



President's Message

With the change of seasons comes shorter days and longer nights and of course cooler temperatures. The most obvious benefit is the increase in observing time. Secondary is the disappearance of those pesky insects that plague us in the short warmer nights of summer. But cooler weather means a change in what we need to wear outside at night in New England. For those newer members who have not spent an evening outside observing I suggest reading **Chase McNiss's** article on cold weather observing available here http://www.nhastro.com/article_coldweather.php in the resource section of our web site.

I would also like to remind the membership that the time is now to think about next year's officers and who they might be. Nominations will open at the October meeting.

★ Gardner Gerry
NHAS President 2008

Highlights for this Month

The fall public sky watch season is in full swing. Check the Club Calendar on the website for current details.

The sky is actually cooperating for a change. Read the reports on recent observing sessions and sky watches. The new Educational Outreach Committee has held its first couple of meetings.

It's time to start thinking about nominations for club officers for 2009.

Be sure to let **Alan Shirey** know if you would like to attend any of the Astro 101/201 courses. As soon as

a course has several interested subscribers, he will find an instructor and schedule it.

Members have been out observing and sharing their observations with others in reports and blogs. Read about binocular observing in Sagittarius, and a report on the new TeleVue 8mm Ethos wide-angle eyepiece.

★ Paul Winalski
NHAS Secretary 2008

Nominations for 2009 NHAS Officers

At the October and November business meeting the floor will be open for nominations for the 2009 NHAS officers (President, Vice President, Secretary, Treasurer, junior Director). **Gardner Gerry** is completing his second consecutive term as President and thus is not eligible for re-election. So consider who you might wish to nominate, or whether you might wish to serve as a club officer. Election of the 2009 officers and director will take place at the December business meeting.

★ Paul Winalski

Astro Photons

Some of us limit our imaging to YFOS and dark weekends. Those who live near the larger towns and cities and can't travel to YFOS during the week are learning to image through the light pollution. And then we have member **Herb Bubert** who goes to YFOS most any clear night to take advantage of the clear and dark skies there. I think Herb has lost the need for sleep, because it seems like every clear night brings more new images from him. You can see these images

from Herb and the other NHAS members who capture photons on film and detector alike in our forums <http://www.nhastro.com/member/forum/index.php> in the Pictures! section.

Recently members **Bill Steele** and **John Buonomo** and I held a virtual meeting using a web site that Bill hosts for video and the Skype free online calling service for real time audio. We testing this technology in the hopes of being able to hold AP committee meetings online. We were all able to see a desktop controlled by John while he processed images. And the control of his desktop can be handed off to another participant so that I was able to process an image on John's computer from my home. Then we switched control so that everyone was looking at my desktop while we looked at images on my machine. These are exciting technologies that we can use to help others and share ideas in real time without having to drive to a meeting location. We will organize the first full online AP Committee meeting soon and hope to have them on a regular basis. My favorite part of all this is that it frees us from the Saturday afternoon meetings and allows us to meet at any time during the week. My thanks to **Bill Steele** for supplying the web page to host these meetings.

★ Gardner Gerry

Public Observing

I received these kind words about the Sargent Center event, from Erin Hollingsworth, the Education Coordinator of New Hampshire Project Learning Tree:

Hi Marc!

I can't tell you how much I enjoyed the Skywatch program at BU Sargent Center the other week. The folks that came with their scopes were SO helpful and knowledgeable and just plain fun!!!

Erin went on to express her excitement for the upcoming sky watch at Bicentennial School in Nashua.

★ Marc Stowbridge

Membership and Astro 101 and 201 Update

We have 8 new members have joined since last meeting:

Robert O'Hara, Hampton, NH
Curtis Hoffman, Rye, NH
Stanley Papachristou, Manchester, NH
Larry LeBlanc, Londonderry, NH
Jason Paul, Newton, NH
Venkatesh Rao, Nashua, NH
Paul Beauchesne, New Boston, NH
Clinton Huntemann, Londonderry

Please welcome these new members when you see them at our meetings or observing events.

Astro 101 Collimation was presented by **John Bishop** on October 10th at YFOS. 5 members in attendance. The evening began with a lecture followed by a hands on workshop on how to collimate a reflector. Those in attendance will get sharper views from their existing equipment.

