Messier Observing List
Evening of 2010 Aug 7 at Britstown - Kambro

Sunset 18:02, Twilight ends 19:18, Twilight begins 05:45, Sunrise 07:01, Moon rise 05:25, Moon set 15:08
Completely dark from 19:18 to 05:25. Waning Crescent Moon. All times local (GMT+2).

Listing All Classes visible above the perfect horizon and in complete darkness after 19:18 and before 05:25.
The minimum visual difficulty is: visible (at any difficulty).

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 3368	M 96	Leo	61.69055	11.8199	7.6'x 5.0'	10.1	45.0 Mly	18:53	19:07	19:23	13	92	very challenging	Ultima 42mm
Gal	NGC 3379	M 105	Leo	61.95680	12.5818	5.0'x 4.6'	10.2	45.0 Mly	18:53	19:07	19:23	13	92	challenging	E-Lux 2" 40mm
Gal	NGC 4736	M 94	CVn	92.72135	41.1201	10.0'x 8.7'	8.7	17.0 Mly	19:00	19:08	19:20	7	37	difficult	Ultima 42mm
Gal	NGC 5194	M 51	CVn	02.46790	47.1945	9.8'x 7.8'	8.7	43.0 Mly	18:59	19:08	19:22	7	37	difficult	Ultima 42mm
Gal	NGC 3627	M 66	Leo	70.06205	12.9917	8.9'x 4.0'	9.7	41.0 Mly	19:02	19:09	19:19	13	92	difficult	Celestron Plössl 32mm
Gal	NGC 3623	M 65	Leo	69.73220	13.0922	8.1'x 2.1'	10.1	41.0 Mly	19:02	19:09	19:17	13	92	difficult	E-Lux 2" 32mm 2.0x
Gal	NGC 5055	M 63	CVn	98.95550	42.0293	12.0'x 7.2'	9.3	43.0 Mly	18:51	19:09	19:50	7	37	challenging	Ultima 42mm
Gal	NGC 4254	M 99	Com	84.70670	14.4165	5.1'x 4.6'	10.4	70.0 Mly	19:01	19:13	19:41	13	91	detectable	E-Lux 2" 40mm
Gal	NGC 4192	M 98	Com	83.45135	14.8993	9.5'x 2.3'	10.9	70.0 Mly	18:57	19:13	19:56	13	91	challenging	E-Lux 2" 26mm 2.0x
Gal	NGC 4321	M 100	Com	85.72895	15.8225	7.6'x 6.8'	10.0	70.0 Mly	19:03	19:13	19:37	13	91	difficult	Ultima 42mm
Gal	NGC 4382	M 85	Com	86.35025	18.1911	7.6'x 5.9'	10.0	70.0 Mly	19:03	19:13	19:35	13	72	difficult	Ultima 42mm
Gal	NGC 4374	M 84	Vir	86.26640	12.8867	6.3'x 5.5'	10.1	70.0 Mly	19:02	19:14	19:43	13	91	detectable	Ultima 42mm
Gal	NGC 4406	M 86	Vir	86.55065	12.9456	10.0'x 7.4'	9.8	70.0 Mly	19:04	19:14	19:40	13	91	difficult	Ultima 42mm
Gal	NGC 4501	M 88	Com	87.99680	14.4203	7.8'x 4.8'	10.2	70.0 Mly	19:02	19:14	19:42	14	91	detectable	E-Lux 2" 40mm
Gal	NGC 4826	M 64	Com	94.18265	21.6832	10.0'x 5.0'	9.3	12.0 Mly	19:00	19:14	19:51	7	71	detectable	Ultima 42mm
Gal	NGC 4486	M 87	Vir	87.70490	12.3913	7.9'x 7.4'	9.6	70.0 Mly	19:03	19:15	19:48	14	91	detectable	Ultima 42mm
