

# THE Eyepiece



April 2007  
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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.



## Ed Smith's Trip to Italy

Club VP Ed Smith and his wife recently returned from a trip to Italy. In addition to the usual tourist stuff, Ed and Gloria got to get off the beaten path and see some of the REAL Italy including having apple pie in the home of some friendly locals they met on the island of Capri! Of course, no trip to anywhere would be complete without seeing a few astronomical sights as well. Ed



got in a few, including the Cathedral in Milan (see the meridian line in the picture above) and Galileo's Tomb (below, with Ed). Here is the info that came with the picture above:

"Typically, the building needed only a small hole in the roof to allow a beam of sunlight to strike the floor below, producing a clear image of the solar disk. In effect, the church had been turned into a pinhole camera, in which light passes through a small hole into a darkened interior, forming an image on the opposite side. On each sunny day, the solar image would sweep across the church floor and, exactly at noon, cross a long metal rod

that was the observatory's precise part. The noon crossings over the course of a year would reach the line's extremities – which usually marked the summer and winter solstices, when the Sun is farthest north and south of the Equator and could be used to measure the year with great precision.



The path on the floor was known as a meridian line, like the north-south meridians of geographers. The rod, in keeping with its setting and duties, was often surrounded by rich tile inlays and zodiacal motifs. The instruments lost much of their astronomical value around the middle of the 18th century as telescopes began to exceed them in power. But the observatories still played a significant role because the solar timepieces were often used to correct errors in mechanical clocks and even to set time for railroads."

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 3**  
DPAS Monthly Meeting

**April 11**  
NPMAS Meeting  
Topic: Big Bang Theory,  
by Bob Lundt  
Object of the Month: Ghost  
of Jupiter, by Ray Nancoz

**April 14**  
Astronomy Day at the  
Big Event for Little Kids

**April 18**  
NEWSTAR Monthly  
Meeting

**April 20-21**  
Parmentier Observing  
Weekend – First POW  
of the year!

**April 22**  
The Lyrid Meteor Shower

**April 28**  
Telescope Viewing Night  
Wildlife Sanctuary/Danz  
Avenue

## Looking Ahead:

**May 18-20**  
NCRAL Fargo

**June 14-17**  
Wisconsin Observers  
Weekend

**July 8-15**  
Epoch 2007  
Star Party

# March Meeting Minutes

by Amy Hannon-Drew

The March meeting kicked off at the usual time, 7 pm, at the Neville Public Museum. Gerry Kocken, club president, chaired the meeting. Our illustrious VP was traveling the world with a trip to Italy so we will excuse his absence this time! The meeting started off with a recap of upcoming events.

There is a lot of public outreach coming up and we will need people to step up and help out! Astronomy Day is April 14. Please see Gerry if you are able to help. We also have made a commitment to Pulaski Community Middle School for an evening of observing at the school. The date has not been set however tentative dates are: April 18, April 25 or May 2. Another fun event for the club is Public Observing night at the Wildlife Sanctuary on April 27 and 28.



This year's NCRAL is in Fargo. Please let Gerry know if you are interested in going! WOW is fast approaching as well; it is the weekend of June 14 – 17. Gerry also asked that everyone register to be a part of our Yahoo web site. It is a good communication tool; a way to get messages out to a large group with a single posting. As a member you would get sent all the daily postings from the message board. Tom Cashman was able to give out an observing award this evening! Congratulations to Joe Celmer for completing the Double Star Observing program! Joe earned Certificate #341!

Steve Mofle gave us some great observing events to look for this month. With the help of a computer to better illustrate where to look, he gave us the heads up on some interesting celestial events.

These things are easy to see, and take little to no effort to do so. Ray's deep sky object of the month was NGC3115, or the Spindle Galaxy. Ray shows us how to find these interesting but lesser known objects. Gerry gave the talk for the evening. With the Messier Marathon just around the corner, he decided a

refresher course on Star Party Etiquette was in order! He also gave some great tips on what equipment to carry in order to have a successful night of viewing. Another fun meeting with Happy Joe's to follow! Don't miss next month's meeting!



# Planet Watch For April

Courtesy IAAS Monthly  
Astronomy Newsletter  
[http://www.freelists.org/  
archives/astronews/](http://www.freelists.org/archives/astronews/)



**Mercury** rises about 5:56 am on the 1st and about 5:59 am by the end of the month. Mercury is best viewed during the first week of April when it will be rising about 50 minutes before the Sun. After that, Mercury is lost in the early morning twilight. Mercury shines at magnitude 0.0 on the 1st.

