

# FOCUS

DELAWARE ASTRONOMICAL SOCIETY



**Next Meeting – November 18, 2008 at 8:00 PM**  
**--Tycho Brahe and Johannes Kepler--**  
**Speaker: Bob Mentzer**  
**Mt. Cuba Astronomical Observatory**



Vol. 53, No. 9, November, 2008

FROM THE PRESIDENT ■ *Hank Bouchelle*

## Greetings!

The DAS season is off to a good start with an excellent program with Greg Lee's informative and entertaining talk on the *Pluto Express*. Thanks, Greg. And thanks to Lynn King for a providing a cake to help celebrate Al Webber's 101st birthday..

This month features a talk by Bob Mentzer on *Tycho and Kepler*. Another program to look forward to!

Please give some thought to items I mentioned in this space last month: Someone to help with refreshments, and to begin serious thought about deserving candidates for the Amateur Astronomer of the Year and Luther J. Porter Educator awards.

We have on hand copies of the DAS 50<sup>th</sup> Anniversary booklets. Some folks did not receive a copy, and we would especially like to get them into the hands of our new members, so that they can see what the DAS has been up to for its first fifty years.

I hope to see you on the 18<sup>th</sup>!!!

FROM THE EDITOR ■ *Joe Neuberger*

A new feature in this month's *FOCUS* is that the document is now full of dozens of useful hyperlinks. Just click on any graphic or HTTP address and your browser should take you to the relevant location on the world-wide web.

## DAS BOARD MEETING

7:00 p.m., November 18, 2008  
at the Mt. Cuba Astronomical Observatory

### Agenda:

Review of October's minutes  
Treasurer's Report – Bob Mentzer  
Standing committee reports/requests/notes  
Focus/Publications – Joe Neuberger  
Library- Glenn Bentley  
Education Programs- Bob Karcha  
Sawin Observatory Tom Sidowski  
Observing – Greg Lee  
Astronomy Course Update?  
Dates  
Curriculum revision  
Speaker topic determination  
Nicastro  
Summerfield  
Expanding use of e-mail list v. including items at the website  
Forward Planning  
Anniversary of the telescope and Galileo's observations  
Others?  
Refreshment Chair  
Facility lock-up  
Awards Committee  
LJPE Award  
Astronomer of the Year Award  
Chartered Awards Committee  
Other?

## COMING EVENTS at the OBSERVATORY...

### MCAO PUBLIC NIGHTS ■ *Emil Volcheck*



The Mt. Cuba Observatory Public Nights continue year round! In addition to learning about many aspects of the heavens, you'll have a chance to visit and view our new all-digital full-dome planetarium, one of the first of its kind in the entire United States! You can pick up a schedule when you next come to a meeting - or get the latest updated version off the website at: <http://MountCuba.org>. Programs are presented on Monday nights at 8pm. Some upcoming events are:

- Nov 17 - Don Wilson "The Solar System"
- Dec 1 Stan Owocki "The Star-Gas Cycle- Recycling on a Galactic Scale"
- Dec 15 Judi Provencal TBD

### STAR PARTIES AT MT. CUBA ■ *Tom Sidowski*

Star parties are usually held on the grounds of the Mt. Cuba Astronomical Observatory. You can bring your own scope or just come to observe through others. Telescopes in use may include the club's 12.5" Newtonian reflector, 17" Coulter Odyssey 2, or 6" Orion SkyQuest XT6 Dobsonian (when not on loan). Star parties are always weather permitting. Our last party of the year happens on Friday, Dec. 5th at 7:30pm.

### PLANETARIUM FULLY OPERATIONAL ■ *Scott C. Jackson*

Any one who knows how to do live shows can do that now. The automated shows that Rob Lancaster had put together are not there because they got lost when the hard drive was reformatted some time ago. We are working on getting a few automated shows. But we are now fully operational.

### LOANER TELESCOPES ■ *Tom Sidowski*

One of the best advantages of being a member of the Delaware Astronomical Society is that all members have the privilege of being trained to use and then borrow equipment owned by the club for personal use. Currently, we have two scopes available for loan: a Celestron 8" Schmidt-Cassegrain, and a 6" Orion SkyQuest XT6 Dobsonian reflector. The loan is for at least a month. If you're interested in checking out either of these scopes, contact Tom Sidowski at 239-1844.

