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Paul Winalski

The NHAS Observer

Newsletter of the New Hampshire Astronomical Society

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Sidewalk Observing

Highlights for This Month

The dim red spotlight shines this month on our monthly Sidewalk Observing program. Each month, on the Saturday night closest to the first quarter Moon (check the NHAS website calendar for exact dates) we set up scopes on the sidewalk of Market Square in downtown Portsmouth to show off the Moon and whatever else we can find. It's a great time for both us and for the public.

❋ Paul Winalski
NHAS Secretary 2012

Rey Center Sky Watch, Waterville Valley NH, 18 February 2012

The Ray Center event went very well, and we had lots of people. I set up about 4 in the parking lot, as I had nothing better to do, and bunches of people from the rec center came to look at Jupiter and Venus, who were quite visible in the dusk. I packed up after 9, and went to my room that had space to sleep, I think, about 37 people given the Murphy bed, trundle bed, fold out sofa and regular beds. I squeezed myself in, and slept well. Next AM I went to the town square area and set up solar scopes. I left about 1:30, having a non-stop parade of people taking their first look at solar flares and Sun spots. They had lots of nice comments and were to a person, appreciative.

❋ Marc Stowbridge

Observing Report, Nashua NH, 20 February 2012

The sky was predicted to be clear and transparent so I set up my OA-9.0 at 6:30 PM and let it cool down for a few hours. The sky was dark (mag 3-and-a-bit as is usual for my in-town back yard). Seeing was good, better than predicted by the Clear Sky Chart. Castor was an easy split at medium power and the "C" star was visible. M42 was partly behind a pine tree, so I wasn't working with the full telescope aperture but the "E" star in the Trapezium was just barely visible in fleeting glimpses.

As an experiment, I put my OA-9.0 telescope on my equatorial platform to see whether it would balance and track. It did! It was nice to not have to hand-track! The bad part was that the eyepiece was a foot higher than when the telescope was on the ground, so I had to go up two or three steps on the ladder instead of none or one. Another bad part was that while taking it all down at the end of the session I put my knee through both of the plastic grilles over the vent hole while lifting the mirror box. That's operator error! They should be fixable with superglue...

At 7:00 PM I observed Jupiter for a bit but my main observing session was from 9:30 to 11:30 PM. I also looked at M36 and M37, M35 (the companion cluster NGC 2158 was visible but didn't resolve to stars), M51, NGC 2329 and M44. I tried to find the Flame (NGC 2024), M78 and the galaxies M96 and M105 in Leo, but the sky was too bright for me to find them.

Looking at planets, Jupiter's moons were visibly discs. Europa was just off the edge of the planet and about to be occulted. The two big bands were visible as well as minor bands in the southern hemisphere but (this being early in the evening) seeing wasn't good enough for me to see smaller details. Later on the seeing got better and I saw surface detail on Mars. The polar cap was a white chip on the bottom of the view and there was a dark patch on the upper left (which would be the south-west). A large "C" shape was traced by Mare Acidalium, Mare Erythraeum and Mare Sirenum. As usual, the Wratten 30 magenta filter was a big help in seeing detail on Mars.

❋ John Bishop

Antrim Elementary School Sky Watch, Antrim NH, 23 February 2012

The Antrim event was very well attended (187; 80 more people signed up at the last minute). Sky conditions were partly cloudy--there were large gaps in the clouds and we got in a lot of good observing.

My thanks to all the NHAS members who showed up with scopes: **Patrick Adams**, **Herb Bubert**, **Gardner Gerry**, **Michael LaBree**, **Rich DeMidio**, **Paul Winalski**. The school is very happy with how it went and plans to invite us back.

❋ Paul Winalski

Astro 201: Carbon Stars, 25 February 2012

About a dozen or so NHAS members came to YFOS to participate in **Paul Winalski's** workshop on the extremely red carbon stars. Unfortunately, practical observing was clouded out.

❋ Paul Winalski

Mars Observing Report, Nashua NH, 26 February 2012

The sky was clear; I could just barely see the magnitude 4 star in the bowl of the Little Dipper (Ursa Minor) with averted vision, so the darkness was just short of mag. 4. I set up my OA-6.5 to cool early in the evening and observed for half an hour around 11:30 PM (4:30 UT on the 27th). The long cooling helped: there were no visible currents from a 'warm' mirror. The seeing was very good; stars focused to little dots (but I didn't see the first diffraction ring).

