

Sequence et checklist pour le marathon de Messier de la SAG du 25 mars 2023

<https://calgary.rasc.ca/darksky/messierplanner.htm>

Seq	M#	Civil / 0° Hz	Nautical / 10° Hz	Nautical / 20° Hz	Verified	M#	NGC#	Polar	Type	Cons	RA hr	RA min	Dec °	Dec min	Max Alt°	@ time	@ Azm°	Rise @	Tran @	Sets @	mv	Size	Dist Kly	Remarks
1	M77					M77	1068		G-SABab	Cet	2	42.7	0	1	22.19	18:54	244.76	xx:xx	xx:xx	21:01	8.9	7x6	60000	A bright, compact Seyfert galaxy with a star-like nucleus - use high power. The closest Messier to the ecliptic (next is M78). Tough for northern marathoners due to its low altitude at sunset in March. (There is a 64.3 minute RA gap between M77 and M45.)
2	M74					M74	628		G-SAc	Psc	1	36.7	15	47	22.76	18:54	269.34	xx:xx	xx:xx	21:03	10.2	10.2x9.5	?	A large, face-on, faint, illusive spiral. One of the most difficult of the Messier objects especially in small telescopes and for northern marathoners due to its low altitude at sunset in March.
3	M33					M33	598		G-SACd	Tri	1	33.9	30	39	32.1	18:54	282.42	5:24	xx:xx	22:22	6.7	73x45	2300	A large diffuse spiral - requires a dark sky. This face-on spiral can be difficult to see due to it's large size. Use low power (may be easier to spot in finder or binoculars).
4	M31		not poss S	not poss S		M31	224		G-SAb	And	0	42.7	41	16	30.31	18:54	299.62	2:40	xx:xx	23:14	4.8	178	2200	!! The Andromeda Galaxy - the brightest galaxy in the sky, 4° wide. Look for dust lanes. (The smallest Messier RA gap is between M31 and M32.)
5	M32		not poss S	not poss S		M32	221		G-E5pec	And	0	42.7	40	52	30.06	18:54	299.25	2:47	xx:xx	23:08	8.7	8x6	2200	The closest companion to M31 - located slightly S of M31 and visible in the same low power field. (The smallest Messier RA gap is between M31 and M32.)
6	M110	not poss S	not poss S	not poss S		M110	205		G-E3pec	And	0	40.4	41	41	30.21	18:54	300.3	2:30	xx:xx	23:18	9.4	17x10	2200	A companion galaxy to M31, located NNE, with lower surface brightness than M32. (There is a 76.2 minute RA gap between M110 and M52 and a 3.0 hour RA gap between M110 and M30.)
7	M52					M52	7654	Yes	OC	Cas	23	24.2	61	35	43.94	6:27	40.56	xx:xx	xx:xx	xx:xx	7.3	13	7	A bright, young, rich cluster - faint Bubble Nebula nearby. (Although it has the highest RA, this object is N circumpolar for latitudes above -28° and can be seen at other times. There is a 103.8 minute RA gap between M52 and M30 and a 76.2 minute RA gap between M52 and M110, or, if you observe M52 out of RA sequence - a total of a 3.0 hour RA gap between M30 and M110 - the largest Messier RA gap and the main reason there is a Messier Marathon at all.) Can be difficult from southern latitudes due to its high Declination.
8	M103					M103	581	Yes	OC	Cas	1	33.2	60	42	46.19	18:54	317.13	xx:xx	xx:xx	xx:xx	7.4	6	8	A smaller open cluster. Appears triangle-shaped. (3 NGC clusters nearby). Can be difficult from southern latitudes due to its high Declination.
9	M76					M76	650	Yes	PN	Per	1	42.4	51	34	44.34	18:54	304.28	xx:xx	xx:xx	xx:xx	10.1	2.7x1.8	3.4	1:42:17ra? The Little Dumbbell Nebula - an 11th magnitude planetary nebula. A smaller version of The 'Dumbbell Nebula' in Vulpecula. One of the toughest, faintest Messier objects.
