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
y 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
20 Mar 1	17 6 23.1	d	93615	cF5	7.2	7.0	39+	77	1	55 187	72N	60	56	71	-6.5	+4.5	+1.4	+0.9	.370	7.5	3 48 56.2	16 27 34	392.3	710.7
93615 is double: AB 7.3 14.8 171.0, dT = 0.00sec																								
20 Mar 1	20 23 26.8	D	93654	K0	8.3	7.7	40+	78	36	250	54N	42	5	53	-7.1	+4.4	+1.0	+0.3	.352	32.5	3 53 45.7	16 55 51	393.1	796.8
20 Mar 1	20 45 46.0	D	581	dG0	6.8	6.4	40+	78	33	254	37S	132	93	143	-7.1	+4.3	+0.6	-3.9	.239	-56.2	3 54 28.0	16 36 58	393.4	817.6
581 is double: AB 6.9 11.1 3.6" 236.8, dT = -4sec, 581 is a close double.																								
Observations are highly desired																								
20 Mar 1	21 8 21.8	d	93671	K2	9.0	8.5	40+	79	30	260	58N	46	7	57	-7.1	+4.3	+0.8	-0.1	.380	30.2	3 55 6.5	16 59 55	393.6	839.8
20 Mar 1	22 55 59.1	d	93701	F8	8.3	8.0	41+	79	14	280	73N	62	23	73	-7.3	+4.3	+0.2	-0.8	.481	16.7	3 58 44.0	17 7 9	394.9	961.7
20 Mar 1	23 56 34.7	D	590	A0	6.3	6.3	41+	80	5	291	49N	38	1	48	-7.3	+4.3	+0.1	-0.1	.402	41.8	4 0 36.9	17 17 48	395.6	1034.5
20 Mar 2	23 0 4.6	d	94154	K0	8.5	7.9	51+	91	23	274	70S	103	62	109	-8.0	+3.1	+0.2	-1.9	.461	-19.8	4 50 15.3	19 55 24	388.9	925.1
20 Mar 3	18 25 4.8	D	X 75822	D	7.0	6.8	59+	101	-10	60 178	62N	59	61	60	-7.7	+1.8	+1.4	+1.2	.368	20.6	5 36 26.1	21 59 35	381.2	727.0
X 75822 is double: BA 7.5 7.1 4.2" 96.1, dT = +9sec, X 75822 is a close double.																								
Observations are highly desired																								
20 Mar 3	18 25 10.1	D	843	DF8	7.0		59+	101	-10	60 178	62N	59	61	60	-7.7	+1.8	+1.4	+1.2	.368	20.5	5 36 26.3	21 59 35	381.2	727.0
843 is double: AB 7.09 7.47 4.16" 276.1, dT = -9sec, 843 is a close double.																								
Observations are highly desired																								
20 Mar 3	19 1 15.6	d	77324	B8	8.9	8.8	60+	101	60	194	36N	33	24	34	-7.8	+1.8	+1.4	+2.5	.264	47.9	5 37 5.4	22 7 1	381.1	726.9
20 Mar 3	19 21 9.2	D	77342	M0	8.6	7.8v	60+	101	59	203	83S	94	80	95	-7.9	+1.7	+1.6	-0.6	.386	-12.3	5 38 9.4	21 53 55	381.1	730.0
77342 = ASAS J053810+2153.9, 8.72, range 0.21, V, Type MISC, Period 1. days, Phase 87%																								
20 Mar 3	19 27 11.3	d	77344	A5	9.0	8.8	60+	101	58	205	73N	70	54	71	-7.9	+1.7	+1.5	+0.3	.387	12.2	5 38 15.6	22 0 48	381.1	731.4
20 Mar 3	20 21 6.7	D	851	cA1	6.4	6.4	60+	102	53	225	37S	141	113	142	-8.0	+1.7	+1.2	-3.9	.224	-56.6	5 39 27.1	21 45 47	381.1	752.1
*851 is double: ** 7.5 8.4 0.036" 283.5, dT = -0.13sec, 851 has been reported as non-instantaneous (OCc 41).*																								
Observations are highly desired																								

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
y 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
20 Mar	3 22 27 33.5	d	77460	K7	8.4	7.4	61+	102	37	259	54S	124	84	125	-8.3	+1.6	+0.4	-2.6	.373	-36.1		5	43	35.3	21	52	26	381.9	853.7
20 Mar	3 22 31 59.4	d	77469	B8	8.6	8.5	61+	102	36	260	72S	106	65	106	-8.3	+1.6	+0.6	-1.9	.442	-17.2		5	43	53.2	21	57	7	381.9	858.1
20 Mar	4 0 9 59.4	d	77553	cG0	8.1	7.8	61+	103	21	278	51S	128	87	127	-8.4	+1.6	-0.2	-2.4	.413	-37.9		5	47	10.2	21	52	32	382.9	971.0
77553 is double: AB 9.1 9.2 0.20" 227.8, dT = -0.08sec, 77553 is a close double.																													