NHAS has gone to a "demand pull" model for Astro 101 and 201 workshops. Please consider the courses listed on the NHAS Website "Resource" page under the headings AAstro 101 and AAstro 201, and reply to me at acshirey@comcast.net with the courses that you are interested in attending.

When we have more than four members interested in a course I will schedule an instructor and a time. Members expressing interest will get first notice of the course followed by a broadcast to the general membership.

★ Alan Shirey

Educational Outreach

A new committee has formed in NHAS, the Educational Outreach Committee (EOC), and is being co-chaired by **Matt Amar** and **Rich Schueller**. Some of the goals of the EOC are to build upon NHAS's already successful skywatch program, to create new public outreach programs, and to build and promote NHAS's public presence.



20 September kick-off meeting of the EOC. Counterclockwise from the right top: Chase McNiss, Rich Schueller, a new member (sorry, no name), Rob Veilleux, Matt Ota, Matt Amar, Gardner Gerry, Mike O'Shaughnessy (Tom Cocchiario photo)

This month's meeting on 4 October was attended by six members: Matt Amar, Rich Schueller, **Chase McNiss**, **Tom Cocchiario**, **Ted Blank** and **Matthew Ota**. Chase volunteered to head up Astronomy Day 2009. Matthew talked about his contact with the Lebanon schools and an upcoming meeting to discuss presentations and watches. Tom will be heading up Public Relations and Media contact. Ted is contacting our skywatch liaisons to get their input in what would be helpful for them in coordinating the watches.

Long term goals include exploring a revamping of the club's website in order to make it more friendly to the public and more conducive to promoting our outreach efforts, planning for the International Year of Astronomy 2009, and creating new presentations and programs.

To date approximately 20 members have expressed interest in this committee, and if the first flow of thoughts is any indication as to how much work is ahead of us we will need all of their help and more. So if outreach interests you or you

want a say in what the EOC's direction will be, PLEASE get involved. Contact Matt Amar (wgpaint@comcast.net) or Rich Schueller (rschueller@comcast.net).

★ Matt Amar

John Stark High School Sky Watch

We had four telescopes in Weare from the club for the observation session. We were there from 7:45 to 9:15. The parking lot from behind the John Stark High school is a very good site. It is a nice paved parking lot and they were able to turn off the lights so we had a nice dark site. It was easy to see the Milky Way and all horizons were unobstructed. We even had a very nice passage of the ISS at 8:13pm to delight the students. The Astronomy class of about ten students were very happy to see all the numerous objects that we showed them: Jupiter, M31, M57, M20, M27, M13 Myself, **Matthew Ota**, **Matt Amar** and **Gardner Gerry** were there.

The Astronomy Teacher Phil M. was delighted and is very interested in NHAS doing a whole school evening program there in the near future.

★ Bob Veilleux

NEEEA Conference Sky Watch

NHAS put on a sky watch for the New England Environmental Educators Alliance conference at the BU Sargent Center in Hancock NH on 4 October. The members who participated: **Bill Steele**, **Matthew Ota**, **Ted Blank**, **Marc Stowbridge**, and **Ken Charles**.

The observing field was in a large hourglass shaped field surrounded on two sides with moderately lit buildings, one side with dimly lit buildings and the easterly side with mature growth pine trees. We lined up the telescopes somewhat in the middle from the sides 100 m from the moderately lit buildings, 100 m from the tree line, 80 m from the larger brightest building and 270 m from the dimly lit buildings.

The educators were one of my favorite audiences to date—all very interested in taking as much information as we could offer. I could tell that they seemed to be storing the information to pass on to their students. They would analyze at the eyepiece, taking the time to absorb the object rather than leaning into the EP and skipping off to the next telescope. I don't want to paint the wrong picture—they did skip off with a smile but also with a lesson that will be shared with others.

The sky was clear, the temperature was moderately chilly (some said it was cold ☺), transparency was very good and seeing was fair. Dew did trouble most of us after a couple of hours. I didn't notice any light domes other than the campus buildings. The darkness was better than good. The Milky Way was visible from Mirfak well through Scutum, fading closer to the setting Sagittarius. I was able to see the Perseus double cluster, Andromeda Galaxy and the coat hanger asterism with out magnification.

