
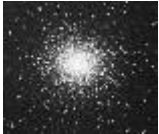
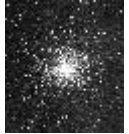








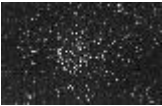
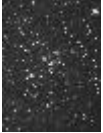
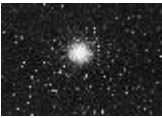

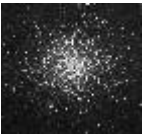



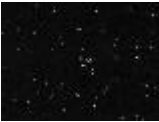
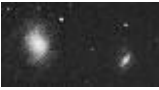



















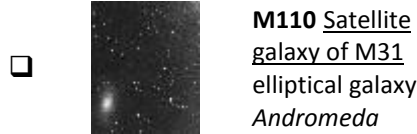
Southeast Ohio Astronomical Society

Messier Marathon Object List ¹

<input type="checkbox"/>		M1 <u>Crab Nebula</u> supernova remnant <i>Taurus</i>	<input type="checkbox"/>		M13 <u>Great Hercules Globular Cluster</u> <i>Hercules</i>	<input type="checkbox"/>		M25 open cluster <i>Sagittarius</i>
<input type="checkbox"/>		M2 globular cluster <i>Aquarius</i>	<input type="checkbox"/>		M14 globular cluster <i>Ophiuchus</i>	<input type="checkbox"/>		M26 open cluster <i>Scutum</i>
<input type="checkbox"/>		M3 globular cluster <i>Canes Venatici</i>	<input type="checkbox"/>		M15 globular cluster <i>Pegasus</i>	<input type="checkbox"/>		M27 <u>Dumbbell Nebula</u> planetary nebula <i>Vulpecula</i>
<input type="checkbox"/>		M4 globular cluster <i>Scorpius</i>	<input type="checkbox"/>		M16 <u>Eagle Nebula/Star Queen Nebula</u> starforming nebula <i>Serpens Cauda</i>	<input type="checkbox"/>		M28 globular cluster <i>Sagittarius</i>
<input type="checkbox"/>		M5 globular cluster <i>Serpens Caput</i>	<input type="checkbox"/>		M17 <u>Omega/Swan/Horseshoe/Lobster Nebula</u> <i>Sagittarius</i>	<input type="checkbox"/>		M29 open cluster <i>Cygnus</i>
<input type="checkbox"/>		M6 <u>Butterfly Cluster</u> open cluster <i>Scorpius</i>	<input type="checkbox"/>		M18 open cluster <i>Sagittarius</i>	<input type="checkbox"/>		M30 globular cluster <i>Capricornus</i>
<input type="checkbox"/>		M7 <u>Ptolemy's Cluster</u> open cluster <i>Scorpius</i>	<input type="checkbox"/>		M19 globular cluster <i>Ophiuchus</i>	<input type="checkbox"/>		M31 <u>Andromeda Galaxy</u> spiral galaxy <i>Andromeda</i>
<input type="checkbox"/>		M8 <u>Lagoon Nebula</u> starforming nebula <i>Sagittarius</i>	<input type="checkbox"/>		M20 <u>Trifid Nebula</u> starforming nebula <i>Sagittarius</i>	<input type="checkbox"/>		M32 <u>Satellite galaxy of M31</u> elliptical galaxy <i>Andromeda</i>
<input type="checkbox"/>		M9 globular cluster <i>Ophiuchus</i>	<input type="checkbox"/>		M21 open cluster <i>Sagittarius</i>	<input type="checkbox"/>		M33 <u>Triangulum Galaxy/Pinwheel</u> spiral galaxy <i>Triangulum</i>
<input type="checkbox"/>		M10 globular cluster <i>Ophiuchus</i>	<input type="checkbox"/>		M22 globular cluster <i>Sagittarius</i>	<input type="checkbox"/>		M34 open cluster <i>Perseus</i>
<input type="checkbox"/>		M11 <u>Wild Duck Cluster</u> open cluster <i>Scutum</i>	<input type="checkbox"/>		M23 open cluster <i>Sagittarius</i>	<input type="checkbox"/>		M35 open cluster <i>Gemini</i>
<input type="checkbox"/>		M12 globular cluster <i>Ophiuchus</i>	<input type="checkbox"/>		M24 <u>Milky Way Patch</u> with open cluster NGC 6603 <i>Sagittarius</i>	<input type="checkbox"/>		M36 open cluster <i>Auriga</i>

