



## President's Message

I recently used the "Night Sky Network" (<http://nightsky.jpl.nasa.gov/club-map.cfm>) to look for nearby astronomy clubs. I think we're missing opportunities when we fail to connect to nearby astronomy clubs. And I know they're missing opportunities when they fail to connect to us!

We could coordinate sky watches in time and space so that our "customers" have more people offering more sky watches but we don't have to do more on a per-person basis. We could pass on ideas for programs and the names of good speakers. We might get access to different dark sky sites which are nearer or darker or in better weather (though probably not all three!). We could share our good ideas, like the Library Telescope Program, they could share with us what they do well (and there must be things they do well that we don't do well!).

I'm going to make an effort to create some connections. At the very least, we should have links to our neighborhood clubs somewhere on our web pages (at a minimum we should point to ATMoB, Keene Amateur Astronomy Club and Astronomical Society of Northern New England (in Maine)). Inviting members of neighboring clubs to NEFAF is another obvious step.

As usual, ideas and suggestions are welcome!

\* John Bishop  
NHAS President 2012

## Highlights for This Month

Lots of public sky watches. My gratitude to all the NHAS members who participated.

And a successful Spring Messier Marathon as a social event, if not for observing.

Also a repeat victory for Nashua High School South student and NHAS member **Cameron Stekler** in the Astronomy Bowl—which meant we had to juggle our prizes so that we didn't give him a duplicate ☺.

\* Paul Winalski  
NHAS Secretary 2012

## Rye Public Library Sky Watch, Rye NH, 20 March 2012

We held a very successful indoor presentation followed by sky watch for the Rye Public Library at the Seacoast Science Center. The venue is free of artificial lighting, and on a cliff overlooking the seashore. The waves and the moaning from the offshore buoys is very relaxing. Alas, there is significant glow from the Boston sky glow to contend with. But this is still a very good observing site.

I gave the indoor presentation. Other NHAS members present for the observing session were: **Pat Adams, Ted Blank, Herb Bubert, Gardner Gerry.**

\* Paul Winalski

## Observing Report, YFOS, 21 March 2012

It was predicted to be very dark and transparent with fair seeing. I decided it sounded good enough

that I'd go to YFOS even though it was the middle of the week. I even managed to persuade my wife and son (who is home from college on his spring break) to come along for a few hours!

I took my OA-9.0 and put it on my equatorial platform. That raises the eyepiece so that you have to go up two steps (or even three steps near the zenith!) but it means I have tracking which means that I don't have to hand-track. More importantly, it means that when I point the telescope at something, others can look at it, too, even if they don't get to the eyepiece until a minute or two has passed.

I also set up the club's 16-inch dob. My son wound up using it and was amazingly successful at his first time at finding Messier objects. He would look at the finder chart, walk over to the 16-inch and use the Telrad and there the object would be! He could even find objects far away from guide stars like M47, M46 and M50.

The sky got quite dark, an estimated mag 6. Transparency was good. The seeing started fair but soon became poor. Bright stars twinkled. We kept feeling warm breezes; I suspect it was quite windy further up. Before we started on the Messier objects we looked at Venus (a half-circle), Jupiter (very nice) and Mars (too low at the time for detail but showing the ice cap and some dark areas).

The partial Messier marathon was fun because we were so successful due to the dark sky. We couldn't catch some of the early objects, but most of the other objects were visible in my 6x30 finder and most

showed up well. Closer to the horizon the poor seeing meant that things weren't as evident: the globular cluster below Lepus (M79) was only a slightly bigger blur than the nearby stars! I used a 50 mm eyepiece except for M51, where I tried higher magnifications in an effort to show spiral arms to my wife and son (it showed mottling but no spiral). On the emission nebulae I sometimes used a DGM Optics NBP filter. M42 was amazing with the filter.

