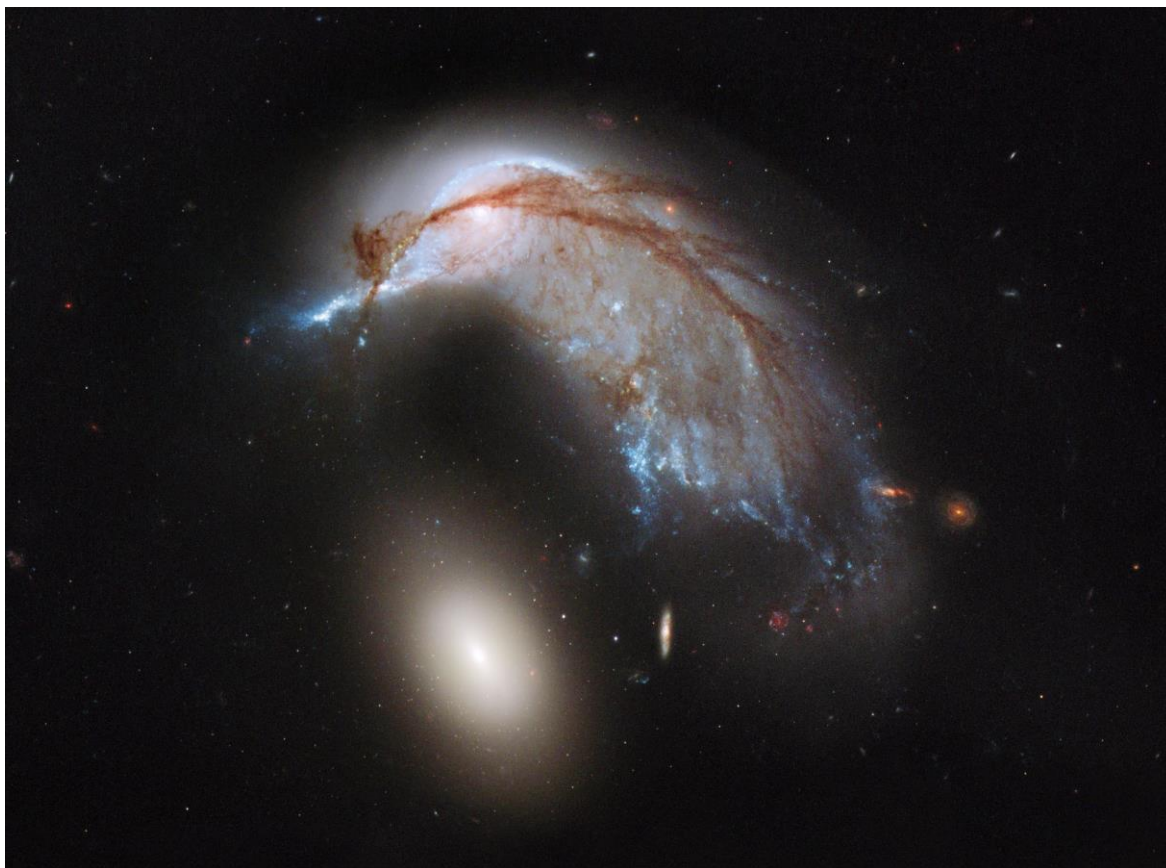


Image of the Month



Arp 142: The Porpoise galaxy, about 300 million light-years away in the constellation of Hydra. Known as NGC 2936, the upper of the two large galaxies shown, it was very likely a run-of-the-mill spiral galaxy only a few hundred million years ago when it got close to the massive elliptical galaxy NGC 2937 (below). The gravitational interaction doesn't seem to be bothering the latter much, but it is tearing up the former; bursts of blue stars form the nose of the porpoise and the lower body, with the core of the spiral its eye. To some, it looks like a penguin with its egg, but the egg is usually held securely under the penguin! Colliding galaxies was the topic of a presentation in April by Lauranne Lanz. Read about her talk and check out the links to other examples of colliding galaxies in the [April 2013 Observer \(page 5\)](#). (Credit: NASA/ESA/Hubble Heritage Team)

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As I started to think about what I wanted to communicate in this message, it occurred to me that it was March since I last wrote a president's message. Really, wasn't the Messier Marathon just a short time ago? It just proves how time flies because it seems not long ago there was still

snow in my backyard. I wish to apologize to the club for being delinquent in this area; I'll fix it moving forward.

