



Our October Meeting...

Thursday, October 13, 1994
 Phillips Auditorium, Harvard-Smithsonian
 Center for Astrophysics

OUR OCTOBER meeting will feature a talk on SINS (Supernovae Intensive Study) by Robert Kirshner. Through the study of supernovae, a distance scale of the universe is emerging, and Dr. Kirshner happens to be the principal investigator for SINS. Dr. Kirshner is Professor of Astronomy at Harvard University and Chairman of Harvard's Astronomy Dept. He obtained his BS in astronomy at Harvard in 1970, then got his Ph.D. at Caltech in 1975. After post graduate work at Kitt Peak, he went to the University of Michigan where he was awarded the Alfred P. Sloane Research Fellowship and the U. Michigan's Russell prize. He then became Professor, Chairman, and director of the McGraw-Hill Observatory. In 1985 he accepted a position at Harvard, and in 1990 became Department Chairman.

Dr. Kirshner is the author of over 150 Scientific Publications, concentrating on the problems of supernovae, supernova remnants, and extragalactic astronomy. A true expert in his field, this will be a lively talk on supernovae.

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.

September Highlights...

KELLY BEATTY, Senior Editor of *Sky & Telescope* magazine, gave an update on the Comet Shoemaker-Levy 9 collision with Jupiter. Mark Bruckner gave the membership report and John Reed the clubhouse report. President Mario Motta noted David Emerson's presence at the meeting and members gave Dave a warm welcome. It was announced that weekly calendars are available through the club for \$11.00. The calendars normally sell for \$12.95. Mario announced that to maintain the club's tax free status,

we must file annually and pay two fees of \$15.00 and \$35.00 by November 1st.

Thanks was extended to David Wray for donating a Coulter 17-inch Dobsonian telescope to the club. It was also announced that the Executive Board recommends we insure the clubhouse and activities such as star parties through Nationwide Insurance (annual rate of \$585.00) rather than renew through the insurance company used by the Astronomical League, which charges \$650.00 per year.

Mario Motta ask members to let him know how they feel about the club belonging to the Astronomical League. It turns out the club cannot belong to the league without paying for an all-member subscription to the "Reflector" newsletter. In as much as this is an annual expense in excess of \$400.00 for a club our size, the Executive Board would like members' opinions on our continuing the club membership in the league.

Tony Badessa reported the weather during this year's Baxter State Park trip was marred by a Northeaster, forcing participants to return earlier than planned.

Other meeting activities included Vladamir Vudler showing slides and Ed Dougherty a video of Jupiter and the comet impact sites. Mario announced he has completed his cookbook CCD camera project.

Very special thanks to Marion Hochuli for taking minutes at last months meeting during my absence.

President's Message...

ON OCTOBER 30, 1994 Bernie Volz and I (your current and past presidents) will embark on a trip to Bolivia to see the Nov. 3rd eclipse. While this will prove to be memorable not just for the eclipse itself, but also for the stunning vistas of the high altiplano, the land of the Incas. We plan on visiting La Paz, Lake Titicacca (worlds highest lake), and possibly even skiing at 18,000 feet (if we do not succumb to high altitude sickness). However, possibly the most memorable part of the trip will be our private extension of the basic trip to spend several nights observing the incomparable southern sky in crystal clear and dark skies from the altiplano. In order to take advantage of the southern skies, in addition to the Meade 2045 we are going to use for the eclipse, we are hard at work on an extremely light-weight 13.1 inch Dobsonian that will fit in a suitcase. However, as you all know by now, tiny 13 inch telescope is no match for what could be observed with a 32 inch. (I admit I have been spoiled by the viewing through the 32). To that end I have contacted Federal Express for a quote to come pick up my 32 inch scope and deliver it to Bolivia. As the quote was somewhat pricey, I am now soliciting donations to help defray the cost of this undertaking. Fed Ex says it will take them two weeks to deliver to Bolivia, therefore all donations must be in by the meeting to make the deadline. The quote is for \$19,000 one way plus unspecified customs and duties at the airport. We will then

need local transportation for it, plus return fare, therefore we ask for about \$40,000 in donations. As checks may not clear by the meeting, please bring cash. (how about some bake sales?) If any one person is willing to donate the entire amount, Bernie and I will be happy to fly you down with us! I hope the club can come through, or we are stuck using a small 13-incher.