Gal	NGC 4569	M 90	Vir	89.20850	13.1626	9.5'x 4.5'	10.1	70.0 Mly	19:03	19:15	19:44	14	90	difficult	E-Lux 2" 40mm
Gal	NGC 4548	M 91	Com	88.86005	14.4963	5.4'x 4.6'	10.9	70.0 Mly	19:04	19:15	19:38	14	91	difficult	E-Lux 2" 40mm
Gal	NGC 4552	M 89	Vir	88.91630	12.5562	6.9'x 6.6'	10.7	70.0 Mly	19:05	19:15	19:37	14	91	difficult	Ultima 42mm
Gal	NGC 4303	M 61	Vir	85.47905	4.4746	6.3'x 5.8'	10.2	70.0 Mly	19:01	19:16	19:50	13	111	detectable	Ultima 42mm
Gal	NGC 4472	M 49	Vir	87.44510	8.0004	9.3'x 7.6'	9.3	70.0 Mly	19:01	19:16	19:54	13	91	detectable	Ultima 42mm
Gal	NGC 4649	M 60	Vir	90.91700	11.5527	7.4'x 6.3'	9.8	70.0 Mly	19:01	19:16	19:54	14	90	detectable	Ultima 42mm
Gal	NGC 4621	M 59	Vir	90.50945	11.6477	4.8'x 3.3'	10.7	70.0 Mly	19:01	19:16	19:52	14	90	detectable	E-Lux 2" 26mm
Gal	NGC 4579	M 58	Vir	89.43305	11.8184	5.6'x 4.4'	10.5	70.0 Mly	19:01	19:16	19:48	14	90	detectable	E-Lux 2" 40mm
Glob	NGC 5024	M 53	Com	98.22917	18.1700	13.0'	7.7	65000 ly	19:01	19:16	20:00	14	71	detectable	Ultima 42mm
Glob	NGC 5272	M 3	CVn	05.54583	28.3783	18.0'	6.3	42000 ly	18:59	19:15	20:11	7	71	detectable	Ultima 42mm
Gal	NGC 4594	M 104	Vir	89.99705	-11.6229	9.1'x 5.6'	9.1	60.0 Mly	19:00	19:18	20:09	14	130	easy	Ultima 42mm
Glob	NGC 4590	M 68	Hya	89.86667	-26.7433	11.0'	7.3	39000 ly	18:59	19:18	20:38	21	150	easy	Ultima 42mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
Gal	NGC 5236	M 83	Hya	04.25335	-29.8655	14.1'x 13.2'	7.8	15.0 Mly	18:57	19:20	21:40	21	167	easy	Ultima 42mm
Glob	NGC 5904	M 5	Ser	29.64167	2.0833	23.0'	5.7	29000 ly	18:56	19:24	22:13	14	108	easy	Ultima 42mm
Glob	NGC 6093	M 80	Sco	44.25833	-22.9750	10.0'	7.3	36000 ly	18:56	19:40	23:51	22	147	easy	Ultima 42mm
Glob	NGC 6121	M 4	Sco	45.90000	-26.5250	36.0'	5.4	9800 ly	18:56	19:46	23:53	22	147	easy	Celestron Plössl 32mm
Glob	NGC 6171	M 107	Oph	48.13333	-13.0533	13.0'	7.8	26000 ly	18:58	19:55	23:22	15	127	detectable	Ultima 42mm
Glob	NGC 6205	M 13	Her	50.42083	36.4600	20.0'	5.8	26000 ly	18:59	20:03	22:19	8	50	detectable	Ultima 42mm
Glob	NGC 6218	M 12	Oph	51.80833	-1.9467	16.0'	6.1	23000 ly	18:55	20:09	23:52	15	107	easy	Ultima 42mm
Glob	NGC 6254	M 10	Oph	54.28750	-4.1000	20.0'	6.6	23000 ly	18:57	20:19	23:48	15	107	detectable	Ultima 42mm
Glob	NGC 6266	M 62	Oph	55.30417	-30.1133	15.0'	6.4	26000 ly	18:56	20:23	00:50	22	164	easy	Ultima 42mm
