

Sidewalk Astronomy

President's Message

Long ago, before I started doing astronomy, I was casually introduced to bird-watching, tree identification and other such nature-based hobbies. I note that these hobbies all share a number of features: there's a long list of items one can see, you need special equipment and may have to travel, there's an element of discomfort involved, some people get really, really deeply involved and the general public is only mildly interested.

I suspect there's a single underlying human capacity behind all these hobbies. In other words, human beings have the capability to become deeply interested in a topic, to seek to acquire knowledge about it and to enjoy the process. I think exercising that capability is a good thing.

It's not clear to me what made astronomy so much more interesting to me than birds but I'm happy with the result. I'm particularly happy because this hobby can easily be shared with the general public at our sky watches. And maybe one person from one or another of the sky watches will have their own interest in the natural world awakened and go on to become a bird expert or a rock collector or even an amateur astronomer!

★ John Bishop
NHAS President 2011

Highlights for This Month

Sidewalk astronomy was front and center this month with big events in both Nashua and Portsmouth. This

was our third consecutive visit to the annual Winter Holiday Stroll in Nashua, where downtown Main Street is closed to motor traffic and becomes a pedestrian plaza for the night. Our monthly sidewalk astronomy event in downtown Portsmouth was special this month because it was the same night as the city's tree lighting ceremony. Both events drew crowds of thousands.

★ 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). All current officers are eligible for re-election.

These nominations were made and seconded at the November Business Meeting.

President: John Bishop
Vice President: David Gilmore
Secretary: Paul Winalski
Treasurer: Ken Charles
Director: Ted Blank

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

Nashua Winter Holiday Stroll, 26 November



Ted Blank covers the street lamp overlooking the observing area.

Don Byrne and I were unavoidably delayed but even after 4 PM it was possible to park beside the railroad tracks a little over one block from the site. We trundled the 12" Dob (which is about as tall as I am) past dozens of strollers and initially set up right on the sidewalk. Sighting problems with the streetlights sent us to the back of the park where **Ted Blank** helped Don realign things and get a terrific view of Jupiter, Io, Callisto, Ganymede, and Europa. We had a line constantly until we packed up at about 10 PM.



Main Street at the Holiday Stroll (Matt Marulla photo)

Many people came back for a second look—numerous ones reported seeing brown bands on Jupiter and were stunned to be able to watch the target move across the

field of view. One person discussed her favorite nebulae. One person could name the four largest moons. One person said he was a high school astronomy student and that there were 63 moons, another said 67 (Wikipedia says 64 confirmed). We attempted no other objects, although after 9 PM there was some clearing.



Melinda and Don with the 12" dob (Ted Blank photo)

Not using a small step stool ensured parental involvement with children.

Toward the end of the night we got many questions about the cost of the telescope, which gave us an opportunity to talk about the \$300 LTP scopes. We suggested they ask their local Library Director about getting a scope from us if their public library doesn't have one already.

Great fun with the mild weather!

★ Melinde Lutz Byrne



Crowds around Ken's *Soulshine* (Ted Blank photo)

Thanks to Ted Blank, Mike Townsend, Melinde and Don Byrne, and the newer member who showed up for this event. I never had time to talk to him (or Melinde & Don) due to the LARGE crowds that started showing up just before 5:00 PM. We were able to find Jupiter through the cloudy haze high in the East as it got dark and it stayed visible all night. Even with the haze, the seeing was pretty good and the

equatorial bands were easily visible all night along with the four moons (two on each side). Conservatively, I had at least 800 people of all ages look through *Soulshine*, and the lines were usually at least ten to fifteen people all night, right up to 9:30 or 9:45 PM. If I had to guess a real number it was probably closer to 1100 people.



