



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. 11, No. 5 May 2000

This Month's Meeting...

Thursday, May 11th, 2000, at 8:00 PM
Phillips Auditorium, Harvard-Smithsonian
Center for Astrophysics

THIS MONTH'S speaker is Kevin Manning, former president of the Astronomy Club of Tulsa (ACT) and current Wright Fellow at Tufts University. He will be speaking about the design and construction of his club's observatory. It is the story of the fulfillment of a dream, a desire realized in the form of an observatory home, permitting great opportunities for the club. He will also be talking about the design and use of his large 12-inch F10 Dob. This telescope, which has true refractor-like performance, has a unique, six-section design.

Join us and our most excellent speaker for dinner at 5:45 PM at the Changcho Restaurant located at 1712 Mass Ave. in our fair city, Cambridge.

President's Message...

THERE IS *something* about an observatory that is very appealing...and I have often thought of what it would be like to have my own backyard observatory. It has never been practical for me – too many trees, too much light pollution – but you can still dream. Fortunately, we have all been able to live vicariously when hearing about many of our ATMob members' observatories, including MARIO MOTTA, GARY WALKER, and most recently PETER BEALO.

Our speaker this month will be sharing with us his experiences in Tulsa building a club observatory, just as we are about to begin building our own roll-off observatory for the 20-inch telescope at the clubhouse. The design, by MARIO MOTTA and drafted by PETER BRUCKNER, has been approved by MIT, and we have been given a building permit by the Groton building inspector. This observatory will join the club's "doghouse",

which is featured in an article by Dennis di Cicco in this June's *Sky and Telescope*. We will be finalizing plans at our upcoming Executive Board meeting, and I hope to share them at our May meeting. Hopefully, many of you will join us in building our new ATMob observatory, which we can all have as "our own".

-Joseph Rothchild-

April's Minutes...

THE MEETING of the Amateur Telescope Makers of Boston, including the Bond Astronomical Club, was opened by President JOSEPH ROTHCHILD. Our guest speaker was David Lunt, founder and president of Coronado Instruments Ltd., which specializes in making optical instruments for solar observing. These include H-alpha and other wavelength filters, dedicated Solar telescopes, dedicated prominence telescopes, and custom systems. His talk was on the technology and design of these filters, which are based on the principle of the Fabrey-Perot etalon, the multiple-beam interferometer constructed by Charles Fabry and Alfred Perot in the 1890's. Basically an etalon is a structure consisting of two surfaces which have highly reflecting, non-absorbing coatings, and are separated by a very narrow parallel gap. See www.coronadofilter.com for images taken with Coronado's instruments, as well as information about the sun and solar filters.

The business meeting began with the officer's reports. Membership Secretary JOHN SMALL noted that 70 members are receiving the newsletter by email only. Observing Committee RICH NUGENT announced nine star parties, including a few "Moon parties". President JOSEPH ROTHCHILD announced that MIT has approved the design for the observatory to be built at the clubhouse. We are waiting for the building permit. An Executive Board meeting will be held on April 30th. BERNIE VOLZ reported that due to the problems in Zimbabwe he will be looking for alternative sites for viewing the next solar eclipse. Zambia is being considered as a backup site.

-Eileen Myers-

Nominating Committee...

A NOMINATING committee was elected at the April club meeting to set in place a slate of candidates for this year's club elections. In addition to myself, MARION HOCHULI and PETER BEALO were elected to serve on this committee. While we already have members interested in filling several of the positions on the executive board, there are still several vacancies. These include the position of Vice President.

If any member is interested in more information about serving on the club's board of directors, please contact anyone on the nominating committee or anyone currently on the board of directors. (Current board member phone numbers can be found on the back page of the monthly newsletter.) Thanks in advance!

-Rich Nugent- (508) 879-3498

Executive Board Meeting...

A MEETING of the Executive Board took place at the clubhouse on Sunday, April 30th. Vice President BOB COLLARA handed in the statement from an accountant indicating that an audit of the club's accounts was performed and that all accounts are in good order. Preliminary budgets for 2000-2001 were discussed. President JOSEPH ROTHCHILD displayed

the Building Permit he received from the Town of Groton for the construction of a Telescope Enclosure for the club's 20" Newtonian. A basic schedule for the construction was started and will be presented at an upcoming meeting. -Eileen Myers-

Membership Report...

