



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. 14, No. 3 March 2003

This Month's Meeting...

Thursday, March 13th, 2003 at 8:00 PM

Phillips Auditorium
Harvard-Smithsonian Center for Astrophysics

THIS MONTH'S speaker will be Dr. Supriya Chakrabarti, Director of the Center for Space Physics at Boston University. The title of his talk will be "SPIDR: A Boston Area Small Explorer Mission".

The NASA Explorer Program provides frequent, low-cost access to space for physics and astronomy missions using small to mid-sized spacecraft. In July, 2002 NASA selected two small explorer missions for flight in 2005 and 2006. The Spectroscopy and Photometry of Intergalactic medium's Diffuse Radiations (SPIDR) mission, to be launched in 2005, will use imaging ultraviolet spectrographs to look for the Cosmic Web – a filamentary structure of tenuous warm-hot ($10^5 - 10^6$ K) gas predicted by cosmological models. Half of the normal matter in the nearby universe is in filaments of hot gas, and SPIDR will observe its emission and distribution for the first time. SPIDR's data will answer fundamental questions concerning the formation and evolution of galaxies, clusters of galaxies, and other large structures in the universe as well as address a number of questions related to hot gas in our own galaxy.

Dr. Chakrabarti's talk will describe the scientific motivation, measurement approach and the mission design. An equally important component of this mission – its education and public outreach activities – will also be outlined.

Join our speaker for a pre-meeting dinner at 5:45 PM at the Changsho Restaurant located at 1712 Mass Ave. in our fair city, Cambridge. *-Eileen Myers, President-*

President's Message...

LIKE MANY of you, I have been doing more armchair observing than outdoor observing these past few weeks. One rainy Saturday, along with several other club members, I visited "The Quest for Immortality – Treasurers of Ancient Egypt" exhibit at the Museum of Science in Boston. The walls of the facsimile of the burial chamber of Thutmose III (1479-1425 BC) are filled with Egyptian cosmology. They describe the dangerous journey the deceased king must make in order to be reborn: united with the sun god, he travels in the boat of the sun through the 12 hours of night, from dusk to dawn. The Planetarium show, "Night Sky of Ancient Egypt" explained the reverence that the Egyptians had for the constancy of the circumpolar stars – the entrance to heaven. We learned that Osiris (god of the dead) was once the name of the constellation Orion. The two channels inside the Great Pyramid of Giza lead outward from the King's chamber – one aiming for the star Thuban and the other for the belt of Osiris. A tool called an adze was touched to the lips of a mummy, statue in a ritual to enable it to eat, breathe, see, hear and enjoy offerings and provisions performed by priests. The Adze was the name of the Big Dipper and was shaped like it. I encourage you to spend a cloudy evening visiting the exhibit. It closes March 30.

I did get to enjoy one special evening of observing - the night the Shupmann telescope was mounted in our new club observatory. The first light views of Jupiter and Saturn were superb. Congratulations to all who worked on the telescope and on building the observatory *-Eileen Myers-*



Paul Manning as Galileo

February Meeting Minutes. . .

Long time member Tal Mentall opened the 756th meeting of the Amateur Telescope Makers of Boston with of a reading of a poem called "High Flight" in memory of the Columbia Shuttle Crew. Eileen Myers then presided over another member Show and Tell session. To get things going, Charlie McDonald introduced us to Paul Manning who did a fabulous portrayal of Galileo complete with bright blue costume, Italiano accent and witty humor concerning his discovery of the Moons of Jupiter. An Excellent act! And it could be available to you, by his permission, at any local star party you may be having. Following this, Lou Cohen opened with a description of his home observatory, his observing regiment, his Finkelman Light Shields as a solution to the local light pollution problem, and a few good pictures, especially for Cambridge, of the night time sky. Following was a short description of Olbers Paradox by Max Ben Aaron. Carl Hein then gave a presentation on the current state of Light Emitting Diode (LED) lighting technology. It's gone way beyond the little red LED I used to buy at Radio Shack. He spoke not just of this technology for amateur astronomers night lights, but for consumer lighting in general and what was in store for the future, perhaps. Carl then presented the ATMoB with a set of CDs that contain a PDF version of the 1985 "Handbook of Geophysics and Space Environment" with a caveat that they be used as a small impromptu fund raiser for the club at \$5.00 a copy. The show and tell then turned to the adventures of Paul Valleli and Bruce Berger down at Winter Star Party – Key West, FL. Paul had a DVD of some video he had shot and Bruce had a nice Powerpoint Presentation with some great pictures depicting the sheer mass of telescope equipment this event attracts. Or is it the warm weather? Bruce and Dick Koolish followed with pictures of the Clark Refractor Refurbishment project, showing the instrument go from sheer neglect to a perfect night of planetary observing with a lot of TLC in between. The evening concluded with a set of slides from Mario Motta. These were a collection of his latest and greatest along with some old favorites. Mario is now experimenting with color with some very nice results. The Business portion of the meeting followed. It was short. The reports from the board were presented. Peter introduced two new members and a work party at the clubhouse was announced. A number of star party announcements were made along with a call to arms for more telescopes at the star parties. Eileen announced the date of the next Astronomy Day at the Museum of Science as being on May 10th. Members were asked to support this effort. Speakers are needed, as are persons to attend the grinding display, telescopes outside, and at the nighttime star party. Eileen also announced that they are looking for speakers up at Stellafane. The meeting concluded with refreshments and a bit of buying a selling of used telescope accessories, as always, following a show and tell session.

