



Fall Public Sky Watches

President's Message

The skies did not cooperate with us again but nonetheless, NHAS enjoyed a great social event at the Fall Messier Marathon. Many NHAS folks exchanged hearty conversation while enjoying wonderful food that members brought to the event. On behalf of NHAS, I would like to thank again the **Scott, Sue, and Ben Wicket** for hosting a wonderful event. One of these years, we will actually get some observing done ☺

We continue to streamline our operations with some recent decisions at the Q4 officer meeting. The officers decided to approve the proposal for NHAS having a place on the Web for the public donate to our organization. In addition, the officers and EOC reviewed the request from the Rey Center for NHAS involvement in monthly events. Look for the formal correspondence to be sent out before the November business meeting for details and how you may contribute. We are very excited about participating in this event as it expands our reach to portions of the state that we have not focused on. Finally, the officers and board voted to eliminate the \$15.00 membership after June 1st and instead extend the date for new members. For example, someone who joins after June 1st 2011 has his or her membership valid to October 2012. Note that this policy is for new members only.

On the sky watch front, NHAS participated in the first of what will now be a monthly sidewalk Astronomy event in Portsmouth. It

was a huge success and our next event is on December 11th. This is another example of how NHAS is expanding our reach. We also have the upcoming Nashua Winter Holiday Stroll after Thanksgiving. Please contact **Ken Charles** if you wish to participate and monitor email for details.

I have also started the process for our business meetings next year. We are locked in for the third Friday of the month at the McAuliffe-Shepard Discovery Center and we should be hearing confirmation from St. Anselm within a few weeks. This is one less thing a new administration will have to worry about. The calendar will be updated to reflect these changes over the next few weeks. If anyone has suggestions for a guest speaker, please let me know. That is one area I am still going to try and help the new administration with.

The December meeting will be a "celebration" with minimal business and most time devoted to our NHAS social. Monitor email for upcoming directions and requests for what people will be bringing (I will start a forum post to record the information). I am looking forward to this event for NHAS to celebrate our great accomplishments over the past two years. I will also use this forum to hand out 2010 awards. There is still time if anyone wishes to nominate a member for outstanding contribution in 2010.

Please remember that officer elections are being held at the December meeting. Please review the forums for latest information

regarding nomination status. Finally, I wish to extend my warm wishes to all members and their families to have a wonderful Thanksgiving holiday.

Clear Skies,

★ Rich DeMidio
NHAS President 2010

Highlights for This Month

This has been a very busy month for sky watches and other public outreach events. Perhaps most noteworthy is the Sidewalk Astronomy event on 11 November in Portsmouth. This is the first of what will now be a monthly event on the sidewalks of Portsmouth, complementing our first Friday sky watches at the Discovery Center in Concord.

The floor is still open at the November and December business meetings for nominations for all the officer positions and the three-year term as Director. If you wish to serve, please place your name in nomination (note that you can nominate yourself—although someone else has to second the nomination). Don't be shy.

★ Paul Winalski
NHAS Secretary 2010

Library Telescope Program Publicity

Thanks to hard work by **Marc Stowbridge** and the members of the Educational Outreach Committee, our Library Telescope Program is receiving lots of publicity in the public press.

On page 24 of the 12 November issue of *The Conway Daily Sun* is

an article on one of our latest placements, the Ann M. White memorial telescope at the Conway Library. Marc facilitated the anonymous donation and the setup of the scope.

There is a feature on the Library Telescope program on page 13 of both the print and online versions of the Orion Telescopes holiday catalog.

Also be on the lookout for an article on the Program in the January issue of *Sky & Telescope*.

★ Paul Winalski

2011 Officer Elections

Election of NHAS officers (President, Vice President, Secretary, Treasurer) to serve a one-year term, and a Director (to serve a three-year term) will take place at the December NHAS business meeting.

These nominations were made and seconded at the October business meeting. **Tom Cocchiaro**, who had been nominated for President in October, has due to personal circumstances withdrawn his name from consideration.

