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

February 2004 Newsletter

President's Message...

LAST YEAR DR. JANET MATTEI, Director of the AAVSO, agreed to be our February speaker. Janet, we eagerly await the full return of your health and for you to return to the work you hold so dear. We are all looking forward to seeing you and hearing you talk about the wonderful new resources the AAVSO has developed.

I had the opportunity to first try variable star observing with two club members, observers who have made watching variables a lifelong interest: Ed Los, and Glenn Chaple, this month's speaker. Once after a star party in Groton, Glenn used binoculars to show me Delta Cephei, a simple variable star in the constellation Cepheus, with a period of less than a week and a slightly different brightness every night. Glenn explained the technique of comparing it to two neighboring stars. Fluctuating in magnitude between 3.6 and 4.4, we looked at nearby Zeta at magnitude 3.6 and Epsilon at magnitude 4.2, and I made my first measurement. I returned home and studied the AAVSO chart Glenn gave me. I also reacquainted myself with the Greek alphabet. You can guess what I did the next night. Sure enough, the magnitude had changed. As an added bonus, nearby was another variable star in Cepheus, the beautiful "Garnet Star" Mu Cephei, one of the reddest stars known. It is a huge red giant, much like Betelgeuse. Compare it with the white star Alpha Cephei.

If you enjoy looking at Jupiter and trying to figure out which of the Galilean moons is which, try something new and learn how to measure the magnitude of variable stars. Glenn will do a demonstration of the technique at the February meeting, so come and give it a try right there. This is a great opportunity for all beginners to learn an observing skill from an expert.

-Eileen Myers-

January's Minutes...

Eileen Myers opened the 765th meeting of the Amateur Telescope Makers of Boston with a brief story about a time in the early sixties when selling stars was in vogue, as it has been more recently but with less acceptance by non-believers that think this is a con job at best. Back then it was done as a clever fund raiser to help fund the building of the Boston Museum of Science planetarium. Apparently the members of the Bond Astronomy club purchased an entire globular cluster for Harlow Shapley who was

the director of the Harvard College Observatory at the time. In addition the ATMs reportedly own the constellation Telescopium. Who knew!

This month's meeting was a combination swap meet and show and tell session. A number of members presented short talks on their current projects. Dick Koolish presented a set of pictures of the two day construction project to raise the dome on Mario Motta's new observatory. A lot was accomplished in two days.

Mike Hill presented a talk on the refurbishment of a rusty old German Equatorial Mount that he picked up last year. Jack Heinzmann presented a talk about the building of a Springfield telescope mount and telescope using old castings that had been in storage for many years. Collimation of the optics, we were told, are quite important due to the way the light path is folded.

Hung Pham showed us the latest cool software from his company RITI. The program is called Celestial Explorer:MARS and is a great graphical mapping program that allows you to view Mars in many dimensions; Perfect to visualize where those little rovers are located as they scout about the Martian surface.

Charlie McDonald told us about the ease with which very current NASA videos can be obtained and subsequently made available to schools. He had just obtained, via the Reading Educational TV station, a number of copies of the latest "Mars News Brief". He urges anyone with access to local TV stations to do the same and get this information to the schools.

Eileen Myers showed a wonderful painting, by Bob Collara, of the night sky or more accurately Bob's artistic impression of the night sky as one would see it viewing the Milky Way regions with a rich field telescope. Paul Valleli presented a talk about a spectroscope he is building for use with the McGregor telescope in Springfield, VT. It is a Czerny-Turner design using optics out of a surplus instrument he picked up and will use fiber optic cable to route the light from the telescope to the spectroscope which will be sitting on a bench. The ends of the fiber bundle will be arranged in a line and hence act as a natural slit. A very interesting project.

Carl Hein made note of the availability of a CD that is the entire Handbook of Geophysics and the Space Environment. For a small five dollar fee, this CD can be had and contains a wealth of otherwise difficult to obtain research results on this topic. Gary Walker presented a short summary of his latest computerization of his observatory with a great block diagram of the entire network of computers, cameras, motors and cables. Most of what he is doing now is only possible because of the new very simple networking and operating system technology that has become so mainstream.

Tony Costanzo showed us some of the items he has available at his new Astro-Store in Plaistow, NH and lastly Art Swedlow presented a short talk about his digital imaging photo manipulation techniques. His first serious try at extracting hidden information in a 1910 picture of Halley's Comet focused on the head of the comet that was initially quite bright and washed out. When he reconstructed the image a very

strange vision came to light. There at the tip of the long wispy tail was a very distinct picture of John Reed's head, not the head of the comet we are used to seeing. Very interesting indeed. How'd he get there ?? ;-) Keep up the good work Art. There's a wealth of information in those pixels.

The business meeting followed with the presentations by the board members and committee members. Gary Jacobsen informed us that there was \$110.00 dollars in donations during the month of December and thanked all those that donated. Eileen announced a number of star parties and presented a list of upcoming events in 2004. She also mentioned that currently the ATMoB 70th anniversary party will tentatively be held in Phillips auditorium on March 27th from 5:00PM to 11:00PM. There may be a conflict with another group but this will be resolved soon. Peter Bruckner presented three boxes of Sky and Telescope and Astronomy magazines that we can use to give out at star parties. Lastly Eileen told us about the New Years Eve party up at the clubhouse. There were about 25 people and the last ones left at 3:00 in the morning. A good time was had by all. One of Bob Collara's paintings was the astro-prize of the night which was won by Bruce Gerhart. The meeting was adjourned and the rest of the evening was spent over refreshments and the left over swap meet items for sale by members.

- *Michael Hill* -

Membership Report...

This month we would like to welcome four new members: Gary Sales, Framingham MA, Jack Bruneau, Dedham MA, Leon Lupien, Lowell MA, Vincent Hammer, Westford MA

- *Shilpa Lawande, Membership Secretary* –

Clubhouse Report...

The clubhouse schedule is [here](#).

-*John Reed, Clubhouse Director*-