WE WARMLY welcome new members ROGER GREENWOOD from Milford, MA and JEAN-NOEL NEVEU from Lincoln, MA.

We also offer our hearty congratulations to SEAN WALKER and his wife on the birth of their daughter Andrea Josephine, born on April 19th at 3:58 PM. -John Small-

Clubhouse Report...

SATURDAY OPEN CLUBHOUSE SCHEDULE

May 6	CLOSED	StarConn - Wesleyan University in Middletown CT
May 13	Lew Gramer	Steve Herzberg
May 20	John Small	Art Swedlow
May 27	Steve Clougherty	Dan Feldkhum
June 3	Richard Burrier	Jim Suslowicz
June 10	Eileen Myers	Art Swedlow
June 17	Eric Johansson	Al Mazurka
June 24		WORK PARTY
June 24	David Richardson	Tom Wolf

I WOULD like to thank TOM CALDERWOOD, CARL HEIN, and EILEEN MYERS for their donations of TVs for the clubhouse -Paul Cicchetti-

Treasurer's Report...

FOR THE month of March, we had \$446.08 in revenue and \$622.95 in expenses for a net gain of \$176.87 for the month.

As of March 31st, 2000 our assets were:

Checking Account - Regular	\$13,935.11
Investments	\$18,553.21
Total Current Assets	\$32,488.32

Of the total, \$1,814.81 is in the Land Fund and \$145.00 is for clubhouse key deposits.

For comparison purposes, for the first ten months of this fiscal year vs. the first ten months of last fiscal year:

	March 31, 1999	March 31, 2000
Total Revenue	\$10,891.26	\$10,518.82
Total Expenses	\$4,676.78	\$5,461.74
Net Income	\$6,214.48	\$5,057.32

Our revenue is down a bit and our expenses up a bit. On the revenue side, we're up in membership dues but down in donations. On the expense side, *Star Fields* is down, clubhouse expenses are up, and meeting refreshments are way up (mostly because of clubhouse work parties).

If last year's figures for April/May are applied to this year's numbers, we'd have about \$200 more in revenue and \$600 more in expenses. -Bernie Volz-

Upcoming Star Parties...

Date	Rain Date	School
Mon May 8 7-9 p.m.	May 9 May 10	Lincoln Elementary School 161 Mystic Valley Parkway in Winchester, MA Contact Charlie McDonald at (781) 944-6140
Wed May 10 7-8:30 p.m.		The Country School Alphabet Lane in Weston, MA Contact Rich Nugent at rich_nugent@nen.com or (508) 879-3498
Wed May 10 7-9 p.m.	May 11	Holliston High School Contact Steve Sargent at sargescs222@aol.com
Fri May 12 7-9 p.m.	May 13	Curtis Middle School Pratts Mill Road in Sudbury, MA Contact Rich Nugent at rich_nugent@nen.com or (508) 879-3498

-Rich Nugent-

Astronomy Day 2000...

ALTHOUGH WEATHER forecasters were calling for a dreary and wet day, Saturday April 8th turned out sunny and bright for Astronomy Day celebrations at the Boston Museum of Science. As always, the ATMob was there in force to help convey the spirit of amateur and professional astronomy to the estimated 7100 museum-goers.

Many of our members gave lectures throughout the day: TO CALDERWOOD - "NASA's Chandra X-ray Telescope", LEW GRAMER - "Observing Shooting Stars", JOHN HOPKINS - "Astronomy Across the Spectrum", GARY JACOBSON - "The Thousand Yard Model of the Solar System", MARIO MOTTA - "Deep Space Astro Imaging: A CCD Journey", and BILL TOOMEY - "The Outer Solar System". Everyone did an outstanding job in the museum lecture halls!!

