

## Pleiades Occultation

### President's Message

Once again Mother Nature put an end to NHAS's chances of holding the regularly scheduled Messier Marathon with rain on the 4<sup>th</sup> and clouds and haze on the 5<sup>th</sup>. Despite the clouds the Lopez residence was buzzing with good food, coffee and of course a yard full of great scopes brought by members hoping for clear skies. We are looking to schedule a Marathon in the fall at a new location; stay tuned for more on this event. There was a very successful practice session held at YFOS the week before where several members endured temperatures in the low teens but spent the entire night anyway enjoying what seems like rare clear skies this spring.

The spring school sky watch season is well underway, fortunately the nights have been clear for these events that have been well attended by NHAS volunteers.

Also coming up is our Astronomy Day event held with CMP during their Spacetacular Saturday on May 3<sup>rd</sup>. Please contact the Astronomy Day coordinator (me) if you plan to attend and have not already contacted me.

We are going to try to keep better attendance figures at the public sky watches so if you attend please look for a sign-up sheet with an officer or public observing committee chairperson. And thank you for supporting this major function in NHAS's mission.

★ Gardner Gerry  
NHAS President 2008

### Highlights for this Month

As Gardner said, bad weather ruined our final attempts to hold the annual Messier Marathon, so instead a party was held.

The weather was kinder to our public sky watch calendar, and scheduled sky watches in Merrimack, Nashua, and Hampstead took place as scheduled under clear skies.

An occultation of the Pleiades by a waxing crescent Moon was visible on the night of 8 April. Some of us stayed late after the New Searles School sky watch in Nashua to observe it.

12 April was International Sidewalk Astronomy Night. **Ted Blank** gives a report of one of his "random acts of observing."

★ Paul Winalski  
NHAS Secretary 2008

### Membership and Astro 101/201

The weather gods have been unkind to Membership Education this month. We had our rescheduled Stellar Evolution: Astro 201 postponed due to our last snowstorm. We had our Astro 101: Deep Sky Observing, Stars postponed due to freezing rain and ice, and we had our Astro 101: Collimation postponed due to clouds and the disappearance of those bright point sources of light used to collimate telescopes.

On the bright side we have several new members this month.

**Alfonso Navarro**, Manchester, NH  
**Norman Williams**, Bow, NH

**Charles Vaillancourt**, Goffstown, NH

**Tom Charest**, Nashua, NH  
**Katharine Gilbert**, Hancock, NH

Several have already attended business meetings and participated in sky watches.

On Friday May 2<sup>nd</sup>, during our normal CMP Sky Watch, NHAS and CMP are encouraging the public to bring their mothballed telescopes to this sky watch so we can help them work through the issues that prevent them from using their telescope.

I will give a 20 minute presentation in the Planetarium prior to migrating to the field in an attempt to work around the reasons that these scopes were mothballed in the first place. Assistance from any NHAS members in the field, not overseeing their own telescope, would be most appreciated.

Volunteers are also appreciated. The more the merrier as we will only have 30 minutes or so, of field time, until CMP closes. I am not sure how many orphaned telescopes will show up with their owners. If we can just save one.....

★ Alan Shirey

### Astro Photons

There have been no meetings recently of the Astrophotography Committee, but as always members continue to post amazing images in the "Pictures!" section of the Members' Forums section of the NHAS website. Be sure to check them out. And to post any images of your own.

★ Gardner Gerry

## Messier Marathon

We scheduled four official days for Messier Marathons and all had very poor weather. The April 5, 2008 attempt was no exception.

It was, however very special.

It was the defined day for the "We can't have a Messier Marathon so we are going to have a Party".

Curiously absolutely everyone brought optics. I was really expecting no one to bring telescopes. Well almost everyone. An awful large amount of observing was attempted for relatively little result. Curiously it didn't rain or snow.

Attendees, as near as I can remember: **Gardner Gerry**, **Rich DeMidio**, Rags (aka **David Gilmore**), **Steve Forbes**, **Herb Bubert**, **Ken Charles**, **Ed Ting**, **Ed Los**, **Marion Hochuli**, **Bill Steel**, **Mike Townsend**, **Paul Cezanne**, **John Rose**, **David S. Weaver**.

I was very tempted to put next to each name what they brought instead of a MM count. We ate well for the whole week !!!

We had some very good practice sessions at YFOS.