Our tally: M42, M45, M43, M41, M35, M103, M52, M34, M31, M32, M110, M79, M78 (plus I looked at the Flame Nebula, NGC 2024), M1, M35, M44, M38, M37, M36, M93, M50, M47, M46, M48, M67, M95, M96, M105, M65, M66 (and NGC 3628), M82, M81, M108, M97, M51. And there we stopped, with 35 objects found. We left at 11:30 PM because it was a weekday night.

The club's 16 is a Meade mirror in a Night Sky structure. The images there were brighter but didn't seem significantly sharper than in my 9-inch, but the theoretical greater resolution of the larger aperture can't overcome the practical fact of poor seeing. The mirror of the 16 was visibly dusty and could use a rinse!

**Tim Printy** and **Dan Smith** were there as well; Tim was imaging.

✧ John Bishop

### Great Brook Middle School Sky Watch, Antrim NH, 21 March 2012

The Antrim event was very well attended (187; 80 more people signed up at the last minute). Sky conditions were partly cloudy--there were large gaps in the clouds and we got in a lot of good observing. It was also very well attended by NHAS members: **David 'Rags' Gilmore, Michael LaBree, Gardner Gerry, John Shonle, Peter Smith, Steve Rand**. My thanks to all of them for helping out!

We received this note of thanks from Wendy Lull, President of the Seacoast Center:

*"Thank you (and NHAS crew) for a great program on Wednesday. I learned a lot. Last night, the sky was really clear at home and I was able to find my 'new friends' in the sky: Leo, Mars, North Star, Casseopeia, and my old friend Orion. After the talks with all of you I have a very different sense of the stars. I've always liked looking at them, but now I could SEE them. They seemed closer somehow; at least much more familiar and that made the sky friendly as well as incredible.*

*Thank you all.*

✧ Paul Winalski

### Bedford High School Sky Watch, Bedford NH, 22 March 2012

We had a good number of NHAS members (**Pat Adams, Ted Blank, Herb Bubert, Melinde Byrne, Gardner Gerry, John Pappas, Steve Rand, John Russell, Paul Winalski**), and maybe twenty or so students and members of the public in attendance. There was a good bit of background haze, but skies were steady (Rigel was a dead-easy split) and as dark as could be expected given the light domes from Manchester and Nashua.

I used the Argo Navis DSC system for most of the night--I like the challenge of star-hopping, but not when I'm trying to show off choice DSOs to the public. Argo Navis performed wonderfully. The objects I asked it to find were usually dead center, and always within a 52X field of view.

Things I showed (in no particular order): Venus, Jupiter, Mars, M42, M44, M45, M35, M36, M37, M38, Perseus Double Cluster, M41, M1, M81, M82, M46, M47, R Leporis, W Orionis, UU Aurigae, WX Cassiopeiae, Gamma Arietis, Gamma Leonis, Rigel, Sirius.

My thanks to Herb for letting me borrow his 13mm Ethos eyepiece for knock-your-socks-off views of M42, M37 ("My God! It's full of

stars!") and the Perseus Double Cluster.

✧ Paul Winalski

### Messier Marathon

In mid-Northern latitudes, at or around the time of the Vernal Equinox, the Sun is positioned such that it is possible to view all 110 (or 109, if you believe M101 and M102 are the same object) all in one night, provided that you start at early dusk and continue until the break of dawn.

This feat is called running the Messier Marathon. From here in New Hampshire, we can't quite get all 110 objects. M30, for example, is impossibly low at dawn. My own personal best is 102, achieved a few years ago at YFOS.

**Larry and Linda Lopez** each year graciously open up their home, and its wonderful observing field, to us for a Messier Marathon celebration and pot luck supper. This year's event took place on Friday, 23 March. Alas, weather was not cooperative, but a good time was had at the pot luck social even if the observing was minimal. My thanks to Larry and Linda for putting up with us all.

✧ Paul Winalski

Thank you all for a very nice Messier Marathon.

Several members suggested that Friday was going to be the better day and so we ended up picking Friday. I still researched it to death but it looked seriously liked Friday or nothing. This turned out to be the case.

There was no snow, no ticks, and no biting bugs. The temperature was quite moderate. The road was reasonable.