Observations are highly desired																													
20 Mar	4 13 1 1.4	D	976	SM3	2.9	2.0v	68+	111	30	16	73	80S	102	142	98	-7.2	+0.8	+0.0	+1.2	.534	-20.2	.02	6	22	57.6	22	30	49	380.2	1050.4
R976 = Tejat = mu Geminorum, 976 is multiple: AD 3.1 11.9 57" 63.2, dT = +84sec : AE 3.1 13.1 77" 84.2, dT = +138sec : A,BC 3.1 11.3 106" 141.0, dT = +154sec : AF 3.1 12.1 140" 112.3, dT = +258sec, 976 = mu. Gem, 2.75 to 3.02, V, Type SR																													
20 Mar	4 13 54 22.5	R	976	SM3	2.9	2.0v	68+	111	26	24	83	-58S	241	282	237	-7.3	+0.7	+0.0	+2.0	.502	-159.7	.02	6	22	57.6	22	30	49	379.1	984.3
R976 = Tejat = mu Geminorum, 976 is multiple: AD 3.1 11.9 57" 63.2, dT = +114sec : AE 3.1 13.1 77" 84.2, dT = +141sec : A,BC 3.1 11.3 106" 141.0, dT = +36sec : AF 3.1 12.1 140" 112.3, dT = +174sec, 976 = mu. Gem, 2.75 to 3.02, V, Type SR																													
20 Mar	4 18 26 20.1	d	78505	G5	8.9	8.3	70+	113	-10	59	154	60N	63	80	58	-7.7	+0.3	+1.4	+1.5	.381	22.7		6	34	1.6	23	2	57	375.0	751.8
20 Mar	4 18 28 18.4	D	78493	K0	8.4	7.7	70+	113	-10	59	155	17N	20	37	15	-7.7	+0.3	+0.9	+5.2	.171	65.5		6	33	27.3	23	10	43	375.0	750.8
20 Mar	4 19 9 2.1	d	78516	A0	8.9	8.9	70+	113	61	173	14N	17	22	12	-7.8	+0.2	+1.2	+6.2	.139	70.1		6	34	36.2	23	12	2	374.7	742.5
20 Mar	4 19 58 29.4	D	1014	A0	7.0	7.1s	70+	114	61	195	55N	58	48	53	-7.9	+0.2	+1.6	+1.1	.350	31.3		6	36	42.4	23	5	53	374.6	744.9
1014 = NSV 16929, 6.94 to 6.99, Hp, Type VAR, Period 4.4149 days, Phase 64%																													
20 Mar	4 20 45 47.6	D	78561	K2	7.4	6.6	70+	114	57	215	29S	154	132	149	-8.0	+0.2	+1.0	-4.8	.189	-63.2		6	37	38.8	22	42	59	374.6	759.5
20 Mar	4 22 10 54.6	d	78627	K2	8.9	8.2	71+	115	48	242	79S	104	68	99	-8.2	+0.1	+1.0	-1.6	.440	-10.5		6	40	55.2	22	51	47	374.8	813.6
20 Mar	4 23 41 5.3	d X	9691	K8	8.6	7.8	71+	115	35	263	65S	120	78	114	-8.3	+0.1	+0.3	-2.2	.452	-24.1		6	43	51.8	22	44	22	375.5	901.9
20 Mar	5 0 6 38.1	D	1033	A2	6.8	6.7	72+	115	31	268	88N	93	51	87	-8.3	+0.1	+0.4	-1.5	.510	3.1		6	44	56.3	22	50	15	375.7	930.8
20 Mar	5 0 10 42.7	D	78702	K0	7.8	7.1	72+	116	30	269	82S	102	60	96	-8.3	+0.1	+0.3	-1.7	.510	-6.6		6	45	3.8	22	47	23	375.8	935.5
20 Mar	5 0 18 1.6	d	78689	K2	8.0	7.3	72+	116	29	270	14S	170	128	164	-8.3	+0.1	-1.3	-5.6	.141	-74.2		6	44	24.7	22	34	45	375.9	944.5
20 Mar	5 17 57 16.8	d	79494	K7	8.7	8.0	79+	126	-5	50	124	81S	108	142	98	-7.1	-1.3	+1.2	+0.4	.432	-17.2		7	33	2.6	22	33	22	369.4	810.2
20 Mar	5 18 10 40.0	d X	11277	WG5	8.9	8.6	79+	126	-7	52	128	15N	24	56	14	-7.1	-1.3	+0.6	+5.5	.174	67.1		7	32	50.6	22	53	4	369.2	800.9
X 11277 is double: BA 8.2 6.6 11.7" 359.0, dT = +61sec																													

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
y 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
20 Mar 5 18 11 44.0	D	1144	WF8	6.6	6.0		79+	126	-8	52	128	13N	22	54	12	-7.1	-1.3	+0.5	+6.0	.160	69.0	7	32	50.6	22	53	15	369.2	800.2
1144 is double: AB 6.6 8.2 11.7" 179.0, dT = -67sec																												
20 Mar 5 20 39 28.3	D	1152	cG5	7.0	6.4		80+	127		60	188	45S	145	140	134	-7.4	-1.4	+1.2	-2.7	.285	-48.2	7	37	40.2	22	20	24	368.1	765.0
*1152 is double: ** 7.7 7.7 0.10" 87.0, dT = +0.18sec, 1152 has been reported as non-instantaneous (OCc 260).*																												
Observations are highly desired																												
20 Mar 5 21 8 46.2	d	79573	M0	8.9	8.0		80+	127		59	201	43S	147	133	136	-7.5	-1.4	+1.1	-2.9	.285	-48.8	7	38	32.7	22	18	29	368.0	772.0