President: (no nominees yet)

Vice President: **David Gilmore**

Secretary: **Paul Winalski**

Treasurer: **Ken Charles**

Director: **Jean Buckley**

The floor will be open for further nominations at the November and December business meetings.

Because our current President (**Rich DeMidio**) and Vice President (**Mike Townsend**) have served two consecutive full terms in their respective offices, the club constitution prohibits them from standing for re-election to their current office. They are eligible for nomination to any other office, however.

Members in good standing as of the December business meeting are eligible to vote. You may vote either in person at the meeting or by proxy (see Article IX in the club constitution, posted on the web site). You may designate any member attending the meeting as your proxy, or you may send your

proxy form to the club Secretary. Write-in votes are permitted.

★ Paul Winalski

Maple Wood School Sky Watch, Somersworth NH, 18 October

This was for two third grade classes. The kids have been learning about planets in the class room and this was a great opportunity for them to come out side and see first hand what they have been talking about in classes.

NHAS members present were **Paul Winalski** with his 14" Tscope and **David Speltz** with his StarMaster Oak Classic (he showed the kids the double star Alberio). **Virgil Mehalek** was showing the kids the Moon and Andromeda Galaxy with his 4" refractor Celestron NexStar 102-SLT. **Marty Rossiter** came with his 18" Starmaster and showed the kids Jupiter. **Brian Cossette** came with his Orion XT8i and showed the kids the moon and Jupiter.

Jacob and **Connor Cossette** took the Orion 4.5XT, which was just the right height for the younger kids. They showed how the scope works and gave the kids an opportunity to move it around and try the scope out.

There were a few kids that came with binoculars and Joseph LaMontagne, a non-member, set up his telescope for viewing and helped out.

There were about 30–40 kids and adults that came out. The next day in class there was a lot of talk about the Astronomy night and how the kids had a great time. The classes would like to plan another Astronomy Night this spring to get a look at Saturn!

★ Brian Cossette

Here is what I remember about the night. We had scattered clouds but were very fortunate to offer around two dozen 3rd graders and accompanying parents some spectacular views. I heard many kids being "wowed" with great sights of double star Alberio, the

Perseus double cluster, several open and globular clusters, and some very nice views of Jupiter and his 4 Galilean moons. The kids had seven or eight scopes to choose from, and got a variety of telescope types and sizes to look through. **Brian Cossette** has a child attending Maplewood and he set the wheels in motion to set up the sky watch. The teachers were very appreciative and everyone had a wonderful evening.

★ Marty Rossiter

We received this note from the school:

"The students and teachers of Mr. Mommsen's class and Mrs. Green's class of Maple Wood School in Somersworth NH would like to extend our extreme appreciation and gratitude to you for taking the time out of your busy schedule to join us for our astronomy night in October. Your time, expertise, enthusiasm, and your telescopes greatly helped us to see and understand space in a way that we are not able to do inside the classroom! It is greatly appreciated. THANK YOU VERY MUCH!"

★ Paul Winalski

Seabrook Library Sky Watch, Seabrook NH, 22 October

Before the indoor talk, I set up my TeleVue 85mm refractor and was showing off Jupiter and his moons to some of our guests. I brought the scope in with me for the evening talk. I had planned to talk for 15-20 minutes about what we could expect to see in the night sky, and a bit about how telescopes work. There were a lot of very good questions from the audience, and I ended up talking for about 45 minutes. There were about five scopes and fifty people on the observing field. It's too bad we had a full Moon, because the site has excellent view and very good dark sky potential.

Tom Cocchiaro, **Herb Bubert** and I were the NHAS members with telescopes. There was also a family who had a small refractor on an alt-az mount. I was able to get the

Moon in the scope for them, and they were delighted. The scope had a nice red-dot finder that was not properly aligned—which is why they couldn't find anything on their own. In the dark, I didn't want fiddle with adjustment screws on an unfamiliar piece of equipment, so I contented myself with pointing out that the finder was badly out of line and needed to be adjusted.

