



AeroSpaceFest 2012

President's Message

The officers and committee members of NHAS recently had a meeting at the Treasurer's house. We are always in touch through email and we often see each other at club meetings and outside events but I was struck by how much more we could accomplish when in a face-to-face meeting. Email is convenient but physical presence is just more real and more satisfying.

The same is true of astronomical objects. There are plenty of photographs of Mars, Saturn, the Ring Nebula and other objects. Many of them are far more detailed and far more colorful than the view through the eyepiece of an amateur astronomer's telescope. They show things I just cannot see with my eyes. Yet there's something special and impactful about the real thing, something more emotionally engaging to seeing the real Saturn than looking at a photograph, even if it's a bit blurry, even if I can only see the brightest parts of a nebula, even if the object is just a dot.

I know our "customers" at the sky watches we hold feel the same way because I hear them say "Wow!". Giving them that "Wow!" is something to be proud of!

✧ John Bishop
NHAS President 2012

Highlights for This Month

The big event for this month was our annual contribution to the McAuliffe-Shepard Discovery Center's annual AeroSpaceFest event. As usual, we held free outdoor sky watches in the evening

and the daytime (white light and hydrogen alpha solar observing), as well as having an indoor display and helping out in the Discovery Center's observatory dome.

The Library Telescope Program continues to be an astoundingly successful event. **Marc Stowbridge**, the genius behind the program, reports on a satellite LTP program well underway in Michigan.

✧ Paul Winalski
NHAS Secretary 2012

G H Bixby Memorial Library Sky Watch, Frankestown NH, 22 April 2012

Alas, the weather didn't cooperate for the sky watch! It was raining all day Sunday. Per the contingency plans, I gave an extended indoor presentation, and **David 'Rags' Gilmore** handed over the G H Bixby Memorial Library Telescope to the good folks of Frankestown. **Steve Rand** was there taking photos. About twenty people braved the rain to listen to me blather on about stuff that they would have seen in the sky, if it weren't raining, and to witness Frankestown's library telescope being officially handed over to its proud new owners.



Frankestown's new owners of a LTP in the foreground, with Paul W. and David G. in the background (Steve Rand photo)

The Library plans to reschedule the sky watch in the fall, when dusk comes earlier in the evening.

✧ Paul Winalski

Observing Report, Concord NH, 25 April 2012

Conditions: clear skies, seeing 2/5, transparency 2/5

Telescope: 8 inch dobsonian with most observations at 100X unless otherwise stated.

I spent about two hours, from 9-11 PM, around Leo, Virgo and Coma Berenices looking for galaxies. I started in Leo and noticed quickly that the seeing was not great, throughout the evening I could barely see any detail on Mars at any magnification. I started with some of the Messier highlights: M95, M96, M105 with NGC 3384 right next to it. These were showing pretty well and so was the Leo triplet: M65, M66 and NGC 3628.

After that I went hunting for some galaxies that are mentioned in Sue French's book: Deep Sky Wonders. After a bit of searching I found

NGC 3607 and 3608, and after some time I also spotted (at 133X) the much dimmer NGC 3605. At magnitude 12.3 this is the dimmest galaxy that I have observed so far!

I then headed over to Markarian's Chain after a quick stop at M98, M99 and M100. Markarian's Chain actually looked good at lower magnification (66X) because I was able to fit more of the chain in one field of view. I looked at: M84, NGC 4388, M86, the Eyes (4438 and 4435), NGC: 4461, 4473, 4477, 4459 and M88.

I then went back to a galaxy that I had looked at a few nights ago: the Needle Galaxy: NGC 4565. At 133X this galaxy is very long and thin and with averted vision a hint of a dust lane appeared every once in a while in front of the bright core.

I then went over to the Black-eye galaxy, M64. This one took magnification very well. At 200X the darker area in the galaxy was visible, but it looked more like a dark crescent moon than a black eye to me.

Finally I looked at M101 in Ursa Major. I think that every once in a while I saw some structure in this spread out galaxy. I am guessing that I saw hints of the spiral arms. I'll have to come back to this one when the transparency is better or when I can get to darker skies.

All in all a very enjoyable two hours, with 26 galaxies seen.

