

THE Eyepiece



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A Cold Messier Marathon

by Kevin Nasal

I have to admit that I'm not much of a winter night sky observer. I usually make it out just a few nights between mid-November and mid-March each year. But this year, I was anxious to get out under a clear winter night sky and I was hoping the Messier Marathon would be an opportunity to do so. The Spring astronomy bug bit me early this winter!

It was a cold day on March 12th and by the time the sun was setting, it was about 23° outside with a slight wind. It was clear and the night showed promise – similar to conditions we had 2 years before. I setup my scope and ran inside for a quick dinner. We had a crowd of about 20 people at the shelter.

As the sun set, the waxing moon pointed to Mercury high in the Western sky. Within a couple minutes, the brightest stars were visible and the Marathon began. We had a couple new club members and for the first hour or so, a few of us brought Mercury and Saturn into view for them before we began Messier hunting. With the Green Bay sky glow to the Northwest, the snow reflectivity and the moonlight, a few folks figured out quickly it was better to find M31, M32, and M33 before trying to find M74 and M77. By the time twilight light faded in the West, these last two objects were easier to find as the stars of Cetus and Pisces appeared.

For me, this was one of the first times I really did Messier hunting without the aid of my GO TO telescope. I started hunting around 8:30 pm and we took a break every hour or so to warm up. It was a humbling experience - in the end, I found 25 of the objects before calling it quits at about 3:00 am. In the same time, some club members tallied about 80 objects! I was happy because I can say that I learned more about finding these objects on that night (with the help of a couple club members) than I did with using my GO TO scope the past couple years. I used a few chemical heat packets to keep warm during the night and they definitely helped, along with a constant supply of hot chocolate in my insulated mug. When we packed up at about 3:30 am, the temperature was just a couple degrees above zero. It was nice to drive home in a toasty warm car!

I'm now working on getting the rest of the seasonal Messier objects by star hopping. This year's cold Messier Marathon was a good primer to the warmer months of star gazing ahead of us. Thanks to Mike for organizing this event once again for all of us to enjoy.

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NPMAS Club Loaner Telescopes

NPMAS members may use, free of charge, for a one month, one of the two club telescopes available. For more details, please contact Gerry Kocken, *Properties Chair*, at 920-336-8594.



NPMAS is a proud member of the

Night Sky Network

"Astronomy clubs bringing the wonders
of the universe to the public"

Member Society



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Meetings, Events & Star Parties

April 8

Annular Solar Eclipse –
Southern US

April 9

Astronomy Day, Shopko Hall
Public Observing, Danz Ave.

DPAS Messier Marathon,
Newport State Park

April 11-17

International Astronomy Week

April 12

DPAS Board Meeting

April 13

NPMAS Monthly Meeting,
Neville Public Museum

April 16

NEWSTAR Astronomy Day,
Barlow Planetarium

April 18

50th Anniversary of
Einstein's death

April 20

NEWSTAR Monthly Meeting,
Barlow Planetarium

April 22

NCRAL Convention,
Sturgeon Bay

Lyrical Meteors Peak

April 24

Penumbral eclipse visible over
all of North America

Looking Ahead:

May 6-7

First Parmentier Observing
Weekend if the year!

June 2-5

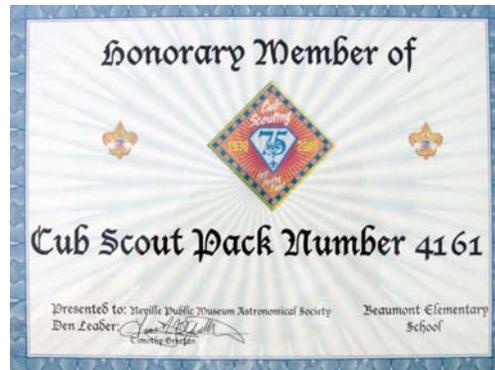
Wisconsin Observer's Weekend,
Hartman Creek State Park

Beaumont School

by Gerry Kocken

On Tuesday, March 22, several of our club members attended a scouting event at Beaumont School. I was to attend also, but was called away on a family emergency. I would like to thank Katrina and Don DeWitt, George McCourt, Steve Mofle, Wayne Kuhn, and Tom Cashman for helping out with event. They helped the 26 members of the Cub Scouts obtain their astronomy badges. The NPMAS Club was recognized with a plaque naming us as an Honorary Member of Cub Scout Pack Number 4161.

