



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. 6 June 2000

This Month's Meeting...

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

WE ARE fortunate this month to have renowned astrophysicist Dr. Philip Morrison as our speaker. His talk is entitled "Many Far-off Planets—and Maybe their Astronomers." He is a Professor emeritus at MIT. Over the years he has added greatly to the public's understanding of science and has been a regular contributor to Scientific American. He currently writes a joint column with his wife Phylis Morrison. He has had a particular interest in high-energy astrophysics and has also contributed to the development of SETI, including a paper with G. Cocconi in 1959.

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

President's Message...

THIS IS my last president's message. Over the last two years I have been very impressed by the interest and energy of our club's members. The number of star parties has been impressive (and increasing) and I again want to thank RICH NUGENT for leading that effort. The dedication of PAUL CICHETTI AND JOHN REED and many others on the clubhouse committee has been equally strong, and I commend them particularly for their work on the new roof. The Thursday night mirror grinding led by BOB COLLARA is another critical activity in ATMoB. EILEEN MYERS' work both at the meetings and with the production of each edition of *Star Fields* has been fantastic. Thank you also to JOHN SMALL for welcoming our new members (and reminding us to pay dues) and to BERNIE VOLZ for keeping our books straight and keeping us abreast of political developments at the next solar eclipse site.

At our last meeting we discussed the progress on the new observatory. There was much interest in moving ahead with the project and I look forward to joining many of you in the construction effort. As I have said before, our club's strength is in the many different interests and abilities of our members and willingness to help others both inside and outside the club. I trust ATMoB will continue to be a growing and active group over the coming years!

-Joseph Rothchild-

Annual Meeting...

THE ANNUAL meeting of the Amateur Telescope Maker's of Boston, Inc. will be June 8, 2000. The election of the 2000-2001 Executive Board will take place at this meeting.

May'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 Kevin Manning, former president of the Astronomy Club of Tulsa, Oklahoma (started 1937). First Kevin described his homemade 12" f/10 Dob, which requires a 10' ladder for observing (it was on the patio for solar observing on Astronomy Day at the Museum of Science in Boston). Next Kevin described that having received \$25,000 from Ronald McDonald and raising \$71,000, his club constructed an observatory for a 16" f/6 Newtonian. Built with stone blocks, and using a 20' steel silo as a dome, it also includes a classroom. They were able to get donated materials and time from local contractors. Hundreds to thousands of groups have already looked through the telescope. Ken does innovative science education at the Wright Center at Tufts and for Chandra. At the meeting he also held a contest and performed an exciting demonstration of color changes in the sky during sunset.

At the business meeting Treasurer BERNIE VOLZ reminded us that the club's money is invested very conservatively, and that we have a free business checking account. Membership Secretary JOHN SMALL introduced two new members. Clubhouse Director PAUL CICHETTI spoke about plans for additional heaters for the bathroom and polishing room. Director JOHN REED reported that using the profits from the clubhouse coffee fund two parallelogram binocular mounts have been purchased. The small mount can take 7x50 binoculars and the medium one 11x80's. The new astronomy videos can now be viewed at the clubhouse. ROGER GREENWOOD was thanked for his donation of a photocopier. It will be helpful for making copies of the Millennium Star Atlas and sky charts. SAI VALLABHA donated the gift certificate he won for eyepiece holders. They will be used to hold the club's eyepieces. There will be a work party on June 24th. MARION HOCHULI gave the Nominating Committee's slate of officers for 2000-2001 (see article in *Star Fields*). MARSHA BOWMAN and EILEEN MYERS presented the plan for a club bus trip to NYC to see the new Hayden Planetarium. Plans for the new observatory were discussed, including the need to make it longer to allow for both the 20" and the 6" Schupmann. An estimated \$3000 would be required for the total construction. MARIO MOTTA spoke about the AAVSO/NASA gamma ray conference held in April. "the best astronomy conference I ever went to". He now has a beeper, and can be reached instantly by

the AAVSO if a gamma ray burster is detected. Mario advised us to look at the redone AAVSO website. We also saw several of Mario's deep sky images made with his 32". -Eileen Myers-

Candidates for 2000-2001...