20 Mar 5 23 4 24	D	79615	cA2	7.6	7.5		81+	128		47	241	10S	181	145	169	-7.7	-1.4	-1.9	-9.6	.086	-79.5	7	41	34.6	22	7	3	368.3	840.6
*79615 is double: ** 8.5 8.5 0.10" 61.0, dT = -0.6sec, 79615 has been reported as non-instantaneous (OCc 786).*																												
Observations are highly desired																												
20 Mar 5 23 9 23.1	D	79628	F5	7.1	6.9		81+	128		47	242	65S	125	89	114	-7.7	-1.4	+0.7	-2.1	.432	-24.0	7	42	43.0	22	13	27	368.3	844.7
20 Mar 5 23 22 49.2	D	1167	K0	6.3	5.8		81+	128		45	246	71N	81	44	70	-7.7	-1.4	+1.1	-1.0	.450	20.1	7	43	22.2	22	23	58	368.3	856.5
20 Mar 6 0 9 4.8	D	79660	K0	7.6	6.8		81+	128		39	257	39N	50	10	39	-7.7	-1.4	+1.3	-0.1	.311	52.0	7	44	42.8	22	27	21	368.7	901.9
20 Mar 6 1 8 19.8	d	79689	K0	8.7	8.0		81+	129		30	268	86S	105	63	93	-7.8	-1.4	+0.3	-1.7	.539	-2.6	7	47	7.7	22	6	22	369.3	967.2
20 Mar 6 1 53 42.3	d	79707	A0	8.2	8.2		82+	129		23	277	59S	132	90	120	-7.8	-1.4	-0.2	-2.1	.494	-29.8	7	48	38.5	21	54	29	369.8	1020.8
20 Mar 6 18 45 48.8	d	80273	F8	8.9	8.7		88+	139		47	122	72N	89	123	73	-6.1	-2.8	+1.1	+1.1	.465	10.2	8	35	43.9	20	50	48	363.4	832.9
20 Mar 6 18 49 32	d	80264	K0	8.8	8.2		88+	139		48	124	19S	177	211	162	-6.1	-2.8	+1.7	-8.7	.094	-78.5	8	34	43.9	20	33	41	363.4	829.8
20 Mar 6 18 57 12.9	d	80269	kF0	8.4	8.3		88+	139		49	126	35S	162	195	147	-6.2	-2.8	+1.3	-3.1	.211	-63.2	8	35	17.8	20	33	53	363.3	825.0
**** A light curve is desired as 80269 is in the Kepler2 program {ID = 212018672}*																												
20 Mar 6 20 0 37.2	D	80294	kF8	8.0	7.7		88+	140		55	147	40S	157	178	141	-6.3	-2.9	+1.2	-2.7	.257	-55.4	8	37	26.4	20	29	14	362.6	795.6
**** A light curve is desired as 80294 is in the Kepler2 program {ID = 212014014}*																												
20 Mar 6 20 34 51.9	d	80320	kG8	8.6	8.1		88+	140		58	160	49N	66	79	50	-6.3	-2.9	+1.6	+1.4	.360	36.6	8	39	7.9	20	47	50	362.3	788.3
**** A light curve is desired as 80320 is in the Kepler2 program {ID = 212032555}*																												
20 Mar 6 21 42 2.7	D	1304	pA0	6.8			89+	141		58	189	89S	109	103	93	-6.4	-2.9	+1.4	-0.8	.450	-3.6	8	41	15.3	20	28	37	362.0	791.9
**** A light curve is desired as 1304 is in the Kepler2 program {ID = 212013422}, 1304 is double: AB 7.10 8.08 0.29" 72.2, dT = +0.5sec*																												
1304 is a close double. Observations are highly desired																												

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
y 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
20 Mar	6 21 57	13.3	d	80349	kF0	8.5	8.4	v	89+	141		58	196	30S	167	157	151	-6.4	-2.9	+0.5	-4.2	.215	-61.7		8	40	52.5	20	15	59	362.0	795.9
*** A light curve is desired as 80349 is in the Kepler2 program {ID = 212000770}																														
80349 = BW Cnc, 8.48, range 0.01, V, Type DSCTC, Period 0.072 days																														
20 Mar	6 22 55	19.4	d	80379	kM4	8.8	8.0	v	89+	141		54	218	29N	46	22	30	-6.5	-2.9	+2.2	+1.6	.228	60.8		8	43	17.2	20	36	1	362.0	821.8
*** A light curve is desired as 80379 is in the Kepler2 program {ID = 212020817}																														
80379 = XX Cnc, 8.47, range 0.33, V, Type LB, Period 48.82 days, Phase 3%																														
20 Mar	6 23 56	57.2	d	80401	kA5	8.5	8.4		89+	141		47	237	43N	61	27	45	-6.6	-2.9	+1.5	-0.1	.337	46.8		8	45	28.3	20	23	43	362.2	865.3
