

Observer Staff
Editor & Publisher:
Michael Frascinella

Contributors:
Barbara O'Connell,
Chase McNiss, Ed Ting,
Larry Lopez, Jim
Warenda

THE NHAS OBSERVER

Newsletter of the New Hampshire Astronomical Society

"All the news that fits in print"



August 2002

Volume 2002 No. 8

What Do NHASers Do All Night?

The topic of the August 23rd meeting is an Overview of NHAS Committees.

Teasers: Have the ATM committee members finished their 6-inch telescopes? What instructional session has photography committee planned? What is the astronomy class that the Membership Committee is organizing? How does the Public Observing Committee coordinate the flood of requests for skywatches?

Please join us at the August NHAS Business Meeting to find out!

President's Message

We had good attendance (40) at the last meeting considering it is the height of summer. Our guest speaker, the editor-in-chief at Sky & Telescope, **Rick Fienberg**, was terrific. He gave us a behind-the-scenes look at what it takes to produce the magazine. They make it look so easy. That brought me to realize that our very own editor of this newsletter has also made it look easy, but I know he puts valuable time and effort into this (for free) [well, NHAS pays for postage and printing - Editor].

I'd like to take a moment to thank **Mike Frascinella** for creating NHAS's quality publication. Also, thanks should go to each one of the members who provide content [see the masthead]. I really look forward to reading member contributions to the newsletter each month. Keep up the great work!

Just a couple of other quick notes... We are asking for the club's input on a potential purchase of a mount for the 16-inch Dobsonian scope at YFOS. Read more about it in this issue and share your thoughts via email or during the August meeting.

Also, it is Stellafane time again. We've got at least one member, maybe more,

entering telescopes this year. Be sure to keep an eye open for them.

Lastly, there are still folks who haven't picked up their t-shirts. Please get in touch with me via email or in person at a meeting to claim your t-shirt if you prepaid. Enjoy the rest of summer!

NHAS at Stellafane



NHAS members are a few of the many who attend the weekend star party known as Stellafane. Here is what NHAS will be doing at Stellafane:

Date: Friday, August 9th and Saturday, August 10th

NHAS Camping location: There are no reserved spots, so look for the club canopy and banner. These will mark a central place for NHAS to sit and socialize.

NHAS Stellafane BBQ: NHAS will hold a BBQ on Saturday promptly at noon. Normal BBQ foods will be served free of charge. [Abnormal food will cost you!] Please feel free to bring potluck additions to our normal fare such as potato salad, desserts, or chips. Oh and don't forget to bring your chair!

NHAS Caravan: Every year some NHAS members want to travel up to VT together. Joel will be leading the caravan this year (as he has in past years). The caravan will leave promptly at 8 a.m. Friday, August 9th. Don't worry if you can't make the

caravan, it's not hard to find the event on your own.

Need directions? Visit <http://www.stellafane.com> for their 2002 brochure where detailed directions can be found. Here are some basic directions if you don't have access to the Internet:

Take I-91, exit 7 to Route 11 West. Stay on Route 11 for 4.5 miles. You will turn left at the light and go between the Springfield Plaza and McDonald's. Continue for 1.5 miles and take a left on Breezy Hill Road (there should be a small Stellafane sign). It's all uphill from there.

★ Barbara O'Connell
NHAS President 2002

Public Observing Highlights

Four NHAS members participated in a skywatch for patrons of the Goffstown NH public library on July 10th. They selected a field that was away from traffic and street lights, and the observing was actually pretty good for a change! (Most of these public skywatches are held under fair to poor conditions.)

We saw the Dumbbell, Ring, Swan, and Lagoon Nebulas, as well as globular clusters M13, M92, and M3. **Mike Townsend** impressed the local people with his knowledge of double stars through his Celestron C9.25, while **Joe Derek** amazed NHAS members by actually showing up with a small scope (a 4-inch Apogee refractor)!