10	M34					M34	1039		OC	Per	2	42	42	47	50.05	18:54	286.43	4:05	xx:xx	1:40	5.5	35	1.4	A bright, rich open cluster, easily visible in binoculars - best at very low power.
11	M45					M45	----		OC	Tau	3	47	24	7	50.62	18:54	250.07	xx:xx	xx:xx	23:55	1.6	110	0.4	!! The 'Pleiades' or 'Seven Sisters' star cluster. Very bright and large. Use low power and look for nebulosity. The closest Messier. (There is a 64.3 minute RA gap between M77 and M45 and a 97.5 minute RA gap between M45 and M79, or, if you observe bright M45 out of RA sequence, a total of a 161.8 minute RA gap between M77 and M79 - the second largest Messier RA gap.)
12	M79			not poss D		M79	1904		GC	Lep	5	24.5	-24	33	17.66	18:54	195.67	xx:xx	xx:xx	21:47	8.4	8.7	39.8	A 20-cm telescope is needed to resolve the stars. Tough for northern marathoners due to its low altitude at sunset in March. (There is a 97.5 minute RA gap between M45 and M79)
13	M42					M42	1976		E/RN	Ori	5	35.4	-5	27	36.9	18:54	197.15	xx:xx	xx:xx	23:30	4	85x60	1.6	!! The famous 'Orion Nebula' - the brightest and easiest to find emission nebula in the winter sky - a magnificent object - this nebula will fill a low power eyepiece field of view.
14	M43					M43	1982		E/RN	Ori	5	35.6	-5	16	37.09	18:54	197.14	xx:xx	xx:xx	23:31	9.1	20x15	1.6	A fainter, detached part of Orion Nebula resembling a bloated coma. In the same field as M42.
15	M78					M78	2068		RN	Ori	5	46.7	0	3	42.84	18:54	194.92	xx:xx	xx:xx	0:05	10.3	8x6	1.6	A featureless reflection nebula - one of the easiest reflection nebulas to observe. Use medium magnification, without filters. (The 2nd closest Messier to the ecliptic (closest is M77)).

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16	M1					M1	1952		SNR	Tau	5	34.5	22	1	63.27	18:54	209.75	xx:xx	xx:xx	1:31	8.2	6x4	6.3	!! The famous Crab Nebula - the brightest example of a supernova remnant, formed in 1054 and still expanding. The only SNR Messier object.
17	M35					M35	2168		OC	Gem	6	8.9	24	20	67.69	18:54	192.88	xx:xx	xx:xx	2:18	5.3	28	2.8	!! Gemini's finest open cluster, visible to the naked eye under good conditions. (Look for small cluster NGC 2158 1/4° SW.)
18	M37					M37	2099		OC	Aur	5	52.4	32	33	74.51	18:54	211.24	xx:xx	xx:xx	2:53	6.2	24	4.6	!! The finest of the 3 Auriga clusters - very rich.
19	M36					M36	1960		OC	Aur	5	36.1	34	8	74.13	18:54	225.09	xx:xx	xx:xx	2:50	6.3	12	4.1	A bright, easy, scattered open cluster. Naked eye from a dark location. Best at low power.
20	M38					M38	1912		OC	Aur	5	28.7	35	50	74.47	18:54	233.42	xx:xx	xx:xx	2:57	7.4	21	4.2	28.4ram? The faintest of Auriga's Messier clusters. Many bright stars, arranged in pairs. (Look for the small cluster NGC 1907 1/2° S.)
21	M41					M41	2287		OC	CMa	6	47	-20	44	23.03	19:11	179.98	xx:xx	19:11	23:31	4.6	38	2.4	46ram? 4° The finest open cluster in Canis Major - bright but coarse, about 4° south of Sirius. Easily visible in binoculars, or to the naked eye from a dark site.
22	M93			not poss D		M93	2447		OC	Pup	7	44.6	-23	52	19.9	20:09	180.04	xx:xx	20:09	0:11	6	22	4.5	A compact bright cluster, fairly rich.
23	M47					M47	2422		OC	Pup	7	36.6	-14	30	29.27	20:01	180.04	xx:xx	20:01	0:51	4.5	30	1.6	A coarse cluster, 1.5° W of M46.