Summer time has arrived which traditionally means a lessened amount of activities in the observing arena due to longer days, shorter nights, and bugs that feast on the observer. Ironically, what I have also noticed over the years is that Summer is when people tend to look up at the sky in the evenings. Families are camping, staying at summer cottages or homes, or simply staying up later. Campfire discussions typically lead to talking about the stars which results with enthusiasm and renewed passion when the fall comes around. Some of those "what did you do during the summer essays" typically involve talk of looking at the stars. This is something for us to keep in mind as Fall approaches.

You might recall from last month's meeting my plans on how to handle the club meeting during AeroSpaceFest. Tom and I decided to have a short meeting before the event so as not to burden our membership with back to back travel days. Tom will run the meeting and will be in charge while I am away on vacation for two weeks starting June 14th. I am thankful to everyone who has volunteered to contribute their time to this event.

I will be working on achieving a balance of speakers to "in-reach" activities in the second half of the year. Also, "speakers" need not always mean "external," as we have a lot of internal talent that needs to be showcased with valuable information being communicated to members. But little progress has been made in the membership chair arena, mostly due to my own personal and work obligations. For me personally, the dust should start to settle during the second half of year, leaving more time to focus on this task. As I have mentioned and outlined in the past, I have a vision and am starting to work on implementation with people who have offered to help.

At last month's meeting, NHAS member **Emma Lowe** presented to the club regarding a very creative proposal for out-reach. EOC owns the proposal and will work on

feasibility, reporting back to the officers at a later date. You can read the high level proposal contained in my slides for the May meeting at the [Meetings Forum](#).

I recently made some changes to improve operational efficiency. Our officer mailing list had too many roles combined into a single list which resulted in a lot of duplicate and redundant email to our officers, board members, and committee chairs. The Officers list (officers@nhastro.com) has been trimmed to just President, VP, Treasurer, and Secretary. Two new lists have been created for the Board (board@nhastro.com) and committee Chairs. (committees@nhastro.com).

In last month's meeting, Ken Charles had outlined the Astronomy League program and NHAS support to our membership by paying the membership fee for members who wished to subscribe. NHAS sponsorship will be reviewed annually. All that we ask is that members who subscribe utilize the services. In other words, please do not join for the sake of joining. Since Ken's briefing, several members have decided to take advantage of this offering. Time is running out so please direct any questions to **Ken Charles** or refer to the emails he has sent out for instructions.

We have also taken our first stride into the social networking area by having certain people be able post information on our [Facebook page](#). The information communicated will benefit our members and/or public and will typically cover meetings, events, and educational content. If you have not already, please "like" our page to keep informed. We will slowly look into other areas of social networking to better serve our membership and the public.

In closing, I wish to thank the membership for all of your support, passion, and enthusiasm in the past few months. We have had a great first half of the year and there is a lot to look forward to in the second half. I am proud to be your president and honored to be a part of this wonderful organization. As a mentor once told me, surround yourself with great people and you will truly enjoy your job. He was right!

Clear Skies,

Rich DeMidio
NHAS President

**Alton Central School,
Alton NH, June 4**

Quest Fest is an annual science fair that takes place each summer at Alton Central School. The NHAS conducted activities this day were:

- 1) Daytime solar observing 5-6pm,
- 2) A half-hour indoor presentation, given twice: 6-6:30pm & 6:30-7pm and finally
- 3) Night-time telescope observing from dusk to 'late.'

We had clear skies for both daytime solar observing and at night. For solar observing, I brought the Takahashi FSQ 106 on the Losmandy hybrid GM-8/G11 mount for white light, with the Coronado PST on the Vixen Sphinx for H-alpha. But I forgot to bring the Starbook controller for the Sphinx mount, and that meant the PST was useless. Fortunately, Ted Blank had a Lunt on an iOptron Mini-Tower mount, so we had H-alpha covered. Ted and I were mobbed for the solar observing.

We were one part of Alton Central School's big Quest Fest science fair. There were lots of impressive student exhibits. Starting at 6pm I did 2 half-hour indoor presentations (the topics: our Sun, and What's Up in Tonight's Sky). Derek Pappaceno had the lights turned off in the back of the school, so we had a very dark observing field

after sundown. Gardner Gerry setup his C9.25 for night-time observing, and I set up both the FSQ (focused on Saturn for the whole evening) and the 14" TScope (for Mercury, Saturn, Mizar, Gamma Leonis, Alberio, M57, M13). We saw an excellent pass of the ISS and random other satellites in the bargain.

