



General Meeting of the Omaha Astronomical Society  
Friday, February 2nd at 7:30 PM  
Durham Science Center, Room 169, UNO Campus  
Program: See Page 3

## The Time for the Messier Marathon is almost here—Time to Prepare

A Messier Marathon is an attempt to find as many Messier objects as possible in one night. Depending on location and season, there are a different number of them visible. There are heavily crowded areas in the sky, like the Virgo Cluster and the region around the Galactic Center. There are also other regions that are virtually empty. This chance effect leads, at considerably low northern latitudes on Earth (best around 25 degrees North), to the chance to observe all 110 Messier objects in one night.

This opportunity occurs once every year, around mid- to end-March; the best time to try is of course when the Moon is near its new phase. For 2007 the best date is the night of 17/18 of March which is a Saturday/Sunday night. There is a second chance on 24/25 of March which is a Saturday/Sunday night, this night is not as good a choice as the 17/18.

*Note:* Most Messier Marathoners accept NGC 5866 as M102, either in account of historical evidence, or at least as substitute accepted for the Messier Marathon, and thus arrive at actually 110 different objects. We recommend to do so, but you decide what you want to do.

The time to prepare for this type of event is long before hand, so all your required item will be ready to go. Item like your charts, logs, binoculars, and of course a telescope. Also be pre-

pare for the type of weather you could experience during this time of year. It is only March the weather can still be pretty cold. So plan accordingly, dress in layers, bring hand warmers, gloves, hats and similar items. Also include a good pair of boots. One of the other important things is know the order in which to observe the Messier objects to give you the best chance of observing all 110 items in one night. Inside this issue of the STELLA will be a list of the Messier objects in the correct order for having a chance of completing a Messier Marathon in a single night.

### Newsletter Articles

This is a request from your President and Newsletter Editor, while I try to make our newsletter a full six pages, I do not always have the time to write enough articles. If I could persuade every member of the club to submit just get one article, there would be enough material for over two years worth of newsletters. So for anyone who can do a bit of writing on anything having to do with amateur astronomy, any and all submissions will be accepted. The reason for this notice is to also inform members that without some support in this area, I will not always be able to put out a full six page newsletter.

Thanks The Management

**February Club Star Party,  
February 17, 2007  
OAS Club Site, Weeping Water**

**Omaha Astronomical Society is a member of the NASA Night Sky Network**

# Events and Stuff Section

## February Meeting Presentation

### Inferior Planets

By Eric Balcom

## February Sky Calendar

2nd Full Moon  
10th Last Quarter Moon  
17th New Moon  
24th First Quarter Moon

## New Members

No New Members

## Good January Observing Dates to Observe at the Club Site or other good dark sky location

Friday 09 Feb 07, last quarter moon  
Saturday 10 Feb 07, last quarter moon  
Friday 16 Feb 07, new moon  
Saturday 17Feb 07, new moon

## Mahoney Public Star Parties

All Friday evenings from Twilight On the Golf Driving Range of the Mahoney State Park Ashland, NE

Friday May 18, 2007  
Friday June 15, 2007  
Friday July 13, 2007  
Friday August 10, 2007  
Friday September 14, 2007

## Notice to OAS Members

Notice to those OAS members who ordered calendars, if they are not picked up at the beginning of the January meeting then they will be sold to whoever wants them.

Thanks, the Management

## Recent Observing Awards

None

## January Meeting Minutes

The **meeting** came to order at 7:32. We welcomed as guests, Frank Barnes, Nancy Leonard, Dave & Mary Radcliff, Marissa Donovan and Brian Kennedy, with 46 people total. No rooftop observing. The secretary read the **December minutes** and Ed Sikorsky motioned to accept, John Johnson seconded and the minutes were accepted. John Macy gave a short **Treasurer's report**, with income in December of \$175.95, expenses of \$100.95, balance of \$4,911.90.

## Old Business

**Outreach**— 8 Dec.- Cub Scout Event went off well with good outdoor observing with about 5 club members and events on 14<sup>th</sup> & 18<sup>th</sup> of Dec. 06 worked with an indoor planetarium. Thank you Clete for the excellent article about astronomy outreach in the January Stella! Also, John Johnson brought copies for anyone interested of Steve Coe's "Astronomical Objects for a Public Viewing Session."

