

Astronomy Day

President's Message

It's hard for me to believe that I am already half-way through my term as President of NHAS. The time has flown by, and I have been busier than ever. My thanks go out to the officers and membership who have helped me along the path keeping NHAS a strong volunteer organization.

Our recent Astronomy Day event was well staffed both Friday night and Saturday with many scopes of all varieties available for the public. Another big thank you to all who helped out and made the event a big success!

☺ Gardner Gerry
NHAS President 2007

Highlights for this Month

NHAS members participated in Astronomy Day events both at Rivers Camera in Dover, and a double-header event at Christa McAuliffe Planetarium. Our usual First Friday evening sky watch had over fifteen telescopes and their NHAS members, with 40 or more of the public stopping by to look through them. This was followed by solar observing at CMP's Spacetacular Saturday.

The Northeast Astronomy Forum (NEAF) and Northeast Astro-Imaging Conference (NEAIC) took place last month, as well.

The Astro 101 courses continue, and YFOS gets a spring cleaning and repaired Titan mount.

☺ Paul Winalski
NHAS Secretary 2007

CMP Sky Watch 4 May 2007

This was the normal monthly sky watch and also the pre-event to Spacetacular

Saturday that CMP has every year. It was well attended by both the public and NHAS. We had a good variety of scopes for the public to view through. Conditions were clear with average transparency, but the light pollution was bad. In the past, CMP shut off the lights but perhaps they are unable to anymore.

Most of the crowd was interested in the planets but I tried hard to have Obby pointed to other objects for variety. For the most part, I was successful but several folks still wanted to see Saturn through my scope. I used a filter to help cut down the glare. I counted seven moons at one point and several children and adults found six. I still get a smile on my face as I hear the reactions from the children.

I was able to show M81, M82, M65 and M66 quite well even with the light pollution. In addition, M13, M92, M3, and M5 all showed well. All were great crowd pleasers. In fact, one adult in his excitement upon seeing Saturn muttered a colorful metaphor. His spouse chastised him, what with children around, and I just grinned but was laughing inside. It made me think of the Obsession video that is just darkness with the sounds of various reactions. I really should make more myself someday—hehe.

Observing Session from my home on 5/8/07

The clear sky clock showed great conditions for this evening and I was tempted to go to YFOS but was afraid that my yard work might catch up with me. So, I chose the safer approach.

Gardner Gerry joined me at my house and we observed several of our favorite objects. From my driveway, I was able to find the 11th magnitude spiral galaxy

that you star hop to the gravitational lenses galaxy in Ursa Major. Certainly not as bright as when at Larry Lopez's, but very obvious. We saw the Asterism and the location of where the Quasar would appear, but of course we were unable to see it.

Gardner had his laptop with Skytools 2 software. Have to say, I was quite impressed especially since it could help show the FOVs with Obby. Since I was never good at spatial visualization tests, this really helped in plotting my star hops for objects. We used the software to plot the course from M53 to an NGC right near it. It was only Magnitude 9 but for some strange reason, we could not find it. We double checked and tried different magnifications, but the object would not show itself. I suspect it is low contrast and the lights from Nashua on the horizon might have been washing it out. I further believe that the 11th mag galaxy observed earlier was possible because of the position in the sky. Will have to try again for this object at YFOS or another night. Perhaps the transparency or seeing conditions were a factor.

I told Gardner about the Charlie Starks podium that I ordered. My plan is to use it for my small maps so that I can stay at the scope and look at my map. I'm also going to consider building an interchangeable platform that will have some two inch holes drilled to serve as an eyepiece holder. Finally, I may resurrect one of my old laptops and put Skytools 2 on it. After all, it was designed for that purpose.

Oh, I ordered Skytools 2 today.

☺ Rich DeMidio

Spacetacular Saturday at CMP 5 May 2007

This was our club's annual Astronomy Day celebration in superior conjunction with CMP's Spacetacular Saturday extravaganza. We set up in front of the NHAS tent under cloudy skies, hoping that the sun would break through.



Marc Stowbridge and Gardner Gerry set up.

Scopes of all types and sizes were there, including **Don Ware's** amazing homemade 6" classical refractor, various smaller refractors, Cassegrains, Maksutovs, and a Schmidt-Newtonian, all fitted out for solar observing. Mr. T. the 14" TScope dob was set up as a static display. For H-alpha observing, there were three Coronado PSTs and a scope fitted with a 60mm narrowband H-alpha filter.



Don Ware shows off his space canon.

Fortunately the clouds did abate, and we treated the public to a fine afternoon of solar observing. The Sun even obliged with a single, middling-sized sunspot for the white-light observers—

something to be thankful for during this sunspot minimum, when often as not all there is to see is a featureless disk. In H-alpha there were the usual prominences, granularity, and faculae to delight the eye.



A budding astronomer checks out the white-light solar view.