✧ Stijn Brand

Northeast Astronomy Forum (NEAF), 28-29 April 2012

NEAF was great, if somewhat hard on the feet... I spent Saturday talking to people about the LTP. I had one with me, and some cards with info about how to start one's own program. I gave away about 400, I figure. The Astronomy Foundation let me camp out at their booth, and asked me to speak to their meeting Sunday at 8:30 AM. The editors of *Astronomy* and *Sky & Telescope* were there, along with lots of other folks in the business.

Speaking of the editors, they were sitting with Rich Schueller and me in the front row of the auditorium when Alan welcomed the crowd to NEAF 2012. Right after he finished, he stated the program by introducing the LTP, and called Rich and me up to the lectern. Rich spoke about Craig Weatherwax of OPT and his kind gift to us, then called him up and presented the plaque from NHAS. Craig was surprised and, I believe, rather moved by the attention.

During the show I met five or six individuals or groups that started the conversation saying: "Oh! Our club has started a LTP and have (two to seven) scopes already placed! We love it!", or words to that effect. They mentioned a lot of other clubs I haven't heard of that are also setting up LTPs. *Sky & Telescope* wants a follow-up letter to the editor about our program, to get people up to date as to how many libraries are participating in NH and how it's going. Anyone up to writing something?

On a brighter note... Sunday I was out with the Solar Observing folks. There was a huge coronal mass ejection. It caused an "OMG" to move through the crowd as the Ha scopes were brought to bear.

✧ Marc Stowbridge

AeroSpaceFest 2012, 4-5 May 2012



Joe Derek demonstrates his large equatorial-mounted reflector in the foyer of the Discovery Center. (Ted Blank photo)

NHAS played a major role in the McAuliffe-Shepard Discovery Center's annual AeroSpaceFest event.



Inquisitive minds want to know how Mr. T. the 14" Newtonian reflector works. (Ted Blank photo)

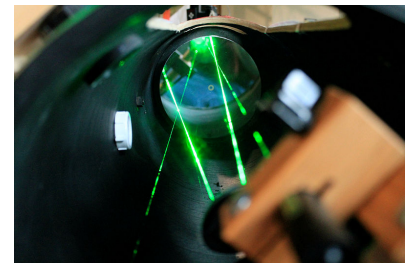
NHAS conducted an evening sky watch on Friday night and solar observing during the day on Saturday. These events were all held on the grounds outside the Discovery Center, open to the public, free of charge.



All set for solar observing... now all we need is the Sun [which did show itself eventually]. (Ted Blank photo)

NHAS also had an indoor setup, featuring "Smoky Joe", our cutaway, laser-enhanced demonstration of how a Newtonian reflector telescope works. Also, a complete astrophotography setup.

NHAS members also helped man the solar observing in the MSDC observatory dome.



Smoky Joe demonstrates how a reflector works. (Ted Blank photo)

Joe Derek's monumental (there really isn't any other term for it) equatorially mounted huge reflector

was on display in the foyer of the Discovery Center. There were lots of “Oh Wow!”s from the public. The weather cooperated, and we (and MSDC) had a very successful event.

✧ Paul Winalski

There were six new members helping out at AeroSpaceFest this year, and not just helping out but coming both on Friday afternoon to help set up, staying to cover the booth on Friday night, returning on Saturday for a full day and staying around to help clean up. **Don and Melinde Byrne** are not exactly new members but they have been ramping up their commitment to the club and of course Melinde took over organizing and scheduling all the volunteers from me this year. I think this speaks well for getting new people brought in to the activities. Many of these folks also made it to the latest Scope Modification Party which I think was their first official volunteer activity. Obviously they liked it! They have also been to many sky watches of course:

Ramaswamy, Steve Rand, Tom Smith, Gerry Smith.

And many of our standout volunteers showed up as well of course:

Ted Blank, Tom Cocchiaro, Joe Derek, Gardner Gerry, David ‘Rags’ Gilmore, Andy Jaffe, Stu May, Alyssa McCartney (Scott's daughter, helped inside all day). **Marc Stowbridge, Mike Townsend, Paul Winalski.**

✧ Ted Blank

Portsmouth Children's Day, 5 May 2012

NHAS did solar observing as part of Portsmouth Children's Day 2012. The event was very well attended (by both the public and by NHAS members) and well received. Thanks to all who participated!