*** A light curve is desired as 80401 is in the Kepler2 program {ID = 212008515}																														
20 Mar	7 0 14	1.2	D	1313	kF8	7.6	7.3		89+	142		44	242	62S	136	101	119	-6.6	-2.9	+0.5	-2.2	.443	-27.8		8	45	50.1	20	1	20	362.4	879.8
*** A light curve is desired as 1313 is in the Kepler2 program {ID = 211985588}																														
20 Mar	7 0 39	14.3	d	80421	F0	8.8	8.6		89+	142		41	248	37N	55	18	39	-6.6	-2.9	+1.5	-0.2	.309	53.0		8	46	50.5	20	18	37	362.5	903.2
20 Mar	7 0 58	32.8	D	80426	K0	7.7	7.2		89+	142		38	252	67S	131	92	114	-6.6	-2.9	+0.4	-2.1	.484	-22.7		8	47	26.7	19	55	19	362.7	922.0
20 Mar	7 19 33	1.6	D	1421	K0	8.0	7.2		95+	153		43	122	85S	120	153	100	-4.7	-4.2	+1.0	+0.1	.479	-14.2		9	38	4.6	17	21	19	358.5	859.1
20 Mar	7 20 0	59.3	d	98693	F	8.6	8.4		95+	153		46	129	57N	82	112	62	-4.7	-4.2	+1.2	+1.3	.441	24.5		9	39	8.3	17	28	5	358.2	841.9
20 Mar	7 21 43	47.6	d	1431	WB9	8.3	8.3		95+	154		54	165	83N	109	118	89	-4.8	-4.2	+1.3	-0.3	.468	1.4		9	42	18.8	17	4	56	357.3	811.4
1431 is double: AB 8.3 11.4 18.0" 224.4, dT = -17sec																														
20 Mar	8 2 20	18.0	d	1450	K0	8.0	7.3		96+	156		32	255	57N	84	45	63	-5.0	-4.1	+0.7	-1.3	.486	29.3		9	51	13.7	16	19	12	358.3	967.9
20 Mar	8 19 10	35.4	d	1553	A0	7.8	7.8		99+	167		28	106	84N	122	160	100	-2.7	-5.2	+0.7	+0.4	.531	-13.2		10	37	1.6	12	51	58	356.2	942.0
R1553 = 78 H1. Leonis																														
20 Mar	8 19 59	20.9	d	99227	K0	8.2	7.6		99+	167		35	117	73N	112	147	90	-2.7	-5.2	+0.9	+0.5	.522	-1.6		10	38	47.7	12	45	41	355.5	900.2
20 Mar	8 21 48	5.8	d	99256	K0	8.3	7.8		99+	168		47	148	70N	111	130	88	-2.8	-5.2	+1.2	+0.0	.488	3.6		10	42	15.5	12	25	5	354.3	841.1
Distance of 99256 to Terminator = 18.3"; to 3km sunlit peak = 7.4"																														
20 Mar	11 4 11	34.0	r	138961	K0	8.3	7.8		97-	159		25	232	48S	240	211	217	+1.5	-5.5	+1.4	-0.7	.280	-121.9		12	46	32.4	- 0	49	18	355.2	915.8

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
y 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
20 Mar 11 4 19 42.8	r	138962	cK2	8.3	7.8			97-	159		24	234	89S	281	251	258	+1.5	-5.5	+0.9	-1.4	.512	-162.9		12	46	40.0	- 0	39	45	355.3	922.4
*138962 is double: ** 9.2 9.2 0.10" 181.0, dT = +0.03sec*																														
138962 has been reported as non-instantaneous (OCc 666). Observations are highly desired																														
20 Mar 11 23 50 54.9	R	1950	kG6	5.7	5.2			92-	147		27	145	47N	328	350	308	+3.9	-5.5	+0.6	-0.6	.446	151.6		13	35	31.3	- 5	23	46	357.1	878.0
R1950 = 80 Virginis																														
**** A light curve is desired as 1950 is in the Kepler2 program {ID = 212804808}*																														
20 Mar 12 1 8 48.4	r	139445	K2	8.5	7.8			92-	146		31	166	90S	285	294	264	+3.8	-5.4	+1.3	+0.1	.468	-163.9		13	37	15.2	- 5	53	25	356.8	842.9
20 Mar 13 2 35 44.3	r	158675	B9	8.5	8.4			83-	132		26	175	21N	354	357	337	+5.5	-4.4	+0.2	-1.7	.264	124.5		14	36	43.0	-11	38	36	361.5	817.1
20 Mar 13 3 2 59	M	2088	cF5	6.2	6.0			83-	132		26	183	13S	208	206	191	+5.4	-4.4	+9.9	+9.9	.000	-90.0		14	36	59.8	-12	18	19	361.7	812.9
*2088 is double: ** 6.2 0.021" 96.3*																														
2088 has been reported as non-instantaneous (OCc1466). Observations are highly desired																														
20 Mar 14 1 42 8.3	R	2213	K0	5.8	5.3			74-	119		17	150	64S	256	275	244	+6.9	-3.4	+1.5	+1.3	.368	-141.0		15	30	40.4	-16	36	34	367.4	844.2
R2213 = 34 Librae																														
20 Mar 14 2 59 52.9	R	2218	cB3	5.5	5.6s			74-	118		21	168	67S	259	266	246	+6.8	-3.3	+1.7	+0.6	.365	-144.2		15	32	55.2	-16	51	10	367.3	802.1