Under the tent, we had a good display of literature for the public to read and take home. The scopes and the tent were both busy most of the day with visits from a curious and delighted public (many of whom weren't even herded our way by **Bob Sletten**). I fielded many inquiries about the telescopes, how they work, and what NHAS is all about, in addition to showing off the Sun.



Chase McNiss and Marc Stowbridge recruit potential new members at the NHAS tent.

It clouded up again as sunset approached. But it was a very successful day both for observing and for educating the public about us and our activities.

,, Paul Winalski
Photos by **Tom Cocchiaro**

Rivers Camera Astro Day

Ed Ting presented his mini Messier Marathon program as part of the Rivers Camera Astro Day program held April 7, 2007 in Dover. Ed is shown with his laser pointing out key objects to an audience of about 20 who attended that day.



John Gianforte from the UNH Observatory talked about the search for extrasolar planets and the various techniques used to discover them.



Other speakers included Mike Fowler with the new Vixen Optical adopted by Mr. Star Guy himself, Brian Deis (www.mrstarguy.com). Mike talked about the new Vixen products coming to the U.S. market and talked a little about the company's plans for the future. He also confirmed the company was named after one of Santa's reindeers--Japanese marketing humor I guess. I discovered also that both held key positions at Meade and decided to leave the company after a short stint to do their own thing with Vixen (www.vixenoptical.com).

,, Tom Cocchiaro

NEAIC and NEAF

The 2007 Northeast Astroimaging Conference and Northeast Astronomical Forum were held April 26-29 in Suffern, NY. Several NHAS members attended to drool over the exhibits, listen to the lectures, and load up on gear.

Tom Cocchiaro presents these pictures of unusual stuff and personalities from the Conferences (captions by Tom).



Jerry Londgiguss. I love this guy. A pro sports photographer for the Philadelphia Inquirer and well known astrophotographer, Jerry certainly knows his stuff. And what's even better, he's been sharing that hard-earned knowledge with anyone who wants to know.



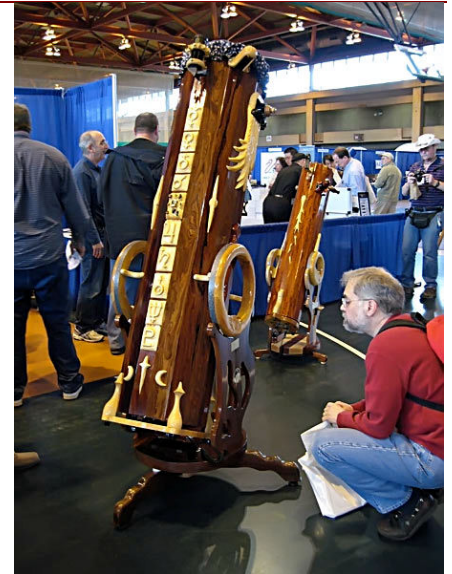
Greg Piepol is probably one of the most well known amateur solar imagers out there. An approachable guy, he added a touch of showmanship to his presentation on the subject. Also found out he's a fellow retired AF avionics technician.



William Yang, the guy behind William Optics, talks to customers at NEAF. It's nice to put a face to a highly regarded brand. He and his family were extremely helpful and motivating—and excited about the new partnership they've forged with Ferrari.



Talk about a beast, check out Meade's newest 20-inch SCT hitched to a mount only Sigourney Weaver (Alien III) could love—especially for those who have to huck it about.



This is the forest of no return. These Stellafane award winning scopes look like refugees from Babes in Toyland....or a Harry Potter movie.

„ Tom Cocchiaro

Astro 101 Continues

Our Astro 101 series of introductory astronomy talks for NHAS members and their guests continues.

Before the NHAS business meeting on 20 April at CMP, **Paul Winalski** gave a presentation on Navigating the Night Sky under the Planetarium dome to an audience of more than 25 (we ran out of handouts). Our thanks to Dave McDonald of CMP for the Planetarium special effects, which were extremely helpful in illustrating some of the more confusing aspects of coordinate systems and precession.

The May course offering will be Introduction to Astrophotography, presented by **John Blackwell** at the Phillips Exeter Academy Grainger Observatory on 25 May at 7:30 PM. Attendance is by pre-registration only, as there are only 20 seats available. Check with Alan Shirey (membership chairman) to reserve your seat.

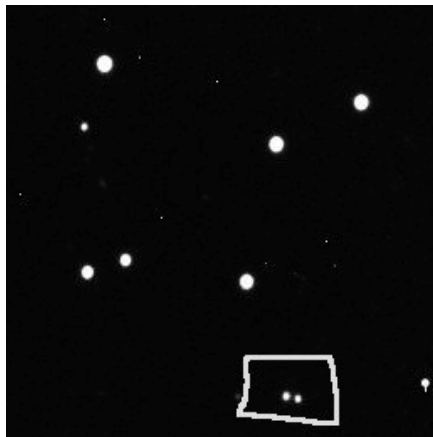
June's course will be Planetary Observing, by **John Bishop**, at YFOS on Coffee House Night, 8 June at 7:00 PM. The talk will take place whether the skies are clear or cloudy.