I noticed the Pleiades had risen, and I put my 50mm Guan Sheng wide-angle eyepiece in the TeleVue 85mm refractor (giving 12X magnification), and that gave a great, sharp view of the whole cluster. I kept it there all evening.

In the 14" TScope I showed (in chronological order) the Full Moon, Jupiter and its four moons, Albireo, Mizar, 61 Cygni, NGC 457, and the Double Cluster in Perseus.

I spoke to a Seabrook town official who is interested in establishing a permanent observatory and telescope in town. He was bombarding me with questions about telescope types and costs. I told him that we have club members, (**R. P. Hale** and **John Blackwell**), who run observatories at two of the nation's best private schools, and I'd ask them to get in touch with him.

The head of the Seabrook Library was delighted with how everything went, and she's eagerly looking forward to participating in the Library Telescope Program.

This was our second event at this venue, and I'm sure we'll be invited back. I suggested they schedule an event in the Spring (and nearer to New Moon), so they can see a different part of the sky.

★ Paul Winalski

New Hampshire TechFest 2010, Windham NH, 23 October

Six brave NHAS souls showed up for the 2nd annual NH TechFest at Windham High School. Last year's event had about 500 kids and their parents show up for the event in the pouring rain. This year, the weather and turnout was a lot better. Over

800 kids and their parents attended the event. Outside it was a bit chilly and windy, but beautiful skies overhead with hardly a cloud all day, perfect for solar viewing and views of the slim crescent of Venus.



Matt Marulla, Rich Schueller, and Gardner Gerry man the NHAS indoor presentation (Tom Cocchiaro photos)

Our NHAS table was set up right inside the main doors to the school, a good location to attract all the people on their way into the gymnasium and auditorium, also a good place to set up the static scope displays, with out having to lug the equipment too far.

Gardner Gerry, Matt Marulla, and Rich Schueller manned the inside table with handouts, brochures and 3 static scope displays. Matt and Gardner both set up their scopes with their imaging equipment hanging all over. Matt was able to focus in on a card he posted down the hall on the second floor and display its image on his laptop. Gardner had his NHAS imaging show (many beautiful astro images from the NHAS members forum) running on his 26" computer screen. Thanks to **Ted Blank** and **Joe Derek**, we had the cut-away dob with two lasers showing how the light entering a scope at different points comes together at the eyepiece.

Meanwhile, outside, **Mike Townsend, Tom Cocchiaro**, and I set up four solar scopes, along with the club's Lunt and Soulshine, my CPC1100. The views through the solar scopes were all a bit different. With Mik's white light piggybacked with a Coronado, you could get two views from the same position. The white light filter showed 4 or 5 sunspots and in H α there were some very nice solar

flares and prominences that the people loved seeing. Tom had his Lunt with a double-stacked filter and binoviewer set up. Views through it were almost 3D, along with more detail of the filament and swirls than in without the double-stacked filter. I set up Soulshine, aligned on the Sun and then slewed to Venus and took off the white light filter, revealing a great view of a thin sliver of a crescent of the 2nd rock from the Sun.



Ken Charles shows a crescent Venus through Soulshine.

The day started slowly with people starting to come by at 9:00 AM. As we got to afternoon the crowds really picked up, with lines of up to ten people on some of the scopes.



Mike Townsend shows the Sun.

We talked to a lot of people about buying scopes, solar viewing, planets, the Library Scope Program (wish we had a Library Scope to show them) and NHAS. Anyone on the way into the TechFest was told to stop at our booth just inside the door. The three of us outside didn't have a lot of time to go inside in the

afternoon, as it stayed pretty busy right up till 3:00 PM, which was closing time.

I know that a lot of the people really liked that their kids (and they) could see the views of the Sun and Venus. At one point, a reporter stopped by and took some pictures of the visitors at our scopes. She said it would be in a local paper. Have to watch out for it later this week.