Membership Renewals...

MEMBERSHIP RENEWALS are due. The June '94 *Star Fields* has a renewal form or contact Membership Secretary, Mark Bruckner for one. Please complete and return the form, with your payment, as soon as possible to Mark Bruckner (his address is on the form and the return address of *Star Fields*). Do it today so you don't forget!!

You may now also purchase CCD Astronomy through the club. Existing subscriptions will simply be extended for 12 months.

If you are subscribing to one or more magazines, please note the deadline dates (on the form) to make sure your subscription will not lapse.

ATMoB Activities...

THE ATMOb picnic was held September 24th and attended by twenty to thirty members. Hamburgers, hot-dogs and sausage sizzled on the grill. Club historian, Anna Hillier brought a bottle of wine to toast the 60th anniversary of our organization.

VLADAMIR VUDLER'S slide of Jupiter won first place in the astrophotography competition at this year's Astro-Assembly in North Scituate, RI. Several other members attended the event to socialize and listen to talks on the Keck telescope, Arunah Hill and the Apollo missions.

Announcements...

THERE WILL be an Executive Board member meeting at 7:30PM, October 16, 1994 (Sunday) at my home in Lynnfield. If any member has issues he or she wishes discussed, please bring it to the attention of an Executive Board member.
- Mario Motta

STAR PARTY VOLUNTEERS are needed at Lynnfield Middle School, Monday October 24 (rain/cloud date Wednesday, Oct 26). The party will start with a community lecture in the auditorium at 6:30PM followed by observing by 7:15PM. In the past several hundred people have shown up, therefore I need plenty of volunteers with and without telescopes. If you do not have a telescope, come and point out constellations. The club will earn \$200 for this night through the NASA Partnership in Astronomy

grant through the AAVSO. The program has really taken off and I expect a large and enthusiastic turnout, please sign up at the meeting or call me 617-334-3648.

- Mario Motta

A SECOND star party has been requested for students at Waltham's Kennedy School, November 1st at 7:00PM. All volunteers should contact Mario Motta.

THE TELESCOPE making session. at Stellafane was a great success this year. As a result, the Springfield Telescope Makers are planning to expand the session and has invited ATMoB members to participate. Anyone who would like to present a telescope making project, technique, etc., should contact STM Secretary Tom Spirock (201-751-6469).

ATMOB APPAREL - Caps, T-shirts, and sweatshirts imprinted with our logo, are available for purchase at meetings and by mail (postage extra). All proceeds go to the ATMoB. We offer yellow T-shirts with a blue logo for \$10, gray sweatshirts/blue logo for \$18 and blue and white caps with a blue logo for \$6.
- Ted Poulos

Clubhouse News...

WE NEED positive, energetic and dedicated people to donate a few hours a month working at the clubhouse. The sky is the limit on what we can do together to enjoy our hobby. We are very, very fortunate to have a clubhouse. We are equally fortunate to be neighbors of one of the largest groups of professional scientists in the country and many of these folks are happy to share their enthusiasm with us. Paul Cicchetti and I are eager to make the clubhouse as user friendly as possible in order to allow us, the ATMoB enjoy our neighborhood.

IN ORDER to better coordinate clubhouse activities, the following subcommittees and managers have been established:

Subcommittees

Grounds:	Steve Clougherty
Building Exterior:	Open
Observing:	Open
Building Interior:	Open

Managers

Optical Shop:	Eric Johansson
Electronic Shop:	Henry Hopkinson
Machine Shop:	Fritz Ledford
Aluminizing Shop:	Ed Dougherty

As you can see, we still need to fill some positions. If you are interested in helping the club in these areas, please contact Paul Cicchetti or John Reed.

A WORK session has been set for Saturday, Oct. 22 to continue painting the barn and house and do some brush cutting. Volunteers are requested to bring paint brushes, ladders, wheelbarrows and shovels. Please sign up at the October meeting or call John Reed (617-860-8031).

LAST MONTH'S work session went well. Steve Clougherty requested and received MIT's permission and help in moving some loam from across the street to the observing site. Fritz Ledford and Jim Suslowicz helped Steve spread, rake and seed the loam.

