

The Morris Museum Astronomical Society

The

# Heavenly Herald

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### THE MORRIS MUSEUM ASTRONOMICAL SOCIETY

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The *Heavenly Herald* is  
produced monthly for the  
membership of the Morris  
Museum Astronomical Society

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## President's Message...

I hope all of you had nice holiday season and wish all good health and happiness in the new year.

I'm sorry we needed to cancel our holiday party. The weather promised to make it dangerous to travel and we didn't want members risking the trip. Hopefully we will have better luck next year.

Please check out page two for information on observing this month. Mars should be an excellent target with the unaided eye, binoculars, and especially with a small telescope. While it is smaller than at its last apparition, it is well placed in the sky—high enough to avoid the problems of thick atmosphere and smog which plagued us in the last several years.

I would also like to remind all members that it is time to renew your membership for 2008. You should have all received renewal instruction via email or snail mail.

Thanks.

Ted Barker, President

## THIS MONTH'S MEETING

### Astronomy Video

Thursday, January 10, 2008 at 7:30 P.M.  
Held at the Morris Museum.

Monthly Meetings are the second Thursday of each month at 7:30 P.M.  
During July & August be sure to check the web site for our summer schedule of events.

# LOOK TO THE SKY - JANUARY 2008

Jan 1: Comet 8P/Tuttle is closest to Earth and should be about Mag 6.0. It will remain in the south during the first half of the month. Its path will take it from 6 deg west of Alpha Arietis on the first, and south through Cetus during the second week. It will reappear in 2021 so mark your calendar.

January 10: The Moon passes about a half degree south of Neptune

January 12: The Moon passes three degrees north of Uranus

\*January 19: Mars passes a little over a degree south of the Moon at 7 p.m.

January 21: Mercury is at greatest eastern elongation (19 deg) at midnight

January 25: Saturn passes 3 degrees north of the Moon at 1 a.m.

\*This should be a good month to observe Mars in the mid-evening. I reached opposition on December 24, and will be rising earlier each day as it slowly fades later towards Spring. It will remain in the constellation Taurus throughout January at magnitude  $-0.6$ . You should be able to observe detail on the surface of Mars with a small telescope when the skies are steady and the seeing is good.

Your feedback is  
needed.

What would you  
like to see in the  
Heavenly Herald?  
Send comments to

[TedBarker@att.net](mailto:TedBarker@att.net)

Article submissions for  
future issues.

Please send to

[TedBarker@att.net](mailto:TedBarker@att.net)

## Hands On Observing

Observing sessions at Jenny Jump always depend on the weather and a certified scope observer's availability. Session notifications will go out via email, usually no earlier than the day before. Based on the response, plans will be made for qualifications and/or observing. In order to have a high quality experience, the number of participants may sometimes have to be limited.

Please send an email to Eric at [ericleonard@lucent.com](mailto:ericleonard@lucent.com) with your contact information, and whether you'd like to be certified on the 16" telescope. Eric will then provide additional information, and add you to his email list.



Spaceplace.nasa.gov

## Ultraviolet Surprise

by Patrick L. Barry and Tony Phillips

How would you like to visit a universe full of exotic stars and weird galaxies the likes of which astronomers on Earth have never seen before?

Now you can. Just point your web browser to [galex.stsci.edu](http://galex.stsci.edu) and start exploring.

That's the address of the Galaxy Evolution Explorer image archive, a survey of the whole sky at ultraviolet wavelengths that can't be seen from the ground. Earth's atmosphere blocks far-ultraviolet light, so the only way to see the ultraviolet sky is by using a space telescope such as NASA's Galaxy Evolution Explorer.

About 65% of the images from the all-sky survey haven't been closely examined by astronomers yet, so there are plenty of surprises waiting to be uncovered.

"The Galaxy Evolution Explorer produces so much data that, beyond basic quality control, we just don't have time to look at it all," says Mark Seibert, an astronomy postdoc at the Observatories of the Carnegie Institution of Washington in Pasadena, California.

This fresh view of the sky has already revealed striking and unexpected features of familiar celestial objects. Mira is a good example. Occasionally visible to the naked eye, Mira is a pulsating star monitored carefully by astronomers for more than 400 years. Yet until Galaxy Evolution Explorer recently examined Mira, no one would have guessed its secret: Mira possesses a comet-like tail 13 light-years long.

"Mira shows us that even well-observed stars can surprise us if we look at them in a different way and at different frequencies," Seibert says.

Another example: In April, scientists announced that galaxies such as NGC 1512 have giant ultraviolet spiral arms extending three times farther out into space than the arms that can be seen by visible-light telescopes. It would be like looking at your pet dog through an ultraviolet telescope and discovering his ears are really three times longer than you thought!

The images from the ultraviolet space telescope are ideal for hunting new phenomena. The telescope's small, 20-inch primary mirror (not much bigger than a typical backyard telescope) offers a wide field of view. Each image covers 1.2 degrees of sky—lots of territory for the unexpected.

If someone combing the archives does find something of interest, Seibert advises that she or he should first search astronomy journals to see whether the phenomenon has been observed before. If it hasn't, email a member of the Galaxy Evolution Explorer science team and let them know, Seibert says.

So what are you waiting for? Fire up your web browser and let the discoveries begin!

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

Please see the graphics on the following page

# Events and Information

## THE MOON THIS MONTH

January 2008



Last Quarter 30

New Moon 8

First Quarter 15

Full Moon 22

## INTERNET LINKS TO VISIT

[nasa.gov](http://nasa.gov)

[space.com](http://space.com)

[spaceweather.com](http://spaceweather.com)

[skyandtelescope.com](http://skyandtelescope.com)

[astronomy.com](http://astronomy.com)

[kidsastronomy.com](http://kidsastronomy.com)

[nso.edu](http://nso.edu)

[uacnj.org](http://uacnj.org)

[astronomylinks.com](http://astronomylinks.com)

[enchantedlearning.com/](http://enchantedlearning.com/)

[subjects/astronomy/](http://subjects/astronomy/)

[heavens-above.com](http://heavens-above.com)

[http://  
spaceplace.nasa.gov](http://http://spaceplace.nasa.gov)

And don't forget our site

<http://mmastrosociety.tripod.com>



*Astronomers looking at new ultraviolet images from the Galaxy Evolution Explorer spacecraft were surprised to discover a 13-light-year long tail on Mira, a star that has been extensively studied for 400 years.*

## Upcoming MMAS Events

Saturday, March 8, 2008: MMAS ASTRO 2008

Friday, April 12, 2008: Extension Observing at Hughes School

Thursday, May 8, 2008: Family Stargazing Night

## Interested in joining the Morris Museum Astronomical Society?

It's really easy. Club dues started in January for our 2008 membership drive.

Please Send Payment to:

**Morris Museum  
MMAS—Membership  
6 Normandy Heights Road  
Morristown, NJ 07960**