I thank Matt, Gardner, Rich, Mike and Tom for helping out on this event. I think that we were especially appreciated by the visitors and sparked some interest in Astronomy with the kids.

★ Ken Charles

There was one notable occurrence which happened around 2 PM. Gardner, Matt and I were discussing something of no particular relevance when we heard this sound. A strange rumbling sound, a sound one might have heard on the plains of the Midwest about 150 years ago. Like several million buffalo running across the grass.

Then, the doors to the auditorium opened (laser show ended) and several hundred people came out with maybe 20% stopping at the NHAS booth.

I can speak for Matt and Gardner, but I must have looked like a deer in the headlights. It was great fun and I'm looking forward to next year's TechFest.

★ Rich Schueller

We received the following note of thanks from the organizers:

"I wanted to express my personal Thanks to you (and your colleagues) for attending the 2010 NH TechFest and showing kids that Science and Technology can be fun and exciting. We hope that NH TechFest will provide teenagers with that inspirational first step towards a future career—all of which will involve Science, Technology, Engineering and Math!"

—Monica Turcotte"

★ Paul Winalski

Halloween Sidewalk Observing, Portsmouth NH, 31 October

Lots of strange creatures visited my telescope, set up a Prescott Park.



Even the Knights Who Say 'NI' were impressed! (all photos by Ted Blank)



Don't look behind you...



Observing Jupiter.



By Jove!!

★ Ted Blank

NHAS Fall Messier Marathon, 6 November

The annual NHAS Fall Messier Marathon was clouded out both days, and thus became an indoor

pot-luck social event. All who showed up reported having a great time. Our thanks to Sue, Scott, and Ben Wicket for hosting the event.

★ Paul Winalski

6½" Off-axis Reflector Observing, Nashua NH, 23 October

I got the mirror of my OA-6.5 back from Spectrum and installed it yesterday. If you ever do this, be sure to mark your mirror cell with meaningful marks before you take the mirror out, etc. I had painted a big red arrow on the mirror cell but did not write "To Focuser" or "To Secondary" and so I got the direction wrong at first, putting the thin edge of the mirror under the focuser. That showed up when I tried to collimate it with a laser. Once re-installed correctly it was surprisingly close to good collimation (based on a test with a laser).

That evening I put the telescope out to cool for a few hours. I went out a bit before 8:00 and star-collimated it. It was a nice night, clear and with good seeing. A nearly-full Moon meant that only the brightest stars were visible (e.g., of the "W" of Cassiopeia, only a "Z" could be seen!). ♃ Cas was an easy split to three stars.

I then looked at Jupiter. At 8:00 PM there was a moon just touching the planet at either side of the southern temperate zone. It looked like Mickey Mouse with the moons as tiny ears. By 8:10 the moon on the trailing side (Europa) had started a transit; I could see it as a white dot against the planet. Meanwhile, a shadow transit started next to the dot. While I was watching this I thought that the shadow was the shadow of Europa, but when I went to CalSky this morning, it said that was the shadow of Ganymede.

I soon lost track of Europa but the shadow transit remained easily visible as a black dot up to 11:30 pm when I packed up. Seeing was good; there was lots of detail on the planet and it sure seemed as though

the moons were little discs rather than diffraction blurs.

Uranus showed a definite disc.

Compared to my memories of what the views were like before the re-coating, these views were brighter. How they compare to the views of seven years ago when I had just gotten the OA is harder to say. But the re-coating has made a big difference and I'm glad I had it done.

★ John Bishop

Sidewalk Astronomy, Portsmouth NH, 13 November

For years NHAS has held a monthly sky watch in Concord at the McAuliffe-Shepard Discovery Center. We are now expanding to a second monthly observing event: Sidewalk Astronomy, the second Saturday of each month, from 6-10 PM at Market Square in downtown Portsmouth NH. **Ted Blank** is coordinating these events.

★ Paul Winalski



The Market Street Observatory.
(Ted Blank photos)



Don McDaniels shares views.

