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BOSTON



STAR FIELDS

NEWSLETTER OF THE AMATEUR
TELESCOPE MAKERS OF BOSTON

Vol. 6, No. 4
April 1995

Our April Meeting...

Thursday, April 13, 1995
Phillips Auditorium, Harvard-Smithsonian
Center for Astrophysics

OUR APRIL speaker will be Dr. Lawrence Marscall whose talk is titled "The Supernova Story". His talk will discuss the growth of knowledge on the mechanisms of supernovae in the years up to the Magellanic cloud explosion of 1987, and the important new information that has occurred since that time, including new data from the Hubble space telescope. He plans on describing the importance and significance of these explosions to us.

Dr. Lawrence is a professor of Physics at Gettysburg College, currently on Sabbatical as a visiting scientist at the Harvard-Smithsonian Center for Astrophysics. He is also teaching a course at Boston University this year. He received his Ph.D in Astronomy from the University of Chicago in 1971, and his BS from Cornell in 1966. His research interests lie in clusters of young stars, Binary stars, and of course, Supernovae.

He is the author of *The Supernova Story*, a popular book on how stars die. He writes a regular column for *The Sciences*, is an editor for *CCD Astronomy*, and *Air and Space* magazines.

Please join us at a pre-meeting dinner at the Changsho Restaurant, 1712 Mass. Avenue, Cambridge. Please meet at the restaurant by 6:00 PM.

March Meeting Highlights...

PRESIDENT MARIO Motta opened March's meeting. Club Treasurer, Tony Costanza, gave the financial Membership Secretary, Mark Bruckner reported our membership now stands at 248.

The clubhouse report was given by John Reed. John said a few nights of steady seeing provided excellent viewing conditions in which images of Mars were particularly detailed. John reported the visit to the clubhouse by the

Boston Junior Chamber of Commerce was a success. Despite earlier weather conditions, the skies cleared for an evening of good viewing. The JC's were also shown slides and given a mirror grinding demonstration. John updated us on the work activities. The following few weeks were to be centered on preparation of the clubhouse -mainly finishing the kitchen area- for the Astronomical Society of New England's March 24th visit. Work on the evaporator room was to be completed by month's end.

Members were cautioned that reimbursements for personal outlays on unbudgeted work at the clubhouse is not guaranteed. Before spending any money, check with John Reed or Paul Cicchetti to see if you will be compensated for your expenses.

Mario announced that Astronomy Day is Saturday, May 1, 1995. Rich Nugent will be coordinating ATMob activities at the Boston Museum of Science.

Tanya Vudler described her Son's class trip to the clubhouse in which skeptical students were converted to enthusiastic believers.

Gary Walker and Ed Dougherty initiated the club's new meeting activity in which members display astronomical images they have made. Gary displayed a CCD image of the Horsehead Nebula captured with multiple integration (exposure) technique. The image detailed striations in the nebula which Gary has never seen in any other images. Ed showed a video tape of solar prominence.

Dr. Margaret Geller, of the CFA, spoke on her research and results in her on going endeavor to map the structure of the universe.

Charles Hayden's New Face...

MARTIN'S MYSTERIOUS Universe. That's the name of the show debuting at the opening of the newly refurbished Charles Hayden Planetarium on April 15. Martin is actor/comedian Martin Mull who narrates the show. The planetarium sports a new theater layout, an attractive new decor and a state-of-the-art multimedia computer control system that permits audience interaction with the show. three video projectors can create incredibly realistic, high resolution, and animated images of celestial objects on the dome. They also permit the projection of real time video of the sun, moon and planets from a video camera attached to a new museum observatory telescope.

This observatory, located on the top level of the museum garage has a 14.5 foot dome and houses two Meade telescopes. A 12-inch SCT and a 7-inch refractor are mounted in parallel on a common equatorial mount that has a positioning accuracy of 1 ARC minute. Movement of the dome and telescopes (including focus) can be controlled remotely via telephone line and a modem. Usually, however, they will be controlled from the planetarium using a 486DX based personal computer or on site in the observatory with an identical computer that also includes voice command operation.

Telescope accessories include alpha hydrogen and white light solar filters, a Meade Pictor 416 CCD camera, a high sensitivity video camera and a variety of eyepieces and filters.

This observatory, funded by an individual donor, will be the most state-of-the-art facility in the New England area open to the public.
- Ted Poulos

Mass Outdoor Lighting Bill...

THE NEW England Light Pollution Advisory Group (NELPAG) reports that the outdoor-lighting bill has been re-filed by Rep. Jim Marzilli (D-Arlington) for the third straight year in the Massachusetts State Legislature; last year's bill was assigned the number H.1652, but the current bill number is presently unknown. House aides told NELPAG member Daniel Green that the bill is not likely to advance beyond the study stage unless interested individuals contact their local state senators and representatives to encourage their support (and possible co-sponsorship) of the bill. The bill was due for another hearing in the second half of March.