Glob	NGC 6273	M 19	Oph	55.65833	-26.2683	17.0'	6.8	23000 ly	18:57	20:25	00:27	22	146	easy	Ultima 42mm
Glob	NGC 6341	M 92	Her	59.27917	43.1367	14.0'	6.5	33000 ly	19:04	20:39	22:26	8	34	detectable	Ultima 42mm
Glob	NGC 6333	M 9	Oph	59.80000	-18.5167	12.0'	7.8	26000 ly	18:58	20:40	00:21	22	146	detectable	Ultima 42mm
Glob	NGC 6402	M 14	Oph	64.40000	-3.2467	11.0'	7.6	23000 ly	18:58	20:59	00:28	15	106	detectable	Ultima 42mm
Open	NGC 6405	M 6	Sco	65.08333	-32.2533	20.0'	4.6	1600 ly	18:54	21:02	01:48	22	164	obvious	Ultima 42mm
Open	NGC 6475	M 7	Sco	68.46250	-34.7933	80.0'	3.3	980 ly	18:56	21:16	01:54	22	164	obvious	Celestron Plössl 15mm
Open	NGC 6494	M 23	Sgr	69.26666	-18.9850	29.0'	5.9	2000 ly	18:59	21:19	01:08	22	146	easy	Plössl 4mm
Neb	NGC 6514	M 20	Sgr	70.59167	-22.9867	16.0'x 9.0'	6.3		19:06	21:24	00:10	22	145	difficult	Ultima 42mm
Open	NGC 6514	M 20	Sgr	70.67499	-22.9717	28.0'	5.2	2700 ly	18:57	21:25	01:41	22	145	easy	Plössl 4mm
Neb	NGC 6523	NGC 6526	Sgr	71.00833	-24.3872	17.0'x 15.0'	5.0		18:54	21:25	01:58	22	145	obvious	Ultima 42mm
Open	NGC 6531	M 21	Sgr	71.05417	-22.4900	14.0'	7.2	3900 ly	18:58	21:25	01:22	22	145	easy	Ultima 42mm
Open	NGC 6603	M 24	Sgr	74.60833	-18.4067	6.0'	11.1	12000 ly	18:58	21:40	01:48	15	145	challenging	Ultima 42mm
Neb	M 16	Eagle Nebula	Ser	74.70167	-13.8194	9.0'x 4.0'	6.0		19:13	21:40	00:17	15	126	difficult	Ultima 42mm
Open	NGC 6611	M 16	Ser	74.69999	-13.8067	6.0'	6.5	5700 ly	18:54	21:40	01:52	15	126	obvious	Ultima 42mm
Open	NGC 6613	M 18	Sgr	74.99167	-17.1017	5.0'	7.5	4200 ly	18:56	21:41	01:59	15	126	obvious	E-Lux 2" 40mm
Neb	NGC 6618	M 17	Sgr	75.20000	-16.1833	11.0'	6.0		19:12	21:43	00:21	15	126	difficult	Ultima 42mm
Open	NGC 6618	M 17	Sgr	75.19583	-16.1717	25.0'	7.3	4200 ly	19:06	21:43	00:49	15	126	detectable	Ultima 42mm
Glob	NGC 6626	M 28	Sgr	76.13750	-24.8700	13.8'	6.9	16000 ly	18:58	21:46	01:57	22	145	easy	Ultima 42mm
Glob	NGC 6637	M 69	Sgr	77.84583	-32.3483	9.8'	7.7	23000 ly	18:59	21:53	02:09	22	163	easy	Ultima 42mm
Open	M 25	IC 4725	Sgr	77.94583	-19.1167	29.0'	6.2	2000 ly	19:02	21:53	01:36	22	145	easy	Plössl 4mm
Glob	NGC 6656	M 22	Sgr	79.10000	-23.9033	32.0'	5.2	9800 ly	18:59	21:58	02:12	22	145	easy	Celestron Plössl 32mm
Glob	NGC 6681	M 70	Sgr	80.80417	-32.2917	8.0'	7.8	65000 ly	18:58	22:05	02:28	22	163	easy	Ultima 42mm