24	M46					M46	2437		OC	Pup	7	41.8	-14	49	28.95	20:06	179.99	xx:xx	20:06	0:55	6	27	5.4	!! Contains planetary nebula NGC 2438.
25	M50					M50	2323		OC	Mon	7	3.2	-8	20	35.43	19:27	180.03	xx:xx	19:27	0:45	6.3	16	3	A bright open cluster between Sirius and Procyon, naked eye under ideal conditions. Look for several arcs of stars, and a single red star 7 arc minutes south of the cluster's centre. Use low power.
26	M48					M48	2548		OC	Hya	8	13.8	-5	48	37.97	20:38	180.01	xx:xx	20:38	2:07	5.3	54	1.5	A large, sparse cluster. A former 'lost' Messier object.
27	M44					M44	2632		OC	Cnc	8	40.1	19	59	63.75	21:04	180.08	xx:xx	21:04	4:25	3.7	95	0.5	!! The Beehive Cluster or 'Praesepe' - appears as a hazy patch of light. Use low power for a wide field.
28	M67					M67	2682		OC	Cnc	8	50.4	11	49	55.58	21:14	179.94	xx:xx	21:14	3:58	6.1	30	2.25	A bright open cluster. Located five times as distant as M44, one of the oldest clusters, at 3.2 billion years. Easy in binoculars or finderscope.
29	M95					M95	3351		G-SBb	Leo	10	44	11	42	55.47	23:07	179.96	xx:xx	23:08	5:50	10.4	4.4x3.3	38000	A bright barred spiral with a bright central core and with M96 in the same field. (M95 can be difficult, M96 is bigger and brighter.) The bar and outer ring of material will require a large aperture and dark skies.
30	M96					M96	3368		G-SABab	Leo	10	46.8	11	49	55.58	23:10	180.05	xx:xx	23:10	5:54	9.1	6x4	38000	A brighter barred spiral, with M95 in the same field.
31	M105					M105	3379		G-E1	Leo	10	47.8	12	35	56.35	23:11	180.06	xx:xx	23:11	5:58	9.2	2	38000	A small elliptical galaxy, but has very high surface brightness. Very near M95 and M96. M105 is the biggest object in a field with galaxies NGC 3384 and NGC 3389 (dimmer).
32	M65					M65	3623		G-SABa	Leo	11	18.9	13	5	56.85	23:42	180.05	xx:xx	23:42	xx:xx	9.3	8x1.5	35000	!! A bright elongated spiral galaxy with M65 and NGC 3628 in same field. (M66 is smaller and brighter than M65.) Very high surface brightness showing good detail in medium sized scopes.
33	M66					M66	3627		G-SABb	Leo	11	20.2	12	59	56.75	23:44	180.07	xx:xx	23:44	xx:xx	8.2	8x2.5	35000	!! A bright spiral galaxy with M65 and NGC 3628 in same field.
34	M81					M81	3031	Yes	G-SAab	UMa	9	55.6	69	4	67.17	22:19	0.03	xx:xx	xx:xx	xx:xx	7.9	21x10	12000	!! A bright spiral, with M82 1/2° N. (M81 is rounder and brighter than M82.) Visible in binoculars from a good viewing site. Can be difficult from southern latitudes due to its high Declination - it is the 2nd most northerly Messier (M82 is higher).
35	M82					M82	3034	Yes	G-I0	UMa	9	55.8	69	41	66.55	22:19	0	xx:xx	xx:xx	xx:xx	8.8	9x4	12000	!! The 'exploding galaxy', with M81 1/2° S. Look for structure. Can be difficult from southern latitudes due to its high Declination - it is the most northerly Messier (next is M81).
36	M97					M97	3587	Yes	PN	UMa	11	14.8	55	1	81.22	23:38	0.13	xx:xx	xx:xx	xx:xx	9.9	3.4x3.3	2.6	!! The Owl Nebula - a planetary nebula very close to M108. Appears brighter than 11.2 mag low surface brightness.
37	M108					M108	3556	Yes	G-SBcd	UMa	11	11.5	55	40	80.57	23:35	359.86	xx:xx	xx:xx	xx:xx	10.7	8x1	45000	A bright, nearly edge-on spiral, very close to M97. Shows dark patches and mottling in larger scopes.