Further information on the bill can be obtained from the NELPAG, which also distributes an irregular news circular and holds meetings throughout New England to discuss issues involving the improvement of outdoor night lighting; to receive the NELPAG circulars, send e-mail to internet address Nelpag-request@yeehah.merk.com to get placed on the free electronic mailing list. For the printed version, send self-addressed, stamped, 9x4.5-inch envelopes to: Dan Green; M.S. 18; Smithsonian Observatory; 60 Garden St.; Cambridge, MA 02138.

The NELPAG has also just issued a new draft of the 10-page "Good Neighbor Outdoor Lighting" booklet, containing a list of good lighting fixtures and corresponding manufacturers' names and addresses; this booklet can also be obtained from Green for a SASE.

The NELPAG will hold its next meeting from 10 a.m. to 12 noon on Saturday, April 8, at Phillips Auditorium, Harvard College Observatory, Cambridge. The general public, and especially all ATMoB members, are cordially invited to attend.

Announcements...

I AM sorry to say that your president cannot attend the April meeting as I will be out of the state that week. Our able Vice-president, Peter Bealo will get valuable hands on training by presiding over this meeting, and therefore I leave knowing the evening will be in capable hands.

- Mario Motta

THERE WILL be an executive committee meeting on Sunday May 7 at my home. If any member has agenda

items they wish discussed, send me or any other executive board member a note describing the agenda item.

NOMINATING COMMITTEE: As per our bylaws, during the April meeting, the membership must vote on a nominating committee who will be charged with presenting a slate of officers for next year at the May meeting. The following six long term and active members listed below have agreed to serve in this capacity. During the April meeting each member votes for three of the candidates. The three candidates with the most votes become the nominating committee of which the majority vote receiver is made the committee chairman.

Please choose from: Gary Walker, John Reed, Ken Launie, Richard Nugent, Edward Los, and Paul Cicchetti.

ALL MEMBERS should soon receive a flier from the travel agent regarding the 1998 Aruba eclipse. If you do not receive one and wish to get it, call 617-396-1748.

STARPARTY: Marblehead for the Coffin elementary School is set for May 2, 7:00 pm (Tuesday) with rain/cloud date of May 4th. please let us have as many volunteers as possible as the school is very excited by this event and plan on advertising to the town. Notify member Eric Reines (617-631-5898) or myself (617-334-3648) if you can make this event.

PLEASE BRING Photos/images/slides to the April meeting and show them to the membership.

IS THERE an accountant in the club who could volunteer to do a yearly audit of the club? (It does not have to be done during tax season). Please contact me, Mario Motta.

TWO ASTRONOMERS at Villanova University report that Alpha Orionis, the gleaming red supergiant more widely known as Betelgeuse, has dimmed in brightness by 0.4 magnitude since September and now stands at +0.8. The star has been recognized as a semiregular variable since the time of John Herschel, and on occasion it can swing through a full magnitude. The variations last hundreds of days and are thought to be due to the gradual expansion and contraction of the star's surface.

- Sky & Telescope's on line (Compuserve) service.

VOLUNTEERS ARE still needed to help with Astronomy Day '95 activities! The event will take place May 6th at the Boston Museum of Science. We need folks to man the display tables and to help out at the star party to be held that evening. Any H-alpha people interested in setting up during the day? The evening event usually draws a crowd, so the more scopes the better! Even if you don't own a 'scope, you can help by pointing out the various constellations, bright stars, and planets. If you plan to attend, please call me at (508) 879-3498.
- Rich Nugent

Clubhouse News...

THE MESSIER Marathon was a big success reports event coordinator Steve Mock. The dusk to dawn event was held on two success evenings, Friday March 30th and Saturday, April 1st. Eight telescopes were set up each night ranging from 4-inch to 17.5 inch apertures on the first night and up to eighteen inches on the following evening. Fourteen people participated on Friday night while approximately eighteen attended Saturday's session. Most people packed up around 1:00 AM both nights but a few die hards pushed past the marathon "wall" and observed until 6:00 AM. Although no official tally was kept, John Reed and Steve reportedly observed over 80 Messier objects. Steve said, "a good time was had by all".

THE ASTRONOMICAL Society of New England from Kennebunkport, ME. visited the clubhouse on March 24, 1995.

CLUBHOUSE DUTY ROSTER

April 8:	Richard Burrier	508-448-5059
	Bernie Volz	508-881-0352
April 15:	Gary Walker	508-785-0352
	Fritz Ledford	603-386-7028
April 22:	Al Mazurka	508-649-3695
	Henry Hopkinson	603-432-2490
April 29:	Steve Mock	617-625-5870
	Jim Suslowicz	508-454-9239
May 6:	Dave Aucoin	617-891-9650
	Greg Chase	508-957-9926

Starconn 95...