The observing field at Portsmouth Children's Day. (Ted Blank photo)



Curious George views Venus through Ken Charles's Soulshine. He said the crescent planet looked like a banana. (Ted Blank photo)



Tom Cocchiaro offers safe views of the Sun. (Ted Blank photo)



Observing sunspots by projection through a solar funnel. (Ted Blank photo)

✧ Ted Blank

East Kingston Public Library Sky Watch, East Kingston NH, 7 May 2012

After 4-5 attempts (I've lost count), we finally held this event. There

was a very frustrating low haze that only permitted us to view an Iridium flare (blurry) and the planets Venus, Mars, and Saturn. About twenty adults, plus their children, attended. They got to see a very nice crescent Venus. And Mars, with some surface detail in Mr. T. And Saturn with the rings visible (too hazy to see any moons, although I think I caught an occasional glimpse of Titan).

The site is quite dark—just one distant streetlight that is an annoyance rather than a problem. Good horizon view. I hope they have us back so that we can REALLY show them the sky.

Thanks to **Gardner Gerry** and After 4-5 attempts (I've lost count), we finally held this event. There was a very frustrating low haze that only permitted us to view an Iridium flare (blurry) and the planets Venus, Mars, and Saturn. About 20 people, plus their children, attended. They got to see a very nice crescent Venus. And Mars, with some surface detail in Mr. T. And Saturn with the rings visible (too hazy to see any moons, although I think I caught an occasional glimpse of Titan).

The site is quite dark--just one distant streetlight that is an annoyance rather than a problem. Good horizon view. I hope they have us back so that we can **really** show them the sky.

Thanks to Gardner Gerry and Ted Blank for helping out. for helping out.

✧ Paul Winalski

LTP in Michigan!

This message is from our colleagues in the Kalamazoo Astronomical Society, Michigan, who are spreading the Library Telescope Program in their local region. Bravo!

Here is the report from their member, Mike Cook, on their LTP modification party, held on 31 March:

The day for the modification of the Orion Starblast 4.5 Mini Dobsonian telescopes was finally here! We had

* Marc Stowbridge

4 eager participants: Jack Price, Roger Williams, Daniel Flanigan and Mike Cook. Pizza and beverages helped keep us fueled and ready for action.

Let me take a few moments to introduce everyone to the Library Telescope Program. The program was started by the New Hampshire Astronomical Society in December of 2009 by a gentleman by the name of Marc Stowbridge. The program uses the Orion Starblast 4.5 telescope, which is owned by the library and checked out as you would check out a book. The telescope is "fostered" by members of the club who check on the telescope at least once a month. The "foster" parent is responsible maintaining the telescope. Duties include cleaning and aligning the optics, making sure all supplied materials are present and making repairs if needed. The club member also serves as a resource for the library by helping the library promote the program and keeping the library informed of astronomical events and programs such as Astronomy Day.

Professional and Amateur Astronomers have used the telescope to view, appreciate, and gain a better understanding of our universe. The KAS believes this should be shared with as many people as possible. This program gives us the avenue to reach many who have never had the opportunity to look through a telescope, especially a good one. Our goal is to help stimulate public interest in Astronomy, help foster "science literacy", and help people comprehend our place in the universe.

The telescopes are modified to make them user friendly. We encourage exploration; it's the fiddling we try to minimize. We start with the mirror cell modifications, replacing the collimation thumb screws with self locking hex nuts. This would make it very hard for anyone to move the mirror. This is also the first instant we learn of a new title for Jack – "Master of Epoxy". We are told he is very proficient at

epoxy work and has just the right tools for the job, and indeed he did. We make a few more modifications and move on to the next phase: Base modification.

The pads that the base rotates on are good, but it can be much smoother. Our job is to replace the pads with 1" self-adhesive furniture sliders. This was a quick and easy modification. The next step is to modify the eyepiece and OTA dust caps.

Roger Williams and I had spent several hours earlier in the week cutting a 1 3/4" hole in the optical tube dust cap, rounding and smoothing it out till it fit a 2" plug. This 2" hole will serve as a moon filter; it effectively stops down the aperture enough so you don't need a moon filter. The only thing left to do is drill holes in the eyepiece and OTA dust caps, as well as the plug. Daniel and Roger use the drill press to accomplish this. We attached nylon string to each of these and attached the string to the telescope. This is similar to the "mitten strings" that keep articles from getting lost. We also epoxy parts of the eyepiece. This is where Roger gives Jack a run for his title of "Master of Epoxy".

