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THE NHAS OBSERVER

Newsletter of the New Hampshire Astronomical Society



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"All the news that fits"

June 2000

A Look at Laser Collimators

A short presentation on using a holographic-style laser collimator will follow this month's business meeting. The notorious task of collimating a Newtonian is made easy, and even fun, with such a device. Once considered exotic toys for rich hobbyists, these tools are now finding their way into many amateur astronomers' toolboxes.

President's Message

Astronomy Day was a big success (see the next story) and a good time was had by all. Thanks to **Chase McNiss** for putting on such a smooth show.

We're entering the long, hot days of summer. This time of year, the sun does not set until well after 8 PM. To make it worse, true astronomical darkness does not begin until after 10 PM, and skies begin to brighten noticeably again by 3 AM. This leaves a relatively short window in which to observe. Despite this, I'm gratified to see how many people keep showing up for Skywatches and Coffee Houses in the summer.

When you attend our summer events, remember to bring your bug spray (spray yourself away from people's optics,

please!) and wear a lightweight jacket with long sleeves. Light gloves and a hat are also recommended. Take these precautions and you'll enjoy summer-time observing. Otherwise, you will not be observing much, only feeding your pet mosquitoes!

★ Ed Ting

Astronomy Day Wrap Up

Well, Astronomy Day 2000 is behind us. In all it turned out to be a great day. We didn't get the sunny, warm weather we were hoping for, but we did get some glimpses of some wonderful sun spots, with the rain holding off for most of the day. I want to thank all the volunteers who took the time to come out and help. We got off to a slow start with having to move some of the displays around to accommodate the weather and CMP's Starlab display, but in all it went well.

R.P. Hale made a certificate, handwritten in calligraphy, matted and framed, commemorating ten years of cooperation between NHAS and CMP.

I want to thank **Rick Hedrick** and **Jeff Carter** for all their hard work. I don't think Rick ever stopped the whole day.

Toward the afternoon, Rick became our T-shirt marketing director and manned a T-shirt and mug display outside in the cold. I think that effort increased our T-shirt sales.

Thanks to all who brought the displays. I know it was not easy to bring things like posters, banners, literature, T-shirts, computers, mirror blanks, extensions cords, mugs and everything else.

But this is what the NHAS does. We are here to bring Astronomy to the public. We should be proud of what we do and the energy and enthusiasm we bring to the effort. I know I am proud to be apart of the group and sharing in the effort. Thanks again, it was wonderful working with you all.

★ Chase McNiss

I'm sure all of us want to express our appreciation to **Chase** (& assistants!) for putting on a fine A-Day. Except for an embarrassing mishap with the slide show committed by Yours Truly, things went off without a hitch.

CMP recognized us at the keynote speaker's talk and presented us with a very nice plaque.

★ Ed Ting

Public Observing Highlights

On May 16th, three club members (and myself) put on a skywatch for a Boy Scout Troop in Londonderry hosted by **Joel Applegate**. An attendance of 34 was expected. The problem with summer skywatches is that it does not get dark until 10 PM or later. Thus, at the appointed 9 PM starting time, it was still bright enough to read by.

Feature Story

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Public Observing cont'd.

Even so, the guests enjoyed views of the moon, and (much later) M3. A couple of very enthusiastic Boy Scouts (and a couple of adults) stayed late asking questions about the night sky and about NHAS. We may get a few new club members as a result of this skywatch.

At one point, **Larry** opened his Casio Cassiopeia with "The Sky" in it. They wanted to know if it was a Game Boy!

On May 26th (one week before new moon), four of us held an impromptu observing session at YFOS. Several other club members had the same idea, and what ensued looked for all the world like a standard-issue Coffee House!

It's been rainy and cloudy here in NH for several months, and many of us were dying to get out and do some observing, so much so that despite overcast conditions at least 50% of the time, three intrepid club members (**Mike Townsend, Chase McNiss, and Dan Smith**) stayed until dawn. I should stress again it was a *cloudy* night.

No observing was done at Astronomy Day due to rainy conditions.

At noon on Saturday, June 3rd, I spoke to a group of 31 kids at the Grange in Penacook. They were there all weekend and had camped since Friday night.

There was interest in astronomy from kids and adults alike and I fielded some intelligent questions. A donation of \$50 to NHAS was given by our contact, **Rhonda Lambert**. Thanks, Rhonda!

Later that evening, we held our monthly Coffee House at YFOS. Unlike the weekend before, it was obvious from the start this was a good observing night. The skies were clear and dark, and after 11 PM, the bugs quieted down. Dew was a persistent problem.