Open	NGC 6694	M 26	Sct	81.32500	-9.3833	7.0'	9.0	5200 ly	19:07	22:06	01:26	16	125	detectable	Ultima 42mm
Open	NGC 6705	M 11	Sct	82.77084	-6.2700	32.0'	6.1	6100 ly	19:06	22:13	01:36	16	125	easy	Celestron Plössl 32mm
PNe	NGC 6720	M 57	Lyr	83.39616	33.0292	1.4'	9.4	2600 ly	19:32	22:14	00:58	8	49	easy	Celestron Plössl 15mm
Glob	NGC 6715	M 54	Sgr	83.76250	-30.4783	12.0'	7.7	55000 ly	19:02	22:16	02:17	22	163	detectable	Ultima 42mm
Glob	NGC 6779	M 56	Lyr	89.15000	30.1850	8.8'	8.4	42000 ly	20:28	22:38	00:46	8	49	detectable	Ultima 42mm
Glob	NGC 6809	M 55	Sgr	95.00000	-30.9617	19.0'	6.3	20000 ly	19:04	23:01	03:21	22	162	easy	Ultima 42mm
Glob	NGC 6838	M 71	Sge	98.44167	18.7783	4.0'	8.4	16000 ly	20:52	23:15	01:39	8	66	easy	Ultima 42mm

Cls	Primary ID	Alternate ID	Con	RA 2000	Dec 2000	Size	Mag	Distance	Begin	Optimum	End	S.A.	Ur. 2	Difficulty	Optimum EP
PNe	NGC 6853	M 27	Vul	99.90142	22.7211	8.0'	7.3	1100 ly	21:23	23:21	01:18	8	66	easy	Ultima 42mm
Glob	NGC 6864	M 75	Sgr	01.52083	-21.9217	6.8'	8.6	95000 ly	19:36	23:27	03:19	23	144	detectable	Ultima 42mm
Open	NGC 6913	M 29	Cyg	05.98750	38.5083	10.0'	7.5	3700 ly	21:46	23:45	01:44	9	48	detectable	Ultima 42mm
Glob	NGC 6981	M 72	Aqr	13.36667	-12.5367	6.6'	9.2	68000 ly	20:56	00:14	03:34	16	124	detectable	Ultima 42mm
Open	NGC 6994	M 73	Aqr	14.72916	-12.6333	9.0'	8.9	2000 ly	21:10	00:20	03:30	16	124	detectable	Ultima 42mm
Glob	NGC 7078	M 15	Peg	22.49167	12.1667	18.0'	6.3	42000 ly	21:54	00:51	03:47	16	83	easy	Ultima 42mm
Open	NGC 7092	M 39	Cyg	22.95000	48.4333	29.0'	5.3	1100 ly	23:23	00:52	02:21	9	32	detectable	Plössl 4mm
Glob	NGC 7089	M 2	Aqr	23.36250	-0.8233	16.0'	6.6	49000 ly	21:20	00:54	04:29	17	103	easy	Ultima 42mm
Glob	NGC 7099	M 30	Cap	25.09167	-23.1783	12.0'	6.9	39000 ly	20:47	01:01	05:15	23	143	easy	Ultima 42mm
Gal	NGC 205	M 110	And	10.09290	41.6858	17.8'x 9.8'	8.9	2.6 Mly	02:43	04:01	05:19	4	30	difficult	Ultima 42mm
Gal	NGC 221	M 32	And	10.67430	40.8660	8.5'x 5.9'	8.9	2.6 Mly	02:10	04:03	05:51	4	30	detectable	Ultima 42mm
Gal	NGC 224	M 31	And	10.68465	41.2687	2.6°x 1.1°	4.3	2.6 Mly	02:17	04:03	05:47	4	30	detectable	Ultima 42mm
Gal	NGC 598	M 33	Tri	23.46210	30.6599	61.7'x 36.3'	6.4	2.9 Mly	02:48	04:54	06:01	4	62	detectable	Celestron Plössl 15mm
Gal	NGC 628	M 74	Psc	24.17415	15.7834	9.5'x 8.9'	9.7		02:26	04:57	06:00	10	100	detectable	Ultima 42mm