Some of the educators had some great stories to share with me. One of them pointing out Corona Borealis, the crown and wanting confirmation on the correct observation. Another telling Abanaki stories about how the stars seemed to be in odd shapes and unfinished then another story of the Great Bear that was escaping from the three braves. Another educator pointing out carbon stars in my EP that they just learned about from another NHAS member.

I left shortly after Marc at 23:30 with Ken wanting to “grab a few more globs” in Auriga. The best part was leaving with a smile on my face and thinking of the next time I would be lucky enough to participate in another NHAS Sky Watch.

★ Bill Steele

It was a great night. I agree that the educators were a very interested and well informed audience, asked lots of great questions and made it fun for all of us to help them learn about the sky. If you didn't hear it, our host Bill made an impassioned

speech to the educators just before the band started playing to come out and visit us. It certainly seemed to work. I was able to give Bill a quick view of the Moon through the 80mm refractor just before it set, he enjoyed that.

★ Ted Blank

Binocular Observing, September 23, Truro MA

Remember when you first saw the rings of Saturn or the Orion Nebula, how stunning they were to you? Did you gasp or say something, or maybe you just held your breath? Those times are rare because with experience, the things we look for are not as impressive. Sure, search for that dim DSO might give you more satisfaction now than those object do now, but that satisfaction lies from the challenge, not the beauty. I got to say “Oh” tonight when I wasn't expecting it, and that was wonderful.

I've been enjoying my binoculars so much recently I went on a book buying spree. I happily picked up Philip Harrington's Star Watch. This is a great book that gives the usual overview of things in the sky, then breaks into seasonal sections, covering 125 objects. What makes the book special is the organization and detail. I love the seasonal layout. (I've also picked up his Touring the Universe through Binoculars which, uh, divides the sky alphabetically! Yuk.) And I love the detail that he goes into. For the most part, each object gets an entire page. There is a star chart every couple of pages, making it easy, in the dark, to cross reference the text and the chart. There are photos and sketches of many objects. The sketches are particularly useful since, unlike modern photos, they show you what you can actually see. Each object is also rated on a Wow factor and more important, you are given a separate Wow for binoculars, small telescopes, and large telescopes.

My first attempt was for M4, a globular that I've found before from light polluted Manchester, but at

only 15 degrees above the horizon, I needed more dark.

So I went over to M7 and M6, I didn't even need the charts for those friends. They were nice, but I'd seen better M7s before. I guess I waited too late in the year. I bounced back and forth between them and where M4 should have been, waiting for more dark. Of course I looked at the Double Cluster and M31 since I was just killing time.

Eventually I grabbed M4, it was around 7:30 and Stellarium tells me it was only 12 degrees above the horizon then! It was quite dim and I don't think I would have seen it without knowing that it was there. I then looked for M80, couldn't find it. (I would try several times again that evening but I never nabbed it.)

So next on the list was M8, the Lagoon Nebula. I've seen it before but it never fails to disappoint and indeed, even under these conditions I could see the central dark rift between the two nebulous sections. Not that my binoculars are 15 power, which is high for binoculars, it may not be as impressive in yours.

Close by is M20, the Trifid Nebula. If M8 weren't next door this would be considered a impressive object, but M8's glory overshadows it.

I know I saw M21 but I wasn't able to pick it out from the copious background stars. I probably should have tried harder but I still wasn't entirely comfortable with the location. I just knew the coyotes' beady eyes were peering at me from the trees.

So then, I head up north a bit more and...

“Oh!”

I'd actually looked at this object a few weeks ago at this site through my Burgess but I didn't even know what I was looking for. It just looked like a lot of stars. But that's because M24, the Small Sagittarius Star Cloud is just too big to really be appreciated in a telescope. Oh sure, your short focal length APO refractor will give great views but I loved my view, sliding the

binoculars north from M20/21 and there it was. More stars than I could fathom, wonderfully framed by dark spots. This made the whole evening worth it.

