

# The NHAS Observer



## and Two Years of Pictures

Newsletter of the New Hampshire Astronomical Society

Vol. 2006 No. 12

"All the news that fits in print"

December 2006

## In Memoriam

### President's Message

Well, it's finally arrived. The moment you've all been waiting for. The final President's Message from yours truly! And speaking of a changing of the guard... The elections for the 2007 club officers (and one board position) will be held at this month's meeting! We already have a few nominations, but they will remain open until the voting starts, so there is still time to get your hat in the ring and influence the direction of the club for the coming year. The current nominations are:

Chase McNiss	treasurer
Paul Winalski	secretary
Bob Sletten	board member
Gardner Gerry	vice president
Gardner Gerry	president
Mike Townsend	vice president

As I write this, we are experiencing quite an aurora display from a series of flares and coronal mass ejections from our local star. Of course, I am taking this on faith, based on reports from other club members and photos posted on the net – it is, of course, cloudy here. However, it looks like this display could go on for several days, so get out there in the dark, don't forget your camera, and post what you capture on the NHAS forums for all of us weather-challenged members to enjoy.

Finally, we will be having a short meeting this month. With the elections to take care of, we didn't book a speaker. I will try to bring some of the minerals I collected on my summer trip to Utah, as some interest in seeing them was expressed at the last meeting. We didn't manage to organize much of a

get-together (food-wise), so I suggest we all hook up after the meeting. Uno's and Panera are both just down Ft. Eddy road from the Planetarium, so we'll take (another) vote at the meeting.

That's all from me!

\* Matthew Marulla  
NHAS President 2006

### Highlights for this Month

NHAS pauses to remember a long time member who passed way. Public observing coordinator **Marc Stowbridge** also describes how NHAS has recently helped a local Cub Scout chapter cope with a tragedy on Page 5

\* Rich DeMidio  
NHAS Secretary 2006

### Public Observing

We have had 3 sky watches since the last meeting and one postponed until the spring due to rain. The first was at the CMP and had the usual suspects lurking in the shadows. The second was in Hampton for a den of Cub Scouts. **Paul Winalski** and **Matt Amar** took care of this one. Paul reported: "It went very well. As one might expect, the Cub Scouts were wowed by the equatorial mounts, the big mirror in the 14" TScope, and the green laser pointer. We showed them the Moon, Albireo, NGC 457, the Double Cluster in Perseus, and the core of the Andromeda Galaxy. I pointed out some of the brighter stars, and constellations, with the laser pointer. I was relieved that sky conditions let us show off a pretty respectable survey of the sorts of objects the night sky has to offer." The second occurred on

December 8: A Skywatch at Camp Pennacook in Rowley, MA. The Girl Scouts have a merit badge called "Sky Search". There were about 75 girls and a lot of parents. It was a long drive, but seemingly worth it as the reports back were very positive. The three of us had 4 scopes out, and were able to show the kids the things they needed to meet their requirements. Uranus was up, a bunch of galaxies; star clusters and double stars were bright in the chilly air. The clouds parted and the wind slackened in time for the event. Again, the scopes and laser pointers were a hit. Thanks again to everyone for your efforts!

\* Marc Stowbridge

### In Memoriam

Our fellow member, former NHAS astrophotography chair and fellow friend, **Rich Fleming**, passed on



yesterday (November 30th, 2006) after a hard fought battle with cancer. Richard loved this hobby. The enthusiasm he shared in photographing and observing the night sky was infectious. I had the fortunate opportunity to meet Richard through NHAS and throughout our years as photocom co-chairs developed a good friendship. Richard shared with me last week his deep respect for NHAS and the wonderful work so many of you do volunteering your time to help others who share our love for this hobby. He wanted me to pass that along. NHAS & I will miss you Rich. Thank you for your dedication to helping others.

\* Mike Kertyzak

## My Tenure in Pictures

I thought it would be nice to end my tenure as secretary with an album containing some of my favorite photographs taken from NHAS events. I hope that everyone likes them as much as I. Unless specified, photos have been provided by me.