<input type="checkbox"/>		M37 open cluster <i>Auriga</i>	<input type="checkbox"/>		M49 elliptical galaxy <i>Virgo</i>	<input type="checkbox"/>		M61 spiral galaxy <i>Virgo</i>
<input type="checkbox"/>		M38 open cluster <i>Auriga</i>	<input type="checkbox"/>		M50 open cluster <i>Monoceros</i>	<input type="checkbox"/>		M62 globular cluster <i>Ophiuchus</i>
<input type="checkbox"/>		M39 open cluster <i>Cygnus</i>	<input type="checkbox"/>		M51 <u>Whirlpool Galaxy</u> <i>Canes Venatici</i>	<input type="checkbox"/>		M63 <u>Sunflower Galaxy</u> spiral galaxy <i>Canes Venatici</i>
<input type="checkbox"/>		M40 <u>Double Star</u> <i>WNC4</i> <i>Ursa Major</i>	<input type="checkbox"/>		M52 open cluster <i>Cassiopeia</i>	<input type="checkbox"/>		M64 <u>Blackeye Galaxy</u> spiral galaxy <i>Coma Berenices</i>
<input type="checkbox"/>		M41 open cluster <i>Canis Major</i>	<input type="checkbox"/>		M53 globular cluster <i>Coma Berenices</i>	<input type="checkbox"/>		M65 spiral galaxy <i>Leo</i>
<input type="checkbox"/>		M42 <u>Great Orion Nebula</u> starforming nebula <i>Orion</i>	<input type="checkbox"/>		M54 globular cluster <i>Sagittarius</i>	<input type="checkbox"/>		M66 spiral galaxy <i>Leo</i>
<input type="checkbox"/>		M43 <u>Orion /de Mairan's Nebula</u> starforming nebula <i>Orion</i>	<input type="checkbox"/>		M55 globular cluster <i>Sagittarius</i>	<input type="checkbox"/>		M67 open cluster <i>Cancer</i>
<input type="checkbox"/>		M44 <u>Praesepe/ Beehive Cluster</u> open cluster <i>Cancer</i>	<input type="checkbox"/>		M56 globular cluster <i>Lyra</i>	<input type="checkbox"/>		M68 globular cluster <i>Hydra</i>
<input type="checkbox"/>		M45 <u>Subaru/ Pleiades</u> open cluster <i>Taurus</i>	<input type="checkbox"/>		M57 <u>Ring Nebula</u> planetary nebula <i>Lyra</i>	<input type="checkbox"/>		M69 globular cluster <i>Sagittarius</i>
<input type="checkbox"/>		M46 open cluster <i>Puppis</i>	<input type="checkbox"/>		M58 spiral galaxy <i>Virgo</i>	<input type="checkbox"/>		M70 globular cluster <i>Sagittarius</i>
<input type="checkbox"/>		M47 open cluster <i>Puppis</i>	<input type="checkbox"/>		M59 elliptical galaxy <i>Virgo</i>	<input type="checkbox"/>		M71 globular cluster <i>Sagitta</i>
<input type="checkbox"/>		M48 open cluster <i>Hydra</i>	<input type="checkbox"/>		M60 elliptical galaxy <i>Virgo</i>	<input type="checkbox"/>		M72 globular cluster <i>Aquarius</i>

<input type="checkbox"/>		M73 open cluster <i>Aquarius</i>	<input type="checkbox"/>		M85 lenticular galaxy <i>Coma Berenices</i>	<input type="checkbox"/>		M97 Owl Nebula planetary nebula <i>Ursa Major</i>
<input type="checkbox"/>		M74 spiral galaxy <i>Pisces</i>	<input type="checkbox"/>		M86 lenticular galaxy <i>Virgo</i>	<input type="checkbox"/>		M98 spiral galaxy <i>Coma Berenices</i>
<input type="checkbox"/>		M75 globular cluster <i>Sagittarius</i>	<input type="checkbox"/>		M87 <u>Virgo A</u> elliptical galaxy <i>Virgo</i>	<input type="checkbox"/>		M99 spiral galaxy <i>Coma Berenices</i>
<input type="checkbox"/>		M76 <u>Little Dumbell /Cork/ Butterfly</u> planetary nebula <i>Perseus</i>	<input type="checkbox"/>		M88 spiral galaxy <i>Coma Berenices</i>	<input type="checkbox"/>		M100 spiral galaxy <i>Coma Berenices</i>
<input type="checkbox"/>		M77 spiral galaxy <i>Cetus</i>	<input type="checkbox"/>		M89 elliptical galaxy <i>Virgo</i>	<input type="checkbox"/>		M101 <u>Pinwheel Galaxy</u> spiral galaxy <i>Ursa Major</i>
<input type="checkbox"/>		M78 starforming reflection nebula <i>Orion</i>	<input type="checkbox"/>		M90 spiral galaxy <i>Virgo</i>	<input type="checkbox"/>		Alt M102 <u>Spindle Galaxy NGC 5866</u> lenticular galaxy <i>Draco</i>
<input type="checkbox"/>		M79 globular cluster <i>Lepus</i>	<input type="checkbox"/>		M91 spiral galaxy <i>Coma Berenices</i>	<input type="checkbox"/>		M103 open cluster <i>Casseopeia</i>
<input type="checkbox"/>		M80 globular cluster <i>Scorpius</i>	<input type="checkbox"/>		M92 globular cluster <i>Hercules</i>	<input type="checkbox"/>		M104 <u>Sombrero Galaxy</u> spiral galaxy <i>Virgo</i>
<input type="checkbox"/>		M81 <u>Bode's Galaxy /Nebula</u> spiral galaxy <i>Ursa Major</i>	<input type="checkbox"/>		M93 open cluster <i>Puppis</i>	<input type="checkbox"/>		M105 elliptical galaxy <i>Leo</i>
<input type="checkbox"/>		M82 <u>Cigar Galaxy</u> irregular galaxy <i>Ursa Major</i>	<input type="checkbox"/>		M94 spiral galaxy <i>Canes Venatici</i>	<input type="checkbox"/>		M106 spiral galaxy <i>Canes Venatici</i>
<input type="checkbox"/>		M83 <u>Southern Pinwheel Galaxy</u> spiral galaxy <i>Hydra</i>	<input type="checkbox"/>		M95 spiral galaxy <i>Leo</i>	<input type="checkbox"/>		M107 globular cluster <i>Ophiuchus</i>
<input type="checkbox"/>		M84 lenticular galaxy <i>Virgo</i>	<input type="checkbox"/>		M96 spiral galaxy <i>Leo</i>	<input type="checkbox"/>		M108 spiral galaxy <i>Ursa Major</i>