## Club Telescopes--

6" Dobsonian, AVAILABLE  
6" Newtonian, Bob Van Meteren  
8" SCT, AVAILABLE  
8 " Dobsonian (needs work-out of commission)  
13 " Dobsonian, Chris Jewell  
Binoculars, 11x80, Bill Bond

**Observing**—Look for Comet McNaught, visible at morning twilight due east. Also, if it survives its trip around the sun it will be in good viewing position again January 17<sup>th</sup> and 18<sup>th</sup>. Club Star Party (weather permitting) Saturday, January 20th, Astropark, Weeping Water (ask any officer

if you need a map.) Astropark visits in Dec. =1.

**By Laws**—Mark Weiss led a discussion on 3 proposed changes to clean up our club's By-Laws. 1) Change the 'Youth Chair' to Outreach Coordinator. (Motioned by Gary Grimes, seconded by Ed Sikorsky.) 2) Limit Past president board position to 1 year instead of unlimited as it is now. (Motioned by Al Dorn, seconded by Gary Grimes.) 3) Remove mandated Sky and Telescope subscriptions for members. (Motioned by John Macy, seconded by Bob Dunn.) All passed.

### **New Business**

**2007 Budget**—Mark also showed a proposed budget for the club for 2007. After some discussion a motion was made to accept by Ed Sikorsky, 2<sup>nd</sup> by Gary Grimes and passed by the membership.

**Asteroid Occultation**--John Johnson let us know about an asteroid, Palma, that will pass in front of the star in the constellation Lynx on January 26<sup>th</sup> at about 3 AM, the path of the occultation passing right over Omaha. Contact John if you would like to help in a coordinated observing effort.

**Snacks**—George Allen brought snacks and coffee (Thanks George!) and asked if anyone wanted to help provide snacks for the meetings. Several people offered to help.

**Book**—Vicki Niedergeses suggests "The Star of Bethlehem" by Mark Kidjer, for astronomy related reading.

**Messier Marathon**—George also reminded the club that March 17<sup>th</sup> is approaching and would be the perfect night/weekend to try to observe all the Messier objects (or as many as you choose) in one night's viewing! Look for more info in January or contact George.

**Next meeting, February 2nd, 2007.** Motion to adjourn business meeting made by Bill Bond, seconded by Ed Sikorsky and passed.

Tonight's program: **The Winter Sky** with Eric Balcom

Minutes by OAS Secretary  
Kim Moss-Allen

## **Astronomy Quiz, February**

1. Castor and Pollux of the constellation Gemini are high in the winter sky now. Castor is a multiple star system containing how many stars?
2. What deep sky object can be found just 4 degrees south of Sirius?
3. What is Adhara?
4. This song is from a) Greece, b) Babylonia, c) Crete or d) Egypt. What is this referring to?  
"Beautiful is your shining forth on the horizon,  
O living Aton, beginning of life!  
When you arise on the eastern horizon,  
You fill every land with your beauty."
5. Which planet in our solar system has the lowest albedo?
6. Our galaxy has about a) 100 billion stars, b) 10 billion stars, c) 1 billion stars or d) 1,000 billion stars?
7. What is an orrery?
8. This tiny constellation contains at least 10 open clusters visible with a small telescope, including NGC 4755, one of the youngest and brightest clusters known. Its stars are super-giants and "only" a few million years old. Which is it?
9. This constellation is near Virgo, is highest in the sky in April, and contains the star Alkes. Which is it?
10. What is memorable about the dates December 24<sup>th</sup>, 2007 and January 29, 2010?
11. Where are Ophir Chasma and Candor Chasma?



