

Observer Staff
Editor & Publisher:
Michael Frascinella

Contributors: Joe Derek,
Ed Ting, Larry Lopez,
Jim Warena, Barbara
O'Connell, Bob Sletten,
Steve Stefanik, Marc
Stowbridge, Chase
McNiss

THE NHAS OBSERVER AND BREEZY HILL NEWS

Newsletter of the New Hampshire Astronomical Society

"All the news that fits in print"



Volume 2003 No. 8

August 2003

Stellafane – Rain and Mud This Year

President's Message

Many in our club will miss **Ed Dougherty**, a man who has shared so much with so many. Ed's experiences allowed him to work with others in electronics, optics, and machine shop work. I know this first hand because I was one of the many whose life was touched by his willingness to help and to instruct with regards to my own personal projects. Ed, who was part of so many people's lives, will be missed.

At our next meeting in August, if everything goes according to plan, we will be viewing a video documentary of **Stellafane 2003** during the second half of the meeting.

NOTE: CMP has a program scheduled on Friday, August 15, the date of our next meeting. We won't be able to start our meeting until 7:45 p.m. as opposed to our usual 7:30 p.m. meeting time.

Regards,
★ Joe Derek
NHAS President 2003

Public Observing Highlights

Wednesday July 30th was our annual skywatch for the Goffstown Library. If you didn't go, you missed a good one. The location is remarkably dark considering its proximity to Route 114, and the horizons are excellent. We have also had good luck with this one – three years in a row we've had excellent seeing.

Perhaps it was the forecast for rain for the coming Stellafane weekend that resulted in thirteen (!) NHAS members showing up with their scopes. **Mike Townsend** showed off his OMC140 Maksutov, **Rich DeMidio** had his giant 18-inch Obsession, and **John Bishop**

brought his 6.5-inch DGM Optics off-axis Newtonian scope.

We saw Albireo, the double-double, M27, M56, M81/M82, the Swan, the Trifid, the Lagoon, and, much later, Mars. The public skywatch started at 8 p.m. and we didn't leave until 11 p.m.

★ Ed Ting

Stellafane, Stella-Rain

Arriving in the rain at 6:45 p.m. on Friday, Aug. first, I was greeted by about a dozen NHAS members huddled under the club canopy. "A great investment!" someone remarked. A game of Astronomy Monopoly was in progress. During a lull in the rain, I set up my truck for camping, then went to get some coffee.

I struck up a conversation with **Henry Hopkinson** from Derry, NH and discovered that **Ed Dougherty** was a friend of his since Ed's ATMs of Boston days. Henry said Ed once got a Stellafane award for the biggest telescope mount – two tons and bolted to the back of a big truck! We talked about Ed for a while, then I went back to the NHAS camp.

The game was still in progress and they asked me to take over an empty hand. I played until I landed on one of those big-time properties and lost everything to pay the rent. **Joe Derek** and **Joel Harris** duked it out for an hour or so longer, but I crawled into my damp sleeping bag as the rain continued through the night.

Saturday dawned dull, humid, and overcast but with no rain, so Joe, Joel, and I went to the food tent for a breakfast that was light on food and heavy on matters cosmological, evolutionary, and spiritual. You can do that sort of thing at Stellafane.

With mud now a problem, the shuttles were cancelled, so people walked to the hilltop clubhouse. I overheard a father tell his sons that the road reminded him of when he used to walk to school and it was uphill in both directions!

My favorites for the telescope competition were easy to select. The best scope was **Normand Fullum's** beautifully handcarved 12.5-inch f/7.4 Newtonian. Norman hails from Hudson, Quebec.

The tube was a made of edge-glued strips of Brazilian cherry and decorated with delightful scrollwork, cut after he realized that the tube was too heavy. The three-part tube was held together by carved wooden fasteners.

The rest of the scope was made of pine, maple, and yellow birch, with a crescent moon face from his club's logo as a design motif. There was even a handcarved remote focusing control.