Treasurer's Report...

For the month of January, we had \$1,126.74 in revenue and \$1,331.39 in expenses for a net loss of \$204.65 for the month.

As of January 31st, 2003 our assets were:

Checking Account - Regular \$ 14,023.82

Investments \$ 30,428.92

Total Current Assets \$ 44,452.74

Of this \$44,452.74, \$2,804.31 is in the Land Fund and \$155.00 is for clubhouse key deposits.

Note: An additional \$3,000 was transferred from our checking to the CD (Investments) in January.-**Bernie Volz, Treasurer-**

Membership Report...

Our new ATMoB members for the month of March are PAUL KOVAL of Lowell MA, STEPHEN R SCHMITT of Boxborough MA, MICHAEL FITTERMAN of Harvard MA, PAUL D MANNING (AKA Galileo) of TEWKSBURY MA, and JOHN MCQUILLAN of Concord MA. Say hello and give them a warm ATMoB welcome!

-**Peter Psyhos, Membership Secretary -**

Clubhouse Report

It was cold at the last work party. Didn't get much above 15o F, but work did continue. While a few hardy souls worked in the observatory, others helped clean out the near barn. A number of windows and Acs were moved to the barn loft while John Reed, the wizard of the snow blower, removed some more freshly laid snow. Work stopped for a time while John served his world famous Bailey Hill sauce with spaghetti and salad. Once lunch was done clean up continued. This will now allow work to continue on insulating the west side near barn wall. Thanks to Art Swedlow, Bruce Gerhard, John Reed, Dave Prowten, Sai Vallabha, Eileen Myers, Ben Myers (thanks to Ben for upgrading the clubhouse computer from 32 to 48M ram, and to a 150 Mhz processor), Marsha Bowman, and John Blomquist. In subsequent days Dave Prowten modified the observatory doors to allow for extra clearance for the Shupmann, and John Reed and myself (you guess it) snow blew more @#%\$ snow. - **Paul Cicchetti-**

Clubhouse Saturday Schedule

March 8	Steve Clougherty	Phil Rounseville
March 15	Mario Motta	Bernie Volz
March 22	Henry Hopkinson	N&S Sonawane
March 29	Steve Mock	Tom Wolf
April 5	Jack Drobot	Steve Herzberg

Schupmann Telescope Complete

As of February 27th, the Schupmann Telescope is complete and operational. It is not finished though – a telescope never is . . . But for now it is, and more importantly the ATMoB Ed Knight Observatory now has a telescope in it ready to serve up the night time sky to the casual observer or the amateur researcher alike.

We have been working very hard over the past two months to get the scope up and running. The first order of business was to get a pier on which to mount the newly refurbished mount. Thanks to Dave Prowten and those that helped him pour a REALLY BIG concrete base. To this was mounted an old Criterion cast iron pedestal that I donated from my old parts closet. With pure determination for a mirror flat surface, John Blomquist used his angle grinder to hone down the upper pedestal rim so that the telescope mounting flange would lay perfectly flat. It was flat alright, even with his arc-minute leveling gauge.

Once the pedestal was mounted on the concrete base securely Dave, John and I very carefully lifted the massive, and heavy, equatorial head up onto the pier. No easy feat as it sits about 5 feet off the ground. Dave and John were the strong men here. I think I was just guiding a little. (We didn't waste any time tightening those bolts down either.)

After this we went on hold a bit while we waited for the electronics to be completed and the weather to warm up a bit. None of us really wanted to work out there on those zero degree days. We took care of a few odds and ends and Dave cleaned out the observatory so once in use, it would not look like a construction zone.

Around the middle of February, Glenn Meurer finished up the drive electronics. I had asked him to do this back at the beginning of the project when he helped solve a problem with the Declination motor. He willingly accepted and what a job he did. After consulting back and forth as to what functionality we desired, he came up with a plan that involved the use of an old drive corrector donated years ago by Doug Brown, a member since 1937. Thanks go to Doug for this important accessory. The end result of Glenn's efforts are the drive electronics expertly packaged in a junction box, an RA- DEC control paddle with tracking rate adjust, provided by the drive corrector Doug donated. It worked great on the first trial and the craftsmanship of the work impressed us all. Thanks Glenn for a great job.

The final detail was of course the telescope. This had to be attached to the mount. We have John Blomquist to thank here for an excellent job of crafting the telescope cradle, and attachment hardware. Made out of welded aluminum and custom built adjustable U-Bolt attachment it is a work of a craftsman of a different sort. This time in metal. John was very helpful on this project with his knowledge and experience with metal working and more importantly his willingness to tackle head on the problems at hand. Thanks John for all your efforts.