38	M109					M109	3992	Yes	G-SBbc	UMa	11	57.6	53	23	82.85	0:21	0.18	xx:xx	xx:xx	xx:xx	10.8	7x4	55000	A barred spiral near gamma UMa. Shows spiral structure easily in larger scopes.

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39	M40					M40	Win4	Yes	stars	UMa	12	22.4	58	5	78.15	0:46	359.92	xx:xx	xx:xx	xx:xx	9.1	0.8	0.51	The double star Winnecke 4 - separation of 50 arc seconds near Megrez in the Big Dipper. The most disappointing of the Messier objects.
40	M106					M106	4258	Yes	G-SABbc	CVn	12	19	47	18	88.93	0:42	1.45	xx:xx	xx:xx	xx:xx	8.6	19x8	25000	!! A large, bright spiral galaxy.
41	M94					M94	4736		G-SAab	CVn	12	50.9	41	7	84.88	1:14	180.06	xx:xx	1:14	xx:xx	7.9	7x3	14500	A bright, compact, tightly wound galaxy, with a very intense comet-like nucleus.
42	M63					M63	5055		G-SAbc	CVn	13	15.8	42	2	85.8	1:39	179.65	xx:xx	1:39	xx:xx	9.5	10x6	37000	!! The Sunflower Galaxy - bright, elongated, a bright core is visible in smaller scopes.
43	M51					M51	5194	Yes	G-SAbc	CVn	13	29.9	47	12	89.03	1:53	358.64	xx:xx	xx:xx	xx:xx	8.1	11x7	37000	!! The Whirlpool Galaxy - superb in big telescopes.
44	M101					M101	5457	Yes	G-SABcd	UMa	14	3.2	54	21	81.88	2:26	0.08	xx:xx	xx:xx	xx:xx	9.6	22	24000	!! The Pinwheel Galaxy - a large, diffuse, face-on spiral. Difficult to observe due to low surface brightness. Sky conditions are more important than aperture.
45	M102					M102	5866?	Yes	G-SA0*	Dra	15	6.5	55	46	80.47	3:29	359.89	xx:xx	xx:xx	xx:xx	10	5.2x2.3	40000	A bright but almost featureless lenticular galaxy. Appears originally to be a duplicate observation of M101. (Look for NGC 5907 nearby.)
46	M53					M53	5024		GC	Com	13	12.9	18	10	61.93	1:36	180.04	xx:xx	1:36	xx:xx	7.6	12.6	56.4	A bright, but small, globular cluster. Difficult to resolve - use a 15-cm telescope and high power.
47	M64					M64	4826		G-SAab	Com	12	56.7	21	41	65.45	1:20	179.95	xx:xx	1:20	xx:xx	8.8	9.3x5.4	19000	!! The Black Eye Galaxy. An abnormally smooth and featureless galaxy except for a large dark dust cloud near the nucleus, which gives it the appearance of a black eye - the 'eye' needs a large aperture to resolve.
48	M3					M3	5272		GC	CVn	13	42.2	28	23	72.15	2:05	179.91	xx:xx	2:05	xx:xx	6.3	16.2	30.6	!! A bright globular cluster, visible in binoculars - contains many variable stars.
49	M68			not poss D		M68	4590		GC	Hya	12	39.5	-26	45	17.02	1:03	180.01	21:10	1:03	4:47	8	12	32.3	15-cm telescope needed to resolve
50	M83			not poss D		M83	5236		G-SABc	Hya	13	37	-29	52	13.9	2:00	180.01	22:28	2:00	5:24	7.6	11x10	10000	A face-on Sc spiral - large and diffuse, tough from northern latitudes.
51	M98					M98	4192		G-SABab	Com	12	13.8	14	54	58.67	0:37	180.01	xx:xx	0:37	xx:xx	11.7	9.5x3.2	60000	An elongated, nearly edge-on spiral near star 6 Comae B. It has Low surface brightness (the faintest mv).
