



NHAS Meetings 2nd Friday of Each Month

For the past several years, the date of NHAS's monthly meeting has been chosen to be as close to Full Moon as possible. The thinking was that this is the time of the month when members would be least likely to be out observing.

Several members have complained that having the meeting date jump around month to month makes it difficult to remember. They suggested that instead we pick a Friday in the month and consistently hold the meeting on that date.

Therefore, starting with August 2018, the NHAS club meeting will take place on the second Friday of each month.

✧ Paul Winalski

Solar Observing at Castle in the Clouds

Starting at 1 PM on each Monday in July and August, **Marc Stowbridge** will be conducting solar observing at Castle in the Clouds in Moultonborough NH. NHAS members who wish to help out at these events should contact Marc.

✧ Paul Winalski

Girl Scouts Star Party, July 7

This workshop took place at the McAuliffe-Shepard Discovery Center. Fifty girls and their parents attended. **Paul Winalski** gave an indoor presentation on telescopes and used NHAS's cutaway reflector, Smokey Joe, to demonstrate how Newtonian reflectors work.

For the outdoor observing, Paul, **John Bishop**, **Fred Dickie**, **Gardner Gerry**, **Marc Stowbridge**, and **Marc Tardiff** set up scopes. We got VERY good views of Jupiter. The Great Red Spot was so prominent that at first we thought it was a shadow transit.

✧ Paul Winalski

I thought it was a good time, as did my wife. She really got a kick out of the little, tiny girls getting their first looks through a scope. I think she gets why I have done similar events in the past (back in MA). "Oh my God" was a common phrase.

Nice job all!

✧ Marc Tardiff

Castle in the Clouds Sky Watch, July 10

Well, the sky was covered end to end, but still about forty people came to the presentation. I spoke about setting up a sky watch, including, ironically, reading a Clear Sky Chart. Other topics included the planets up at the time, what Messier Objects were and how to find them, telescopes, and how to connect with local astronomy clubs. I did mention in passing the LTP and distributed the cards linking to librarytelescope.org. Reportedly, all had a good time.

✧ Marc Stowbridge

Griffin Free Library Skywatch, Auburn NH, July 11

The event took place as scheduled. We had a large crowd--50+ people. There was a group of Boy Scouts who are working on their Astronomy merit badges. Skies

were partly cloudy. From NHAS we had **Paul Winalski**, **Herb Bubert**, and **Bob Veilleux** there with scopes.

Kathy Gowney, the Library's director, sent us this note:

"Thank you all, very much, for providing such a wonderful event last night. Our library patrons greatly enjoyed the event."

"Thank you also for your thoughtful donation of the planisphere. It will be added to our circulating collection in the next few days for our patrons to borrow."

"Have a wonderful day and we look forward to hosting another Skywatch in the future."

We also received this note from Mike Ouellette, Assistant Scoutmaster for Boy Scout Troop 127:

On behalf of Troop 127 boy scouts, I wanted to take the opportunity to say thank you for the wonderful stargazing program you put on last night at the Griffin Free Library. Needless to say, all the boys, the leaders, the parents, and of course myself enjoyed both the lecture and the "Star Party" afterwards immensely. I was extremely gratified to see that many of the topics covered during the lecture raised questions from some of the boys. This was important because it aptly demonstrated that the boys were actually paying attention! I'm looking forward to arranging another program like that perhaps later in the year when the fall/winter constellations come out to play."

"Thanks again for all you do for scouting!"

✧ Paul Winalski

Newfound Lakes Region Association Sky Watch, July 12

The event took place under partly cloudy skies. There were enough sucker holes for us to observe Venus, Jupiter, Saturn, and various DSOs. **John Bishop, Barrie Sawyer, and Paul Winalski** were there from NHAS with scopes.

The Ash Cottage site is dark, but there are trees partly obscuring the views from the field that is cleared.

✳ Paul Winalski

YMCA of Greater Nashua Sky Watch, July 13

This was the YMCA of Greater Nashua's Kick-off to Summer BBQ event at Camp Sargent in Merrimack NH.

The event took place under mostly clear skies. **Joe Dechene, Bob Vielleux, and Paul Winalski** were there from NHAS with telescopes. The event started at 6 PM, and I did solar observing with my Coronado PST. I had used a distant tree to align the spotting scope on Mr. T the 14" TScope, so I left it pointed there. After sunset we got good views of Venus and Jupiter, and a few other random objects. Over the course of the evening I'd say 70 or 80 people looked through the scopes. There was a reporter from the Nashua Telegraph covering the event. NHAS was mentioned in the article (published Saturday July 14), and there is a picture of a child looking at the Sun through my PST.

✳ Paul Winalski

Coffee House Night, YFOS, July 14

A little disappointing. It was cloudy after a beautifully clear week and only five people showed up.

However **Tim Printy** put together a great talk and he said he would be willing to give it again during a future business meeting.