## OAS Club Officers

<b>President:</b>	Mark Weiss	291-5322	mweiss4@cox.net
<b>Vice President:</b>	Gary Grimes	(712)-527-3495	b52crow@netzero.com
<b>Treasurer:</b>	John Macy	991-5587	ptmacy@doctor.com
<b>Secretary:</b>	Kim Moss-Allen	291-7887	dallen@novia.net
<b>Program Chair:</b>	Eric Balcom	491-3502	ecbalcom@msn.com
<b>Outreach Coordinator:</b>	John Johnson	333-5460	jwjohnson@oppd.com
<b>Stella Editor:</b>	Mark Weiss	291-5322	mweiss4@cox.net

### January Astronomy Answers

- Hydra, the Water Snake. It is mostly in the southern hemisphere near Leo.
- The sky on Mars looks yellowish-brown or pink from dust suspended in the air from Mars' dust storms.
- These are the Large and Small Magellanic clouds. They appear to be part of our galaxy but are actually two small irregular galaxies that are satellite galaxies of our own Milky Way.
- False. Equuleus is faint and small but it is second smallest after Sagitta, the Arrow.
- Tektites are small, round, glassy objects believed to be caused by the melted material splashing out from meteor impacts.
- It's Pictis Austrinus, the Southern Fish and its alpha star, Fomalhaut, means fish's mouth.
- It's the gas and dust between the stars.
- NGC 6393 in Ara, the Alter, is the closest globular cluster about 7,200 light years away. (There are open clusters that are closer.)
- On Saturn's moon, Tethys.
- It's Pisces, the Fish.
- The "Quadrantid" meteor shower, with up to 110 meteors per hour, from a dark site.
- True. Satellite infrared observations provided this information, not visual observing.

References: Astronomy, From the Earth to the Universe, 5<sup>th</sup> Ed. Pasachoff; Constellations, Knowledge Cards, Dona Budd; National Audoban Society's Field Guide to the Night Sky, 1991.

The STELLA is a publication of  
The Omaha Astronomical Society.  
Please send related correspondence to: STELLA, c/o  
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P O Box 6257, Omaha, NE 68106  
email: stella@omahaastro.com

#### ANNUAL MEMBERSHIP DUES

Regular/Family  
\$25.00

Junior/Student  
\$10.00

Newsletter Only  
\$10.00

Send your check to:  
The OAS  
c/o John Macy  
P.O. 6257  
Omaha, NE 68106

#### BENEFITS OF MEMBERSHIP

- ◆ Members receive the STELLA, our monthly newsletter.
- ◆ Each member is automatically a member of the Astronomical League, the only nation-wide organization for amateur astronomers.
- ◆ Use of the observing site at Weeping Water, NE
- ◆ The opportunity to borrow one of several club-owned telescopes.
- ◆ Organized trips to local observatories, planetariums and museums.
- ◆ Significant savings on subscriptions to **Sky & Telescope** and **Astronomy** magazines.
- ◆ Savings on astronomy books and printed materials.

Visit the club web site at:  
[www.OmahaAstro.com](http://www.OmahaAstro.com)

Save the club money... and get your newsletter in full color by signing up for the email edition of the Stella. Signing up is easy... just send an e-mail to:

[oas.mkw@cox.net](mailto:oas.mkw@cox.net)