Mike Townsend demonstrates that forgetting the mounting rings won't stop a determined observer (Ted Blank photo)



Customers for ever scope! (Ted Blank photo)

Mike, Ted (and his father) and I arrived before 3:00 PM and were set up and ready to go by 4:30 PM. Melinde and Don arrived about 4:30 PM (thankfully, as I was starting to remember two years ago when only **Joe Derek** and I showed up, and we were swamped all night). People started milling around almost immediately, but it really got busy after Jupiter and its moons showed up. This has to be the biggest sidewalk astronomy event in New Hampshire each year. We could have used two more scopes to keep the lines shorter, but the many people who looked through our scopes all enjoyed the views, with numerous Wow's and Oh's. None of us had time to move from our scopes all night until after 9:00 PM. Again, thank you to the other four scopes (and their owners) that

showed up to join *Soulshine*, we couldn't have done it without you.

★ Ken Charles

Maple Wood School Sky Watch, Somersworth NH, 1 December

We had clear skies and a first quarter Moon for the 12/1 sky watch at Maple Wood School. Three astronomers (**Brian Cossette**, **David Speltz**, myself) were there and about 50-60 of the public. It was darker than last year because they were able to turn off the outside lights on the school as well as the parking lot lights. I showed Jupiter, the Perseus Double Cluster, M37, M38, M35, M31/M32, the Pleiades, M42, W Orionis, Sigma Orionis, and Gamma Arietis.

★ Paul Winalski

Sidewalk Astronomy, Portsmouth NH, 3 December



A crowded corner! (Ted Blank photo)

The December sidewalk event in Portsmouth was a very enjoyable evening, especially coming as it did on the same day as the Portsmouth Holiday Parade when thousands of people were expected to be downtown. **Tom Cocchiaro** contacted the city and decided that it would be better to set up across the street from our usual place, so we were in front of Breaking New Grounds Cafe this time. Members began arriving about 3:30 PM and by 5 PM there were several scopes on the Moon.

Members attending were Tom Cocchiaro, **Gardner Gerry**, **David Speltz** and **Ted Blank**, with extra help from Harvey Lipman and Jim Moe. In addition, a member of the

public, Stan Chamallas, brought his Celestron 114 over for help setting it up. It was on a GEM mount, so once we got it straightened out he was able to see something in the scope for the first time since he received it last Christmas. He was so excited he stayed for the rest of the evening as a sidewalk astronomer and showed many people the Moon in his "new" scope.



Stan Chamallas and his now-operational reflector (Ted Blank photo)

Jim operated Tom's C9.25 on a manual mount, went for higher power, and was a very busy guy all night keeping targets in the viewfinder. Harvey brought his 8" Orion dob and also had lines all night. In addition we now have a new answer to the question, "What did the astronauts drink on the Moon?" One might think it was Tang, but the humorous answer has been "Earthshine" until Saturday when some member of the public came up with "Crater-Aid". ☺



"That's Jupiter!" (Tom Cocchiaro photo)

Jupiter cleared the buildings about 8pm and from then on we had half the scopes on each target.



Gardner Gerry (Ted Blank photo)



David Speltz with his Questar on Jupiter (Ted Blank photo)



Harvey Lipman (Ted Blank photo)

Gardner was the last person to break down his equipment at about 11:30 PM. We had lines at the scopes for over five hours, actually a bit more. It's really difficult to estimate how many people were able to look at these two celestial objects but over 500 is probably not out of the question.

★ Ted Blank

Observing Report, Nashua NH, 12 December

I set up my Off-Axis 6.5" in the back yard to observe the transit of Io and the transit of the shadow of Io last night. The transit started at 9:47 PM local time and the latter started at 10:49 PM.

I chose to use the smaller 6.5 because I could more easily move it around the back yard to keep Jupiter in clear view between the various

trees to the south. For the same reason I didn't use the equatorial platform but elected to hand-track. I spent some time star-collimating but found myself to be out of practice; after some frustration I started over again from the "sliver of secondary" initial setting but I don't think I ever got it exactly right!

I did note that the way the moons looked when the telescope was vibrating due to a touch was different when the telescope was out of collimation than when it was at or near collimation. The out-of-collimation image of a Galilean moon in a vibrating telescope was two moons right next to each other with a clear separation between the two; the in-collimation image was a single extended moon.

