

# Messier Marathon Checkoff List<sup>1</sup>

by Ken Graun

DATE \_\_\_\_\_

## 8 p.m.<sup>2</sup> 74<sup>3</sup>, 77, 52, 31/32/110, 33, 103, 111/112, 76, 34

	RA	Dec	Con	Object	Mag	Size	Name/Notes
M74	1h 36.7m	+15° 47'	Psc	Spiral Galaxy	9.2	10' x 9'	The Phantom _____
M77	2h 42.7m	-0° 01'	Cet	Spiral Galaxy	8.8	7' x 6'	_____
M52	23h 24.2m	+61° 35'	Cas	Open Cluster	6.9	13'	The Scorpion _____
M31	0h 42.7m	+41° 16'	And	Spiral Galaxy	3.5	178' x 63'	Andromeda Galaxy _____
M32	0h 42.7m	+40° 52'	And	Elliptical Galaxy	8.2	8' x 6'	_____
M110	0h 40.4m	+41° 41'	And	Elliptical Galaxy	8.0	17' x 10'	_____
M33	1h 33.9m	+30° 39'	Tri	Spiral Galaxy	5.7	62' x 39'	Pinwheel Galaxy _____
M103	1h 33.2m	+60° 42'	Cas	Open Cluster	7	6'	_____
M111	2h 19.0m	+57° 09'	Per	Open Cluster	4.5	30'	West Part of Double Cluster _____
M112	2h 22.4m	+57° 07'	Per	Open Cluster	4.5	30'	East Part of Double Cluster _____
M76	1h 42.4m	+51° 34'	Per	Planetary Nebula	11	2' x 1'	Little Dumbbell _____
M34	2h 42.0m	+42° 47'	Per	Open Cluster	5.2	35'	_____

## 9 p.m. 79, 41, 42/43, 78, 45, 1

	RA	Dec	Con	Object	Mag	Size	Name/Notes
M79	5h 24.5m	-24° 33'	Lep	Globular Cluster	7.7	9'	_____
M41	6h 46.0m	-20° 44'	CMa	Open Cluster	4.5	38'	Little Beehive _____
M42	5h 35.4m	-5° 27'	Ori	Nebula	4	66' x 60'	The Great Orion Nebula _____
M43	5h 35.6m	-5° 16'	Ori	Nebula	9	20' x 15'	_____
M78	5h 46.7m	+0° 03'	Ori	Nebula	8	8' x 6'	_____
M45	3h 47.0m	+24° 07'	Tau	Open Cluster	1.2	110'	Pleiades _____
M1	5h 34.5m	+22° 01'	Tau	Supernova Remnant	8	6' x 4'	Crab Nebula _____

## 9:30 p.m. 36, 37, 38, 35, 50, 46/47, 93, 48, 67, 44

	RA	Dec	Con	Object	Mag	Size	Name/Notes
M36	5h 36.1m	+34° 08'	Aur	Open Cluster	6.0	12'	_____
M37	5h 52.4m	+32° 33'	Aur	Open Cluster	5.6	24'	_____
M38	5h 28.7m	+35° 50'	Aur	Open Cluster	6.4	21'	_____
M35	6h 08.9m	+24° 20'	Gem	Open Cluster	5.1	28'	_____
M50	7h 02.8m	-8° 23'	Mon	Open Cluster	5.9	16'	_____

- Notes**
- <sup>1</sup> The times on this checkoff list are spaced for those finding the Messier objects manually, that is, by using star charts and having to push the telescope around by hand. You can naturally work ahead and those using GO TO mounts will probably want to do so.
  - <sup>2</sup> Start when it first gets dark at your location. The actual starting time (as well as all the other times indicated) will vary depending on your latitude and location in the time zone. **WORK QUICKLY TO OBSERVE THIS FIRST SET OF OBJECTS BEFORE THEY SET.**
  - <sup>3</sup> Sometimes M74 may not be observed with a smaller telescope because it get lost in the glow of dusk. However, it will most likely be visible and located with a "larger" telescope on a GO TO mount.

