



STAR FIELDS

Newsletter of the
Amateur Telescope Makers of Boston
Including the Bond Astronomical Club
Established in 1934
In the Interest of Telescope Making & Using

Vol. 25, No. 1 January 2013

This Month's Meeting...

Thursday, January 10th, 2013 at 8:00 PM
Phillips Auditorium
Harvard-Smithsonian Center for Astrophysics
Parking at the CfA is allowed for the duration of
the meeting.

Please join us for a pre-meeting dinner discussion at Changsho,
1712 Mass Ave, Cambridge, MA at 6:00pm before the meeting.

Results of Lunar Reconnaissance Orbiter (LRO)

Our speaker this month will be Dr Bradley Thomson, a senior research scientist at the Boston University Center for Remote Sensing. Dr. Thomson is going to be speaking about recent results of the Lunar Reconnaissance Orbiter mission concerning the search for Water Ice on the Moon. One of the principal instruments on that mission was a Mini-RF Radar which was able to penetrate beneath the surface in search of the signature of elements of patch ice. The search was concentrated in the interior of Shackleton crater, a crater on the South Polar Region that remains in permanent shadow. Dr Thomson will describe the instrumentation as well as the results and findings of this exiting mission which are only part of a long line of evidence supporting the concept water ice on the moon.

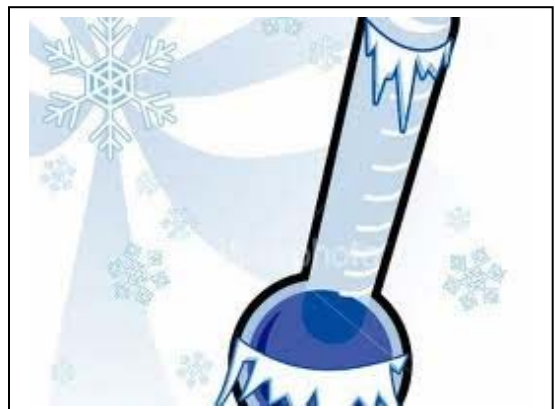


President's Message

Well here we are – another new year ahead of us. We've made it through the end of the Mayan calendar. We've made it through the Holidays and (hopefully) we've made it through our New Years celebrations. Now what? It's winter time folks – that wonderful time of renewal when things quiet down and we all hunker down in our warm and cozy homes and get some time to work on indoor things. Personally I like to use this time to build my telescopes. My basement workshop is my favorite place to be when the wind is howling, the snow is flying and the temps are cold enough to make me feel like Sam McGee. Of course I know that there are those of you who still persist in getting out there to do some winter-time "observing." I commend you for this. You are a tough bunch indeed because I know what that is like. I used to do it more myself. Sadly my toes and fingers don't agree with those temps any more but never mind that. The winter skies, should I really want to see them, are there for the taking in the early morning hours of summer ☺.

For those of you who want to brave the cold and check out our newest observatory - the ATMoB Research and Imaging Observatory (ARIO) - then by all means get up to the clubhouse and do so. Bruce Berger along with significant help from Alan Sliski have just recently completed the last phase of this project which was the automation of the dome rotation such that the dome-slit now follows the telescope and keeps it positioned correctly as the telescope slews or tracks across the sky. I was up there the other night with Bruce and it was really quite a sight to see – both the motion of the dome and Bruce's elation to see his work complete and working. "It's just like a professional observatory!" Bruce exclaimed. And it is. The computers are humming, the telescope motors are quietly tracking and the dome is slewing along as needed. And up above you is the quite impressive C14 optical assembly, CCD camera, and guide scope complete with video feed. It's a great new asset for the New Year and I urge those of you who want to take your observing to the next level to check it out. Yes there is a bit of a learning curve. This is not an easy scope to master but for those of you willing to put in the time it will be a fun and rewarding endeavor. Clear skies and Happy New Year to all.

~ Mike Hill, President ~



December Meeting Minutes

Minutes of ATMOB meeting held December 13th, 2012 .

Mike Hill opened the meeting at 8:00 PM starting with the business meeting consisting of secretary report, treasurers report, membership report, observing committee report and clubhouse report. Upcoming events were noted including upcoming star parties.