I concentrated on Mars, which was nearly overhead and 13.8 arc-seconds in diameter. While this isn't a very close apparition of Mars, the planet is high in the sky, so you can see considerable detail when the seeing is good.

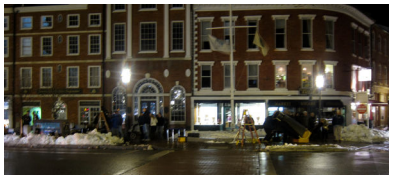
Mars was much sharper than usual due to the good seeing, with clearly visible color at 143x (12 mm UO eyepiece) and pale color at 191x (9 mm UO eyepiece). What follows is the result of comparing my sketches made at the time with the *Sky and Telescope* "Mars Profiler" the next morning; I draw without reference to a map so that I won't draw what I expect but only what I see! I mostly used a magenta filter (Wratten #30) with a University Optics 9 mm "HD" orthoscopic eyepiece. With the filter, colors were clear in the 9mm. The telescope was hand-tracked.

The North polar cap showed clearly; the South polar area was lighter in tone than the 'red' regions nearer the equator, but I suspect that was either clouds or just the contrast with the dark band across the southern temperate regions composed of Sinus Meridani, Sinus Margaritifer and Mare Erythraeum. I could see an angled break in the band which corresponds to the break between Erythreaum and Margaritifer Sinus on the map (as an aside, that's a name I've never seen before; it's one of the old "albedo features" that are no longer used scientifically. It means "Pearl-bearing Bay". Wikipedia says it's got lots of fossil lakes).

Mare Acidalium stood out as a big dark patch with sharp edges, the 'points' going left and right at the North end were visible as was the Eastward tilt of the Mare as a whole. The trailing side (Tharsis) looked lighter in color (less orange) than the preceeding side (Eden); this fits the map which shows some minor dark areas to the immediate west of Mare Acidalium.

❋ John Bishop

Sidewalk Astronomy, Market Square, Portsmouth NH, 3 March 2012



View of the setup from across the street (Ted Blank photo)

Great views through Herb's 12½" Starmaster (Dave Weaver photo)

After four days of continuous cloudy, snowy and rainy weather the skies cleared right at 5pm as predicted by CSC and the March, 2012 sidewalk astronomy evening in Portsmouth came off right on schedule.

Gardner Gerry and his 8" dob (Ted Blank Photo)

Tom Cocchiaro shows off the sky (Dave Weaver photo)

Present were **Shane Cross**, **Herb Bubert**, **Gardner Gerry**, **Rich DeMidio**, **Harvey Lipman**, **Tom Cocchiaro**, **Dave Weaver**, and **Ted Blank**. Ted did a little shoveling of snow around 4 PM to clear the sidewalks which were still a mess from the recent storm. Targets for the evening included Jupiter, Venus, Mars, the Moon, and M42 (in Obby). Naturally with Obby on scene the longest lines formed around Rich and he was super busy all evening, but everyone had visitors for as long as they could stay. We started to wrap up around 11 PM. Temperatures started in the 30s and probably got down to the high 20s, not a bad night at all. A few clouds and foggy patches blew through but other than that the Moon was sharp all night. Bad seeing played havoc with Jupiter and Mars though; I could see the jet stream whipping across Jupiter's disk much of the night. Still, we gave out about fifty brochures and at least twenty people took club membership applications. It was a great night.

❋ Ted Blank

Rich DeMidio and Obby (Ted Blank photo)

I slept till almost 930am this morning. That tells you how tired I was from the constant flow of people for nearly six hours. We had the full range of people from knowing nothing about Astronomy to faculty at UNH. I had a great time and will definitely help in future events schedule permitting. Great job Ted in organizing the event. Was great to see a lot of NHAS folks present.

❋ Rich DeMidio

Ted Blank with his scope and Moon map

The moon map in the pictures above is a shaded topographic relief map by Maurice Collins of New Zealand. It was featured on Lunar Picture of the Day for December 4, 2011. You can link to that site here: http://lpod.wikispaces.com/December+4%2C+2011 Maurice has given us permission to reproduce the map for educational purposes. Yellow and orange are areas above mean lunar elevation and blues and purples are below mean lunar elevation. He put in all the labels manually in Photoshop.

