119030 to Terminator = 19.5"; to 3km sunlit peak = 0.0"																													
Nov	11 5 32 20.2	D	1702	M0	4.0	3.3v		21-	55	35	132	-70S	137	165	114	-4.7	-6.2	+0.8	-0.4	.462	-18.3	.01	11	45	51.6	6	31	46	363.1	856.9
R1702 = nu Virginis																													
1702 = nu. Vir, 4.1 to 4.16, Hp, Type SRB																													
Nov	11 5 38 29	Gr	119034	F2	7.7	7.4		21-	55	-12	37	** GRAZE: CA -2.1N; Dist. 22km in az. 22deg. [Lat = 52.22-0.25(E.Long-5.00)]																			
Distance of 119034 to Terminator = 14.4"; to 3km sunlit peak = 0.0"																													
Nov	11 5 43 31	R	119034	F2	7.7	7.4		21-	55	-11	37 135	6N	20	47	357	-4.7	-6.2	+9.9	+9.9	.073	98.8		11	45	48.8	6	56	33	363.0	849.5
Nov	11 6 38 9.6	R	1702	M0	4.0	3.3v		21-	55	-3	41 151	76S	282	300	259	-4.8	-6.1	+1.3	+0.3	.446	-161.8	.01	11	45	51.6	6	31	46	362.4	825.7
R1702 = nu Virginis																													
1702 = nu. Vir, 4.1 to 4.16, Hp, Type SRB																													
Nov	12 4 37 34.6	R	119493	G0	9.0	8.6		13-	42	17	111	76N	312	347	289	-3.1	-5.9	+0.4	+0.2	.534	165.6		12	36	21.9	1	2	42	360.7	964.9
Nov	13 5 59 58.2	r	139409	kF0	9.0	8.8		6-	27	-9	15 121	89S	298	330	277	-1.2	-5.0	+0.5	+0.6	.554	-178.3		13	33	30.2	- 5	39	41	357.6	961.4
*** A light curve is desired as 139409 is in the Kepler2 program {ID = 212796092}																													