### MAGAZINE SUBSCRIPTIONS ■ *Bob Mentzer*

You can now mail *Sky and Telescope* subscriptions, at the club rate, directly to S&T. If the renewal card says \$32.95 you will save 5 cents over the \$33 we charge for a renewal. Both S&T and *Astronomy* send out renewal notices about 6 months before your subscription expires. These renewal forms don't have the expiration date for your subscription. But this information is part of the mailing label that is printed on the front cover of each month's magazine. So if you're not sure of your expiration date, check the magazine label before you send S&T a check. *Astronomy* subscriptions must still be processed through the club to get the favorable subscription rate.

### *Of Special Note...*

#### DAS VOLUNTEER NEEDED ■

The club needs a volunteer for what we anticipate will be a more extensive use of our email list to alert members of important events related to Astronomy and the club. It won't take up much time at all and anyone interested can contact any Board member directly or email the *FOCUS* editor at [JRNeuberger@gmail.com](mailto:JRNeuberger@gmail.com).

#### 2009 OBSERVER'S HANDBOOKS ARE IN! ■

If you ordered one pick it up at the next meeting. I have ordered extra copies since I know from previous experience how many I can sell. So if you want a copy the cost is \$18 and you can reserve one by phone, E-mail or see me at the meeting. Robert Mentzer--764-1926--[RobMentzer@comcast.net](mailto:RobMentzer@comcast.net)

### LIBRARY NEWS ■ *Glenn Bentley*

I would like to use this opportunity to invite the membership to drop by the library at the end of the November meeting to check out our reading material.

### MEMBERSHIP EXPIRATION NOTICES

If you receive the *FOCUS* by email, you will be notified by email. If you receive it in the mail and the mailing label on the envelope containing your *FOCUS* is marked with Red Marker, your membership is expiring or has expired. To continue to receive the *FOCUS*, *Sky and Telescope* or *Astronomy*, and *Reflector*, send the renewal form below with your check to:

DAS, c/o Robert Mentzer  
605 River Road  
Wilmington, DE 19809

**DAS ASTROPHOTOGRAPHY SPECIAL  
INTEREST GROUP ■ Bill Hanagan**

The next meeting of the AP SIG is scheduled for 7:30 P.M. on Friday, November 14 at Mt. Cuba. The DAS astrophotography special interest group (DAS AP SIG) meets on Friday nights at 7:30 P.M. every other month at Mt. Cuba regardless of weather. The SIG also meets for photo shoots scheduled on 1-2 day notice to synchronize with the weather.

The monthly meetings are informal and typically include the presentation of astrophotos taken by the members along with an extended question and answer period. Objects commonly photographed include constellations, auroras, lunar eclipses, and planetary photos, as well as a wide variety of deep-sky objects such as nebulae, galaxies, star clusters, etc. The topics discussed cover the entire gamut of astrophotography, from how to get started with a minimum of equipment, to polar aligning your telescope, all of the way to the fine points of using auto-guiders and post-processing digital images.

You can get started in astrophotography with just your current camera mounted on a tripod or a motorized telescope by taking wide field photographs of meteor showers, conjunctions, constellations, and star trails. As you move to progressively fainter and smaller subjects, you'll need better equipment. Joining the AP SIG is a great way to learn what equipment you need and what works well before you spend your money.

If you are interested in joining the AP SIG, just email your name, address, and phone number to me at [hanaganw@comcast.net](mailto:hanaganw@comcast.net) (using "@" and "." in place of ? and ?).

Finally, please consider submitting one or more of your favorite astrophotos for publication in the Focus. You can email your photo(s), along with a brief description of how you made them, to our *FOCUS* editor, Joe Neuberger at ([JRNeuberger@gmail.com](mailto:JRNeuberger@gmail.com)). Please include a brief description of how you made each photo along with a by-line so each photo can be properly credited.

