



Our November Meeting...

Thursday, November 11, 1993
 Phillips Auditorium, Harvard-Smithsonian
 Center for Astrophysics

THIS MONTH's speaker is Dr. Shadia Habbal from the Center for Astrophysics. Her talk is titled "Temperature Structure, Spatial Structure, and Variability of the Emission in the Solar Corona". Dr. Habbal's current research areas include the solar wind and corona.

The solar corona, best known as the extension of the solar atmosphere into interplanetary space, is molded by the intricate structure of the solar magnetic field. Despite the bewildering variety of scales of magnetic structures in the solar corona, the characteristics of the variable emission from the plasma confined within these structures lead us to find an underlying order. While no single theory is associated with this pattern yet, these quantitative findings can have an important input on our understanding of the coronal heating problem.

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.

October Meeting Highlights...

AT LAST months meeting, Ed Dougherty gave the observing committee report and announced a November 13, observing committee meeting at the Clubhouse. The summer skies from the clubhouse were spectacular this year where and there was a tremendous turn out of members and visitors. Ed also noted the "seeing" there, appears to have improved over recent years.

John Samolyk gave the membership report and said he's received two separate request from schools for star parties and requested a club volunteer to coordinate the events.

John announced he will step down as Membership Secretary at the completion of this year's term.

Bernie Volz pointed out that the beverages in the clubhouse are a fund raising activity for the club and not free.

Steve Mock requested that the volunteers setting up the post meetings' refreshments do so quietly, to avoid disrupting the guest speakers' talk.

Dr. Charles Lada, the evenings guest speaker, talked about man's quest to understand the nature and origin of the sun and stars. The discussion ranged from early Grecian attempts at explaining their astronomical observations, to the exploration of stellar formation within in the Orion nebula by piercing it's dark matter with modern day, infrared imaging technology.

Special thanks to Mario Motta for providing last month's refreshments.

President's Message...

Thanks to everyone that completed a membership survey. I've read over all those John Samolyk had received as of early October. Some of the results:

- While everyone seems to be happy with the newsletter, many folks commented that they'd like to receive it earlier. Steve Beckwith will work on getting the newsletter out earlier.

- Many folks commented they'd like the business portion of the meeting shortened. While we've worked hard to do so, I do feel this is a critical part of the meeting. There are a lot of announcements and information that needs to get to the membership. While I agree it would be worth while to put more of this into Star Fields, I also know that there are a lot of you out there that probably don't read Star Fields very carefully (sadly, those folks won't be reading this?).

We must continue striving to streamline the business portion of the meeting - this requires participation by us all. Contact Steve for him to place announcements into Star Fields.

- Many of you have not been to the clubhouse (or been there only once) in the last year. Please do visit! There have been a lot of improvements.

- Quite a few indicated that they would like the clubhouse open on nights other than Saturdays. While this has merits, it is not currently possible as we do not have enough volunteers to accomplish this. I strongly urge you to consider joining the clubhouse/observing committee (see the meeting announcement elsewhere). Or, you can contact members on the committee to arrange for other observing times. Finally, there are NO restrictions in your using the observing site whenever you want; it is just access to the clubhouse and observatories that is restricted to Saturdays and by arrangement.

Again, thanks to all that completed the survey! Your feedback is valuable and we're listening.

ATMoB at the IDA...

ON OCTOBER second, Bernie Volz, Eric Johanssen and I attended the IDA (International Dark Sky Association) conference at the Harvard Smithsonian. It was co-hosted by

Telescope Loaner Program

THE CLUB has several loaner telescopes available for members! The telescopes come with eyepieces and a hands-on instruction session, if requested. Please contact Ed Dougherty to take advantage of this great offer. A \$5 donation to the club (for upkeep on the scopes) is suggested.

the IDA and *Sky & Telescope*. IDA founder, David Crawford, opened the meeting by describing light pollution problems and recent successes solving them. His winning strategy to preserve our night sky is to minimize our interest as amateur and professional astronomers and focus instead on what would appeal to the majority of citizens.

Issues such as energy conservation, reduction of glare on roads, light trespass, etc., all have broad appeal and transcend our "narrow" interest in viewing a distant galaxy. His success has thus far been impressive, and I am convinced this is the proper approach to saving our night sky. I wish to publicly thank David Crawford on a job well done!