I will certainly revisit this section of the sky, maybe in 9 or 10 months when things are higher in the sky!

★ Paul Cezanne

First Light with TeleVue Ethos 8mm Eyepiece

When the Ethos 8mm arrived on 11 October, I decided to use the TeleVue 102mm refractor for first light on the Moon, double stars, and perhaps other stuff. I called **Gardner Gerry** over to share the experience.

About this time, Gardner arrived and the Moon was above the trees southeast in the open area visible from my driveway. I decided the best approach to really compare would be start off with the 31mm Nagler and move our way down in focal length. To best describe what we looked at, I am going to reference URLs from <http://www.lunarpublic.com/atlas/index.shtml> which was a site that I found after this session. It's a really good place for learning about the moon and for this article, a great reference. I pointed the 102 at section A-2 on the map. It was crystal clear with the 31mm. Relative to the image on the website, the view was oriented 90 degrees left. In the 102, the craters are along the top of the FOV. We then slowly increased power first with the 13mm Ethos and finally, the 8mm. At the 110x power this 8mm eyepiece provides, my first reaction upon looking at it was the tremendous eye relief for viewing. Finally, taking my first look through the eyepiece, the craters jumped out at me and were amazingly sharp. I could not believe how clear they were. As with the 13mm, you have to actually pan around moving your eye to see the entire FOV. Gardner's reaction was similar and we both raved about the quality of the optics by TeleVue.

I pointed to another area and described to Gardner two close

craters, one with a pronounced shadow and what appeared to be a line roughly U shaped. When Gardner viewed, he confirmed that the crater was Aristarchus with a valley that runs near it. He proceeded to tell me all the various stats and information about it. See sector C-2 on the map. Since the viewing was so clear and crisp, I decided to get my TeleVue big Barlow. This would bring us to about 220x, which is close to the recommended limit of the magnification using the 102. The image was still sharp but a little lower on contrast. This was expected but there was still plenty of light and the view looked fantastic. We panned a bit more around and then decided to test some other objects.

Gardner pointed to his lobster cluster (NGC 457) in Cassiopeia. I had looked at this object through Obby at a sky watch back in July but never with the 102. The 13mm brought it out very well with excellent contrast and several stars visible. It filled about 1/2 of the FOV and was quite intriguing to view. The 13mm gives about 67x at about 1.5 degrees of FOV. While in the area, we also viewed the double cluster (which was too big in the 13mm) so I went back to the 31mm Nagler to appreciate it. The red star in the middle was clearly visible. Finally, I decided to also test out some of my favorite doubles with the 8mm. Eta Cassiopeia, Gamma Andromeda, and Albireo. The colors were very pronounced with each star in both main and companion with a very crisp view.

I packed up around 11pm. It was a great night and I am very happy with this purchase. The 8mm in Obby the 18" Obsession is going to be quite remarkable give the magnification and quality. I cannot wait to view Saturn with it and I predict it will be the best ever view. I might even try the Barlow. As an FYI, we are looking at 254x with Obby, which means over 500x with the Barlow. Obby can handle that magnification but it would be extreme for conditions in New England, but still worth a shot. One

test that I should have run was to use my 9mm Nagler on the Moon to compare but I will have to save that for another night. For now, my immediate task is to make room in my eyepiece case for storing this new beauty.

★ Rich DeMidio

Tail of the Swan and Visiting Royalty

October 11 2008. Site: Home. Equipment used: Orion SkyQuest XT10i; 17mm, 9mm Plossl eyepieces; lunar filter; UB Filter, & Finder. Darkness: Average. Seeing: Clear some light clouds. Transparency: Average. Temp: 10° C Wind: None.

Objectives: The tail of the Swan and the Queen Cassiopeia.

First was to test my skill on M103. Pop right in the EP using the finder. I spent time noting the star pattern and notice what looks like a carbon star in the open cluster. (Wish I could use Cartes du Ciel better.)

I wondered if I could see any of the nebulosity in the area and tried the UB filter. It did make the stars look blue. So this was good time to observe M57. The UB is a definite improvement over the view without the without the filter.