The first scheduled Seacoast Sidewalk Astronomy night was held on Saturday November 13, with four members and five scopes in attendance. **Tom Cocchiaro**, **Don McDaniels**, Ted Blank, and Harvey Lipman (member of ASNNE in Kennebunk) enjoyed showing Jupiter and the first quarter moon to over 500 enthusiastic visitors between 6pm and 10pm. The

weather was perfect for observing and the location turned out to be a popular one. There were lines at the scopes for the entire time.



Ted Blank zeroes in on Jupiter.
(Ted Blank photos)

The next scheduled Sidewalk event in Portsmouth will be Saturday, December 11 (weather permitting). Please mark your calendars and consider coming out for an enjoyable evening interacting with the public!

★ Ted Blank

Reeds Ferry School, Merrimack NH, 9 November

Traditionally this has always been one of our best attended sky watch events, with 150-300 third graders and their parents and siblings attending. Overcast skies prevented us from holding the sky watch. Instead **Paul Winalski** gave an extended indoor presentation on the solar system and deep-sky objects we would have been able to see were it not overcast, and a brief description of how telescopes work. That was followed by wide-ranging questions and answers.

★ Paul Winalski

Coffee House Night, YFOS, 12 November

It was predicted by the Clear Sky Clock to be an unusually clear night with very unusually good seeing. So I went to the dark sky site at

YFOS (in a "green" zone, mag 5 on a normal good night).

It was very clear. There was an almost first-quarter Moon up, but even so, much of the Milky Way was visible and I could see the mag 5 star in the bowl of the Little Dipper. I set up my OA-6.5 at 5:50 PM (by which time it was already dark) and observed with it and with other club members' telescopes until 11:30 PM.

It got steadily colder over those hours dropping from 65 before sunset to 30 (Fahrenheit). As a result, the mirror in my telescope didn't cool to ambient until 10:00 or so, making images softer than they otherwise would have been. The seeing was very good in the early evening but after 9:00 PM it got a bit poorer and you could see bright stars like Capella and Rigel twinkle.

Jupiter's Great Red Spot showed up around 10:30; a green filter brought it out quite clearly. Uranus was a bright light greeny-yellow sharply outlined disc and Neptune was a grey-blue dot but neither Titania nor Triton were visible, even when using an 18-inch Starmaster. I suspect the seeing problems were the cause. We all had trouble seeing the "F" star in the Trapezium for the same reason (though I did just catch it in the OA).

But seeing is not an issue with the "dim fuzzies" and once the Moon had set people were trying for extreme dim fuzzies like the California Nebula, the Horsehead Nebula and the Flame Nebula. Of course the Veil and the North American were easy and M42 was its usual magnificent self.

I did manage to see the Flame in my telescope. With a filter, using averted vision, and moving the tube I could just barely sense an upside-down "V"-shaped area of lighter blackness.

I finished up with a nice view of M82. In a 6.5-inch it doesn't show as much detail in the "starburst" area, but you could see that there was a different kind of texture in the center of the galaxy.

People I recognized: **Gardner Gerry, Rich DeMidio, Mike Townsend, Ed Ting, Herb Bubert, Joe Derek, Ken Charles, John Rose** (I think).

New people I met: **Steve Harris**.

A pair of energetic young people showed up with a medium-big Dob just as most of us were packed up and about to leave. I didn't get any names, though.

★ John Bishop

Franklin Pierce University, Rindge NH, 16 November

On Tuesday evening, **Paul Winalski** and I had the honor of each giving half of a lecture in Astronomy to students at Franklin Pierce University in Rindge. NHAS was contacted by Lou Roten, one of the teachers at the school. Since the weather did not cooperate, we did the indoor talk on the scheduled date and the sky watch will be held on 29 November.



Explaining collimation of the 14" TScope. (Ted Blank photos)



Students check out the telescopes (and cookies and cider) during the lecture break.

Dr. Roten expressed great pleasure that NHAS (in the person of Paul) was so responsive and flexible in returning his emails and scheduling the event. The school provided apple cider and cookies at the break.