The most clever entry was **Chris Cole's** articulating backpack binoculars. Chris, from Middletown, Conn., mounted 20x80 binoculars onto a cantilevered aluminum frame bolted to a standard backpack. With it, you could hike to a remote location with supplies in the backpack, then operate the binoculars with the backpack still on your shoulders.

While visiting the clubhouse, my eye caught a plain-looking document mounted on the back wall, so plain, that most people probably don't even notice it. It explained the meaning of Stellafane.

(See Stellafane, p. 3)

Noteworthy News
Ed Dougherty is gone.....Page 2

Ed Dougherty Is Gone

Excerpt from the *Lowell Sun* (Mass.) newspaper, 7/14/03:

DRACUT - Edward C. Dougherty, 70, a skilled astronomer who held a number of patent designs for features used on the Apollo Moon flight, died Sunday, July 13, at his home. He was the beloved husband of Cynthia (Choate) Dougherty.



He was born in Watervliet, N.Y., June 18, 1933, a son of Alida (Romaine) Dougherty of Lowell and the late Cecil Dougherty. He attended school in New York and graduated from Watervliet High School. Mr. Dougherty moved to Massachusetts about 30 years ago and worked as an engineer at Adage, Wang, and later at Discom.

He was a skilled astronomer with his own observatory, and held membership in the Boston Amateur Telescope Makers and the New Hampshire Astronomical Society. He was also a competitive roller skater.

Testimonials

I met Ed about 10 years ago before he became affiliated with NHAS, when I first became interested in electronic imaging. Somehow (I've forgotten now) I learned that he had built a "real time" video imaging camera called Thor. I



purchased one from him and we corresponded back and forth about its use, limitations, attributes, and other features. He even came up to my observatory from Massachusetts and worked to show me how to maximize its potential.

He was always willing to go "the extra mile" and was extremely knowledgeable and passionate in whatever he did. I told him about NHAS and, before I knew it, he became actively involved in our group, sharing his wealth of knowledge with us.

He was an honest, decent, wonderful individual and I will miss him. May God be with him and his spirit with us.

★ Steve Stefanik



Ed played a key part in my being able to complete the 12.5-inch scope that I currently use. Not only did he visit me at my home to offer advice, but he also provided machine shop services and designed the electronic package that I currently use for my slewing motors. All this he did freely and would not accept any compensation.

Ed was a resource that others could rely on. He will be missed.

★ Joe Derek

What I remember most about Ed Dougherty was his ability to explain difficult technical topics in a practical way. When working on my 6-inch mirror with the ATM Committee, Ed guided us by setting up a Foucault tester in Larry Lopez's basement. Ed



guided us through the process of testing and shared practical knowledge of how polishing affected the test results, yet was also able to go into great detail for those that had a desire to know details.

I really appreciated his guidance and didn't get tired of hearing how he acquired all this optical knowledge he was sharing with us. It was very important to him, not only to use his knowledge, but to teach. I enjoyed being his student and he is missed!

★ Barbara O'Connell

I hardly knew Ed; our paths only crossed once or twice. A few years ago, at Astronomy Day, he encouraged me to look through his 8-inch scope that seemed to be cobbled together from plumbing supplies and the odd bit of leftover toaster. His ease with both his equipment and us curious onlookers caused me to believe that he knew a thing or two. The H-Alpha filter plugged into the back was also a hint. I'd never seen the sun like I did that day, so I snapped this picture.



I used the picture as wallpaper on my office computer for quite a while. No one failed to comment and many kids were drawn to it. I have often thought about how a brief moment of sharing has multiplied so many times.

★ Marc Stowbridge



sunspot viewing with his new binocular eyepiece setup from Siebert Optics. **Todd McLaughlin** wowed us with his Coronado H-alpha scope. Pretty soon Roger's binocular viewer wound up on Todd's H-alpha scope.

The afternoon talks were well attended

Ed Dougherty touched many lives and some will remember him as a coworker, amateur astronomer, student, or friend. This collection of anecdotes and photos is presented as a way to record our memories of Ed so that others in the club who never knew him will take note of the passing of a decent, remarkable, and key member of NHAS.

