



# Penobscot Valley Star Gazers

An Astronomical Society of Central Maine

<http://www.gazers.org>

December 2008

## Another Try at Telescope Basics

The December 2008 meeting of the PVSG will be on Monday the 8th at 6:30 p.m. in room 310 at John Bapst Memorial High School. This month David will show us the Night Sky Network's outreach toolkit "Telescopes: Eyes on the Universe." This was scheduled for October, but David was unable to attend that meeting.

Thanks for last month's program go to Bill for telling us about his second trip to the Okie-Tex star party.

### A Fine Trip



November 2008

The meeting of the PVSG was called to order by Wade at 6:41pm with 14 members present. Tonight's meeting started with a picture taken of the group and the Mars Globe that the club won for logging events onto the Night Sky Network website. A DVD of the latest mission to Mars, the Phoenix Mars Lander, was also won. The night's speaker is our very own Bill. He talked through a PowerPoint/slide show of his attendance of the Okie-Tex Star Party (<http://www.okie-tex.com/>) held at Camp Billy Joe, near Boise City, Oklahoma. If you remember last year's presentation, you have to be amazed at the beautiful countryside and extremely dark sky at their party location. Bill took us through Chicago via AmTrak with some pictures of the "windy city" and some of its sites. The pictures of the terrain and the Santa Fe Trail just give testament to our country's wide open spaces. Bill attended several talks at the star party, those things you do when not resting for another night's sighting challenges. One of the key speakers this year was from the Vatican's Observatory, Br. Guy Consolmagno, talking on such things as "Why does the Pope have an Astronomer?", "Why are Asteroids fluffy?" and "Is Pluto a planet and why does it matter?" Many other speakers attended as well as representatives from some of the major equipment manufacturers. But the real reason to come to a Star Party is to observe, to take in the beauty and appreciate a dark sky. Bill, we thank you very much for sharing your trip and observations with us.

OLD BUSINESS: Secretary's report accepted with corrections by club members. We are still waiting on

an insurance quote from the AstroLeague. The Bog walk scheduled for 18 October was rained out (as was the rain day). Shirley reported that the outreach event with the Girl Scouts was very successful, regardless of the weather outside. About 100 Girl Scouts attended and received an opportunity to "peer" through a telescope, albeit inside, and were provided other activities to excite their interests in the night's sky.

As mentioned above, the club received a couple of gifts from the Night Sky Network's website. These were a very nice globe of Mars and a DVD on the Phoenix Mars Lander mission. There was some discussion concerning how to make best use of the items. For now the Mars globe will be left in Scott's classroom and the DVD is available for viewing, just get in touch with Wade.

NEW BUSINESS: Dave reported that he participated in the "Great Star Count". You can go onto the "Great World Wide Star Count" webpage for the results ([http://www.windows.ucar.edu/citizen\\_science/starcount/results.html](http://www.windows.ucar.edu/citizen_science/starcount/results.html)).

Alan found at the Planetarium a 6" blank that needs to be finished grinding. Anyone interested in acquiring this blank to keep busy during the long, cold nights

### On the Schedule

(Items Subject to Change)

#### PROGRAMS

?January: Alan, Australian Odyssey  
May: Bill, Hubble Upgrade

#### STAR PARTIES

December 13(rs): PVSG Christmas/Holiday Party, 5:30 pm  
January 17(rs): Jordan Planetarium IYA event  
April 4(rs): Club IYA big event / telescope clinic, UMO

First date is primary, second is rain date; ? Tentative; (rs) rain or shine; (co) clear only

here in Maine, just contact Alan.

The December meeting's speaker will be me, David. I will be demonstrating the Night Sky Network's outreach toolkit to the club. While many might have seen this kit, I thought with the approaching IYA2009 and the 400<sup>th</sup> year of the Telescope celebrations it might be a good thing to revisit.

Don't forget about the Club's Christmas Party, graciously hosted by Carolyn and Stephen at their home, on the 13<sup>th</sup> of December. There will be a Yankee Swap with gifts under \$10 being traded.

In January the UMO Planetarium will kick off the IYA2009 with presentations that will be designed around experiencing the sky as Galileo would have in 1609. This will be on the 3<sup>rd</sup> Saturday of January.