Thank you everyone for helping out.



Astronomy Day

by Gerry Kocken

Saturday, April 9 is Astronomy Day for the Neville Public Museum Astronomical Society and is put on in conjunction with The Big Event for Little Kids sponsored by Encompass Childcare. The event will take place at Shopko Hall next to the arena. Set up is Friday afternoon from 2:00 pm until 6:00 pm. Saturday set up time is from 7:00 am until 8:00 am. The doors open to the public at 9:00 am and it runs until 4:00 pm. Take down is from 4:00 to 6:00.

We were told that this event will draw between 5,000 to 6,000 people that day and we should expect 500 to 800 kids coming through our booth. Volunteers need to register with Gerry Kocken at gerryk@kockenwi.com or call 336-8594. Entry is free to the workers, otherwise \$7.00 for adults.

The activities we are planning for the kids are rocket building and rocket launching, and having the kids make a planisphere. We are also planning on having solar viewing outside for the children and adults, a manned scope and binocular display for any questions that the adults may have, a meteorite display, a NASA display, and Night Sky Magazine handouts with public observing time and directions to the Danz Ave site.

Saturday night, we are having Public Observing at the Wildlife Sanctuary on Danz Avenue. The entrance is just north of University Avenue and the overpass of I43. Public Observing is from 7:00 pm to 10:00 pm.

We are looking for volunteers to help out during the day at Shopko Hall and for the evening viewing. We are expecting a large crowd for the evening public viewing event.

Planet Watch For April

by Wayne E. Kuhn



Mercury reaches its greatest elongation west (27 degrees) on April 26 but due to unfavorable geometry it will not easily be seen until mid-June. It will shine at magnitude 1.8 and will be 10.5" in apparent size in the early morning sky.

Venus is not observable this month. We will have to wait until early May.

Earth Daylight Saving Time begins on Sunday, April 3.

Earth's Moon: Last Quarter Moon is at 7:50 PM CDT on the 1st. Moon reaches perigee (228,970 miles from Earth), on the 4th at 5:00 AM CDT. New Moon is at 2:32 PM CDT on the 8th. First Quarter Moon is on the 16th at 8:37 AM CDT. Moon reaches apogee (251,222 miles from Earth) on the 16th at 1:00 PM CDT. Full Moon is on the 24th at 4:06 AM CDT.

Mars moves from Capricornus to Aquarius later this month and rises less than 2.5 hours before the Sun. It is low in the southeast at the beginning of morning twilight. Mars will be in opposition later this year, which is the best time to observe it. It shines at magnitude 0.8 and is 6.1" in apparent size. **Mars passes 1.2 degrees south of Neptune on April 12/13.**

Jupiter is in Virgo, rises in the east at sunset and transits about 40 degrees high near 11.00 PM. **It is at opposition on April 3.** It shines at magnitude -2.5 and is 44.1" in apparent size.

Saturn is in Gemini and stands about 50 degrees high in the west-southwest at the end of evening twilight. It sets in the west-northwest at around 1:30 AM. It shines at magnitude 0.1 and is 18.3" in apparent size. During the first quarter of 2005, the tilt of the rings increases slightly from 22.5 degrees to 24 degrees. It will then decrease to 17.4 degrees by mid-October.

Uranus emerges from morning twilight this month and is in the constellation Aquarius. It shines at magnitude 5.9 and is 3.4" in apparent size.

Neptune rises just before sunrise and is in the constellation Capricorn. It dimly shines at magnitude 7.9 and is 2.2" in apparent size. Mars passes 1.2 degrees south of Neptune on April 12/13.

Pluto is in the constellation Serpens, shines at magnitude 13.9 and is 0.1" in size.