For some reason it all worked out. We had reasonable skies for a few hours but nothing special. The food was a little better than usual. The energy was very much higher than usual. Somehow my spirits were lifted.

My list of who brought what:

**Linda Lopez:** need stew, 1 object

**Larry Lopez:** fruit, 1 object ccd

Sue, Scott, and Ben Wickett,  
sardines !!!

Marianne McDaniel

David Weaver, baked ham

Ed Ting

Herb Bubert: shrimp

Gardner Gerry

Rich DiMideo, pizza & beef jerky

David Gilmore, Nori treats

John T Rose, pink lemonade

Tim Printy

Michael LaBree

Mike Townsend: beans & franks

Ken Charles, wings

Joe Derek: wings

Art & Mary Gardiner

Stu May

Melinde Lutz Byrne

\* Larry Lopez

### Dublin Consolidated School Sky Watch, Dublin NH, 27 March 2012

We had about twenty-five people show up, and a good number of NHAS astronomers (me, **Ted Blank, Gardner Gerry, David "Rags" Gilmore, Steve Rand**). The Clear Sky Chart predicted overcast skies rolling in by 8 PM, but that didn't happen. Skies were clear, although transparency wasn't all that good. I presented a crescent Moon, Venus, Jupiter, Mars, M42, Rigel as a double star, Mizar, the Perseus double cluster, and M35. I also gave an outdoor laser pointer presentation of the major constellations of the evening. AND we had a magnificent mag -8 Iridium flare.

It was a big plus that our hosts were able to turn off the parking lot lighting, so we had a very dark observing field. It's a shame that school night and daylight saving time meant that the event ended just as it was really getting dark. It was still a very successful evening and we're already getting kudos from parents who were there:

*"Please give everybody a great big thank you for the moon and star*

*party you all gave tonight at DCS. It's one of those things that make kids want to learn!!! As my daughter said, 'I'll never look at the moon the same again!' We all loved it. We really really really appreciate everybody coming out and setting up their telescopes.*

*"(Besides learning about the galaxy we live in, the children learned about nice adults such as yourselves giving of yourselves to them).*

*"Thank you, thank you,  
"Karen Newell"*

\* Paul Winalski

### Amherst Public Library Sky Watch, Amherst NH, 29 March 2012

I extended my talk to compensate for the cloudy skies. Afterwards they looked at the scopes outside—streetlights, church steeple, etc.

PS: I was pleased and surprised to find this in my inbox when I got back:

*"I thoroughly enjoyed your informative and fun presentation tonight at the Amherst Library.*

*"Your amazing breath of experience allows you to fill your talk with all kinds of anecdotes and memorable achievements.*

*"I learned a lot and had fun too... I think everyone did.*

*"Thanks for sharing!  
Tim"*

\* Ed Ting

### Astronomy Bowl VI

The McAuliffe-Shepard Discovery Center held its sixth annual Astronomy Bowl competition on 31 March 2012. The Astronomy Bowl is a statewide competition for high school students to compete by answering questions about constellations, planets, stars, and other objects projected in the Discovery Center's state-of-the-art planetarium.

This year's winner was **Cameron Stekler**, a senior from Nashua High School South, and also the winner of last year's Astronomy Bowl V.

Philip Mansfield, a sophomore from Nashua High School South, came in second, and Naji Pride, a senior from White Mountain School in Bethlehem, finished third (he also finished third two years ago).

NHAS will offer prizes and a year's free membership to the victors.

The awards and scholarship money will be formally presented on May 5 during AeroSpaceFest 2012. The winners will also receive special recognition at the State House from Governor John Lynch and the members of the Executive Council.

\* Dave McDonald

### Thornton's Ferry School Sky Watch, Merrimack NH, 9 April 2012

This has to be a first: this event, normally one of the biggest on our calendar, had to be cancelled because a mother black bear and her cub have been seen on the school grounds. All outdoor recess has been cancelled until the bear and her cub leave the vicinity, and of course a nighttime sky watch under these circumstances was out of the question.