52	M99					M99	4254		G-SAc	Com	12	18.8	14	25	58.18	0:42	180.02	xx:xx	0:42	xx:xx	10.1	5.4x4.8	60000	A bright, circular, nearly face-on spiral near M98.
53	M100					M100	4321		G-SABbc	Com	12	22.9	15	49	59.58	0:46	179.98	xx:xx	0:46	xx:xx	10.6	7x6	60000	A face-on spiral galaxy with starlike nucleus.
54	M85					M85	4382		G-SA0*	Com	12	25.4	18	11	61.95	0:49	180.06	xx:xx	0:49	xx:xx	9.3	7.1x5.2	60000	A bright elliptically shaped, lenticular galaxy. A member of the Virgo galaxy cluster.
55	M84					M84	4374		G-E1	Vir	12	25.1	12	53	56.65	0:48	180.04	xx:xx	0:48	xx:xx	9.3	5	60000	!! M84 and M86 are a bright pair of elliptical galaxies in the heart of the Coma-Virgo galaxy cluster. Part of the 'Markarian Chain'. Many NGC's nearby - lots to explore!
56	M86					M86	4406		G-E3	Vir	12	26.2	12	57	56.72	0:49	180	xx:xx	0:50	xx:xx	9.7	7.5x5.5	60000	!! M84 and M86 are a bright pair of elliptical galaxies in the heart of the Coma-Virgo galaxy cluster.
57	M87					M87	4486		G-E0-1	Vir	12	30.8	12	24	56.17	0:54	180.03	xx:xx	0:54	xx:xx	9.2	7	60000	Another bright elliptical galaxy. One of the largest and most luminous know galaxies, also a strong radio and X-ray source - the one with the famous jet and black hole.
58	M89					M89	4552		G-E	Vir	12	35.7	12	33	56.32	0:59	179.94	xx:xx	0:59	xx:xx	9.5	4	60000	An elliptical galaxy resembling M87, but smaller.
59	M90					M90	4569		G-SABab	Vir	12	36.8	13	10	56.93	1:00	180.04	xx:xx	1:00	xx:xx	10	9.5x4.5	60000	A bright spiral galaxy, near M89.
60	M88					M88	4501		G-SAb	Com	12	32	14	25	58.18	0:55	179.94	xx:xx	0:55	xx:xx	10.2	7x4	60000	A bright multiple-arm spiral galaxy.
61	M91					M91	4548		G-SBb	Com	12	35.4	14	30	58.27	0:59	180.07	xx:xx	0:59	xx:xx	9.5	5.4x4.4	60000	(Some lists say M91 is M58 or NGC 4689 (12:47.8,+13.8), not NGC 4548.)
62	M58					M58	4579		G-SABb	Vir	12	37.7	11	49	55.58	1:01	179.94	xx:xx	1:01	xx:xx	9.2	5.5x4.5	60000	A bright barred spiral. (M59 and M60 1° E.)
63	M59					M59	4621		G-E5	Vir	12	42	11	39	55.42	1:05	179.96	xx:xx	1:05	xx:xx	9.6	5x3.5	60000	A bright elliptical galaxy paired with M60.
64	M60					M60	4649		G-E2	Vir	12	43.7	11	33	55.32	1:07	179.95	xx:xx	1:07	xx:xx	8.9	7x6	60000	A bright elliptical galaxy paired with M59 and NGC 4647.
65	M49					M49	4472		G-E2	Vir	12	29.8	8	0	51.77	0:53	180.03	xx:xx	0:53	xx:xx	8.5	9x7.5	60000	A very bright elliptical galaxy.
66	M61					M61	4303		G-SABbc	Vir	12	21.9	4	28	48.23	0:45	179.98	xx:xx	0:45	xx:xx	10.1	6x5.5	60000	A face-on two-armed spiral galaxy.
67	M104					M104	4594		G-SA	Vir	12	40	-11	37	32.15	1:03	179.97	19:54	1:03	6:07	8.7	9x4	50000	!! The 'Sombrero Galaxy' features a prominent dust lane. Tilted almost edge-on.