Mike Hill noted the passing of Sir Patrick Moore (1923-2012) and read a brief summary of his life's work as a public promoter of the world of astronomy.

Mike Hill read a letter he had received from long time member Tal Mental who for many years set the tone for the December meeting with his annual reading of "Twas the Night Before Christmas" and the always entertaining poem "The Cremation of Sam McGee"

The business meeting was followed by member talks detailing the recent trip to Australia for the November 13th total solar eclipse. Since the weather conditions were not optimal much of each members presentation was that of their travels which proved to be just as interesting.

Members making presentations were:

- Jerry and Julie Sussman
- Kelly Beatty
- Bob Naeye
- Mario Motta
- Bernie Volz
- AL Takeda
- Howard Levoux
- Bert Halstead

Tom McDonagh provided the refreshments for the evening which were made available during the member talks since it was expected to be a long evening with lots to hear about, and with multiple members taking to the podium there was plenty of opportunity to get up and get a snack in between.

~ *Sidney Johnston, Secretary* ~

Notice of Change to Bylaws

The executive board has made a decision to amend the bylaws to include the new Family Membership class along with the other classes we currently have: Regular, Corporate, Honorary, Associate. A vote will be taken at the January meeting by the members present to approve this change. The bylaws as currently written may be view on our website at:

<http://atmob.org/about/bylaws/bylaws.pdf>

Membership Report

Membership count as of 12/24/2012: 259
Same time last year: 268

Membership renewal payments are now overdue as of September 1st. The renewal process can be completed on-line using Paypal. No Paypal account is required. You can also just give me a call if you have questions regarding your membership status! 617-966-5221.

<http://www.atmob.org/members/person.php?frid=renewals>

Renewal checks can also be mailed:

ATMoB
c/o Tom McDonagh
48 Mohawk Drive
Acton, MA 01720

I will be available at January 10th club meeting in Cambridge if you wish to renew at that time. Drop me a line at membership@atmob.org and I'll keep an eye out for you. Thanks to all of those that have renewed already! **New members as of 2012 are not required to renew till 2013.**

Significant progress has been made on the observing facilities this year. The ARIO observatory is fully functional and available to trained members. Contact Bruce Berger bruce@scopemaker.com or the member on duty at the clubhouse for more information. The clamshell LX-200 GPS is fully operational also. The clubhouse is open on Thursday (closed on club meeting nights) and Saturday nights for observing when weather permits. Plenty of scopes and knowledgeable folks are on hand to help you enjoy the night sky. The clubhouse may open on other nights when observing is favorable. The best way to know when the club may be open is to signup for the ATMoB-Announce email list. Follow the link below to sign up or manage your subscription. This service is available to all members in good standing with the club.

<http://lists.atmob.org/mailman/options/atmob-announce>

Please take the time to seek out and welcome our new and returning club members:

Edward Dean
Mark Worthington
Phil Papadopoulos

The Amateur Telescope Makers of Boston, Inc. is a 501(c)3 organization. Consider making a year-end donation to the club, as these are tax deductible to the fullest extent allowed by law.

~ *Tom McDonagh – Membership Secretary* ~

Clubhouse Report

DECEMBER 2012 CLUBHOUSE REPORT

The full moon Saturday December work party was held on Dec 1st as members were still returning from the club eclipse expedition down under. Fourteen members donated their time to assist in the following major projects:

* The 17" Wray dobsonian metal hutch was inspected and new rain flap material was installed. Further inspection of the enclosure led to plans to design an over roof structure to keep precipitation out and lower the summer inside storage temperature.

* Work continued on the home dome observatory slit controller. Modification of the original construct continues to accommodate the automated system.

* The Knight roll off observatory was again cleaned of field mice and debris and new decon installed. Rain flaps were repaired and design modifications formulated to provide a better rain seal on the North end of the structure.

* As the snow ceased falling, brush cutting and debris removal resumed. Large pieces of dead limbs were cut to trailer length, smaller trimmings were piled for chipping. Fred Taylor again donated his time and trailer and removed all burnable cut wood. Work continues on repairing the chipper engine to allow removal of debris piles while using the chips as growth suppression ground cover.

