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Snake River Skies

A monthly publication of The Magic Valley Astronomical Society, member Astronomical League

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March 10th Meeting: March Messier Marathons

The monthly Magic Valley Astronomical Society meeting will have Tom Gilbertson and Dr. Chris Sutton discussing Messier Objects, how to find them, and why March is the best month to view them all.

During the years from 1758 to 1782 Charles Messier, a French astronomer (1730 - 1817), compiled a list of approximately 110 deep sky objects while looking for comets. This became known as the Messier List, one of the most important compilations in Astronomy history.

The club meeting starts at 7pm Saturday March 10th in the Herrett Center classroom, College of Southern Idaho.

From the President—Tom Gilbertson

"March Madness" is coming. No not just the annual NCAA basketball tournament normally associated with this term, but a chance to participate in one of amateur astronomy's most entertaining treasure hunts, the hunt for the Messier objects. Some people think it madness to risk hypothermia and experience sleep deprivation to try to see the entire Messier Catalog of objects in one night. Well OK they might be right.

That is not going to discourage us though as we have set aside the last two weekends in March (March 23, 24, 30, 31) to have the event at our dark sky night site, the Jerome Rod and Gun Club. We learned from last year that if you set aside four nights given the Idaho spring weather you may have a chance for one of those nights to be clear enough for the marathon.

The Boise Astronomical Society has determined that March 24 is the night the skies will be clear and they have invited us to the Bruneau Observatory site for their Messier Marathon. They may be right, as I understand they have some professional meteorologists in their group. If they are right and this is the clear night we will still have a marathon at Jerome Rod and Gun for those not willing to travel to Bruneau that night.

Unlike the popular Survivor television show which weeds out participants each week we are hoping to have many survivors make it through the marathon nights. Be sure to come to our March 10th meeting 7:00 pm at the Herrett Center and find out the survival skills needed for this fun event.

M42 in Orion

A number of local schools have requested our services to help out with their Astronomy nights. St Edwards Elementary School under the guidance of Rossetta Heddon hosted a very successful event March 1 and we owe a special thanks to Forrest Ray, Ken Thomason, Rick Widmer for helping me with the event.
We have requests from other schools and we need volunteers. It does not take much time and seeing those kids peer through a telescope for their first time is very rewarding. If you are interested in helping out please call me at 734-4383 or mail palo@pmt.org.

In Demand! Help Needed for School Star Parties in Gooding, Filer

MVAS has been asked by both the Filer School District and Gooding School Districts to provide a star party *on the same night* - **Thursday March 22nd.**

We need volunteers to man two groups, part of us to go to Gooding and part to help Filer. If anyone can lend a hand with a telescope or two, or just help answer questions for the public, please contact Tom Gilbertson or another club officer. Any help is much appreciated!

What are Messier Objects?

Charles Messier

During the years from 1758 to 1782 Charles Messier, a French astronomer (1730 - 1817), compiled a list of approximately 100 diffuse objects that were difficult to distinguish from comets through the telescopes of the day.

Discovering comets was the way to make a name for yourself in astronomy in the 18th century -- Messier's aim was to catalog the objects that were often mistaken for comets.

Fortunately for us, the Messier Catalog became well known for a much higher purpose, as a collection of the most beautiful objects in the sky including nebulae, star clusters, and galaxies.

It was one of the first major milestones in the history of the discovery of Deep Sky objects, as it was the first more comprehensive and more reliable list: Only four objects were initially missing because of data reduction errors, which could be figured out later though. Today's versions of the catalog usually include also later additions of objects observed by Messier and his collegial friend, Pierre Mechain, but not included in his original list.

The study of these objects by astronomers has led, and continues to lead, to important, incredible discoveries such as the life cycles of stars, the reality of galaxies as separate 'island universes,' and the possible age of the universe.

For more information on the Messier Catalog, see http://www.seds.org. This article came from their Website.

Surviving a Messier Marathon

As a preview to our March 10 presentation the following are some tips in attending a Messier Marathon.

Set your own goal. Sitting out all night is not for everyone and if you just want to view for a couple of hours find a few objects and leave that is perfectly acceptable.

Be sure to bring enough clothes. March is till a very cold month so determine what clothes you need then add an extra sweater or coat. What you think you will need is probably not enough. It is better to have more cold weather gear than you need than not enough. Insulated coveralls, snow gear are very good items to have. Be sure to have something to cover your ears, good gloves, and well-insulated footgear. Most of your heat loss is from your head, hands and feet.

