



## 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. 12, No. 8    September 2001

### This Month's Meeting...

Thursday, September 13th, 2001, at 8:00 PM  
Phillips Auditorium, Harvard-Smithsonian  
Center for Astrophysics

### This Month's Speaker...

OUR GUEST speaker will be Dr. Avi Loeb. Dr. Loeb is a Professor at the Harvard University Department of Astronomy and a member of the Theoretical Astrophysics Division of the Harvard-Smithsonian Center for Astrophysics. His field of research is theoretical astrophysics and cosmology. He was recently on National Public Radio explaining his latest findings. The title of his presentation will be "The First Stars and their Effect on the Universe".

Join us for dinner at 5:45 PM at the Changsho Restaurant located at 1712 Mass Ave. in our fair city, Cambridge.

### President's Message...

STELLAFANE WAS GREAT! Hope you enjoyed it as much as I did. Although the sky was mostly cloudy, it did clear up early Sunday morning around 1:00 A.M. for a spectacular view of the heavens. However, I did not observe long because I was exhausted from the day's activities.

MIKE HILL gave an extremely interesting tent talk on Saturday afternoon concerning the theory of imaging monochrometers. Kudos, Mike. A most excellent job!

BOB COHEN entered his 12.5" Dobsonian in the optical competition, but due to heavy clouds Friday and Saturday night the optical judging was called off.

This is the third year in a row that optical judging has been canceled. Wouldn't it be nice if we could present to the Springfield club, the hosts of Stellafane, an artificial star? There was some loose talk about constructing one out of a single strand of fiber optic coupled to a light source such as a red or green laser pointer or a lamp emitting a high intensity white light. The fiber could be then mounted on a flat black piece of aluminum and the whole assembly fixed to a sturdy pole 50 ft away. The spherical wave

front emitted from such a source would appear as collimated light in the far field. Such a device could be used in daylight if black shielding is carefully designed. The judges would appreciate such a device because the seeing would be constant and not vary as it so often does between the first and last contestant. Plus no more late nights! The contestants would like it because they would be assured of an optical judgment and not have to fuss with tracking. While we are at it, we could go the next step and take a picture through the eyepiece with a digital camera and actually evaluate the Airy disk on hardcopy as to the number and intensity of rings inside and outside of focus. Harold Suiter's book entitled "Star Testing Astronomical Telescopes" comes with optional software that calculates what the Airy disk should look like for your particular telescope after entering the scope's various parameters, such as f-number and secondary obstruction, if any. The star test is an extremely sensitive test that will reveal many subtle characteristics of a telescope system. It is the best low cost method of analyzing and optical system. If anyone is interested in working on such a project please contact me.

*-Bob Collara, President-*



*Photo taken by Barbara Bosworth*  
Bob Cohen and his 12.5" Dobsonian at Stellafane

### July's Minutes...

PRESIDENT BOB COLLARA opened July's annual Show-and-Tell and swap table meeting of the Amateur Telescope Makers of Boston, including the Bond Astronomical Club. ERIC PAUER reported on viewing June's total solar eclipse via Internet hookup to the Boston Museum of Science. JOSEPH ROTHCHILD

exhibited and described various types of observing tables and chart holders he has constructed. PETER GERARD, who works for Applied Geographics, talked about how to locate dark sky sites. LOU COHEN showed us astrophotographs he took from his observatory in Cambridge. JOHN HOPKINS reported and showed photos he took in Zimbabwe during June's total solar eclipse. He reported that using a white sheet he saw shadow bands very clearly. His wife heard birds singing the songs they do at twilight. BERNIE VOLZ showed the photos he took of the eclipse from Zambia. The corona looked like a pointed star and he could see the magnetic field lines: the streamers had N/S and E/W lines. MARIO MOTTA, wearing an African hat and caftan, showed photos of the eclipse and showed and described what it was like to observe in South Africa. Reporting hearing while observing at night the shrieks of animal kills, he later learned that leopards could easily jump the protective fence he and Bernie were relying on for safety. Mario brought medical equipment, which he eventually left at a local clinic in South Africa.

At the business meeting club officers gave their reports. Clubhouse Director JOHN REED spoke about the 37man-days of work done in June. DICK KOOLISH showed slides taken of the recent improvements. Clubhouse Director PAUL CICHETTI displayed his jar of mosquitoes caught at his own home, advocating use of a mosquito magnet to solve the mosquito problem on the observing field. *-Eileen Myers, Secretary-*

## Membership Report...

WE HAVE SEVERAL new members this month: MICHAEL DENEEN from Boxford, MA, ANDREW DOHENY from Framingham, MA, BRIAN GALVIN from Belmont, MA, MIKE GREENZALIS from Southborough, MA, IVETTE MOTOLA from Brookline, MA and WILLIAM SHAKALIS from Cambridge, MA.