**Venus** dominates the evening sky soon after sunset this month. Venus sets about 10:28 pm on the 1st and about 11:28 pm by month's end. Venus is in the constellation of Taurus and shines at magnitude -4.0.

**Mars** can be spotted in the early morning sky before sunrise this month. Mars rises at 5:02 am on the 1st and about 4:02 am by month's end. Mars is in the constellation of Aquarius. Mars shines at magnitude 1.1.

**Jupiter** rises at 12:51 am on the 1st and about 10:48 pm by month's end. Jupiter is in the constellation of Ophiuchus and shines at magnitude -2.4.

**Saturn** is visible in the early evening sky by the time the Sun sets. Saturn sets around 4:47 am on the 1st and about 2:49 am by month's end. Saturn is in the constellation of Leo and shines at a magnitude of 0.3.

**Uranus** has returned to the morning sky. Uranus rises about 5:49 am on the 1st and about 3:55 am by the end of the month. Uranus is in the constellation of Aquarius and shines at a magnitude of 5.9.

**Neptune** rises at 4:44 am on the 1st and about 2:48 am by month's end. Neptune is in the constellation of Capricornus and shines at magnitude 7.9.

**Ceres** is still lost in the twilight glow and is not visible this month. Ceres returns to the morning sky in late April rising about 4:38 am by the end of the month.

**Pluto** rises about 12:11 am on the 1st and about 11:08 pm by month's end. Pluto is in the constellation of Sagittarius. Pluto shines at magnitude 13.9. As always, good luck at spotting this one!

## Public Observing Night?!?

by Don Dewitt

What do you think of when you hear the phrase "Public Observing Night"? If your initial thought had something to do with sitting at a bar watching people do stupid things, then you are not alone. To the astronomy club it means something totally different than that, yet NPMAS has been calling it the same thing for as long as anybody can remember. Well, the name, along with the event, is being re-tooled a bit. Say goodbye to "Public Observing" and say hello to "Telescope Viewing Night".

This year's first Telescope Viewing Night event will be held at the Wildlife Sanctuary on Saturday, April 28 - clear or cloudy. There will be a presentation, Saturn and the Cassini-Huygens mission, from 7-8 pm at the Nature Center. Saturn will be in a prime location for viewing and there have been a lot of new things learned since the probe arrived there. If the sky is clear after the talk, people can go to the observing field east of Danz Ave. where club members' telescopes will be set up from 8:30-10:30 pm.

The Public Observing event committee made the decision to go with one night, clear or cloudy, primarily to cut down on confusion. In the past, skies have been questionable and a go or no-go decision had to be made so the Sanctuary could update their phone message to let people know the status of the event. Unfortunately, the weather seems to do the opposite of what was predicted so no matter what the decision, it was usually wrong. Events were canceled because it was cloudy only to have the skies completely clear off right at sunset. There have also been beautiful cloud-free days that suddenly clouded over just as people arrived.

How can you help? First, attend the event whether you are a new member or a seasoned veteran. If you are new, this is a great opportunity to see how different scopes perform by looking through many different scopes in one location. If you have been around a while, you know that this event can get super attendance and your scope is always an asset.

Second, spread the word! There is a poster that would be great to have hanging all over town. If each club member hangs 10 posters at busy places like gas stations, grocery stores, work, etc., there will be over 1,000 posters advertising this event. I can email the pdf file so you can print as many copies as you need. Otherwise, there will be copies available at the April club meeting. Public service announcements to local TV and Radio stations have been sent as well as info to the print media. All the combined advertising should generate added interest and publicity this year.

Mark your calendars for Saturday, April 28 from 7-10:30 pm and help show the public the wonders of the night sky through telescopes. Hope to see you there!



# Continued from the March Eyepiece: Part 2 of the Sounds of the Night (or dealing with things that go bump in the night)

by Dick Francini

Another interesting noisy phenomenon occurs in the late spring and early summer, on certain nights the frogs make such a racket you can hardly hear yourself think. It's a constant high pitched tone that almost hurts your ears. When I listen to my observations from one of these nights, I can hardly believe the racket they produce (I record all my observations with a small tape recorder to be played back and transcribed at a later time). I understand this is a mating thing, and there is apparently a whole lot of mating going on! It's a good thing it's dark as I really don't want to watch! The strange thing is that a day or two later it will be so quiet that you can hear a pin drop, I wonder what conditions make for a good mating night or a bad one? When is the last time you read an astronomy article that included any thing about mating in it? Sorry, I'll get back to the story.



