BINOCULAR MESSIER LIST - OBSERVING LOG

Legend

Type: 1=Open Cluster, 2=Globular Cluster, 3=Planetary Nebula, 4=Diffuse Nebula, 5=Spiral Galaxy, 6=Elliptical Galaxy, 7=Irregular Galaxy, 8=Lenticular (S0) Galaxy, 9=Supernova Remnant
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ra: right ascension in hours minutes.decimal seconds. Epoch 2000.0

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D: apparent (angular) diameter in arc minutes

d: distance in kilo-light-years

M#	NGC#	Con	type	RA		Dec		B	D	d	(√)	Date	Location	Binoculars Used	Remarks
				hr	min	deg	min					dd/mm/yy		(ex. 7x50)	(ex. sky conditions, appearence, etc.)
I. EASY MESSIER OBJECTS (42 OBJECTS)															
M2	7089	Aqr	2	21	33.5	-0	49	6.5	12.9	36.2					
M3	5272	CVn	2	13	42.2	+28	23	6.2	16.2	30.6					
M4	6121	Sco	2	16	23.6	-26	32	5.6	26.3	6.8					
M5	5904	Ser	2	15	18.6	+2	5	5.6	17.4	22.8					
M6	6405	Sco	1	17	40.1	-32	13	5.3	25	2					
M7	6475	Sco	1	17	53.9	-34	49	4.1	80	0.8					
M8	6523	Sgr	4	18	3.8	-24	23	6	90x40	5.2					
M10	6254	Oph	2	16	57.1	-4	6	6.6	15.1	13.4					
M11	6705	Sct	1	18	51.1	-6	16	6.3	14	6					
M12	6218	Oph	2	16	47.2	-1	57	6.7	14.5	17.6					
M13	6205	Her	2	16	41.7	+36	28	5.8	16.6	22.8					
M15	7078	Peg	2	21	30	+12	10	6.2	12.3	32.6					
M16	6611	Ser	1	18	18.8	-13	47	6.4	7	7					
M17	6618	Sgr	4	18	20.8	-16	11	7	11	5					
M18	6613	Sgr	1	18	19.9	-17	8	7.5	9	4.9					
M22	6656	Sgr	2	18	36.4	-23	54	5.1	24	10.1					
M23	6494	Sgr	1	17	56.8	-19	1	6.9	27	2.15					
M24	>6603	Sgr	B	18	16.9	-18	29	4.6	90	10					
M25	I4725	Sgr	1	18	31.6	-19	15	6.5	40	2					
M27	6853	Vul	3	19	56.9	+22	43	7.4	8.0x5.7	1.25					
M29	6913	Cyg	1	20	23.9	+38	32	7.1	7	4					
M31	224	And	5	0	42.7	+41	16	3.4	178x63	2900					
M34	1039	Per	1	2	42	+42	47	5.5	35	1.4					
M35	2168	Gem	1	6	8.9	+24	20	5.3	28	2.8					
M36	1960	Aur	1	5	36.1	+34	8	6.3	12	4.1					
M37	2099	Aur	1	5	52.4	+32	33	6.2	24	4.4					
M38	1912	Aur	1	5	28.4	+35	50	7.4	21	4.2					
M39	7092	Cyg	1	21	32.2	+48	26	5.2	32	0.825					
M41	2287	CMa	1	6	47	-20	44	4.6	38	2.3					

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				hr	min	deg	min								
M42	1976	Ori	4	5	35.4	-5	27	4	85x60	1.6					
M44	2632	Cnc	1	8	40.1	+19	59	3.7	95	0.577					
M45	-	Tau	1	3	47	+24	7	1.6	110	0.38					
M46	2437	Pup	1	7	41.8	-14	49	6	27	5.4					
M47	2422	Pup	1	7	36.6	-14	30	5.2	30	1.6					
M48	2548	Hya	1	8	13.8	-5	48	5.5	54	1.5					
M50	2323	Mon	1	7	3.2	-8	20	6.3	16	3					
M52	7654	Cas	1	23	24.2	+61	35	7.3	13	5					
M55	6809	Sgr	2	19	40	-30	58	6.3	19	16.6					
M67	2682	Cnc	1	8	50.4	+11	49	6.1	30	2.7					
M92	6341	Her	2	17	17.1	+43	8	6.4	11.2	26.4					
M93	2447	Pup	1	7	44.6	-23	52	6	22	3.6					
M103	5811	Cas	1	01	33.2	+60	42	7.4	6.0	8					
II. TOUGHER MESSIER OBJECTS (18 OBJECTS)															
M14	6402	Oph	2	17	37.6	-3	15	7.6	11.7	27.4					
M19	6273	Oph	2	17	2.6	-26	16	6.8	13.5	27.1					
M28	6626	Sgr	2	18	24.5	-24	52	6.8	11.2	17.9					
M30	7099	Cap	2	21	40.4	-23	11	7.2	11	24.8					
M33	598	Tri	5	1	33.9	+30	39	5.7	73x45	3000					
M40	Win4	UMa	C	12	22.4	+58	5	8.4	0.8	0.3					
M49	4472	Vir	6	12	29.8	+8	0	8.4	9x7.5	60000					
M53	5024	Com	2	13	12.9	+18	10	7.6	12.6	56.4					
M62	6266	Oph	2	17	1.2	-30	7	6.5	14.1	21.5					
M63	5055	CVn	5	13	15.8	+42	2	8.6	10x6	37000					
M64	4826	Com	5	12	56.7	+21	41	8.5	9.3x5.4	12000					
M78	2068	Ori	4	5	46.7	0	3	8.3	8x6	1.6					
M79	1904	Lep	2	5	24.5	-24	33	7.7	8.7	41.1					
M80	6093	Sco	2	16	17	-22	59	7.3	8.9	27.4					
M81	3031	UMa	5	9	55.6	+69	4	6.9	21x10	12000					
M82	3034	UMa	7	9	55.8	+69	41	8.4	9x4	12000					

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M83	5236	Hya	5	13	37	-29	52	7.6	11x10	15000					
M94	4736	CVn	5	12	50.9	+41	7	8.2	7x3	14500					
III. CHALLENGE MESSIER OBJECTS (16 OBJECTS)															
M1	1952	Tau	9	5	34.5	+22	1	8.4	6x4	6.3					
M9	6333	Oph	2	17	19.2	-18	31	7.7	9.3	26.4					
M26	6694	Sct	1	18	45.2	-9	24	8	15	5					
M32	221	And	6	0	42.7	+40	52	8.1	8x6	2900					
M51	5194	CVn	5	13	29.9	+47	12	8.4	11x7	37000					
M54	6715	Sgr	2	18	55.1	-30	29	7.6	9.1	82.8					
M56	6779	Lyr	2	19	16.6	+30	11	8.3	7.1	31.6					
M65	3623	Leo	5	11	18.9	+13	5	9.3	8x1.5	35000					
M66	3627	Leo	5	11	20.2	+12	59	8.9	8x2.5	35000					
M68	4590	Hya	2	12	39.5	-26	45	7.8	12	32.3					
M71	6838	Sge	2	19	53.8	+18	47	8.2	7.2	11.7					
M75	6864	Sgr	2	20	6.1	-21	55	8.5	6	57.7					
M97	3587	UMa	3	11	14.8	+55	1	9.9	3.4x3.3	2.6					
M101	5457	UMa	5	14	03.2	+54	21	7.9	22.0	27000					
M104	4594	Vir	5	12	40.0	-11	37	8.0	9x4	50000					
M106	4258	CVn	5	12	19.0	+47	18	8.4	19x8	25000					