In July, we will have Polar Alignment, again at YFOS Coffee House Night, at 7:30 PM on 13 July, clear or cloudy.

„ Paul Winalski

Quasar Hunting

On April 20, 2007 at CMP Dr. Rudy Schild presented a talk on the Gravity Lens Q0957+561. Rudy wanted to actually look at his lens through our telescopes. YFOS was in mud season at the time. **Rich DeMidio** suggested we have an observing session at my house (that is Larry's house). So we had a caravan of vehicles go from Concord, NH to New Boston 1 week after the floods, led by Larry's Prius. (If the Prius can make it any vehicle can make it). We had a great observing session where lots of big scopes looked at fine skies while Larry discovered his little used observatory had an infestation of problems. The CCD camera quit and he lost mount sync.



Quasar Q097+561, gravity-lensed into a double image (image by Larry Lopez).

The next day after using the MOON to sync the mount he managed to take a few pictures of the gravity lens.

∞ Larry Lopez

YFOS Spring Cleaning

Saturday, April 12, 2PM: **Don Ware** with **Chase McNiss's** help restored the Titan mount to operation. Don went home; Chase started working on the observing field.



Left to right: David Gilmore, Ken Charles, Gary Lambert

At about 5 PM or so, **Larry Lopez** showed up with his mower but since Chase had already mowed and repaired the field Larry had nothing to do. So Larry slowed Chase down so that new members **David Gilmore, Gary Lambert, and Ken Charles** could find something to do. They went to work, thatching, redoing ...



Nori Odoi and Gardner Gerry suiting up to repel boarders. The black flies were terrible.

David brought **Nori Odoi**, who feasted us with home made cookies, and Ken's shrimp cocktail was wonderful.

∞ Larry Lopez

Astro Photons

There have been no meetings of the Astrophotography committee since our last business meeting. There is an Astro 101: Introduction to Astrophotography scheduled for Friday, May 25th at 7:30 presented by John Blackwell and being held at Phillips Exeter Academy. John is an excellent teacher so I am sure new imagers will benefit greatly from this program.

∞ Gardner Gerry

NHAS April 2007 Business Meeting

ATM

Larry Lopez reports that we gave a telescope to **Chase McNiss** to be repaired. We still have a telescope that needs a secondary mirror.

YFOS

Larry Lopez reports that mud season is in full swing. The driveway is safe, but the ground is very soft. Keep your car on the driveway.

Membership

Alan Shirey reported three new members—**Elizabeth Wood** from Concord, **David Gilmore** from Greenfield, and **Mary Brezezanski**. The second Astro 101 course was presented tonight by **Paul Winalski** in the Planetarium and attended by over 25 people. The next Astro 101 will be on Astrophotography, presented by **John Blackwell**, on 25 May at Grainger Observatory at Phillips Exeter Academy. In June we will have **John Bishop** on Planetary Observing.

Public Observing

Marc Stowbridge reported that the Moultonboro sky watch went well (see the March *NHAS Observer*). We will be doing more there.

There has been a good response to the NHAS "business cards".

Web Administration

No report.

Photography

Gardner Gerry reported that the next Photography Committee meeting will be the Astro 101 course on 25 May.

Astronomy Day

Gardner Gerry reported that this is coming up on May 4 and 5. There will

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be night observing on 4 May (our usual first Friday skywatch at CMP). 5 May is Spacetacular Saturday and we will be doing solar observing.

Radio Astronomy

See the April *Observer* for **Bob Sletten's** report on very low frequency radio observing. The receivers for VLF are cheap and the components inexpensive, but the antenna is a challenge.

Books of the Month

Telescope Control by Mark Trueblood and William Jennett. An excellent book on how telescopes are commanded, drive motor requirements, how to set up gearing, modeling of the scope, command programs, and more.

Our Sun by Donald Menzell (1949).

Astronomy and Cosmogony by J. H. Geans (1928).

Astronomy with the Naked Eye by Garrett P. Service (1908) shows the constellations month by month and has a 2-page star chart at the beginning of each chapter.

Scope of the Month

A TeleVue 102 on Gibraltar mount, with a 2" diagonal. This is a 4" doublet refractor that **Larry Lopez** obtained from Astromart.

Miscellaneous Business

Tom Cocchiaro reports that the grant proposal for educational outreach materials (laptop PCs, PC projectors) submitted to PC Connection will be considered on May 1.

We have a CD of all the educational materials from the Night Sky Network.

The Moose Lodge in Dummer will have portable toilets in the campsite area this year. We have not yet booked a weekend there at this point.