THE ASTRONOMICAL Society of Greater Hartford will host their annual astronomy conference on April 29, 1994 in Middletown Connecticut at Wesleyan University.

This years keynote speaker, Catherine A. Pilachowski, the interim Director-Kitt Peak National Observatory will present "High-Tech Telescopes: The Next Generation".

Several other noted professional astronomers will be speaking through out the one-day-event. Vendors will be present, door prizes awarded, drawings held and of course, a swap table. Registration is \$12.00 at the door or \$10.00 for preregistered attendees. An evening banquet is available for an additional \$15.00.

Send a SASE to STARCONN 95, P.O. Box 2271, Hartford, CT. 06145 for a registration form and directions or call 203-242-7061.

The Ploughman...

SIX THOUSAND BC is the estimated birth date of the constellation Bootes. This gives "The Herdsman" the distinction of being one of man's oldest constellations. Such a long life has given rise to much lore. One Greek legend describes Bootes as Arcas, the son of Zeus and Callisto. Following the robbery of his possessions by his brother (Bill), Arcas led a difficult life of wandering. In order to support himself, he invented the plow and, with two oxen towing it, worked the land. Callisto was proud of her son's invention and his hard work so she asked Zeus to place him in the sky. The name Bootes means Ploughman, Ox-Driver or Bear Driver (he drives the Great Bear around the pole).

The first magnitude star Arcturus has been called "the Keeper of the Heavens" by the Arabs. It has a large proper motion that was first discovered by Halley in 1718. It is 36 light years distant, four times more massive than our sun and 25 times it's diameter.

A challenging object for the refractor buff is ϵ Bootes, a binary system with a 2.8 arc second separation. The primary is described by Burnham as a 2.47 magnitude star yellow-orange in color with a 5.04 magnitude bluish and sometimes slightly green companion. I split this pair under steady skies at Stellafane with a 60mm Unitron refractor several years ago.

An easier binary to split is ξ Bootes, a 4.5-6.9 magnitude pairing separated by 6.6 arc seconds. The pair has an orbital of 152 years.

Keep Looking Up...

VENUS AND Saturn are at dawn conjunction on the morning of April 13th. Look low for the pair low in the east. They will be 1/2 degree apart.

THE LYRID meteor shower reaches maximum on the morning of April 22nd. Expect some interference from the moon.

FOR SALE...

GIANT FULLY framed & matted 22" x 28" color photos of the Trifid, Pleides, Lagoon, etc. \$29.00 each. Huge lot of astronomy books \$6.00 each. (508)-670-2913.

- Rich Burwen

Coming Events...

April 20 CFA MONTHLY OBSERVING NIGHTS. "Dust in the Corners of the Universe" by Alyssa Goodman, CFA.. 8:00PM, Phillips Auditorium, Harvard-Smithsonian

Center for Astrophysics. Call 617-495-7461 for additional information.

April 28 MONTHLY FRIDAY OBSERVING at the clubhouse, 9:30PM-10:30PM. In case of questionable weather, contact Ed Los at 603-884-1586 (home) or 603-884-1586 (work).

May 18 CFA MONTHLY OBSERVING NIGHTS. "Watching Starbirth in Cosmic Nurseries" by Charles Lada, CFA. 8:00PM, Phillips Auditorium, Harvard-Smithsonian Center for Astrophysics. Call 617-495-7461 for additional information.

EXECUTIVE BOARD 1994-95

PRESIDENT: Mario Motta 617-334-3648
VICE PRESIDENT: Peter Bealo 603-382-7039
SECRETARY: Steve Beckwith 508-779-5227
MEMBERSHIP: Mark Bruckner 617-648-4426
TREASURER: Anthony Costanzo 508-521-5382

MEMBERS AT LARGE: Gary Walker 508-785-0352
Dick Koolish 617-646-6086
Phil Rounseville 617-527-1080

PAST PRESIDENTS: 1993-94 Bernard Volz
1990-92 Marion Hochuli

COMMITTEES

CLUBHOUSE DIR.: John Reed 617-861-8031
Paul Cicchetti 508-433-9215
OBSERVING: Richard Nugent 508-879-3498
HISTORIAN: Anna Hillier 617-861-8338

Amateur Telescope Makers of Boston

MAY STAR FIELDS DEADLINE

April 28th is the deadline for items to be included in the May issue of *Star Fields*. Mail or phone your contributions to: Steve Beckwith, 195 Wilder Road, Bolton MA. 01740 508-779-5227
e-mail: Compuserver@71762,2513

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.

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 Observing at the Groton town line. Proceed to the farm house on the left side of the road. Since clubhouse attendance varies with the weather, it is wise to call in advance: 508-692-8708.