\* Rich DeMidio  
NHAS Secretary 2005 and 2006

Each year, the Messier Marathon represents the super bowl for NHAS. Many of us including yours truly plan weeks in advance and take the actual day off. The tradition also results in one or more practice sessions before the actual event. In 2005, several of us decided to do a little pre-marathon training at YFOS on a beautiful night. But it was still pretty cold so we felt it was just an extension of freeze your buns.



Every year for the MM, I have made a batch of dried beef, which always goes over well. Last year, **Larry Lopez** asked if I could make a spicy batch for he and Linda. Now, I figured that Larry would be ecstatic but his reaction even surprised me! .



Another favorite photo of mine comes from our VP, **John Bishop**. He is always interested in and educating us on technology. (High or low tech I might add). At the 2005 Messier Marathon, he decided to try out some new glasses, which turned out to be a big hit. I think this has turned out to be his legacy



Speaking of Larry Lopez again, we all know just how he works at keeping YFOS operational. His hours of endless dedication and commitment are well known to everyone. At one work party, in January 2006, I could not resist including this picture of him doing maintenance to one of the heaters at YFOS.



*Photo by Chase McNiss*

Speaking of maintenance, what would be a YFOS work session without some rock removal. The September 06 work party was not a disappointment.



*Photo by Chase McNiss*

The last few years has also seen NHAS expand out of the traditional visual Astronomy range into the world of

Radio Astronomy.



*Photo by Chase McNiss*

Above, **Bob Sletten** introduces the club to the topic back in 2005. Since then, we have had an ongoing group focusing in this area. The group has done several activities including tours to many local sites. Here, the group is visiting the VBLA



*Photo by Dave Weaver*

They had a wonderful tour including the opportunity to go onto the actual dish itself.



*Photo by Dave Weaver*

This gives some perspective on just how big it really is. Finally, the team got a nice shot from inside just before going onto the dish.



*Photo by Dave Weaver*



The group has been very active in other tours and plans are now in the works for building a device that can capture potential sounds from meteors. Refer to the Nov06 Newsletter and the chairman's report on Page 4.

We have also seen a growth in our public sky watches



Photo by Gardner Gerry

Along with our annual Astronomy events with CMP combined with a few special events they schedule. .



Here, some of gang poses at the May 2006 Astronomy Day with **Don Ware's** homemade refractor scope. The public was able to do solar viewing with this and other scopes that day. Speaking of events, NHAS has had a long tradition of attending Stellafane each year.



Photo by Joe Derek

NHAS in the past has had several members enter scopes and in 2005, **Joe Derek** won an award for his Dobsonian

reflector.



Photo by Chase McNiss

The event is always well attended and NHAS has a tent that we setup every year. Here, the setup process begins with some fun of course



Photo by Joe Derek

The club also went through some changes in the last two years with business meetings. Our president **Matthew Marulla** started dazzling us each month with his high tech approach to meeting delivery. I particularly liked his presentation on Gamma Ray Bursts (GRB), which was very fascinating. I would also look forward to his monthly briefings "In the Sky" which brought to the latest happenings related to Astronomy, Space Flight, and research.

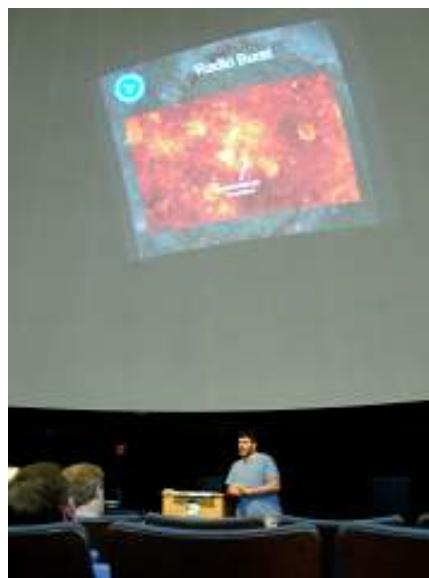


Photo by Chase McNiss

In June 2006, NHAS members traveled to Dummer, NH and stayed at "The Great Northern Moose Lodge"



We had a wonderful time and did a mix of terrestrial and space observing. .



