



**FOCUS**

DELAWARE ASTRONOMICAL SOCIETY

### NEXT MEETING APRIL 18

Galileo's Satellites -- Hank Bouchelle; What's Up -- Bootes - Greg Lee;  
Calvin R. McCullough Planetarium at McCullough Elementary School -- See  
Page 5 for directions.

BOARD MEETING AT 7:15 P.M. ALL DAS MEMBERS INVITED

Volume 51, No. 4  
APRIL, 2006

**FROM THE EDITOR – Lee Kaser**  
**NOTE THE LOCATION OF THIS MONTH'S**  
**MEETING—SEE PAGE 5 FOR DIRECTIONS.**

A person who really enjoys astronomical observing of the night sky can't be stopped even by three straight washouts or cloud-outs. The Messier Marathon ran into just that on March 25 and the surrounding dates, so Dave Swartout and a small band went out on April Fools' Day to try again—this time they won the weather lottery. Please read Dave's article which follows on page 2. He's even talking about doing it again!!

Get your reservations in for the May Awards Dinner, which should be interesting to astronomers and non-astronomers alike. Bob Naeye, a senior editor, well-known speaker, and an accomplished astronomer from *Sky and Telescope* magazine, will tell us about the Mars Rover program, and we expect a fine meal at the Terrace at Greenhill to accompany his talk and the Awards program. You will find a reservation sheet on page 6 of this Focus. Please fill it out with your meal choices and return it to Bob Mentzer with your check.

Don't forget to look at the DAS Web site ([www.delastro.org](http://www.delastro.org)) now and then. It is usually more up-to-date than the Focus; it had information about the lunar occultation of the Pleiades on April 1, which was a good reminder of an unusual opportunity. The

Focus is also there for present and past months, and a lot of other items besides.

Remember – to make the Focus interesting and relevant, I need you to send me items of interest, astrophotography, pictures of other activities, or even ads for astronomical equipment. Thanks for your help.

### **PRESIDENT'S MESSAGE – John Case**

Our March 21 meeting, while a bit sparsely attended, was excellent. Greg Lee's "What's Up" was as sweet as always. Sarah Baird told of some upcoming skyward astronomy events. Another, an occultation, is described at one click from our own web site (<http://delastro.org>). The main talk, re Green Bank Radio Astronomy and given by Randall Detra, was spectacular, both for subject matter and Randall's delivery. The main radio scope there, the Robert C. Byrd Green Bank Telescope (Web site URL on page 6) stands taller than the Statue of Liberty, and it is an off-axis reflector sporting a 2.3 ACRE reflecting surface! This area contrasts with that of a big 20" diameter optical reflector, whose reflecting surface is a mere 314 square inches, almost 20,000 times smaller. We were shown pictures of Andromeda Galaxy taken with the Byrd, and these showed nearby gas blobs not visible optically. We were also shown pictures of Venus's surface and of asteroids! These were taken with the help of Arecibo's radar transmitter and computer

processed to yield highly detailed images (<http://www.naic.edu/>).

At our April 18<sup>th</sup> meeting at the McCullough Planetarium, the DAS Board will meet first at 7:15 PM. At the general meeting we will once again ask for nominations of further candidates for our upcoming election. The postcard ballots will be inserted in the May FOCUS and will need to be returned to Election Committee Chair Costas Krikelis. We urge all of you to vote and participate in our other activities, also. It won't be long now until our May Awards Dinner, and we hope to see all of you there, so please send in your reservation.

#### REMAINING PROGRAMS FOR SPRING 2006

May 16 - Dinner Meeting with Keynote Speaker Senior Editor Bob Naeye, *Sky & Telescope* Magazine, speaking on the Mars Explorer Rovers; The Luther Porter Award; The Amateur Astronomer Of The Year Award; The Terrace at Greenhill on DuPont Road.

June 20 - The No Spin Space Shuttle -- Mike Borgia; What's Up - Draco - Greg Lee; Mini talk - Degenerate Matter.