**DAS AMATEUR TELESCOPE MAKING SPECIAL  
INTEREST GROUP ■ Bill Hanagan**

The DAS Amateur Telescope Making (ATM) Special Interest Group (SIG ) meets on evenings and weekends according to the availability of the members and the particular projects that are underway. The general range of activities of the ATM SIG includes all manner of telescope making, mirror making, and the making of accessories for telescopes and observing.

Anyone interested in joining the ATM SIG should email their name, address, and phone number to me at [hanaganw@comcast.net](mailto:hanaganw@comcast.net) (using "@" and "." in place of ? and ?). Meeting dates are announced primarily by email, so if you are interested in telescope making, be sure to let me know!

**DAS FORUM / E-MAIL SITE ON YAHOO**

■ Don Shedrick

This is a restricted e-mail service for use by DAS members for DAS purposes. To use this site, go to <http://groups.yahoo.com>; search for Delaware Astronomical Society; and click on the link that comes up. To join, you must have a Yahoo ID and password; if you don't, you can register at this time by following Yahoo's instructions. You will then be allowed to "Join the group" upon clicking in that box. You must then register for the DAS group and add your profile by clicking on "add new profile" and completing the form. When adding or editing your profile, you will need to enter your actual name in the "Real Name" box so you can be identified as a DAS member so Don Shedrick can approve your application to join the DAS group, and everyone will know to whom they are communicating. Finally, specify your desired email address for delivery of messages. Note- you may choose to not have your name and email address displayed to anyone other than DAS members who are members of the Yahoo DAS email group.

For more detailed instructions, go to the DAS website under DAS Resource Links.

**SAWIN OBSERVATORY REMINDER ■ Tom Sidowski**

The DAS maintains a club observatory on the grounds of the Mt. Cuba Astronomical Observatory. The Sawin Observatory houses the club's permanently mounted 12.5" reflecting telescope and a 17.5" Coulter Odyssey 2 Dobsonian telescope. It is for the use by club members once they are trained and checked-out in a simple operating procedure. Members who are interested in becoming key holders of the Sawin Observatory should contact me at 239-1844 to arrange for training in the use of the facility.



## The DAS 12.5" Newtonian

Member Records Its History & Proposes  
It Be Named for *Gerard Edmund Audy*

PART 2 OF 2-- ■ *Emil Volcheck*

(Part 1 appeared in the Oct. '08 issue of FOCUS)  
[Story reviewed for accuracy by long, long time members, Jack Snyder and James Kauer, both of whom played key roles in the featured projects.]

One anecdote worth mentioning at this time is that member John Koller arranged with the Amateur Astronomers of the Franklin Institute (the AAFI, a group then dedicated to telescope making) to get a tool to match the 12.5" blank. Emil Volcheck made the pilgrimage to the bowels of the Franklin Institute, where the AAFI had their mirror and telescope making shop, to get it. An interesting journey in itself!

The process of getting bids on the machine work for the mounting was finally completed - with bids ranging from a low of around \$900 to over \$4000 (it was clear that the latter bidder did NOT want the job!). Much to our amazement and delight, the low bid came from the Cropper Machine shop, which Gerry knew to be an extremely high quality operation (it's not often that the lowest bid comes from the best people, but it did for us). Part of the low bid was the condition that we NOT require a specific completion date, as they would fit the job in whenever they had a low work load, Although the uncertainty of the timing was not very comfortable, we felt it was a small price to pay for getting work done by such a quality shop. So, the bid was let to Cropper in the fall of 1961 - while the mirror was still being worked on.

An interesting sidelight on this event was that our "estimator" at Cropper Machine shop was a son of the founder/owner, a young man named Charles Cropper Parks. Many of you may know him now as the world famous metal sculptor - Charles Parks - small world!!! Then, he handled bids and scheduled jobs like the DAS telescope....

Again, we got a very pleasant surprise, Cropper finished their work in about three months! And, the mounting parts were ready at just about the same time that the mirror was finished in December of 1961.

During that same interval, Gerry had proceeded with making those parts of the scope that were either: not to be purchased or not to be made by Cropper. And, herein lies another anecdote that I feel demonstrates the kind of craftsman that Gerry was.