The sunsets were beautiful as well as shown below.



However, my favorite photo from Dummer, NH was taken in 2005 when Matt scoped the area for NHAS. Here, he captured a wonderful Aurora



Photo by Matthew Marulla

Speaking of trips, **Rob & Nan Veilleux** did a tour of duty at Chaco Canyon back in 2005.



*Photo by Bob Veilleux*

We were treated to a wonderful presentation and slide show upon their return. NHAS member **John Blackwell** also spent several months in Arizona doing research.



*Photo by John Blackwell*

While there, he was able to get a tour of giant mirror facility.



*Photo by John Blackwell*

I remember him describing to us the process and one particular incident where a mirror was dropped. The root cause was tracked down to be a change in glue composition that was not communicated by the manufacturer. Here is one last picture for everyone to form his or her own opinion on.



*Photo by John Blackwell*

\* Rich DeMidio

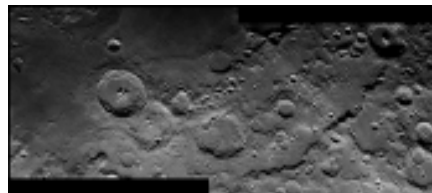
## Astro Photons



*Gardner Gerry – Photo by Chase McNiss*

The Astrophotography committee enjoyed an Advanced CCD class given by **John Blackwell** at the Grainger Observatory at Phillips Exeter Academy on December 1st. John led us through discussion of lights, darks, flats and bias frames and more. Later we toured the beautiful facility, which has 3 domes, and 9 powered outdoor piers. See it for yourself at <http://www.exeter.edu/astronomy/4380.aspx>. To see the latest work from club members, please go to the NHAS forums and go to the Pictures forum.

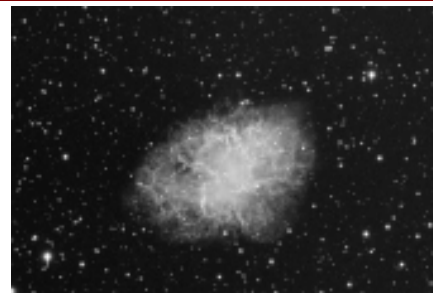
\* Gardner Gerry



This is from a previous session in September when I was using camera settings that has more compression. Two BMP images combined with IMerge and processed in PSCS. From left to right Theophilus, Cyrillus, Catharina, Polubus, Rupes Altai and Piccolomini.

\* Chase McNiss

I've only just begun on M1, but I thought I share this single frame now from a night of superb seeing (11/10). This is a single 30m red exposure calibrated (dark subtracted and flatted), but no further processing.



14" LX200R, FLI PDF, FLI CFW2-7, Astrodon filters, Optec Pyxis, SBIG ST-10XME. Acquisition with CCDAutoPilot3, calibration with CCDStack.

\* Paul Howard

Rich and Paul showed me NGC 253



and when I saw how large it was I had to try imaging it. I only wish it got higher in the sky.

\* Herb Bubert

## Radio Astronomy



*Antenna by Bob Sletten*

The radio astronomy group put together a neat plan for the November meteor shower. We were going to try to detect meteors early by a hypothesized RF signature they may emit. However it was called off because of poor weather, we needed it clear to do an RF versus



visual comparison. An audio recording was made at 10 kHz. It is interesting but inconclusive because there is no verification. We have more opportunities in the future, as nearly any meteor show will do for the experiment. Several NHAS members have volunteered for helping to construct a device and process. Details may be found in the Nov06 Newsletter.