M46	7h 41.8m	-14° 49'	Pup	Open Cluster	6.1	27'	_____
M47	7h 36.6m	-14° 30'	Pup	Open Cluster	4.4	30'	_____
M93	7h 44.6m	-23° 52'	Pup	Open Cluster	6	22'	_____
M48	8h 13.8m	-5° 48'	Hya	Open Cluster	5.8	54'	_____
M67	8h 51.4m	+11° 49'	Cnc	Open Cluster	6.9	30'	King Cobra _____
M44	8h 40.1m	+19° 59'	Cnc	Open Cluster	3.1	95'	Praesepe _____

## 10:15 p.m. 95/96/105, 65/66

	RA	Dec	Con	Object	Mag	Size	Name/Notes
M95	10h 44.0m	+11° 42'	Leo	Spiral Galaxy	9.7	7' x 5'	_____
M96	10h 46.8m	+11° 49'	Leo	Spiral Galaxy	9.2	7' x 5'	_____
M105	10h 47.8m	+12° 35'	Leo	Elliptical Galaxy	9.3	5' x 4'	_____
M65	11h 18.9m	+13° 05'	Leo	Spiral Galaxy	9.3	10' x 3'	_____
M66	11h 20.2m	+12° 59'	Leo	Spiral Galaxy	9.0	9' x 4'	_____

## 10:45 p.m. 81/82, 97/108, 109, 40, 106, 101, 102, 51, 63, 94

	RA	Dec	Con	Object	Mag	Size	Name/Notes
M81	9h 55.6m	+69° 04'	UMa	Spiral Galaxy	6.8	26' x 14'	_____
M82	9h 55.8m	+69° 41'	UMa	Irregular Galaxy	8.4	11' x 5'	Cigar Galaxy _____
M97	11h 14.8m	+55° 01'	UMa	Planetary Nebula	11	3'	Owl Nebula _____
M108	11h 11.5m	+55° 40'	UMa	Spiral Galaxy	10.0	8' x 2'	_____
M109	11h 57.6m	+53° 23'	UMa	Spiral Galaxy	9.8	8' x 5'	_____
M40	12h 22.4m	+58° 05'	UMa	Double Star	10	1'	_____
M106	12h 19.0m	+47° 18'	CVn	Spiral Galaxy	8.3	18' x 8'	_____
M101	14h 03.2m	+54° 21'	UMa	Spiral Galaxy	7.7	27' x 26'	Pinwheel Galaxy _____
M102	15h 06.5m	+55° 46'	Dra	Elliptical Galaxy	9.9	6' x 3'	Méchain's Lost Galaxy _____
M51	13h 29.9m	+47° 12'	CVn	Spiral Galaxy	8.1	11' x 8'	Whirlpool Galaxy _____
M63	13h 15.8m	+42° 02'	CVn	Spiral Galaxy	8.6	12' x 8'	Sunflower Galaxy _____
M94	12h 50.9m	+41° 07'	CVn	Spiral Galaxy	8.1	11' x 9'	Croc's Eye _____

## 11:15 p.m. 3, 53, 64, 104, 68, 83, 5, 13, 92

	RA	Dec	Con	Object	Mag	Size	Name/Notes
M3	13h 42.2m	+28° 23'	CVn	Globular Cluster	6.2	16'	_____
M53	13h 12.9m	+18° 10'	Com	Globular Cluster	7.6	13'	_____
M64	12h 56.7m	+21° 41'	Com	Spiral Galaxy	8.5	9' x 5'	Black Eye Galaxy _____
M104	12h 40.0m	-11° 37'	Vir	Spiral Galaxy	8.3	9' x 4'	Sombrero Galaxy _____
M68	12h 39.5m	-26° 45'	Hya	Globular Cluster	8.2	12'	_____

M83	13h 37.0m	-29° 52'	Hya	Spiral Galaxy	8	11' x 10'	_____
M5	15h 18.6m	+2° 05'	Ser	Globular Cluster	5.7	17'	_____
M13	16h 41.7m	+36° 28'	Her	Globular Cluster	5.8	17'	Great Hercules Cluster _____
M92	17h 17.1m	+43° 08'	Her	Globular Cluster	6.4	11'	_____