✳ Larry LaForge

Sidewalk Astronomy, July 21

The Sidewalk astronomy in downtown Portsmouth at the Portsmouth Athenaeum, this past Friday evening was well attended. This was my first time that I brought my telescope to Portsmouth, and I had a great time working with the public.

Venus was up, and it was behind the building near us. Everyone was amazed to see the Earth's Moon in such detail. Then Jupiter and four moons appeared near the Earth's Moon, and that started getting everyone excited! As Saturn was also visible, we added that to the viewing options. Later a red Mars appeared! I did not count, but I think that we had a least seven telescopes set-up, with options for the Earth's Moon, Saturn, and Jupiter, and Mars later in the evening.

✳ Karl J. Dahlen II

Merrimack Parks and Recreation Department, July 24

The event took place at Wasserman Park in Merrimack NH. Twenty people had signed up, but only about ten showed up, most likely due to the date change (we were clouded out on the first scheduled date). Skies were partly cloudy, hazy, and damp. **Steve Rand** gave the indoor presentation. **Joe Dechene, Bob Veilleux, and Paul Winalski** were there with scopes. We got very good views of the Moon and Jupiter. A transit and shadow transit of Io was in progress at the start of the observing.

✳ Paul Winalski

Lane Memorial Library Sidewalk Observing, North Beach, Hampton NH, July 31

This event was held as (re)scheduled on July 31. **Herb Bubert, Tom Cocchiaro, Gardner Gerry, and Paul Winalski** were there with scopes. Seeing was steady but skies were very hazy.

We concentrated on planets: Venus, Jupiter, Saturn, Mars. And the gibbous Moon at the very end of the observing session. I also showed Albireo.

✳ Paul Winalski

NHAS in the News

The July 14 2018 edition of the Nashua *Telegraph* has an article on the YMCA Kick-off to Summer BBQ event on page A-3. NHAS's sky watch is mentioned, and there is a picture of a boy looking at the Sun through my Coronado PST on page A-5.

✳ Paul Winalski

Carbon Star of the Month

S Cephei is a red giant pulsating regular variable, at RA 21^h35^m13^s, DEC 78°37'28". It is about 2/3 of the way on a line drawn between γ Cephei and κ Cephei.

Spectral class is C6₂, and the visual magnitude varies between 6.5 and 8.3 in 486-day cycle. Currently it is magnitude 7 and dimming. Surface temperature is about 2760°K. Its angular diameter has been measured by very-long baseline interferometry. Parallax measurements give a distance of about 1326 light years.

The star shows evidence past mass loss in the form of infrared shells out to a distance of 37,000 AU.

✳ Paul Winalski

NHAS July 2018 Business Meeting

The July business meeting was held on July 27 at the McAuliffe-Shepard Discovery Center, our President, **Marc Stowbridge**, presiding.

Rey Center

David "Rags" Gilmore reported that this month's Rey Center event was cancelled due to the weather.

Membership

Larry LaForge said that the July Coffee House Night was lightly attended. **Tim Printy** gave a very good presentation on counting meteors.

YFOS

Steve Forbes and Larry Lopez will be meeting with a contractor to mark off boulders to be removed. We will be needing a work crew.

David Roy has access to an excavator NHAS can use.

We need a 16 x 25 shed to house the mower, etc. Paul Winalski will check with Reeds Ferry Lumber.

Public Observing

Marc Stowbridge has been conducting solar observing on Mondays at Castle in the Clouds. This will continue through the end of August.

EOC/LTP/LPP

Steve Rand and Pete Smith report that a planisphere has been given to Auburn Library. One more is in the pipeline.

We got a niche thank-you letter from Wilton Library.

Other Business

The schedule for our meetings at Saint Anselm College has finally been nailed down.

Dwight Lampher announced that this year's Acadia Night Sky Festival will take place September 6-9. Dwight gave details on some of the events.

Scope of the Month

Joel Harris presented a 70mm refractor with a go-to mount. Joel machined a 2" adaptor for it, and a set of 2" extenders for camera use.

Magazine of the Month

The latest issue of *Discover* magazine has an article on Ed Ting's trip to Chile.

Gadget of the Month

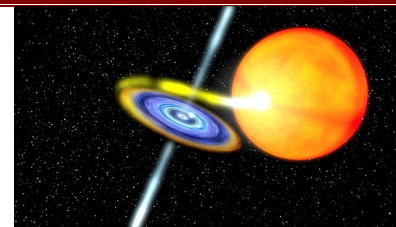


Marc Stowbridge presented a parallelogram binocular tripod. Marc fashioned a metal bracket so that the binos hand in the mount. This prevents them from coming loose or flopping around.

Evening Presentation



Tarraneh Eftekhari, is a Harvard-Smithsonian Center for Astrophysics grad student, studying astrophysical transients (phenomena that occur on human-observable time scales). This typically entails the deaths of stars in a variety of ways, including tidal disruption events, which occur when stars wander perilously close to black holes and are ripped apart, super-luminous supernovae and gamma-ray bursts, which produce brilliant explosions following the collapse of massive stars, and fast radio bursts--mysterious bursts of radio emission emerging from outside the Milky Way. Despite a growing number of detections, the central engines powering many of these sources are still not known. Using a combination of radio and X-ray observations, she is studying these sources in an attempt to constrain the underlying physics governing these events.