Early in the year, once we were sure of the mirror size and the type of telescope (Newtonian), we

decided not to make: the mirror cell, the focuser, diagonal mirror, diagonal holder or the finder scope. So, these parts were ordered from various suppliers.

The mirror cell, one of the most important parts, was ordered from Coast Telescope (I think) in California - then the hub of the telescope making industry (if you can call it an industry). Gerry was told that the cell should be shipped in about three months, which I recall meant late spring of 1961.

Well, late spring came, but no cell; so Gerry began what turned out to be an extended string of contacts (I never did find out what his long distance bill turned out to be!) with Coast. They were of the now-familiar type: "our mechanic who builds them was sick", "we will ship in a couple of weeks", "it's in the mail", "oh yes, we did miss shipping but we'll do it in a couple of weeks for sure", "it's in the mail", "actually we had some more fab problems but it'll be on its way shortly". To make a disgusting story short, the mirror cell finally arrived late in 1961 - at least five months beyond the promised ship date.

I got a phone call from Gerry telling me the good news. Since the mirror was about ready and the machining, too, it was a good feeling that the cell had at last arrived. One evening Gerry brought the cell over to my house; so we could both inspect it. What a huge disappointment!!

As it turned out, the cell was a really poor design and poorly fabricated (the pictures in their ads did not quite tell the whole story!). Gerry had very serious doubts that it could safely handle the full weight of our mirror (which is a full thickness blank and weighty). He was also very concerned about our being able to collimate the scope and keep it so. I could readily perceive what he was saying, but we were out of any other option and had to proceed.

Then, Gerry pulled out a second box, which he had brought with him. He opened it and unveiled another mirror cell - which was quite obviously without the deficiencies which we had just seen in the purchased cell. I asked Gerry where he had got it. He told me that he had become skeptical that the ordered cell might ever come; so he had started down the road to design and build one of his own (remember I said he could do pattern making?). And this was the result. Then, Gerry made a surprising offer....

He said that he would be willing to swap the club his cell for the one we had bought. While stumbling over myself to accept, I asked him why he would want the mirror cell that he had so strongly disparaged. Gerry told me that it was his plan to  
(Continued on Page 6)

THE UNIVERSE  
YOURS TO DISCOVER



INTERNATIONAL YEAR OF  
ASTRONOMY  
2009

Spread the  
Word About  
the 2009  
International  
Year of  
Astronomy!  
See the available  
resources on page 8!



**A full house was on hand for DAS' October meeting where Greg Lee, at left, gave an excellent presentation on the Pluto Express Mission. Afterwards, below, members celebrated long-time member**

*Al Webber's 101st birthday with a cake prepared by Board member Lynn King. Join us for our meeting on Tuesday, Nov. 18th. Refreshments are now served after each member meeting! The only thing missing is YOU!*



**DELAWARE ASTRONOMICAL SOCIETY  
BOARD OF DIRECTORS' MEETING MINUTES  
October 21, 2008**

**PRESENT:** Hank Bouchelle, John Case, Bob Mentzer, Lynn King, Bill Hanagan, Dan Chester, Glenn Bentley, Sarah Baird, Joe Neuberger, Dave Swartout, Rene Van Caneghem

**TREASURER'S REPORT:** Bob M. reviewed finances. Report attached to hard copy of the minutes. Luther Porter Fund is in a CD – matures in May, 2009. Per Bob M., the DAS can pick up between \$1,000 and \$1,500 a year due to Focus not being mailed.

**LIBRARY:** Glenn B.- No report. **FOCUS:** Joe N.-No report  
**50TH ANNIVERSARY BOOKLETS:** Hank B. asked about Emil's email re: 50th Anniversary booklets. What should we do with them. Lynn K. suggested we give them to new members. Bob M. suggested we announce that they are available.

**DAS RECORDS:** Email from Emil reminding us someone needs to go through and organize the DAS file cabinets. Placards are in Pier Room. Return pictures the file cabinet. Hank suggested we put them out at the May Dinner meeting with what had been happening during the past year.

