



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. 17, No. 2 February 2005

This Month's Meeting...

Thursday, February 10th, 2005 at 8:00 PM

Phillips Auditorium
Harvard-Smithsonian Center for Astrophysics

Parking at CfA is allowed for duration of meeting

THIS MONTH'S meeting will feature presentations by our own members who wish to share with you their latest projects, achievements and/or other astronomical subjects of interest. Member nights always prove to be quite interesting and informative so come hear what your fellow members have been up to.

Also in February - The ATMoB Swap Tables!!! Got some astro-junk that's cluttering up your shop? Suffering from aperture fever but need to sell before you buy? Bring your astro stuff to the February meeting and trade for cash or goods with your ATMoB brethren. Please make sure that each piece is clearly marked with your name and a suggested price as we expect lots of stuff to be available.

Please join us for a pre-meeting dinner at 5:45 PM (seating at 6:00 PM) at the Changsho Restaurant located at 1712 Mass Ave. in our fair city, Cambridge.

President's Message...

Brrrr! What a January it's been! First 26 inches of snow fell at the clubhouse, followed a couple of days later with another 6 to 7". Has ANYONE been out observing? Only a few hearty souls have taken advantage of the rare clear nights to don their long johns and observe. Some will agree that it's tough to judge focus when you're shivering, or worse, your eye or lips get stuck on an eyepiece (happened to me!) Hopefully things will warm up a bit by the time the NEXT newsletter rolls around.

Shilpa Lawande, our membership secretary, has some great ideas for automating some of the job functions. Wouldn't it be great if you could log onto your personal profile page on the ATMoB website and select or renew your magazine, newsletter or email list preferences? How easy it would be for a new member if she could fill out a membership application? And how about the option to **pay for all this securely online?**

Shilpa wants to do all of this for the club, and I can't think of a better person for the job. She has literally written the book (2 actually, with another in the works) on databases. But like most of us, she can't juggle additional service to the club with her personal and work responsibilities.

So this means we are looking for another membership secretary, one whose duties will change quite a bit after the first few months, as more and more of the membership secretary duties are automated. What a rewarding experience, and one that will take less and less time as new website features are implemented. If you'd like to find out more about this position, please contact either Shipa or me to get more information.

One more thing. Did you make a cash or equipment donation to the club during 2004? If so, please drop Gary Jacobson or me a line and we'll get a tax receipt out to you soon.

Clear skies!

- Bruce Berger, President -

January Meeting Minutes. . .

Our speaker at the January meeting was Dr. Michael Mallary, author of "Our Improbable Universe". Dr. Mallary's lecture was a summary of the 14 'essential' things for an environment for life as we know it to exist. Those 14 things (as best as I understood them) were:

- * Expansion rate of the universe is balanced by mass and energy. We are not flying madly apart, and we were not crushed in a big crunch moments after the big bang.
- * The four forces working in balance: strong & weak (nuclear), electromagnetic, and gravity. In particular the weak force allows transformation of proton to neutrons, and allows complex elements
- * Lumpiness in matter, as it was distributed after the big bang, resulting in gravity, stars etc.
- * Quarks existing in 6 states
- * Excess of matter over antimatter: 1 part per billion in excess, a result of the 6 quark states.
- * Protons are stable: Current estimate is protons 'live' for 10^{23} years. If it were as short as 10^{16} years the earth would be molten.
- * Neutrons are heavier than protons (.012%)
- * Reality is 3 dimensional. If it were 4 or more then the equation for gravity ($1/r^3$) would have bodies spinning apart.
- * Quantum mechanical nature of particles (wave like) resists compression.
- * Pauli exclusion principle: two electrons cannot have the same state of gyration
- * He2 is very unstable: protons will not stick together very long, and therefore stars take a long time to burn up.
- * He to Be8 is also not stable
- * Carbon forms faster than Oxygen naturally.
- * 'Big' stars blow up distributing matter.

These 14 things are discussed in depth in Dr. Mallary's book. Other necessities mentioned included:

- * Natural radioactive decay inside earth, causing volcanos, and releasing CO2
- * Ice floats: life could form/continue during an ice age.
- * Vast stellar space: we don't periodically collide with other systems.
- * Moon keeps earth axis stable.
- * Jupiter sweeps up asteroids which might impact earth.

