



FOCUS

DELAWARE ASTRONOMICAL SOCIETY

NEXT MEETING: TUESDAY, FEBRUARY 15

Observing at the Cerro Tololo Observatory in Chile - Judy Provençal

Talks by Greg Lee (Constellation Cancer) and James Morgan (Astronomical League)

Univ. of Delaware Mt. Cuba Astronomical Observatory (MCAO), 8 PM

DAS Board of Directors Meeting precedes at 7:15 PM.; all members are invited

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February, 2005

FROM THE EDITOR -- Lee Kaser

As Billie Westergard says in his column this month, the attendance at our meeting has been very strong. We need more space and more chairs, but it attests to the quality of the presentations we've had. If you haven't been with us for a while, how about giving it a try? Billie is trying to get the duration of the meeting down somewhat, hopefully without losing the fine presentation quality. Please keep sending the articles for the Focus, too, so we can continue to make it interesting. Thanks to Wayne King for his pictures of Saturn and Comet Machholz (see page 5.)

This month, we feature an interview of Ron Worden, one of our long-time members by James Morgan, concerning his home observatory. It's a pleasure to be able to highlight the activities of our members, so thanks to James, and I'm always glad to have articles of interest such as this.

Finally, a reminder--- we have a new domain name -- <http://delastro.org/>. I urge you to check out our web site (and our e-mail Yahoo site.)

PRESIDENT'S MESSAGE - Billie Westergard

The January meeting was well attended (another full house). The meeting ran a little longer than expected and I had several complaints from members. The talks were very well presented. The majority of us had a good time. We had guests from several near-by astronomy clubs. A Big Thank You to Prof. Stan Owocki for his talk about Eta Carinae and his research concerning this most interesting star system. Greg Lee gave another very interesting constellation talk concerning Gemini and the surrounding area of the sky. David Groski gave a fine talk about a few of the high quality, low cost solar Instruments, including spectroscopes that he has been able to build. Thank you Greg and David.

The February meeting will feature Dr. Judy Provençal outlining her White Dwarf research at the Cerro Tololo Observatory in Chile. Judy is our resident Astronomer at MCAO and she also teaches astronomy at the University of Delaware, and we appreciate her support of the DAS through her excellent presentations. The Constellation Cancer will be Greg Lee's topic and James Morgan will give a Mini talk about the Astronomical League. James Morgan is our unofficial New Member Representative. He is involved in so many other astronomy related activities that I stand all amazed. Refreshments will be

served at 9:30, so enjoy the program, have fun, and get to know each other after the meeting.

UPCOMING MEETINGS

March 15, 2005:

The Delmarva Sky Gazers by DSG Members
- Don Surles.

Monthly Constellation – Leo – Greg Lee.

Mini talk – Center Folds – Lynn King.

April 19, 2005:

Beauty of Auroras - Sarah Baird

Constellation – Virgo – Greg Lee.

Mini talk – Traveling with your telescope

-- Tom Sidowski.

May 17, 2005: Annual Dinner – “The Best From Hubble” by Rebecca Elliott of NASA-Goddard;

Luther Porter Award;

Amateur Astronomer Of The Year Award;

--- Lamberti’s Cucina, Prices Corner.

June 21, 2005 Space Probe Spectrographs
– Jerry Truitt;

Constellation – Scorpius – Greg Lee;

Mini talk-The Messier Catalog - Robert Karcha.

June 25, 2005 -- Picnic at MCAO with a cookout and other activities.

DAS STAR PARTIES -- Tom Sidowski

Winter is upon us, but so are the awesome sights of the winter heavens. Clusters, nebula, double stars and galaxies to name a few, and don't forget Saturn and Jupiter too, and maybe even a comet. Your chance to catch some of these sights is a DAS star

party at Mount Cuba:

Saturday	February 12th	7:30pm
Friday	March 18th	7:30pm
Saturday	April 9th	8:00pm

Library News and Views -- Glenn Bentley

For those who have always wanted to attend a presentation by a leading astrophysicist, this month's choice for the book review may be the next best thing. “Black Holes and Baby Universes and other Essays” by Stephen Hawking is a compilation of presentations that Hawking has made over the years. The topics are varied and range

from his personal history to his research. Most of his talks included here were aimed at general audiences so even the technical aspects are clear and understandable. “Black Holes and Baby Universes and other Essays” will be available to the membership after the February meeting.

