



THE EYEPIECE



PUBLICATION OF: NEVILLE PUBLIC MUSEUM ASTRONOMICAL SOCIETY

AUGUST HIGHLIGHTS

- **13th – NPMAS Monthly meeting 7:00 pm**
- **12/13th– Perseid Meteor shower peak**
- **27th– Mars at closest approach to Earth**
- **27th–New Moon**
- **28th–Mars at opposition**

MARS PUBLIC OBSERVING NIGHT SCHEDULED

On Wednesday, August 27, NPMAS will be holding its first Mars public observing event at the museum. The event will begin with a presentation on the Red planet in the museum auditorium, followed by viewing the planet, weather permitting.

Whether you are a new Mars observer or have been doing it for many years, we need your help! In order to make this event successful, we need all members to come out and set up their telescopes, and binoculars by 7:00 pm in front of the museum. Even if you don't own a telescope or binoculars, come out and enjoy the experience.

The last time we held a public observing event at the museum, we saw a record

turnout of 300 people come through in one hour. That was with -20 degree temperatures. A greater turnout should be expected this time around.

If you have any questions about this event or are able to volunteer, please contact Don DeWitt at 920-405-8534 or ddewitt@netnet.net

This is your greatest opportunity to experience



Mars at its greatest for the next 15 years. Come on out and share it with other NPMAS

members and the general public. ▲

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FROM THE EDITOR

Well, here it is, the first copy of the newly redesigned newsletter! After getting off to a shaky start, I think I figured out my new software (thanks Dan Ankeney for recommending it!). I would also like to thank Gerry Kocken. Gerry has agreed to do all newsletter printing in color for our club at a fair price.

Remember, this is your newsletter, so please contribute! Articles need to be submitted by the second Wednesday of the month prior to publication.

If you have any questions or comments, please drop a line. I'd love to hear from you! *Katrina*



2003 BOARD OF DIRECTOR NOMINATIONS

Once again, elections for the NPMAS Board of Directors is approaching. The first step in the election process is to create a list of nominees who are willing and able to serve on the board.

What is the Board anyway? It consists of nine elected individuals who serve a

term of two years. Their duty is plan and coordinate all NPMAS functions, including the monthly meetings, field trips, observing events and public outreach events

Each elected Board member must be at least 18 years old and must attend half of all Board meetings scheduled each year. (There is a mini-

mum of four per year). New terms begin November 1st of each election year.

This is the perfect opportunity to get involved in your club! Nominations will be taken at the August and September meetings only. Elections are held at the October meeting.

Nominate yourself, or some you know! ▲

DUES RENEWALS & MAGAZINE SUBSCRIPTIONS



It is hard to believe but the time has already come for everyone to start thinking about dues renewals and magazine subscriptions. Very soon you will be receiving a letter in the mail. It will contain all the magazine subscriptions that we show on file for you. If you are a new member wishing to start a subscription, now is the time to do so.

To simplify the process, we have also added a few items to the form that we normally order every year. The RASC Handbooks and Wall Calendars and the

Space Weekly calendar have been added to the form. If you would like to order any of these publications, please mark the appropriate boxes. Once you have everything tallied up, please send back the form along with a check made payable to the NPMAS and place it in the self addressed stamped envelope. We will take care of everything else.

We are also asking you to double check the accuracy of the information we have as we are updating the club membership list. Please include only the information that you feel comfortable with. We understand there may be certain information

that you do not wish to have made available to the everyone in the club.

Below you will find a pricing guide to what will be available on the form when you receive it.

Single Dues: \$15.00

Family Dues: \$25.00

Astronomy: \$29.00

Sky & Telescope: \$32.95

RASC Handbook: \$15.00

RASC Calendar: \$8.00

Space Weekly: \$9.00

Northern Lights: \$4.00

Thanks for your cooperation and being a NPMAS member! ▲



NCRAL FINALLY GETS ITS NEWSLETTER

I am happy to announce that our regional newsletter *Northern Lights* has been re-issued to all society ALCors and Members-at-large.

To quote Paul Castle, editor of the newsletter, "For some-time our region has been without a newsletter...The region needed to provide a means of communications between the various clubs and MALs...they need to feel part of the larger regional community".

Our region is quite large consisting of North and South Dakota, Minnesota, Iowa, Illinois, Wisconsin and the U.P. of Michigan. From this we have 40 member societies with a membership total of 2248.

Northern Lights will once again allow clubs and members throughout our region to share information about various club events, star parties, conven-



tions and observing experiences held within our boundaries.

This is a great opportunity to find out information about other clubs, to learn more about a local star party you

may thought of attending or to find out the latest news about a convention being hosted in your area.

Articles for *Northern Lights* will be taken from the various newsletters sent directly to the editor from regional societies or submitted by members of the NCRAL.