#### NEW MEMBERS THIS MONTH -- WELCOME

HILARY GEARS	WILMINGTON, DE
BRYAN HOLLER	WILMINGTON, DE
MAX PETERSON	NEWARK, DE

#### GREAT OBSERVATIONS - The Messier Marathon - Dave Swartout

Well, after three failed attempts because of inclement weather the last scheduled date for the event looked to be a washout. But, I guess it was Mother Nature's April Fool's joke on us who drove to Bombay Hook under ominous, dark, billowing clouds to have them clear out by twilight. Those of us who participated in this joint event with the DelMarVa Stargazers were given a clear sky from horizon to horizon on April first. While waiting for darkness to bring up some pointers the telescope equipment was hauled out of car trunks and trailers, everything was erected and readied, and the cook stove was lit. The aroma of coffee drifted in the air and was a precursor of what was going to be. The fun started early by having seventeen percent crescent moon located in the Pleiades. We watched, and oohed and ahhed as the moon occluded one sister after another as they blinked out on the dark side. However, too much time was spent watching this geometric event, and we all

found ourselves having a late start. I found out early that the marathon is more like a timed event to find the objects in the western sky before they set. Most everyone there was using the same book, Harvard Pennington's *The Year Round Messier Marathon*. After reading the copy in DAS's library back in January I ended up buying my own. The secret to Harvard's method is finding a pattern of stars, and then superimposing on those stars with the illuminated Telrad, or finder scope, to pinpoint those elusive gems. You would be surprised how easy and accurate this works. I know I was. I'm a frustrated observer who doesn't really know the night sky. That's my excuse for having a GoTo scope. But during the marathon there are no batteries required because it's manual mode all night long. OK, it was time to start. The first object on the list was M74 in Pisces. But I was too late-- it was below the horizon the same with M77 in Cetus and M31 Andromeda galaxy was lost to the glowing haze. Not a good start. I needed to get higher in the sky with something easy, Orion M43 and M42. That placed my first two checks on the list. Next it was on to Canis Major for four objects. I checked the book and set the Telrad and found them all. This is way more fun than punching a number on a keypad. I heard Bill McKibben and Marc Hutton calling out their finds and commenting on certain aspects of the seeing. They are both very experienced observers and were knocking out the list. And from time to time everyone took turns climbing the ladder to look through Don Surles' twenty-five inch light bucket. We saw some of the most spectacular views and it was hard to break away. Max Peterson arrived and another scope was put into action. As the evening progressed the pattern was set, look at the book set the Telrad check off the list. Between that and eating hot dogs the evening passed quickly.

All good things must come to an end and some of us had to leave before the morning sunrise. I was surprised by how many Messier objects I had found. It wasn't all 110 or even 70 but a fair number. I think I'm going to leave the battery unhooked when I'm home and continue to work on that Astronomical League certificate.

#### OBSERVING THE SKY: AN INTRODUCTORY COURSE - SPRING 2006 -- Emil Volcheck

Because of a very low number of registrations (including only a couple of DAS members), we had to postpone the course. We will give it

another try in the Fall; so watch for the notice! And, let other folks, who might benefit from this introduction, know about it. The fee for DAS members is still expected to be \$20 (\$35 for non-members). If you would like to receive a personal notification about the next series, call the Observatory, at 302-654-6407, or email [mtcuba@udel.edu](mailto:mtcuba@udel.edu).

#### STAR PARTIES AT MT. CUBA – Tom Sidowski

The Woodside Farm Creamery has confirmed five dates for a series of star parties this summer, listed below. These have been very popular in the last couple of years, and we are sure you will enjoy them in 2006, (along with the ice cream, of course):

Friday, May 5th	7:30 - 9:00pm
Saturday, June 17th (Solar Observing)	1:30 - 3:00pm
Saturday, July 8th	8:00 - 9:00pm
Saturday, July 22nd (Solar Observing)	1:30 - 3:00pm
Saturday, August 5th	8:00 - 9:00pm

The creamery is located at 1310 Little Baltimore Road, Hockessin, DE 19707.

Also, here are the next few DAS star party at Mt. Cuba dates:

Friday, April 28th	8:00pm
Friday, May 26th	8:00pm
Friday, June 23rd	8:00pm
Friday, July 21st	8:00pm
Friday, August 25th	8:00pm

#### BRANDYWINE CREEK S. P. OUTREACH PROGRAMS -- Lynn King

Saturday, April 22 – Solar Viewing 1-3PM  
Wednesday, Aug. 9 - Hayride & Moonrise

#### STATEMENTS OF CANDIDATES FOR PRESIDENT OF DAS JULY, 2006 - JULY, 2008

(From Hank Bouchelle) -- As many of you may remember, I served two terms each as President and Vice-president of the DAS. Since then, except for a brief interruption, I have served as Board Member at Large. I have also served the society in smaller ways. I have enjoyed all of these offices immensely, and feel that they have given me useful experience.

The most important duties of the President are, of course to maintain the Society and to foster its purposes and ideals, as stated in the society's By-Laws.

However, another important role for the President is to set and then work with all elements of the society to achieve a positive and realistic agenda. I want to speak about what I think is important.