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68	M5					M5	5904		GC	Ser	15	18.6	2	5	45.85	3:41	180.02	21:34	3:41	xx:xx	6.2	17.4	22.8	!! One of the finest globulars - should be 'naked eye' under good skies. (In Serpens Caput.)
69	M13					M13	6205		GC	Her	16	41.7	36	28	80.23	5:04	179.83	19:44	5:04	xx:xx	5.7	16.6	22.2	!! The Hercules cluster - one of the finest globulars in the northern hemisphere. It is visible to the naked eye from a dark site. NGC 6207 is 1/2° NE.
70	M92					M92	6341		GC	Her	17	17.1	43	8	86.9	5:39	179.62	18:55	5:40	xx:xx	6.5	11.2	26.1	A bright globular cluster, almost as spectacular as M13. Stars are more compact and fainter than M13, requires more magnification and aperture to resolve. 9° NE of M13. A fine object but often overlooked.
71	M57					M57	6720		PN	Lyr	18	53.6	33	2	73.9	6:27	140.82	22:26	xx:xx	xx:xx	8.8	1.4x1.0	4.1	!! The Ring Nebula - a bright ring shaped planetary nebula. (The mag 15 central star is very tough.)
72	M56					M56	6779		GC	Lyr	19	16.6	30	11	68.81	6:27	133	23:11	xx:xx	xx:xx	8.2	7.1	31.6	A bright globular cluster within a rich star field. Difficult to resolve with small scopes.
73	M29					M29	6913		OC	Cyg	20	23.9	38	32	63.52	6:27	94.36	23:03	xx:xx	xx:xx	7.1	7	7.2	A small, poor open cluster 2° S of gamma Cygni.
74	M39					M39	7092	Yes	OC	Cyg	21	32.2	48	26	55.56	6:27	67.04	xx:xx	xx:xx	xx:xx	5.2	32	0.825	A very sparse cluster near pi Cygni - use low power.
75	M27					M27	6853		PN	Vul	19	59.6	22	43	57.06	6:27	125.79	0:39	xx:xx	xx:xx	7.4	8.0x5.7	1.25	!! The Dumbbell Nebula - one of the brightest planetary nebula, it is easily visible in a finder scope or binoculars - a superb object.
76	M71					M71	6838		GC	Sge	19	53.8	18	47	54.63	6:27	131.8	0:54	xx:xx	xx:xx	9	7.2	11.7	A bright, loose globular cluster, easily resolved with larger scopes - looks like an open cluster.
77	M107					M107	6171		GC	Oph	16	32.5	-13	3	30.72	4:55	180.01	23:52	4:55	xx:xx	9.2	10	19.6	A small, faint globular.
78	M12					M12	6218		GC	Oph	16	47.2	-1	57	41.82	5:10	180.01	23:19	5:10	xx:xx	6.6	14.5	17.6	A loose globular cluster.
79	M10					M10	6254		GC	Oph	16	57.1	-4	6	39.67	5:19	179.95	23:38	5:20	xx:xx	6.7	15.1	13.4	A rich cluster with M12 3° NW.
80	M14					M14	6402		GC	Oph	17	37.6	-3	15	40.52	6:00	180.04	0:15	6:00	xx:xx	7.7	11.7	27.4	A 20-cm telescope is needed to resolve the stars.
81	M9					M9	6333		GC	Oph	17	19.2	-18	31	25.25	5:42	180.03	1:04	5:42	xx:xx	7.3	9.3	26.4	The smallest of the Ophiuchus globulars.
82	M4			not poss D		M4	6121		GC	Sco	16	23.6	-26	32	17.23	4:46	179.98	0:53	4:46	xx:xx	6.4	26.3	6.8	A bright globular cluster near Antares. One of the most easily resolved globular clusters, having a loose, unconcentrated structure.
83	M80					M80	6093		GC	Sco	16	17	-22	59	20.78	4:40	180.04	0:26	4:40	xx:xx	7.7	8.9	27.4	A bright but very compressed globular.
84	M19			not poss D		M19	6273		GC	Oph	17	2.6	-26	16	17.5	5:25	180	1:30	5:25	xx:xx	6.6	13.5	27.1	An oblate cluster with M62 4° S.