Additional speakers described problems and solutions in New England. I was pleasantly surprised at how much grass root effort is occurring here in our backyard. Peter Talmadge from Kennebunkport, ME., not finding good lighting for the town available, actually designed special lighting for the town, got a manufacturer to make them, and the town to install these special lights! John Batinsey got light pollution ordinances passed in his town of Eatontown, NJ. Eric and I spoke on behalf of ATMob at the meeting.

On October 4, I attended the International Commission on Illumination and Illumination Engineers, in Salem, MA. It was comforting to see them devote an entire afternoon workshop on light pollution. Crawford gave a very eloquent presentation in terms they understood. I was heartened to see the majority of these engineers accept the fact that light pollution is a problem to combat, and readily take literature and materials handed out by the IDA. There were a few recalcitrants, but now I have hope that with some effort, **THIS BATTLE CAN BE WON**.

It became clear at the October 2 meeting that greater success could be achieved with a regional approach. It was voted and to have an incorporation meeting of a New England chapter of IDA on November 6, 1993, 12:00 PM, at Phillips Auditorium. I urge all members to attend.

- Mario Motta

A Tal Tale...

NOT JUST an object lesson, but an "Eight Thousand Object Lesson".

On July 16, I took delivery of my eagerly awaited Meade five inch apochromatic refractor with the computer drive system. I purchased it through Sky Publishing Corp. which obtained it from Meade Instruments for a review in

the November, 1993 issue of *Sky and Telescope*. I had approached Sky Publishing in the summer of 1992, expressing my interest, if this telescope were available for a review.

The next night, Saturday the 17th, I sallied forth to the clubhouse hoping that the sky would clear. The sky did not, but, while I was there, I talked to a club member who had a Meade, ten-inch, LX-200 to which he had just added the 8000 object CNGC Library.

When he found that I was also planning to get the library, he said he had two sets of chips - version 2.4 and version 2.5 - and if I could use the version which he didn't (ver. 2.5) I could have them. I looked at Meade's price list and saw that the stock number for the 8000 object library was 07900 for both the schmidt-cassagrains and the ED APO refractors. This indicated to me the same set of chips worked on both. I could not have been more wrong!

Upon installing the chips and powering up, the display on the keypad read LX-200 for almost ten seconds and then it winked off, and that was it. I replaced the fuse, nothing. I reinstalled the original chips. Still nothing. I was devastated. I had blown my computer drive system four days after I received it. I had to send it back to Meade for repair.

It seems there are two sets of chips for the Meade LX-200 Schmidt-Cassagrains, one set for the equatorial drive configuration and one set for the altazimuth drive. They are not compatible with the refractor's equatorial drive!

The "Eight Thousand Object Lesson": don't experiment with the Meade CNGC chips.

A sadder and wiser - Tal Mentall

P.S. The images through this telescope are magnificent!

Volunteers Needed...

AS PART of "Partnership in Astronomy", I have organized a November 9, 1993 star party at the Lynnfield Middle School. Last year's star party brought our two hundred children and parents so I really need volunteers to bring telescopes! We will start in the school auditorium at 6:00 PM and observe from 7-10 pm. This school system has a great interest in astronomy, the science teachers will even be attending an AAVSO workshop next month. Therefore, please, PLEASE volunteer. Call me (617-334-3548) for details, and thank you.

-Mario Motta

THE ATMobS are hosting a Star Party in association with the Kennedy Middle School in Waltham. The star party will start at 7.00 PM on Tuesday, November 16th.

Please help out by attending - bring your telescope! Maps and more details will be at the November meeting (or, contact me, Bernie Volz). You should plan on arriving at 6:30 PM to set up.

We've also been asked to host Star Parties for Reading and Rockport schools early next year - more details to come.

- Bernie Volz

Keep Looking Up...

TOTAL LUNAR ECLIPSE on Sunday evening, November 28, and Monday morning, November 29. The moon enters the penumbra at 10:27 PM, totality starts at 1:02 AM and ends at 1:50 AM. The moon leaves the penumbra 4:25 AM.

COMET MUELLER (1993a) leaves Ursa Minor and crosses into Draco the Dragon. The positions below are from the October 1993 issue of *Sky & Telescope*.

Nov. 10 - R.A. 19^h37.5^m, DEC +65^d51^m, Mag. 9.3

Nov. 20 - R.A. 20^h10.9^m, DEC +55^d27^m, Mag. 9.3

Nov. 30 - R.A. 20^h33.8^m, DEC +45^d34^m, Mag. 9.3

LEONID METEOR SHOWER on November 16/17.