★ Larry Lopez

Objective: NHAS Messier Marathon

Equipment used: Orion XT10i, Starhunter 32mm Plössl eyepiece, and Garret Signature Series 10x50 binos.

Location: Broken Tooth Rock Observatory, 10° C Arrival 17:30 EST, 4° C Departure 00:12 EST. Wispy clouds from NNW starting before 18:00 and then small clear sky opportunity open dear dusk at 19:40.

The chili labeled HOT-HOT-HOT was re-labeled to Hot-Hot-Damn Hot-Hot-Hot. As the night got longer the chili got hotter, yahoo!

The site has a large panoramic view to the east and south with the western view limited by the crest of the hill, the north limited by the tall maple tree and residence. My first attempt to skirt the tree on the SSE corner was a failure because of the

steep footing. I then moved to the level ground in the center of the circle of observers.

Still need more collimation skill practice time.

Just before 20:00 first star seen in the very thick haze was Sirius, followed by Procyon, Regulus, and Saturn were next. The view on Saturn using the XT10i was hazy.

MM List:

1. M42 naked eye 20:05
2. M35 XT10i 20:10
3. M37 XT10i 20:15
4. M45 naked eye 20:17
5. M36 XT10i 20:20
6. M38 XT10i 20:20
7. M43 Binos 20:22
8. M1 XT10i 20:30
9. M34 XT10i 21:00

No contrast for M81, M82, M108, M97. At 21:50 transparency was very poor, at 23:15 forecast discussed with other observers and actual conditions I called it the end of my first MM. Thank you, Larry and Linda for hosting the event and for the wonderful hospitality. Thank you NHAS members for the coaching on M34, M81, M82, and M108 and the great food.

★ Bill Steele

Images by **Gardner Gerry** (GG) and **Dave Weaver** (DW). More in the "Pictures" section of the NHAS Forums at

<http://nhastro.com/member/forum/viewtopic.php?t=769>.

Rich turns over the official MM dried beef to Larry in an elaborate ceremony lasting long enough for the photographer to press the shutter button. The beef was excellent, of course. (GG)



Why is this man happy? Because he is surrounded by refractors of all sizes and apertures, that's why. Mike's knowledge of double stars kept us looking through the scopes

when the faint fuzzies refused to be seen. (GG)



Ken sets up Soulshine on the left half of the observing field. (DW)



Larry and John on the right half of the observing field, checking out the AP 130. (DW)



Larry Lopez (host), Ed Ting (MM expert), and Linda Lopez (hostess) (GG)



Herb was giving everyone the "Name that Messier Object" quiz. Nice pics Herb! (DW)



★ Gardner Gerry  
★ Dave Weaver

## MM Practice Session

I arrived at the “practice MM” on Saturday 29 March at YFOS at 10:15pm. Though there were four cars, no one was outside when I pulled in. I started to set up after shoveling out an area adjacent to the other setups. About 15 minutes later, **Linda Lopez** came out and proceeded to continue on her Marathon Quest. A few minutes followed with **Herb Bubert, Nils Wygant, Rich DeMidio, Gardner Gerry, and Larry Lopez** returning to the “race”. Well, maybe Larry didn’t really enter the race as he was into finding just a few with his Binocs and then studying his “cool” AstroCard viewer he got on Astromart.

Over the next 7 hours we all worked down our lists of objects. I started in at the 24<sup>th</sup> or 25<sup>th</sup> object, after aligning Soulshine. Since a good number of the earlier objects were ones I’ve been looking at for months from my back deck (I face west and can’t get anything east of zenith from my house), I didn’t mind passing on them. I must say that a “goto” that works great, a good eyepiece (Nagler T-4, 22mm, 127x), dark skies and good transparency make it toooo easy working down the MM list. Some of the Ursa Major objects were a challenge for me just because they were already at zenith, and I had to get low to look in the eyepiece. My knees are no longer agreeable to positioning themselves in that manner. Once I finished Coma Berenices M85 (object 52 on the list, but #28 on my shortened list), I took a break. At this point most of the others had finished Virgo, but I was making progress (with a goto that was dead on each object).

