

Market Square Day

Solar Observing at Castle in the Clouds

From 1-4 PM on each Monday in July and August, **Marc Stowbridge** will be conducting safe solar observing in white light and H α at Castle in the Clouds in Moultonborough. If you have a solar scope, please join in the fun.

✧ Paul Winalski

Meadowbrook Dads Campout Sky Watch, June 9

Every year the dads of the Meadowbrook School in Weston hold a weekend campout at Camp Osceola in Waterville Valley. For the past several years they have included a NHAS sky watch as part of their festivities.

I was there from NHAS this year. We had near perfect weather conditions. There were over 100 children and their dads. While waiting for twilight I showed the kids how refractors and reflectors work, and they watched me set up Mr. T. the 14" TScope dob. We observed Venus, Jupiter, Mizar, M3, M13, M57, M27, and M81/M82.

✧ Paul Winalski

Portsmouth Market Square Day, June 9

My thanks to the volunteers who came out Saturday to support our outreach activities at this year's Portsmouth Market Square Day. While the skies were kind of milky all day there was enough transparency to give the crowds

good views of the sun. We had some small prominences and filaments during the day and tons of passersby who were wowed by their first views of the sun.



Setting up for Market Square Day. Left to right: Steve Panish, Marc Stowbridge, Gardner Gerry, Pete Smith, Mike Deneen, Tom Cocchiario.



Andy Jaffe conducts solar observing. At the far right in the Orion hat is Steve Panish answering questions about the Sun. (Tom Cocchiario photos)

Participating volunteers were **Pete Smith, Gerry Smith, Marc Stowbridge, Mike Deneen, Bob**

Veilleux, Gardner Gerry, Andy Jaffe, Steve Panish, Larry LaForge and Tom Cocchiario.

✧ Tom Cocchiario

Maple Ridge Estates Sky Watch, June 12



Maple Ridge residents watch Paul collimate his 14" telescope. (Gillian Reeve photo)

Steve Rand gave the indoor presentation at the Maple Ridge Estates retirement community in Bedford NH. **Gardner Gerry** and **Paul Winalski** were there with telescopes for the sky watch. **Dustin Ruoff** brought binoculars.

✧ Paul Winalski

Observing at Starport, June 15-18

Barrie Sawyer graciously hosted a star party for members of local Astronomy clubs at Starport, his home in Groton NH, over the weekend of June 15-18. I arrived on Friday afternoon to help set up

Godzilla, Barrie's 36" Obsession telescope.



Paul meets Godzilla (Tom Cocchiaro photo)

Tom Cocchiaro and Rich DeMidio were also there from NHAS. We had good weather both Friday and Saturday night. Godzilla is an amazing instrument. Many thanks to Barrie for his hospitality.

✧ Paul Winalski

Carbon Star of the Month

T Lyrae is a red giant pulsating irregular variable at RA $18^{\text{h}}32^{\text{m}}20^{\text{s}}$, DEC $36^{\circ}59'55''$. It is located at roughly the same angle and distance from Vega as ϵ Lyrae, but on the other side of Vega.

Spectral class is C6₅, and the visual magnitude varies between 7.5 and 9.2 in an irregular fashion. Currently it is about as dim as it gets. Surface temperature is about 3200°K. At a distance of about 2345 light years, the shines 15,810 times brighter than our Sun.

T Lyrae's absolute magnitude in visible light is -1.78, but in band K infrared it is -8.4. This is one of the reddest of the carbon stars.

✧ Paul Winalski

NHAS June 2018 Business Meeting

The June business meeting was held on June 22 at the McAuliffe-Shepard Discovery Center, our President, Marc Stowbridge, presiding.

Membership

Larry LaForge reported that Coffee House Night at YFOS took place this month. He gave a talk on Barnard's Star. For July a pot luck supper and talk on meteor counting by Tim Printy are planned.

YFOS

Larry Lopez reports that he and Steve Forbes are working with Jim Young to work with a local excavation contractor to fix the rock and rut problem.

Public Observing

Paul Winalski reported that we had very few sky watches in June, but it will be a busy July.

Pete Smith said there were 30-40 thousand people at Market Square Day. We had good weather, good member turnout, and lots of interest in the club.

LTP

Pete Smith reports that Ed Ting took a library scope on his trip to Chile. There is an opportunity here to donate another scope. There have been no requests recently for placement of more library scopes in New Hampshire.

LPP

Steve Rand has placed planispheres in the Wilton and Lyndenborough libraries.

Other Business

Marc Stowbridge presented "LTP on the Web". There has been discussion of the Library Telescope Program on Cloudy Nights and librarytelescope.org. Orion is partnering with Cornerstones of Science in a program called STAR (Sharing Telescopes and Astronomical Resources) that aims to place lending telescopes in libraries across the United States. So far twenty-two states are participating in STAR.