\* Paul Winalski

### Pelham Boy Scout Troop 610 Sky Watch, Pelham NH, 14 April 2012

The event took place in the upper parking lot for the Raymond Practice Fields. The site is completely devoid of artificial lighting and has very good east, west, and south views.

Unfortunately we had to battle adverse sky condition. Can you say "sucker holes"? I knew you could! In addition to me, **John Bishop, Herb Bubert, and Steve Rand** were present.

We did have three bright planets (Venus, Mars, Saturn) that could punch through the clouds and haze. Venus was a nice crescent—and thus a good teaching example for phases of inner planets. Mars was far less than optimal, but still a visible disk rather than a star, and some detail present. Saturn, as usual, wowed

everyone with the rings, and two visible moons even through the murk.

I was also able to present Gamma Leonis, Castor, and Mizar as multiple star systems. And a few observers were able to see M81 and M82 when they were visible through the sucker holes.

It's a shame the weather didn't cooperate more. The site has excellent potential.

Nonetheless, we did receive some very positive feedback:

*"Thank you and your folks VERY much! I hear nothing but good reports coming back from scouts and parents who had a chance to check out the planets and stars with NHAS on Saturday.*

*"I hope you all enjoyed yourself and I hope we can do this again sometime.*

*"Again, thank you very very much. It was well received.*

*"Roger Patenaude*

*Scoutmaster BSA Troop 610, Pelham NH"*

✧ Paul Winalski

### **Nerdapalozza, Nashua NH, 15 March 2012**

This is an annual science event put on by Nashua High School North. A Spring Star Party was scheduled but, alas, was hampered by cloudy skies. NHAS members **Ramaswamy, Steve Rand,** and **Mike Townsend** showed up nonetheless.

✧ Ramaswamy

### **Merrimack Middle School Sky Watch, Merrimack NH, 16 April 2012**

There was some background haze, but skies were mostly clear. The site is the athletic fields on the hill behind the school. Aside from one outdoor light in a building well away from the field, it is free from artificial lighting. It has good horizon view.

NHAS members present: **Ted Blank, John Bishop, Herb Bubert, Steve Rand, Paul Winalski**

✧ Paul Winalski

### **Observing Report, Nashua NH, 19 April 2012**

Last night was predicted to be clear with good seeing. I set my OA-9.0 up in my back yard at sun-set so it could cool down before I observed Mars around 9:00 PM and Saturn around midnight.

It was clear and quite dark for my in-town location (mag 3); some light haze showed up by midnight. The seeing wasn't as good as I'd hoped it would be: stars focused to steady blurs rather than to sharp dots; there was no hint of the first diffraction ring.

Mars was high in the sky and well clear of the trees, though it was over my house (and thus I was looking through a heat plume). Last night it was 10.9 arc-seconds in diameter.

To remove the confusion I'd had the night before, I first looked without tracking. Mars moved "up" in my field of view, so "up" is West and I now know how to tilt my sketch to match the inverted view of the *Sky\_&\_Telescope* "Mars Profiler" app.

Last night I saw a fleck of white (the North polar cap) and a dark band above it (Utopia). On the trailing side of the planet Syrtis Major was on the edge. Mare Cimmerium and Mare Tyrrhenum made a dark band across the top of the planet. A light area on the preceding side was probably clouds. My sketch shows a dark area just above the light area which is about where the end of Mare Sirenum would be. Not a bad level of detail for an object less than 11 arc-seconds across!

Shortly before midnight I went out to look at Saturn. It was lower in the sky and not as well placed; I had to move my telescope and look over my roof and under a tree to see it. The slight haze was also a problem and the result was a planet that didn't look sharp at magnifications over 180x. Earlier Mars had been as sharp at 240x.

Nonetheless, I saw four moons, the Cassini Division and a dark band on

the planet. The moons (confirmed by CalSky) were Titan and Dione on one side and Rhea and Tethys on the other. I didn't see Mimas or Enceladus.