The sky was slightly hazy; seeing started out very good (stars were dots, no traces of arcs or rings; Galilean moons had sharp edges) but got a bit worse while I was observing (stars were fuzzy dots; Galilean moons had fuzzy edges). Initially there was a lot of detail on Jupiter with several of the smaller bands showing and detail within the two big bands. I got the best views with a 9mm University Optics orthoscopic eyepiece, unfiltered. Later on when the seeing got worse I switched to a 12mm UO and then to an 18mm UO. I tried a yellow filter but it didn't help with the fuzziness.

I could easily see Io when it was not on the planet but lost it when the transit started. The shadow of Io was very easy to see. There was a big dark area in the middle of the lower (Northern) big belt but Calsky says it wasn't the Great Red Spot.

★ John Bishop

Broken Ground Elementary Sky Watch, Concord NH, 13 December

The skies were clear all day but suddenly clouded up just as I arrived at the sky watch location west of Concord. Luckily by the time the public showed up, there

were big breaks in the clouds; it was almost always possible to show them either Jupiter, NGC 457 (The ET Cluster) or the Pleiades. Between the clouds the sky was clear and dark, with quite good but not great seeing.

I set up my 6.5-inch off-axis telescope on an equatorial platform and mostly showed Jupiter, which was putting on a show. Io and Europa were visibly moving during the few hours we were there. Europa came out of transit and moved away from the planet. Europa's shadow transited. Io approached the planet and then was occulted as the moon went behind the planet.

Europa's shadow was intermittently visible just above the South Equatorial Band. If the seeing had been just a bit better, the shadow would have been visible all the time. There was a dark spot on the North Equatorial band. Intermittently some of the other bands were visible.

People liked seeing the core of the Pleiades in my widest view (about one degree with a 42 mm eyepiece giving 40x). M37 and M38 were not as interesting to them.

Speaking of the Pleiades, I asked many of the kids to count the stars they could see as they waited to look through my telescope. Many saw seven, one saw eight. I think they were telling the truth, as the count went the way it should (a rapid one-two-three-four, pause, five, longer pause, six, longer pause, seven and so on). At the same time I could only see three, with one flash of four. Oh, to have young eyes!

I saw **Paul Winalski**, **Gardner Gerry**, and **Ed Ting**. Ed was showing Jupiter with a live video feed, which the audience appreciated.

Our hosts had hot chocolate and roll-up sandwiches for us. I'll do sky watches for them anytime!

★ John Bishop

The skies clouded over completely during the last five minutes of my trip to Concord, but after some nail

biting on our part, the clouds moved out as quickly as they had arrived, with only some residual cloudiness. Seeing was exceptionally good, and Jupiter's moons put on quite a show, with Europa doing both a transit and a shadow transit, and Io undergoing occultation.

Skies were clear enough to show off lots of other objects (I presented M31/M32, the Perseus Double Cluster, NGC 457, the Pleiades, Albireo, 61 Cygni, and Gamma Arietis).

Dan Smith was also there from NHAS. I have always enjoyed this event in the past, and it was again something special.

★ Paul Winalski

Loaner Scope Program

Restarting the loaner scope program has been going to slowly. On the other hand there has not seemed to be much demand for them. In the past it appeared to me the club had hoped the program would pretty much run itself—those who had borrowed a scope were to bring them to every meeting, and if some one else wanted to borrow it, it would be transferred there. Unfortunately there wasn't much record keeping. It appears that some scopes were transferred outside of club meetings and we lost track of some of them. Fortunately we were able to recover them.

So the club needs to keep a tighter control over the loaner scopes. We also need a place to keep them. NHAS doesn't have a clubhouse with a place to store them. There was a comment about the club renting storage space at a meeting.

President **John Bishop** had an instant NO. As Board Chair I also said no, "Space Begets Glotch". We had already discussed asking for club members to be "Caretakers" of the loaner scopes, one scope per caretaker. One scope has been transferred to its caretaker. We have a volunteer for one of the other scopes and we are looking for at least one more. Their job is to store the scope, to see that it is properly collimated, and to bring it to a meeting when called for by the

Board. They do not sign any loan documents. That is for the Board to do.

