



New England Fall Astronomy Festival

President's Message

When Steve Jobs died there were many obituaries that alluded to the ways he had changed the world. It's rare for one person to have such an impact. In our own club, I think we are seeing a world-changing idea on a more intimate scale. We've been privileged to see the invention and successful growth of the Library Telescope Program. This is clearly an idea whose time has come; it's gone from one library in New Hampshire to more than twenty in NH and has expanded by imitation both in the rest of the US and internationally. I expect that during the next ten years library telescopes will become commonplace and unremarkable (which is, of course, remarkable!).

Marc Stowbridge has changed the world and we were there and we helped. That's something to be proud of.

★ John Bishop
NHAS President 2011

Highlights for This Month

This month we participated in two major events.

Foremost was the New England Fall Astronomy Festival (NEFAF), which we hosted in cooperation with the University of New Hampshire.

Second, and taking place on the same day, was our return to the New Hampshire TechFest for high school students.

The fall Messier Marathon was clouded out in September. It has been rescheduled for 22 October.

The **Wicket** family will be our hosts, as usual.

★ Paul Winalski
NHAS Secretary 2011

It's Election Time

It's time for NHAS to choose its leaders for 2012. At the December business meeting we will elect the officers (President, Vice President, Treasurer, Secretary, for one-year terms) and one member of the Board of Directors (for a three-year term). The floor will be open for nominations at November's business meeting. All current officers are eligible for re-election. At December's meeting, there will be opportunity for further nominations, and then we will hold the election.

If you think you can contribute to the club at a major level, now is the time to step up. Or, if you know of a member who you think could contribute good leadership, this is the time to put their name in nomination.

★ Paul Winalski

Astro 101: Clusters, Nebulae, Galaxies, 30 September

We had a full crowd, about twelve members, for my Astro 101 presentation on Part Two of Deep-Sky Objects (clusters, nebulae, and galaxies). The attendees were very appreciative of the workshop, and asked lots of good questions. The only down spot was that it was too cloudy to do any practical observing. But I think everyone in attendance now has a good

foundation to do their own observing.

★ Paul Winalski

Amherst Library Sky Watch, 6 October

I was at the Amherst library. This was my first skywatch. Some of the kids were very excited to see the moon up close for the first time. It was a fun experience.

★ David Shelton

Attendees at Amherst: **Nathan Carle, David Gilmore, Chase McNiss, John Pappas, David Shelton, John Rose, and Mike Townsend.** Two non-members also brought telescopes.

★ John Rose

Bedford High School Sky Watch, 6 October

We set up in Benedictine Field on Wallace Road. This is a very nice location: there are no local lights, not much of a light dome from Manchester and there are good horizons in most directions. It's also easy to get to and there's parking. We should use it more often! Note that this requires notification of the Bedford police and may require formal permission as well.

Two of the science teachers from Bedford High School were there, I don't recall their names. The high school owns two telescopes: an Orion 120 mm Eon refractor and an Orion Intelliscope 6-inch. I got a look through the Eon: it's very nice! The telescope is bigger than I

expected: 4.7 inches of aperture is very big for a refractor.

Club members I recognized despite the dark: **Ken Charles, Paul Winalski, Bob Viellieux, Dave Weaver, and Gardner Gerry.**

I set up my DGM Optics OA-6.5 off-axis newtonian on a Osypowski equatorial platform. I showed the Moon, Jupiter, M57, M15, M27, γ Andromedae (Almach; a nice yellow-blue double), and the Perseus Double Cluster. Before the students showed up, Gardner guided me to Uranus, which was clearly visible but wiggly due to air turbulence. Despite the three-quarters full Moon, the sky was transparent and fairly dark (mag 4 except near the Moon).

There were about twenty students; they were well-behaved and seemed interested. Next time we should get the teachers to underline the fact that it gets cold at night—many of the students were underdressed for the chilly night (about 44 degrees according to my car's thermometer).