Evening Program

Rudy Schild, a researcher at the Smithsonian Astrophysical Center, gave an excellent talk on his observations of quasar Q097+561. A galaxy is on our direct line of view to this very distant object, and in accordance with Einstein's General Theory of Relativity, the mass of the galaxy actually acts as a lens and bends the light of the quasar. We see two quasar images, A and B. Superimposing the brightness curves shows that the light of the B image is delayed by 1 year due to its longer trip around the interposed galaxy.

There are brightness fluctuations in the quasar that appear to be due to invisible "dark matter" in the interposed galaxy. The gravity lensing effect lets us "see" objects in the galaxy as small as one earth mass (!) in this way.

Dr. Schild showed how these observations are consistent with

predictions from the field of hydrodynamics that in the early post-Big Bang universe matter condensed into hydrogen globules of about one earth mass. The theory is that dark matter exists in the form of these dark gravitationally stable globules of conventional matter, rather than as cosmic strings or some other exotic form. Star systems and planets form by the coalescing and condensation of these globules.

After the presentation, we took Dr. Schild to **Larry Lopez's** house, where attempts were made to find Q097+561 in **Rich DeMidio's** 18" Obby, and in **Joe Derek's** 17½" reflector. The nearby asterism was found, but the quasar itself was not seen. Larry later got an image of it (see his report elsewhere in this issue of the *Observer*).

Rudy Schild had never looked through large amateur dobs before and was fascinated by the designs for light weight, portability, and easy setup. He also was pleased with the views we were able to show him.

∩, Paul Winalski

The Bottom Line

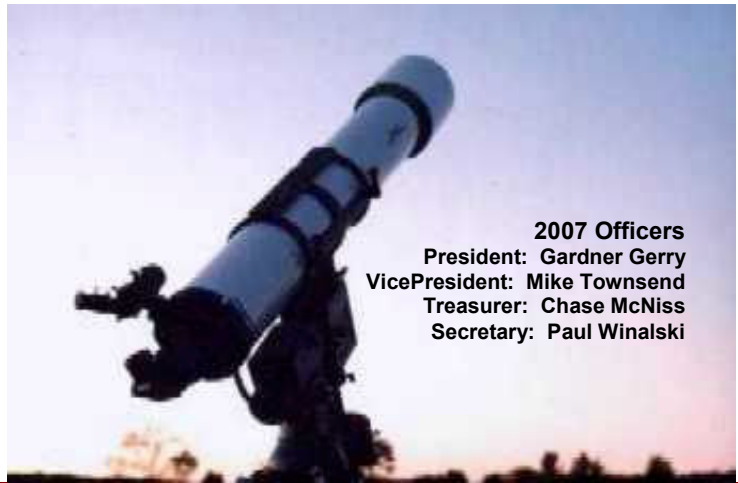
Starting Balance:	\$5742.95
Deposits/Credits:	\$314.00
(Membership)	
Accounts/Paid:	\$71.03
(Peerless, A-Day supplies)	
Net Account Balance:	\$5985.92
Petty cash drawer:	\$195.75
Cash Balance:	\$6181.67

2007 Membership: 132

New members:

- Tim Mauro, Portsmouth, NH
- Ken Charles, Nashua, NH
- Carolyn Kegel, Concord, NH
- Joseph Westwater, Goffstown, NH
- Steven Rezsutek, New Boston, NH
- Mike, Joseph, and Debbie Norris, Contoocook, NH
- Nori Odoi, Greenfield, NH

∩, Chase McNiss



2007 Officers
President: Gardner Gerry
VicePresident: Mike Townsend
Treasurer: Chase McNiss
Secretary: Paul Winalski

DEADLINE June 2007 Issue: 5 PM June 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:

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 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, Rich DeMidio, Tom Cocchiaro, Larry Lopez, Chase McNiss, Paul Winalski

New Hampshire Astronomical Society
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NHAS Upcoming Events

Event	Date	Time	Location
May Business Meeting	May 18	7:30 PM	St. Anselm College
Astro 101: Introduction to Photography	May 25	7:30 PM	Phillips Exeter Academy (pre-registration required)
CMP Public Sky Watch	June 1	7:00 PM	Christa McAuliffe Planetarium
Coffee House Night	June 8	5:00 PM	YFOS
Astro 101: Planetary Observing	June 8	7:00 PM	YFOS (will be held clear or cloudy)
June Business Meeting	June 15	7:30 PM	Christa McAuliffe Planetarium
CMP Public Sky Watch	July 6	7:00 PM	Christa McAuliffe Planetarium
Coffee House Night	July 13	5:00 PM	YFOS
Astro 101: Polar Alignment	July 13	7:30 PM	YFOS (will be held clear or cloudy)
July Business Meeting	July 20	7:30 PM	St. Anselm College