For all who showed up for the Quest Fest, and for Ted and Gardner and me, it was a most enjoyable afternoon and evening of observing!

- **Paul Winalski**

**Morning Star at Montfort
Retreat, Washington NH,
June 25**

This event was to be an indoor presentation and sky watch for girls attending the Morning Star at Montfort Retreat, conducted by the Sisters of Immaculate Heart of Mary of Saint Benedict Center, Still River Massachusetts.

Given that the forecast predicted cloudy skies and thunderstorms throughout the week, we decided to hold just the indoor presentation on Tuesday night. I drove through a thunderstorm to get to the retreat and gave a "What we would have seen in Tonight's Sky" presentation.

Ted Blank followed that up with an excellent talk on the Curiosity rover mission to Mars. The girls, aged 15 to 18 years, asked lots of excellent questions, and so did some of the sisters.

It turned out that, after the talks were finished, there was actually a patch of clear skies. We saw Vega for a while, and Ramaswamy and Ted focused a telescope on Saturn while I pointed out constellation patterns and double stars that I had featured in my talk. It was good that we actually got some viewing in, and there was a steady stream of 'returnees' who had got word there was something to see!

The retreat has an old reflector with a few missing parts. Ted volunteered to repair it for them.

- **Paul Winalski**

The retreat has an old Meade 4604. It needed some parts, like a new cradle ring, which I got from Telescope Warehouse for \$7.50 a pair. I had to make a new compression screw for the counterweight as the original screw had got lost somewhere. The unit has goto and tracking, and now that the rings have arrived, we'll see if the motors work. Stay tuned...

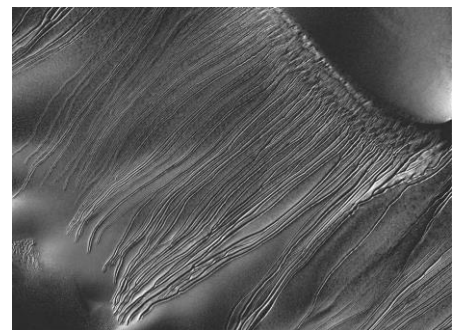
- **Ted Blank**



(Credit: NASA/ESA/JPL/Cassini Imaging Team)

Out of this World Surfaces

We are looking at neither a piece of coral nor weals on someone's neck – these are images of the very strangely cratered surface of Hyperion, that chaotically rotating moon of Saturn, and of some exotic ice streaks on the surface of Mars. In fact these are dry ice streaks (called linear gullies) that are believed to be created by chunks of frozen CO₂ sliding down sandy hills while sublimating into gas.



(Credit: NASA/MRO/LPL/HiRISE Imaging Team)

June began with an **Imaging Workshop** (Part 2) held at YFOS by Herb Bubert on June 1. Herb brought his C9.25 SCT (to be set up on the Titan mount) to image Saturn, and he encouraged others to bring their equipment. This workshop was a sequel to the inaugural session held back on March 15 at Salem High School, when no imaging itself was done (only processing of existing data), and where participants were told that togas were optional, but any daggers would be confiscated at the door!

On June 6, Margaritas Mexican Restaurant in Portsmouth hosted a fundraising evening (from 4pm to closing) to support the **New England Fall Astronomy Festival** (NEFAF). 15% of the tab rung up by patrons was donated to support this year's programming, and the event raised about \$400. The **First Friday** skywatch at MSDC on June 7 was cancelled due to a tropical storm, but the **In-Reach** event at Benedictine Park, Bedford, was held on June 22 in spite of uncertain forecasts.

Market Square Day, Portsmouth NH

Market Square Day in Portsmouth, an annual daytime funfest, went off in style on Saturday, June 8. The all-day event typically draws more than 50,000 people to the downtown, and this year the NHAS Booth was sited in front of The Works Bagelry on Congress St. NHAS members handed out material spotlighting the Library Telescope Program and our skywatch events, and explained the various telescopes set up near-by, mostly Solar H-alpha and white light scopes. The 9am to 4 pm schedule meant that the public were restricted observing the Sun and a few other bright objects like Venus and Jupiter (that trailed the Sun by 19° and 8° respectively on that day). The Moon was not part of the equation this year, since New Moon was at 3:56pm!



NHAS members and Booth are in there, somewhere...