★ John Bishop

Sidewalk Astronomy, Portsmouth, 8 October

Three telescopes, two members, five hundred visitors... that's what it seemed like on a warm summer evening on the sidewalk in Portsmouth, a city whose Market Square was just named one of the top ten downtown areas in the country. **Tom Cocchiario and Ted Blank** provided views of the 10-day moon and Jupiter to hundreds of kids and adults over the course of a long but enjoyable evening. (Several other members who intended to come had to cancel at the last minute.) The moons of Jupiter were in the same configuration in which Galileo saw them on the first night he glimpsed them in his telescope, a fact which interested many. The elongated lunar crater Schiller was highly visible and identified by most people, including one lady who thought it looked just like a chili pepper, and I have to admit she is right.

The donation telescope generated more than a few laughs as people attempted to look through it, but in the end the sturdy little guy brought in over \$100 for the club, a new one-night record. Members are encouraged to join this fun event, which occurs on the Saturday night closest to first quarter Moon. All events are on the NHAS calendar, and the remaining two Portsmouth events for 2011 are Saturday, November 5th and Saturday, December 3rd. Hope to see you there!

★ Ted Blank

New Hampshire TechFest, 15 October

We set up same place as last year—in the entry hallway. There were two of us inside—me and **Al Navarro**, and one outside for solar observing, **Mike Townsend**.

There were lots of people stopping by, many teachers. We gave out lots of NHAS brochures and NASA freebies.



Our TechFest outdoor display.

Mike got rained out towards the end of the day—just a passing thundercloud, but we had 9-10 good active solar regions with prominences for most of the day.



Mike Townsend explains solar observing to TechFest attendees

We really could have used an extra person as the two of us were busy

for just about the entire day inside and Mike was trying to manage people looking through three different scopes. So for future planning purposes, we should plan on a minimum of four people.

★ Matt Marulla

New England Fall Astronomy Festival, 14-15 October



The NEFAF exhibition tent (Ted Blank photo)



Astronaut Le Morin (Ted Blank photo)

Despite the obvious weather challengers committee members and visitors felt this year's first ever New England Fall Astronomy Festival was a great success and a hands-down "cool experience" according to many attendees. A special thanks to NHAS members who volunteered to help with the festival, some of whom put in many hours slogging through mud, erecting tents in the pouring rain and donating their expertise—as well as their personal resources—to the cause. Your support was critical to the success of the event: **Matt Amar, Ted Blank, Ken Charles, Tom Cocchiario, Brian Cossette, Rich DeMidio, Joe Derek, Gardner Gerry, David "Rags" Gilmore, Larry LaForge, Glenn Meyers, Rich Schueller, Marc Stowbridge, Ed Ting, Bob**

Veilleux, David Weaver, Paul Winalski.



“Smokey Joe” illustrates the principles of a Newtonian reflector (Ted Blank photo)



Bob Veilleux and his meteorite display (Tom Cocchiario photo)



NHAS telescope guru Ed Ting talks about how to choose a scope (Tom Cocchiario photo)

Over the course of Friday evening and Saturday activities volunteers gave presentations to, and worked with, hundreds of visitors demonstrating “Smokey Joe”, and the Sun's analemma, handing out astro info, observing, showing off the Library Telescope Program, and assisting visitors in getting their own telescopes up and running.



“Maybe he won’t notice if I take this meteorite!” (Ted Blank photo)

Discussions are already underway about next year’s event. On behalf of the UNH NEFAF staff and committee members, thanks again for the great support from NHAS. Just one more feather in our caps. Pictures to come as soon as we get that darn food tent down.

★ Tom Cocchiario



Solar observing at NEFAF (Ted Blank photo)

I arrived at NEFAF around 9:45 AM and quickly located John, who though quite busy did ultimately give me some instructions and get me set up to direct parking. About that time Rich Scheuller arrived and had the idea to create a third row, so we made a command decision and made a third row of vehicles starting with his as a guide point, enabling 50% more parking for no real effort.

People started arriving on schedule about 10:30, slowly but steadily. That was sort of the order of the day from then until 1:30, slow and steady in until the lot was about 3/4 full around 11:30, then they left about the same rate they arrived, so the lot always stayed around the same level. I talked to a number of people as they entered and left, and they all seemed quite positive and enthusiastic.



Getting things fixed up at the scope clinic (Ted Blank photo)

Around 11, Josh and JD, if I remember their names correctly, arrived to help. I didn’t need them at the main lot so they went up the first intersection and directed traffic to the event. I don’t know if that helped, but I got the impression it did, because a few people indicated it was hard to find, and someone to explicitly show the way couldn’t hurt.



