

The Astronomical League's Binocular Messier Club

David Haworth's Observing Log

Summary

I had not planned to start the Binocular Messier Club on early Tuesday morning of 7/2/2002. Monday the day before I received a new set of Orion 9x63 Mini-Giant binoculars to replace my old broken binoculars. That night I went out on the driveway to check out the binoculars on my homemade binoculars tripod mount.

Monday night twilight ended at 23:22 PDT and the last quarter moon would be rising 2 hours later at 1:28 PDT in the morning. The night was very clear and dark considering my home in Camas, Washington, U.S.A. is located 16.6 miles East-North-East from the center of Portland, OR. The night sky transparency was 5.8 magnitude with stars visible around Polaris. The Milky Way was beautiful as it was rising vertically out of the Portland sky glow in the south and arched overhead to the north.

As I check out the Orion 9x63 Mini-Giant binoculars I was very pleased with the performance especially the large 26mm eye relief allowed me to see the complete field of view with my glasses on.

At 00:35 PDT Tuesday morning after an hour of touring the Milky Way Messier objects I decided to start the Binocular Messier Club and log the objects I was observing. Over the years I have imaged most of the Messier objects and I am very familiar with their locations in the sky. For Messier images check my website at <http://www.stargazing.net/david/messier/ccdimages.html>.

On Tuesday morning 7/2/2002 I observed 38 Messier objects from 00:35 PDT to 2:54 PDT. I started with M6 and continued with M7, M22, M28, M8, M20, M21, M24, M18, M17, M25, M23, M16, M69, M71, M27, M11, M26, M70, M54, M57, M56, M29, M39, M31, M32, M15, M2, M52, M103, M13, M92, M72, M73, M33, M75, M55 and ended with M30. I tried and failed to see M110. When I stopped at 2:54 PDT the last quarter Moon sky glow washed out the eastern sky.

Tuesday night I started earlier at 10:42 PDT to observe new Messier objects to the west that were behind trees or had set in the previous Tuesday morning observing session. The transparency was 5.2 because of spotty very high light clouds. Seeing was 3, which was the same as the previous observing session. The observing session started at 10:42 and went to a little after midnight at 00:08 PDT. Twenty Messier objects were observed. I started with M3 and continued with M53, M64, M12, M10, M14, M80, M107, M4, M9, M19, M62, M51, M40, M63, M101, M81, M82, M94 and ended with M106. Later I at 3:26 I went out to observe M34 in the moonlight bringing the total up to 21 Messier objects being observed that night/morning. M101 was the most difficult object to see and it required averted vision to see this large faint object. I tried and failed to see M108, M97 & M109 (they were low in the north west horizon).

A total of 59 Messier objects were observed from Tuesday 00:35 PDT to Wednesday 3:26 PDT. Key items for my quick success logging 59 Messier objects was my experience with Messier object locations, I had taken images of most of them and knew what I was looking for, home made binoculars mount, 1X finder and a very nice set of binoculars.

Observer, Location and Equipment

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Member of the Astronomical League: Through the Rose City Astronomy Club, Portland, OR.

Observing Location: At home on the driveway, Camas, WA, USA

Binocular: Orion 9x63 (9x magnification, 63 mm objective diameter, FOV 5 degrees) Mini-Giant binoculars on homemade tripod mount with 1X finder.

Observing Table Notes

M#: Messier number

Date & Time: Pacific Daylight Savings Time (PDT)

Notes: Observing descriptions with objects in the same field of view (FOV)

S: Seeing, Antoniadi Seeing Scale 1 - 5

TR: Transparency, faintest star visible around Polaris with the unaided eye

NGC#: New General Catalog number

Con: Constellation

T: Type #, (Type 1= Open Cluster, Type 2= Globular Cluster, Type 3= Planetary Nebula, Type 4= Diffuse Nebula, Type 5= Spiral Galaxy, Type 6= Elliptical Galaxy, Type 7= Irregular Galaxy, Type 8= Binary Star System)