Book of the Month

Steve Forbes presented a medical article on the dangers of LED lighting, which has adverse health effects because it is too blue.

Pete Smith presented E. Roger Cowley's book "Gauging the Solar System", which describes how ordinary people can measure various solar system values and parameters for themselves.

Gadget of the Month

Marc Stowbridge handed around a crystal of Icelandic spar with two spots on it. When both spots are at

the same density, you are looking at polarized light from the Sun as seen through clouds. It's thought that this may be the legendary Viking "sun stone" that they used to locate the Sun when the sky is cloudy.

Hack of the Month

Paul Winalski presented an Excel spreadsheet that implements the eyepiece math that Marc presented at May's club meeting.

Evening Presentation

Larry LaForge gave a talk on Barnard's Star.

The Bottom Line

Income and expense report for the month of May 2018:

Income:

Membership:	120.00
General Fund Donations:	25.00
EOC Donations:	18.50
NHAS Logo Wear Sales:	100.00
Bank interest:	0.38
Total Income:	263.88

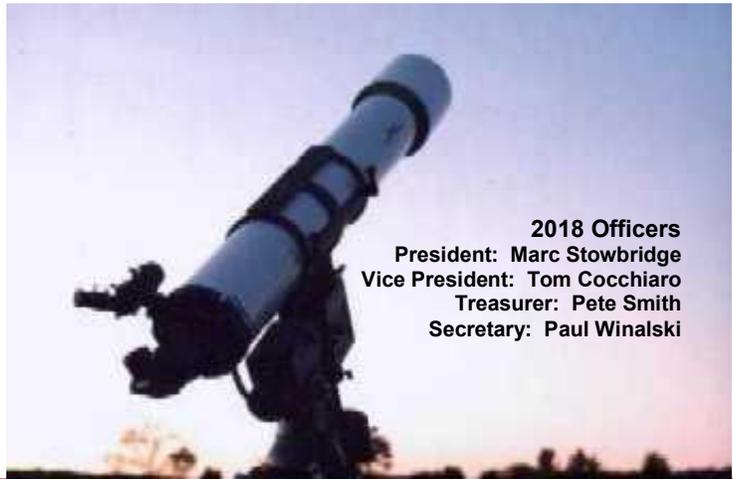
Expenses:

PayPal Fees:	2.20
Website:	58.44
Total Expenses:	60.64

Net Income: 203.24

Cash Balance: **\$15269.04**

✧ Pete Smith
NHAS Treasurer 2018



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

DEADLINE July 2018 Issue: 5 August 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:

Rich DeMidio, Joe Derek, Steve Rand, Pete Smith, Marc Stowbridge, Ed Ting, Paul Winalski

New Hampshire Astronomical Society
P.O. Box 5823
Manchester, NH 03108-5823



NHAS Upcoming Events

Event	Date	Time	Location
Solar Observing	July 2	1:00 PM	Castle in the Clouds, Moultonborough NH
Discovery Center Sky Watch	July 6	7:00 PM	McAuliffe-Shepard Discovery Center, Concord NH
Girl Scouts Sky Watch	July 7	7:00 PM	McAuliffe-Shepard Discovery Center, Concord NH
Solar Observing	July 9	1:00 PM	Castle in the Clouds, Moultonborough NH
Castle in the Clouds Sky Watch	July 10	8:00 PM	Castle in the Clouds, Moultonborough NH
Griffin Free Public Library Sky Watch	July 11	8:30 PM	Griffin Free Public Library, Hooksett NH
Newfound Lake Region Assn. Sky Watch	July 12	8:30 PM	Ash Cottage, North Shore Road, Hebron NH
YMCA of Greater Nashua Sky Watch	July 13	6:00 PM	Camp Sargent, Merrimack NH
Coffee House Night	July 14	6:30 PM	YFOS
Rey Center Sky Watch	July 14	10:00 PM	Curious George Cottage, Waterville Valley NH
Solar Observing	July 16	1:00 PM	Castle in the Clouds, Moultonborough NH
Sidewalk Astronomy	July 21	6:00 PM	Market Square, Portsmouth NH
Solar Observing	July 23	1:00 PM	Castle in the Clouds, Moultonborough NH
Merrimack Parks & Recreation Sky Watch	July 23	8:00 PM	Wasserman Park, Merrimack NH

NHAS Monthly Meeting	July 27	7:30 PM	McAuliffe-Shepard Discovery Center, Concord NH
Solar Observing	July 30	1:00 PM	Castle in the Clouds, Moultonborough NH
Lane Memorial Library Sky Watch	July 31	8:30 PM	North Beach, Hampton NH