The gooseneck clamp-on lamp is an LED lamp available from Staples. I cut off the transformer and ran it on 7 AA batteries to give 10.5 volts (it runs on 10.2). It was nice and bright all night. Today I tested it with a 9V battery and it also runs on 9V. With some red taillight repair tape over the LEDs it should make a very nice astronomy lamp for reading maps. Staples sells it for $25.

❋ Ted Blank

Highland-Goffe's Falls Elementary School Sky Watch, Manchester NH, 7 March 2012

Over twice as many students and parents showed up as had been planned–we had 125+ people, and for the early part of the evening we were mobbed.

Big crowds! (Ted Blank photo)

The sky was perfectly clear the whole day, and the Clear Sky Chart predicted cloudiness coming in at about 8 PM, so we called this one a go. Unfortunately the clouds came in early. As I left Merrimack 1/2 hour before the event, skies were still fairly clear. By the time the sky watch started at 7 PM, only the Moon was partly visible through the clouds, and conditions appeared to be worsening. **Gardner Gerry** had to cut his indoor presentation short so that we had some chance of anyone seeing anything.

Gardner gave the indoor presentation to a large and attentive audience (Ted Blank photo)

We were set up in a parking lot lit by bright floodlights both around the lot and from the school building. Given the sky conditions, it hardly mattered. The school has an unlit athletic field adjacent to the parking lot. This would be ideal if there is no snow on the ground.

Gardner was busy outdoors, too! (Ted Blank photo)

Fortunately, things improved a bit later on. I was able to show Jupiter and its three moons (Io was occulted), with some detail visible in the 14" TScope. And a first-quarter-style Venus. And later on, even Mars, with some surface detail intermittently visible. The lunar view really cleared up after 8 PM. And I was even able to show off one deep-sky object (the septuple star system Sigma Orionis) to those who stayed late.

I'm disappointed that most of those who showed up for this event only got a blurry, cloud-obscured view of the Full Moon, but you have to take what the sky conditions give you, and we did our best.

The organizers were pleased, and I think they'll have us back for a third go-around.

My thanks to all the NHAS members who participated (**Ted Blank**, **Herb Bubert**, Gardner Gerry, **John Pappas**, **Paul Winalski**) under poor conditions and with an exceptionally large crowd.

❋ Paul Winalski

The folks at Highland-Goffes Falls Elementary School generously donated $100 to NHAS last night in appreciation of our efforts.

Despite the unexpected clouds, we viewed the Moon, Venus, Jupiter and Mars with an estimated 150-200 people.

Thanks to those members that attended.

❋ Gardner Gerry

NHAS February 2012 Business Meeting

The February business meeting was held at the McAuliffe-Shepard Discovery Center on 17 February 2012, our President, **John Bishop**, presiding.

President's Report

Every year we say, "We need a history of NHAS" but nothing happens. This year we have a volunteer: **Joel Harris**, assisted by **Paul Winalski** and **Bill Steele**. Contact them if you have documents or photographs.

Board of Directors

Gardner Gerry reports that the loaner telescope program is sorted out. We have caretakers for all of the club's loaner scopes. **Ken Charles** had the 8" dob loaner scope, for which he is the caretaker, present at the meeting).

An action item for John Bishop: schedule an Officer's meeting for this quarter.

Rich Schueller has acquired a number of second-hand Pelican-type cases highly suitable for storing and transporting scope gear. They are available for a suitable donation to the EOC.

The Board is discussing upgrading the club's Lunt solar scope.

An action item for the Board: we need a survey of the current condition of the physical plant at YFOS.

The club tent needs a new tarpaulin.

Educational Outreach

Matt Amar gave the report.

Rey Center update: We still need primary astronomers for July, August, and December. We need back-up astronomers for all dates.

AeroSpaceFest and NEFAF update: AeroSpaceFest will be on 5 May. We need a NHAS coordinator for this event.

Library Telescope Program update: The scopes donated by Oceanside Photo and Telescope are being placed. Seven OPT replacement scopes have been ordered. The next library scope modification party is tentatively scheduled for 18 March. The McAuliffe-Shepard Discovery Center is accepting delivery of the scopes for us. The OPT thank you plaque is here. We will be presenting it to Craig Weatherwax at NEAF.

Upcoming other events:
Portsmouth Market Days
Portsmouth Children's Day
June 5 transit of enus

Pubic Observing

Paul Winalski reports that we have had a lot of events scheduled, and also a lot of events delayed or cancelled due to overcast skies. An event in Antrim is coming up.

Membership

Bill Steele requests volunteers to present workshops.