Leaving the filter on I viewed M57, Lyra Planetary Nebula, then M27, Cygnus Dumbbell Nebula. Removing the filter, on to M13 and M92, the Hercules Globular Clusters. I changed to the 9mm to let him see how concentrated the cluster is of stars. At this time I wondered if a good 2" Barlow would be a better idea rather than the planned Nagler 5mm. Back to the 17mm. Off to M11, M15 & M103 to complete the cluster tour. Back to Cygnus for Abireo (β Cygni), 61 Cygni, & Polaris (α Ursae Minoris) for nice doubles. Then it was off for a peek at Jupiter with Callisto, Ganymede and Io visible. The two major bands very clear, even though we were looking right through the glare of the streetlight. (The homemade dew shield is paying big dividends.) I added the lunar filter and the

aperture mask for some Moon observing. I spoke about the Apollo 11 & 17 landing sites, Tycho and the ejecta rays, and finally the Crater Gassendi, in Mare Humorum.

With the filter and mask removed the test on M52 was next knowing that was my target section tonight. I thought that I has this one the previous night now I am not so certain. I had to use CduC to guide me to M52 again. At 21:25 started on the Celestial Sampler October list.

M52 is faint from the driveway and the stars rather open with no apparent shape in my mind.

NGC 7789 more difficult and I was able to get σ Cas and ρ Cas in the finder to zero in on the Open Cluster. Found at 21:44.

Not on the Sampler list but in CduC NGC 129 was nearby, on the other side of Beta Cassiopeia. No luck.

μ Cephei, Garnet Sidus, next was found at 21:50. I once read that this red supergiant star is one of the largest in the Galaxy. I am amazed that this is 1,420 times larger than the Sun and if it were located as the central star in our solar system the radius would reach between Jupiter and Saturn.

I tried to use the UB filter on the nebulosity in the area and didn't have any luck.

I wanted to observe M27 with the UB. This time I had a little more difficulty centering the target but at 22:00 put it in the EP. I noted ϵ Cyg (Gienah), γ Cyg (Sadr), and β Cyg (Albireo) then the relationship to M27 to help me locate this one quicker. I like it with the UB filter.

At 22:31 I found NGC 6826 again to have a reference from last nights log. With the UB the object appeared more dimensional and I tested with out the filter shortly after it appeared flatter.

At 22:46 I found 61 Cygni, double star. Both stars appeared to be like the Sun. I mapped this object to help remember the location and noted α Cyg (Deneb), γ Cyg, ϵ Cyg, β Cyg, δ Cyg, σ Cyg, λ Cyg, ν Cyg,

τ Cyg, then the relationship of 61 Cyg.

At 00:37 I tried M33 again, still no luck.

★ Bill Steele

NHAS September 2008 Business Meeting

ATM

Larry Lopez reported that he has a list of items from John's donated telescope.

YFOS

Larry Lopez reported that the Mosquito Magnet seems to have worked all summer.

Membership

There were five first time attendees at this meeting. **Alan Shirey** reported that he is putting together the Astro 101/201 course schedule for the fall. This time around we are trying a sign-up sheet format. Members should send Alan requests for courses they'd like to see, and he will find an instructor when there is enough (4 or 5 members) interest.

Astrophotography

Gardner Gerry reports that there have been no recent physical meetings. He is planning on setting up virtual, web-based meetings.

Radio Astronomy

No report.

Public Observing

Marc Stowbridge has received a message from **Ed Ting** that the Rundlett sky watch may be happening this year. We have upcoming events scheduled 3 October at Brentwood Library (40 expected); 4 October at New England Environmental Educator's Alliance Conference (for which Marc is looking for assistance in putting together a presentation); 21 October at Bicentennial School in Nashua; 5 November at Reeds Ferry School, Merrimack.

Webmaster

No report.

Miscellaneous Business

The Fall Messier Marathon is scheduled for October 24/25 with

Scott Wickett, wife, and son hosting.

Nominations for officers start next month.

There will be an Educational Outreach Committee meeting on 20 September.

John Rose gave a report on a trip that he and **Mike Townsend** took to a recent astronomy convention.

Book of the Month

A new book from National Geographic on Hubble Space Telescope images.