**1 to 1:30 a.m.<sup>4</sup>**  
(or earlier)

**Virgo Galaxy Cluster**  
**85, 100, 99, 98, 88/91, 89/90, 58, 59/60,**  
**87, 84/86, 49, 61**

	RA	Dec	Con	Object	Mag	Size	Name/Notes
M85	12h 25.4m	+18° 11'	Com	Elliptical Galaxy	9.2	7' x 5'	_____
M100	12h 22.9m	+15° 49'	Com	Spiral Galaxy	9.4	7' x 6'	The Mirror _____
M99	12h 18.8m	+14° 25'	Com	Spiral Galaxy	9.8	5'	_____
M98	12h 13.8m	+14° 54'	Com	Spiral Galaxy	10.1	10' x 3'	_____
M88	12h 32.0m	+14° 25'	Com	Spiral Galaxy	9.5	7' x 4'	_____
M91	12h 35.4m	+14° 30'	Com	Spiral Galaxy	10.2	5' x 4'	_____
M89	12h 35.7m	+12° 33'	Vir	Elliptical Galaxy	9.8	4'	_____
M90	12h 36.8m	+13° 10'	Vir	Spiral Galaxy	9.5	10' x 5'	_____
M58	12h 37.7m	+11° 49'	Vir	Spiral Galaxy	9.8	5' x 4'	_____
M59	12h 42.0m	+11° 39'	Vir	Elliptical Galaxy	9.8	5' x 3'	_____
M60	12h 43.7m	+11° 33'	Vir	Elliptical Galaxy	8.8	7' x 6'	_____
M87	12h 30.8m	+12° 24'	Vir	Elliptical Galaxy	8.6	7'	Virgo A _____
M84	12h 25.1m	+12° 53'	Vir	Elliptical Galaxy	9.3	5' x 4'	_____
M86	12h 26.2m	+12° 57'	Vir	Elliptical Galaxy	9.2	7' x 5'	_____
M49	12h 29.8m	+8° 00'	Vir	Elliptical Galaxy	8.4	9' x 7'	_____
M61	12h 21.9m	+4° 28'	Vir	Spiral Galaxy	9.7	6' x 5'	Swelling Spiral _____

**2 to 3:00 a.m.<sup>5</sup>**

**12, 10, 107, 80, 4, 14, 57, 56, 9, 19, 62,**  
**29, 39, 27, 71**

	RA	Dec	Con	Object	Mag	Size	Name/Notes
M12	16h 47.2m	-1° 57'	Oph	Globular Cluster	6.7	15'	_____
M10	16h 57.1m	-4° 06'	Oph	Globular Cluster	6.6	15'	_____
M107	16h 32.5m	-13° 03'	Oph	Globular Cluster	8.1	10'	_____
M80	16h 17.0m	-22° 59'	Sco	Globular Cluster	7.3	9'	_____
M4	16h 23.6m	-26° 32'	Sco	Globular Cluster	5.9	26'	Cat's Eye _____

**Notes** <sup>4</sup> These galaxies will be on or near your southern meridian at about this time. This is the ideal location if you are manually finding these objects on an altazimuth mount for the up/down as well as left/right movement of the telescope will correspond to the same directions on star charts of this region.  
<sup>5</sup> Don't dilly-dally from this point on because dawn will sneak up on you fast. Work ahead as much as possible.

M14	17h 37.6m	-3° 15'	Oph	Globular Cluster	7.6	12'	_____
M57	18h 53.6m	+33° 02'	Lyr	Planetary Nebula	9	1.3'	Ring Nebula _____
M56	19h 16.6m	+30° 11'	Lyr	Globular Cluster	8.3	7'	_____
M9	17h 19.2m	-18° 31'	Oph	Globular Cluster	7.7	9'	_____
M19	17h 02.6m	-26° 16'	Oph	Globular Cluster	6.8	14'	_____
M62	17h 01.2m	-30° 07'	Oph	Globular Cluster	6.5	14'	Flickering Globular _____
M29	20h 23.9m	+38° 32'	Cyg	Open Cluster	6.6	7'	_____
M39	21h 32.2m	+48° 26'	Cyg	Open Cluster	4.6	32'	_____
M27	19h 59.6m	+22° 43'	Vul	Planetary Nebula	8	8' x 4'	Dumbbell Nebula _____
M71	19h 53.8m	+18° 47'	Sge	Globular Cluster	8.2	7'	_____