My oddest noise interruption came several months ago, the week before Christmas. A cold snap had frozen the lake over to a thick enough depth that ice fishermen could drive their cars and trucks on the ice, this was followed by a three week long warm spell with day time temperatures getting well into the 40's and on occasion into the low 50's. I arrived late and was setting up in the dark, when I heard an extremely loud noise that seemed quite close. It sounded like someone was dragging a very large and heavy object over the ice only a few feet away, like maybe a huge ice shanty. It stopped and then a few minutes later started up again followed by another distinctly different sound, a very low pitched moaning sound which ended in a splashing noise. I scanned the ice with a large powerful white light flashlight, but saw nothing.

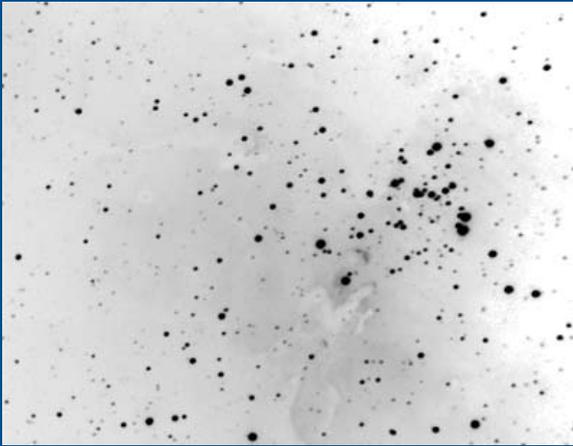
I had heard about the loud noises that ice breaking up can make, but had never experienced them. I normally can't get into the cottage this late into the winter season due to snow. I was out observing two nights in a row and the noises continued both nights from late afternoon until sometime after midnight. I'm guessing that the ice refroze enough by late at night to stabilize itself and stop the breakup. The dragging noises would start quite suddenly and were loud enough to startle me a bit. I used the radio these two nights at a higher than normal level. This ice cracking episode seemed odd considering that I had issues with ice fishermen driving their trucks around on the lake after dark with their headlights on three weeks earlier.



One of the AL programs I'm currently working on suggests you rate your observing location on a number of factors, including the chances of being interrupted by animals (unwanted strangers, police, drunken teenagers, etc.). My otherwise wonderful cottage observing location scores fairly low on this factor. I have learned to deal with this problem by using my radio as background noise and keeping a positive mindset. The animals don't really want a confrontation anymore than I do, at least that's my story and I'm sticking to it.

I often find myself thinking, how few people get the chance to be outside in the wild late at night under beautiful skies like this? It's a very positive experience, and one to be enjoyed, not feared.

# Astronomy Photo Gallery of the Month



**Eagle Nebula (M16)** • March 18, 2007 • 09:37 UTC



**Swan Nebula (M17)** • March 18, 2007 • 10:15 UTC

Both images taken with a Meade 10" LX200 @ f/6

Camera: Starlight Expres MX916 (2x2 binning)

Exposure: 3 @ 30 secs, Unguided

Processing: AstroArt v2.0 and Adobe PE 4.0

by Tom Jorgenson



**Gibbous Moon**

Taken with a digital camera on a tripod afocally through eyepiece of the club's 8" triple axis scope  
by Steve Delvoye



**Orion Rising**

The Pleiades in the November sky, with Orion rising  
• Pembine, WI. • by Peg Zenko