As before, the magenta filter was a huge help on Mars. A light yellow filter helped bring out the Cassini Division on Saturn. The tracking platform worked perfectly, letting me sketch and swap eyepieces and filters without losing the planet. The Teeter truss-tube went together so repeatably that the finders were still aligned and only a tiny bit of star-collimation was needed.

✧ John Bishop

### **NHAS March 2012 Business Meeting**

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

#### **President's Report**

Our busy season for public observing is starting. Please tell the sky watch coordinators if you plan to be at a sky watch.

We need volunteers for a number of events. Beginners are welcome.

John asked for anecdotes about showing the recent Venus/Jupiter conjunction to the public.

#### **Messier Marathon**

The 2012 NHAS spring Messier Marathon and pot luck supper will be the night of the 23-24th at the Lopez residence. Email **Larry Lopez** if you plan to attend, and tell him what you are bringing to the pot luck.

Arrive early!

#### **Board of Directors**

**Gardner Gerry** reports that the Board has not met since the last NHAS business meeting. He had another item that needs a caretaker: a Sky Atlas 2000 companion book.

*New Hampshire To Do* magazine interviewed some NHAS members and published an article on us. This has resulted in several membership and sky watch requests.

### Educational Outreach

**Rich Schueller** reports that the recent EOC meeting discussed recurring budgetary obligations.

The library telescope modification party is Sunday, 18 March at the McAuliffe-Shepard Discovery Center.

The 2012 New England Fall Astronomy Festival (NEFAF) will be September 21-22.

The NHAS prizes for the Astronomy Bowl have been defined and authorized. First prize is an Orion StarBlast telescope, second prize is binoculars, and third prize is Starry Night software.

We need primary observers for the Rey Center public sky watches on 15 July, 18 August, and 15 December.

AeroSpaceFest will take place 5 May at the Discovery Center.

**Melinde Byrne** will assist **Ted Blank** in coordinating NHAS's participation.

The second of the current pair of transits of Venus will happen on 5 June. This is the last chance to view a Venus transit for 105 years. We are planning to do public observing of the event at two or three sites. Each site needs a coordinator and a minimum of six committed NHAS members.

Ted Blank will be coordinating the observing at Stratham Hill Park. Other locations under consideration: Mammoth Road football field in Manchester; the silo at Joppa Hill Road in Bedford; Benedictine Park in Bedford.

We will need to provide solar glasses at these events. They need notification on the NHAS website. We should do media promotions and announcements: WMUR, NHPR, public calendar.

Library Telescope Program update: scopes have recently been delivered, or will be delivered soon, to libraries in Brookline, Hanover, Keene, Epping, Lee, New Boston, Barrington, Salem, Dover, Kingston, Jaffrey, Hampton, Durham, Franconia, Bedford, Pembroke, and Portsmouth.

### Membership

John Bishop read a report from **Bill Steele**. We need volunteers to present workshops. Check the calendar for the scheduled workshops, which are held at YFOS: Astro 201: Using the Titan Mount (Gardner Gerry) on 17 May; Astro 101: Telescope Collimation (John Bishop) on 27 May.

### Astrophotography

Gardner 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 $\alpha$  solar).

### Public Observing

**Paul Winalski** reports that we have a very busy schedule of sky watches coming up! 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 through November)! Contact John Bishop if you have a prospective speaker.

**John Rose** donated an artist's case to hold a copy of the laminated Sky Atlas 2000 and companion book. It will be available on a caretaker basis for members to borrow.

**David Gilmore** is participating in an ongoing series of events in Peterborough for which he will be the astronomer.

### Scope of the Month

Rich Schueller presented an 80mm Lunt H $\alpha$  solar scope. It has <7 angstrom band pass and a pressure etalon adjustment.

### Mount of the Month

Ted Blank presented an iOptron Cube. It is available for \$280 from Wal-Mart via iOptron and includes the mount, tripod, backpack, and an 80mm refractor. This is a GPS-enabled alt/az go-to mount. It runs on eight AA batteries. It has solar and lunar tracking modes as well as sidereal.