**EMAIL FROM NICASTRO RE:** possible topic – The long term survivability of biological species in space. Hank B. will email Nicastro and confirm that this is what we would like to hear him speak on.

**SPEAKER – SUMMERFIELD:** History of Astronomy on the Go. How he got started, what is its purpose, etc.

**EXPANDING EMAIL LIST:** Notification of upcoming events by email with option to opt out. Call it "Notices of DAS Activities". Bob M. will start it but would like someone to take over responsibility. Suggested that email responsibility go to Bill McKibben. Put an

announcement in Focus we need a volunteer to handle sending emails for short term notices. Bob will maintain database. Lynn suggested if we know what is coming up, we have a "What's Up" calendar of events listed in the Focus.

**FORWARD PLANNING:** Anniversary of Galileo's telescope and International Year of Astronomy. Do we want to have someone keep track of events, websites, possible programs for next year? Former member Keith Love made replica of Galileo's telescope and won an award at Stelefane. Possible speaker fall 2009. Bill will contact him about a talk. Rene V. suggested a book review on a book he is reading (couldn't make out name of it) and possibly subscribing to Discover Magazine for the DAS library.

**10 INCH DOBSONIAN:** Lynn K. received call from Don Anderson. He has a 10-inch Dob Mead Starfinder, never been used, and is looking to sell it. She gave information to Bill H. He will contact Mr. Anderson. We could put ad in Focus.

**REFRESHMENT CHAIR:** Still looking for one. Lynn K. brought a cake for Al Webber's 101th birthday celebration. December is covered – Christmas party.

**FACILITY LOCK UP:** Would like to have someone with a key attending meeting stay and lock up.

**AWARD'S COMMITTEE:** Chairperson – David Swartout. (Please let me know if this is incorrect.)

**CHARTER AWARDS COMMITTEE:** Per Hank B. discussed for several years. Hank would like to see a long term chairperson who would oversee monies, keep on lookout for people who would qualify for various awards, e.g. Luther Porter Award, Astronomer of the Year, etc. Lynn K. would like to wait until we actually see this happening. Hank would like to have a committee that requests for grant monies for the awards. The DAS needs to define in writing what the Luther Porter is and its purpose, its mission. Hank asked the Board members to think about this.

Respectfully submitted,  
K. Lynn King, Secretary

## 12.5" NEWTONIAN

(Continued from Page 4)

hang the cell on the wall of his home shop (which was pretty extensive, I might add) and have it where he could readily see it. As he said to me "when I get to the point where my work is like that I'll retire!!!!!"

That incident, I think, characterized what we saw about how Gerry tackled all the jobs he ever did. Oh yes, and as an aside, Gerry (with the help of member Jack Snyder) later applied for and was issued a patent on his mirror cell design. It formed the basis of a small mail order business that Gerry later ran. You can see his ads in issues of Sky & Telescope from back then.

Gerry and Sylvester (Syl) Schneikart jointly oversaw (and did the major work) in assembling, collimating and testing our new telescope. In May of 1962 the pier was poured in the new observatory building, and the new telescope came to life that summer. The scope and mounting weigh in at nearly 700 pounds and about 3,000 pounds of concrete went into pouring the pier!

Interestingly enough, electricity for the observatory came via several hundred feet of electrical wire laid in a shallow trench over to the front door of the

home of Dr. Arthur Valk. Dr. Valk had donated the acreage for the Mt. Cuba site, but construction of the MCAO facility had not yet started. Dr. Valk provided us free electricity until years later when the present power line to the MCAO power panel was put in (yes, the Sawin Observatory has been getting free power from MCAO since around 1964).

Once the scope was operational, one of the earliest observation attempts was to see the dust plume resulting from the impact on the Moon of one of the Ranger series spacecraft (nope, no plume was seen).

And, one of the earliest photos was taken of our local satellite, the Moon.

In the summer of 1962, our new pride and joy was named the "*Hillside Observatory*" and began its long career of service to the many hundreds of DAS members who have followed in the nearly 40 years since.

While the building has been renamed in honor of its designer, I think the time has come when we should name, and suitably mark, the telescope itself, in honor of its designer and chief builder, Mr. Gerard E. Audy.