Last but not least, the final modification – replacing the red-dot finder scope button battery with an AAA 2-cell battery pack. Jack's experience in electronics came in very handy in accomplishing this task. Roger's expertise in aligning the finder scope was appreciated as well. Daniel's expertise in photography also came in handy, as I believe he took around 100 photos! It was great to capture the initial modification party in photos and is much appreciated!

The party ended up a huge success, with a lot of food, fun, and laughs had by all! We hope the program is a huge success, and look forward to many more modification parties in the future. Thanks also to several members who wanted to be a part of this party, but were unable due to scheduling conflicts. Thanks to those who participated for a job well done!

NHAS April 2012 Business Meeting

The April business meeting was held at the McAuliffe-Shepard Discovery Center on 20 April 2012, our President, **John Bishop**, presiding.

President's Report

The quarterly officer's meeting will take place tomorrow.

NHAS has been getting a lot of publicity lately. This is good. Please send John email if you're ready to talk to reporters. We need a list of ready-to-go photographs for their articles. Send the photos to **Gardner Gerry**.

Board of Directors

Gardner Gerry reports that the club's Lunt 60mm H α solar scope is back at Lunt being repaired.

Ted Blank brought in a 6" Orion XT6 club loaner scope.

Educational Outreach

Rich Schueller reports that **Matt Amar** is now the contact for the Rey Center monthly events. We are looking for secondary (back-up) volunteers.

Astronomy Bowl update: Last year's winner won again, which has forced us to revamp the prizes! First prize is now an accessory kit for an Orion Starblast (which the victor won last year). The original first and second prizes have been shifted down to second and third—second prize is an Orion Starblast; third prize is 10x50 binoculars. All three finalists receive a one-year NHAS membership.

AeroSpaceFest update: The event will take place on 5 May, with a "first Friday" sky watch at the McAuliffe-Shepard Discovery Center on 4 May. **Melinda Byrne** and **Ted Blank** are drumming up volunteer support. Please be ready to help! We will have outdoor solar observing and indoor displays, and will be helping staff solar observing in the MSDC observatory.

5 June transit of Venus: We have two confirmed public viewing

venues: Strathaham Hill Park, with Ted Blank coordinating; and Hooksett Public Library (a LTP participant) with Matt Amar coordinating. A third site is pending. We need confirmed staffing of the first two sites, and a coordinator for the third. The site must have a good Western view, be easily accessed by the public, and have power and hopefully Internet access (so that we can offer transit views rain or shine).

Library Telescope Program update: seven of the scopes donated by Oceanside Photo and Telescope (OPT) are officially placed. Twelve OPT scopes are assigned for placement. This leaves six OPT scopes to be placed. PLEASE DO NOT OFFER ANY OPT GRANT SCOPES PRIOR TO CONSULTING RICH SCHUELLER! The LTP program is planning its next step: training librarians to do basic scope care, to free up the caretakers to do only major repairs. This will allow caretakers to take care of more telescopes each. The details will be worked on in upcoming EOC meetings.

The next EOC meeting is 3 April.

Membership

John Bishop read a report from **Bill Steele**.

Astrophotography

Gardner reports that planetary and lunar observing is still going strong. He showed off an impressive image of Mars, Rich Schueller H α solar image with a 80mm Lunt, and **Ed Ting's** excellent lunar image of Plato, the Alpine Valley, etc.

invites us all to visit the "Pictures!" forum on the NHAS website. Rich Schueller showed some of his recent images (Jupiter and Ganymede, Mars, H α solar).

Pubic Observing

Paul Winalski reports that May is going to be a busy month for us. The recent increased publicity for NHAS, plus all the new LTP deployments, has meant a big increase in sky watch requests. As always, NHAS members are

encouraged to bring their scopes—or just themselves—to these events.

Miscellaneous Business

We still need guest speakers for 2012. May, July, September, October, and November are open.

Tom Cocchiaro has NHAS patches available, at a cost of \$5 each.

Scope of the Month

Ted Blank presented an Orion X65 Classic Dobsonian-mounted Newtonian reflector. club loaner scope (NHAS has two of them).

Gadget of the Month

Marc Stowbridge presented an improvised monopod for binoculars made from a wall sander and a segment of a bicycle inner tube.

Book of the Month

Steve Rand presented Sex on the Moon by Ben Mezrich. This is the story of the theft of moon rocks from NASA Houston.