Back at the display area, DAVE SIEGRIST ran the mirror grinding demo. At about 9 a.m. Dave sprinkled a little bit of #120 grit onto the demo disks and there was no stopping him!! He ground and ground (by noon he was at about f/3) and explained and explained (f/2 by 3 p.m.) and gave many people a chance to try it for themselves.....all the way until the museum closed at 5 p.m. (ending at f/1.5)! The once shiny marble floor showed the wear and tear of mirror grinding. Nice job, Dave!

Meanwhile, out under the hot Sun...EILEEN MYERS set up her excellent Nitron refractor and let folks take a peek at the nicely spotted Sun. She was joined by one of our newest members, ROGER GREENWOOD (who set up a very nice Meade refractor). TANYA RUIZ was operating the museum's H-alpha scope in the observatory.

A number of scopes were set up indoors and we ran a computer showing the position of Mir and its two cosmonaut passengers. In addition to the members mentioned already we were joined by CHARLIE MCDONALD, GENE MCAULIFF, EARL HELLERSTEIN, PAUL CICCHETTI and his family, STEVE AND DAN HERZBERG, PHIL ROUNSEVILLE, DICK KOOLISH, KEN LAUNIE, ART SWEDLOW, DAN

FELDKHUN, TED POULOS, ALLEN and ANDREW ZUBATKIN, PETER PSYHOS, ANNA HILLIER, JAKOB JORGENSEN, DAVE and DENNIS KELLY, JOHN SMALL and family, CARL HEIN, SAI VALLABHA and his wife, MATT BENDANIEL and, of course, NOREEN GRICE who is the Hayden Planetarium's coordinator for the entire event. (If I've missed you, please let me know!)

The dinner at Papparazzi's was excellent but the evening star party was canceled due to the wind swept rains that came in at about 8 p.m. Thanks to all who sacrificed their time to help make Astronomy Day 2000 a memorable one! Next year's event will be held on April 28th, so ink it in on your calendar and we'll see you there.

-Rich Nugent-

Astronomy Course Reviewed...

SEE JUNE 2000's issue of *Sky & Telescope* (pg. 70-71) for a review of "Understanding the Universe: An Introduction to Astronomy", a video course given by Alex Filippenko, professor at the University of California, Berkeley. This is the course just purchased by the club in March. The course consists of forty 45-minute-long lectures. There is also a companion booklet which outlines each lecture. The club is in the process of setting up a system to present the lectures at club meetings and at the clubhouse. Contact John Reed or Charlie McDonald for more information.

-Eileen Myers-

Other News...

NOREEN GRICE has been nominated for a regional Emmy award for the work she did on the Massachusetts Corporation for Educational Telecommunications (MCET) show "Mission Mars", a three part journey in which students conduct experiments, share data, and develop the means necessary for a virtual journey to and from Mars. Students meet guest scientists: NASA astronaut Cady Coleman; space engineer Julianne Zimmerman; botanist Bob Greene; planetary geologist Dr. Maria Zuber, and NASA scientist Karen Myers. These scientists share some of their challenges preparing for NASA's expedition to Mars. Students are amazed to be conducting similar experiments as these renown scientists.

ANYONE INTERESTED in forming a SETI discussion group should contact CHARLIE McDONALD at 781-944-6140.

A BUS trip to New York City to visit the Rose Center for Earth and Space, which includes the new Hayden Planetarium, is being planned by club member MARSHA BOWMAN. All of the following plans are tentative. Departure would be at 6:30 a.m. by chartered bus on a Saturday in October or November. The pickup spot will be determined by consensus of participants. We will attempt to some breakfast items on the bus. We would attend an 11 a.m. Planetarium show, visit the Rose Center for Earth and Science, and also the Museum of Natural History. Family members could also just go shopping in NYC. Reservations would be made for a 5:00 p.m. group dinner somewhere. The bus would leave NYC about 7:30 p.m. to return to Massachusetts. The bus might cost around \$50 per person (tickets to the Museum and Rose Center for Earth and Space, and dinner not included). There is a *suggested* admission to the Museum and Center of \$10 for

adults, \$7.50 for students and seniors, and \$6 for children. Combination tickets, including the new Hayden Planetarium Space Show, admission to the Museum and the Rose Center, are \$19 for adults, \$14 for seniors and students, and \$11.50 for children. Attempts will be made to arrange a special group tour, show, and rate.