THE NOMINATING committee is offering the following slate as officers for the club for the fiscal year 2000-2001:

President	Robert Collara
Vice-President	Steven Herzberg
Secretary	Eileen Myers
Treasurer	Bernie Volz
Membership Secretary	John Small
Member-at-Large	Bruce Berger
Member-at-Large	Steven Clougherty

There will also be three past presidents serving on the executive board: Joseph Rothchild, Peter Bealo, and Mario Motta.

Members have the right to offer additional nominations from the floor during the annual meeting. A written notice containing the name(s) of the person(s) to be nominated, along with the signatures of at least seven members, needs to be filed with the club Secretary not less than ten (10) days prior to the date of the annual meeting. The annual meeting will be on June 8th.

Humbly submitted by the Nominating Committee, Chairman Rich Nugent, Marion Hochuli, and Peter Bealo

Clubhouse Report...

SATURDAY OPEN CLUBHOUSE SCHEDULE

June 3	Richard Burrier	Jim Suslowicz
June 10	Eileen Myers	Art Swedlow
June 17	Eric Johansson	Al Mazurka
June 24		WORK PARTY
June 24	Dave Richardson	Tom Wolf
July 1	Steve Clougherty	Dave Prowten
July 8	David Richardson	Tom Wolf
July 15	CLOSED	WORK PARTY
July 22	Dan Feldkhun	John Small
July 29	CLOSED	STELLAFANE

WE WOULD like to thank ROGER GREENWOOD for his donation of a Mita copier to the clubhouse. TOM WOLF checked it out and set it up. We are pricing out the cost of ink and paper supplies and will ask for a small contribution per copy so as not to add to clubhouse expenses. Thank you SAI VALLABHA for the eyepiece holders for the club's eyepieces.

THERE WAS a significant amount of activity at the clubhouse at the work party and during the days that followed. The repair of the barn roof continued. Another section of the west side was stripped of old shingles down to the barn roof planks. With the threat of rain in the air, we decided to cover the section with a tarp and continue at the next work party. Building materials (mostly wood) were transferred from the near barn section to the far barn section in preparation for the pouring of a concrete floor in the near barn. Still another accomplishment involved the layout of the 20" and the 6" Schupmann telescope to see if they can both be accommodated within the 12' x 16' structure of the present observatory plan. The Schupmann was placed on the existing pier and mount in the observing field along with the 20". The two were then 'roped off' in a 12' x 16' area,

the size of the observatory. We found that the area as currently designed would only be acceptable in width (12') but not in length. If the observatory is to be made for both scopes, then it needs to be lengthened by several feet. This was made known to the President. The "new" grinding machine was moved into the grinding room.

Work has continued. Mud holes in the perimeter road were filled in, the electrical outlet was relocated to above the grinding machine, and framing for insulating the near barn was started.

Thank you DAVE PROWTEEN, DAN FELKHUN, ROGER GREENWOOD, ANNA HILLIER, ED KNIGHT, GARY WALKER, STEVE CLOUGHERTY, JOHN REED, BRUCE GERHARD, ED WALNER, and DAVE AUCOIN.

-Paul Cicchetti and John Reed-

Treasurer's Report...

FOR THE month of April, we had \$103.38 in revenue and \$206.35 in expenses for a net loss of \$102.97 for the month.

As of April 30th, 2000 our assets were::

Checking Account - Regular	\$13,773.19
Investments	\$18,553.21
Total Current Assets	\$32,326.40

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

-Bernie Volz-

Upcoming Star Parties...

Friday, June 9

Fifth Annual Town of Harvard Star Party 8-10 p.m. Harvard, MA (cloud/rain date June 10)

Held at the soccer field on Depot Rd. Contact Eileen Myers at starleen@ma.ultranet.com or (978) 456-3937.

Fiske Elementary School Moon Party 7-9 p.m. Wellesley, MA
Contact Rich Nugent at rich_nugent@nen.com or (508) 879-3498

-Rich Nugent-

Star Bright, Star Light...

Hey, What was THAT?