R2218 = zeta Librae																														
*2218 is double: ** 5.9 7.9 350.0, dT = 0.00sec*																														
2218 = NSV 7126, 5.47 to 5.53, V																														
20 Mar 14 3 33 58.8	r	159349	pK0	8.3				74-	118		21	177	56S	249	251	236	+6.7	-3.2	+1.9	+0.6	.313	-134.8		15	33	56.8	-17	0	8	367.4	792.0
**** A light curve is desired as 159349 is in the Kepler2 program {ID = 249870287}*																														
159349 is double: AB 8.55 9.78 0.46" 192.3, dT = -0.8sec																														
159349 is a close double. Observations are highly desired																														
20 Mar 14 4 8 52.0	R	159358	cK1	7.2				73-	118		21	186	49S	241	238	229	+6.6	-3.2	+2.0	+0.4	.273	-128.2		15	34	59.6	-17	8	20	367.6	787.3
159358 is double: AB 7.47 8.66 0.09" 326.7, dT = -0.03sec																														
159358 is a close double. Observations are highly desired																														

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
y 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
20 Mar 14 5 3 38.7	r	159379	KF3	7.7	7.5		73-	118	-9	19	199	70N	302	290	290	+6.5	-3.1	+1.3	-1.0	.436	168.7	15	36	35.9	-17	0	55	367.9	792.5
*** A light curve is highly desired as 159379 is in the Kepler2 program {ID = 249869231}																												
20 Mar 15 4 23 41.8	r	2377	K1	8.3	7.6		63-	105	17	176	79S	267	269	260	+7.4	-1.8	+1.6	+0.2	.394	-158.5		16	32	26.2	-20	45	8	373.7	767.0
20 Mar 18 4 28 57.1	r	188057	K1	8.6	8.0		32-	69	5	142	85N	265	290	275	+7.1	+2.6	+1.1	+1.3	.411	-173.9		19	23	24.0	-24	13	5	391.5	785.5
20 Mar 18 5 14 59.8	R	2836	K3	5.5	4.7s		32-	68	-6	9	151	11N	340	359	350	+6.9	+2.7	+0.4	-1.0	.135	109.9	.02	19	25	29.7	-23	57	45	391.2	751.3
R2836 = 49 Sagittarii																												
2836 = NSV 11992, 5.42 to 5.46, V																												
20 Mar 26 18 54 5.0	D	303	cK0	6.4	5.9		5+	26	-8	11	268	32N	22	344	41	-3.8	+6.2	+0.3	+0.8	.321	46.8		2	4	51.0	7	44	8	403.9	919.9
303 is double: ** 7.2 7.4 0.40" 115.0, dT = -0.06sec																												
303 has been reported as non-instantaneous (OCc1174). Observations are highly desired																												
20 Mar 27 18 46 19.6	d	93137	G5	8.5	8.0s		10+	36	-7	22	261	80S	89	51	105	-4.9	+5.5	+0.5	-1.6	.421	-18.3		2	50	30.2	11	52	12	400.9	861.1
93137 = NSV 15590, 8.38 to 8.58, V, Type WTTS/ROT, Period 4.9155 days, Phase 14%																												
20 Mar 28 19 45 42.6	D	93537		8.7	7.9		16+	48	23	267	63S	107	67	119	-6.1	+4.4	+0.3	-2.2	.390	-31.1		3	39	26.0	15	51	6	398.0	878.5
20 Mar 28 22 3 17.2	d	93569	kF0	8.6	8.4		17+	49	3	293	42S	128	91	140	-6.2	+4.4	-0.7	-2.5	.348	-49.5		3	43	52.4	16	1	19	399.8	1039.9
*** A light curve is desired as 93569 is in the Kepler2 program {ID = 210537507}																												
20 Mar 28 22 5 12.5	d	93565	kB9	7.8	7.8		17+	49	3	293	23N	13	337	25	-6.2	+4.4	+0.5	+1.5	.224	65.4		3	43	21.4	16	25	13	399.8	1042.3
*** A light curve is desired as 93565 is in the Kepler2 program {ID = 210563323}																												
20 Mar 29 14 17 32.3	d	639	kF3	6.1	5.9		23+	57	32	54	149	69N	61	80	69	-6.1	+3.5	+1.2	+1.6	.382	7.6		4	20	25.1	18	44	34	392.7	734.7
R639 = 85 H1. Tauri																												
*** A light curve is desired as 639 is in the Kepler2 program {ID = 210725815}																												
20 Mar 29 17 14 17.1	d	654	pF4	6.0	5.8		24+	58	8	52	220	84N	76	51	84	-6.6	+3.3	+1.4	-0.3	.380	-1.6		4	24	57.1	19	2	31	392.3	723.7