## Unique Telescopes to be in DAS Display

■ Emil Volcheck

Folks may be unaware that the DAS is the owner of serial number 39 Celestron 8-inch SCT. For many, many years, this scope was used in the loaner scope program. It suffered some damage over the years, but was kept in reasonably workable condition.

When the DAS got a donation of a second, much newer C-8 and a nearly new Meade 8-inch SCT, I opted to remove the #39 as a loaner, get it cleaned up and readied for some non-threatening use.

I might add that the design of this scope is unlike any other C-8 that you have likely ever seen. I contacted Celestron some years ago to get some insight on those differences from newer production. They could find no record of the scope, nor could their oldest employee knowledgeable of early years recall ever seeing this design! Very unique!!

I am proposing that this scope be placed on display in the MCAO rotunda - replacing the relatively new C-8 (my personal C-8) there now.

The #39 would join two other special scopes soon to appear in the rotunda: the first being a mint condition Questar from the early 50s and the second being the world's first or second best condition Porter Garden telescope. This will make for a very interesting and unique bit of scope history! Comments, etc?

## AWARDS COMMITTEE SEEKS DESERVING NOMINEES

■ Gus Swartout

The awards committee is looking for nominations for both the *Amateur Astronomer Award* and the *Luther Educator Porter Award*. The *Amateur Astronomer Award* is open to all DAS members. If you have identified a candidate from our monthly meetings or star parties please do not hesitate to nominate their name. Last year's recipient was Bill McKibben. You can find many of his photographs published in our own *Focus* newsletter. Past recipient's names can be found on the award planks located in the curved hallway at Mt. Cuba.

The *Luther J. Porter Educator Award* honors an individual who has made a substantial contribution to astronomy education and/or awareness, in either a professional or as a dedicated amateur. Luther J. Porter was a long-time member and devoted supporter of the DAS and served for many years as its Treasurer. Last year's recipient was Bill Summerfield. Bill is a noted Philadelphia area educator and astronomy enthusiast. You can find Bill on the WEB at *Astronomy To Go*. The awards are presented at the annual dinner meeting held in May. Nominations can be submitted to any of the committee members; Bob Karcha, Bill McKibben and Gus Swartout.

## 400th Anniversary of the Invention of the Telescope ■ *Bob Mentzer*



Hans Lippershey was born in Germany in 1570 and died in 1619 in the Netherlands. He married there in 1594 and became a citizen in 1602. His craft was that of spectacle-maker in the town of Middleburg. The city was flourishing, especially since the fall of Antwerp to the Spanish in 1585 which had caused many Protestants to flee north to the Netherlands.

New glass-making techniques were introduced into the Netherlands by the Italians in the 1590s, and perhaps some ideas about combining lenses were abroad in the glass-making community.

On October 2, 1608 the States General discussed Lippershey's application for a patent on an instrument described as "a device by means of which all things at a very great distance can be seen as if they were nearby by looking through glasses which he claims to be a new invention."

The patent was denied because it was felt that the device could not be kept a secret. Lippershey made several binocular telescopes for the States General and was paid handsomely for his services.

Shortly after that Jacob Metius petitioned the States General claiming he was the inventor. In any case, Lippershey's patent application represents the earliest record of an existing telescope.

## Messier Event Planned for March



■ *Gus Swartout*

Mark your calendar now for a good time in 2009. The Messier Marathon will be held on Friday night March 27th with an alternate on Saturday the 28th. We are lucky to have a new moon the day before so the sky will be as dark as it comes in

this locale. Our location for the event will be a short 15 minute drive south of Elkton on the Elk River. Bathroom facilities are available and there will hot drinks and food for all. The Messier Marathon is an event where you try to locate as many Messier objects (M1, M2 M3...) from dusk to dawn. But this does not mean you have to stay all night, show up for an hour or two and enjoy searching for some of those elusive and very beautiful objects of the night sky. Bring your scope or a pair of binoculars. There is only one rule, this is a manual search. So if you have a Go-To scope like me, just leave the power switch set to off. If you feel intimidated that you not be able find what you're looking for, have no fear there is a great book that will help you look like a pro. *The Year Round Messier Marathon* by Harvard Pennington, published by Willmann-Bell. Harvard explains in detail how to use the book's charts along with your telescope's finder or telrad to locate all 110 objects. The DAS library has a copy you can check out. More details to come. Any questions contact Gus Swartout.