Greg Chase made great progress on building a brick walk and then worked with Richard Burrier (the younger), John Reed Phil Rounsville and Dave Aucoin in cleaning the barn and storing all usable material up in the loft.

Fred Taylor, a friend of the ATMob, donated pallets to be used in the barn to get items off the floor.

GARY WALKER cleared a large area of brush from around the clubhouse prior to the annual picnic.

BOB MASSE, a guard from MIT and professional painter, has lent the use of a 40 foot ladder to the club for painting the clubhouse. If you should need his painting services, phone him at 508-458-7615.

SPECIAL THANKS to MIT for donating the top soil to the clubhouse.

A BUNK bed is needed at the clubhouse. If you know of anyone who is looking to part with one, please call John Reed.

CLUBHOUSE SCHEDULE

Oct. 8: Milon, Chase, Swedlow, Rounseville
Oct. 15: Hopkinson, Johansson, Heller, Clougherty
Oct. 22: Walker, Mock, Budreau, Ledford
Oct. 29: Beckley, Bruckner, Reed, Cicchetti
Nov. 5: Green, Milon, Volz, Suslowicz
Nov. 12: Chase, Fill, Burrier, Rounseville

Keep Looking Up...

ANOTHER WHITE spot has been reported in the northern hemisphere of Saturn. At discovery (September 23rd), the spot was 4 Arc seconds long and located in System I longitude 206 degrees.

Saturn was at opposition last month and is favorably placed for viewing during the cool October and November nights.

THE ORIONID meteor shower makes it's annual appearance October 22, two days past full moon.

ATMoB Projects...

A LIFE long dream of mine is coming to fruition with my design and construction of a backyard observatory. The project was started in the beginning of September when ground was broken and the foundation for the structure was poured.

When completed, the structure comprise an eight-foot-high octagon base with an eight-foot-tall, sixteen-foot diameter dome atop it.

Current plans for the observatory are to house my six-inch, f/12 refractor. However, the sixteen-foot tall structure allows for future accommodation of a much larger instrument.

The dome of plywood and fiberglass construction will rotate on sixteen stationary, three-inch castors attached upside down on the top of the octagon base. This design eliminates the need to construct a ringed track that would have been required to support the castors if they were attached to the dome itself.

The ribs of the dome are cut from 3/4" CDX plywood using a router attached to a variable length radial arm. The arm is adjusted in length by having holes for different radii in it. A 1/4" bolt through a hole pinions the arm to a stationary piece of wood. The arm rotates on this pinion as the router is drawn across a 4'x8' sheet of plywood. The sheet of plywood is held stationary on a 4'x8' frame made of 2"x6" studs. If you've questions on this process, ask me, it's really quite simple.

Some important lessons learned are:

1. Do not skip on tools. I returned a router for a more expensive, professional model and found rib cutting much easier and worth the extra money.
2. Double your estimated completion time.
3. Don't hammer in nails all the way until you're absolutely sure.
4. Once struck with a hammer, a thumb will be repeatedly struck.
5. The pain peaks about five seconds after impact then subsides.
6. Advice from those who have gone before you (Mario Motta and Gary Walker) is invaluable.

So far, I've constructed the octagon base and have the dome's base ring rotating on the stationary castors. The major ribs for the dome have been cut and I expect to frame the dome within the next week. The entire project is to be completed by month's end.

- Steve Beckwith

For Sale...

JMI Motofocus and MotoDec for Meade LX2,3,5,6. Brand new in original boxes, never touched. \$49.00 each.

Also, azimuth control system for 8" and 10" Schmidt Cassegrains, \$5.00. Rick: 508-670-2913

NOVEMBER STAR FIELDS DEADLINE

October 28th 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

Coming Events...

MONTHLY FRIDAY OBSERVING near the new moon. At the clubhouse. Contact Ed Los at home 603-884-1586 (home) or 603-884-1586 (work).

Oct. 21 CFA MONTHLY OBSERVING NIGHTS. "Sky Above, Earth Below: Perspectives on Global Change" by Kate Kirby, CFA. 8:00PM, Phillips Auditorium, Harvard-Smithsonian Center for Astrophysics. Call 617-495-7461 for additional information.

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.

EXECUTIVE BOARD 1994-95

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Amateur Telescope Makers of Boston