*** A light curve is desired as 654 is in the Kepler2 program {ID = 210745602}																												
654 is double: ** 6.8 6.8 0.10" 71.0, dT = +0.26sec																												
654 has been reported as non-instantaneous (OCc 921). Observations are highly desired																												
20 Mar 29 18 21 5	Gr	93926	pG5	7.7		v	24+	59	-3	44	** GRAZE: CA 5.4S; Dist.206km in az. 183deg. [Lat = 50.14-0.03(E.Long-5.00)]																	

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
y 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
20 Mar 29 18 30	6.7	D	93940	pF5	7.9	7.6	24+	59	-4	43	242	86S	86	51	94	-6.8	+3.3	+1.1	-1.2	.398	-9.0	4	27	0.6	19	7	4	392.8	767.7
*** A light curve is desired as 93940 is in the Kepler2 program {ID = 210750573}																												
93940 is double: AB 7.9 9.2 6.8" 180.8, dT = -1.3sec																												
93940 is a close double. Observations are highly desired																												
20 Mar 29 18 32	6.6	r	654	pF4	6.0	5.8	24+	59	-4	43	243	-83S	256	220	264	-6.8	+3.3	+1.1	-0.8	.404	-178.5	4	24	57.1	19	2	31	392.8	770.4
*** A light curve is desired as 654 is in the Kepler2 program {ID = 210745602}																												
654 is double: ** 6.8 6.8 0.10" 71.0, dT = +0.25sec																												
654 has been reported as non-instantaneous (OCc 921). Observations are highly desired																												
20 Mar 29 19 26	6.5	D	668	SK0	3.5	3.0	24+	59	35	256	83S	90	51	97	-7.0	+3.2	+0.8	-1.5	.421	-10.4	4	28	37.0	19	10	50	393.3	816.2
R668 = Ain = epsilon Tauri																												
668 is triple: Aa,Ab 3.6 6.0 0.20" 108.0, dT = +0.45sec : AB 3.5 10.6 191" 269.0, dT = -453sec																												
668 is a close double. Observations are highly desired																												
20 Mar 29 20 33 13.8	R	668	SK0	3.5	3.0	25+	59	25	270	-78S	251	210	258	-7.1	+3.2	+0.5	-1.1	.458	-169.8	4	28	37.0	19	10	50	394.1	889.1	
R668 = Ain = epsilon Tauri																												
668 is triple: Aa,Ab 3.6 6.0 0.20" 108.0, dT = +0.35sec : AB 3.5 10.6 191" 269.0, dT = -396sec																												
668 is a close double. Observations are highly desired																												
20 Mar 29 21 41 25.8	D	93998	K0	7.4	6.8	25+	60	15	282	84S	89	49	96	-7.2	+3.2	+0.0	-1.5	.502	-6.3	4	33	0.8	19	20	54	394.9	968.1	
20 Mar 30 18 13 51.6	D	791	B8	7.3	7.2	33+	70	-1	53	225	32N	29	1	31	-7.5	+1.9	+1.5	+2.3	.236	52.9	5	18	31.6	21	47	33	387.7	735.7
20 Mar 30 21 53 15.6	d	77162	K0	8.7	8.0	34+	71	23	277	73N	70	29	72	-7.9	+1.8	+0.4	-1.1	.475	17.2	5	25	53.9	21	47	9	389.7	939.1	
20 Mar 30 22 52 40.9	D	817	SB2	4.9	5.0	34+	72	14	287	34N	32	352	33	-7.9	+1.8	+0.6	+0.2	.296	56.4	5	27	38.1	21	56	13	390.4	1011.7	
R817 = 114 Tauri																												
817 is multiple: **Aa,Ab 5.6 5.6 0.10" 90.0, dT = +0.18sec : AB 4.9 10.9 40" 348.4, dT = +97sec : AC 4.9 11.5 64" 193.1, dT = -206sec : AD 4.9 13.1 77" 281.8, dT = -89sec																												
817 has been reported as non-instantaneous (OCc 1). Observations are highly desired																												
20 Mar 30 23 17	1.9	d	77192	K0	8.5	7.9	35+	72	11	292	32S	146	107	147	-7.9	+1.8	-0.8	-2.9	.296	-57.4	5	28	37.8	21	31	4	390.7	1041.3	

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
y 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