Black hole eating a star. (image courtesy Tarraneh Eftekhari)

The Bottom Line

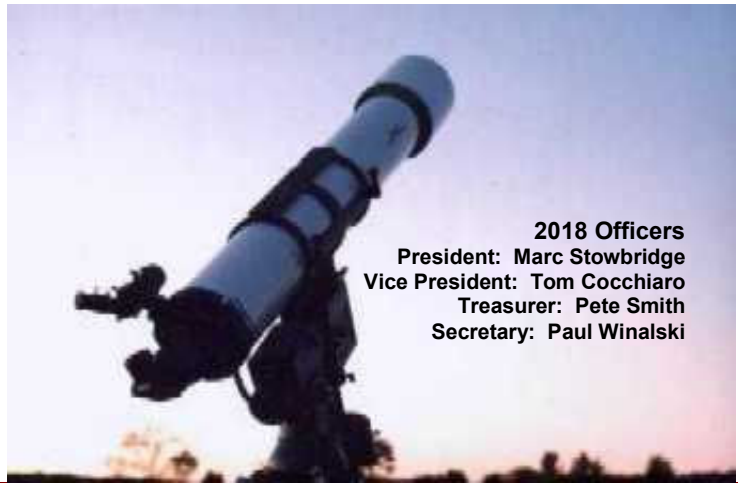
Income and expense report for the month of February 2018:

Income:	
Membership:	320.00
General Fund Donations:	105.00
EOC Donations:	102.00
NHAS Logo Wear Sales:	120.00
Bank interest:	0.36
Total Income:	647.36

Expenses:	
Astronomy League:	257.50
Gifts (laser pens):	196.89
PayPal Fees:	16.49
Planispheres:	191.52
Subscriptions:	66.95
Website:	60.28
YFOS (mower parts):	110.68
Total Expenses:	744.41

Net Income:	119.05
Cash Balance:	\$15149.99

* Pete Smith
NHAS Treasurer 2018



2018 Officers
President: Marc Stowbridge
Vice President: Tom Cocchiaro
Treasurer: Pete Smith
Secretary: Paul Winalski

DEADLINE August 2018 Issue: 5 September 2018

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

Use our web site:

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

This month's contributors:

Karl J. Dahlen II, Larry LaForge, Pete Smith, Marc Stowbridge, Marc Tardiff, Paul Winalski

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NHAS Upcoming Events

Event	Date	Time	Location
Goffstown Public Library Sky Watch	August 1	7:30 PM	Water Works Property, Goffstown NH
Discovery Center Sky Watch	August 3	7:00 PM	McAuliffe-Shepard Discovery Center, Concord NH
Outing Club Sky Watch	August 4	8:00 PM	Opposite 724 Main Street, New London NH
Solar Observing	August 6	1:00 PM	Castle in the Clouds, Moultonborough NH
Castle in the Clouds Sky Watch	August 7	8:00 PM	Castle in the Clouds, Moultonborough NH
Madison Old Home Week Sky Watch	August 7	8:00 PM	Burke Field, Madison Road, Madison NH
Derry Public Library Presentation	August 8	6:30 PM	Derry Public Library, Derry NH
Derry Public Library Sky Watch	August 9	8:30 PM	Broadview Farm Conservation Area, Derry NH
Stellafane 2018	August 9-12		Stellafane Clubhouse, Springfield VT
NHAS Monthly Meeting	August 10	7:30 PM	McAuliffe-Shepard Discovery Center, Concord NH
Coffee House Night	August 11	5:00 PM	YFOS
New Boston Farmer's Market Sky Watch	August 11	8:00 PM	7 Meetinghouse Road, New Boston NH
Brookline Public Library Sky Watch	August 11	8:30 PM	Brookline Public Library, Brookline NH
Rey Center Sky Watch	August 11	9:30 PM	Curious George Cottage, Waterville Valley NH

Solar Observing	August 13	1:00 PM	Castle in the Clouds, Moultonborough NH
Taylor Community Sky Watch	August 14	7:30 PM	Taylor Community, Laconia NH
Hooksett Public Library Sky Watch	August 16	6:30 PM	Hooksett Public Library, Hooksett NH
Sidewalk Astronomy	August 18	6:00 PM	Market Square, Portsmouth NH
Solar Observing	August 20	1:00 PM	Castle in the Clouds, Moultonborough NH
Cobblestone Pointe Sky Watch	August 21	7:30 PM	Cobblestone Point Active Living, Concord NH
Solar Observing	August 27	1:00 PM	Castle in the Clouds, Moultonborough NH
Chester Public Library Sky Watch	August 27	8:00 PM	Wason Pond, Chester NH
Gafney Public Library Sky Watch	August 28	8:00 PM	Turntable Park, Sanbornville NH