Over 100 students attended the lecture. I am sure I speak for Paul in saying we both enjoyed the opportunity greatly.



Our host, Dr. Roten, flanked by Ted (left) and Paul (right).

★ Ted Blank

NHAS October 2010 Business Meeting

The October business meeting was held at the McAuliffe-Shepard Discovery Center on 15 October, our President, **Rich DeMidio**, presiding.

President's Report

Membership renewals for 2011 are due now.

Elections for 2011 Officers and a Director will take place at the December business meeting. Nominations can be made at the October, November, or December meetings.

The Q4 officer meeting is scheduled for 30 October. Please remember to add requests for agenda items to the posting on this subject in the Forums area of our website.

NHAS is about to get a lot of press coverage. The Educational Outreach Committee will cover this in their report.

Prime Time observing season has started. Now is the time to get to YFOS. Rich has had a wonderful time there over the past few weeks.

Board of Directors

The Board has been focusing on confirming the location of all club assets. The BoD now has the ability to edit and delete items in the asset database. Soon they will be able to add entries and photographs. The asset list has been updated as of 13 October 2010 based on email responses so far.

Educational Outreach

Matt Amar reported that NHAS is about to get much greater press visibility:

- An upcoming *Sky & Telescope* article on the Library Telescope Program
- Sidewalk Astronomy being featured as a "must see" event in Portsmouth
- More regularly scheduled events in addition to the monthly sky watch at MSDC.
- More activity in school systems

"We need more hands." EOC needs more volunteers to man events, such as a possible second Astronomy Day and a presence at the Nashua Winter Stroll.

We will have a monthly Sidewalk Astronomy event near the first quarter Moon. **Ted Blank** is organizing it.

Marc Stowbridge reported on the Library Telescope Program (LTP). The "In Focus" page of the January *Sky & Telescope* (to be released in December) will feature LTP. There will also be a feature on it in the Orion holiday catalog.

More libraries are requesting information on the program.

Craig Weatherwax at Oceanside Photo and Telescope (OPT) is giving us discounts on Moon filters, zoom eyepieces, and also eight laser collimators and scope cleaning kits. Craig is heavily involved the Astronomy Outreach Foundation, which is dedicated to promoting public Astronomy awareness and participation in amateur Astronomy.

A letter has been sent to the editor of *Astronomy* magazine noting our LTP activities.

Membership

Bill Steele reported that **Paul Winalski** will be presenting Astro 101: Navigating the Night Sky at the Nashua Public Library, Thursday 21 October from 7-9 PM. Contact Bill if you are interested in attending this course. Astro 101 venues will be distributed around the state more than in the past.

YFOS

Larry Lopez reports that the Porta Potty has been called in for pumping. The big heater needs a leak test. DO NOT USE it until this has been done. The small heater has a full propane tank on the site.

Astrophotography

There are lots of recent photo additions on the website.

Marc Stowbridge suggested that we consider posting astrophotos on the WMUR Channel 9 photo page.

Miscellaneous Business

November's guest speaker will give an update on the Cassini space mission. In lieu of a speaker, the December meeting will be a NHAS open house and social.

The 2010 NHAS member awards will be presented at the December meeting. Send nominations to Rich DeMidio.

In the Sky

Periodic comet 103P Hartley is currently in the early evening sky and has been observed by several club members.

2011 Election Nominations

The floor was officially opened for nominations for the club Officers (President, Vice President, Secretary, Treasurer), all of whom serve a 1-year term, and for a Director (who will serve a 3-year term).

Rich DeMidio and **Mike Townsend**, our current President and Vice President have both served two consecutive terms and therefore cannot be re-elected to their current offices. However, they can be nominated for positions other than those they currently hold.

These nominations were made and seconded:

President: **Tom Cocchiaro**
 Vice President: **David Gilmore**
 Secretary: **Paul Winalski**
 Treasurer: **Ken Charles**
 Director: **Jean Buckley**

Website

Matt Marulla reports that there is a new website page on the Library Telescope Program.