**Messier Marathon**



**Venus before the storm**

March 25, 2007 • 8:05 pm • Nikon D50 • by Tara Adsit

# Review of the Lunar II Program

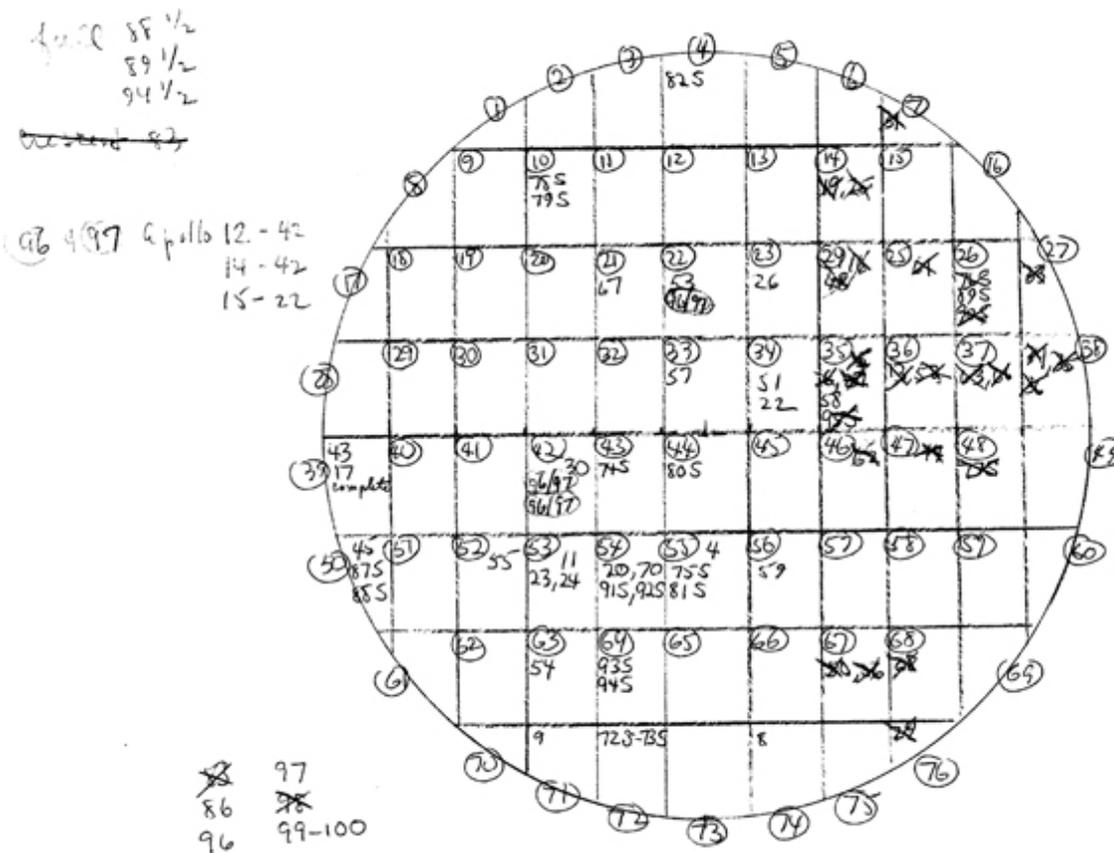
by Dick Francini

I have been working on the new Lunar II observing program from the Astronomical League. I have completed 70 of the required 100 observations, so I believe I'm far enough along in the process to do a review of this program.

First and foremost the program is fun to do and is not overly difficult. However, completion of the Lunar I program is a prerequisite to qualify to receive the pin and certificate for the new Lunar II program.

The stated goals are to stimulate interest in lunar observing, improve your observing skills, and take the Lunar I program to the next level. This program is completely a telescopic program, whereas the Lunar I program was a combination of naked eye, binocular, and telescopic observations. In this program they ask that you give detailed descriptions of the objects along with the same type data you are required to note with other AL programs including date, time, location, sky conditions, equipment used, eyepiece and power, and in this case, Lunar phase and/or day in the Lunar cycle. About 25% of the observations require a simple sketch or image as well, but they don't need to be masterpieces (mine certainly are not).

In many cases you are observing different objects not in the Lunar I program, but in some cases you revisit Lunar I objects and are asked to observe these at two different times under different illumination conditions (at full Moon and when they are near the terminator, as the view of some objects is very different in these two situations). In general you are observing objects in more detail and often at higher power. Some of the smaller objects do require you to use eyepiece and/or Barlow combinations to get to 150X to 300X to get a good look. They have also added some interesting projects like observing some Apollo landing sites and researching that particular mission, timing a Lunar eclipse, and looking at the shadowed side of the Moon during "earthshine" conditions.



For me, the most difficult part of the program is planning and timing. When you first start the program you can go out on almost any clear night and have no shortage of objects to look at. Once you start to get well into the program you must plan your sessions to view specific objects at specific times (most objects must be viewed with the terminator close to the object to get the best view).

You will need a very detailed Moon map or atlas to find some of the more obscure objects. I am using the Atlas of the Moon by Rukl. I believe it's the

best Moon observing guide available, sort of the bible for Moon observing. It has the Moon broken up into 76 squares, with a full page drawing for each and a full page of description of some of the objects in that grid. The drawings are amazingly detailed and beautifully drawn; it's really a combination of both a great resource and a work of art. Many other books show photos, but these can look very different from what you are seeing in the eyepiece as they are often taken under different illumination conditions.