Now the fun part of the MM came to light. The chance to talk to other members during their breaks makes for a very enjoyable night. As always, Larry was very entertaining but kept having a problem with his AstroCards getting lost outside. THINK: White index cards and lots of white snow at night and no Moon. Nils and I spent 10 to 15 minutes brainstorming with Larry

on ways he could fix the loose card problem. Herb only came in for short breaks as he was bouncing between 2 scopes (and later moving one around or setting it up on something higher to get a better sight line on some of the last objects). In my opinion, Linda seemed the most dedicated as she rarely took breaks from her searching and observing. Nils, Gardner, Rich and Herb were having a great time and seemed to be very happy with the conditions (in the sky, not the temperature, which was down to 11.2 degrees by 2:00 am). I must say that **Ed Ting’s** comments last meeting on Nils calling out as he tore through the list was NOT witnessed by me, in fact, I thought Nils was very quiet as he was burning through the list.

I swept through Virgo in 25 minutes. Could have been a lot quicker (5 minutes), but some of the objects were first views for me so I took my time to make sure I identified the multiple objects in a few views correctly and spent some real time observing a few of the nicer looking ones. As I left Virgo more of the objects became globular clusters, my personal favorites. After being without them most of the winter, it was nice to observe them again. Having spent a lot of time with the club’s 16” and a Telrad last summer, I started to use just the motor on Soulshine, the Telrad and the finder scope. I went through the next 20 or so objects without the goto until it looked like the Moon was going to interfere. Back to the goto for Sagittarius, and it was a good thing that I did. We all started having problems with the “Moon over Sagittarius” but with the goto I was able to keep tracking down most of the final objects, until a nearby star brought a final end to the night. Damn the Sun, this was fun!

We all packed up and left tired, worn out and cold. My trip home was a happy one, however since Soulshine hit the objects all night and the views were pretty good considering the lousy seeing conditions. I will say that my bed

felt really, really good when I fell into it just over an hour later.

★ Ken Charles

## Thornton’s Ferry Sky Watch

The 2 May sky watch at Thornton’s Ferry Elementary School in Merrimack was a combined event for grades 3 and 4 at the Thornton’s Ferry and Masticola Elementary Schools. This is more or less the successor of the Reed’s Ferry sky watch held over the past several years. This was a big event, with over 100 students and parents from Thornton’s Ferry and over 50 more from Masticola. Sky conditions were very good.

**Paul Winalski** gave the indoor presentations—two of them, an hour apart, due to the large crowd.



Left side of the Thornton’s Ferry sky watch field, as **Mike Townsend** searches for Sirius in the Twilight (Gardner Gerry photo)



Right side of the field, with **Al Navarro** in the foreground (Gardner Gerry photo)

Despite the large crowd, lines were not too long as about twelve NHAS members were there with their scopes. The club members who I remember seeing there were **Matt Amar, John Bishop, Herb Bubert, Ken Charles, Rich DeMidio, Gardner Gerry, David Gilmore, Andy Jaffe, Al Navarro, John Rose, Mike Townsend, and Paul Winalski**. My apologies if I left anyone out.

In addition to the usual Spring evening sky and the planets Saturn and Mars, our guests were treated to an exceptionally bright (-8 mag!) Iridium flare.

★ Paul Winalski

## New Searles Sky Watch

The public sky watch at New Searles School in Nashua, NH on 8 April took place under clear skies, but with much moonlit background haze. About fifty members of the public showed up. At least ten NHAS members were there: **John Bishop, Ken Charles, Rich DeMidio, Gardner Gerry, Ed Los, Al Navarro, John Rose, Mike Townsend, Paul Winalski, and Nils Wygant**.

During twilight there were good views of the Moon and Saturn (several moons visible), always big crowd favorites. There was also a very fine pass of the International Space Station, and a mag -2 Iridium flare.

★ Paul Winalski

## Pleiades Occultation

The occultation (hiding) of a bright star by the Moon is a dramatic event. Every 18.5 years, the relative positions of the Earth and Moon in their respective orbits is such that the Moon's apparent path takes it through the Pleiades star cluster in Taurus, and observers are then treated to many bright star occultations, one after the other. The Pleiades cluster is about twice the width of the Moon, so the occultations occur in "seasons", with the Moon's apparent path crossing in front of the cluster time after time. We are currently in the

midst of such a season, which started in 2005 (there were 13 Pleiades occultations in 2006) and runs through 2010.