\* Bob Sletten

## Membership

If you have not, now is the time to renew memberships, as I know that many of you have. For \$15 you remain a member of one of New England's premier astronomy organizations, with access to people knowledgeable or expert in many areas of astronomy as well as discounts on equipment and magazines like Sky and Tel and Astronomy. When you factor in your access to club facilities at YFOS, it is an unbelievable (except that we are not for profit and entirely volunteer, more on that next time) value. If you have not yet renewed, please send your \$15 dues to

The New Hampshire Astronomical Society  
P.O. Box 5823  
Manchester, NH 03108-5823  
Attention: Treasurer

\* Alan Shirey

## NHAS helps local Cub Scout Chapter

On **December 4**, I confirmed the date and time for the Greenland Cub Scouts sky watch. Later that day, 9 year old Cub Scout **Thomas Fogarty**, fell from a parade float and was killed. I contacted the Scout leaders again and offered any assistance we could in this tragedy. Many emails later, we had worked out a fitting program:

“The theme of the scouts this month is stars and the heavens. We plan to have the entire pack meet in the Parish House at 7:00-9:00 on Saturday, December 16, to receive a presentation by the New Hampshire Astronomy Society on constellations, stars, planets, and space. There will be a discussion indoors, and weather permitting, we will go outside to view the evening sky

through the Society's telescopes. Incorporated in the program will be a tribute to Thomas: we have selected a star to associate with Thomas. We plan to dedicate that star to Thomas, learn about the star from the visiting astronomers, and to view it with the telescopes. Each scout will be writing a message to Thomas that will be launched toward him via balloons. We also wish to distribute to each scout a star-shaped Christmas ornament to hang on their Christmas tree each year in an annual remembrance of Thomas.”

The scout leaders had wanted to “buy a star” for Thomas. I suggested a “birthday star” whose light left it on his birthday. The *current, official* star for Thomas's date is very dim. As years pass, different stars will be associated with Thomas's birthday, 11/24/1997. Perhaps, as he will always be 9 in the hearts of those who knew and loved him, his star should remain the same, too. I suggested designating “a star that rises in the late fall, is very bright, easy to find, and easy to associate with such a well loved child. This would be a symbol that could be shared openly with everyone who knew about its' connection to Thomas.” The best star that fits Thomas's birth date fairly well is a wonderful star: **Sirius**. It is about 8.6 light years away, which puts it close to the right time, and it is the brightest star in the sky. The belt of Orion points down and to our left to Sirius. There are few other stars this close to Earth.

It will be above the South East horizon on the 16th by 9:00 PM, and will rise higher until about midnight. Sirius is a winter star, rising near the anniversary of his birth and untimely death. It is so bright; people often are transfixed by it. Sirius is mentioned frequently in mythology. When Thomas's friends find references to this star, as I know they will, they will remember him. Each New Years Eve, they will only have to look due south, and Sirius will be there.

Times of crisis and tragedy can bring out the very best in people. The NHAS community has responded to requests with help on the program, information and logistics. Members pointed out

how the original idea of “buying” a star for Thomas could be done by “Adopting” a star at the CMP. His name is now on the dome, where thousands of people will see it near Sirius, in his memory. The CMP has provided special services on this request and has graciously added to the original package.

\* Marc Stowbridge

## November YFOS Coffee House

A good crowd turned up to enjoy a Coffee House Night that wasn't clouded over for a change. Skies were clear and transparent. Seeing was OK but improved dramatically after midnight. There was a 4-day-old Moon that set shortly after dusk, leaving us with 6th mag skies (not counting the Concord/Manchester sky glow to the south and east). Temperatures dropped to the mid-20s, and frost was a problem after midnight.

The 4-day Moon provided some enjoyment until it got dark enough to see other things, and it helped get the finders aligned.

Saturn is moving into Leo. It's currently west of Regulus. Seeing was exceptionally good at times, providing steady views at 332x (5mm Radian). Good detail on the planet and a very sharp shadow was cast by the rings. The rings are not as favorably tilted as last season, making details such as Cassini's division harder to spot. Four moons were present.