Check the NHAS event calendar for upcoming workshops. This month's events include:

Astro 101: YFOS Orientation

Astro 201: Carbon Stars

Lapsed members have been removed from the NHAS email distribution list, and the website password has been changed.

Astrophotography

Gardner Gerry invites all to view the astounding images recently posted to the "Pictures" forum on the NHAS website.

Miscellaneous Business

We still need guest speakers for the 2012 NHAS business meetings!

6", 8" and 10" loaner scopes are now available for NHAS members.

We need guest speakers for all of 2012. Contact John Bishop if you have a prospective speaker.

Finder of the Month

Marc Stowbridge showed how to modify a EZ2 finder, sticking a Radio Shack battery pack onto the side of the finder. AA batteries are much easier to find and to change than the original disc batteries.

Evening Presentation

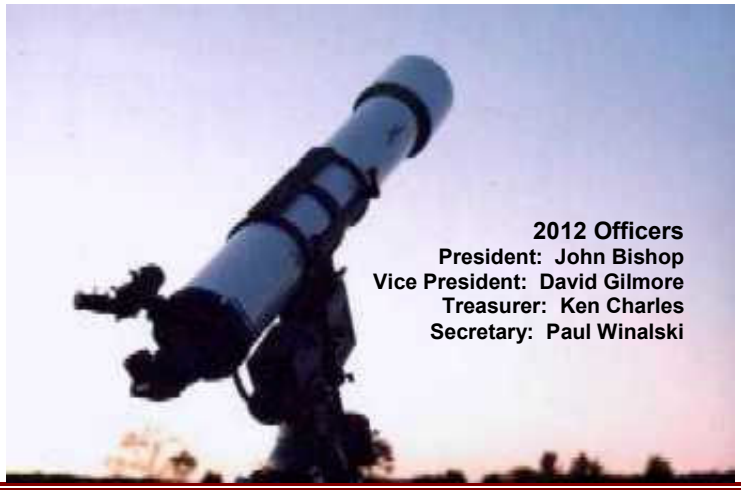
Rich DeMidio, "Journey of an Amateur Astronomer".

The Bottom Line

Starting Balance:	**$14537.70**
Deposits/Credits:	
Membership:	210.00
Bank interest:	1.34
Sales of misc. items:	43.00
Total :	254.34
Accounts/Paid:	
Rackspace Cloud:	22.62
Cynric Co. (plowing)	299.75
USPS (PO box)	180.00
Peerless Insurance Co.	1447.00
UNH Physics Dept. (NEFAF 2012)	500.00
John Rose (loaner scope program)	293.18
Total:	2742.55
Net Account Balance:	**$12049.49**
Petty cash drawer:	$100.00
Cash Balance:	**$12149.49**
EOC Share:	**6664.43**

Membership: 116

❋ Ken Charles
NHAS Treasurer 2012



2012 Officers
President: John Bishop
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Treasurer: Ken Charles
Secretary: Paul Winalski

DEADLINE March 2012 Issue: 5 PM March 13
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:
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Manchester, NH 03108-5823
Attn: Treasurer

Send E-mail to:
info@nhastro.com

Use our web site:
http://www.nhastro.com/

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NHAS Upcoming Events

Event	Date	Time	Location
Astro 201: Titan Mount	March 17	6:30 PM	YFOS
Telescope Mod Party, Part III	March 18	10:00 AM	McAuliffe-Shepard Discovery Center, Concord NH
Rye Public Library Sky Watch	March 20	7:30 PM	Seacoast Science Center, Rye NH
Great Brook Middle School Sky Watch	March 21	6:30 PM	16 School Street, Antrim NH
Bedford High School Sky Watch	March 22	7:00 PM	Benedictine Park, Bedford NH
NHAS Spring Messier Marathon	March 23	5:00 PM	Lopez Residence, New Boston NH
Rey Center Sky Watch	March 24	7:30 PM	Curious George Cottage, Waterville Valley NH
Dublin Consolidated School Sky Watch	March 27	6:30 PM	1177 Main Street, Dublin NH
Amherst Public Library Sky Watch	March 29	7:00 PM	Amherst Public Library, Amherst NH
New Outlook Teen Center Sky Watch	March 29	6:30 PM	Stratham Hill Park, Stratham NH
Sidewalk Astronomy	March 31	6:00 PM	Market Square, Portsmouth NH
Educational Outreach Committee Meeting	April 5	6:30 PM	Manchester City Library, Manchester NH