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by John Wagoner

American Association of Amateur Astronomers



The Astronomical League is pleased to introduce its Binocular Messier Club. The Binocular Messier Club is for beginning observers as well as experienced amateurs. Beginning observers will find that it doesn't take an expensive telescope, but only a simple

pair of binoculars, no matter what size, cost or condition, to do serious astronomy. On the other hand, experienced amateurs, even though they may already have the AL's telescopic Messier and Herschel certificates, will enjoy the new perspective binocular observing gives them as they pull back from an object and observe the area surrounding that object as well as the object itself. Seeing the object and its relationship to the sky around it will put that object in its proper context in the sky.

RULES AND REGULATIONS

To qualify for the AL's Binocular Messier Certificate, you need only be a member of the Astronomical League, through either an affiliated club or as a member-at-large, and observe 50 or more Messier objects using only binoculars. Any 50 of the 110 recognized Messier objects may be observed. You may use any pair of binoculars, but we recommend those with objectives between 20MM and 80MM in diameter.

To record your observations, you may use the log sheets found in the back of the Astronomical League's manual **Observe: A Guide to the Messier Objects**, or any similar log sheet. Your own log sheets should include: object, date, time, power, seeing, type of binocular, and observing notes. Order the Observe manual through *Astronomical League Sales, PO Box 572, West Burlington, IA 52655-9998*. The price is \$10.00, including postage. Or you can order on-line at www.astronomicalleguesales.com

To receive your Binocular Messier Certificate, simply send your observations along with your name, address, phone number, and club affiliation to your club's Awards Coordinator, or to: *Mike Benson, AL Binocular Coordinator, 2116 Crystal Dr., Nashville, TN 37210-3333. Phone (615) 883-6571. E-mail: ocentaurus@aol.com.* Upon verification of your observations, your certificate will be forwarded either to you or your club's "Awards Coordinator," whomever you choose.

If you need to become a member of the Astronomical League as a Member-at-Large, contact *Jackie Beucher, AL Executive Secretary, 11305 King Street, Overland Park, KS 66210-3421.* (913) 469-0135. E-Mail: M31@sky.net.

AAAA Members: If you have completed an AL observing project, submit your observations directly to the AAAA for certification. Be sure to send COPIES only. Do NOT send original photographs or observing logs.

THE APPENDICES

For those of you who are uncertain as to which Messier objects to observe, or who need a formal program to follow, we have included *Appendix A* and *Appendix B* for your use. *Appendix A* is for binoculars between 20MM and 50MM in diameter. *Appendix B* is for binoculars between 56MM and 80MM in diameter.

Each appendix lists the appropriate Messier objects that can be observed with that size instrument, and is divided into three categories: Easy, Tough, and Challenge objects.

Easy objects are those that appear large and bright in the field of view, and are easily located.

Tougher objects are small and dim in the field of view and require identifying the fields around them with the help of some sort of star chart to verify their location.

Challenge objects are those that are small and faint, sometimes requiring averted vision, and need to be pinpointed exactly on a good star atlas to identify.

You'll notice that in the small binocular category (*Appendix A*), 42 objects are classified as easy. You need only choose 8 of the objects in the tougher category to receive your certificate. For larger binoculars (*Appendix B*), all 50 objects needed to receive the certificate can be chosen out of the easy category. The point is that anyone, with any pair of binoculars, no matter what their size, shape, condition, or cost, can do serious astronomy, and acquire a Binocular Messier Club certificate. To prove that point, all 76 objects in *Appendix A* (Easy, Tough, and Challenge objects) were observed with a pair of 7x35 Tasco binoculars purchased at Wal-Mart for \$19.00.

Appendix C is for reference purposes, listing all 110 of the Messier objects, the times when they are best observed, and in constellation sequence. So, if you are wondering what is the best time of the year to observe a Messier object, refer to Appendix C. Appendix C tells by season each object's coordinates, their NGC numbers, the constellation they are located in, and their sizes and magnitudes. Appendix C also lists all of the Messier objects in the exact same order as the Astronomical League's Observe manual Observe: A Guide to the Messier Objects, in case you are using that as an observing aide.

I think you will find that the Binocular Messier Club is a fun and worthwhile project that will not only give you a whole new perspective on the universe in which we live, but a more comfortable feeling for the night sky that we all enjoy so much.

Good luck, clear skies, and good observing.