I WAS out last night (5/29) a bit past 11 p.m. enjoying the beauty of the night sky...no scope...just looking up, when all of a sudden I noted an extremely bright satellite. No, it didn't behave like an Iridium flare. The -6 or -7 flare lasted about 20 seconds, then gradually faded until the satellite was at about mag 4. Before it disappeared into the skyglow toward the NNW I was headed to the computer to get some info from the Internet.

First stop: the Visible Satellite Observer's homepage (www.heavens-above.com). A quick check of the satellites passing over Framingham at the time of the observation gave me a single "hit": the remote sensing satellite Terra. The web site provides accurate sky maps showing the path of each predicted satellite. Sure enough, the path given for Terra was exactly as I had seen it! Hmm...Terra...never heard of that one before! Just for kicks, I clicked over to the "Ask Jeeves" site (www.ask.com) and asked about Terra. It directed me to the Satellite Encyclopedia Page (www.tbs-satellite.com/tse/online/). This site gave me what I needed. The satellite is about 700 km above the

Earth in an orbit inclined 98.2 degrees to the equator. The orbital period was given as 98.1 minutes. The 7500 watts of power necessary to run the five instruments on board comes from one large solar panel. At nearly 400 square feet, this array of 36,400 advanced gallium arsenide germanium solar cells was just the surface needed to produce the intense "specular" reflection I had observed. This site also had a link to the NASA site for their Earth Observatory System (<http://terra.nasa.gov/>).

Launched from the Vandenberg Air force Base in California on December 18, 1999, and originally designated as EOS AM-1, this satellite's mission is to be the flagship of the NASA's Earth Observatory System. Activated on February 24, 2000 for scientific study, its instrumentation monitors the Earth's oceans, land masses and atmosphere and their mutual interactions. In 1998, NASA invited 8-12th grade school children to rename the satellite and submit essays explaining how their choice of name represented a new understanding of planet Earth. The winner of the competition was 12th grader Sasha Jones of St. Louis, Missouri. Sasha wrote: "Terra - The woman I believe this satellite should be named after is the most beautiful woman ever. Without her production of food we would not eat. Without her production of fluids we would not drink. Without her tedious care for vegetation we would not be able to build houses, cure the sick, and even breathe. Without her fury we would not be taught lessons, be brought closer together, and learn how to survive against all odds. She is our history, all of it. She is our present, she allows us to be. She is our future, and we must care for her, as she is the most caring and beautiful woman in the universe. She will be the mission of this EOS AM-1, and we should name it after her, in honor of her. She is Terra: Mother Earth."

So what's the point of telling you all this? Well, at first I just wanted to alert you to this satellite and its bright flare-up. But, in the end, what amazed me (and has amazed me and will continue to amaze me...) was how much information was readily available on the Internet! It had taken me about 10 minutes to find all of these sites and I had just scratched the surface! So, if you see something unusual, chances are it's a well known phenomenon and the information about it is out there on the world wide web. Explore!! It's fun and educational and, if you find some really cool sites, pass them along so we can all learn! -Rich Nugent-

Bus Trip to NYC...

THE DATES selected for the club bus trip to the Rose Center for Earth and Space, including the new Hayden Planetarium are (all Saturdays) September 9, September 23, October 21st or November 4th. Some members have indicated a preference for either of the two later dates. Please let me know as soon as possible if you are interested in participating. We need to have 50 attendees in order to fill the bus, but so far we have only 15. Do offer any ideas and suggestions which you may have for the trip. 978-663-0040 or rmbc2114@email.msn.com -Marsha Bowman-

Stellafane Registration Materials...

IF YOU plan to attend Stellafane 2000 (July 28-29) but have not yet received registration materials since you did not attend in 1999, you must obtain the registration form and convention bulletin by sending a self-addressed 33-cent #10 envelope

(business size) envelope to Stellafane Convention, P.O. Box 50, Belmont, MA 02478. There is no other way to pre-register.