Bring something hot to drink and some munchies.Teamwork is encouraged and probably necessary to find the objects. We are competing against the dusk, dawn, light pollution, and some very faint objects not each other. A couple of people working with the same scope is fine and may be necessary to verify that the objects have been found.

Use common sense when asking questions and respect those who are very serious about completing the marathon. Have fun and enjoy the night skies.

Twelve Tips for Messier Marathoners

Here a few tips for those who are participating in the Messier Marathon:

1. BE PREPARED: Have a good plan of attack. Get the star charts you are going to use and study them. Do not forget to bring the extras you will need such as a red flashlight, extra batteries for your Telrad or other battery-operated equipment, and a dew zapper. You will have dew in the spring. If you don't have one, bring a hair dryer and a long extension cord.

2. GET THERE EARLY. Get to the site as early as you can, at least by 6:30 pm. The first object viewable will be M45, the Pleiades, at 6:45. If you are set up by then you can get a few of the brighter objects out of the way fast, even if the are actually listed lower on the list.

3. HAVE A PLAN ON THE TOUGH EARLY OBJECTS. You will not have much time between the first signs of darkness, around 7 pm., and the time several of the first tough objects on your list will set in the west. You must be prepared for them. M74 and M77 will be particularly hard to locate. M74, a faint galaxy in Pisces, will undoubtedly be the toughest to find all night. I have trouble finding it when it is high in the sky if seeing conditions are not excellent. It has a low surface brightness. You will need to find a target nearby star and be able to find it fairly quickly after 7. M77, a galaxy in Cetus, is a little easier and you can locate it first because it is brighter.

4. VIEW AS MANY AS YOU CAN AS EARLY AS YOU CAN. Once you completed the first ten, you can slower your pace a little. However, since you have the most energy early, you need to move across the sky at a fairly good pace. You may need the extra time on the dreaded Virgo Cluster. You should be able to get through the first 48 by 10:30 or 11 pm. By then the Virgo Cluster will be in a good position in the sky to attack.

5. TAKE A BREAK BEFORE THE VIRGO CLUSTER. Now is a good time to take a break. Have some coffee. Go inside. Rest your feet. Have a snack. After 15 minutes or half an hour, you will be ready to go again.

6. PREPARE FOR VIRGO CLUSTER. You will need a good plan to wind your way through the Virgo Cluster, comprised of 14 galaxies in Virgo and Coma Berenices. I recommend you follow the path suggested in the chart on pages 42 and 43 of the May 1994 issue of Sky & Telescope. It starts in the eastern edge at Epsilon Virginis and goes toward the west rather than following the west to east, right ascension order from the list below that works well with most of the other objects. If you have Uranometria 2000, copy the charts on pages 192 and 193 and highlight the path suggested in the article. That night if you get halfway through and get lost, don't panic. Start over again and the second time you will be able to quickly get back to the last galaxy you had observed.

7. VIEW ALL THE OBJECTS DOWN TO THE EASTERN HORIZON: Continue to view as many objects as you can now as you cross the sky at a leisurely pace to the eastern horizon. If you have been successful so far, by about 1:30 am you should have completed 90 of the 110 objects. No more will be high enough above the eastern horizon to view now.

8. TAKE A LONG BREAK OR NAP. At this time there is a natural break in the marathon. Rather than waiting outside for a few objects to rise, you might as well rest for an hour-and-a half or two while you wait for a larger number to rise sufficiently above the horizon. You may even want to try to take a nap in the warming shed. Make sure however you have someone to wake you at 3 or 3:30. You don't want to oversleep and miss the end.

The Messier Marathon Search Order List

The Messier Marathon presents an opportunity to view the entire Messier List in one night. Each Spring, the period around the Spring Equinox on March 21 allows observers to view all 110 of the Messier objects in one observing session. In 2001, the new moon weekend falls on March 24, allowing for a full night of observing. During other weekends in March and April, the appearance of the moon during part of the night will hinder observers from viewing the whole list.

The list below is a recommended search order for the objects.