On another topic, the DAS Library has received a book donation from Hannah Marshall, the widow of physicist and amateur astronomer John F. Marshall. Titles include “The Constellations”, “The Universe Next Door”, “The Universe from your Backyard”, “Astronomical Optics”, “Astronomical Methods and Calculations”, “Celestial Mechanics” and “Introduction to Stellar Astrophysics and Atmospheres.” We would like to extend our thanks for this generous donation to Mrs. Marshall and her family.

WELCOME TO OUR NEW MEMBERS

HENRY ROZANSKI, MIDDLETOWN, DE

BRIAN McCANDLESS, ELKTON, MD

MCAO PUBLIC NIGHTS

The Mt. Cuba Observatory Public Nights will continue thru the winter months! You can pick up a schedule when you next come to a meeting - or get the latest updated version off the website at:

www.physics.udel.edu/mcao/public_nights.htm.

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; 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.

LOANER TELESCOPES -- Emil Volcheck

While the cooolllld months are coming upon us, you may still want to try your hand with a scope. So, if you are new to the club and/or do not have a scope and/or want to try one new to you, you can get the loan of either: 1) a Celestron 8" Schmidt-Cassegrain (SCT) 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, contact me at 610-388-1581.

2005 BRANDYWINE CREEK STATE PARK SCHEDULE – Lynn King

March 12, 2005– 7:30 p.m. - Scavenger Hunt

LUTHER PORTER AWARD -- Warren Jacobs

Billie Westergard has asked me to Chair the committee, and I need others to help select the awardee and help plan the program. If you would like to become more involved with DAS, this is a good opportunity to help us. Please call me at 610-255-5247.

The Renaissance Man and his Observatory

-- Interview by James Morgan

Ron Worden lives in New Castle County, Delaware and is a member of the Delaware Astronomical Society. Tucked away in a corner of his yard he built a remotely operated observatory that makes effective use of the amount of sky that is available to him. This might give you some ideas as to how you can increase your observing time and pleasure, also. James interviewed Ron in September, 2004. His questions are italicized.

Why did you build this observatory?

I initially bought the scope thinking I would take it portable. But being interested in astrophotography, the 70 lb. weight, and the time it takes to set up and also wanting some creature comforts I decided to build

an observatory that has the control center in my garage. I have a heater for winter and doors to keep mosquitoes out in the summer. It seems odd to have it so close to my garage, but I had a 15' limiting wire on one of my CCD cameras that could not be lengthened.



Observatory behind garage

What kind of scope do you have mounted in it?

I have a 10" Meade LX200 f/10 Go to FL2500mm.

What was the most difficult part in putting this all together?

Formulating a design that I was satisfied with. I took the month of June 2003 to design it, and built it in July, August, and September. The hole was physically the hardest. The hole for the pier was 18" square and 36" deep and reinforced with rebar. It took 15 - 80lb bags of concrete to fill the hole, which I mixed up in a wheelbarrow. A word of caution on mixing concrete. Always mix it as dry as possible where it flows consistently and slowly not gloppy or runny. This will make it the strongest. A state civil engineer told me this, so he should know what he's talking about. Also, as always aligning the scope was not easy, especially getting it aligned well enough to do long exposures. But, once it's done, I never have to do it again. That's the beauty of an observatory.



Detail of Concrete Pier

How long does it take to setup and be able to observe?

It takes less than 15 minutes.

Do you have any problem with lights from neighbors, streetlights or other things that might impede your observing?

There are streetlights. There are also lights from Newark in the Northern sky and lights from Wilmington in the Eastern sky. The star magnitude is only good to about magnitude 3 and the overall condition of the sky is only fair to poor. The best part of the sky is overhead and spans about 45 degrees.

Is moisture a problem in getting the scope ready to use?

No.

What do you do to prevent spiders and other critters from taking roost in the telescope?

I open it at least once a week and there is a lot of airflow from the bottom as well as through the rafters. I also spray insect repellent once in a while.