Originally there had been some discussion on the club providing a "Scope Clinic" to coincide with the Planetarium program. It has been decided to have our "Scope Clinic" during the "100 hours of Astronomy" that is to be held between the 2<sup>nd</sup> and 4<sup>th</sup> of April 2009. If you would like more information about this IYA2009 cornerstone project browse to <http://www.100hoursofastronomy.org/>. Alan, Carolyn, and I will be discussing what the club's participation in this world wide event would look like. Saturday, the 4<sup>th</sup> of April, near the observatory at UMO was a tentative when and where. If you have any suggestions, please feel free to email any of us. It was also brought up that Astronomy Day will be held twice next year. One day in the spring and one in the fall.

A motion was received and seconded to adjourn the meeting. The meeting was called to an end at 9:09pm.

David

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## E-mail Excerpts

Club notes sent by e-mail since the last meeting  
Simply for the record and for those for whom we have no e-mail addresses

### Astronomy Texts at Jordan

To sky watchers of all ilks; The 2009 issue of the very popular Royal Astronomical Society of Canada Observer's Handbook is now on sale at the Jordan Planetarium gift shop. The price is \$27 each this year, including tax. They can be mailed for \$3 each if buyers send a check to Jordan Planetarium, 5781 Wingate Hall, Orono ME 04469-5781. (We have no credit card service.) Call or email to have us hold a copy for you and for more information visit the RASC web site: <http://rasc.ca/handbook/> This is a must-have for many astronomy buffs and observers with numerous back-

## The Ghost of Mirach

Mr. Astronomy



How many times have you found the square of Pegasus, star hopped from the NE corner to Beta Andromeda, and then made a right turn to find M31 the Andromeda Galaxy? Every time you do this you skip right over the nearest lenticular (sometimes known as elliptical) galaxy, NGC

404. This magnitude 10 galaxy is lost in the glow of Beta Andromeda (also known as Mirach) and has probably not been observed by the majority of observers, although it can easily be seen in an eight inch or larger telescope. All that needs to be done is to place Mirach just out of the field of view to the south and use about 70 powers of magnification. Its elusiveness is why NGC 404 is often called the "Ghost of Mirach."

It has long been thought lenticular galaxies were essentially dead with no new star formation; however, the Very Large Array radio telescope in New Mexico had discovered a gaseous ring of hydrogen surrounding the galaxy, and first images by the new Galaxy Evolution Explorer discovered a ring of ultraviolet gas surrounding NGC 404. Then longer exposures by the Galaxy Evolution Explorer proved NGC 404 was surrounded by an irregular clumpy ring of hot relatively young stars giving off the ultraviolet light the satellite could see. The Very Large Array scientists credited the ring of new stars to a collision of NGC 404 with a dwarf neighboring galaxy about 900 million years ago. Maybe lenticular galaxies are not dead but continue to slowly evolve by drawing gases from companions.

The next time you are on your way to observe the Andromeda Galaxy, M 31, pause at Mirach and see if you can find NGC 404 the "Ghost of Mirach."

Mr. Astronomy

ground articles and reference data. Edited by Patrick Kelly

The Observer's Handbook is a 360-page guide published annually since 1907 by The Royal Astronomical Society of Canada. Through its long tradition and the expertise of more than 50 contributors, the Observer's Handbook has come to be regarded as the standard North American reference for data on the sky. The material in the Handbook is of interest to professional and amateur astronomers, scientists, teachers at all levels, students, science writers, campers, Scout and Guide leaders, as well as interested general readers. The Observer's Handbook is an integral part of many astronomy courses at the secondary and university levels, and it should be on the reference shelf of every library. Keep an eye on the sky! Alan

### Having FITS

Hello everyone, I don't know how many of you have ever used the microObservatory before, but they have updated their website with interesting programs to celebrate the IYA2009. They give you the ability to control a real telescope, have images taken of celestial objects and emailed to you which you can view and process using the freely available FITS image-processing program. FITS stands for Flexible Image Transport System, the standard format for images collected by most professional space and ground based telescopes.

I selected the Galileo program. I requested that I get multiple images of Jupiter taken an hour apart so I will be able to process them through the FITS program and create a movie of Jupiter's moons moving. The programs under Galileo give the visitor a chance to control a telescope and see what Galileo saw through his telescope between 1609 and 1610. The visitor is given options to image Jupiter, Saturn, the Moon, Pleiades, Beehive Cluster and the Orion Nebula. These were the first things Galileo pointed his telescope at.