APPENDIX A

for 7x35, 7x50, and 10x50 BINOCULARS

I. EASY MESSIER OBJECTS:

2, 3, 4, 5, 6, 7, 8. 10, 11, 12, 13, 15, 16, 17, 18, 22, 23, 24, 25, 27, 29, 31, 34, 35, 36, 37, 38, 39, 41, 42, 44, 45, 46, 47, 48, 50, 52, 55,67, 92, 93,103

TOTAL = 42

II. TOUGHER MESSIER OBJECTS:

14, 19, 28, 30, 33, 40, 49, 53, 62, 63, 64, 78, 79, 80, 81, 82, 83, 94

TOTAL = 18

III. CHALLENGE MESSIER OBJECTS:

1, 9, 26, 32, 51, 54, 56, 65, 66, 68, 71, 75, 97, 101, 104, 106

TOTAL = 16

GRAND TOTAL = 76

APPENDIX B

for 11x80 BINOCULARS

I. EASY MESSIER OBJECTS:

2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13. 14, 15, 16, 17, 18, 19, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 50, 52, 53, 55, 62, 67, 71, 78, 79, 80, 81, 82, 92, 93, 94,103

TOTAL = 58

II. TOUGHER MESSIER OBJECTS:

1, 9, 33, 49, 51, 54, 56, 60, 61, 63, 64, 65, 66, 68, 75, 77, 83, 87, 97, 101, 102, 104, 106

TOTAL = 23

III. CHALLENGE MESSIER OBJECTS:

20, 58, 59, 69, 70, 72, 84, 85, 86, 88, 89, 90, 95, 96, 99, 100, 105, 107, 108, 109, 110