For those of you who have never attended a Stellafane Convention, it is held on a small mountain (Breezy Hill) in Springfield, VT and is the largest amateur astronomy convention in New England. There is an enthusiastic, extremely friendly, very large crowd, spread out over many acres. Advance registration (before July 7th) is \$20 per person, \$25 after that (children under 16 free). Most attendees camp (\$25 per campsite) in tents Friday and Saturday nights, though some come very early Saturday morning and leave immediately after the final keynote speaker. No car headlights after that. Clear skies make the observing awesome (red light only). There are hundreds of telescopes to look through, many homemade, some huge (34"). The homemade telescopes on display will make you eager to make or improve your own. You can ask all of the questions you like - the folks who have their scopes on display for judging are eager to talk about them. The huge swap area early Saturday morning has all kinds of astronomy-related goodies for sale - cheap. There are porta-potties, and one or two outdoor showers - this is primitive camping. All kinds of food for breakfast, lunch, dinner, and snacks can be purchased right there. You should bring your own drinking water for drinking during the day. There is a shuttle bus to get you from place to place if you don't feel like walking. There are short show-and-tell type lectures Friday night, and more formal lectures on Saturday. There is a mirror grinding demo all day Saturday. You can see how a mirror is made from start to finish. See www.stellafane.com for photos and a complete description of the event. You should try to attend Stellafane at least once. If you are like some of us, you will look forward to attending it year after year.

-Eileen Myers-

Other News...

LOOK FOR page 81 in the June *Sky & Telescope*. See how many ATMoB members and friends you can find attending the AAVSO meeting in Toronto last July (GARY WALKER, MARIO MOTTA, ED LOS, and JANET MATTEI).

TWO YEARS ago the ATMoB made a donation of \$100 to the Walter Scott Houston Fund at Wesleyan University in Connecticut. Walter Scott Houston, an amateur astronomer, was one of the best known deep sky observers in the last century. The Fund committee was hoping to raise money to purchase a special sun dial in his honor. JOHN REED just received a letter from Wesleyan University explaining that since only \$4000 was raised the Fund has changed direction. The money will be used instead to renovate a 20" Clark refractor in the large dome of the observatory. It will then be used by qualified amateurs to enjoy the sky as Walter Scott Houston himself used the telescope on many occasions.

ATTENTION

June *Star Fields* deadline is SUNDAY, July 2
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 June 2, 2000

Amateur Telescope Makers of Boston, Inc.
c/o John Small
9 Bear Hill Terrace
Westford MA 01886-4225

FIRST CLASS

EXECUTIVE BOARD 1999-2000

PRESIDENT:	Joseph Rothchild	(617) 964-6626
VICE PRES:	Bob Collara	(781) 275-9482
SECRETARY:	Eileen Myers	(978) 456-3937
MEMBERSHIP:	John Small	day (617) 484-2780 x119 eve (978) 692-8938
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	Chris Halas	(617) 496-7573
	Paul Cicchetti	(978) 433-9215
	Steve Clougherty	(781) 784-3024
PAST PRESIDENTS:		
1996-98	Peter Bealo	(603) 382-7039
1994-96	Mario Motta	(781) 334-3648
1992-94	Bernard Volz	(508) 881-3614

COMMITTEES

CLUBHOUSE DIRS:	Paul Cicchetti	(978) 433-9215
	John Reed	(781) 861-8031
	Steven Clougherty	(781) 784-3024
HISTORIAN:	Anna Hillier	(781) 861-8338
OBSERVING:	Richard Nugent	(508) 879-3498

How to Find Us...Web Page www.atmob.org

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.

Heads Up for June...

Mercury visible in the WNW during evening twilight early June.

Thur June 1 - Pluto, in Ophiuchus, at opposition.

Wed June 20 9:48 p.m. - Summer solstice.

Sky & Telescope, July 2000, Pg. 101 - "In early June Comet LINEAR should be visible as a 10th- or 11th magnitude object, very low in the morning sky. Situated in central Triangulum and moving northeastward, it will brighten to about mag. 9½ by midmonth, just as the waxing gibbous Moon takes over the predawn hours. Towards month's end, once moonlight is no longer a significant factor, the comet will approach the open cluster M34 in Perseus and pass just 1½° from the cluster on the night of June 29-30. By then about 30° high in the northeastern sky at the start of dawn, it could be a binocular object (mag 8) for observers with dark skies. Comet LINEAR becomes circumpolar early July, best views just before dawn."