Comet SWAN has moved under the Eagle's northern wing, a bit south of Altair. It has faded to 8th magnitude and was much harder to find than four days previously because it is now right in the middle of the clutter of the Aquila Milky Way, and Aquila is getting pretty low in the sky. The tail is pretty much gone, and we're left with a round fuzzy with a slightly brighter core.

I said farewell to M11 as the Scutum star cloud moved toward the western horizon. M13 was in a similarly unfavorable position. Both objects were good, but not as spectacular as they can

be when more favorably placed.

### Tonight's carbon stars:

T Lyrae: as reliable a find as ever, but seems to be dimming these days.

S Cephei: now considerably dimmer than it was some months ago. Both are extremely red.

V Aquilae: a reliably easy find in the eagle's tail. It is more orange than T Lyr or S Cep.

TX Piscium: The only naked-eye carbon star I know of, more of a peculiar dark orange than red.

WZ Cassiopeiae: dim (8th mag), but very red and forms a beautiful wide double (Otto Struve Supplement 254) with an azure-blue A0 star. Easy to find 2 degrees north from Beta Cas.

W Orionis: located by following the curve at the base of Orion's shield.

Deep red-orange.

R Leporis: much dimmer than when I last saw it, but extremely red.

UU Aurigae: lies on a line 1/3 the way from Theta Geminorum to Beta Aurigae. Pretty bright and that characteristic carbon-star peculiar red-orange.

Y Canum Venaticorum: Midway between Asterion (Beta CVn) and Mizar. Bright, but definitely more orange than red.

VX Andromedae: Follow the Beta-Mu Andromedae line that points to M31 past M31 for the Mu-M31 distance, and that's where it's supposed to be. I found a mag 8 carbon star there, but it was more of the orange shade than the "exceptionally red" in Burnham's remarks. I'm not sure I found the right star, but the celestial coordinates were correct when I checked them with the Sky Commander.

**NGC 253**: Mike Townsend alerted Rich DeMidio to this one. Rich and I found it last Tuesday, and I observed it again tonight. It's pretty easy to find midway and a bit to the right down a line between Beta Ceti and Alpha Sculptoris (the next bright star south of Beta Cet). This is a large, bright, tilted spiral. The round core is surrounded by a mottled glow that can be traced nearly a degree along the long axis. There is some sign of the dark lane on the edge-on side. This would be a spectacular object if it were better placed, but it's way low in the south when viewed

from New Hampshire.

**NGC 404 (Mirach's Ghost)**: Visible as a pale disk with the 32mm Plossl without having to move Mirach out of the field.

**M31, M32, M110**: Showing extremely well as they passed zenith. Dark lanes visible in M31 and considerable structure evident. M110 was more prominent than it usually is. The 50mm Erfle (33x) gave a fine view of all three objects in the same field.

**NGC 185**: This and NGC 147 are two faint companions of M31, located on the Cassiopeia/Andromeda border a few degrees away from the M31/M32/M110 complex. I found NGC 185--small and dim. NGC 147, even dimmer, is supposed to be only a degree or two away, but I couldn't find it.

**NGC 681, 701**: I was going to look for Mira, and I noticed on the sky chart that one of the guide stars--the Zeta/Chi Ceti pair--had two small NGC galaxies nearby, so I went looking for them instead. They are both dim, small oval patches of light, very easy to overlook.

**M77**: Again, while in the vicinity, I decided to get some Messier Marathon practice on this one. A not too difficult find near Delta Ceti. Another oval fuzzy.

**M74**: Near Eta Piscium. A pretty bright glowing core surrounded by a faint glow.

**Pleides**: A spectacular view in either the 32mm Plossl (52x) or the 50mm Erfle. There was a real "glittering diamonds on velvet" effect. Nebulosity was visible around several of the stars.

**M44 (Beehive)**: Visible without visual aid as a fuzzy patch in Cancer. In the telescope, a wide, sparse cluster. It shows up better in the 9x50 RACI finder, where you can see the whole thing at once.