Evening Presentation

Rick Fienberg: "To Pluto with the World's Largest Portable Telescope". Rick talked about his experiences aboard NASA's SOFIA airborne observatory and a little about his astronomical past. In the photograph below, the slide in the background shows pictures of Fienberg in his younger days doing research both at Kitt Peak and at the observatory on Mauna Kea in Hawaii.



(Tom Cocchiaro photo)

The Bottom Line

Starting Balance:	\$10812.94
Deposits/Credits:	
Membership:	240.00
Donations:	831.00
Bank interest:	0.88
Total :	1071.88
Accounts/Paid:	
Rackspace Cloud:	21.21

Cynric Co. (plowing)	295.63
Pro Portsmouth (Market Square Day fee)	185.00
Pro Porstmouth (MSD deposit)	75.00
Total:	576.84
Net Account Balance:	\$11307.98
Petty cash drawer:	\$100.00
Cash Balance:	\$11407.98

EOC Share: **5499.45**

Membership: 131

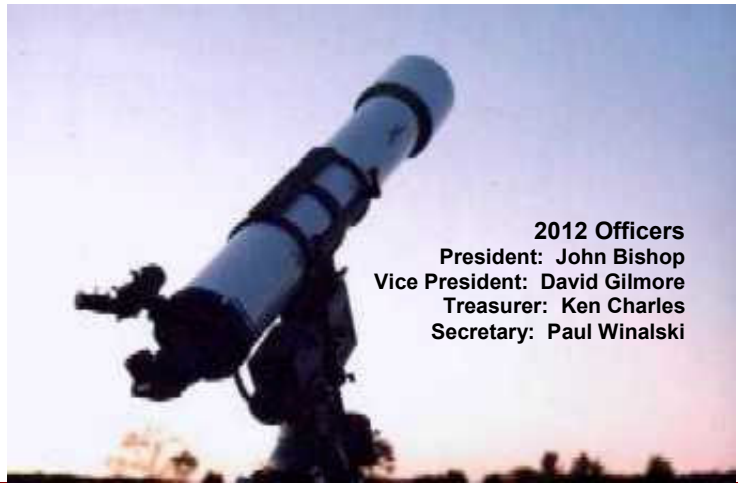
New Members:

- Stephen Olsson**, Manchester NH
- Richard Smith**, Hooksett NH
- April South**, Nashua NH
- Bob Sweeney**, Rye NH
- Nancy MacCausland**, Allenstown NH
- Donald McKeton**, Barrington NH
- Shalini Nemani**, Stratham NH

Donations:

Meyer Foundation	350.00
Great Brook School ,Antrim	100.00
Howe Library, Hanover	200.00 LTP
Portsmouth Sidewalk Astronomy	81.00
Highland Goffes Falls PTA	100.00

* Ken Charles
NHAS Treasurer 2012



2012 Officers
President: John Bishop
Vice President: David Gilmore
Treasurer: Ken Charles
Secretary: Paul Winalski

DEADLINE June 2012 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:

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:

John Bishop, Marc Stowbridge, Stijn Brand, Ted Blank, Ken Charles

New Hampshire Astronomical Society
P.O. Box 5823
Manchester, NH 03108-5823



NHAS Upcoming Events

Event	Date	Time	Location
Wadleigh Memorial Library Sky Watch	May 15	7:30 PM	49 Nashua Street, Milford NH
Bedford High School Sky Watch	May 17	8:00 PM	Benedictine Park, Bedford NH
Coffee House Night	May 18	5:00 PM	YFOS
Rey Center Sky Watch	May 19	8:00 PM	Curious George Cottage, Waterville Valley NH
Goffstown High School Sky Watch	May 22	8:00 PM	Goffstown High School, Goffstown NH
Sidewalk Astronomy	May 26	6:00 PM	Market Square, Portsmouth NH
Timberlane Middle School Sky Watch	May 31	8:00 PM	44 Greenough Road, Plaistow NH
Discovery Center Sky Watch	June 1	7:00 PM	McAuliffe-Shepard Discovery Center, Concord NH
Transit of Venus Solar Observing	June 5	5:00 PM	four different sites
Educational Outreach Committee Meeting	June 7	6:30 PM	Manchester City Library, Manchester NH
Market Square Day 2012	June 9	9:00 PM	Market Square, Portsmouth NH
Jaffrey Public Library Sky Watch	June 14	8:00 PM	Conant High School Field, Jaffrey NH
Henniker Community School Sky Watch	June 14	8:30 PM	Henniker Community School, Henniker NH