Just a reminder: all membership renewals are due by the end of the September meeting. Any members who have joined this year may have their dues pro-rated. Contact me if you have any questions. If you have paid already, and your check hasn't cleared, it is probably still on my desk at home. I am running behind this year, but all of those who have paid before August 1<sup>st</sup> should have their applications processed by now.

On another note, this will be my last year as membership secretary. I would be love to start grooming a replacement, and would gladly assist with the position next year. The membership database is done with Microsoft Access (97) and it works very well. You should be prepared to spend an average of 4 hours a month on membership. I have made PDF files for most of the club information. Forms are in PDF files and most of the requests and contact is via E-mail, so it is pretty easy to send out information to prospective new members. If you have any interest in this position please contact me at the September meeting.

*-John Small, Membership Secretary-*

## Treasurer's Report...

FOR THE month of June, For the month of July, we had \$408.45 in revenue and \$2,646.50 in expenses for a net loss of \$2,238.05 for the month.

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As of July 31st, 2001 our assets were:

Checking Account - Regular	\$ 13,194.10
Investments	\$ 19,006.66
Total Current Assets	\$ 32,200.76

Of the total, \$2,311.51 is in the Land Fund and \$160.00 is for clubhouse key deposits.

*-Bernie Volz, Treasurer-*

## 2002 Astronomy Calendars...

I STILL HAVE a few 2002 *Astronomy Magazine* Calendars for sale. The club is offering these, first-come-first served, for \$8.00 instead of the regular \$11.95 price. Look for me at the September meeting if you'd like to by one. *-Bernie Volz, Treasurer-*

## Clubhouse Report...

### SATURDAY OPEN CLUBHOUSE SCHEDULE

September 8	Steve Mock	Tom Wolf
September 15	Lew Gramer	Jim Suslowicz
September 21-23		<b>Arunah Hill Days</b> Speakers, camping, dark-sky observing in Cummington, MA in the Berkshires
September 22	Steve Herzberg	John Reed
September 29	Jack Drobot	Henry Hopkinson
<b>October 6</b>		<b>Work Party # 9</b>
October 6	Peter Psyhos	David Richardson
October 12-13		<b>Astro Assembly</b>
October 13	Paul Cicchetti	John Panaswich
October 20	Phil Rounseville	Art Swedlow
October 27	Steve Clougherty	Dave Prowten

THERE WAS much activity at the clubhouse this summer, so I've decided to give a chronological detail of events.

On June 9<sup>th</sup> the last of the old shingles were removed from the barn roof and blue tarps installed to cover the bare roof boards. Two screen doors were installed in the front and side doors. Now we can keep the doors open when members are there without letting hordes of mosquitoes share our clubhouse.

On June 16<sup>th</sup> the new furnace, which arrived a few days before, was carried down to the basement. On June 23<sup>rd</sup> the demolition work began on the old furnace. We also weed whacked all around the clubhouse. On July 7<sup>th</sup> work on the old furnace began. The old firebox was removed, the hole was dug for the new concrete pad, and forms were made. However, additional work scheduled for the furnace was postponed until the next work party due to repairs to the rocker box of the 17".

On July 3<sup>rd</sup> the meeting room was painted. At the July 7<sup>th</sup> work party, the concrete pad for the furnace was poured. The second rail was added to the observatory. White stain was applied to the east wall of the observatory. On July 13<sup>th</sup> renovation of the electronics room continued with the removal of the old plaster from the ceiling and installation of new wallboard. On August 12<sup>th</sup> we inspected the barn roof structure. The existing boards were secured, and new plywood was placed over them. A considerable amount of effort was required to match the post and beam near barn roof to the pole and beam structure of the far barn roof. The

ice dam underlayment was continued from the near barn to the far barn. By the end of July the blue tarps lost all of their water shedding capability. Since they were leaking so badly, we bought 6 mil plastic and replaced the blue tarp. The new furnace was moved into position on its new pad. The existing cold and hot plenums were cleaned and nailed into position. On August 23<sup>rd</sup> the brush cutting that was started earlier in the summer was continued. It took many days to cut the large area covered with overgrown brush. That has been the big hangup on plans to complete the observing field, and it will help solve the mosquito problem too. As brush clearing around the new observatory continues we will replace the brush with grass.