1. M77 spiral galaxy *in Cetus*

2. M74 spiral galaxy *in Pisces*

3. M33 The Triangulum Galaxy (also Pinwheel) spiral galaxy *in Triangulum*

4. M31 The Andromeda Galaxy spiral galaxy *in Andromeda*

5. M32 Satellite galaxy of M31 elliptical galaxy *in Andromeda*

6. M110 Satellite galaxy of M31 elliptical galaxy *in Andromeda*

7. M52 open cluster *in Cassiopeia*

8. M103 open cluster *in Casseopeia*

9. M76 The Little Dumbell, Cork, or Butterfly planetary nebula *in Perseus*

10. M34 open cluster *in Perseus*

11. M45 Subaru, the Pleiades--the Seven Sisters open cluster *in Taurus*

12. M79 globular cluster *in Lepus*

13. M42 The Great Orion Nebula diffuse nebula *in Orion*

14. M43 part of the Orion Nebula (de Mairan's Nebula) diffuse nebula *in Orion*

15. M78 diffuse reflection nebula *in Orion*

16. M1 The Crab Nebula supernova remnant *in Taurus*

17. M35 open cluster *in Gemini*

18. M37 open cluster *in Auriga*

19. M36 open cluster *in Auriga*

20. M38 open cluster *in Auriga*

21. M41 open cluster *in Canis Major*

22. M93 open cluster *in Puppis*

23. M47 open cluster *in Puppis*

24. **M46** open cluster *in Puppis*

25. **M50** open cluster *in Monoceros*

26. M48 open cluster *in Hydra*

27. M44 Praesepe, the Beehive Cluster open cluster *in Cancer*

28. M67 open cluster *in Cancer*

29. M95 spiral galaxy *in Leo*

30. M96 spiral galaxy *in Leo*

31. M105 elliptical galaxy *in Leo*

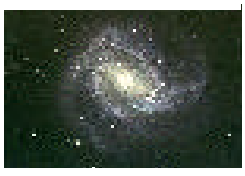
32. M65 spiral galaxy *in Leo*

33. M66 spiral galaxy *in Leo*

34. M81 Bode's Galaxy (nebula) spiral galaxy *in Ursa Major*

35. M82 Cigar Galaxy irregular galaxy *in Ursa Major*

36. M97 The Owl Nebula planetary nebula *in Ursa Major*



M83 in Virgo

37. M108 spiral galaxy *in Ursa Major*

38. M109 spiral galaxy *in Ursa Major*

39. M40 Double Star WNC4 *in Ursa Major*

40. M106 spiral galaxy *in Canes Venatici*

41. M94 spiral galaxy *in Canes Venatici*

42. M63 Sunflower galaxy spiral galaxy *in Canes Venatici*

43. M51 The Whirlpool Galaxy *in Canes Venatici*

44. M101 The Pinwheel Galaxy spiral galaxy *in Ursa Major* (M102 may be a duplication of M101)

45. M102? Spindle Galaxy (NGC 5866) lenticular (S0) Galaxy *in Draco*

46. M53 globular cluster *in Coma Berenices*

47. M64 Blackeye galaxy spiral galaxy *in Coma Berenices*

48. M3 globular cluster *in Canes Venatici*

49. M98 spiral galaxy *in Coma Berenices*

50. M99 spiral galaxy *in Coma Berenices*

51. M100 spiral galaxy *in Coma Berenices*

52. M85 lenticular (S0) Galaxy *in Coma Berenices*

53. M84 lenticular (S0) galaxy *in Virgo*

54. M86 lenticular (S0) galaxy *in Virgo*

55. M87 Virgo A elliptical galaxy *in Virgo*

56. M89 elliptical galaxy *in Virgo*

57. M90 spiral galaxy *in Virgo*

58. M88 spiral galaxy *in Coma Berenices*

59. M91 spiral galaxy *in Coma Berenices*

60. M58 spiral galaxy *in Virgo*

61. M59 elliptical galaxy *in Virgo*

62. M60 elliptical galaxy *in Virgo*

63. M49 elliptical galaxy *in Virgo*

64. M61 spiral galaxy *in Virgo*

65. M104 The Sombrero Galaxy spiral galaxy *in Virgo*

66. M68 globular cluster *in Hydra*

67. M83 Southern Pinwheel Galaxy spiral galaxy *in Hydra*

68. M5 globular cluster *in Serpens Caput*

69. M13 Great Hercules Globular Cluster globular cluster *in Hercules*

70. M92 globular cluster *in Hercules*

71. M57 The Ring Nebula planetary nebula *in Lyra*

72. M56 globular cluster *in Lyra*

73. M29 open cluster *in Cygnus*

74. M39 open cluster *in Cygnus*

75. M27 The Dumbbell Nebula planetary nebula *in Vulpecula*

76. M71 globular cluster *in Sagitta*

77. M107 globular cluster *in Ophiuchus*

78. M10 globular cluster *in Ophiuchus*

79. M12 globular cluster *in Ophiuchus*

80. M14 globular cluster *in Ophiuchus*

81. M9 globular cluster *in Ophiuchus*

82. M4 globular cluster *in Scorpius*

83. M80 globular cluster *in Scorpius*

84. M19 globular cluster *in Ophiuchus*

85. M62 globular cluster *in Ophiuchus*