Results of the 17th Annual Messier Marathon

by Mike Monfils

Can you believe it? We had clear skies all night long. But with clear skies comes the cold. Participants told me the temperature ranged from 5 to 15 degrees depending on whom you talked to. Anyway you look at it, it was no place for a spring jacket.

About 9 pm, I took a head count and came up with 30 people not including the observers outside. It seemed to me that most of the people were sitting in front of the fireplace.

The food was stupendous, with two types of chili, chicken wings, Ray's gourmet dish, many bars, pies, and chip/dip combinations. Nobody left hungry.

Despite the cold temperatures, about 10 people were observing. Of these 10, 7 submitted their logs. The logs show that two people did see M77 through the light pollution to the west. The last object entered was M39 at 3:09am (0909 UT). Below is a list of participants and their scores.

Drew Bruseo	15
John Bruseo	15
Amy Hannon Drew	20
Kevin Nasal	25
Mitch King	50
Ray Nancoz	86
Dick Francini	86

Awards will be given out at the April meeting.

Thank you and congratulations for making the 17th Annual Messier Marathon a complete success!

Daytime Dilemmas

The Saga CONTINUES from the March Eyepiece

by Dick Francini

We were able to point to the sun, but the white mask let in way too much light to focus, and for safety reasons, the scope does not allow you to 'synch' (realign on a known object) or 'goto' on the Sun so we were still unable to adjust the pointing of the scope. Even the planetarium program we were using on the computer to try to get the RA and DEC coordinates of the sun for that moment was fighting us and kept crashing and locking up! We were running out of options...

Standing outside the observatory with my binoculars while Tony worked inside on the gear, I scanned the portion of the sky the scope was originally pointed toward on the assumption that our initial efforts had put us very close to the Moon's actual position. Success! I had little problem finding the Moon in this much smaller search area. I was able to solve the binocular focus problem by using the technique we couldn't use in the obs – I aimed them at the most distant object I could find on the horizon. Once I found the Moon, I called to Tony and we were both able to see it easily with the naked eye. It is a very weird phenomenon that you can be looking directly at the same area of the daytime sky and see nothing, but then see the object with little or no trouble once you know it's exact location!

There is actually an explanation of why this phenomenon occurs in an article by James O'Meara, also in the November issue of Sky and Telescope. This article is about locating Venus naked eye in the daytime sky. According to the article, the design of our eye gives us a sharp field of view about 2 degrees wide, so scanning the sky in large sweeping motions can never be a successful method of locating objects against the bright daytime sky. Another issue is our ability (or should I say inability) to focus our eyes to infinity when there is nothing to focus on.

Back to our story: now we have it made - we can see the Moon! How hard could it be to turn the telescope toward the Moon, which is now visible? You can probably guess the answer.... Tony has no finderscope on his telescope, but does use a Telrad. Our next issue was completely unexpected: even at full brightness, you can't see the Telrad circles against a bright blue sky! We tried sighting along the side of the scope, but were still fighting the focus issue at the same time. Wow, this was getting frustrating! The article suggests that the best way to locate the Moon would be in a finderscope, but we don't have one with us. Time was flying by, and although Tony had one in the house, there was no time now to run and retrieve it, attach, and try to align it to the scope!

While observing the Moon through my binoculars, I noticed that Venus was nearby. Our next idea was to try and locate Venus in the telescope. Certainly it would be bright enough to see even in an unfocused eyepiece. We could then move from Venus to the Moon. By now we are within a few minutes of the reappearance and this hasty attempt also fails, mostly due to simply running out of time. I go back to using my binoculars just in time to miss the reappearance. Jupiter was easily seen through binoculars as it had already reappeared against the dark side and thus was not overpowered by the Moon's glare. The two were a very interesting pair

Even though we were unsuccessful in our efforts, it was a very interesting experience learning just how difficult a daytime observation can be. Despite the best in technology, we were thwarted by a series of unexpected circumstances. Tony summed things up this way: "all this expensive equipment, and we can't even point this damn telescope at the Moon". The main factors responsible for our failure seemed to be the lack of focus, alignment, and time. I guess this shows why astronomy can be so frustrating and at the same time so fulfilling. It is rare that all the necessary factors actually fall into place, but on when they do, WOW! This experience was obviously at the opposite end of the WOW scale.