Joe Derek with his 12-½” reflector and mongo EQ mount (Tom Cocchiario photo)

At 1:30 another student whose I name I have sadly forgotten took over my position. I had every intention of going in to see Lee’s presentation, but swung by the observatory first and kinda got stuck there talking to people about telescopes, the Sun, and general astronomy things. Like the parking lot, it seemed like a slow but steady stream of people continually arrived the entire time I was at the observatory.



Alan Friedman, world-class solar observer, discusses imaging the Sun (Tom Cocchiario image)

At some point in the middle of the afternoon the shade moved over the line of solar scopes. I took Paul Winalski’s TeleVue 85mm scope halfway up the hill to a big sunny patch, and Paul joined me later and put his PST on the mount, and

together we showed the Sun to people into early evening.

At times we had eight or ten people gathered around, and it seemed to me we rarely had no one at all.



Ted Blank helps a young observer at the NEFAF scope clinic (Tom Cocchiaro photo)

After **Joe Derek** and I got back from dinner I set up the C8 on the Atlas. Early I showed people the Ring Nebula, and after Jupiter came up I swung to that and simply let the tracking do its job, devoting more of my attention to the people than the target. I helped a young boy set up his telescope, and I helped a couple set up their Meade alt-az goto, a “one armed bandit” with a refractor. He was convinced that he couldn’t see Jupiter’s moons in his telescope, but I insisted he could; he was quite delighted to discover I was right.

About 10:30 PM I packed up and went home. All in all a *very* nice event...

★ David Gilmore

Friday afternoon I helped put up the 30' x 60' tent that **Tom Cocchiaro** brought in the rain. **Matt Amar** and I set up the NHAS display behind our table.



Marc Stowbridge demonstrates analemmas (Ted Blank photo)

Saturday was solar observing with white light filtered Takahashi, and resetting the tent as the wind had taken lots of the side poles out. Matt, Tom and I did this. I ran into the reporter from Fosters and took her around to speak to various NHAS members.



Step right up for your NHAS raffle tickets! (Ted Blank photo)

Paul Winalski and I helped a young man and his mom with an EQ mounted ST130 which they didn’t know how to use. We collimated the optics and set up the mount correctly and showed them how it should be aligned on Polaris. After dark we looked at M31 and NGC 457 with it and they were both really pleased. Some of the public were asking to look through his scope which pleased him greatly to actually be part of the sky watch. I think we have a budding astronomer there for sure.



NHAS’s indoor display at NEFAF (Ted Blank photo)

In the evening I setup my imaging gear and did a live astrophotography demonstration with NGC 7000, M31 and the Moon as my targets.

I think I spent about 20 hours volunteering between the two days. I slept really well Saturday night!

And yeah I had lots of fun!

★ Gardner Gerry

I brought over 150 meteorites to the NEFAF and had many delightful discussions with numerous enthusiastic people about my collection of “Rocks From Space”. However, the most memorable comments were from individuals who realized that they were holding in their hands rocks from space that were 4 1/2 billion years old, older than any rocks ever found here on planet Earth and then experiencing the impressive mass of some of these meteorites. It was a very enjoyable and satisfying opportunity to interact with many space enthusiasts. The activity that had participants examine my bin of twelve Earth rocks and twelve meteorites from space, and try to tell them apart, also kept many an individual happily engrossed in finding out the many different appearance found in stone and iron meteorites.

★ Bob Veilleux



Mark Stowbridge explains the Library Telescope Program (Tom Cocchiaro photo)

On Saturday October 15th, I was very pleased to have the time available to participate in evening observing session at NEFAF, sharing the wonderful views through the eyepiece with the public. The observing area was very open and I quickly scoped out a spot upon arrival. Winds were still brisk so I had to anchor Obby until they died down later on.

