



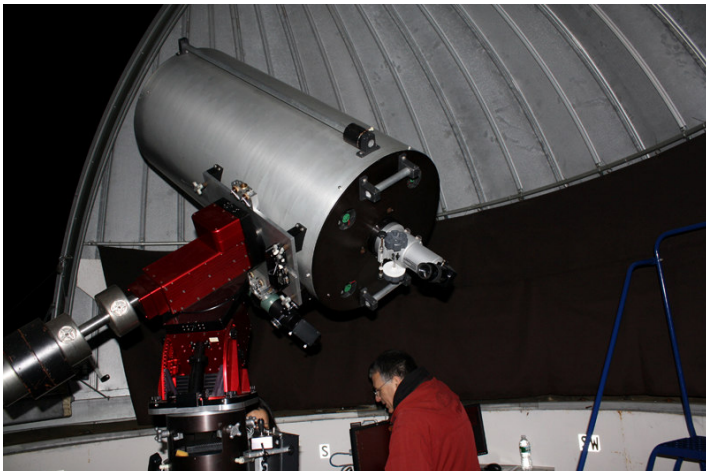
The Celestial Observer

*Newsletter of the North Shore
Amateur Astronomy Club*

February, 2010

From the President

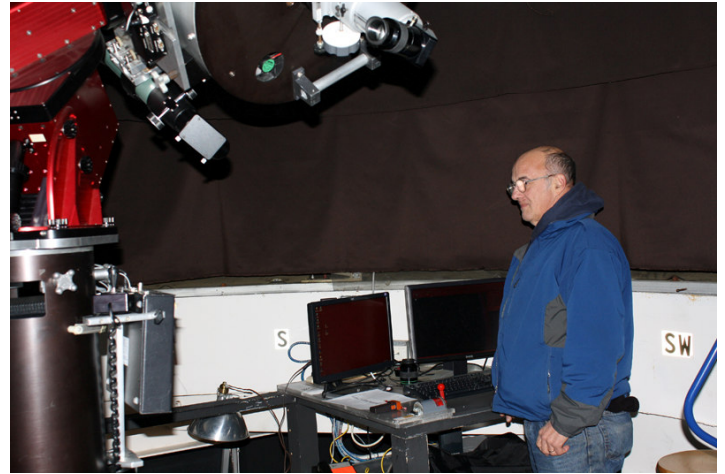
The first astrophotography class for DSLR cameras will be held from 7 to 9 PM in the Boardroom (upstairs near the kitchen) at Veasey on Tuesday January 26th. So far eleven NSAAC members have registered for the class. The room can hold about 15 people, so there are a few openings. If you are interested please send an email or call me. No class materials or a laptop are needed. A Power Point Presentation (PDF version) from the class will be added to the NSAAC website, so that people can also review content from the class. I will use my experiences with a one shot digital camera and a Nikon D60 DSLR to take pictures of aurora, the moon, a lunar eclipse and deep sky images of the milky way as examples. Methods for taking the photos and then digitally processing them will be covered.



Merrimac Observatory, January 2010

The annual election of NSAAC Board members begins with the nomination process in January. NSAAC member Patrick Amoroso has volunteered to be the Director of the Nominating Committee. We are fortunate to have a very

active Board that keeps NSAAC active and vibrant. If you are interested in running for a NSAAC Board position, please contact Pat via email ([romatap at comcast.net](mailto:romatap@comcast.net))



Merrimac Observatory, January 2010

At the December and January business meetings, we discussed the telescopes for libraries program which NHAS (New Hampshire Astronomical Society) has successfully implemented. The basic idea is to volunteer to be a “champion” to get a telescope for your local library, maintain the scope, train people to use it and assist when it is loaned out. The idea is good and I am urging interested NSAAC members to work with their local library to make it possible for people to check-out a telescope and explore the night sky. Bring your proposal to the NSAAC meeting so that we can discuss the needs and find ways to support the program.

If you have questions or comments email me: [jefoy at comcast.net](mailto:jefoy@comcast.net).

*James Foy,
President*

NSAAC Welcomes Our New Members:

Stacey Blackstone of Salisbury
Gene Arciprete of Lexington

*Jim Bastable,
Membership Director*

Minutes of the NSAAC Business Meeting, January 8th, 2010

President Foy called the January Business Meeting of the NSAAC to order at 8:17 PM. There were 10 members

present plus 6 Board members. There was an official quorum.

Secretary:

The minutes of the October, November, and December business meeting were approved by acclamation.

Treasurer:

Kevin Ackert read the Treasurer's reports for October to December. No discussion or questions

Membership:

No new members

Early Meeting Announcements:

Open forum on the agenda after New Business

Committee Reports:

Young Astronomers Program:

Kevin Ackert sent out the YAP mailing at the end of December. YAP awards will be April 24 (may be Astronomy day). Essays are due the week before our April meeting. A motion was made and seconded a motion for the club to spend up to \$2000 for the YAP program. Motion was passed unanimously.

Merrimack College:

The Observatory was closed all December due to inclement weather. Ralph Pass is trying to arrange for a keypad for the Observatory so members can lock the door after a session.

Salem State:

Dennis Gudzevich gave Salem St. report. Not open at all in December.

Star Party Committee:

The upcoming star parties are:
February 20th, IRWS Topsfield
February 26th, Amesbury School

Telescope Clinic:

No activity

News, Correspondence and Upcoming Activities:

No information

Old Business:

Barrie Sawyer sent write-up on the donation and use of small telescopes at local libraries and suggested that the club try to setup a similar program in our local area. Contact Jim Foy if you are interested in doing this for your local library.