Joint compound was applied to the ceiling wallboard in the electronics room. On August 26<sup>th</sup> the rest of the drip edge was installed and the first five rows of new shingles added. On August 31<sup>st</sup> the grate and the doorframe were reinstalled, and the grinding room door re-hung. The new smoke pipe on the furnace was installed. On September 1<sup>st</sup> we concentrated on finishing the barn roof and were rewarded: the roof is now complete.

Thanks to the following for making this a very productive summer: Mike Aramini, Dave Aucoin, Welcome Bender, Bruce Burger, Tom Calderwood, Steve Clougherty, Howard Devaux, Dan Feldkhun, George Foster, Bruce Gerhardt, Joe Henry, Anna Hillier, Gary Jacobson, Ed Knight, Dick Koolish, Brian Maerz, Eileen Myers, John Panaswich, Dave Prowten, Peter Psyhos, John Reed, Phil Rounseville, Lee Siler, Art Swedlow, Sai Vallabha, Gary Walker, and Tom Wolf. We extend a special thank you to Brian Maerz for all the brush cutting he undertook this summer.

We have decided that since the date for Astro Assembly has changed we will hold a work party on October 6<sup>th</sup>. We hope you will give us a hand.

*-Paul Cicchetti and John Reed, Clubhouse Directors-*

## Anna Hillier Receives Award...

AT 1830HRS that evening, NERAL conducted a dinner at the local Oriental Palace Chinese restaurant. Six people attended the dinner, and we were joined by none other than John Dobson himself, who regaled us by speaking to the waitress and waiter in Chinese, quizzing us on the definition of a calorie, and discussing the days of his youth.

Finally, nicely sandwiched in between David Levy's talk and the keynote speaker on Saturday night at Stellafane, Chair Maryann Arrien and Secretary Doc Kinne presented the first NERAL Walter Scott Houston Award plaque to ANNA HILLIER, a Member-at-Large of the Astronomical League, and a member of the Boston Amateur Telescope Makers. Doc got up and said a few words thanking Stellafane for the support they've given NERAL in the past couple of years and how important it was to make sure our history as Amateur Astronomers is not lost. Maryann then came up and brought the Award Plaque to show and to read:

*Walter Scott Houston Award of the North East Region of the  
Astronomical League*

*In Recognition of her many years of ongoing Service and  
Dedication to the Astronomical League, her Observational  
Contributions to Project Moonwatch in the late 1950's, and her  
substantial efforts in Preserving the History of Amateur*

*Astronomy in the Northeast Region by her work establishing the  
Archives of the ATM's of Boston, we hereby present this Award to*

*ANNA SUDARIC HILLIER, HISTORIAN.*

*Presented this day, August 18, 2001 at Stellafane in fond  
remembrance of Legendary Observer, Writer, League Organizer  
and ATM Historian*

Then, right on queue, out of the darkness, Anna came to accept the award! She comments, "Thanks to all those who participated in the decision to award me with this prestigious Scotty award. I hope that all of you out there would be ambassadors of amateur astronomy and treat everyone you meet as an individual unto themselves. Long life to Stellafane and may she prosper."

A duplicate plaque will hang in the McGregor Observatory at Stellafane.

And with that, NERAL continues to march proudly into the future!

Submitted,

Doc Kinne, Secretary & Regional Rep., NERAL

August 25, 2001

Member-at-Large, North East Region of the Astronomical League (NERAL).

NERAL Secretary & Regional Representative to the AL National Council.

Member, Association of Lunar and Planetary Observers.

Candidate, M.S. (Astronomy), Swinburne University of Technology, VIC, AUS

## Charlie and Ted Receive Tribute...



*Reading Daily Times Chronicle August 24, 2001 Photo by Joe Hakey*

Reading Post Master Jack Driscoll (l) recently honored (l-r), starting second from left) ATMoB member Charlie McDonald, Karen Rickershauser, and ATMoB member Edward Carlman III for their astronomical efforts in the Reading school system. Town Manager Peter Hechenbleikner and Superintendent of Schools Dr. Harry Harutunian also took part in the ceremony.

THE READING Post Office paid tribute to three Reading residents in appreciation for their efforts to promote science in Reading schools.

Postmaster John M. "Jack" Driscoll visited the J.W. Killam Elementary School on Tuesday, August 14<sup>th</sup> to present Hubble

Space Telescope commemorative stamps to Karen K. Rickershauer, fifth grade teacher, and Charles J. McDonald, Jr. and Edward O. Carlman III, amateur astronomers.