The following weekend at the club's scheduled observing event at Tony's observatory, we had no problem seeing an extremely dim globular cluster (Mayall II in M 31) in another galaxy more than 2 million light years away. One would think that this would be a significantly more difficult task than pointing the same scope toward the Moon. Go figure!



Astronomy Photo of the Month

The constellation Orion rises over the Cedar Drive Observatory during KOW in November 2004. Photo courtesy of Gary Baier. The image was scanned from a 45 second print taken by Gary with a Pentax K1000 camera and Fuji 800 speed film. The camera was tripod mounted and used a 50mm lens set at f2.8.

NPMAS New Members

Last month, new member Sarah Reed joined the club. Here is some additional information she sent in response to receiving her new member packet:

“Thank you for the welcome and the highly informative packet of info. I’m still reading the handouts provided in my folder and evaluating my equipment – a scope, binocs, and telescope. They are probably not ideal for watching the night sky, but maybe someone more knowledgeable than me can help with that determination. I’m looking forward to your meetings and learning from your experienced members.

A little about myself... I am a brand new science teacher (a second career!) and am currently subbing for the Green Bay School District. Hopefully, I will have my own classroom next year. Astronomy has always been a favorite of mine, but I never was involved in an organized group.”

Welcome again, Sarah!

Call for Volunteers

by Gerry Kocken

I received an e-mail from NEWSTAR requesting some help for astronomy day on April 16th. If anyone is interested in helping our sister club in the Fox Valley, please e-mail them at WEBMASTER@NEW-STAR.ORG and let them know you can help. It appears they are looking for some help in the children’s area. Our astronomy day is on April 9th so this does not conflict with ours. The time is 12:00 pm to 5:00 pm. Directions to UW Fox Valley are on their web page at <http://www.new-star.org>. If you have some time, they sure would appreciate it.

Thanks,
Gerry
NPMAS President

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Public Outreach Katrina DeWitt
Messier Marathon Mike Monfils
Astronomy Day Amy Hannon-Drew
Lynn Ward
Club Picnic Katrina DeWitt
October Field Trip Katrina DeWitt
Ty Westbrook

NPMAS Observing Sites

NPMAS members have access to three observing sites located on private land and belonging to members of our club.

Parmentier Observatory — largest private observatory in WI housing a 30" classical Cassegrain. Members may view through the 30" or bring their own scopes and set up in the field below. Observatory Number: 920-845-5626
Ron Parmentier Home: 920-336-5878

Crivitz Observing — private residence of Dave & Carol Jorgenson. Located in the Northwoods of Wisconsin on 100 acres of land, this site offers some of the darkest skies around. The field is equipped with electricity and a cabin is available for use. Call ahead to make arrangements.
Dave & Carol Jorgenson Home: 715-757-3296

Cedar Drive Observatory — private residence of Tony Kroes and Tara Adsit. Located in Pulaski on 10 acres of land. Call ahead to make arrangements.
Tony Kroes Home: 920-822-4959

April NPMAS Meeting

April 13, 2005

Re-cap of Astronomy Day

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April 2005

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Last Quarter Moon	2
3	4	5	6	7	8 New Moon Annular Solar Eclipse	9 Astronomy Day Public Observing DPAS Messier Marathon
10	11	12 DPAS Board Meeting	13  Meeting	14	15	16 First Quarter Moon NEWSTAR Astronomy Day
International Astronomy Week						
17	18 50th Anniversary of Einstein's death	19	20 NEWSTAR Monthly Meeting	21	22 NCRAL Convention Lyrid Meteors Peak	23 NCRAL Convention DPAS
24 Full Moon Penumbral Eclipse	25 Hubble Telescope 15th Anniversary	26	27	28	29	30