When the skies darkened, I had my half a dozen or so eye candy objects memorized and went with what the sky was providing. Conditions were never completely clear in all directions, so I found myself moving to different parts of the sky. In doing this, many observers commented on how easy it was to move Obby. This of course, led to the typical discussion points on cost, features, and specifications of the scope. I think Dave Kriege would appreciate my marketing efforts for him ☺ The ET Cluster (NGC457) in Cassiopeia was very bright and crisp with the Holy Hand Grenade (31mm Nagler). I played the Asterism game with the observers and I heard several responses including a Bird, Fighter Jet and yes, a Lobster (with no leading by me)! On the double star front, I pointed to WZ Cassiopeiae, which was bold, bright, and beautiful to view. Albireo was another I showed with the color looking great this evening. Many observers commented on how they never expected to see color like this. M11 (Wild Duck Cluster) was very large in the eyepiece as a great open cluster to view. Polaris was even interesting because its tiny companion is visible in Obby. Many people did not know it was a double star. When most of the sky was cloudy, I turned Obby onto Jupiter which looked very nice in the fine cloud cover which acted as a filter reducing glare. The four Galilean moons were visible along with several bands using my 17mm Ethos eyepiece.

The double cluster was fabulous and many people easily saw the nice red star at the center which I use as guide to centering the object in the FOV. The Andromeda galaxy

(M31) was also nearby and very much a crowd-pleaser. Due to the Moon's light pollution, the dark lanes were not visible, nor were the H2 regions, but it was filling up the eyepiece to everyone's delight.

Once the parking lot lights were turned off, I was able to show the Keystone Cluster (M13), and M92 in Hercules. M92 had a bright core and appeared elliptical. M13 was a bright as ever and when I used my 17mm it was very much a crowd-pleaser.

I found the participants very passionate, interested, and some very educated in Astronomy. My conversations went from the trivial to advanced topics. For some questions, I referred them to some other members since it exceeded my knowledge. These types of interactions make me think and take notes to study offline for my next sky watch. I remember in particular a teenage girl who loves science. She was talking to me about Paleontology but that Astronomy was catching up fast as another interest. She was extremely bright asking many detailed, thought-out, and challenging questions. She kept bringing over family members and friends to take a peek through Obby. Its attitudes and passion like this that we all live for and why we do what we do for the public. It made me feel very proud but also mentally tired to the point where I thought I had just finished a product demonstration for a customer at work ☺

Lately, I have been really focusing on explaining details about the objects folks are observing such as open and globular clusters; how they are formed and what they represent. I particularly like talking about the Ring Nebula (M57) which is a planetary Nebula representing the ultimate demise of our own Sun. People like to hear that story and can really resonate to it. It provides much more of a complete story and helps the observer appreciate the universe for what it is. I have some additional ideas that I plan to document for future sky watches to help in this education area.

I also had time to meet several UNH staff people and learned about the monthly sky watches on the first and third Saturdays. I am marking that down in my calendar and hoping to assist UNH in some future sky watches. This was a wonderful event and everyone involved in the planning and implementation should be commended for a superb job. I am grateful to be a member of this wonderful organization and to be associated with such passionate and knowledgeable people who live Astronomy every day.

★ Rich DeMidio

Observing in Nashua NH, 10 October

I let my Off-Axix-6.5 cool down from 7:00 PM to 9:30 PM. Despite the late date and the clear sky it was warm (there were still mosquitoes!). The seeing was good; the sky gradually developed a light haze by midnight. Because the Moon was almost full, it was only a mag 2 sky: almost no stars were visible.

To avoid the Moonlight I set up in the shadow of some trees and looked at Jupiter. As time passed I had to move the telescope several times to keep the planet out of the branches and me in the shadow (that's why I used the OA-6.5 rather than the OA-9.0: it's easier to move when fully assembled).

Europa was just barely out of its transit when I got started. The moon was almost tangent to the planet. The other three big moons trailed out to the preceding side. Because they were all on the same side and in a line they were in the optimal position to be seen naked-eye. I tried looking at Jupiter with and without the planet hidden behind some distant objects (a telephone wire, a branch, a leaf). I hoped that I'd see the moons as little sparks when the planet was blocked or that I'd see a "point" on the preceding side. I didn't.

The moons showed discs (perhaps fictitious disks as they are quite small from Earth, ranging from one to not quite two arc-seconds) which seemed to be of different sizes.