Early morning showers cleared by noon, and Tom Cocchiaro and Ted Blank were joined by Gerry and Pete Smith. Other members manned the later shifts. The day ended on a comical note, and Ted Blank narrates the moment:

So I'm standing next to Mike Townsend as we are packing up the NHAS booth after a great day at Portsmouth's Market Square Day. Suddenly from the next booth comes a great shattering of glass - someone had tipped over a table with a glass top which fell and smashed on the pavement. I start to say something like "oh, what a shame!" when Mike, as cool as anything, says, "Hey, it didn't say Takahashi on it..."

Aurora Dancing over New Hampshire

On the night of May 31-June 1, **Patrick Bourque** was working at some time-lapse photography on the shores of Newfound Lake in Grafton County, NH, when an aurora display grabbed his attention. He started a sequence and the result is a 1 minute [movie of his stills](#). The aurora display, which was brightest at 1am, is in the second half of the video clip. A still image from the sequence can be seen on page 7.

Super Moon Rising

On the evening of June 23, **Dave Weaver** pointed his C5 with Canon EOS 7D at prime focus to image the Summer Solstice Super Moon. He increased saturation 66% to bring out some of the subtle colors.

When it comes to capturing a spectacular Rising Moon, the effort of **Mike Gee** is a thing of beauty and a joy to behold (and to listen to as well). In [a single real-time video shot](#) lasting just over 3 minutes, the silhouetted onlookers at the Mt. Victoria Lookout in Wellington, New Zealand provide an incredible *E.T.*-like atmosphere.



(Image: Dave Weaver)

Mike continues the narrative:

I captured the video from 2.1km away on the other side of the city. It's something I'd been wanting to photograph for a long time, and a lot of planning and failed attempts had taken place. Finally, during moon-rise on the 28th January 2013, everything fell into place and I got my footage.

The video is as it came off the memory card and there has been no manipulation whatsoever. Technically it was quite a challenge to get the final result. I shot it on a Canon ID MkIV in video mode with a Canon EF500mm f/4L and a Canon 2x extender II, giving me the equivalent focal length of 1300mm.

Full Moon Silhouettes - Mike Gee



(Click on the icon to play the video clip)

Rex Gallagher, our resident Kiwi, who has been at Mt. Victoria Lookout on many an occasion, offers this advice:

It is the visual impact, plus the music which is so very apt, that makes this video so great. If you plug your computer outlet into a large screen HDTV with an HDMI cable, the result is stunning! Turn the volume up and dim the lights!

[The music is: [Tenderness by Dan Phillipson](#)]

LTP Modification Party

The third LTP Telescope Modification Party of the year has held on June 30th from 11:30am to 5:00pm at MSDC, Concord. Ten Library scopes were built by NHAS members **Ted Blank, Gardner Gerry, “Rags” Gilmore, Scott & Liam McCartney, Ramaswamy, Steve Rand, Rich Schueller, Gerry Smith, Dave Speltz, Marc Stowbridge and Pete Smith**, who of course organized the event and coordinated the subsequent delivery process.

The first Library Telescope to be placed in Massachusetts was donated by Susan and Rich Schueller to Athol Public Library, Athol Mass. It was presented to the library on July 13, and Jared Robinson of the Athol Daily News was on hand to cover it (he wrote a detailed article that appeared in the paper the next day). The foster parent of the scope, for now, will be David Small of the Athol Bird and Nature Club, with Jim Zebrowski of the Aldrich Astronomical Society (AAS) as local backup. Rich Schueller is working with David on a “how to use the scope” instruction sheet for patrons to learn before they will be allowed to check it out, a procedure already in use at several libraries.

The other 9 scopes went to these libraries in New Hampshire:

Manchester City Library, Manchester
Gorham Public Library, Gorham
Richards Free Library, Newport
Paul Memorial Library, Newfields
Rodgers Memorial Library, Hudson
North Hampton Public Library, North Hampton
Bartlett Public Library, Bartlett
Meredith Public Library, Meredith
Nashua Public Library, Nashua

With this build, NHAS now has 79 LTP scopes throughout New Hampshire (and one above in Athol, MA). The scopes were delivered to their respective institutions by Ted Blank, Scott McCartney, Ramaswamy, Steve Rand, Rich Schueller, Gerry and Pete Smith, Dave Speltz and Marc Stowbridge. Thank you all!