**M1**: A bright, irregular-shaped patch of light.

**M35 and NGC 2158**: Well-placed and

showing very well. NGC 2158 was a hazy patch on one side of the big cluster. I didn't attempt more magnification to resolve it. I should have, particularly later in the evening when Gemini was higher in the sky and the seeing was better.

**M38 and NGC 1907**: Showing very well. I've always had trouble remembering which of the clusters in the Auriga pentagon is M36 and which is M38. Now that I know M38 has a companion, identification is easy. NGC 1907 was resolvable at higher powers.

**M36**: Not as populous as M38, but still a fine object, and easily spotted as a hazy patch in the 9x50 finder.

**M37**: Showing very well in the dark, clear skies. Lots of faint points of light around the central reddish star.

**NGC 2392 (Clown-Face Planetary Nebula)**: Easy to find with the 32mm Plossl with an O-III filter in place--it's the star that turns into a small disk. Under higher magnification (11mm [151x] and 8mm [208x] Plossls) the disk is very plainly visible with averted vision, but it blinks out and you see just the central star when you look directly at it.

**NGC 891**: A dim, needle-shaped glowing patch of light.

**M81 and M82**: I of course found that pesky NGC 3077 first. I now know this means to move a bit further north. Both galaxies showing well. The core of M81 was quite prominent. M82 had a good bit of mottled structure.

**M33**: You need dark skies to appreciate how huge this thing is. Some of the spiral structure was visible around the core, and it was traceable out to a diameter of a degree or more.

**M51**: It and its companion both visible. I've seen M51 better, but there was evident spiral structure and the arm extending to the companion was visible.

**M97 (Owl Nebula) and M108**: More MM practice. M97 was very large and dim--no real structure present.

**Veil Nebula:** This has become one of my favorite objects. Loads of beautiful detail visible with the O-III filter in place.

**NGC 2264 (Christmas Tree):** Some of the nebulosity in this vicinity was visible with the O-III filter in place. Struve 953, the guide star for Hubble's Variable Nebula, was an easy split.

**NGC 2261 (Hubble's Variable Nebula):** This was more diffuse, but fainter, than last season. Under higher magnification (11mm Plossl) it sweeps back from R Monocerotis like a broad, faint comet's tail. The "Nike swoosh" effect of a couple years ago is gone--it's pretty much uniformly illuminated, and a lot dimmer.

**Rosette Nebula Complex:** The cluster NGC 2244 was an easy find, and with the O-III in place the double-ring of the Rosette was a subtle glow surrounding it.

**M41:** A large, bright, open cluster visible without telescopic aid as a glowing patch of light. Beautiful in the scope.

**Alpha Canis Majoris (Sirius):** With the seeing this good, Gardner and I just had to try for the companion. No luck. Sirius was showing a small airy disk and four extremely long diffraction spikes (would frost on the spider vanes have made the spikes more prominent?), but no sign of the companion. We tried several different magnifications.

**Beta Orionis (Rigel):** With the fine, steady seeing after midnight, in a 11mm Plossl view the companion appeared to be speared on one of the long diffraction spikes.

**Gamma Leonis:** Easily split--two topaz gems.

**Sigma Orionis and Struve 761:** Especially after the seeing settled down, seven components of this complex were visible with the 32mm Plossl, four in Sigma Ori and the sharp isosceles triangle of Struve 761. This is a very fine multi-star system.

**Zeta Orionis:** With the steady seeing, the close pair was an easy split.

**M42 and M43:** Absolutely breathtaking. With the sky so dark and seeing so steady, and Orion on the meridian, this was an ideal view. Lots of structure in the nebulosity, which could be traced all the way up to NGC 1977 and down to Iota Ori in Orion's sword with the O-III in place. All six of the Trapezium were visible with a 20mm Plossl (82x).

**NGC 2024 (Flame Nebula):** Visible even without the O-III filter in place, and much better with the filter.

**B33 (Horsehead Nebula):** Nils and Joe spent quite a bit of time looking for this in Joe's 17-1/2" dob after borrowing my H-beta filter. Nils later helped me look for it in Mr. T. With the H-beta, I could see the nebula IC 1434 very clearly, and with some averted imagination (as Herb would say) I could see a dark smudge poking into the glow. I can't really call this a certain find.