New Business:

President Foy indicated that he has put two young astronomers nights on the calendar due to the bad Weather so that we can have alternate dates. He will use the list server to indicate whether or not the event will take place.

Jim Foy has updated the club brochure and has posted it to the website.

Jim Foy is planning to begin the astrophotography sessions this month. Dates are January 26th, April 27th, and September 21st from 7 to 9 PM. Location is the Veasey Boardroom.

Astronomy day is April 24th and it is up to the club to see if they want to do something for the event. Jim Foy will head this up and send something on the list server.

Elections are coming up in March. Pat Amoroso has volunteered to be chairman of the nomination committee.

President asked for more pictures to be sent in for the newsletter and the website.

John Tulick will be updating the permit for the dark park.

Board meeting will be Tuesday January 19th at 7:30 PM.

Meeting adjourned at 9:16 PM.

Respectively submitted,

John Hobbs, Secretary NSAAC

Young Astronomer Program

Mailings went out to approximately 100 schools in late December. The awards date is April 24th, which is also Astronomy Day. Members approved the budget at the January meeting and I have ordered four telescopes and Barlow lenses from Astronomy-Shoppe in Plaistow, NH. Additional award items may be purchased as needed. We will plan to assemble the telescopes at an upcoming meeting this Spring. I've been monitoring the hits received by the YAP website and there have been about 50 since the mailings went out.

Let me remind members again that the contest is open to ALL youths grades 5 through 8 and that YAP entry packages can be downloaded from our website at www.nsaac.org/yap.html.

Kevin Ackert

Star Party News

Because of the cold weather the number of star parties has slowed down. We have had requests for three star parties in February.

See the minutes of the January business meeting for the list of up coming star parties.

The Star Party Committee would like to thank all the members who have supported our star party effort and look forward to your continued participation in the coming months.

*John Hobbs,
Star Party Coordinator*

Astrotalk

by Jim Foy

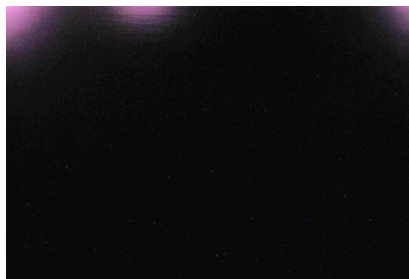
Correcting Raw CCD Images – Dark Frames

Normal daylight photos taken with a DSLR camera have a high signal to noise ratio that hides the defects that are present in CCD chips. Images of deep sky objects have a much lower signal to noise ratio. So, raw images of the night sky must be corrected for “errors” produced by the imaging process. CCD chip pixels are not exactly the same, so there are minor differences between pixels that must be removed. The standard procedures to correct a raw image are to take darks, bias and flat frames and then subtract these from the raw image. What follows is a short description of these procedures.

Dark Frames

Dark frames record the noise in the CCD chip due to heat when no photons are hitting the chip. To shoot a dark frame, cover your camera with the lens cap and then place another hood over the lens to ensure that no light reaches the sensor. Next, set the camera at the same ISO setting (800) as the light frame. Then take several exposures (>4 to 30) that are for the same time and at the same temperature as the light frame. I usually shoot these frames just before starting to shoot the light frames, so that the camera is close to the same temperature as the light frames. Below are two

images of a dark frame from my Nikon D60, which have been enhanced to show the dark noise.



The first image shows bright red zones at the top of the image, which come from the glow of components on the circuit board to which the sensor is attached (amp glow). The image beneath is a cropped 100% scale image that has been enhanced using curves in Photoshop. Note bright red, green, blue and light gray pixels.

Getting to Veasey Memorial Park

From Interstate 95 north, take the Route 133 west (54B) exit, and follow it into Georgetown Center. Go straight through the light, now on Route 97N. Go about 1.5 miles and take a left onto Salem Street (Tea Garden Restaurant at this intersection). Stay on Salem Street and turn left onto Washington Street. VMP is down a bit on the right.

Directions to all of the NSAAC observing sites are available on our web site's “About” page at:

<http://www.nsaac.org/about.htm>

E-Mail Listserve

If you have email access and are an NSAAC member in good standing, you may want to subscribe to the email notification system that Lew Gramer established for the Club in 1996. This is a “members only” system that places you in contact with other members for late breaking news concerning spontaneous observing activities, outings, tech talk, etc. You can subscribe by emailing your request to the address below. Your message should look like this:

To: majordomo at nsaac.org
Subject: Email list (you can put anything here)
Body: subscribe NSAAC *Full-Name* <email-address>

To remove yourself from the email list, or to temporarily suspend delivery from the list or access your other options, please use our "Subscriber Settings" Web page:

<http://lists.nsaac.org/mailman/listinfo/nsaac#subscribers>

Contact Information

For more information about the club and its activities, contact James Bastable, Membership Director, email: [membership at nsaac.org](mailto:membership@nsaac.org) or Jim Foy, President, e-mail [president at nsaac.org](mailto:president@nsaac.org).

Our club web site is: <http://www.nsaac.org>.

The *Celestial Observer* is edited by Leor Zolman. Feedback, and member contributions are welcome. Contact: [newsletter at nsaac.org](mailto:newsletter@nsaac.org).

Suggestions regarding the content of the NSAAC web site are always welcome; Please email [webmaster at nsaac.org](mailto:webmaster@nsaac.org) with your ideas.



Cassiopeia December 2009 (astrophoto by Jim Foy)