CONTINUED On Page 7

The drawings in the Rukl book look exactly like what you are seeing in the eyepiece, as long as you view objects with the terminator relatively close. I HIGHLY recommend this book (it can be purchased through Sky Publishing).

At first I spent too much time trying to determine which objects might be visible and making a list, only to find out the terminator was not quite where I expected it to be. I then had to go back to square one and make a new list of objects. I finally got smarter and made a grid based on the ones in the Rukl book (76 squares). I posted the objects I had left to observe in each grid and then cross them off as I do them. No more time wasted making lists. I was about 1/3 of the way through the program when I finally got organized and made this grid, saving me an amazing amount of planning time.

I am using my old 8" scope on this program for two reasons; you don't need a 16" scope to view the Moon (way too much light) and the 8" is much quicker to set up and take down. This is one of the things I like best about this program, you can pull the scope out and observe for as little as an hour and get all the objects available in that part of the Moon completed. For example, a few nights ago I went out right at sunset knowing clouds were due to move in very soon. I got my four objects in that portion of the Moon done in just over one hour (two were sketches and took a bit longer than normal) just as the clouds were starting moving in right on schedule.

The seeing was very good (something of a rarity) and wow, when the seeing is that good the amount of detail you can see is really amazing, tiny craters, cracks or fractures, hills, and slight color variations in the Lunar landscape. This is when lunar observing is really great! I did have one night I knocked off 19 objects, but that is the exception to the rule. It's a great program if you only have short periods of time to observe.

I'm not a huge fan of Lunar observing, I rarely look at the Moon when I'm not doing a program (I guess because I am rarely out observing when the Moon is out). Having said that, I still recommend this program to anyone who has already completed the Lunar I program. It's interesting, can be done from light polluted sites, gives you something to observe when the Moon is spoiling the view of deep sky objects, and it can be done with a grab-and-go scope.

Give it a try. Maybe there is more to this lunar observing than I realized!

*Editors Note: I have completed the Lunar I and am also working on the Lunar II program and can agree with Dick 100%. The Rukl book is a 'must-have' for anyone who likes to look at the moon, even if you are not working on one of the programs. In addition to the great drawings Dick mentions, the descriptions that go with each grid page are detailed and very informative, often including a history of why or for whom an object is named, and lists items like diameter and depth for craters (how big is that crater, mom?)*

*This book was out of print and very hard to find for a number of years. About five years ago I saw bidding on eBay for go to \$75 for a copy. Recently, Sky Publishing completely revised the book and republished it. Atlas of the Moon, by Antonin Rukl can be found on Amazon for \$29.67, a significant savings over other sources. Just go to Amazon.com and search the 'Books' area for the keyword 'Rukl'. You will find this atlas as well as a great list of other astronomy related books written and co-written by him.*

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Messier Marathon Mike Monfils

Astronomy Day Gerry Kocken

Club Picnic Amy Hannon-Drew

October Field Trip Ed Smith

Holiday Party Julie Mofle

## 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 SW of Pulaski on 10 acres of land. Members welcome anytime, but please call ahead to make arrangements.

Tony Kroes Home: 920-822-4959

# April NPMAS Meeting

April 11, 2007

Big Bang Theory

*Bob Lundt*

Object of the Month:

Ghost of Jupiter

*by Ray Nancoz*

starting at 7:00pm

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eyepiece@cdo-astro.com

Hardcopy items should be sent to:

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## April 2007

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>1</b>	<b>2</b> Full Moon	<b>3</b> DPAS Monthly Meeting	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>8</b>	<b>9</b>	<b>10</b> Last Quarter Moon	 Meeting <b>11</b>	<b>12</b>	<b>13</b>	<b>14</b> Astronomy Day at the Big Event for Little Kids
<b>15</b>	<b>16</b> 35th Anniversary (1972), Apollo 16 Launch (Manned Moon Landing)	<b>17</b> New Moon 40th Anniversary (1967), Surveyor 3 Launch (Moon Lander)	<b>18</b> NEWSTAR Club Meeting	<b>19</b> 25th Anniversary (1982), Salyut 7 Space Station Launch	<b>20</b>	<b>21</b>
<b>22</b> The Lyrid Meteor Shower	<b>23</b>	<b>24</b> First Quarter Moon	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b> Telescope Viewing Night at the Wildlife Sanctuary/Danz Avenue
<b>29</b>	<b>30</b>					