**M3:** A very large and beautiful globular, but I've seen it better when Bootes is higher in the sky.

**M65/M66/NGC 3628 and M95/M96/M105:** A bit more MM practice on the two Leo galaxy triplets. Both sets found easily and showing well.

Gardner and I were the only two left at 3 AM, and by that point we were getting tired of the frost, which was settling over everything, so we packed up. It was a very long and very rewarding observing session.

Clear skies,

\* Paul Winalski

## The Bottom Line

Starting Balance	\$4,548.28 (NHAS Checking acct.)
Deposits/Credits	\$253.00 ( Membership, Calendar Sales, Acct Int. )
A/P	\$60.30 (Handy House, USPS Stamps)
Net Acct Balance	\$4,742.11
Cash Balance	+ Petty cash drawer (\$195.25) \$4938.36
Membership	140 (2006) 98 (2007)
Donations	

Please note that NHAS membership is due October 1st. The cost is \$15.00 payable by cash or check. Our mail address is:

NHAS  
Attn: Treasurer  
P.O. Box 5823  
Manchester, NH 03108-5823  
\* Chase McNiss

## Looking Back at Last Month

**Opening Matthew Marulla** displayed the agenda and topics to be discussed.

**Scope of the Month** None

**Public Observing. Ed Ting** for Mark Stowbridge who could not make the meeting. - Reed's Ferry--big crowd, weather cooperated; Ed passed around thank-you letters from students.

**Book of the Month**, None

**Committees. Photo Club Gardner Gerry** that on Dec 1<sup>st</sup>, there will be a meeting with **John Blackwell** at Philips-Exeter (CCD clinic).

**Web: Matthew Marulla** no report

**ATMs: Larry Lopez** is performing an inventory at his house.

**YFOS Larry Lopez** reported that the heater was working when he visited YFOS. It is necessary to wait long

enough for the gas to purge when lighting pilot light. Need 3 AAA batteries for CO detector; AAs for thermometer. Don Ware still has to deal with the Titan mount. Porta-potty needs salting.

**Membership: Alan Shirey** no report

**Radio Astronomy: Bob Sletten** talked about schematic to record light and sound from meteors in tomorrow's Leonid shower. Antenna is 8' on a side, thousands of feet of wire turned on it; 12KHz resonant frequency. Maybe ready for Geminids in December

**Miscellaneous.** Nov. 30 Sun moves into Ophiuchus for 19 days Saturn south pole storm - big hurricane over south pole; does not move 5000 miles across; has eye and eye wall clouds 45 mi high. Never seen eye wall clouds or eye on any meteorological feature outside earth. Showed animation of the storm. Seen by Keck-1 telescope; clouds are warmer than elsewhere on Saturn (4 degrees F). Contact lost with Mars Global Surveyor.

**Elections:** The 2007 nominations took place

**Evening Program. John Bishop** speaking on Cosmology & the Weak Anthropic Principle

\* Paul Winalski

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**This month's contributors:**

Matthew Marulla, Chase McNiss, Bob Sletten, Gardner Gerry, Allan Shirey, Bob Sletten, Rich DeMidio, Paul Winalski, Herb Buber, Paul Howard, Dave Weaver, Joe Derek, Mike Kertyzak



**2006 Officers**  
President: Mathew Marulla  
Vice President: John Bishop  
Treasurer: Chase McNiss  
Secretary: Richard DeMidio

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



**December 15<sup>th</sup> – Business Meeting CMP**

Event	Date	Time	Location
Business Meeting	Dec15	7:30 pm	CMP
Coffee House	Dec22	Dusk	YFOS
CMP Sky Watch	Jan05	Dusk	CMP
Business Meeting	Jan19	7:30PM	St. Anslems
Coffee House	Jan??	Dusk	YFOS
2007 Coffee House Dates	Are still	In the	Process of being scheduled