## 4 a.m. 11, 26, 16, 17, 18, 24, 25, 23, 20/21, 8, 22, 28, 6, 7

	RA	Dec	Con	Object	Mag	Size	Name/Notes
M11	18h 51.1m	-6° 16'	Sct	Open Cluster	5.8	14'	Wild Duck Cluster _____
M26	18h 45.2m	-9° 24'	Sct	Open Cluster	8.0	15'	_____
M16	18h 18.8m	-13° 47'	Ser	Nebula/Open Cluster	6	7'	Eagle Nebula _____
M17	18h 20.8m	-16° 11'	Sgr	Nebula/Open Cluster	7	46' x 37'	Omega Nebula _____
M18	18h 19.9m	-17° 08'	Sgr	Open Cluster	6.9	9'	Black Swan _____
M24	18h 16.9m	-18° 29'	Sgr	Thick Milky Way Patch	4	90' x 60'	_____
M25	18h 31.6m	-19° 15'	Sgr	Open Cluster	4.6	32'	_____
M23	17h 56.8m	-19° 01'	Sgr	Open Cluster	5.5	27'	_____
M20	18h 02.6m	-23° 02'	Sgr	Nebula/Open Cluster	8	28' x 28'	Trifid Nebula _____
M21	18h 04.6m	-22° 30'	Sgr	Open Cluster	5.9	13'	_____
M8	18h 03.8m	-24° 23'	Sgr	Nebula	6	90' x 40'	Lagoon Nebula _____
M22	18h 36.4m	-23° 54'	Sgr	Globular Cluster	5.1	24'	Great Sagittarius Cluster _____
M28	18h 24.5m	-24° 52'	Sgr	Globular Cluster	6.8	11'	_____
M6	17h 40.1m	-32° 13'	Sco	Open Cluster	4.2	15'	Butterfly Cluster _____
M7	17h 53.9m	-34° 49'	Sco	Open Cluster	3.3	80'	_____

## 4:30 a.m. 54, 70, 69, 55, 75, 15<sup>6</sup>, 72/73, 2

	RA	Dec	Con	Object	Mag	Size	Name/Notes
M54	18h 55.1m	-30° 29'	Sgr	Globular Cluster	7.6	9'	_____
M70	18h 43.2m	-32° 18'	Sgr	Globular Cluster	8.1	8'	_____
M69	18h 31.4m	-32° 21'	Sgr	Globular Cluster	7.6	7'	_____
M55	19h 40.0m	-30° 58'	Sgr	Globular Cluster	7.0	19'	The Spectre _____
M75	20h 06.1m	-21° 55'	Sgr	Globular Cluster	8.5	6'	_____
M15	21h 30.0m	+12° 10'	Peg	Globular Cluster	6.2	12'	Great Pegasus Cluster _____
M72	20h 53.5m	-12° 32'	Aqr	Globular Cluster	9.3	6'	_____
M73	20h 58.9m	-12° 38'	Aqr	4-Star Asterism	10.5	1'	_____
M2	21h 33.5m	-0° 49'	Aqr	Globular Cluster	6.5	13'	_____

**Notes** <sup>6</sup> M15 through M2 will best be glimpsed with an 8-inch or larger telescope on a GO TO mount.

## 5:15 to 5:30 a.m. 30<sup>7</sup>

	RA	Dec	Con	Object	Mag	Size	Name/Notes
M30	21h 40.4m	-23° 11'	Cap	Globular Cluster	7.2	11'	_____

**Congratulations.**  
**You've completed a marathon of the highest order!**

---

**Notes** <sup>7</sup> Often M30 may not be observed because it gets lost or washed out in the glow of sunlight before it gets high enough in the sky to observe. It is possible to see this last object, but to have the best chance, you will need 1) a clear shot of the eastern horizon, 2) the exact time and direction of its rise as determined from a planetarium program like Starry Night and 3) a larger telescope, at least 8 inches in diameter (10 inches or larger even better) on a GO TO mount because you will not be able to find it manually. Additionally, because this object will be so low in the sky, and competing with a sky lightening, you will most likely capture only a fleeting glimpse of it.