Engage the membership: To keep the members informed about the workings of the society, to engage them in decisions regarding its operation, and to make sure the society solicits and then supports their involvement.

To create a charter and statement of purpose for the Luther J. Porter Award. This award has every right to be a signature award for the society. Once it has a clear and stated purpose, it is proper to solicit support for it within and outside the society.

(From Greg Weaver) -- I have been a member of the DAS for over 30 years. I'm an avid observer, using my C-11 whenever my schedule and clear skies permit. I help out several times a year on Public nights acting as cohost. There I enjoy showing guests treats the sky has to offer. I have been active in limiting light pollution, working with legislators to pass county and state laws limiting lighting and the fixtures that cause light pollution. I enjoy teaching others about astronomy and exposing them to the beauty of the night sky.

#### DAS 50TH ANNIVERSARY – Emil Volcheck

In November 2006, the DAS will mark its 50th year of operation. It seems appropriate to have a suitably grand celebration for our being able to hang in there for that long, without being reduced to a small group of old men meeting occasionally for lunch, or booze, at a local watering hole!

To help us settle on what activities might be appropriate for this event, we'd like to hear suggestions from our members. If you have an idea, please do not hesitate to pass it on to me. You can give me a call (610-793-5156) or email ([mtcuba@udel.edu](mailto:mtcuba@udel.edu)) with that idea!!

#### OBSERVING CLUBS – Dave Swartout

As a member of the DAS, you are also a member of the Astronomical League. One of the benefits of this membership is that you are able to participate in any of their 27 Observing Clubs. These clubs are designed to further develop and award your observing skills through the use of instruments, or just your

naked eye. The observations you make are an individual effort that uses the honor system.

Some clubs have different levels of accomplishments and there is no time limit to complete. Upon finishing the required number of observations, the Astronomical League will review your logs, document your name along with our astronomical society, and will then issue you a certificate and pin to be awarded at our next monthly meeting. If you are interested and would like to participate, just log into <http://www.astroleague.org/> and click on the button Observing Clubs. Follow the rules and regulations and you will be on your way. In the following list you will find that there is something for everyone. There are even clubs tailored to children to spark a budding interest in the night sky. Contact me for more information.

#### LIBRARY NEWS – Glenn Bentley

I would like to take this opportunity to invite the membership to drop by the lending library to check out reading material.

#### LOANER TELESCOPES -- Emil Volcheck

Spring's mild weather months will be a good time to get out and try your hand with a scope. So, if you are new to the club and/or do not have a scope, you can get the loan of either:

- 1) a Celestron 8" Schmidt-Cassegrain
- or 2) an Orion 6" Dobsonian reflector

The loan is for at least a month (depends on how long the waiting list is). To get on that list, promptly, contact Emil Volcheck, 610-793-5156 or 302-654-6407.

#### MCAO PUBLIC NIGHTS – Emil Volcheck

The Mt. Cuba Observatory Public Nights will continue right thru winter! 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>.

#### AWARDS -- Dave Swartout

The awards committee would like to thank those of you who sent in your nominations for the Luther Porter Award and Amateur Astronomer Award. Please join us for the May dinner meeting when they are presented.

#### DAS Astrophotography Special Interest Group (AP SIG) – Bill Hanagan

The DAS Astrophotography Special Interest Group meets on Friday nights at 7:30 PM 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.

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).

#### SAWIN OBSERVATORY REMINDER

-- Tom Sidowski

DAS members who are interested in becoming users of the Sawin Observatory and/or the Big Red DOB, should contact me at 302-239-1844 to arrange for some hands-on training in using the facility.

#### DAS AMATEUR TELESCOPE MAKING SPECIAL INTEREST GROUP (ATM SIG)

-- Bill Hanagan

The DAS Amateur Telescope Making Special Interest Group 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 manners of telescope making, mirror making, and the making of accessories for telescopes and observing.

Anyone interested in joining us should email their name, address, and phone number to me at [hanaganw@comcast.net](mailto:hanaganw@comcast.net).

#### 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 [delawareastronomicalsociety](http://delawareastronomicalsociety); 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 e-mail 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 web site under DAS Resource Links.

**MEMBERSHIP EXPIRATION NOTICES:**

If 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*, and *Reflector*, send the renewal form below with your check to:

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

Or give it to Bob at a meeting. Thank you.

Call any of us with your concerns!