* Earlier the snow fence was installed with available clear plastic locking loops. Since then several loops worked loose; and just turning them over did not work. The last effort used new locking loops(black); let us know if these need replacement too. A modified burger, dog and salad lunch was prepared by our intrepid crew earlier than usual allowing us to resume the outside work schedule. Everyone was seen helping out over the entire observing field wherever a hand was needed. Thank you to these members who donated their time: John Blomquist, Josh Brown, Bruce Berger, Paul Cicchetti, Steve Clougherty, Eric Johansson, Dick Koolish, Dave Prowten, John Reed, Alan and Aaron Sliski, Art Swedlow, Bill Toomey, and Sai Vallabha.

Normal Thursday night mirror grinding, Friday night member Astronomy classes, and Saturday night observing continue. Dress warmly! This past Saturday, we had to wait until 1:00AM to view Comet C/2012 K5 with Phil Rounseville's 80mm binoculars as verified with his 4.25" f/12 little dob using a 40mm then 25mm eyepiece.(listed as 11.7 magnitude on line; just above Alpha Ursa Major). The next work party has taken place on Dec 29th; including preparations for the New Year's Eve party on Dec 31st. Both will be reported in the next Starfields. The January Work Session will take place on Jan 26th starting at 10am. See you there. Happy Holidays Everyone!

~ *Clubhouse Committee Chairs* ~

~ *John Reed, Steve Clougherty and Dave Prowten* ~

Clubhouse Saturday Schedule

Jan 12	Gary Jacobson, Eric Johansson
Jan 19	Brian Maerz, Glenn Meurer
Jan 26	Chuck Evans, Tom Lumenello
Feb 2	John Panaswich, John Small
Feb 9	Bruce Berger, Mike Hill
Feb 16	Brian Leacu, Phil Rounseville

Free Telescope Mount

If you have the need for a very large German Eq. Mount then we might have what you are looking for. This mount was used originally in the Ed Knight Observatory for the Schupmann telescope, then the C14 telescope. Both of these were subsequently mounted on newer more modern mounts.

This mount has motors on both axes and will handle a heavy load. It is currently up in the barn attic of the clubhouse if you want to take a look. Come up on some Thursday evening if interested and see Mike Hill.



Sky Object of the Month – January 2013

NGC 7662 – Planetary Nebula in Andromeda, the “Blue Snowball” by Glenn Chaple

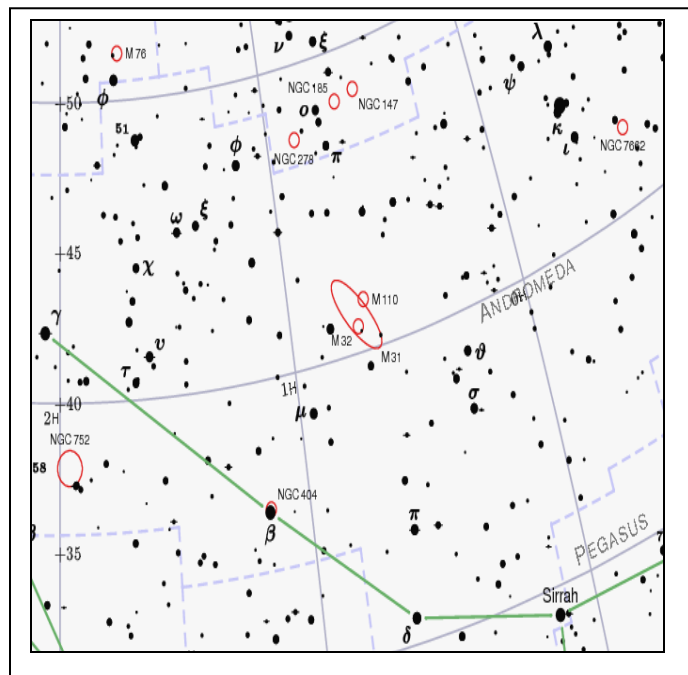
What could be a more appropriate telescopic destination for a wintry night in January than the “Blue Snowball?” More formally known as NGC 7662, the Blue Snowball is a beautiful planetary nebula located in Andromeda. Discovered by William Herschel in 1784, it sports as the nickname implies a circular form and eye-pleasing bluish hue.