On the night of 8 May, a slim crescent Moon occulted the Pleiades. From our perspective in New England, the Moon cut across the northwest part of the cluster, about 30 degrees above the western horizon, starting at about 9:30 PM. This was a very favorable occultation since the Moon entered the cluster dark limb first, which permitted the observer to see many dimmer Pleiads suddenly wink out behind a lunar disk dimly lit by earthshine. When the bright edge of the Moon leads, the dimmer Pleiads are lost in the glare.



**The Moon about to occult one of the Pleiades. (Tom Cocchiario image)**

Four of the New Searles sky watch participants stayed afterwards to observe the occultation: **Ken Charles, Gardner Gerry, Paul Winalski, and Nils Wygant**. An occultation is not usually an event that one can share at the telescope—there will be only one eye at the eyepiece at the moment when the star disappears. But with a cluster occultation, there are several events and so one can share. For me one of the most fascinating things is how one can see the motion of the Moon across the sky moment by moment as it slowly lumbers towards a star like a supertanker about to run over a lit buoy.

We also will get to see Pleiades occultations in June and September this year, so if you missed this one, you will have two more chances this year.

★ Paul Winalski

I just finished up my viewing of the Moon occulting the Pleiades.

I had planned to stay in Cambridge, working late, and then cross the river at sunset and observe from Boston's Esplanade. But, around 6pm clouds rolled and I wasn't going to stay late for nothing, so I came back to my crash pad in the Savin Hill area of Dorchester for a night without star viewing. You see, we're on the north east side of the hill, the west is obscured by houses above us!

I was quite pleased to see, from a west facing window, that I could see the Moon! I quickly grabbed the binoculars. It was still twilight and at 7:38pm I could make out 3 of the 7 sisters. The moon was in the field of view of them.

I checked again at 8:01pm and I could make out 6 stars now, but the Moon was getting perilously close to a neighbor's house, and worse, the heat plume from his chimney!

By 8:07 I still could only see 6.

At 8:23 the moon was behind the house and I figured, what can the neighbors do? Call the cops? I'll show them the moon! So I went outside and was pleased to see that through a large gap in the trees I could see the show and, more importantly, not be seen as looking into someone house!

I only counted 13 stars in the Pleiades. This is pathetic. I had thought that Manchester was bright but Boston is really, really bad. Auriga had only 4 stars to the naked eye. Gemini had only 3, plus Mars. I tried to find M36, the easiest of three clusters in Auriga, I found all my pointers but the cluster was not to be seen.

Maybe I'll take back what I said about city observing being fun. I guess I should say that small city observing is fun. Boston viewing is pathetic.

★ Paul Cezanne

## Hampton Public Library Sky Watch

On 16 April we presented a sky watch for the Hampton, NH Public Library. **Paul Winalski** gave the indoor talk to about 50 adults and children. At least nine NHAS

members were there to help out at the scopes: **John Bishop, Herb Bubert, Joe Derek, Gardner Gerry, Al Navarro, John Rose, Bill Steele, Mike Townsend, Paul Winalski**. The skies were clear, but the site (parking lot in front of the library) suffered from terrible light pollution from floodlights in neighboring parking lots. Next time we will have to see about finding a darker spot to observe from.

It was a night for observing the planet Saturn, and for double stars. We also had a very fine mag -5 Iridium flare high in the sky under the Big Dipper's handle.

★ Paul Winalski

## Sidewalk Astronomy

Since I was planning to bring a scope up to North Conway for the public session all three times it got clouded out, I figured I owed somebody a look through my telescope. Last Tuesday (March 18) it was clear so I drove up to Portsmouth and set up the XT8i in front of Barnes & Noble at the Newington Mall. I will admit that with the gibbous Moon knew I wasn't going to get any deep sky observing done at home, but for the public the Moon and Saturn are obvious treats and both were visible and near each other in spite of the parking lot lights.

Within 10 minutes I had lines of people, adults and children, having the usual reaction to a first view of Saturn. One lady said, "This was the best 5 minutes of my entire day" which is a comment I'm sure many members have heard.

After about an hour, Mall Security gave me some grief, since outside the doors of the store the property belongs to the mall. So I packed up and then went inside to meet the manager and "apologize" but she said nobody ever talked to her and she would have been happy to let me stay there all night. In fact, during the recent lunar eclipse she let all the employees go outside all evening to see how it was progressing.