## Speaker Programs for the Coming Months Announced

President Hank Bouchelle recently announced the scheduled speakers for the following seven months of upcoming DAS member meetings:

**Dec. 16 Christmas Party!** *with Al Weber*

**Jan. 20** *Bob Summerfield (2008 Luther J. Porter Educator Award recipient)*  
**Topic to be determined**

**Feb. 17 Mini-talks:**  
*Gus Swartout on the Messier Marathon*  
*Dave Groski on the Spilhaus*  
*Space Clock*

**March 17** *Anthony Nicastro, West Chester State University*  
**Topic to be determined**

**April 21** *Hank Bouchelle* **Gerard Kuiper**

**May 19 Dinner Meeting:**  
*Sally O'Byrne--*  
**Legends of the Night**

**June 16** *Billie Westergatrd*  
**Dynamics of Black Holes**

# WEBSITE of the MONTH

## Excellent Support Materials Available For International Year Activities

Introducing 12 easy ways to share the excitement of the International Year of Astronomy (IYA) during 2009. Monthly IYA Discovery Guides are internationally accessible and complete with articles, activities, instructional videos, and finder charts. The Night Sky Network, Astronomical Society of the Pacific, National Science Foundation, NASA, and the IYA US committee have teamed up to provide these great resources that support NASA's monthly themes and featured celestial objects. Join skygazers worldwide in a renewed appreciation of the universe. Download your free IYA Discovery Guides at: <http://www.astrosociety.org/iya/guides.html>.



These guides are part of a fully searchable online database filled with easy-to-use activities, loved by amateur astronomers and other educators nationwide and proven to engage and inspire. Explain the universe, from eclipses to black holes with simple models, presentations, and hands-on demonstrations. See for yourself at: <http://nightsky.jpl.nasa.gov/download-search.cfm>.



We are excited to share these resources so please pass this announcement on. US IYA initiatives can be found at: <http://astronomy2009.us>. Let's get the world looking up!

## Night Sky Network

Astronomy Clubs bringing the wonders of the universe to the public



## From **SPACE CENTER HOUSTON** 15<sup>th</sup> Annual Space Exploration Educators Conference is February 5-7, '09

Space Center Houston is excited to announce its 15th annual Space Exploration Educators Conference! This completely immersive three day conference offers some of the most engaging and energizing space related sessions yet.

### What is the Space Exploration Educators Conference (SEEC)?

Teachers will have the opportunity to attend sessions hosted by the actual scientists and engineers working on the cutting edge of exploration. This year we have engineers that are working on exciting projects such as the Constellation program, International Space Station, Mars exploration, and missions to the planets and beyond. You will hear from the astronauts leading the charge in exploration, learn about the bold vision and technologies that will send humans back to the Moon and off to Mars! Attend sessions presented by educators and receive ready to implement classroom ideas and experience minds-on, hands-on fun! Not to mention the wonderful networking with fellow educators, the multitude of cross curriculum ideas and activities you will take back to the classroom.

**What will I do?** Earn 24 hours of Continuing Professional Education credit.

Collect lots of exciting materials to inspire your students and enhance your classroom. Meet and talk with the astronauts, scientists, and engineers who are making space exploration a reality. Engage in hands-on and interactive activities that fellow educators have used to bring space to life for their students.

Attend our new Reception experience, the 2009 "Taste of Space" Epicurean Evening. This cultural experience showcases food and beverages from most of Clear Lake Area's finest restaurants. Also attend the infamous SEEC banquet, where you are treated to a fabulous meal prepared by our award winning in-house caterer.

Join us this year as we celebrate a rich history of space exploration and your role in educating the space explores of tomorrow.

TO DOWNLOAD THE CONFERENCE BOOKLET go to <http://www.spacecenter.org/docs/SEEC2009.pdf>.