20 Mar 31	15 45 23.0	d	929	SB2	5.8	v		42+	81	21	57	141	35N	36	61	33	-7.5	+0.6	+0.9	+3.1	.281	45.7	6	9	44.0	23	6	49	383.0	746.5
R929 = 3 Geminorum																													
929 is triple: AB 5.90 8.48 0.61" 347.2, dT = +1.4sec : AC 5.8 14.4 18.8" 63.0, dT = +60sec																													
929 is a close double. Observations are highly desired																													
929 = PU Gem, 5.71 to 5.77, V, Type ACYG, Period 6.8066 days, Phase 52%																													
20 Mar 31	17 0 55.6	d	942	M1	6.5	5.4V		43+	81	10	61	173	78S	103	108	100	-7.7	+0.5	+1.6	-0.4	.369	-18.6	.02	6	12	19.1	22	54	31	382.5	722.4
R942 = 6 Geminorum (BU)																													
942 = BU Gem, 5.74 to 7.4, V, Type SRC, Period 325. days, Phase 10%																													
20 Mar 31	18 17 32.1	r	942	M1	6.5	5.4V		43+	82	-2	59	208	-67S	249	230	246	-7.9	+0.5	+1.5	+0.3	.373	-161.4	.02	6	12	19.1	22	54	31	382.3	729.6
R942 = 6 Geminorum (BU)																													
942 = BU Gem, 5.74 to 7.4, V, Type SRC, Period 325. days, Phase 10%																													
20 Mar 31	19 23 7.8	D	78158	G5	8.3	7.8		43+	82	-11	53	232	45N	47	15	43	-8.1	+0.4	+1.6	+0.9	.298	43.4	6	16	5.8	23	11	37	382.5	760.8
20 Mar 31	20 36 14.4	D	78205	B1	8.6	8.4		44+	83	43	251	88N	90	50	86	-8.2	+0.4	+0.9	-1.3	.441	2.5	6	18	39.4	23	0	29	382.9	818.9
20 Mar 31	20 46 45.3	D	78211	B0	7.9	7.7		44+	83	41	254	89N	90	50	87	-8.2	+0.4	+0.9	-1.4	.446	1.9	6	18	59.7	23	0	4	383.0	829.0
20 Mar 31	20 52 1.0	D	78216	A5	8.4	8.3		44+	83	41	255	85S	97	57	94	-8.2	+0.4	+0.8	-1.6	.447	-4.9	6	19	9.5	22	58	7	383.1	834.2
20 Mar 31	21 12 17.4	D	78228	A0	8.3	8.3		44+	83	38	259	52S	129	88	126	-8.3	+0.4	+0.3	-2.6	.369	-36.7	6	19	34.5	22	49	48	383.2	854.9
20 Mar 31	21 26 24.6	d	78238	cK0	8.9	8.4		44+	83	36	262	61S	121	80	118	-8.3	+0.4	+0.4	-2.3	.412	-28.3	6	20	8.5	22	51	16	383.4	870.0
*78238 is double: ** 9.6 9.6 0.10" 300.0, dT = -0.24sec*																													
78238 has been reported as non-instantaneous (OCc 733). Observations are highly desired																													
20 Mar 31	21 30 21	M	964	wA0	7.0	6.7		44+	83	35	263	1N	3	321	360	-8.3	+0.4	+9.9	+9.9	.000	90.0	6	19	22.5	23	16	28	383.4	874.9
R964 = 12 Geminorum																													
964 is double: AB 7.0 10.8 62" 59.0																													
Distance of 964 to Terminator = 17.1"; to 3km sunlit peak = 0.0"																													
20 Mar 31	22 10 36.1	D	78273	F5	8.3	8.1		44+	83	29	271	77S	105	63	102	-8.3	+0.4	+0.3	-1.8	.483	-11.9	6	21	48.2	22	54	3	383.8	920.0
20 Mar 31	23 1 17.1	D	78315	F0	8.0	7.9		45+	84	22	280	55N	57	16	53	-8.4	+0.4	+0.4	-0.8	.421	36.9	6	23	31.6	23	5	4	384.4	980.8

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
y 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
20 Mar 31 23 47 49.0	d	78345	A5	8.4	8.3		45+	84		15	288	55N	57	18	53	-8.4	+0.4	+0.2	-0.8	.445	36.7	6	25	20.8	23	3	24	384.9	1037.6
20 Apr 1 19 52 28.8	D	1100	K	8.2	7.6		54+	95		56	223	87N	94	67	86	-8.1	-1.1	+1.3	-0.9	.420	2.6	7	14	52.4	23	6	40	376.5	767.6
20 Apr 1 20 6 50.2	D	79211	cK0	8.7	8.1		54+	95		54	228	56N	63	33	54	-8.2	-1.1	+1.6	+0.1	.351	34.2	7	15	11.2	23	14	17	376.5	776.4
*79211 is double: ** 9.3 9.3 0.10" 244.0, dT = -0.28sec*																												
79211 has been reported as non-instantaneous (OCc 798). Observations are highly desired																												
20 Apr 1 23 41 3.9	D	79330	K0	7.8	7.3		55+	96		23	277	48S	140	99	131	-8.4	-1.1	-0.3	-2.4	.409	-40.7	7	22	12.3	22	38	46	378.3	989.7