A copy of *Northern Lights* will be mailed to our society ALCor, Ron Parmentier quarterly.

For those members wishing to receive their own copies of this newsletter, you may do so at the rate of \$4.00 per year. This fee will cover copy and mailing costs. Please submit funds to the NPMAS treasurer. ▲

NPMAS MEMBER ACHIEVEMENTS

Congratulations to NPMAS members **Steve and Julie Mofle** on the birth of their daughter Judith Anne on July 3 at 6:45 am. Judith weighed in at 7 pounds 6.4 ounces and 21 inches.



Congratulations to NPMAS member **Tony Kroes** on completing the Caldwell award for observing 70 objects. Tony got certificate number 33-S. His pin shows the picture of the Cat's Eye Nebula.



Is this the new face of the amateur astronomer? *Tony Kroes photo*



FROM THE BELLY OF AN AIRPLANE: GALAXIES

By Dr. Tony Phillips

On April 28th a NASA spacecraft named GALEX left Earth. Its mission: to learn how galaxies are born, how they grow, and how they die.

"GALEX-short for Galaxy Evolution Explorer-is like a time machine," says Caltech astronomer Peter Friedman. It can see galaxies as far away as 10 billion light years, which is like looking 10 billion years into the past. The key to the mission is GALEX's ultraviolet (UV) telescope. UV rays are a tell-tale sign of hot young stars, newly formed, and also of galaxies crashing together. By studying the ultraviolet light emitted by galaxies, Friedman and colleagues hope to trace their evolution spanning billions of years.

This kind of work can't be done from the ground because Earth's atmosphere absorbs the most energetic UV rays. GALEX would have to go to space. To get it there, mission planners turned to Orbital Science Corporation's Pegasus rocket.

"Pegasus rockets are unusual because of the way they're launched-from the belly of an airplane," says GALEX Project Engineer Frank Surber of JPL. It works like this: a modified L-1011 airliner nicknamed *Stargazer* carries the rocket to an altitude of 39,000 feet. The pilot pushes a button and the Pegasus drops free. For 5 seconds it plunges toward Earth, unpowered, which gives the *Stargazer* time to get away. Then the rocket ignites its engines and surges skyward. The travel time to space: only 11 minutes.



"The aircraft eliminates the need for a large first stage on the rocket," explains Surber. "Because *Stargazer* can be used for many missions, it becomes a re-useable first stage and makes the launch system cheaper in the long run." (To take advantage of this inexpensive launch system, GALEX designers had to make their spacecraft weigh less than 1000 lbs-the most a Pegasus can carry.)

A Pegasus has three stages-not counting the aircraft. "Its three solid rocket engines are similar to the black powder rockets used by amateurs. The main difference is that the fuel is cast into a solid chunk called a 'grain'-about the consistency of tire rubber. Like black powder rockets, once the grain is lit it burns to completion. There's no turning back."

In this case, turning back was not required. The rocket carried GALEX to Earth orbit and deployed the spacecraft flawlessly. On May 22nd, the UV telescope opened its cover and began observing galaxies-"first light" for GALEX and another success story for Pegasus.

THE EYEPIECE INFO

Editor: Katrina DeWitt

Printing: Gerry Kocken

Circulation: 75

Electronic Submissions may be sent

to: kdewitt@netnet.net

Hardcopy items should be sent to:

The Eyepiece

1081 Raleigh Street

Green Bay, WI 54304

The Eyepiece is published monthly by the Neville Public Museum Astronomical Society. Materials for publication in *The Eyepiece* are due on the 15th of the month preceding the month of publication.

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PARMENTIER OBSERVATORY

Parmentier Observatory, owned by club member Ron Parmentier, is the largest privately owned observatory in the state of Wisconsin. NPMAS members are invited to come out and enjoy views through the 30-inch classical Cassegrain telescope housed inside or they may bring their own telescopes and set up in the field below. Parmentier Observatory is located in Kewaunee county about 30 minutes east of Green Bay. To find out about planned observing events at Parmentier Observatory, please consult a NPMAS schedule of events or call:

Ron Parmentier (home): 920-336-5878

Parmentier Observatory: 920-845-5626

HOPE TO SEE YOU THERE!



NPMAS CLUB TELESCOPES

NPMAS members are eligible to use, free of charge, for a one month period, one of the two club telescopes available. For information or to make arrangements, contact:

10" Dobsonian: Gary Baier gbaier@netnet.net
920-391-9654

8" Triple Axis: Ron Parmentier 920-336-5878

The Eyepiece
1081 Raleigh Street
Green Bay, WI 54304



MARS PUBLIC OBSERVING

August
27th



7:00
to
10:00

At the Neville Public Museum