Observers viewed all manner of objects, from deep sky to double stars. The skies remained dark well into the early morning hours, and the hair dryer was in constant use as the relative humidity hovered around the 90% mark. Again, three hardy observers (**Mike Townsend, Chase McNiss, and Dan Smith**) stayed until dawn. We should give these guys a medal, eh?

★ Ed Ting

ATM True Grit

ATMs met on May 25 (during the Memorial Day weekend) and had a BBQ. **Mike Stebbins, Ed Ting, Barbara O'Connell, Tim Parker** (and wife and child), and **Linda and Larry** were present. **Ed Dougherty** was mentor and omnipresent. Ed's spherometer was greatly used.

Amazing progress was made. **Ed Ting** wrote some of it up

<http://www.scopereviews.com>

A make-up was held on June 4.

A regular grinding session will held on June 11. We are contemplating having the next session on July 9.

★ Larry Lopez

Photography in Focus

The NHAS Photo Committee will meet at 7:30 PM on Friday June 23rd in the warming hut at YFOS and all members are invited.

My intent is to hold a regular meeting and then break out for a photography session and practical demonstration under the stars. Hopefully the weather will cooperate, but if not, we will still hold the meeting at YFOS.

My apologies for those who have to travel farther, this is an experiment to add some variety to our meetings.

★ Chase McNiss

YFOS

The walls and floors are up at this point. **Joel Harris** obtained wheels for the roof at a fantastic discount. He also load tested a sample.

A work session will be held on June 10. Another session may be held June 17.

★ Larry Lopez

Under Arizona Skies

On June 3rd I met a famous telescope in one of our great remote viewing sites, a little cattle-grazing spot known as Dugas, at a mere 4,000 ft elevation.

The weather was the "same old" clear and sunny and eventually hot (about 100 degrees). The 2-hour drive on Black Canyon Freeway was tough on our old van pushing its temp almost to the "big H". After another eight miles of dirt road we set up, sat back, and enjoyed the beauty of the location – rolling hills

dotted with mountain juniper, prickly pear, and tall yellow grass. By dusk all the viewers had arrived (six in total).

One of these scopes, however, turned out to be a star in its own right. **Jim Stevens**, owner and builder of this gem, brought the 17.5-in. dob he built and with which Thomas Bopp first spotted the Hale-Bopp comet in 1995 at one of our southern sites, Vekol road. Stevens, an excellent astronomer and award-winning telescope maker, is proud of his Dob's distinction and has a placard mounted on the telescope's base noting its part in history.

We viewed many objects, though the sky was so full of stars that some constellations were difficult to distinguish.

Included in our array of scopes were an 18-in. dob Obsession; 4-in. Tak with SBIG SVT and 8-in. Tak with SBIG st7 all on a G-11 mount (very nice); ETX on home built sit down mount; 12-in. SCT with 3.3f reducer and SBIG st7 using 3-in. Oracle for a finder.

The night was warm with just a little breeze. On a "Ting Scale" of 1 to 10, I'd give this night a 5 for average as far as Arizona outings go. We all stayed up as long as we could and watched as the constellations tracked down. No one managed to stay awake long enough to catch the latest comet, Linear.

That is all from the Arizona connection and another trip to the dark country.

★ Mike Felong

Donations

NHAS thanks the following people and businesses for their contributions to NHAS and for Astronomy Day 2000:

Rick Hedrick – AIP Conference Proceedings 232, Gamma-Ray Line Astrophysics, A Life in Astrophysics, Near Earth Objects, Astrophysics Disks
John McLean – nail gun nails for YFOS construction - \$90

Chase McNiss – Framed astrophoto for Astronomy Day raffle

Joe Malinowski – Framed astrophoto for Astronomy Day raffle

Ral Burgess – \$18

Ed Dougherty – \$16

Penacook Grange – \$50

Donations cont'd.

River's Camera – Binoculars for Astronomy Day raffle

Borders Books – Books for Astronomy Day raffle

Barnes and Noble – Books for Astronomy Day raffle

World of Wonders – Astronomy software for Astronomy Day raffle

Meteor News

For June, the ecliptic activity continues to be the Sagittarids (SAG), whose radiant travels along the path of the ecliptic. These are slow meteors, with a velocity of about 30 km per second. The Zenithal Hourly Rate, ZHR, for this activity is about 5 meteors per hour.

At the start of the month, the IMO lists the radiant about 8 degrees up to the left of reddish Antares. On June 10th, the radiant will have moved to about 3 degrees north of sigma Sagittarius, better known as Nunki. Fireballs are possible with this shower, so observers are often rewarded for watching.