The meeting continued into the business and presentation time. Highlights included:

- * Seven new members over the last period
- * Clubhouse report: the need for another small snowblower was noted. Donations will be gladly accepted.
- * There will be a new member orientation, and open house at the club house on Feb 12
- * Bob Naeye showed some very interesting slides from the Cassini, and Huygens probes. Images can be seen at saturn.jpl.nasa.gov
- * Mario reported on the Dark Sky Bill. At some point in the process he will send a note asking us to contact our

- Mass State representatives. He would like a flood of mail/email.
- * Joseph Rothchild reported on his use of a robotic rent-a-scope he has been using for imaging (www.nmskies.com). He discussed the internet interface, and showed some of his results.
- * Kelly Beatty of S & T talked about the ongoing laser pointer problems and offered some common sense solutions.
- * Charlie McDonald spoke about upcoming star parties

Meeting adjourned to a time of socializing among the membership.
David Siegrist

Treasurer's Report...

Membership Report...

This month we have 3 new members:

CHRISTINE MOULEN, Waltham, MA
NEIL FULLAN De Pere, WI
ALEXANDRA MOJICA, Cambridge, MA

- Shilpa Lawande -

Clubhouse Report

To be presented at meeting

Clubhouse Saturday Schedule

February 5	Bruce Gerhard	Art Swedlow
February 12	Steve Clougherty	David Richardson
February 19	John Panaswich	Bill Toomey
February 26	Joe Rothchild	Gary Walker
March 5	Phil Roundsville	Leacu

Upcoming Star Parties

Club Star Party Coordinator –
Virginia Renehan 978-283-0862 starparty@atmob.org

Date: March 2nd (cloud dates, March 3, March 16)
Location: Butler Middle School, Lowell
Lecturer: To be announced
Observing: 7:00 - 9:00pm
Attendance: 5th - 8th graders and family, 225 expected
Power available
Refreshments: will be served
School Coordinators: Carol Sutton and Patti Adams (978) 937-8973
Coordinator: Jack Drobot (978) 692-8093

Date: March 14th (cloud dates, March 15, 16, 17, 21, 22, 23, or 24)
Location: Acton
Lecturer: To be announced
Observing: 7pm
Attendance: 800 expected
Power available
Refreshments: will be served
Coordinator: Steve Feinstein (617) 835-0014 cell, (781) 515-5313 direct

Date: March 15th (cloud dates, March 16, March 17)
Location: Birch Meadow, 27 Arthur B. Lord Drive, Reading, MA.
Lecturer: Paul Manning, 6:30 pm
Observing: 7:00 - 9:00pm
Attendance: 5th graders and family, 400 expected
Power available
Refreshments: will be served
School Coordinator: Ms Carol Wertheim (781) 944-2333
Coordinator: Charlie McDonald (781) 944-6140

New Member Orientation

The next new member orientation, including a tour of the clubhouse, observatories and telescopes, will take place on **Saturday, February 12th at 7 pm**. All new members are cordially invited to attend. Observing will follow, weather permitting. If any of our veteran members would like to help out during the orientation with a special presentation or demonstration, please contact us. If you plan to attend please contact: Shilpa Lawande at (603) 891-2702 or Virginia Renehan at (978) 283-0862. Refreshments will be served. Hope to see you there!

~ *Virginia Renehan*

For Sale

I would like members of the ATMOB to have first pick as I prepare to sell my house on the coast of Maine. This is a large house, designed by a local eccentric architect, with a floorplan of 11 contiguous octagons. It's three stories high on the water side, and one story from the driveway. It has an inground pool, the most stunning view of the ocean in this part of Maine, being 110 feet up from the water, and has a three-story observatory with clamshell dome and a pier of 8-inch steel wellcasing down to bedrock. You won't find a property like this anywhere. Three+ acres of land, conservation land on one side, and a path down to the rocks where you can catch mackerel in the summer. But retirement plans call for a change, and I am willing to consider offers starting at \$1.2 million. Interested parties please reply to dilworth@gwi.net.

Donald C. Dilworth
President, Optical Systems Design, Inc.
P.O. Box 247 East Boothbay, ME 04544
207/633-3711 (www.gwi.net/OSD)

March *Star Fields* deadline
Saturday, February 26th

Email articles to Mike Hill
at noatak@aol.com

POSTMASTER NOTE: First Class Postage Mailed February 4, 2005

Amateur Telescope Makers of Boston, Inc.
c/o Shilpa Lawande, Membership Secretary
13 Royal Crest Dr., #12
Nashua, NH 03060

FIRST CLASS

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HISTORIAN: Anna Hillier (781) 861-8338

OBSERVING: Virginia Renehan (978) 283-0862

How to Find Us...

Web Page 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 Tom Britton 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.

Heads Up For The Month . . .

To calculate Eastern Daylight Time (EST) from Universal Time (UT) subtract 5 from UT.

February 8 New Moon
February 9 Nice grouping of Jupiter's Moons around 11:00 PM EST
February 15 First Quarter Moon
February 23 Full Moon