★ Ed Ting

Feature Story

To Spend or Not to Spend.....Page 2

To Spend Or Not to Spend

That is the question.

I have recently suggested that NHAS upgrade the 16-inch Dobsonian telescope that is currently stored in the observatory at YFOS. The society has been making upgrades to the scope over the past year, but this Band-Aid approach has not made the scope any more usable.

The scope is not currently being used primarily because it is so hard to move into the observing field. The scope requires a minimum of 2 people making two trips each way or 3 people making one trip in and out of the observatory. At times, especially during the winter, there is great risk at damaging the scope or worse somebody getting hurt. It would be possible to build a dolly system to move the scope around, but there are other issues that should be considered in making the scope more user friendly.

The 16-inch scope has never had very smooth bearing movements which make the scope extremely difficult to use at higher magnifications. The tube design is prone to flexure because of the weight of the primary, and it has been difficult to maintain collimation even when collimated at the beginning of an observing session. Collimation is a two-person process, with one person adjusting the mirror cell, while the second person works at the other end of the scope.

I have recommended that the society purchase or build a truss style Dobsonian scope. Such a design is much more portable because of the way the truss system can breakdown for transport. The truss design is also less prone to lose collimation during use and, because of the open design, the optics reach ambient temperatures much quicker. The open design also allows one person to set collimation because they can look through the truss into the secondary/focuser cage while using a laser collimator.

It has been the consensus of the majority of the officers and board that the society purchase a commercially made truss shell and transfer the optics from the old into the new. Ed Ting has reviewed and also owns a unit made by

Night Sky Scopes. There is a link to Ed's reviews on the NHAS web page and I believe Ed will try to bring his own 16-inch scope to the next meeting at CMP for members to check out.

The cost of the Night Sky Scope would be over \$2000.00. Because of the large expenditure, the officers felt that the attending members should have an opportunity to discuss and vote on whether to purchase the upgrade for the 16-inch YFOS scope.

Hope to see you there,

★ Chase McNiss

Welcome New Members

NHAS would like to welcome these new members to our band of star gazing enthusiasts.

Paul Brown Sr.

Vaughn Lloyd

Wayne Peternel

Please feel free to introduce yourselves at the August business meeting so we can get to know you.

YFOS Site News

Rick Hedrick mowed the field at the site, including the parking area and around the warming hut and observatory. Because it had grown so high, he said it now needed raking (sounds like we should buy a few rakes to keep on hand).

At the previous Coffee House in July, **Chase McNiss** snapped the following image with a Nikon 880 Digital camera, 6 seconds on a tripod at 200 ASA.

The crescent in the photo is *not* a close encounter with Venus. If you are one of the recipients of the printed newsletter, this photo is also featured on the NHAS web site.

Satellites to the Rescue!

A ship on the ocean is swamped by a giant wave. A small airplane loses power and crash lands on a mountain field. A snowmobiler in Alaska breaks a tread and is lost far from civilization. How do the brave people who rescue folks in peril find out where they are?

Search and Rescue Satellite-Aided Tracking, called SARSAT for short, uses two types of satellites to help people. Geostationary Operational Environmental Satellites, nicknamed "GOES," fly in space. They never stray from their spots above Earth. Polar Orbiting Environmental Satellites, called "POES," are in constant motion. They orbit Earth several times a day. The main job of these spacecraft is to track environmental conditions around the world. But GOES and POES also hear special distress signals from ships, planes, and individuals. The satellites send the information to a control center in Suitland, Maryland. The National Oceanic and Atmospheric Administration, an agency of the U.S. Government, operates the center. They learn who is in danger and where the emergency is. Then they send the Coast Guard or the Air Force to save the day!

(Cont'd. p. 3)



The Bottom Line

Here is the Treasurer's report for August 2002.