The June Bootids (JBO) are a new addition to the IMO Working List, and reach maximum on June 27, with a radiant about 7 degrees north of beta Bootes, also known as Nekkar. Meteors can be seen from about June 26 to July 2nd. They are slow, with a velocity of about 18 km per second. The shower's parent body is Comet 7P/Pons-Winnecke. Rates are variable, and all information on this shower will be very much appreciated!

For more information, contact Mark Davis at MeteorObs@charleston.net, or Lew Gramer at dedalus@latrade.com, or 781-396-7822 by phone.

★ Lew Gramer

The Bottom Line

Thanks to all those that helped support the raffle / tee shirt / mug sales at Astronomy Day, we netted \$156 on the Astronomy Day raffle, thanks to Chase McNiss for securing the raffle prizes and, logistics. We also netted about \$300 on total shirt sales, and \$20 on club coffee mugs. No new members were signed up at Astronomy Day.

Surplus Astronomy Day tee shirts will be on sale at the club meeting. Member cost is just \$8, and most colors are available

in L or XL sizes. If you prepaid for a shirt, be sure and pick it up at the meeting.

Major transactions for May included shirt purchases \$537, observatory building materials including wheels \$143, roof structure materials \$1246. Postage and newsletter supplies about \$150. A plaque for CMP \$25. Refund from returned building materials, about \$220. After the smoke clears from this flurry of activity, we will have about \$5850 in the club treasury. Further expenses on the observatory are projected in the near future for steel and other hardware.

Membership remains at 158.

★ Mike Stebbins

Board Election Results

Members voted at the May meeting to fill **R.P. Hale's** Board position. Nominees were **Joel Harris, John Pappas, and Joe Malinowski**. Joel Harris garnered the most votes.

Looking Back at Last Month

Opening Remarks. **Ed Ting** introduced new members one of whom (**Roger Greenwood**) came all the way from Milford, MA. NHAS also received a thank you letter from the Boston Museum of Science.

Scope of the Month. The club scope was still with **Kevin Campbell**.

Book of the Month. **Jeff Carter** described *Making Your Own Telescope*.

Larry Lopez displayed several books donated by **Rick Hedrick**. Rick brought a 3-D star atlas (very weird on the eyes).

Committees. ATMs: **Barbara O'Connell** recapped the initial rough grinding on the group's set of 6-in. mirror blanks. **Larry Lopez** guessed they might be done before winter. Photo Comm:

Chase McNiss discussed the latest events. Membership Comm: **John Pappas** (new chairman) reviewed highlights from **Bob Sletten's** term and asked members for new initiatives. Web Comm: **Barbara**

summarized the results of the survey. Greatest use of the web site was for events and meeting dates.

Public Observing. Ed will book more skywatches. **Tim Parker** spoke on the recent Coffee House. A Skywatch was planned for Boy Scouts in Londonderry on May 16.

Officers' Meeting. Barbara reviewed the many topics discussed, including CMP, YFOS, policies, dues, need for leaders newsletter and club scope.

Treasury. **Mike Stebbins** reported that \$2100 was spent on YFOS, leaving \$6800 on hand. Membership was at 158.

Astronomy Day. Chase McNiss gave a final pep talk about planned events and the need for volunteers. Rick Hedrick was volunteer coordinator and Jeff Carter was event coordinator. Mike Stebbins took orders for t-shirts.

Board Election. **Joel Harris** was elected to fill R.P. Hale's position.

Evening Program. "A Tale of Two Telescopes" **Mike Townsend** displayed a Celestron 6-in. f/8 achromat refractor (which he said seemed too fast for a refractor). It exhibited some false color but was capable of sharp images at 400x. Chase McNiss described a similar 6-in. scope, a Skywatcher imported from China by Hiu Houn of TeleHoun. It was fitted on a 5-foot-tall handmade wooden altazimuth mount and tripod, which was based on a Richard Berry design.

★ Michael Frascinella

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NHAS Upcoming Events

Laser Collimators, June 16, Planetarium

Event	Date	Time	Location
June Club Meeting	June 16	7:30 PM	Planetarium, Concord, NH
Coffee House	June 30	Dusk	YFOS, Hillsborough, NH
CMP Skywatch	July 7	9 PM	Planetarium, Concord, NH
Photo Comm.	June 23	7:30 PM	YFOS, Hillsborough, NH
ATM Comm.	July 9	3 PM	Lopez Barn, New Boston, NH
July Club Meeting	July 14	7:30 PM	St. Anselm's College, Goffstown, NH
NHAS at Stellafane	July 28-29		Springfield, VT