The planet body showed a great deal of detail, though not as much as the best I've seen in the past. I tried all my filters and several different eyepieces. As the planet rose in the sky the view improved. At 10:30 I re-collimated (which also improved the view a bit). The best views (the ones with the most apparent detail) were with a 9-mm University Optics HD orthoscopic eyepiece though the 12-mm HD worked well, too. The best filter was the DGM Optics Galaxy Notch. It revealed just a tiny bit more than the next best, the Orion SkyGlow filter. Colored filters didn't show quite as much detail but some colors emphasized different element of the view: red and orange were no help; yellow brought out some of the dark areas in the two main bands; blue and green brought out some of the minor bands. Magenta was better than unfiltered but not as good as the SkyGlow. I don't have a "salmon", which is supposed to bring out the Great Red Spot.

With the two most helpful filters, the planet body (the "zones") was light blue and the bands were a dark reddish brown. Darker areas showed on the bands (one on the top, two on the bottom). A very thin equatorial band between the two big temperate bands was intermittently visible as were a narrow band above the southern big band and another narrow band below the northern big band. There was toning but no obvious banding further south and a dark spot below the visible southern bands. I was observing for long enough that both Europa and the marks on the bands changed their locations!

★ John Bishop

Pelham Boy Scouts, 18 October

I gave an indoor presentation, concentrating on topics relevant to the requirements for the Astronomy merit badge. Unfortunately, conditions weren't particularly good for the outdoor observing. But we were able to present Jupiter and a few other objects. The scouts got a thrill out of seeing all the

equipment, even if the sky conditions weren't so good.

NHAS members in attendance: **Ted Blank, Shane Cross, Rich DeMidio, Joe Derek, and Gardner Gerry.**

★ Paul Winalski

NHAS September 2011 Business Meeting

The September business meeting was held at St. Anselm College on 16 September 2011, our President, **John Bishop**, presiding.

President's Report

We have lots of events coming up!

The library telescope setup party is scheduled for 17 September at the McAuliffe-Shepard Discovery Center starting at noon. Pizza will be provided for the attendees.

The Fall Messier Marathon is coming up on September 23-24. As usual, it will be a pot luck supper hosted by **Scott, Sue, and Ben Wicket** at their home in Lyndborough.

8 October is International Observe the Moon Night. MSDC will be holding an event to celebrate and they invite us to bring scopes to help out with the festivities.

14-16 October will be the New England Fall Astronomy Festival. This is a joint NHAS/UNH event. We have received over \$6000 in grants. **Tom Cocchiaro** is the NHAS coordinator. John Gianforte is the UNH coordinator. Please consider helping; contact Tom or John for details. We have openings for volunteers from setup to tear-down. **Ed Ting** and **Ted Blank** are scheduled to give talks; they could use more. Send ideas for talks, plus your bio and date/time you're available, to John Gianforte. Camping is available on-site. We are the prime movers for this event—let's make it a success!

Nashua High School South would like us to help man their planetarium. Any member able and willing to give daytime presentations to elementary school groups should contact the EOC. The High School is also interested

in daytime solar observing (which requires no vetting by school officials).

Board of Directors

John Rose reports that the 10" Coultter dob is now restored for use as a loaner scope. It could still use eyepieces and cases.

Surplus LTP eyepieces are still for sale.

We need to replace the tarp for the club tent.

Membership

Bill Steele reports that the next Astro 101 course will be Deep Sky Observing, on 30 September at YFOS.

Contact Bill if you have a workshop or course you would like to present to our members.

Webmaster

No report.

Astrophotography

Gardner Gerry reports that the Astro 101: Deep Sky Imaging course was a success inside but it was cloudy outside. See the "Pictures" forum at the NHAS website for images from the non-cloudy moments.

Educational Outreach

The Library Telescope Program continues to astound. We need "foster parents" for the scopes. 17 September is the date for the party to modify the OPT scopes for LTP use.

Nashua High School South has asked us for speakers to present talks (already prepared) to elementary school groups. Speakers will need to have a background check done by the school system. There is also the possibility of us giving evening sky watches or daytime solar observing sessions at the school.

Dave Weaver has volunteered to take the 24 September Rey Center observing slot. **Marc Stowbridge** will be the backup astronomer for this event.