## MESSIER MARATHON LIST

1.	<a href="#">M77</a>	1068	Cet	5	02	42.7	-00	01	8.9	7x6	60000
2.	<a href="#">M74</a>	628	Psc	5	01	36.7	+15	47	9.4	10.2x9.5	35000
3.	<a href="#">M33</a>	598	Tri	5	01	33.9	+30	39	5.7	73x45	3000
4.	<a href="#">M31</a>	224	And	5	00	42.7	+41	16	3.4	178x63	2900
5.	<a href="#">M32</a>	221	And	6	00	42.7	+40	52	8.1	8x6	2900
6.	<a href="#">M110</a>	205	And	6	00	40.4	+41	41	8.5	17x10	2900
7.	<a href="#">M52</a>	7654	Cas	1	23	24.2	+61	35	7.3	13.0	5.0
8.	<a href="#">M103</a>	581	Cas	1	01	33.2	+60	42	7.4	6.0	8.5
9.	<a href="#">M76</a>	650	Per	3	01	42.4	+51	34	10.1	2.7x1.8	3.4
10.	<a href="#">M34</a>	1039	Per	1	02	42.0	+42	47	5.5	35.0	1.4
11.	<a href="#">M45</a>	-	Tau	1	03	47.0	+24	07	1.6	110.0	0.38
12.	<a href="#">M79</a>	1904	Lep	2	05	24.5	-24	33	7.7	8.7	42.1
13.	<a href="#">M42</a>	1976	Ori	4	05	35.4	-05	27	4.0	85x60	1.6
14.	<a href="#">M43</a>	1982	Ori	4	05	35.6	-05	16	9.0	20x15	1.6
15.	<a href="#">M78</a>	2068	Ori	4	05	46.7	+00	03	8.3	8x6	1.6
16.	<a href="#">M1</a>	1952	Tau	9	05	34.5	+22	01	8.4	6x4	6.3
17.	<a href="#">M35</a>	2168	Gem	1	06	08.9	+24	20	5.3	28.0	2.8
18.	<a href="#">M37</a>	2099	Aur	1	05	52.4	+32	33	6.2	24.0	4.4
19.	<a href="#">M36</a>	1960	Aur	1	05	36.1	+34	08	6.3	12.0	4.1
20.	<a href="#">M38</a>	1912	Aur	1	05	28.4	+35	50	7.4	21.0	4.2
21.	<a href="#">M41</a>	2287	CMa	1	06	46.0	-20	44	4.6	38.0	2.3
22.	<a href="#">M93</a>	2447	Pup	1	07	44.6	-23	52	6.0	22.0	3.6
23.	<a href="#">M47</a>	2422	Pup	1	07	36.6	-14	30	5.2	30.0	1.6
24.	<a href="#">M46</a>	2437	Pup	1	07	41.8	-14	49	6.0	27.0	5.4
25.	<a href="#">M50</a>	2323	Mon	1	07	03.2	-08	20	6.3	16.0	3
26.	<a href="#">M48</a>	2548	Hya	1	08	13.8	-05	48	5.5	54.0	1.5
27.	<a href="#">M44</a>	2632	Cnc	1	08	40.1	+19	59	3.7	95.0	0.577
28.	<a href="#">M67</a>	2682	Cnc	1	08	50.4	+11	49	6.1	30.0	2.7
29.	<a href="#">M95</a>	3351	Leo	5	10	44.0	+11	42	9.7	4.4x3.3	38000
30.	<a href="#">M96</a>	3368	Leo	5	10	46.8	+11	49	9.2	6x4	38000