The link for the microObservatory is <http://www.microobservatory.org>. The link to get the FITS image-processing software is <http://mo-www.harvard.edu/MicroObservatoryImage>. For those of you interested, there is a freely available Photoshop plug-in for the FITS image format ([http://www.spacetelescope.org/projects/fits\\_liberator/](http://www.spacetelescope.org/projects/fits_liberator/)). I just thought I would pass along the changes on this very useful website. Hoping for clear skies, David

### Night Sky News

Dear Night Sky Network members, here is the news:

1. IYA Kick-Off Telecon Mark your calendars for

Thursday, December 11th, 6 pm Pacific: IYA 2009 Night Sky Network Kick-off with Drs. Andrea Schweitzer, Stephen Pompea, Denise Smith and Dean Regas. Make sure to check out the inspiring trailer: [http://www.astronomy2009.org/resources/multimedia/videos/detail/iya\\_trailer/](http://www.astronomy2009.org/resources/multimedia/videos/detail/iya_trailer/) We plan on having the PPT(s) available for download this week, so stay tuned. They will be found here: [http://nightsky.jpl.nasa.gov/download-view.cfm?Doc\\_ID=351](http://nightsky.jpl.nasa.gov/download-view.cfm?Doc_ID=351) To join the Teleconference on Thursday, December 11th at 6:00 pm PT (9:00 pm Eastern) call the toll-free conference call line: 1 888 455 9236. This toll-free number will be used each month through December 2009 for all IYA telecons.

Call anytime after 5:45 pm the evening of the telecon. An operator will answer and: You will be asked for the passcode: NIGHT SKY NETWORK You will be asked to give your NAME and the CLUB you belong to, and number of people listening with you. If you have any questions or are having any difficulties logging into the Night Sky Network, send an email to: [nightskyinfo@astrosociety.org](mailto:nightskyinfo@astrosociety.org)

2. Time to reserve your NSN Annual Award Pins If your club has logged at least five events held during 2008 where Night Sky Network resources were used, then... Congratulations! In January, your club will automatically receive three commemorative Night Sky Network Star 2009 Award Pins with presentation boxes and a template for a Certificate of Achievement to present to your outreach stars. The pins will be sent to you at no charge.

What if you have more than three deserving members? Club Coordinators: Please complete the following form by January 5, 2008. Even if your club plans to award no more than the three pins, you may record the names of your club's recipients on this form: <http://fs8.formsite.com/astrosociety/NSNAward/> The Night Sky Network (NSN) suggests your club select deserving Award Pin recipients as those who helped organize or participated in at least five outreach events during 2008 where NSN resources were used. Your club is welcome to decide on additional criteria. IMPORTANT: Please ensure your events are logged by January 5, 2009 in order to qualify.

3. Quarterly Prize: Replica of Galileo's Telescope Get your October through December 2008 events logged by January 5th and improve your chances of winning the latest Night Sky Network Quarterly Prize, a replica of a Galileo Telescope. Just in time to celebrate IYA 2009 and demonstrate to the public something very similar to what Galileo used to observe Jupiter and its moons. Shorter focal length than the original gives you a slightly greater field of view at

20x power. Mount it on one of your club scopes as an example of observing then and now. On January 6th, five lucky clubs will be randomly selected from all of the events held between October 1st and December 31st using NSN resources. The more events you log, the better your chances of winning.

4. First Event of the IYA; January 10th Dean Regas, Outreach Astronomer at the Cincinnati Observatory Center encourages you to have an open house, public stargaze, outreach event, or anything creative on the day or night of Saturday, January 10th, across the US. For more information go to: [http://nightsky.jpl.nasa.gov/download-view.cfm?Doc\\_ID=343](http://nightsky.jpl.nasa.gov/download-view.cfm?Doc_ID=343) Email Dean at: [deanobservatory@zoomtown.com](mailto:deanobservatory@zoomtown.com)

5. Join the NASA LCROSS Observation Campaign! Observations of the moon by amateur astronomers will help refine new protocols for observing the moon and increase our knowledge of the moon. During the months leading up to the LCROSS launch, amateur astronomers are encouraged to image the north and south poles of the moon. Find out more at: [http://groups.google.com/group/lcross\\_observation](http://groups.google.com/group/lcross_observation)  
Marni Berendsen, Kenneth Frank and Vivian White, Night Sky Network Administrators, Astronomical Society of the Pacific, (415) 337-1100, Night Sky Network: <http://nightsky.jpl.nasa.gov/>