**DAS CONTACTS**

Membership: Any of the following:  
 President: John Case ----- 302-836-4888  
 Vice President: Vacant until June, 2006  
 Secretary: Lynn King ----- 302-764-8816  
 Treasurer: Bob Mentzer----- 302-764-1926  
 DAS/MCAO Advisor: Emil Volcheck---- 610-793-5156  
 Education Chair: Bob Karcha ----- 302-999-9509  
 Messier Club: Lynn King ----- 302-764-8816  
 Observing: Greg Lee ----- 302-762-5358  
 Youth Coordinator: Sarah Baird ----- 302-292-8950  
 Archivist: Rene Van Caneghem ----- 410-392-3718  
 Board Members at-large:  
 ATM and AP SIGs: Bill Hanagan ----- 302-239-0949  
 Chairman, Observatory Committee and DAS Monthly Star Parties: Tom Sidowski ----- 302-239-1844  
 By-Laws: Henry Bouchelle ----- 302-983-7830  
 Light Pollution Strategist; Greg Weaver 302-239-1338  
 Library Chair: Glenn Bentley ----- 610-869-0706  
 Ad Hoc Star Parties: Sheila Vincent - --- 302-322-4739  
 Elections Comm. Chair: Costas Krikelis 302-478-9099  
 Awards Comm. Chair – David Swartout 302-836-4618  
 DAS PowerPoint Adviser–Max Peterson 302-369-6982  
 MCAO Web Page: [www.mountcuba.org](http://www.mountcuba.org)  
 DAS Web Page: [www.delastro.org](http://www.delastro.org)  
 Focus Editor: Lee Kaser, Phone 302-995-6251  
 Fax: 302-995-6805  
 E-mail: [kaserlo@msn.com](mailto:kaserlo@msn.com)

**Directions to McCullough Observatory:** Take Route I-295 North (East) toward the Delaware Memorial Bridge. Take the last exit before the bridge to Delaware Route 9 (South) (New Castle.) Turn Left (North) on Rt. 9 from the exit ramp stop light and go under I-295 about one block to Halcyon Avenue. Turn Left on Halcyon, go past Holy Spirit Church to the next street and turn left into the school drive. Circle around the school to the right to the parking area near the planetarium.

**WEB SITES OF THE MONTH**

Green Bank Radio Astronomy Observatory: <http://www.gb.nrao.edu/GBT/GBT.shtml>  
 Arecibo (Chile) Observatory: <http://www.naic.edu/> (NASA/NSF/Cornell University)  
 Telrad Sky Object Charts: [http://www.solarius.com/msas/findercharts/messier\\_objects.html](http://www.solarius.com/msas/findercharts/messier_objects.html)

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**MEMBERSHIP APPLICATION OR RENEWAL FORM**

If you have questions, call any of the member representatives listed above. Otherwise, just check the appropriate boxes and complete this form. Cut it off and send it with your check to Bob Mentzer at his address given on page 5. The magazine prices are group rates to DAS members. Thanks, and welcome to the DAS if you're just joining us for the first time.

- New Member                       Senior/Family Membership                      \$20.00   
Renewal                       Junior membership (Age 16 and under)                      \$10.00   
   Sky and Telescope Magazine (monthly)                      \$33.00   
   Astronomy Magazine (monthly)                      \$34.00   
   The Night Sky (bi-monthly) (specially  
   recommended for new members)                      \$18.00

Total Submitted ----- 

\$ _____
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NAME \_\_\_\_\_  
STREET ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_ TELEPHONE \_\_\_\_\_  
E-MAIL ADDRESS (optional) \_\_\_\_\_

Do you have a telescope? \_\_\_\_\_ If yes, please describe briefly. \_\_\_\_\_

Any Questions? Call us.

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**RESERVATION FORM FOR DAS MAY DINNER AND AWARDS MEETING**

The Terrace at Greenhill, May 16, 2005.  
Fellowship Hour 6:00 PM, Dinner and Program Begins at 7:00 PM

**Menu**

- (1) Grilled Chicken Breast with Mushroom and Marsala Wine Sauce: \$22.50  
(2) Sliced Top Round of Beef with Marsala Wine Demiglaze                      22.50  
(3) Baked Fillet of Flounder Stuffed with Crab Imperial                      28.00  
Dinners include a choice of vegetable, potato or rice, dessert, rolls, and coffee or hot tea.

Number of Orders: (1) Chicken	x 1 2 3 4	Amount:	\$ _____
(2) Beef	x 1 2 3 4	Amount	\$ _____
(3) Fish	x 1 2 3 4	Amount	\$ _____
Total:			\$ _____

Cut off this form and send it with your check to Bob Mentzer at his address given on page 5.