Club Balance: \$8,970

2002 Members: 146

2003 paid members: 8

★ Jim Warendra

Looking Back at Last Month

Opening. Barbara O'Connell gave the floor to Ed Ting who described an observatory being planned by a nature center in Amherst. He also circulated a 14-page, color, bimonthly newsletter from the Astronomical Society of Malaysia, which included an article of his to boot.

Book of the Month. none this month.

Scope of the Month. The club scope is still out, location TBD.

Committees. Web: Barbara noted ATMs: Larry Lopez said the group has dwindled down to two mirror makers.

They were holding meetings with the Photo Comm. He hopes that the joint meeting will reinvigorate both groups.

YFOS. Larry Lopez reported that minor upkeep needs doing. Chase McNiss reported that one lawnmower is inoperative. The next coffee house coincides with Stellafane.

New Projects. Chase McNiss talked about a truss mount for the club 16-inch Dob scope. It is currently difficult to set up, the tube assembly is not of good quality, and the secondary mirror vibrates. He estimated it would cost \$2130 total for the conversion.

Stellafane. August 9-10 and NHAS will attend and host a barbecue on Saturday noon.

Treasury. no report this month

Evening Program. Rick Feinberg of *Sky & Telescope* magazine treated us to a behind-the-scenes look at the operation, using an idea from the Dec. 1978 issue (Do you still have it?)



Photos courtesy of Bob Sletten

Although Rick lives in Mass., he showed us his observatory in Danbury, NH and expressed an interest in making a telescope in the next few years.

He introduced nearly all the staff in a series of "candid office photos." This included such well-known members as Dennis DiCicco, Roger Sinnott, and Alan McRobert.

He noted that the photos submitted by amateurs today are far superior to what they accepted 10-15 years ago.

Next he covered how ideas eventually become articles, get folded into each issue, then off to the monster printing facility they use in Virginia, where all their issues are printed in one day.

He finished a fascinating talk with a discussion of their sales model which is 2/3 subscriptions and 1/3 newsstands.

Also, the reason we get an issue so far in advance is partly due to competition

from *Astronomy* magazine and partly because it takes so long for non-U.S.

subscribers to get their issues on time.

★ Michael Frascinella

Satellites to the Rescue (cont'd.)

Ships, airplanes and people use different kinds of equipment to transmit emergency signals. All these devices broadcast distress messages to GOES and POES. Personal Locator Beacons for individuals are available only in Alaska, but soon may be sold in the rest of the United States. Backpackers and others who travel to remote areas could carry these devices in case they get into trouble.

NASA provided the satellites used for SARSAT and operated by the National Oceanic and Atmospheric Administration. SARSAT has helped to locate and rescue more than 12,800 people worldwide and 4,300 people in the United States. The Air Force and Coast Guard also rescued dogs and other pets that were traveling with their families when disaster struck.

Find out more about SARSAT at <http://www.sarsat.noaa.gov>. Also check out The Space Place Web site at <http://spaceplace.nasa.gov/goes/orbits.htm> to learn how these satellites orbit Earth and how GOES can hang over one spot all the time!

This article was written by Eric Elkins and provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.



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Notify the Treasurer. Include your full name and new street address. If changing an e-mail address, specify whether you want to add, modify, or delete an e-mail address.

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New Hampshire Astronomical Society
P.O. Box 1001
Manchester, NH 03105-1001

NHAS in Focus, CMP

NHAS Upcoming Events

Event	Date	Time	Location
Coffee House	Aug. 9	8:00 p.m.	YFOS
Stellafane Convention	Aug. 9, 10	weekend	Breezy Hill, Springfield, Vermont
August meeting	Aug. 23	7:30 p.m.	Planetarium, Concord, NH
CMP Skywatch	Sep. 6	7:30 p.m.	Planetarium, Concord, NH
Coffee House	Sep. 13	8:00 p.m.	YFOS
September meeting	Sept. 20	7:30 p.m.	St. Anselm's College, Goffstown, NH