S N A K E R I V E R S K I E S

M a g i c V a l l e y A s t r o n o m i c a l S o c i e t y

Next MVAS Meeting: Saturday March 13, 2004, 7pm Herrett Center, College of Southern Idaho

Join us Saturday March 13th for the next MVAS Meeting. Chris Anderson from the Herrett Center will discuss Celestial Coordinates, how they work and how we can learn to use them. A public star party follows, as is customary.

This month marks Messier Marathon month, where astronomers take advantage of the opportunity to observe all the Messier objects. We will be Messier Marathoning Friday March 19th and Saturday March 20th at the Jerome Rod and Gun Club, 14 miles north of Twin Falls.

Message from the President: Phil Hafer

March is our Messier Marathon month. It is the only time of the year when all Messier Celestial objects are visible to view at some time in one night. The 18th century French comet hunter cataloged these objects so that other comet hunters would not mistake these smudges in the sky for comets. The 110 objects became known ad Messier objects making him a household name among the astronomy community.

Each month Messier Marathons are held around the world, where amateur astronomers gather and try to log as many of the 110 as they can. They range from the first object M74 which is hard to catch due to the glow of sunset, to the last object M30 in Capricornus, which difficult because it appears in the glow of sunrise. The top Messier Marathoner in our group is Chris Sutton. Chris has been skunked by only one object over the last few years.

Join us this year as we hold our Messier Marathon **Friday 19 March 2004**, and Saturday 20 March 2004 at the Dark Sky Site at the Jerome Gun Club. The Boise Club will hold their Messier Marathon on the same nights at the Bruneau Dunes State Park. Messier Marathons are a lot of fun, if you only stay for a few hours of object hunting.

Our speaker for the March meeting on Saturday, 13 March 2004, will be Chris Anderson, who will speak on Celestial Coordinates.

Until then, clear skies and see you March 13.

How to Win at Messier Marathoning

Here a few tips for those who are participating in the Messier Marathon March 19-20:

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 Pi-

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Volume 5, Issue 3

March 2004

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If you would like to write an article or otherwise make an entry for the club newsletter, contact Jay Sneddon, 736-2447, jaysneddon@yahoo.com.

Yearly membership is $20 per person, $20 per family $10 per student, Sponsor $100

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.

How to Win at Messier Marathoning, cont

(Continued from page 1)

sces, 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. 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.

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.

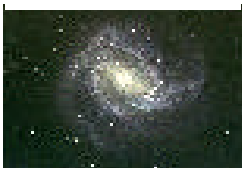
12. HAVE FUN: Last and most important, have fun. You don't have to view them all. The competition is friendly. Messier Marathons, while a challenge, are designed to improve your viewing skills rather than being an end in themselves. Finally, if you do come after sunset, don't forget to turn on your parking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

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.

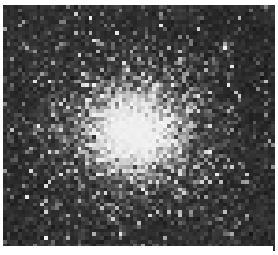
The list below is a recommended search order for the objects.

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*

Magic Valley
Astronomical Society

Magic Valley Astronomical Society
P.O. Box 5101
Twin Falls, ID 83303

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Planet Roundup courtesy skyandtelescope.com

The Sun is currently displaying a large spot. It's near the middle of the Sun's disk early this week; later the spot will rotate to the Sun's western side. It's visible to the unaided eye through a safe solar filter.

Mercury (magnitude –1) is deep in the glow of sunset. Late in the week try looking for it about 30 minutes after sunset, far below Venus and perhaps a bit to the right. Binoculars will help.

Venus (magnitude –4.3, in Aries) is the brilliant white "Evening Star" blazing in the west during twilight and much of the evening.

Mars (magnitude +1.2, in Taurus) glows dimly orange high in the southwest at dusk. Look for it to the upper left of brilliant Venus by somewhat more than a fist-width at arm's length. Compare Mars with similar-looking Aldebaran about the same distance to its own upper left. Is Mars just a bit redder? The planet gets lower in the southwest later in the evening and sets around 11 p.m. It's quite far away right now; in a telescope it's just a tiny, gibbous blob only 5 arcseconds in diameter.

Jupiter (magnitude –2.5, between the feet of Leo) shines in the east during twilight, higher in the southeast later in the evening, and highest in the south around 11 p.m. It's the second-brightest point of light in the evening sky, after Venus.

Saturn (magnitude –0.0, in the feet of Gemini) shines very high in the southwest during evening, above Orion.

Uranus and **Neptune** are hidden in the glow of dawn.

Pluto (magnitude 14, in Ophiuchus) is in the south-southeast before dawn.

Club Calendar

Saturday March 13th, 7pm, Herrett Center. Next MVAS Meeting, Chris Anderson will speak about Celestial Coordinates.

Friday and Saturday March 19-20th, MVAS Messier Marathon, starts at dusk at the Jerome Rod and Gun Club, 14 miles North of Twin Falls.

Saturday April 10th, 2004. April Monthly MVAS meeting. 7pm Herrett Center.

The Magic Valley Astronomical Society meets the second Saturday of each month at the College of Southern Idaho, Herrett Center at 7pm. Star Party at the Herrett Center follows.