85	M62			not poss D		M62	6266		GC	Oph	17	1.2	-30	7	13.65	5:24	180.02	1:53	5:24	xx:xx	6.6	14.1	21.5	Unsymmetrical, in rich star field.
86	M6			not poss D		M6	6405		OC	Sco	17	40.1	-32	13	11.55	6:02	179.99	2:48	6:03	xx:xx	5.3	15	2	!! The Butterfly Cluster - best at low power. Can be difficult from northern latitudes due to its low Declination.
87	M7		not poss D	not poss D		M7	6475		OC	Sco	17	53.9	-34	49	8.95	6:16	179.97	3:23	6:16	xx:xx	4.1	80	1	!! A bright open cluster excellent in binocular or rich-field scope. Can be difficult from northern latitudes due to its low Declination - it is the Most southerly Messier (next is M69).
88	M11					M11	6705		OC	Sct	18	51.1	-6	16	36.52	6:27	165.8	1:41	xx:xx	xx:xx	6.3	14	6	!! The Wild Duck Cluster - perhaps the best open cluster.
89	M26					M26	6694		OC	Sct	18	45.2	-9	24	33.66	6:27	168.17	1:48	xx:xx	xx:xx	9.3	15	5	A bright coarse cluster.
90	M16					M16	6611		EN+OC	Ser	18	18.6	-13	58	29.73	6:27	176.3	1:42	xx:xx	xx:xx	6.4	7	7	18.8ram? 47dec? The Eagle Nebula with an embedded open cluster - use a nebula filter. (In Serpens Cauda.)
91	M17					M17	6618		EN	Sgr	18	20.8	-16	11	27.49	6:27	175.82	1:54	xx:xx	xx:xx	7.5	11	5	!! The Swan or Omega Nebula - very high surface brightness - use nebula filter.
92	M18					M18	6613		OC	Sgr	18	19.9	-17	8	26.55	6:27	176.11	1:58	xx:xx	xx:xx	7.5	9	6	A small open cluster of 12 stars, 1° S of M17. Gets 'lost' in scopes, due to the high number of background stars.
93	M24					M24	>6603		starcloud	Sgr	18	16.5	-18	50	24.88	6:27	177.09	2:03	xx:xx	xx:xx	4.6	5	10	16.9ram? 29dec? 27dec? The 'Small Sagittarius Star Cloud' - a naked eye detached section of the milky way - contains open cluster NGC 6603.
94	M25					M25	IC4725		OC	Sgr	18	31.6	-19	15	24.25	6:27	173.2	2:20	xx:xx	xx:xx	6.5	40	2	A bright but sparse cluster.
95	M23					M23	6494		OC	Sgr	17	56.8	-19	1	24.75	6:19	179.99	1:44	6:19	xx:xx	6.9	27	4.5	A bright loose cluster.
96	M21					M21	6531		OC	Sgr	18	4.6	-22	30	21.27	6:27	179.96	2:10	6:27	xx:xx	6.5	13	4.25	A sparse cluster 0.7° NE of M20.

Sequence et checklist pour le marathon de Messier de la SAG du 25 mars 2023

<https://calgary.rasc.ca/darksky/messierplanner.htm>

Seq	M#	Civil / 0° Hz	Nautical / 10° Hz	Nautical / 20° Hz	Verified	M#	NGC#	Polar	Type	Cons	RA hr	RA min	Dec °	Dec min	Max Alt°	@ time	@ Azm°	Rise @	Tran @	Sets @	mv	Size	Dist Kly	Remarks
97	M20					M20	6514		E/RN	Sgr	18	2.3	-23	2	20.73	6:25	180.04	2:11	6:25	xx:xx	9	28	2.2	2.6ram? !! The Trifid Nebula - emission and reflection nebula. Observing the trisecting dark lanes requires fairly good skies.
98	M8			not poss D		M8	6523		EN	Sgr	18	3.8	-24	23	19.38	6:26	180	2:20	6:26	xx:xx	6	60x35	6.5	!! The Lagoon Nebula with embedded open cluster NGC 6530.