RA: Right ascension in hours minutes

DEC: Declination in degrees minutes

Mag: Visual magnitude

Observing Table

M#	Date	Time	Notes	STR	NGC#	Con	T	RA	DEC	Mag		
1					1952	Tau	3	5	31.5	21	59	8.2
2	7/2/2002	2:15	Small fuzzy, Brighter & larger than M15	35.8	7089	Aqr	2	21	30.9	-1	3	6.3
3	7/2/2002	10:42	Faint Fuzzy, Median size, grainy	35.2	5272	CVn	2	13	39.9	28	38	6.3
4	7/2/2002	11:08	Large & bright, seen through thin clouds		6121	Sco	2	16	20.6	-26	24	6.4
5					5904	Ser	2	15	16	2	16	6.2
6	7/2/2002	00:35	Small, few stars, FOV M7	35.8	6405	Sco	1	17	36.8	-32	11	5.3
7	7/2/2002	00:35	Large, many stars, FOV M6	35.8	6475	Sco	1	17	50.7	-34	48	4.1
8	7/2/2002	00:44	Bright nebula, FOV M20 & M21	35.8	6523	Sgr	4	18	1.6	-24	20	6
9	7/2/2002	11:10	Small, faint	35.2	6333	Oph	2	17	16.2	-18	28	7.3
10	7/2/2002	10:55	Smaller & brighter than M12, FOV M12	35.2	6254	Oph	2	16	54.5	-4	2	6.7
11	7/2/2002	1:01	Median bright, FOV M26	35.8	6705	Sct	1	18	48.4	-6	20	6.3
12	7/2/2002	10:53	Faint, median size, FOV M12	35.2	6218	Oph	2	16	44.6	-1	52	6.6
13	7/2/2002	2:27	Bright fuzzy	35.8	6205	Her	2	16	39.9	36	33	5.7
14	7/2/2002	11:00	Smaller than M10, Dimmer than M12	35.2	6402	Oph	2	17	35	-3	13	7.7
15	7/2/2002	2:12	Small fuzzy	35.8	7078	Peg	2	21	27.6	11	57	6
16	7/2/2002	00:52	Bright nebula, FOV M18 & M17	35.8	6611	Ser	1	18	16	-13	48	6.4
17	7/2/2002	00:46	Large nebula, FOV M24 & M18	35.8	6618	Sgr	4	18	18	-16	12	7.5
18	7/2/2002	00:46	Small nebula, FOV M24 & M17	35.8	6613	Sgr	1	18	17	-17	9	7.5
19	7/2/2002	11:14	Median size, seen through thin clouds	35.2	6273	Oph	2	16	59.5	-26	11	6.6
20	7/2/2002	00:44	Faint nebula, FOV M8 & M21	35.8	6514	Sgr	4	17	58.9	-23	2	9
21	7/2/2002	00:44	Very faint nebula, FOV M8 & M20	35.8	6531	Sgr	1	18	1.8	-22	30	6.5
22	7/2/2002	00:42	Large, bright, FOV M28	35.8	6656	Sgr	2	18	33.3	-23	58	5.9
23	7/2/2002	00:50	Large faint, no bright stars	35.8	6494	Sgr	1	17	54	-19	1	6.9
24	7/2/2002	00:46	Very large, bright, FOV M18 & M17	35.8	6603	Sgr	1	18	15.5	-18	27	4.6
25	7/2/2002	00:49	Large, open with bright stars	35.8	****	Sgr	1	18	28.8	-19	17	6.5
26	7/2/2002	1:02	Smaller & Fainter than M11, FOV M11	35.8	6694	Sct	1	18	42.5	-9	27	9.3
27	7/2/2002	00:59	Median bright, FOV M71	35.8	6853	Vul	3	19	57.4	22	35	7.6
28	7/2/2002	00:42	Small, FOV M22	35.8	6626	Sgr	2	18	21.5	-24	54	7.3
29	7/2/2002	1:19	Small bright, few stars	35.8	6913	Cyg	1	20	22.2	38	21	7.1
30	7/2/2002	2:54	Faint fuzzy with bright star	35.8	7099	Cap	2	21	37.5	-23	25	8.4
31	7/2/2002	1:51	Bright large galaxy, FOV M32	35.8	224	And	5	0	40	41	0	4.8
32	7/2/2002	1:54	Faint fuzzy star like, FOV M31	35.8	221	And	6	0	40	40	36	8.7
33	7/2/2002	2:45	Very large and very faint	35.8	598	Tri	5	1	31.1	30	24	6.7
34	7/3/2002	3:26	Large, bright OC with ~ 9 stars	35.5	1039	Per	1	2	38.8	42	34	5.5
35					2168	Gem	1	6	5.7	24	20	5.3
36					1960	Aur	1	5	32	34	7	6.3