The postmaster said he was presenting a Hubble Space Telescope stamp plaque to each of the three honorees "because of the great work they do for the Reading school system and students." Charlie and Ted are volunteers for Project Astro.

## Tow Award...

TOM WOLF earned the TOW AWARD at Stellafane for being the first person to be towed at the 2001 Stellafane Convention. We will copy it and display it in the office.

—Anna Hillier, Club Historian—

## Arunah Hill Days –Friday – Sunday, September 21-23...

There will be a group of ATMoBers camping at Arunah Hill for this event. Call Eileen Myers 978-456-3937 or email [starleen@ultranet.com](mailto:starleen@ultranet.com) for more information.

From the [www.arunah.org](http://www.arunah.org) website

ARUNAH HILL DAYS as always is free of charge. Come and enjoy the dark skies and the splendor of Fall in the Berkshires at our 2004 ft. high mountain top observatory clearing, with many events scheduled such as; guest speakers, solar observing, nature trails, model rocketry, planetarium shows, timber framing demonstrations, and of course the Astronomy Association horse shoe throwing contest. A food tent is available with breakfast, lunch and dinner with a roast beef dinner on Saturday evening. Come to share a relaxing astronomy weekend camping with your family.

- Admission & Camping - FREE!
- Dark-Sky Observing & World-Class Telescopes
- Free Camping in Arunah Hill's harsh, natural, rustic setting

Friday Evening:

- **Discovering Kuiper Belt Object 1998 FS144 From Their Classroom In Western Massachusetts** by Hughes Pack. Northfield Mount Hermon astronomy teacher Hughes Pack will describe the high school students project that lead to the discovery from their classroom in western Massachusetts.

Saturday Evening:

- **The Mysteries of Genesis: High Technology Probes the Secrets of Meteorites** by Lou Raboin. Mr. Raboin is the Supervisor of Polymer Science Electron Microscope Facility at the University of Massachusetts. His talk is with the support of meteorite collector Peter Scherff.

Great Breakfasts - Reasonable Prices

Open Kitchen - burgers, hot dogs, coffee, soda, & More !

Saturday Roast Beef BBQ - \$12.00-adults, \$6.00-under 12

### PRIZES

- Free Prizes - All Eligible - Be at 6 pm Saturday Drawing
- Pay Raffle - \$2/ticket, 3 for \$5. Spectacular Prizes

Supporting Vendors:

- Absolute Astronomy
- Astronomy Magazine
- Island Meteorites

- Meade Optics
- Orion Telescopes
- Pielock Planetarium Repair
- Sky & Telescope Magazine
- Software Bisque, Inc.
- Tele Vue optics
- Universal Astronomics

### FOR MORE INFORMATION

Steve Pielock -- 413/772-6715, [pielock@acad.umass.edu](mailto:pielock@acad.umass.edu)

### DIRECTIONS

- From Pittsfield
  - Route 9 East, 19 miles to Windsor
  - Right at 'Worthington-Peru to Route 143' Sign.
- From Northampton
  - Route 9 West, 27 miles to Windsor Town Line
  - Left at "Worthington-Peru to Route 143" Sign.
- Then
  - 3 miles to Cummington-Worthington Town Line
  - Left on Trouble Street
  - Arunah Hill Entrance is 1/2 mile on left.

## Connecticut Star Party...

THE ASTRONOMICAL Society of New Haven has announced that this year's Connecticut Star Party will take place on September 14-16 at its usual location of Camp Bobriwka in Colebrook, CT in northwestern CT. John Dobson will be one of the speakers. For more information, call or write: CSP11 c/o Bob Carruthers 37 Saw Mill Dr. Wallingford, CT 06492 or call 203-265-6014

—Michael Aramini—

## Astro Assembly...

**Please note that the weekend for Astro Assembly is October 12-13.**

This annual event, with lectures, swap tables and vendors, is sponsored by Skyscrapers, Inc. – the Amateur Astronomical Society of Rhode Island. It is held at the Seagrave Memorial Observatory in North Scituate, RI.