Next day she gave my card to the B&N customer relations manager,

who called me yesterday. She wants me to present an introductory astronomy class to their monthly home-schooler program which meets at the store, and bring a scope. Even better, she has now gotten permission from the mall owners to follow it up with an observing session for the kids after the class out in front of the store. So all in all, a spur of the moment thing has led to a nice relationship and hopefully will spark some child's interest in astronomy.

★ Ted Blank

Ted's "guerrilla astronomy" efforts got a nice write-up in the 10 April edition of the *Portsmouth Herald*. You can read a copy of the article online at:

<http://www.seacoastonline.com/apps/pbcs.dll/article?AID=/20080411/LIFE/804110377/-1/LIFE>.

★ Paul Winalski

## NHAS March 2008 Business Meeting

My thanks to **Matt Amar** for taking minutes, as I was late to the meeting and didn't arrive until after the break.

### ATM

No news.

### YFOS

The observing field is mostly clear. The lock on the observatory still freezes.

### Astrophotography

Hasn't met recently.

### Radio Astronomy

No report.

### Public Observing

There are several sky watches scheduled for April.

### Webmaster

**Larry Lopez** mentioned the digest for the email discussion groups, and said that the multiple delivery problem is the fault of the ISP.

### Other Business

**Gardner** will be organizing our Astronomy Day event this year, which will take place on Saturday 3 May as part of CMP's Spacetacular

Saturday. Sign up ahead of time with Gardner if you plan to take part.

**Alan Shirey** reminded members that he will be presenting a scope clinic for frustrated users on the night of 2 May. This originally had been planned for December or January but got pushed back.

**Chase McNiss** pointed out that 2009 is Astronomy Year so we should make a real push on Astronomy Day that year.

### Book of the Month

**Ken Charles** brought in *The Universe*, a book many members are familiar with. He donated it to the club.

### Scope of the Month

**Larry Lopez** brought an "antique": Astro-Physics 400 on an offset alt-az mount.

### Evening Program

**Ed Ting** gave his talk on tips and techniques for running a Messier Marathon. Included was an excellent strategy for navigating the Virgo Galaxy Cluster.

★ Paul Winalski

## The Bottom Line

<b>Starting Balance:</b>	<b>\$5739.29</b>
<b>Deposits/Credits:</b>	<b>00.00</b>
(Membership)	
<b>Accounts/Paid:</b>	<b>445.64</b>
(LAB, Peerless)	
<b>Net Account Balance:</b>	<b>\$5293.65</b>
<b>Petty cash drawer:</b>	<b>\$100.00</b>
<b>Cash Balance:</b>	<b>\$5393.65</b>

**2008 Membership:** 127

New members:

Alfonso Navarro, Manchester NH  
Donald Moyer, Hill NH

★ Chase McNiss



**2008 Officers**  
 President: Gardner Gerry  
 VicePresident: Mike Townsend  
 Treasurer: Chase McNiss  
 Secretary: Paul Winalski

**DEADLINE May 2008 Issue: 5 PM May 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:**

NHAS  
 P.O. Box 5823  
 Manchester, NH 03108-5823  
 Attn: Treasurer

**Send E-mail to:**

[info@nhastro.com](mailto:info@nhastro.com)

**Use our web site:**

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

**This month's contributors:**

Gardner Gerry, Alan Shirey, Larry Lopez, Bill Steele, Dave Weaver, Ken Charles, Tom Cocchiaro, Paul Cezanne, Ted Blank, Matt Amar, Chase McNiss

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



**NHAS Upcoming Events**

Event	Date	Time	Location
NHAS Business Meeting	Apr 18	7:30 PM	Christa McAuliffe Planetarium
NortEast Astro-Image Conference	Apr 24-25		Suffern, N Y
NorthEast Astronomy Forum (NEAF)	Apr 26-27		Suffern, NY
CMP Public Sky Watch	May 2	7:00 PM	Christa McAuliffe Planetarium
Astro 101: How To Use Your New Telescope	May 2	8:00 PM	Christa McAuliffe Planetarium
Astronomy Day	May 3	12:00 PM	Christa McAuliffe Planetarium
Coffee House Night	May 9	5:00 PM	YFOS
Astro 101: Stars	May 9	7:00 PM	YFOS
NHAS Business Meeting	May 16	7:30 PM	St. Anselm
Astro 201: Measurement of Astronomical Distances	May 16	8:30 PM	St. Anselm