PNe	NGC 650	M 76	Per	25.58312	51.5753	2.7'	10.1	2400 ly	04:13	05:03	05:47	4	29	very challenging	E-Lux 2" 26mm
Gal	NGC 1068	M 77	Cet	40.66995	-0.0133	6.6'x 5.8'	9.7	70.0 Mly	02:40	05:31	06:04	10	119	easy	Ultima 42mm
Open	NGC 1039	M 34	Per	40.52083	42.7617	35.0'	5.8	1600 ly	04:30	05:42	06:01	4	43	detectable	Celestron Plössl 32mm
Open	M 45	Pleiades	Tau	56.75000	24.1167	120.0'	1.5	490 ly	05:22	05:43	06:07	4	78	obvious	Plössl 4mm
Glob	NGC 1904	M 79	Lep	81.04583	-24.5250	9.6'	7.7	49000 ly	04:11	05:44	06:04	19	155	detectable	Ultima 42mm
Neb	NGC 1976	M 42	Ori	83.82500	-5.3833	40.0'x 20.0'	4.0		05:03	05:46	06:05	11	116	easy	Ultima 42mm
Neb	NGC 1982	M 43	Ori	83.87500	-5.2667	7.0'x 6.0'	9.0		05:15	05:46	05:58	11	116	challenging	Ultima 42mm
Neb	NGC 2068	M 78	Ori	86.70000	0.0833	8.0'	8.0		05:28	05:46	05:56	11	116	challenging	Ultima 42mm
Open	NGC 2287	M 41	CMa	01.50417	-20.7567	39.0'	5.0	2300 ly	05:40	05:47	06:03	19	154	easy	Celestron Plössl 32mm
Open	NGC 2323	M 50	Mon	05.67500	-8.3833	14.0'	7.2	3300 ly	05:20	05:49	06:01	12	135	detectable	Ultima 42mm
Open	NGC 2447	M 93	Pup	16.12500	-23.8567	10.0'	6.5	3400 ly	05:13	05:50	06:04	19	153	easy	Ultima 42mm
Open	NGC 2422	M 47	Pup	14.14583	-14.4833	25.0'	4.3	1600 ly	05:17	05:50	06:06	12	135	easy	Ultima 42mm
Open	NGC 2437	M 46	Pup	15.44167	-14.8100	20.0'	6.6	4500 ly	05:31	05:51	06:01	12	135	detectable	Ultima 42mm
Open	NGC 2168	M 35	Gem	92.25000	24.3500	25.0'	5.6	3000 ly	05:31	05:52	06:04	5	76	detectable	Ultima 42mm
Open	NGC 1960	M 36	Aur	84.07500	34.1400	10.0'	6.5	4300 ly	05:25	05:54	06:06	5	59	easy	Ultima 42mm
Open	NGC 1912	M 38	Aur	82.16666	35.8483	20.0'	6.8	3500 ly	05:40	05:54	06:02	5	59	difficult	Ultima 42mm
Open	NGC 2099	M 37	Aur	88.07500	32.5533	14.0'	6.2	4500 ly	05:29	05:55	06:07	5	59	detectable	Ultima 42mm

Symbol Key:

Open	Open Cluster	Doub	Double or Multiple Star	Con	Constellation
Glob	Globular Cluster	Bin	Binary Star (with orbit)	MSS	Major Solar System Object
PNe	Planetary Nebula	Var	Variable Star	Com	Comet
Neb	Diffuse Nebula	DVar	Double & Variable	MP	Minor Planet
Gal	Galaxy	BVar	Binary & Variable		
GalCl	Galaxy Cluster				
Dark	Dark Nebula				
QSO	Quasar				

Observation status: Y = observed, N = not observed, R = re-observe
Quality of opportunity (Q): A = optimum, B = near optimum, F = far from optimum