We discussed having a column in the newsletter of what scopes are available. If some one wants to borrow one they should get in touch with the Board. The new Board may want to assign one Director as the club asset coordinator. The Board will arrange which meeting the transfer will take place. The caretaker and the borrower go over what is being loaned. A Board member and the borrower sign the loan agreement. The loan time is for two months. This means the scope is to be returned to the next club meeting location where it was borrowed. At that meeting the caretaker verifies that there is nothing missing and the borrower and a Board member sign the documents that the scope was returned. Since the newsletter editor does have a very good attendance record, he can be informed at the meeting as to scopes being available.

If the borrower finds that they will be unable to return the scope at the agreed upon time, they must inform the Board as to what meeting they will return it. It is not the caretaker's job to chase after overdue telescopes. This is a Board responsibility. When he was Board Chair, John Bishop stated something along the lines of "a loner scope should be an XT6 or similar". I have always agreed with this. It doesn't hurt so much to write off an inexpensive telescope. As to more expensive assets the officer and Board should consider a policy for loaning them. I for one would be pretty leery about loaning the Lunt to a new member, but not an XT6.

I believe this covers all the basics. The former Board Chair John Bishop and your new Chair **Gardner Gerry** and I had been discussing this some time ago. If there are any mistakes or omissions they are strictly the responsibility of the outgoing Board Chair John Rose. I took Vocational Writing three times in high school so always

find doing things like this difficult. I have to admit word processors do make things a bit easier! I expect there will be some changes as this program matures.

★ John Rose,
Chairman, Board of Directors

NHAS November 2011 Business Meeting

The October business meeting was held at St. Anselm College on 18 November 2011, our President, **John Bishop**, presiding.

President's Report

Our next sky watch is the Nashua Holiday Stroll. Thousands of people are expected.

Our December meeting will feature a pot luck supper. Use the email chat list to organize.

2012 Officer Nominations

These nominations were made and seconded:

President: John Bishop
Vice President: David Gilmore
Secretary: Paul Winalski
Treasurer: Ken Charles
Director: Ted Blank
Ed Ting

Ed Ting was not present at the meeting, and he later declined the nomination.

Board of Directors

No report.

Educational Outreach

Ted Blank reported that the New England Fall Astronomy Forum (NEFAF) was a success! Thanks to all the NHAS members who volunteered: **Ted Blank, Ken Charles, Tom Cocchiaro, Brian Cossette, Rich DeMidio, Joe Derek, Gardner Gerry, David Gilmore, Glenn Meyers, Rich Schueller, Marc Stowbridge, Ed Ting, Bob Veiolleux, David Weaver, Paul Winalski.**

NEFAF 2012 planning is starting. Send ideas and suggestions to Ted Blank. NEFAF needs some startup money. The Board of Directors voted on the spot to give \$500 to NEFAF.

Rich Schueller reported that we already have someone for the upcoming Rey Center. The Nashua Holiday Stroll is the same night and needs scopes.

Melinda and Don Byrne have researched and designed a plaque to present to Oceanside Photo & Telescope (OPT) in appreciation of their support for the Library Telescope Program.

Marc Stowbridge reports that **Joel Harris** has manufactured metal focuser rings for the library scopes to replace the original plastic ones.

Public Observing

Paul Winalski reports that we continue to have a full calendar of public observing events. Our annual sky watch at Reeds Ferry School in Merrimack was, as usual, mobbed. All ten of the scopes present were continually busy for a solid two hours. The estimated crowd was about 250 people. We have several significant sky watches in the upcoming month, including our annual visit to Concord for Broken Ground School. They always roll out the red carpet for us. We also have two big sidewalk astronomy events: the Nashua Winter Holiday Stroll (our third visit to that event), and our monthly sidewalk event in Portsmouth, which happens to be the same night as their tree lighting ceremony, so the crowds are expected to be even bigger than usual.

Membership

Bill Steele reports that volunteers are needed for Astro 101/201 presentations. Also, if there is a presentation you would like to see, get in touch with Bill.