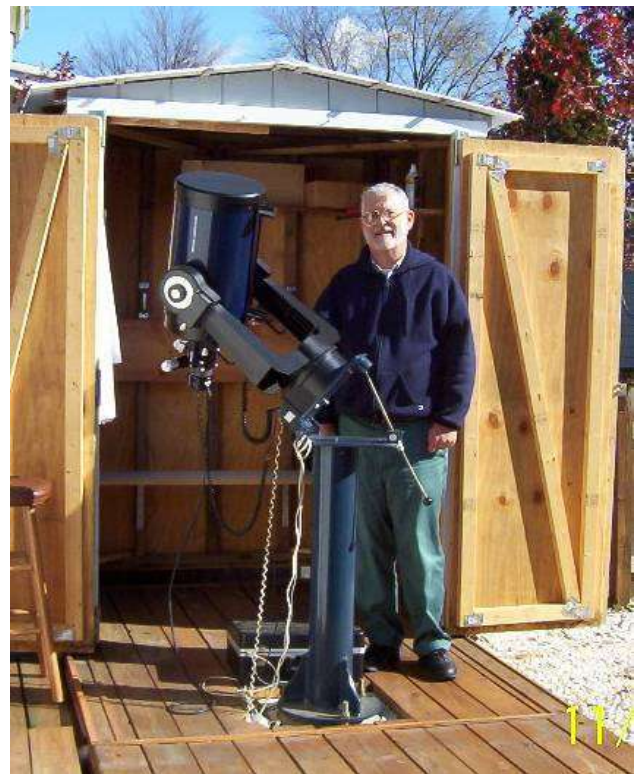
If you had it to do over again would there be something that you would do differently?

I made three mistakes. The roof angle was too steep and I redid it. I made a mistake on the doors as far as height and corrected that. Those were small errors. The biggest error was forgetting the offset of the scope on the fork mount. The offset on a Meade fork mounted 10" scope is about 16", so the pier should be set 16" off center of your observatory for things to be centered. So I made a small platform outside of the

observatory joining the main platform so I could put a stool for observing visually.

Any suggestions you would make to others who would do the same?

Do it and do it as soon as possible. If I can do it anyone can do it. Take about a month to do research on the Internet looking at other observatories, make plans, and a design. It is easier than you might think. Don't be afraid of making a mistake. It can always be corrected somehow and always cut lumber a little too large. You can always make it smaller but you can't add to what you mistakenly cut off. Also do it in the season of the year that is most comfortable for you. Take your time.



Telescope on concrete pier

If you are willing to share it, can you give us an idea of the cost of this project?

All of the framing and platform was used lumber lying under my deck and was given to me. The T111 siding and the corrugated roofing was the most expensive. The total cost to me was about \$800. If I had bought all the lumber, including the hardware and paint it would probably be about \$1000.



Remote Reading Station

Are there any other things that you would like to add to this?

Even though getting the first photos is easy, learning the software for processing the photos takes time. My photos are not the best yet but they will get better as I gain experience with the different kinds of software and techniques used for processing them.

How long have you lived in the house that you are in now?

30 years.

How long have you been a member of the Delaware Astronomical Society?

I belonged in the early 80's but dropped out because of time, money, and raising a family. I rejoined several years ago.

Where else have you observed?

I own a house with 10 acres in lower Delaware with better skies but it's 70 minutes away and I'm not able to get down there regularly.

Do you have any future projects that we could look forward to?

Yes, I plan on getting an 8" Meade LX200 Go to do some portable stargazing and do some star shows. However, astrophotography is my main enjoyment. I also do solar viewing with my full spectrum and hydrogen alpha filters. My plan was to make my setup as versatile as possible.

"I know a little about everything and a lot about nothing. Does that mean I'm good for nothing? If I can do it anyone can do it. All

you have to do is be brain dead enough to do it!"

Some other things that I would also like to present are in my website:
www.unique-treasures.com/

Finally, here are two fine pictures submitted by astrophotographer Wayne King, Lynn's son. It's pretty hard to do them justice, because they're color composites taken by Starlight express cameras on a Celestron CGE 1100. More data or copies of them in color will be sent by email at your request.



Saturn, December 15, 2004. Composite of 85, 0.05 sec. Exposures.



Comet Machholz, Taken December 5, 2004. Composite of 10 1-minute exposures on each of four colors, using tracking.

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

Feel free to call any of us with your suggestions and questions.

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MEMBERSHIP APPLICATION 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 (after reading the other side, hopefully) and send it with your check to Bob Mentzer at his address above. 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 (16/under) \$10.00
 Sky and Telescope Magazine \$33.00
 Astronomy Magazine \$29.00

NAME _____ Total Submitted ----- \$ _____
 STREET ADDRESS _____

CITY _____ STATE _____ ZIP _____ TELEPHONE _____

E-MAIL ADDRESS (optional) _____

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

Any Comments or Requests? _____