Let Marsha know if you are interested in participating. Please offer any ideas and suggestions which you may have for the trip. Marsha can be reached at 978-663-0040 or by email at: rmbc2114@email.msn.com

CfA Trip To Mt. Hopkins in Arizona...

ELAINE FORTIN, a member of the Social and Recreational Committee at the Center for Astrophysics, has extended an invitation to ATMob members to join them in a visit to CfA's facilities at the Fred Whipple Observatory at Mt. Hopkins, Arizona, September 8-10. There are currently about 20 openings. Accommodations and flights are being arranged individually, but she can arrange discounted group airfares with a minimum of 10 people on specific flights. Basic Estimated Cost of the weekend excursion: Air Fare \$400; Lodging \$150; Catered Meal \$15; Total \$565 plus meals and ground transportation

PROPOSED AGENDA FOR SATURDAY

- Arrive at Visitor Center around noon
- 12:00 - 2:00 Tour Visitor Center
- 2:00 - 2:45 Bus trip to the Ridge (Anyone staying overnight on the mountain will need to drive their rental car.)
- 2:45 - 5:30 Tour the telescopes on the Ridge and Summit
- 5:30 - 6:00 Shuttle to either the Ridge Dorm or Common Room to clean up (only applies to those who will be staying overnight in the dorms)
- 6:00 - 7:30 Catered buffet dinner (~\$14 per person)
- 7:30-10:30 Night visit to the telescopes

Activities may be organized for Sunday, such as a tour of Kartchner Caverns or the Mirror Lab at U. of Arizona in Tucson. Contact club secretary Eileen Myers for a copy of the email sent to Joseph Rothchild. For the latest information, contact Elaine Fortin at efortin@cfa.harvard.edu.

-Eileen Myers-

For Sale or Want...

OPTICAL TREASURES at bargain basement prices! Achromats for sale cheap! 3 precision achromats, 2" dia x10" f.l., 1 1/2" dia x 8" f.l., and 1 1/2" x 6" f.l. Originally over \$250, hurry this won't last, all 3, yours only \$35. L. S Starrett Co. linear positioning micrometer. Miniature size. Ideal for building stages. 1/2" travel. Overall length 2 1/4", by 1/2" diameter. Mint condition, yours only \$20. Nikon camera interchangeable focusing screen with prismatic focus circle. Mint condition, yours only \$10. Frosted glass 1 1/6" dia x 1/8" thick. Mint condition, yours \$9. Right angle prism, 3/4" x 3/4" sides, slight edge chip of no consequence, yours \$3.

-Rick Burwen- 978-739-4704

ATTENTION

June *Star Fields* deadline is SUNDAY, May 28
email articles to club secretary/editor Eileen Myers at
starleen@ma.ultranet.com

Articles from members are always welcome.

POSTMASTER NOTE: First Class Postage Mailed May 5, 2000

Amateur Telescope Makers of Boston, Inc.
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OBSERVING:	Richard Nugent	(508) 879-3498

How to Find Us...

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

CLUBHOUSE: The Tom Britton Clubhouse is open every Saturday from mid-afternoon 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 farm house on left side of the road. Clubhouse attendance varies with the weather. It is wise to call in advance. (978) 692-8708.

OUR WEB PAGE IS www.atmob.org

Heads Up for May...

The Milky Way lies flat around the horizon. Looking at Cygnus, the galactic center is on your right.

Fri, May 5 - Eta Aquarid meteor shower. Radiant rises in morning twilight and hour or two before dawn in the little "Y"-shaped "Water Urn" asterism of Aquarius. Associated with comet 1P/Halley. Swift, bright, frequently leaving persistent trains. 66 km/sec.

Fri, May 5 - Sun, Moon, five bright planets in a 26° arc of ecliptic longitude. No viewing due to glare from the Sun.

Wed, May 17 - Sun and five bright planets in a 19½° arc of ecliptic longitude. No viewing due to glare from the Sun.

Thurs, May 18 - Full Moon - Planting or Milk Moon. .

Wed, May 31 - Conjunction in right ascension of Jupiter and Saturn - 8° up at sunrise. View May 26-30 before sunrise too.