AeroSpaceFest 2013 at MSDC

Ted Blank, Melinde Byrne, and Gerry & Pete Smith got things going with a 9am setup, and then marshalled the NHAS troops the rest of the day. The volunteer corps for the three 2+ hour shifts for the event included **Patrick Amoroso, Tom Cocchiario, Joe Derek, Andy Jaffe, Gardner Gerry, “Rags” Gilmore, Linda and Larry Lopez, Emma and Amy Lowe, Ramaswamy, Curt Rude, April South, Marc Stowbridge, Mike Townsend and Paul Winalski** (and possibly others).

The monthly business meeting was quickly convened by Tom Cocchiario (in Rich DeMidio’s absence) in the NHAS Tent outside; mostly, it involved the reading of the Treasurer’s Report. The other important item of the day was the excellent lunch ‘catered’ by Gerry and Pete.

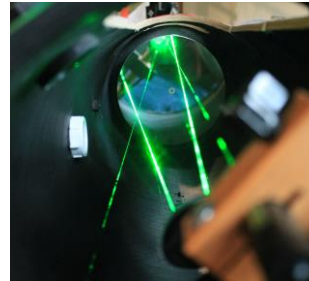
The Solar observing outside, and in the Observatory Dome, had a steady stream of customers (though the consensus was that past years had done better). The upstairs attractions included Smokey Joe and his GLP-assisted visual explanation of how a Newtonian works, an indoor glimpse of Saturn in a scope, Gardner’s pick of his astro-photographs projected onto a screen, and Emma’s attractive (and very creative) ideas for kids, including make-and-take prisms. Handing out brochures is a mundane but important activity at public out-reach events, and the NHAS booth was quite busy all day.

This year’s **AeroSpaceFest** featured a special attraction: Joe Derek’s hand-crafted 12.5 reflector on its custom-made Equatorial mount was the star of the front lobby. It couldn’t be used for observing, so it played its part without being touched. Not many passed by without a double-take and/or a chat with Joe Derek. And it being taken down at the end of the day was also quite a sight!

(Above right): The outside Solar party, with Mike, Andy, Tom and Pete in view, showed off prominences and sun-spots, while “Rags” pulled duty in the Dome (far right) with more solar viewing. In the lobby was the EQ mounted Newtonian, with its operation explained by Joe Derek (below). (All Photos: Ted Blank)



Melinde set out NHAS handouts in the booth upstairs, and in no time had a ‘customer’ who found her own comfortable little reading nook (below right), while Smokey Joe dazzled all comers with GLP simulated rays of star light (below left).



NHAS June 2013 Business Meeting Report

The monthly business meeting was held at MSDC, Concord NH on June 15th, with our Vice-president **Tom Cocchiaro** presiding. Since AeroSpaceFest was about to get underway, it was a minimal daytime gathering under the NHAS tent, and the only item of business was the reading of the Treasurer's report.

NHAS Treasurer's Report (as of June 14, 2013)

Starting Checking Balance: \$10,259.25
Deposits:
 Membership 30.00
 Donations 2,830.00
 Interest 0.47
Total: \$2,860.47

Expenses Paid:
 Cornerstones of Science (scope x10) 1,320.00
 Walmart (Waist bag x 7) 104.93
 OPT (Zoom EPx12, Lens Pen x 6) 733.42
 Barnes & Noble (Pocket Guide x 20) 176.50
 Heyco (DP 2000 Black x 50) 40.84
 Rackspace Cloud (Web space) 22.60
 ChicagoMicro (LED light x 10) 118.40
Total: \$2,516.69

Current Checking Balance: \$10,603.03
Petty Cash: \$100.00
Current Cash Balance: \$10,703.03
EOC Share: \$6,065.54

Membership: 133
 Renewals: 0x30.00 0.00
 New Members: 1x30.00 30.00
Total: 1 \$30.00
Current Members: 134

New Member:
 James Roberge Goffstown NH

Donations:
 Astronomy magazine EOC 2,500.00
 Friends of Meredith LTP 325.00
 Library, Meredith NH
 Anonymous GEN 5.00
Total: \$2,830.00