See <http://chandra.cis.brown.edu/astro/> for a registration (\$10) form. There will be a lobster or steak dinner Saturday night. Advanced registration is required for the lobster dinner (\$17). Afternoon speakers: Dr. Robert Gendler will share stunning CCD images, Walter Carroll and Ann Maggs (in costume) will involve us in the adventures of turn of the century professional astronomers, and Rich Sanderson will show us how to collect old astronomical texts. The evening speaker will be Andrew Howard, a PhD candidate at Harvard under the guidance of Paul Horowitz. He will share work on the design and building of large optical field telescopes and detectors that search the Northern skies for short (nanosecond) optical flashes. Are these flashes intentional communication? Observing will follow, weather permitting.

Enter competitions for Astrophotography, Telescope-making, and the Astro-Bake-off. Match your wits with others in the Astroquiz – this year on observing. Door prizes and raffles.

## Oct. 20 Trip to Hayden Planetarium...

JOIN US for this year's bus trip to visit the Hayden

**Planetarium** and Museum of Natural History in **NYC**. We will be going on Saturday, October 20<sup>th</sup>. Like last year, there will be a pickup in the town of Harvard, Billerica, and at the Riverside MBTA station. The cost will be under \$100 for the day, and will include busfare, breakfast and dinner, admission to the museums, tour of the Rose Center, and the Planetarium show. Individual arrangements can be made too. We are now working on choosing a restaurant for dinner. We are considering an Italian restaurant called Carmine's located near 91<sup>st</sup> Street, or the Red Eye Grill – a steak & sushi restaurant on 56<sup>th</sup> St.

**Please invite your neighbors and friends to go too. The bus is still only half filled.**

Email Eileen at [starleen@ma.ultranet.com](mailto:starleen@ma.ultranet.com) or call 978-456-3937.

*-Eileen Myers-*

## Keep Looking Up...

CHARLIE MCDONALD submitted the following. It was taken from *Sky & Telescope*, October 1999, pg. 84, "The Sky Within – An interview with Jack Horkheimer, planetarium director and host of public television's popular Star Gazer series", written by Stephen James O'Meara.

Jack assures us he'll keep looking up until his time on Earth is up. In fact, the epitaph he prepared for his tombstone (which is already erected) reveals, tongue-in-cheek, that he'll be doing just that from beyond the grave. His epitaph reads:

"Keep Looking Up"  
Was my life's admonition.  
I can do little else  
In my present position.



*Photo taken by Dennis Gudzevich*

**At the 2001 Stellafane Convention ATMoB members met for a group photo.**

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October *Star Fields* deadline is SUNDAY, September 30th  
Email articles to *Star Fields* Editor / ATMoB Secretary  
Eileen Myers at [starleen@charter.net](mailto:starleen@charter.net)  
Articles from members are always welcome.  
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**POSTMASTER NOTE: First Class Postage Mailed September 7, 2001**

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

**FIRST CLASS**

**EXECUTIVE BOARD 2001-2002**

PRESIDENT:	Bob Collara	day (978) 284-5812 eve 781) 275-9482
VICE PRES:	Steve Hertzberg	(617) 965-2858
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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](http://www.atmob.org)**

**MEETINGS:** Held the second Thursday of each month (September to July) at 8:00PM in the Phillips Auditorium, Harvard-Smithsonian Center for Astrophysics, 60 Garden St., Cambridge MA. For INCLEMENT WEATHER CANCELLATION listen to WBZ (1030 AM) 978) 264-5812

**CLUBHOUSE: Latitude 42° 36.5' N Longitude 71° 29.8' W**  
The Tom Britton Clubhouse is open every Saturday from 7 p.m. 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 farmhouse 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 September...**

**Eastern Daylight (Savings) Time - Subtract 4 from UT to get EDT**  
Saturn (rising before midnight in Taurus) at west quadrature (90° west of the Sun) on Sept 7. This month it casts its shadow farthest to the side as seen from Earth and the ball and rings have their most three-dimensional appearance. Jupiter (mag -2) rises after midnight in Gemini. Venus rises at dawn in Cancer/Leo. Mars is at its highest in the S at nightfall. Mars (mag -0.9 to -0.4 at month end) crosses the top of the Teapot of Sagittarius. Pluto SW in Ophiuchus. Neptune and Uranus S in Capricornus.  
Mon Sept 10 Occultation of Saturn by the Moon. Clear skies and a large telescope needed. Saturn disappears 9:27 A.M. EDT, reappears 10:27 A.M. EDT (Boston). See Sept '01 S&T p. 94.  
Sun Sept 16 Zodiacal Light visible in E before start of morning twilight for next two weeks.  
Sat Sept 22 7:04 PM EDT Fall or autumn equinox. The Sun, appearing to travel along the ecliptic, reaches the point where it crosses the equator into the southern celestial hemisphere.