TOTAL = 21

GRAND TOTAL = 102







APPENDIX C

The Messier List

I. THE WINTER GROU	P	II. THE EARLY SPRING GROUP (continued)			
NGC# R.A. Dec Mag	Typ Con SizeMessier	NGC# R.A. Dec Mag Typ Con SizeMessier			
224 0 42.8 41 16 4.5	Gal And 178' 31	WIN4 12 20.0 58 22 9.0 Dbl UMa 49" 40			
221 0 42.8 40 52 10.0	Gal And 8'x6' 32				
205 0 40.4 41 41 10.0	Gal And 17'xl0' 110	3623 11 18.9 13 06 10.5 Gal Leo 8'xl.5' 65			
598 1 33.9 30 40 7.0	Gal Tri 73'x45' 33	3627 11 20.2 13 00 10.0 Gal Leo 8'x2.5' 66			
7654 23 24.2 61 35 8.0	OCI Cas 13.0' 52	3351 10 43.9 11 42 11.0 Gal Leo 4.4'x3.3' 95			
		3368 10 46.7 11 49 10.5 Gal Leo 6'x4 96			
581 1 33.2 60 42 7.0	OCI Cas 6.0' 103	3379 10 47.8 12 35 11.0 Gal Leo 2.0' 105			
1039 2 42.0 42 47 6.0	OCI Per 35.0' 34				
650 1 42.4 51 34 12.0	PIN Per 163"xl 07" 76	5272 13 42.2 28 23 7.0 GCI CVn 16.2' 3			
1952 5 34.5 22 01 9.0	PIN Tau 6 x4' 1	5194 13 30.0 47 11 8.0 Gal CVn I 1'x7' 51			
1432 3 47.0 24 07 1.4	OCI Tau 110.0' 45	5055 13 15.8 42 02 8.5 Gal CVn 10'x6' 63			
		4736 12 50.9 41 08 9.5 Gal CVn 7'x3' 94			
1960 5 36.1 34 08 6.5	OCI Aur 12.0' 36	4258 12 18.9 47 19 9.5 Gal CVn 19'x8' 106			
2099 5 52.4 32 33 6.0	OCI Aur 24.0' 37				
1912 5 28.7 35 50 7.0	OCI Aur 21.0' 38				
1976 5 35.3 -5 23 5.0	DfN Ori 85'x60' 42				
1982 5 35.5 -5 16 7.0	DfN Ori 20'xl5' 43	III. THE LATE SPRING GROUP			
2068 5 46.8 0 04 8.0	DfN Ori 8'x6' 78	NGC# R.A. Dec Mag Typ Con SizeMessier			
1904 5 24.5 -24 33 8.5	GCI Lep 8.7' 79				
2168 6 08.9 24 20 5.5	OCI Gem 28.0' 35	4472 12 29.8 8 01 10.0 Gal Vir 9'x7.5' 49			
2323 7 03.2 -8 20 7.0	OCI Mon 16.0' 50	4579 12 37.8 11 50 11.0 Gal Vir 5.5'x4.5' 58			
2287 6 47.0 -20 44 5.0	OCI CMa 38.0' 41	4621 12 42.1 11 39 11.5 Gal Vir 5'x3.5' 59			
2201 041.0 -2044 3.0	OCI Civia 30.0 41	4649 12 43.7 11 34 10.5 Gal Vir 7'x6' 60			
2437 741.8 -1449 6.5	OCI Pup 27.0' 46	4374 12 25.1 12 54 11.0 Gal Vir 5.0' 84			
2422 7 36.6 -14 30 4.5	OCI Pup 30.0' 47				
2447 7 44.6 -23 05 6.5	OCI Pup 30.0 47	4406 12 26.3 12 57 11.0 Gal Vir 7.5'x5.5' 88			
2447 7 44.0 -23 03 0.3	OCI 1 up 22.0 93	4486 12 30.9 12 24 11.0 Gal Vir 7.0' 87			
		4552 12 35.7 12 34 11.5 Gal Vir 4.0' 89			
II. THE EARLY SPRING	GROUP	4569 12 36.9 13 10 11.0 Gal Vir 9.5'x4.5' 90			
	Typ Con SizeMessier	4303 12 22.0 4 29 10.5 Gal Vir 6'x5.5' 61			
NGC# R.A. Dec Mag	Typ Con Sizewessier	4504 40 20 0 44 27 0 5 Cal Via Ob.41 404			
2632 8 40.1 19 59 4.0	OCI Cnc 95.0' 44	4594 12 39.9 -11 37 9.5 Gal Vir 9'x4' 104			
2682 8 50.4 11 49 7.5		5024 13 12.9 18 10 8.5 GCI Com 12.6' 53			
2548 8 13.8 -5 48 5.5		4826 12 56.7 21 41 9.0 Gal Com 9.3'x5.4' 64			
	•	4382 12 25.5 18 12 10.5 Gal Com 7. 1'x5.2' 85			
3031 9 55.6 69 40 8.5 3034 9 55.9 69 41 9.5	Gal UMa 21'xl0' 81 Gal UMa 9'x4' 82	4501 12 32.1 14 26 11.0 Gal Com 7'x4' 88			
3034 9 33.9 69 41 9.5	Gai Uivia 9 x4 82	4192 12 13.9 14 55 11.0 Gal Com 9.5'x3.2' 98			
3587 11 14.8 55 01 12.0	PIN UMa 202"xl96" 97				
3556 11 11.6 55 41 11.0	Gal UMa 8'xl' 108	4254 12 18.9 14 26 10.5 Gal Com 5.4'x4.8' 99 4321 12 23.0 15 50 10.5 Gal Com 7'x6' 100			
3992 11 57.6 53 23 11.0	Gal UMa 7'x4' 109				
5457 14 03.3 54 22 8.5	Gal UMa 22.0' 101	4548 12 35.5 14 30 11.5 Gal Com 5.4'x4.4' 91 4590 12 39.5 -26 45 9.0 GCI Hya 12.0' 68			
0701 14 00.0 04 ZZ 0.0	Jai Ulvia ZZ.U 101	4590 12 39.5 -26 45 9.0 GCI Hya 12.0' 68			





IV. THE MID-SUMMER GROUP

NGC#	R.A.	Dec	Mag	Тур	Con	SizeMes	sier
5866 15 6205 16	3 37.1 5 18.6 5 06.5 6 41.7 7 17.1	-29 52 2 05 55 45 36 28 43 08	8.5 7.0 10.5 7.0 7.5	Gal GCI Gal GCI GCI	Hya Ser Dra Her Her	II'xI0' 17.4' 5.2'x2.3' 16.6' 11.2'	83 5 102 13 92
6218 16	5 57.1 5 47.2 7 37.6	-4 06 -1 57 -3 15	9.0 7.5 8.0 9.5 8.5	GCI GCI GCI GCI GCI	Oph Oph Oph Oph Oph		9 10 12 14 19
6171 16 6121 16	32.5 32.6 317.0	-30 07 -13 03 -26 32 -22 59 -32 13	8.0 10.0 7.5 8.5 4.5	GCI GCI GCI GCI OCI	Oph Oph Sco Sco Sco	14. l' 10.0' 26.3' 8.9' 15.0'	62 107 4 80 6
6475 17	53.9	-34 49	3.5	OCI	Sco	80.0'	7