Scope of the Month

Larry Lopez presented Vixen 10x32 binoculars.

Evening Program

Professor Sara Seager gave a presentation on the search for exoplanets.

★ Paul Winalski

The Bottom Line

| | |
|------------------------------------|------------------|
| Starting Balance: | \$5176.79 |
| Deposits/Credits: | 272.00 |
| (membership, calendar sales) | |
| Accounts/Paid: | 129.50 |
| (Kalembach Publishing [calendars]) | |
| Net Account Balance: | \$5319.29 |
| Petty cash drawer: | \$100.00 |
| Cash Balance: | \$5419.29 |

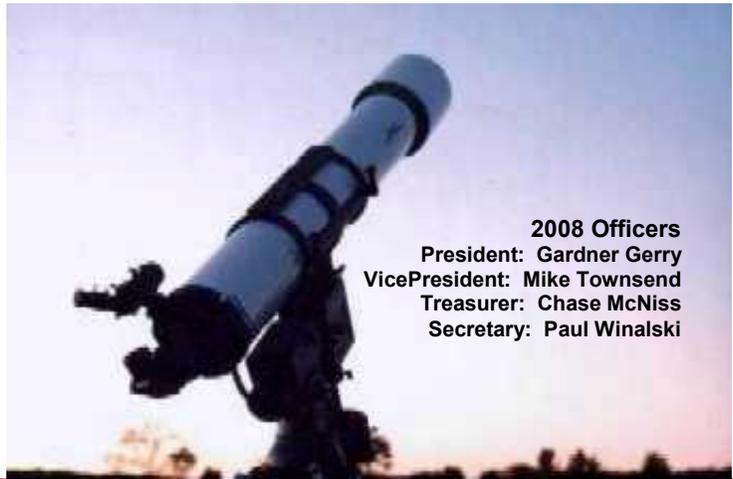
2009 Membership: 16

Donations: \$0.00
Balance of Grant Funds \$809.70

New Members:

Robert O'Hara, Hampton NH
Curtis Hoffman, Rye, NH
Stanley Papachristou, Manchester NH
Jason Paul, Newton NH
Venlathesh Rao, Nashua NH
Paul Beuchesne, New Boston NH
Clinton Huntemann, Londonderry NH

★ Chase McNiss



2008 Officers
President: Gardner Gerry
VicePresident: Mike Townsend
Treasurer: Chase McNiss
Secretary: Paul Winalski

DEADLINE November 2008 Issue: 5 PM November 13

E-mail articles to the Editor.

CHANGE OF ADDRESS – Notify the Treasurer of changes to postal or e-mail address.

How to Join N.H.A.S.

Write to us:

NHAS
P.O. Box 5823
Manchester, NH 03108-5823
Attn: Treasurer

Send E-mail to:

info@nhastro.com

Use our web site:

<http://www.nhastro.com/>

This month's contributors:

Gardner Gerry, Marc Stowbridge, Alan Shirey, Matt Amar, Bob Veilleux, Bill Steele, Ted Blank, Paul Cezanne, Rich DeMidio, Chase McNiss

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NHAS Upcoming Events

| Event | Date | Time | Location |
|--|-------------|-------------|---|
| Bicentennial School Sky Watch | October 23 | 7:00 PM | Nashua NH |
| Fall Messier Marathon | October 24 | 5:00 PM | The Wicket's, Lyndeboro NH (backup date October 25) |
| Lyndeboro Central School Sky Watch | October 29 | 7:00 PM | Lydenboro NH |
| Coffee House Night | October 31 | 5:00 PM | YFOS |
| Reeds Ferry School Sky Watch | November 5 | 6:00 PM | Merrimack NH (backup date November 6) |
| CMP Public Sky Watch | November 7 | 7:00 PM | Christa McAuliffe Planetarium |
| Educational Outreach Ctte. Meeting | November 8 | 4:00 PM | Ralph Pill Building, Concord NH |
| NHAS Business Meeting | November 14 | 7:30 PM | St. Anselm College |
| East Kingston Public Library Sky Watch | November 21 | 7:00 PM | East Kingston NH |
| Coffee House Night | November 28 | 5:00 PM | YFOS |