99	M28			not poss D		M28	6626		GC	Sgr	18	24.5	-24	52	18.77	6:27	175.41	2:43	xx:xx	xx:xx	7.3	11.2	17.9	A compact globular near M22,
100	M22			not poss D		M22	6656		GC	Sgr	18	36.4	-23	54	19.51	6:27	172.47	2:50	xx:xx	xx:xx	5.9	24	10.1	A spectacular globular from southern latitudes.
101	M69			not poss D		M69	6637		GC	Sgr	18	31.4	-32	21	11.2	6:27	174.39	3:40	xx:xx	xx:xx	8.9	7.1	25.4	A small poor globular. Can be difficult from northern latitudes due to its low Declination since it is the 2nd most southerly Messier (the lowest is M7).
102	M70			not poss D		M70	6681		GC	Sgr	18	43.2	-32	18	11	6:27	171.86	3:51	xx:xx	xx:xx	9.6	7.8	28	A small globular 2° E of M69. Can be difficult from northern latitudes due to its low Declination.
103	M54			not poss D		M54	6715		GC	Sgr	18	55.1	-30	29	12.46	6:27	169.04	3:50	xx:xx	xx:xx	8	9.1	82.8	A compact globular - not easily resolved.
104	M55		not poss A	not poss D		M55	6809		GC	Sgr	19	40	-30	58	9.89	6:27	159.55	4:38	xx:xx	xx:xx	5	19	16.6	A bright, loose globular.
105	M75			not poss A		M75	6864		GC	Sgr	20	6.1	-21	55	16.57	6:27	150.88	4:08	xx:xx	xx:xx	8	6	57.7	A small and distant globular - the smallest of the Messier globulars.
106	M15					M15	7078		GC	Peg	21	30	12	10	35.19	6:27	111.3	3:01	xx:xx	xx:xx	6	12.3	32.6	A very rich, tightly packed globular with a very bright core.
107	M2					M2	7089		GC	Aqr	21	33.5	0	49	24.53	6:27	119.94	4:00	xx:xx	xx:xx	6.3	12.9	36.2	A bright globular cluster but a 20-cm telescope is needed to resolve the stars.
108	M72					M72	6981		GC	Aqr	20	53.5	-12	32	20.17	6:27	135.86	4:10	xx:xx	xx:xx	9.8	5.9	52.8	Near NGC 7009 - the Saturn Nebula. Like nearby M73, may be difficult to observe in morning twilight.
109	M73			not poss A		M73	6994		stars	Aqr	20	59	-12	38	19.41	6:27	134.68	4:16	xx:xx	xx:xx	9	2.8	?	58.9ram? This is one of the most disappointing of the Messier objects - an asterism of 4 stars. Like nearby M72, may be difficult to observe in morning twilight.
110	M30		not poss A	not poss A		M30	7099		GC	Cap	21	40.4	-23	11	5.25	6:27	131.88	5:49	xx:xx	xx:xx	8.4	11	24.8	A compact globular cluster. The toughest object (and usually the last one) in a one-night Messier marathon for northern observers due to its low altitude at sunrise in March. M30 cannot be viewed in March for observers above 35° N. (There is a 103.8 minute RA gap between M30 and M52 and a 3.0 hour RA gap between M30 and M110.)

Visible: 109 104 88

Not Poss S
Not Poss D
Not Poss A

pas observable, trop pres du soleil
pas observable, Declinaison trop faible pour l'horizon local
pas observable, altitude maximum trop basse pour l'horizon local trop basse

For: Geneva Switzerland					
For: Saturday March 25, 2023					
Longitude:	6.0666667	Latitude:	46.2333333	UTCoffs et:	1
Horizon limit:	10° of Dec	Twilight limit:	12°	= 00:48 of RA	
Sunset: (this day)	18:54	at RA:	0:18	at LMST	6:26
Sunrise: (next day)	6:27	at RA:	0:20	at LMST	18:01
Hours of darkness:			11:33		
Moonrise:	8:10	Moonset:	23:48		this day
Moonrise:	8:39	Moonset:	xx:xx		next day
Sequence: Don Machholz - Messier Marathon Observer's Guide					
With these parameters, the "not possible" count = 6					