31.	<a href="#">M105</a>	3379	Leo	6	10	47.8	+12	35	9.3	2.0	38000
32.	<a href="#">M65</a>	3623	Leo	5	11	18.9	+13	05	9.3	8x1.5	35000
33.	<a href="#">M66</a>	3627	Leo	5	11	20.2	+12	59	8.9	8x2.5	35000
34.	<a href="#">M81</a>	3031	UMa	5	09	55.6	+69	04	6.9	21x10	12000
35.	<a href="#">M82</a>	3034	UMa	7	09	55.8	+69	41	8.4	9x4	12000
36.	<a href="#">M97</a>	3587	UMa	3	11	14.8	+55	01	9.9	3.4x3.3	2.6
37.	<a href="#">M108</a>	3556	UMa	5	11	11.5	+55	40	10.0	8x1	45000
38.	<a href="#">M109</a>	3992	UMa	5	11	57.6	+53	23	9.8	7x4	55000
39.	<a href="#">M40</a>	Win4	UMa	C	12	22.4	+58	05	8.4	0.8	0.51
40.	<a href="#">M106</a>	4258	CVn	5	12	19.0	+47	18	8.4	19x8	25000
41.	<a href="#">M94</a>	4736	CVn	5	12	50.9	+41	07	8.2	7x3	14500
42.	<a href="#">M63</a>	5055	CVn	5	13	15.8	+42	02	8.6	10x6	37000
43.	<a href="#">M51</a>	5194	CVn	5	13	29.9	+47	12	8.4	11x7	37000
44.	<a href="#">M101</a>	5457	UMa	5	14	03.2	+54	21	7.9	22.0	27000
45.	<a href="#">M102?</a>	5866	Dra	8	15	06.5	+55	46	9.9	5.2x2.3	40000
46.	<a href="#">M53</a>	5024	Com	2	13	12.9	+18	10	7.6	12.6	59.7
47.	<a href="#">M64</a>	4826	Com	5	12	56.7	+21	41	8.5	9.3x5.4	19000
48.	<a href="#">M3</a>	5272	CVn	2	13	42.2	+28	23	6.2	16.2	33.9
49.	<a href="#">M98</a>	4192	Com	5	12	13.8	+14	54	10.1	9.5x3.2	60000
50.	<a href="#">M99</a>	4254	Com	5	12	18.8	+14	25	9.9	5.4x4.8	60000
51.	<a href="#">M100</a>	4321	Com	5	12	22.9	+15	49	9.3	7x6	60000
52.	<a href="#">M85</a>	4382	Com	8	12	25.4	+18	11	9.1	7.1x5.2	60000
53.	<a href="#">M84</a>	4374	Vir	8	12	25.1	+12	53	9.1	5.0	60000
54.	<a href="#">M86</a>	4406	Vir	8	12	26.2	+12	57	8.9	7.5x5.5	60000
55.	<a href="#">M87</a>	4486	Vir	6	12	30.8	+12	24	8.6	7.0	60000
56.	<a href="#">M89</a>	4552	Vir	6	12	35.7	+12	33	9.8	4.0	60000
57.	<a href="#">M90</a>	4569	Vir	5	12	36.8	+13	10	9.5	9.5x4.5	60000
58.	<a href="#">M88</a>	4501	Com	5	12	32.0	+14	25	9.6	7x4	60000
59.	<a href="#">M91</a>	4548	Com	5	12	35.4	+14	30	10.2	5.4x4.4	60000
60.	<a href="#">M58</a>	4579	Vir	5	12	37.7	+11	49	9.7	5.5x4.5	60000