Pubic Observing

We held several sky watches over the past month and have a rather

heavy schedule of events for the next couple of months. Check the club calendar at our website.

Miscellaneous Business

Ken Charles suggests that we put the LTP woodcut and poem on the back of the NHAS polo shirt.

We still need to schedule guest speakers for 2012.

Book of the Month

Origins by Neil DeGrasse Tyson and Donald Goldsmith, 2004. Origins of the stars/planets/high-level intergalactic structure. Written for the advanced layman.

Evening Presentation

Matt Marulla gave a talk on the history of telescope design.

The Bottom Line

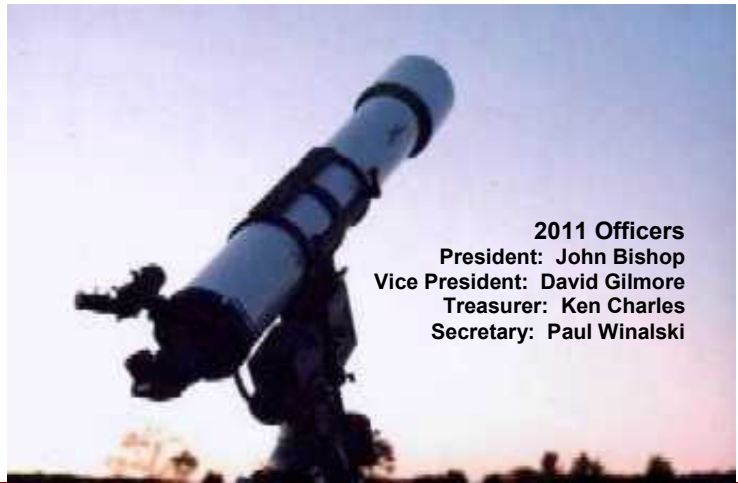
Starting Balance:	\$9495.89
Deposits/Credits:	
Donations:	50.00
Bank interest:	1.88
Sale of old mount:	65.00
Sale of LTP eyepieces:	191.00
Total :	307.88
Accounts/Paid:	
Rackspace Cloud	22.69
Bob Veilleux (meteorites)	350.00
Joel Harris (Stellafane)	105.90
Total:	478.59
Net Account Balance:	\$9325.18
Petty cash drawer:	\$100.00
Cash Balance:	\$9425.18
EOC Share:	\$4300.43

Membership: 151

Donations:

Madbury Library 50.00 LTP

★ Ken Charles
NHAS Treasurer 2011



2011 Officers
President: John Bishop
Vice President: David Gilmore
Treasurer: Ken Charles
Secretary: Paul Winalski

DEADLINE November 2011 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:

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Send E-mail to:

info@nhastro.com

Use our web site:

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

This month's contributors:

John Bishop, David Shelton, John Rose, Ted Blank, Matt Marulla, Tom Cocchiaro, David Gilmore, Gardner Gerry, Bob Veilleux, Rich DeMidio, Ken Charles

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NHAS Upcoming Events

Event	Date	Time	Location
NHAS Fall Messier Marathon	October 22	3:00 PM	Wicket Residence, Lyndeborough NH
Rye Public Library Sky Watch	October 26	7:00 PM	581 Washington Road, Rye NH
Coffee House Night	October 28	5:00 PM	YFOS
Rey Center Sky Watch	October 29	8:00 PM	Curious George Cottage, Waterville Valley NH
Highland-Goffs Falls Schol Sky Watch	November 1	7:00 PM	2021 Goffs Falls Road Manchester N.H.
Hooksett Library Sky Watch	November 2	6:30 PM	Hooksett Library, Hooksett NH
Discovery Center Sky Watch	November 4	7:00 PM	McAuliffe-Shepard Discovery Center, Concord NH
Sidewalk Astronomy	November 5	6:00 PM	Market Square, Portsmouth NH
Reeds Ferry School Sky Watch	November 8	6:30 PM	Reeds Ferry School, Merrimack NH
Barrington Public Library Sky Watch	November 9	6:00 PM	39 Province Lane, Barrington NH
Educational Outreach Committee Meeting	November 10	6:30 PM	Manchester City Library, Manchester NH
Maple Wood School Sky Watch	November 15	7:00 PM	Maple Wood School, Somersworth NH