First photo courtesy of Larry Lopez, all others courtesy of Bob Sletten

★ Michael Frascinella

YFOS Observations

At the July 25th Coffee House, **Larry Lopez** reported getting some good looks at Mars through other members' scopes, seeing the polar cap and some surface details. **Rich DeMidio** admitted that this was the first time he had viewed Mars in his Obsession scope and was delighted with the results and took several photos.



The observatory pier has been installed. **Don Ware** and **Joel Harris** did a fantastic job. In fact, **Larry** was so excited that he could not resist hugging the pier. [You could have at least waited for the paint to dry! --Editor]

Photo courtesy of Chase McNiss

Web Uploads

Larry Lopez, Roger Goun, Mike Frascinella, and I have been working on the web site. We have concentrated on navigation and web template development.

It's hard to predict exactly when it will be ready, but we will let you know when a preview is ready and we will ask a few members to help us test it.

★ Barbara O'Connell

AstroPhotons

The photography committee met on July 18th at the Nashua public library.

Stellafane (from p. 1)

"Stellafane

What's in a name?"

Stellafane is derived from two Latin words, *stella* and *fanum*. We all know that *stella* refers to stars, but *fanum* is something else. In Cassell's New Latin Dictionary, the word *fanum* means: A place solemnly consecrated to God. Hence a temple with land around it, a holy place.

Stellafane: Temple of the Stars

The Heavens Declare
The Glory of God"

At midday we returned to the campsite to chow down the traditional NHAS hotdog and hamburger feast, cooked by master cookout chef **Joel Harris**.

At about 1:30 p.m. many members scrambled to set up scopes and solar filters as the sun broke out and blue sky opened to the north. **Roger Greenwood** treated us to

and interesting with two talks on telescope history and two on telescope making. A big surprise to me was meeting by accident former members of the South Shore Astronomical Society (Mass.) including **Dennis DiCicco, George East, and Sal LaRiccia**. I had found Dennis last year but hadn't seen Sal or George since moving north in the mid 1970s. The noticeable changes were more wrinkles and less hair!

At the Saturday evening awards, **Normand Fullum** won First Place for Craftsmanship as I had figured. NHAS member **Steve Brady** won a special award for autofocus software for CCD scopes. Good work, Steve!

David Levy gave the Shadowgram talk. He gave a stirring commentary about Stellafane as the place we come home to each year. He also praised several notable people for their efforts in promoting the Stellafane tradition.

The Keynote Speaker was **Alan Hirschfeld**, Professor of Physics at U. Mass. Dartmouth, and author of *Parallax: the Race to Measure the Cosmos*. As the talk progressed and twilight deepened, strange signs called stars slowly brightened in the sky. As the Big Dipper became visible,

(See Stellafane Finale, p. 4)

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Stellafane Finale (from p. 3)

people slowly slipped away, some to head home, others eager to start using their scopes.

By the time the talk was done, haze and fog obscured the stars. Green laser pens made the fog layer look no more than a few hundred feet above us. Someone relayed a weather report about increasing chance of showers. That did it for several NHASers (and me) who decided to hit the road so they could hit the sack at home.

★ Michael Frascinella

The Bottom Line

2003 members: 172 (a club record!)

Cash Balance: \$3,580

Payables: \$1,100

Net Balance: \$2,480

Welcome New Members

NHAS welcomes these new members:

Anne Wheeler Amherst, NH

Candy Shirey Amherst, NH

Mike Paulin Dublin, NH

Matt Giguere Durham, NH

David York Weare, NH

★ Jim Warend

Looking Back at Last Month

Opening. **Joe Derek** said we are getting a NASA Planet Quest kit for educational use. This results from several NHAS members responding to a web survey by the Astronomical Society of the Pacific.

The club will be selling Astronomy 2004 calendars as a fund raiser.

We received an invitation for Starfest in Kennebunkport, Maine on Sept. 20.

Joe led a round of applause for the editor of the newsletter.

Book of the Month. none this month.