REGISTRATION HAS BEGUN and you may register online at <http://www.spacecenter.org/TeachersSEEC.html>. For more information email [seec@spacecenter.org](mailto:seec@spacecenter.org) or call (281) 283-7773

President Hank has attended many of these SCH conferences and found them to be excellent. If he is able to work things out he will be there for this one also.

# ASTROPHOTOGRAPHS OF THE MONTH FOR NOVEMBER 2008

PLEASE submit photos to the editor at [JRNeuberger@gmail.com](mailto:JRNeuberger@gmail.com)



The Defense Department has deep roots in NASA's 50-year legacy. The seven original Mercury astronauts, posing next to an Air Force Convair F-106 Delta Dart, were military fighter pilots before joining NASA's astronaut program. From left to right: M. Scott Carpenter, L. Gordon Cooper, John H. Glenn Jr., Virgil I. "Gus" Grissom Jr., Walter M. Schirra Jr., Alan B. Shepard Jr. and Donald K. "Deke" Slayton. (Image Credit: NASA)

NASA began operations on Oct. 1, 1958, just a few days short of the one-year anniversary of the Soviet Union's successful Sputnik I launch. Concerned about the race for technological superiority in space, U.S. officials debated long and hard over whether the space program should be placed under military or civilian control, historical documents show.



Happy Birthday NASA - 50 Years of the Right Stuff

[http://www.astromart.com/news/news.asp?news\\_id=875](http://www.astromart.com/news/news.asp?news_id=875) for the full story.

## Planets over Pony Express Lake

— Credit: Dan Bush

Beautiful sunset sky colors are reflected in Pony Express Lake in this twilight skyview from northern Missouri, USA, planet Earth. A two day old crescent Moon and brilliant planet Venus shine through thin clouds. Moonlight and Venus light streak the almost-calm lake waters.



(<http://www.MissouriSkies.org>)

## Member Classifieds:

Please feel free to submit classifieds for inclusion to [JRNeuberger@gmail.com](mailto:JRNeuberger@gmail.com).

**FOR SALE**—Megrez 90 FD APO refractor. Includes case, tube rings and 2" carbon fiber diagonal. Excellent star test and in mint condition. \$600 Contact Dave Sewell 302-757-5000.

**TUTOR NEEDED:** I am Kate May and I am taking an astronomy class as my science elective at Wilmington University. I am looking for someone who would be interested in tutoring me. I have 5 weeks left of a 7 week class and I need help with understand concepts, doing the homework, and preparing for exams. If anyone would be interested my email is [katemay7@gmail.com](mailto:katemay7@gmail.com).

# DAS CONTACTS

Please call any of us with your concerns!

Membership: Any of the following:

**President:** Hank Bouchelle -----302-983-7830  
**Vice President:** John Case -----302-836-4888  
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 MCAO Web Page: [www.MountCuba.org](http://www.MountCuba.org)

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## FOR NEW MEMBERSHIPS or RENEWALS

If you have questions, call any of the member representatives listed. Otherwise, just check the appropriate boxes and complete the form below. Print it or cut it off and send it with your check to Bob Mentzer at his address on the form. The magazine prices are group rates to DAS members. If you're just joining us for the first time,

**THANKS, and welcome to the DAS!**

## MEMBERSHIP or RENEWAL FORM

Please make checks payable to DAS, c/o Robert Mentzer, 605 River Road, Wilmington, DE 19809

New Member   
 Renewal

Senior/Family Membership \$20.00   
 Junior membership (16/under) \$10.00   
 Sky and Telescope Magazine \$33.00   
 Astronomy Magazine \$34.00

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**THE LAST WORD...**  
 Don't miss  
 a grand conjunction  
 December 1st, 2008:

Venus and Jupiter  
 sparkle in the  
 southwest after sunset  
 in early December.



■ *FOCUS* editor  
 Joe Neuberger

*A crescent Moon  
 joins Venus and Jupiter  
 December 1.  
 The spectacular conjunction  
 will have everyone hoping  
 for a clear sky.*

Credit: Astronomy: Roen Kelly