Astro Trivia...

Our speaker last month, Dr. Lada, mentioned that Copernicus, Kepler and Newton believed the Earth rotated on its axis, but there was no experimental evidence to prove this until well into the 19th century. However, Dr. Lada never mentioned that this evidence was provided by Jean Foucault in 1851 with the Pendulum experiment he performed in Paris. Foucault swung a sixty-one pound bob suspended by a two hundred twenty foot wire over a bed of wet sand. A pin on the end of the bob cut through the sand showing how the plane of oscillation moved. However, because of the pendulum's inertia and the fact that only one force, gravity, acts on it, the plane of swing cannot change. Therefore, the apparent rotation of the swing must be due to the rotation of the Earth. As the pendulum and sand bed are carried once round the Earth each day, the bed of sand makes a turn under the pendulum.

Next time you visit the Museum of Science, you can see this experiment performed continuously on Science Street near the check room.

- Ted Poulos

NEED A low intensity red light near your telescope or in your observatory where you have AC power available? Buy a plug-in night light and replace the lamp with a red xmas tree lamp widely available this time of year. I found a night light with a switch and light shield at NHD for \$1.49 and picked up a box of four red xmas tree lamps for another 99 cents.

- Ted Poulos

Membership Survey Responses...

WHAT DO we look at? Eighty-nine percent of the members own telescopes. Seventy-seven percent of the time

members use them for viewing planets, 47%-galaxies, 43%-lunar, 34%-nebulae and 26%-star clusters.

MEETING/CLUBHOUSE ATTENDANCE: 25.9% of our membership have not attended a meeting this year. The remaining members have each attended an average of five meetings. 46.1% of our members have not visited the clubhouse in the past year. Those who have, visited on an average of five times.

What We Do When Not Observing.

Occupation	Percent
Engineering	28.8
Business	9.6
Medical/Dental	8.6
Computers/Software	8.6
Retired	8.6
Education	6.7
Students	4.8
Other	24.3

Observing Committee Meeting...

There will be an important meeting of ALL observing committee members and prospective members, 7:00 PM, Saturday, November 13, at the clubhouse.

We will discuss what we've learned during our first year of operation and make appropriate changes to our procedures and functions. The duties and preliminary schedules for next year will be developed and clubhouse keys allocated or collected as required.

I cannot stress the importance of this meeting strongly enough. All committee members must attend. If you desire to be on the committee, but cannot attend, call Ed Dougherty (508-458-8857) before November 12. Committee members not in attendance or calling Ed, will be dropped from the committee.

- Ed Dougherty, Observing Committee Chairperson

Coming Events...

Nov. 6 INTERNATIONAL DARK SKY ASSOCIATION, New England Chapter incorporation meeting. November 6, 12:00 PM, Phillips Auditorium, Harvard-Smithsonian Center for Astrophysics.

Nov. 9 STAR PARTY at the Lynnfield Middle School. 6:00 PM - 10:00 PM. Contact Mario Motta.

Nov. 12 VARIABLE STAR OBSERVING evening, 7:00 PM - 8:00 PM at the clubhouse.

Nov. 18 CFA MONTHLY OBSERVING NIGHTS. "Disappearing Matter in Clusters of Galaxies" by Brian McNamara, CFA. 8:00 PM, Phillips Auditorium, Harvard-Smithsonian Center for Astrophysics. For additional information, call 617-495-7461.

On Going COLLISION COURSE EARTH, the story of Earth crossing asteroids, is the current program for the Hayden Planetarium. for times, call 617-723-2500.

Executive Board 1993-94...

PRESIDENT:	Bernard Volz ,	508-881-3614
VICE PRESIDENT:	Mario Motta,	617-334-3648
SECRETARY:	Steve Beckwith,	508-779-5227
MEMBERSHIP:	John Samolyk,	617-391-9290
TREASURER:	Anthony Costanza,	508-521-5382
MEMBERS AT LARGE:	Peter Bealo,	603-382-7039
	Anna Hillier,	617-861-8388

DECEMBER STAR FIELDS DEADLINE

November 27, is the deadline for items to be included in the November issue of Star Fields. Mail or phone your contributions to: Steve Beckwith, 195 Wilder Road, Bolton MA. 01740

How to Find Us...

MEETINGS: Held the second Thursday of each month (September to July) at 8:00 p.m. 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 Observing 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.

FIRST CLASS

AMATEUR TELESCOPE MAKERS OF BOSTON