To capture NGC 7662, point your telescope towards the Y-shaped asterism known as “Frederick’s Glory” - a quartet of 4th and 5th magnitude stars in the northwest part of Andromeda (look in the upper right-hand corner of the accompanying finder chart). From iota (?) Andromedae (the base of the Y), move 2 degrees westward until 6th magnitude 13 Andromedae is centered in the finderscope field. With your telescope and an eyepiece that captures a chunk of sky at least a degree across and magnifies 40X to 50X, scan the surrounding area. If you spot what appears to be a tiny out-of-focus star about one-half degree to the southwest of 13 Andromedae, you’ve found NGC 7662.

An 8th magnitude object with an apparent diameter comparable to that of Saturn, the Blue Snowball can be viewed with telescopes of all sizes. I’ve glimpsed it with a 3-inch f/10 reflector and magnifying power of just 60X. Its dazzling hue and intricate detail mandate larger telescopes and magnifications exceeding 200X. Whether you own a common 60mm refractor or a huge Dob, look for the Blue Snowball on the next clear January evening.



(www.celestronimages.com)



Finder chart for NGC 7662
From *Mag-7 Star Atlas*
(Copyright Andrew L. Johnson)

February *Star Fields* DEADLINE
Noon, Sunday, January 27th
Email articles to the newsletter editor at
newsletter@atmob.org

ASTRONOMY DAY 2013 – MAY 18 –

Can you believe this will be the Clay Center Observatory's 10th year partnering with ATMoB to host the annual National Astronomy Day for the greater Boston public?

Over a thousand people attended in the past three years, and last year's total count exceeded 2,000. Astronomy Day 2013 is Saturday, May 18 this year, and with no conflict with NEAF, we hope you will join us. We need your help to provide outdoor telescopes, solar and night, as well as indoor science exhibits. We open rain or shine, so please join us indoors even if the weather is not favorable.

You can register your exhibit, telescope or other, on the website so we may plan for what you need – tables, electricity, food, etc. Go to www.claycenter.org, Astronomy Day page, Exhibitor sign-in. Thank you for your participation!

2013 Astronomy Day Schedule

4:00 - Outdoor events begin with rockets, kites, solar telescopes

5:00 - Indoor events run from 5:00 pm to 8:30 pm - science exhibitors

7:00 - Indoor Kite Flying in the Hockey Rink 7-9 pm - kites that need no wind!

8:00 - Sunset, night telescopes set up

8:30 - Viewing of the first-quarter moon, Venus, Saturn, Jupiter, Mercury

10:00 - Adjourn

Robert F. Phinney, Clay Center Director - Dexter School -- Southfield School
20 Newton Street, Brookline, MA 02445
voice:617-454-2718, fax: 617-522-8166
Clay Center: www.claycenter.org
Sci-Tech Camp: www.sci-tech-camp.org
www.dexter.org, www.southfield.org

POSTMASTER NOTE: First Class Postage

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c/o Tom McDonagh, Membership Secretary
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Acton, MA 01720
FIRST CLASS

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OBSERVING: Bruce Berger (978) 387-4189

OBSERVING AND PUBLIC OUTREACH

STAR PARTY COORDINATOR:
Virginia Renehan starparty@atmob.org

How to Find Us...

Web Page: <http://www.atmob.org>

MEETINGS: Held the second Thursday of each month (September to July) at 8:00PM in the Phillips Auditorium, Harvard-Smithsonian Center for Astrophysics, 60 Garden St., Cambridge MA. For INCLEMENT WEATHER CANCELLATION listen to WBZ (1030 AM)

CLUBHOUSE: Latitude 42° 36.5' N Longitude 71° 29.8' W

The ATMob Observatory and Clubhouse is open every Saturday from 7 p.m. to late evening. It is the white farmhouse on the grounds of MIT's Haystack Observatory in Westford, MA. Take Rt. 3 North from Rt. 128 or Rt. 495 to Exit 33 and proceed West on Rt. 40 for five miles. Turn right at the MIT Lincoln Lab, Haystack Observatory at the Groton town line. Proceed to the farmhouse on left side of the road. Clubhouse attendance varies with the weather. It is wise to call in advance: (978) 692-8708.