20 Apr 1 23 54 43.3	d	79345	A3	9.0	8.8		56+	96		22	280	83N	92	50	82	-8.4	-1.1	+0.1	-1.5	.543	8.2	7	23	8.8	22	49	16	378.4	1005.9
20 Apr 2 0 7 2.5	D	1118	A1	6.2	6.2		56+	97		20	282	51N	59	18	49	-8.4	-1.1	+0.4	-0.9	.421	40.8	7	23	28.1	22	56	43	378.5	1021.0
R1118 = 58 Geminorum																												
20 Apr 2 0 31 58.6	d	79364	F5	8.2	8.0		56+	97		16	286	45N	53	13	44	-8.4	-1.1	+0.3	-0.8	.397	46.0	7	24	24.7	22	55	39	378.8	1051.1
20 Apr 2 21 8 52.5	d	80053	A0	9.0	8.9		65+	108		52	228	70S	124	94	110	-7.9	-2.5	+0.9	-1.9	.425	-18.9	8	15	57.7	21	35	2	370.5	807.4
20 Apr 2 22 34 43.8	D	80087	K0	7.9	7.2		66+	108		41	252	90N	103	64	89	-8.0	-2.5	+0.7	-1.6	.489	2.6	8	18	54.5	21	29	39	371.0	880.8
20 Apr 2 23 4 38.7	D	80094	K2	8.0	7.4		66+	109		36	258	44S	149	109	135	-8.0	-2.5	+0.0	-2.7	.367	-43.6	8	19	24.0	21	15	26	371.2	911.7
20 Apr 3 19 41 56.4	d	98432		9.0	8.5		75+	120		57	171	62N	81	87	62	-6.8	-3.8	+1.6	+0.6	.393	27.2	9	12	47.2	19	15	31	364.6	781.2
20 Apr 3 21 30 27.4	D	98460	kA3	8.4	8.3		76+	121		53	214	76S	123	102	105	-7.0	-3.8	+1.0	-1.6	.449	-12.8	9	15	50.8	18	47	40	364.5	813.5
**** A light curve is desired as 98460 is in the Kepler2 program {ID = 251323331}*																												
20 Apr 3 21 46 1.3	D	1377	kA3	7.0	6.9		76+	121		52	220	89S	110	85	91	-7.0	-3.8	+1.1	-1.3	.465	1.2	9	16	27.1	18	48	37	364.5	822.7
**** A light curve is desired as 1377 is in the Kepler2 program {ID = 251323525}*																												
20 Apr 3 22 42 58.6	D	98481	pF0	7.9	7.7		76+	122		45	237	62N	81	48	63	-7.1	-3.8	+1.2	-0.9	.423	30.1	9	18	16.9	18	46	51	364.8	864.1
**** A light curve is desired as 98481 is in the Kepler2 program {ID = 251323145}*																												
98481 is double: AB 8.2 8.3 0.017" 82.5, dT = +0.04sec																												
98481 is a close double. Observations are highly desired																												
20 Apr 4 1 1 28.8	D	98534	kK0	7.7	7.0		77+	123		25	268	70S	129	89	111	-7.1	-3.8	+0.1	-1.9	.534	-19.1	9	22	48.2	18	7	55	366.0	1003.7
**** A light curve is desired as 98534 is in the Kepler2 program {ID = 251315548}*																												

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
y 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
20 Apr 4	1 39 53.6	D	1392c	G0	7.3		77+	123	19	275	78N	98	57	79	-7.1	-3.8	+0.1	-1.5	.576	12.1	9	24	31.2	18	8	29	366.5	1047.6
1392 is double: AB 7.46 9.18 0.43" 8.9, dT = +0.01sec																												
1392 is a close double. Observations are highly desired																												
20 Apr 4	18 25 50	m	1485	G0	7.1	6.8	84+	133	-2	43	127	4S	200	230	178	-5.3	-4.9	+9.9	+9.9	.000	-90.0	10	7	39.3	15	9	27	360.6	844.1
Distance of 1485 to Terminator = 3.1"; to 3km sunlit peak = 0.0"																												
20 Apr 4	18 38 15.8	d	98973	G0	8.5	8.2	84+	133	-4	44	130	80N	104	134	83	-5.3	-4.9	+1.1	+0.5	.477	5.8	10	9	35.2	15	20	47	360.5	838.0
20 Apr 5	18 40 58.4	D	1612	F5	7.3	7.1	92+	147	-4	33	120	83S	126	159	103	-3.5	-5.7	+0.8	+0.1	.504	-12.8	11	7	13.3	10	12	44	357.1	895.8
20 Apr 5	19 57 39.6	d	99474c	F8	8.4		92+	148	42	140	50N	80	103	56	-3.5	-5.7	+1.4	+1.4	.396	36.3	11	9	48.2	10	9	26	356.2	850.2
99474 is double: AB 8.59 9.87 0.59" 302.3, dT = -1.1sec																												
99474 is a close double. Observations are highly desired																												
20 Apr 5	21 43 43.3	d	1622	K2	8.2	7.6	93+	149	48	176	27N	57	59	33	-3.7	-5.6	+2.4	+2.1	.227	61.9	11	12	43.0	9	51	57	355.5	830.1