37			2099	Aur	1	5	49	32	33	6.2		
38			1922	Aur	1	5	25.3	35	48	7.4		
39	7/2/2002	1:48	Bright OC, large triangle form	35.8	7092	Cyg	1	5	25.3	35	48	7.4
40	7/2/2002	11:30	Very small, very faint, averted vision	35.2	****	Uma	8	12	20	58	22	9.1
41					2287	CMa	1	6	44.9	-20	42	4.6
42					1976	ori	4	5	32.9	-5	25	4
43					1982	Ori	4	5	33.1	-5	18	9.1
44					2632	Cnc	1	8	37.5	19	52	3.7
45					****	Tau	1	3	43.9	23	58	1.6
46					2437	Pup	1	7	39.6	-14	42	6
47					2422	Pup	1	7	34.3	-14	22	4.5
48					2548	Hya	1	8	11.2	-5	38	5.3
49					4472	Vir	6	12	27.3	8	16	8.5
50					2323	Mon	1	7	0.5	-8	16	6.3
51	7/2/2002	11:27	Median size, faint smudge	35.2	5194	CVn	5	13	27.8	47	27	8.1
52	7/2/2002	2:20	Small faint fuzzy	35.8	7654	Cas	1	23	22	61	20	7.3
53	7/2/2002	10:46	Very faint fuzzy in the twilight, small	35.2	5024	Com	2	13	10.5	18	26	7.6
54	7/2/2002	1:12	Dim fuzzy star like	35.8	6715	Sgr	2	18	52	-30	32	8
55	7/2/2002	2:51	Faint fuzzy patch	35.8	6809	Sgr	2	19	36.9	-31	3	5
56	7/2/2002	1:17	Small dim	35.8	6779	Lyr	2	19	14.6	30	5	8.2
57	7/2/2002	1:15	Dim fuzzy star like	35.8	6720	Lyr	3	18	51.7	32	58	9.3
58					4579	Vir	5	12	35.1	12	5	9.2
59					4621	Vir	6	12	39.5	11	55	9.6
60					4649	Vir	6	12	41.1	11	49	8.9
61					4303	Vir	5	12	19.4	4	45	10
62	7/2/2002	11:18	Small fuzzy star like	35.2	6266	Oph	2	16	58.1	-30	3	6.6
63	7/2/2002	11:42	Very small & faint, averted vision, next to faint star	35.2	5055	CVn	5	13	13.5	42	17	9.5
64	7/2/2002	10:49	Very faint fuzzy, small, averted vision	35.2	4826	Com	5	12	54.3	21	57	8.8
65					3623	Leo	5	11	16.3	13	23	9.3
66					3627	Leo	5	11	17.6	13	17	8.2
67					2628	Cnc	1	8	48.3	12	0	6.1
68					4590	Hya	2	12	36.8	-26	29	8
69	7/2/2002	00:56	Very faint, averted vision, small	35.8	6637	Sgr	2	18	28.1	-32	23	8.9
70	7/2/2002	1:10	Very faint, averted vision	35.8	6681	Sgr	2	18	40	-32	21	9.6
71	7/2/2002	00:58	Small, faint, FOV M27	35.8	6838	Sge	2	19	51.4	18	39	9
72	7/2/2002	2:40	Very faint, averted vision, star like	35.8	6981	Aqr	2	20	50.7	-12	44	9.8
73	7/2/2002	2:41	Faint star like	35.8	6994	Aqr	1	20	56.7	-12	50	9
74					628	Psc	5	1	24	15	32	10
75	7/2/2002	2:48	Faint fuzzy, star like	35.8	6864	Sgr	2	20	3.2	-22	4	8
76					650	Per	3	1	38.8	51	19	10
77					1068	Cet	5	2	40.1	0	14	8.9
78					2068	Ori	4	5	44.2	0	2	10
79					1904	Lep	2	5	22.2	-24	34	8.4
80	7/2/2002	11:04	Small, dim		6093	Sco	2	16	14.1	-22	52	7.7
81	7/2/2002	11:59	Bright oval shape, FOV M82	35.2	3031	UMa	5	9	51.5	69	18	7.9
82	7/2/2002	11:59	Bright bar shape, FOV M81	35.2	3034	UMa	7	9	51.9	69	56	8.8
83					5236	Hya	5	13	34.3	-29	37	10
84					4374	Vir	6	12	22.6	13	10	9.3
85					4382	Com	6	12	22.8	18	28	9.3
86					4406	Vir	6	12	23.7	13	13	9.7

87			4486	Vir	6	12	28.3	12	40	9.2			
88			4501	Com	5	12	29.5	14	42	10			
89			4552	Vir	6	12	33.1	12	50	9.5			
90			4569	Vir	5	12	34.3	13	26	10			
91			4548	Com	5	12	32.9	14	46	9.5			
92	7/2/2002	2:31		Bright fuzzy, smaller than M13	35.8	6341	Her	2	17	17.1	43	8	6.5
93						2447	Pup	1	7	42.4	-23	45	6
94	7/3/2002	00:01		Small faint fuzzy	35.2	4736	CVn	5	12	48.6	41	23	7.9
95						3351	Leo	5	10	41.3	11	58	10
96						3368	Leo	5	10	44.2	12	5	9.1
97						3587	UMa	3	11	2	55	18	12
98						4192	Com	5	12	11.3	15	11	11
99						4254	Com	5	12	16.3	14	42	10
100						4321	Com	5	12	20.4	16	6	10
101	7/2/2002	11:50		Large, very, very faint, averted vision	35.2	5457	UMa	5	14	1.4	54	35	9.6
102						5457	UMa	5	14	1.4	54	35	9.6
102						?5866	Dra	5	15	6.5	55	45	10
103	7/2/2002	2:23		Faint with few bright stars, NGC663 is larger and brighter than M103	35.8	581	Cas	1	1	29.9	60	27	7.4
104						4594	Vir	5	12	37.3	-11	21	8.7
105						3379	Leo	6	10	45.2	12	51	9.2
106	7/3/2002	00:08		Averted vision only, median size	35.2	4258	CVn	5	12	16.5	47	35	8.6
107	7/2/2002	11:07		Very dim, averted vision, small	35.2	6171	Oph	2	16	29.7	-12	57	9.2
108						3556	UMa	5	11	8.7	55	57	10
109						3992	UMa	5	11	55	53	39	10
110						205	And	6	0	37.6	41	25	9.4