V. THE LATE SUMMER GROUP

R.A.	Dec	Mag	Тур	Con	SizeMes	sier
18 51.1	-6 16	7.0	OCI	Sct	14.0'	11
						26
						16
		7.0	CIN	Sgr	11.0'	17
18 19.9	-17 08	8.0	OCI	Sgr	9.0'	18
18 18.4	-18 25	4.0	OCI	Sgr	2 deg.	24
18 02.3	-23 02	5.0	C/N	Sgr	28.0'	20
18 04.6	-22 30	7.0	OCI	Sgr	13.0'	21
18 03.1	-24 23	5.0	C/N	Sgr	60'x 35'	8
18 36.4	-29 54	6.5	GCI	Sgr	24.0'	22
				_		
18 24.5	-24 52	8.5	GCI	Sgr	11.2'	28
17 56.8	-19 01	6.0	OCI	Sgr	27.0'	23
18 28.8	-19 17	4.9	OCI	Sgr	40.0'	25
18 55.1	-30 29	8.5	GCI	Sgr	9.ľ	54
19 40.0	-30 58	7.0	GCI	Sgr	19.0'	55
				Ū		
18 34.4	-32 21	9.0	GCI	Sgr	7.1'	69
18 43.2	-32 18	9.0	GCI	Sgr	7.8'	70
20 06.1	-21 55	9.5	GCI	Sgr	6.0'	75
	18 51.1 18 45.2 18 18.8 18 20.8 18 19.9 18 18.4 18 02.3 18 04.6 18 03.1 18 36.4 18 24.5 17 56.8 18 28.8 18 55.1 19 40.0 18 34.4 18 43.2	18 51.1 -6 16 18 45.2 -9 24 18 18.8 -13 47 18 20.8 -16 11 18 19.9 -17 08 18 18.4 -18 25 18 02.3 -23 02 18 04.6 -22 30 18 03.1 -24 23 18 36.4 -29 54 18 24.5 -24 52 17 56.8 -19 01 18 28.8 -19 17 18 55.1 -30 29 19 40.0 -30 58 18 34.4 -32 21 18 43.2 -32 18	18 51.1	18 51.1	18 51.1	18 51.1

VI. THE FALL AND EARLY WINTER GROUP

NGC#	ŧ	R.A.	Dec	Mag	Тур	Con	SizeMess	ier
6779 6720 6913 7092 6853	18 20 21	53.6 23.9 32.2	30 11 33 02 38 32 48 26 22 43	9.5 9.5 9.0 5.5 7.5	GCI PIN OCI OCI PIN	Lyr Lyr Cyg Cyg Vul	7.1' 85.6"x6l.6 7.0' 32.0'. 480"x340'	29 39
7089 6981	21 21 20	40.4 33.5 53.5	18 47 -23 11 -0 49 -12 32 -12 38	8.5 8.5 7.5 10.0 9.0	GCI GCI GCI GCI OCI	Sge Cap Aqr Aqr Aqr	7.2' I 1.0' 12.9' 5.9' 2.8'	71 30 2 72 73
7078 628 1068	1	30.0 36.6 42.7	12 10 15 48 -0 02	7.5 10.5 10.5	GCI Gal Gal	Peg Psc Cet	12.3' 10.2'x9.5' 7'x 6'	15 74 77

C/N - cluster and nebula

Dbl - double star diffuse nebula

Gal - galaxy

GCl - globular cluster

OCl - open cluster

PIN- planetary nebula





Object

Object

Object

Object

Date

Date

Power

Power

Power

Type Instrument

Type Instrument

Type Instrument

Type Instrument

Time

Time

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Time

Seeing

Seeing

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Observing Log

Observer: _			Location:	Page:
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Object	Date	Time		
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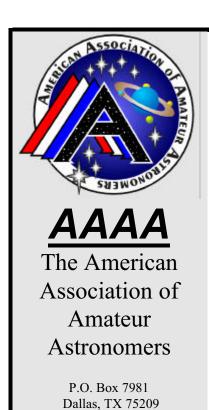
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