Astrophotography

Gardner Gerry reports that he, **Ed Ting**, and **Herb Bubert** have been doing planetary imaging, especially Jupiter. Check out the many fine images in the "pictures" forum on the website.

Miscellaneous Business

We need guest speakers for the 2012 business meetings!

Book of the Month

Ted Blank presented [A Grand and Bold Thing](#), by Ann Finkbeiner.

This is the story of the Sloan digital slide survey.

Scope of the Month

Ted Blank presented the 127mm Explore Scientific APO with Moonlite motorized focuser. This three-element air-spaced refractor comes with a beautiful hard case.

Evening Presentation

Nathan Carle gave a talk on the search for exoplanets.

The Bottom Line

Starting Balance:	\$11309.87
Deposits/Credits:	
Membership:	1110.00
Donations:	226.00
Bank interest:	1.48
Calendar sales:	196.00
Total :	1533.48
Accounts/Paid:	
Rackspace Cloud	43.92
United Site Services	54.88
Total:	98.80
Net Account Balance:	\$12744.55
Petty cash drawer:	\$100.00
Cash Balance:	\$12844.55
EOC share:	5667.43

Membership: 78

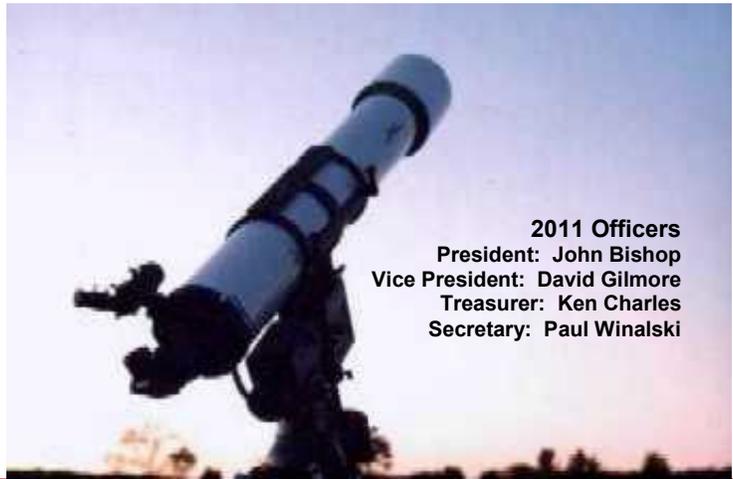
New Members:

Stephen Rand, Mont Vernon NH
Michael Labree, Antrim NH
Daniel Lashomb, Salem NH
Sara Starr, Milford NH

Donations:

Christine (private skywatch)	100.00
David Weaver	13.00
David Gilmore	10.00
Shane Cross	2.00
Marc Stowbridge	21.00 EOC
Tim Printy	10.00 YFOS
Chase McNiss	70.00

★ Ken Charles
NHAS Treasurer 2011



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

DEADLINE January 2012 Issue: 5 PM January 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, Melinde Lutz Byrne, Ken Charles, Ted Blank, John Rose

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NHAS Upcoming Events

Event	Date	Time	Location
Rey Center Sky Watch	December 17	6:30 PM	Curious George Cottage, Waterville Valley NH
Alton Central School Sky Watch	December 22	6:30 PM	Alton Central School, Alton NH
Coffee House Night	December 23	5:00 PM	YFOS
YFOS Orientation	December 23	5:30 PM	YFOS
Bedford High School Sky Watch	January 4	6:00 PM	Benedictine Park, Bedford NH
Salem High School Sky Watch	January 5	6:00 PM	Salem High School, Salem NH
Discovery Center Sky Watch	January 6	7:00 PM	McAuliffe-Shepard Discovery Center, Concord NH
NHAS Business Meeting	January 13	7:30 PM	St. Anselm College, Manchester NH
Nichols Memorial Library Sky Watch	January 19	7:00 PM	Nichols Memorial Library, Kingston NH
Coffee House Night	January 20	5:00 PM	YFOS
Gilmanton School Sky Watch	January 27	6:00 PM	Gilmanton School, Gilmanton NH
Sidewalk Astronomy	January 28	6:00 PM	Market Square, Portsmouth NH