61.	<a href="#">M59</a>	4621	Vir	6	12	42.0	+11	39	9.6	5x3.5	60000
62.	<a href="#">M60</a>	4649	Vir	6	12	43.7	+11	33	8.8	7x6	60000
63.	<a href="#">M49</a>	4472	Vir	6	12	29.8	+08	00	8.4	9x7.5	60000
64.	<a href="#">M61</a>	4303	Vir	5	12	21.9	+04	28	9.7	6x5.5	60000
65.	<a href="#">M104</a>	4594	Vir	5	12	40.0	-11	37	8.0	9x4	50000
66.	<a href="#">M68</a>	4590	Hya	2	12	39.5	-26	45	7.8	12.0	33.3
67.	<a href="#">M83</a>	5236	Hya	5	13	37.0	-29	52	7.6	11x10	15000
68.	<a href="#">M5</a>	5904	Ser	2	15	18.6	+02	05	5.6	17.4	24.5
69.	<a href="#">M13</a>	6205	Her	2	16	41.7	+36	28	5.8	16.6	25.1
70.	<a href="#">M92</a>	6341	Her	2	17	17.1	+43	08	6.4	11.2	26.7
71.	<a href="#">M57</a>	6720	Lyr	3	18	53.6	+33	02	8.8	1.4x1.0	2.3
72.	<a href="#">M56</a>	6779	Lyr	2	19	16.6	+30	11	8.3	7.1	32.9
73.	<a href="#">M29</a>	6913	Cyg	1	20	23.9	+38	32	7.1	7.0	4.0
74.	<a href="#">M39</a>	7092	Cyg	1	21	32.2	+48	26	4.6	32.0	0.825
75.	<a href="#">M27</a>	6853	Vul	3	19	59.6	+22	43	7.4	8.0x5.7	1.25
76.	<a href="#">M71</a>	6838	Sge	2	19	53.8	+18	47	8.2	7.2	12.7
77.	<a href="#">M107</a>	6171	Oph	2	16	32.5	-13	03	7.9	10.0	20.9
78.	<a href="#">M12</a>	6218	Oph	2	16	47.2	-01	57	6.7	14.5	16.0
79.	<a href="#">M10</a>	6254	Oph	2	16	57.1	-04	06	6.6	15.1	14.4
80.	<a href="#">M14</a>	6402	Oph	2	17	37.6	-03	15	7.6	11.7	29.0
81.	<a href="#">M9</a>	6333	Oph	2	17	19.2	-18	31	7.7	9.3	26.7
82.	<a href="#">M4</a>	6121	Sco	2	16	23.6	-26	32	5.6	26.3	7.2
83.	<a href="#">M80</a>	6093	Sco	2	16	17.0	-22	59	7.3	8.9	32.6
84.	<a href="#">M19</a>	6273	Oph	2	17	02.6	-26	16	6.8	13.5	28.4
85.	<a href="#">M62</a>	6266	Oph	2	17	01.2	-30	07	6.5	14.1	22.5
86.	<a href="#">M6</a>	6405	Sco	1	17	40.1	-32	13	5.3	25.0	2
87.	<a href="#">M7</a>	6475	Sco	1	17	53.9	-34	49	4.1	80.0	0.8
88.	<a href="#">M11</a>	6705	Sct	1	18	51.1	-06	16	6.3	14.0	6
89.	<a href="#">M26</a>	6694	Sct	1	18	45.2	-09	24	8.0	15.0	5
90.	<a href="#">M16</a>	6611	Ser	1	18	18.8	-13	47	6.4	7.0	7
91.	<a href="#">M17</a>	6618	Sgr	4	18	20.8	-16	11	7.0	11.0	5
92.	<a href="#">M18</a>	6613	Sgr	1	18	19.9	-17	08	7.5	9.0	4.9
93.	<a href="#">M24</a>	>6603	Sgr	B	18	16.9	-18	29	4.6	90	10
94.	<a href="#">M25</a>	I4725	Sgr	1	18	31.6	-19	15	6.5	40.0	2
95.	<a href="#">M23</a>	6494	Sgr	1	17	56.8	-19	01	6.9	27.0	2.15
96.	<a href="#">M21</a>	6531	Sgr	1	18	04.6	-22	30	6.5	13.0	4.25
97.	<a href="#">M20</a>	6514	Sgr	4	18	02.6	-23	02	9.0	28.0	5.2
98.	<a href="#">M8</a>	6523	Sgr	4	18	03.8	-24	23	6.0	90x40	5.2
99.	<a href="#">M28</a>	6626	Sgr	2	18	24.5	-24	52	6.8	11.2	18.6
100.	<a href="#">M22</a>	6656	Sgr	2	18	36.4	-23	54	5.1	24.0	10.4
101.	<a href="#">M69</a>	6637	Sgr	2	18	31.4	-32	21	7.6	7.1	28.0
102.	<a href="#">M70</a>	6681	Sgr	2	18	43.2	-32	18	7.9	7.8	29.4
103.	<a href="#">M54</a>	6715	Sgr	2	18	55.1	-30	29	7.6	9.1	88.7
104.	<a href="#">M55</a>	6809	Sgr	2	19	40.0	-30	58	6.3	19.0	17.6
105.	<a href="#">M75</a>	6864	Sgr	2	20	06.1	-21	55	8.5	6.0	61.3
106.	<a href="#">M15</a>	7078	Peg	2	21	30.0	+12	10	6.2	12.3	33.6
107.	<a href="#">M2</a>	7089	Aqr	2	21	33.5	-00	49	6.5	12.9	37.9
108.	<a href="#">M72</a>	6981	Aqr	2	20	53.5	-12	32	9.3	5.9	55.4
109.	<a href="#">M73</a>	6994	Aqr	A	20	58.9	-12	38	9.0	2.8	2.0
110.	<a href="#">M30</a>	7099	Cap	2	21	40.4	-23	11	7.2	11.0	26.1

**Key:**

**Type:** 1=Open Cluster, 2=Globular Cluster, 3=Planetary Nebula, 4=Diffuse Nebula, 5=Spiral Galaxy, 6=Elliptical Galaxy, 7=Irregular Galaxy, 8=Lenticular (S0) Galaxy, 9=Supernova Remnant, A=Group or Asterism of Four stars, B=Star Cloud, C=Double Star

**ra:** right ascension in hours minutes.decimal seconds

**dec:** declination in degrees minutes

**B:** apparent visual brightness in magnitudes

**dim:** apparent (angular) dimension in arc minutes

**d:** distance in kilo-light-years