Final thanks of course go to Jim Daley for the construction and donation of the Schupmann Telescope and to long time member and supporter Badri Aghassi for donating the old mount. Without these of course there would be no telescope. We hope that you all take the time to come up and use the new scope. If you want to do some sort of work that needs a good stable telescope with tracking ability then talk to one of the members of the clubhouse committee and see if you can arrange something to get that going. *-Michael Hill-*



**The Schupmann Crew – Mike Hill, John Blomquist, Bruce Berger, Glenn Meurer, and Dave Prowten
Accompanied by ATMoB President Eileen Myers**

More Schupmann Pictures



Star Party Thank You

Butler Middle School - Lowell

I would like to thank those ATMoB members who volunteered their time to make the starparty at the Butler Middle School in Lowell such a success last evening.

They were John Blomquist, Jack Drobot, Charlie McDonald, Eileen Myers, and Mike who's keys opened many doors for us.

Thanks again, *-Bill Toomey-*

Correction:

In the February Star Fields the star party thanks for the Cummings School star party a mistake was made. Instead of the name Bill Wood in the list of persons standing the caption should have listed Ed Knight. My apologies – *Lou Cohen.*

Many Thanks . . .

To Paul Cicchetti (pictured here) and John Reed for all the snow removal efforts they have provided so far this winter. I say so far because who knows what March will bring.

Hopefully spring



Upcoming Star Parties:

March

Monday, March 3 (cloud dates Tues, Mar 4; Wed, Mar 5; Thurs, Mar 6) - Douglas Elementary School, Acton - Observing 7-9 PM - 4th Grade classes - Expected attendance 500 - Coordinator Steven Feinstein sjf@feinstein.net 978-263-7045

Monday, March 10 - Morey Elementary School, Lowell - Grades 3 & 4 - Expected attendance 400+ - Jack Drobot 978-692-8093

Tuesday, March 11 (cloud dates Wed, Mar 12; Tues, Mar 18; Wed, Mar 19; Thurs, Mar 20) - Birch Meadow Elementary School, Reading - Expected attendance 400+ - 7PM- Coordinator Charlie McDonald 781-944-6140

Tuesday, March 11 (cloud date Wed, Mar 12 - Douglas Elementary School, Acton - Observing 7-9 PM - 4th Grade classes - Expected attendance 500 - Coordinator Steven Feinstein sjf@feinstein.net 978-263-7045

Monday, March 17 (cloud dates Tue, Mar 18; Wed; Mar 19, Thur, Mar 20) - St. Michael's School, North Andover - Observing starts at 7PM - Coordinator Charlie McDonald 781-944-6140

Monday, March 17 - Rogers Elementary School, Lowell - Expected attendance 50-100 - Observing 7-9PM - Coordinator Bill Toomey bill@toomey.net 978-682-9999

Friday, March 21- Unitarian Church, Reading - for Boy Scouts - Observing 7-8 PM - Expected attendance 30 - Coordinator Charlie McDonald 781-944-6140

Japanese Translator Needed

RITI (Reading Information Technology Inc.) that developed a high resolution lunar software "Luna Map Pro" is seeking someone who is fluent in Japanese and knowledgeable of Astronomy. This person will translate all the materials such as User Guide for "Luna Map Pro" to Japanese.

Find out more about "Luna Map Pro" at www.riti.com. Anyone interested, please contact Hung Pham at 781-942-1655 ext# 17 or hqpham@riti.com.

-Fumiko Toyosumi-

For Sale

I'm selling a load of equipment

<http://community.webshots.com/album/29789002jLfgpMJSCZ>

One of the items for sale is my 14 1/2 inch Tectron telescope - \$1200. EXTREMELY portable [nesting parts - fits in the front seat of my car] 14 1/2 inch enhanced coated Enterprise Optics primary / fused quartz E&W secondary /Novak parts. Photo [hopefully] forthcoming.

See the rest of the equipment at

<http://community.webshots.com/album/29789002jLfgpMJSCZ>

Steve Mock

steve-mock@excite.com <<mailto:steve-mock@excite.com>>

{Paypal [only set up 4 cash] at same e-mail address. }

**April Star Fields deadline
Sunday, March 30th**

**Email articles to Mike Hill
at noatak@aol.com**

POSTMASTER NOTE: First Class Postage Mailed March 7, 2003

Amateur Telescope Makers of Boston, Inc.
c/o Peter Psyhos, Membership Secretary
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FIRST CLASS

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Steve Clougherty (781) 784-3024

HISTORIAN: Anna Hillier (781) 861-8338

OBSERVING: Charlie McDonald (781) 944-6140

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 Month...

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

March 10 Moon passes just north of Saturn
March 11 First Quarter moon
March 12 Neptune less than ½° east of Venus in morning (closest at 19^h UT)
March 18 Full Moon
March 20 First day of spring – Sun crosses equinox at 8:00pm EST
March 24 Last quarter Moon
March 28 Uranus is quite close to Venus this morning
March 29 Moon passes close to Venus - Spring Sunrise Photo-Op (5:00 AM)