86. M6 The Butterfly Cluster open cluster *in Scorpius*

87. M7 Ptolemy's Cluster open cluster *in Scorpius*

88. M11 The Wild Duck Cluster open cluster *in Scutum*

89. M26 open cluster *in Scutum*

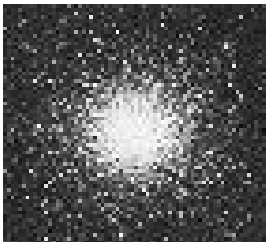
90. M16 open cluster associated with the **Eagle Nebula** or **Star Queen Nebula** IC 4703 *in Serpens Cauda*

91. M17 The Omega or **Swan** or **Horseshoe** or **Lobster Nebula** diffuse nebula *in Sagittarius*

92. M18 open cluster *in Sagittarius*

93. M24 Milky Way Patch star cloud with open cluster NGC 6603 *in Sagittarius*

94. M25 open cluster *in Sagittarius*



M3 in Canes Venatici

95. M23 open cluster *in Sagittarius*

96. M21 open cluster *in Sagittarius*

97. M20 The Trifid Nebula diffuse nebula *in Sagittarius*

98. M8 The Lagoon Nebula diffuse nebula *in Sagittarius*

99. M28 globular cluster *in Sagittarius*

100. M22 globular cluster *in Sagittarius*

101. M69 globular cluster *in Sagittarius*

102. M70 globular cluster *in Sagittarius*

103. M54 globular cluster *in Sagittarius*

104. M55 globular cluster *in Sagittarius*

105. M75 globular cluster *in Sagittarius*

106. M15 globular cluster *in Pegasus*

107. M2 globular cluster *in Aquarius*

108. M72 globular cluster *in Aquarius*

109. M73 open cluster *in Aquarius*

110. M30 globular cluster *in Capricornus*

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Twelve Tips *continued*

(Continued from page 2)

9. GO AT A LEISURELY PACE DOWN THE STRETCH: You will have a couple of hours to locate the next fifteen objects, so take extra time to view these objects. Enjoy the beauty of the Lagoon and Swan Nebulae. You're almost done.

10. HAVE A PLAN FOR THE LAST TOUGH OBJECTS: Just as you had to hurry at the beginning to catch the early objects before they set, you will have to hurry to catch the last few objects when they rise shortly before dawn. M72, a faint globular cluster, and M73, a faint four-star asterism, are both in late-rising Aquarius and will be difficult to find. Have your route carefully marked on your chart. M30 in Capricornus is not supposed to be viewable at our latitude during mid-March marathons. Since our marathon is later in the month, M30 may be visible but M74 and M77 may not be. If we are delayed to the late April dates, 5 or 6 objects at the beginning of our list may not be visible.

11. PRACTICE AHEAD OF THE TIME: If you have the time and the weather permits, you might want to try a dry run on the tough twilight objects and the Virgo Cluster. Practice might make the difference on whether or not you view all those objects during the marathon. I won't be so presumptuous to suggest that you do a dry run on the early morning objects. Even I won't go out to Jubilee at 4:30 a.m. to do that.

12. HAVE FUN: Last and most important, have fun. You don't have to view them all. The competition is friendly. Messier Marathons, while a challenge, are designed to improve your viewing skills rather than being an end in themselves. Finally, if you do come after sunset, don't forget to turn on your parking lights and turn off your headlights when you drive up the hill.

MVAS CLUB CALENDAR

NEXT CLUB MEETING:
Saturday March 10th, March MVAS meeting. "Messier Marathons" will be the topic presented by club president, Tom Gilbertson and MVAS member, Dr. Chris Sutton. 7PM at the Herrett center.

Thursday March 22nd. Star Party at Gooding. Star Party at Filer High School. Volunteers to man telescopes needed!

Friday & Saturday March 23rd - 24th, Messier Marathon at Jerome Rod & Gun Club. Starts at Dusk.

Saturday March 24th, Boise Astronomical Society Messier Marathon at Bruneau Dunes State Park.

March 30-31st, Messier Marathon at Jerome Rod & Gun Club.

April 28th, Astronomy Day at the Herrett Center.

June 22-24th, Craters of the Moon Star Party, Craters of the Moon National Monument

August 17-19th, Idaho Star Party, Bruneau Dunes State Park