Scope of the Month. none this month.

Public Observing. **Ed Ting** being out of town, we learned there may be a skywatch in Brookline, NH and a big one was scheduled for July 24 at Geneva Point, Moultonboro Neck.

Committees. Web: **Barbara**

O'Connell noted that the new site was still under construction. ATMs: **Larry Lopez** discussed the latest ATM activities. Member: **Bob Sletten** noted the good reception for the idea of an Astronomy 201. He asked members for specific input about topics, possible dates, and likely instructors.

YFOS. **Larry Lopez** said the site had been getting mowed and fire extinguishers were now on site.

Treasury. **Jim Warend** reported \$6,000 on hand with \$3,600 in accounts payable, and 168 members. He mentioned the names of the newest members. *Sky & Telescope* announced that subscription prices have increased \$3.00 per year.

Illness. **Ed Dougherty** has been very ill. Joe encouraged members to visit him soon and said he had been a great resource to the club, to which everyone agreed.

Stellafane. Joe took a poll that showed many members would be attending the convention. NHAS will sponsor a cookout lunch on Saturday, Aug. 2nd.

2004 Astronomy Day. CMP was working on a grant for next year and needed to set a date. Saturday, May 11 was the tentative date.

Telescope Projects. The Losmandy mount was to be in late July to Rivers Camera. **Joel Harris** brought in the adapter ring for the mount – a great piece of machining! **Don Ware** discussed some of the details of the pier assembly. **Larry Lopez's** C14 still needs final collimation.

The truss mount for the 16-inch Dob was also due by the end of July. Final assembly should take only a few hours.

Jim Baker's donated 20-inch mirror blank is part of a project that **Joel Harris** would like to start. **Chase McNiss** said we would need a work area to be available for a year, and that we should wait until the current two projects were done, then form a committee to lead this new project.

Evening Program. **John Bishop** presented a talk on the "Design of an Offset Secondary Telescope."

John was attracted to this design by its "technical coolness." DGM Optics was the maker.

The mount was a Dobsonian and the yoke was a laminated wood octagon with a splitting ring that allowed you to slide the tube fore and aft or rotate the eyepiece holder as needed. The secondary was mounted on the opposite side from the eyepiece holder and



was comparable in size to a conventional Newtonian secondary.

As for performance, the scope was good on planets and double stars, but collimation was a little tricky. One difficulty was that the rod that held the mounting box to the ground box was fastened the opposite way from typical. The asymmetric mirror was one of several cut from a larger parent mirror. The light path from primary to secondary was the same as for the parent mirror, but the secondary – which was centered on the parent mirror – now sat on the edge of the smaller telescope tube. Being asymmetric, the orientation of the primary to the secondary mirror was critical.

DGM Optics also offered scopes in 4-inch, 7-inch, and 9-inch sizes.

A short Q&A session ended the talk.

Photos courtesy of Bob Sletten.

★ Michael Frascinella



DEADLINE for Sept. 2003 Issue: 5 PM Aug. 30

E-mail your articles to the Editor. Phone if you have a late submission.

CHANGE OF ADDRESS

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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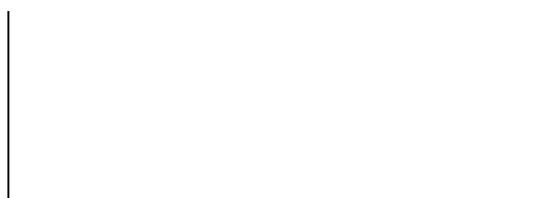
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Stellafane on Tape, Aug. 15, CMP

NHAS Upcoming Events

Event	Date	Time	Location
August meeting	Aug. 15	7:30 p.m.	Planetarium, Concord, NH
Coffee House	Aug. 29	7:00 p.m.	YFOS
CMP Skywatch	Sept. 5	7:30 p.m.?	Planetarium, Concord, NH
Sept. meeting	Sept. 12	7:30 p.m.	St. Anselm's College, Goffstown, NH
Lunar Light Rays - a new feature on the online web calendar			