### Evening Presentation

**Paul Winalski** presented "Fun with the Sun", a collection of images and time-lapse movies from the SOHO

and SDO spacecraft showing solar flares, coronal mass ejections, and Sun-diving comets.

### The Bottom Line

<b>Starting Balance:</b>	<b>\$12049.49</b>
<b>Deposits/Credits:</b>	
Membership:	210.00
Donations:	150.00
Bank interest:	1.01
Case and eyeiece sales:	174.00
Total :	535.01
<b>Accounts/Paid:</b>	
Rackspace Cloud:	22.68
Cynric Co. (plowing)	119.90
LTP plaque engraving	180.00
Marc Stowbridge (LTP supplies)	291.48
Cornerstones of Science (LTP scopes)	1157.50
Total:	1171.56
<b>Net Account Balance:</b>	<b>\$10812.94</b>
<b>Petty cash drawer:</b>	\$100.00
<b>Cash Balance:</b>	<b>\$11812.94</b>

**EOC Share:** 5251.45

**Membership:** 123

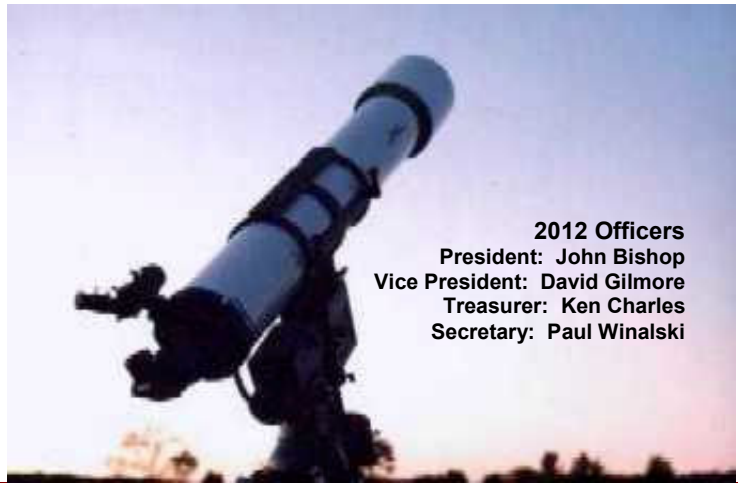
### New Members:

**Ian Ross**, West Lebanon NH  
**Christopher Krstanovic**, Windham NH  
**Tom Smith**, Concord NH

### Donations:

Marilyn Beattie 30.00  
 Sidewalk Portsmouth 120.00

\* Ken Charles  
 NHAS Treasurer 2012



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

**DEADLINE May 2012 Issue: 5 PM May 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](mailto:info@nhastro.com)

**Use our web site:**

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

**This month's contributors:**

John Bishop, Larry Lopez, Ed Ting, Dave McDonald, Ken Charles

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



## NHAS Upcoming Events

Event	Date	Time	Location
Rey Center Sky Watch	April 21	8:00 PM	Curious George Cottage, Waterville Valley NH
G H Bixby Memorial Library Sky Watch	April 22	7:30 PM	27 Main Street, Frankestown NH
Coffee House Night	April 27	5:00 PM	YFOS
YFOS Orientation	April 27	6:30 PM	YFOS
Astro 101: Collimatin	April 27	7:30 PM	YFOS
Sidewalk Astronomy	April 28	6:00 PM	Market Square, Portsmouth NH
AeroSpaceFest 2012 Sky Watch	May 4	7:00 PM	McAuliffe-Shepard Discovery Center, Concord NH
AeroSpaceFest 2012 Solar Observing	May 5	10:00 AM	McAuliffe-Shepard Discovery Center, Concord NH
East Kingston Public Library Sky Watch	May 7	7:00 PM	East Kingston Public Library, East Kingston NH
NHAS Business Meeting	May 11	7:30 PM	St. Anselm College, Manchester NH
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