Please be careful when entering sky watch information to insure that the word "Skywatch" is in the event title, and that the map link points to the correct location.

Matt is developing a new form on the Admin portion of the site that will make entering calendar events easier, and will post the events to Twitter and Facebook as well as to Google Calendar. When this form is available, Matt will turn off direct access to Google Calendar.

Evening Presentation

John Blackwell gave a talk on "Adventures in Spectroscopy".

The Bottom Line

Starting Balance:	\$7283.67
Deposits/Credits:	
Membership Renewals:	780.00
New Memberships:	120.00
Donations:	95.00
Total :	995.00
Accounts/Paid:	
Marc Stowbridge (LTP)	1143.57
Rymes Propane	145.33
Total:	1288.90
Net Account Balance:	\$6969.77
Petty cash drawer:	\$100.00
Cash Balance:	\$7069.77

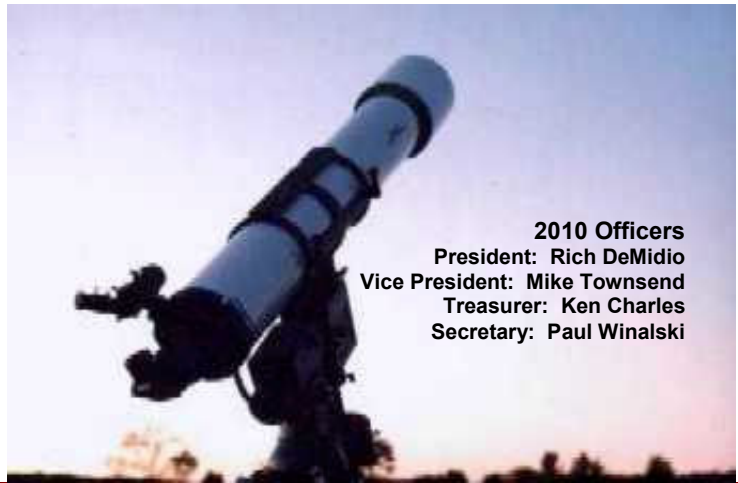
Membership: 41

Donations:

Mike O'Shaughnessy (EOC) 5.00
Rich DeMidio & Jean Buckley 90.00

New Members:

Steven Brian, Bedford NH
Dale Moore, Peterborough NH
Dick Byrd, Mirror Lake NH
Nancy Byrd, Mirror Lake NH
 ★ Ken Charles
 NHAS Treasurer 2010



2010 Officers
 President: Rich DeMidio
 Vice President: Mike Townsend
 Treasurer: Ken Charles
 Secretary: Paul Winalski

DEADLINE December 2010 Issue: 5 PM December 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:

Rich DeMidio, Brian Cossette, Martry Rossiter, Ken Charles, Rich Scheuller, Ted Blank, John Bishop

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



NHAS Upcoming Events

Event	Date	Time	Location
Nashua Winter Holiday Stroll Sky Watch	November 27	5:30 PM	66 Main Street, Nashua NH
Franklin Pierce University Sky Watch	November 29	7:00 PM	Franklin Pierce University, Rindge NH
Discovery Center Sky Watch	December 3	7:00 PM	McAuliffe-Shepard Discovery Center, Concord NH
Sandwich Central School Sky Watch	December 9	6:30 PM	Sandwich Central School, Sandwich NH
NHAS Coffee House Night	December 10	5:00 PM	YFOS
Portsmouth Sidewalk Astronomy	December 11	6:00 PM	Market Square, Portsmouth NH
Broken Ground School Sky Watch	December 14	6:30 PM	SEE Science Center, Concord NH
NHAS Business Meeting	December 17	7:30 PM	McAuliffe-Shepard Discovery Center, Concord NH
Goffstown Sky Watch	December 29	6:00 PM	Goffstown, NH
Discovery Center Sky Watch	January 7	7:00 PM	McAuliffe-Shepard Discovery Center, Concord NH