Magnitude, Distance & Diameter ² in Suggested Marathon Order for March ³

M	Magnitude	Distance (LY)	Diameter (LY)	M	Magnitude	Distance (LY)	Diameter (LY)	M	Magnitude	Distance (LY)	Diameter (LY)
77	8.9	60,000,000	40,000	109	9.8	38,000,000		27	7.3	980	2.5
74	9.4	40,000,000	100,000	40	9.3			71	8.3	12,000	29
33	6.3	2,400	60,000	106	8.4	25,000,000		107	8.1	19,000	40
31	4.4	2,200,000	110,000	94	8.2	20,000,000	33,000	10	6.6	15,000	70
32	9.0	2,200,000	2,400	63	8.6	35,000,000	90,000	12	6.8	20,000	80
110	8.8	2,200,000	5,400	51	8.4	35,000,000	100,000	14	7.6	33,000	112
52	6.9	3,900	15	101	7.9	35,000,000	90,000	9	7.6	19,000	50
103	7.0	9,000	15	102	9.9	30,000,000		4	5.9	6,500	52
76	10.1	3,400	1	53	7.5	65,000		80	7.3	28,000	72
34	5.2	1,500	4	64	8.5	30,000,000	48,000	19	6.7	30,000	100
45	1.2	380	7	3	5.9	40,000	90	62	6.7	20,500	75
79	7.8	41,000	110	98	10.1	40,000,000	80,000	6	4.2	1,500	14
42	5.0			99	9.9	50,000,000	50,000	7	3.3	800	21
43	7.0			100	9.3	40,000,000	110,000	11	5.8	62,000	21
78	8.0	1,600	4	85	9.1	44,000,000	40,000	26	8.0	5,200	21
1	8.0	6,300	7	84	9.1	42,000,000		26	6.0	42,000	130
35	5.1	2,200	18	86	8.9	42,000,000		16	6.0	6,500	70
37	5.6	4,100	25	87	8.6	42,000,000		17	6.0	6,800	70
36	6.0	4,100	14	89	9.8	42,000,000	80,000	18	6.9	4,100	12
38	6.4	4,200	21	90	9.5	42,000,000	80,000	24		12,000	20
41	4.5	2,350	24	88	9.7	42,000,000	66,000	25	4.6	3,200	30
93	6.2	3,400	22	91	10.2	42,000,000		23	5.5	2,000	15
47	4.4	1,790	17	58	9.7	42,000,000	50,000	21	5.9	5,200	20
46	6.1	5,400	40	59	9.6	42,000,000	24,000	20		6,500	
50	5.9	2,900	14	60	8.8	42,000,000	25,000	8	3.6	5,150	110
48	5.8	1,530	20	49	8.4	42,000,000	50,000	28	6.8	19,000	65
44	3.1	577	15	61	9.7		50,000	22	5.1	9,600	70
67	6.9	2,500	12	104	8.0	50,000,000	130,000	69	7.6	36,000	70
95	9.7	29,000,000		68	7.7	46,000	100	70	8.0	34,000	80
96	9.2	29,000,000		83	7.6	20,000,000	60,000	54	7.6	50,000	188
105	9.3	29,000,000		5	5.7	27,000	100	55	6.4	13,500	95
65	9.3	29,000,000	60,000	13	5.7	21,000	160	75	8.5	59,000	100
66	8.9	29,000,000	50,000	92	6.4	35,000	88	2	6.4	50,000	150
81	6.9	11,400,000	70,000	57	8.8	2,000	0.5	72	9.3	60,000	85
82	8.4	11,400,000	16,000	56	8.3	46,000	60	73	8.9		
97	9.9	3,000	3	29	6.6	6,000	11	30	7.3	40,000	100
108	10.0	35,000,000		39	4.6	800	7				

References

¹ <http://messier.seds.org/>

² Pennington, H. (2009). *The Year-Round Messier Marathon Field Guide*. Richmond, VA: William-Bell.

³ Machholz, D. (2002). *The Messier Marathon Observer's Guide: A Handbook and Atlas*. Cambridge, UK: Cambridge University Press.