Contact Information

How to join NHAS

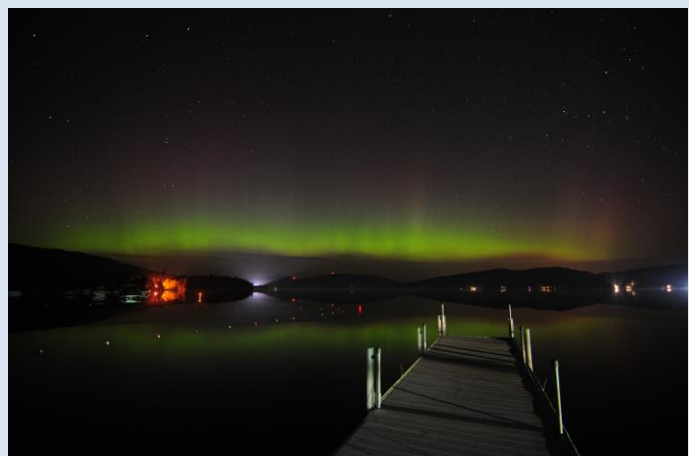
Write to us: **NHAS**
P. O. Box 5823
Manchester, NH 03108-5823

Send Email to: info@nhastro.com

Visit our web site: <http://www.nhastro.com>

How to contribute to the Observer

Email articles and snapshots to the Editor:
ramax.astro@yahoo.com



First Night in June: Aurora over Newfound Lake, in northern NH. See page 4 for more details. (Image: Patrick Bourque)

Event	Date	Time	Location
Lincoln Public Library Skywatch (backup date)	Tuesday, July 2	8:00pm	72 Linwood Drive, Lincoln NH
First Friday Skywatch for MSDC	Friday, July 5	7:00pm	MSDC, Concord NH
Coffee House Night at YFOS	Saturday, July 6	5:00pm	YFOS
Rey Center Skywatch	Saturday, July 6	9:30pm	Waterville Valley NH
Goffstown Public Library Skywatch	Monday, July 8	8:30pm	180 North Mast Rd, Goffstown NH
Gafney Library Skywatch	Thursday, July 11	8:00pm	Turntable Park, Rt 109, Sanbornville NH
Weare Public Library Skywatch	Friday, July 12	8:00pm	10 Paige Memorial Lane, Weare NH
Sidewalk Astronomy Skywatch	Saturday, July 13	6:00pm	Market Square, Portsmouth NH
YMCA of Greater Nashua Solar Observing	Wednesday, July 17	10:00am	YMCA of Nashua, Merrimack NH
NHAS EOC Meeting	Thursday, July 18	6:30pm	City Library, Manchester NH
Gafney Library Skywatch (backup date)	Thursday, July 18	8:00pm	Turntable Park, Rt 109, Sanbornville NH
In-Reach Skywatch	Saturday, July 20	7:00pm	Benedictine Park, Bedford NH
Chester Public Library Skywatch	Tuesday, July 23	8:30pm	Wason Pond Rec. Area, Route 102, Chester NH
Chester Public Library Skywatch (backup date)	Thursday, July 25	8:30pm	Wason Pond Rec. Area, Route 102, Chester NH
NHAS Business Meeting	Friday, July 26	7:30pm	St. Anselm, Manchester NH
Community Roots Skywatch	Saturday, July 27	8:00pm	Coppal House Farm, 118 North River Road, Lee, NH
Weare Public Library Skywatch (backup date)	Monday, July 29	8:00pm	10 Paige Memorial Lane, Weare NH
North Hampton Public Library Skywatch	Wednesday, July 31	8:00pm	237A Atlantic Ave. North Hampton, NH
First Friday Skywatch for MSDC	Friday, August 2	7:00pm	MSDC, Concord NH
Coffee House Night at YFOS	Saturday, August 3	5:00pm	YFOS
Rey Center Skywatch	Saturday, August 3	9:00pm	Waterville Valley NH
Pease Public Library Skywatch	Monday, August 5	7:30pm	1 Russell Street, Plymouth NH
Madison Old Home Week Skywatch	Tuesday, August 6	8:00pm	1381 Village Rd, Silver Lake, NH
Pease Public Library Skywatch (backup date)	Monday, August 7	7:30pm	1 Russell Street, Plymouth NH
NHAS Business Meeting	Friday, August 9	9:00am	MSDC, Concord NH

Credits

Contributors to this month's **Observer**:

- Ted Blank, Patrick Bourque, Melinde Byrne, Tom Cocchiario, Rich DeMidio, Rex Gallagher, *Mike Gee*, Gardner Gerry, "Rags" Gilmore, Rich Schueller, Gerry and Pete Smith, Don Ware, Dave Weaver and Paul Winalski