



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. 20, No. 1 January 2008

This Month's Meeting...

Thursday, Jan. 10th, 2007 at 8:00 PM
Phillips Auditorium
Harvard-Smithsonian Center for Astrophysics
Parking at CfA is allowed for duration of meeting

This month we welcome Dr. Charles Lada, Associate Director of the Radio and Geoastronomy Division at the Harvard-Smithsonian Center for Astrophysics, whose research work has centered on trying to unlock the secrets of star and planet formation in the Milky Way.

Most of what we know about the origins of stars and planets we have learned in the past quarter century, yet the question of stellar origins is among the oldest in astronomy. In this talk, "The Search for Stellar Origins from Antiquity to the 21st Century," Dr. Lada will explore the question of why it took so long for star formation to become an active branch of astronomical research. He will review ideas and concepts about the nature of stars and stellar origins from the ancient Greeks to Newton and then to William Herschel who in the eighteenth century proposed a surprisingly modern picture of star formation. Dr. Lada will discuss the "dark ages" of the nineteenth century when the infusion of new technology and physics set back research in this field for more than a century. He will also review the advances in physics and astronomy in the early twentieth century that set the stage for the renaissance in star formation research that began in mid to late twentieth century and continues unabated today.

Primarily an observational astronomer, Dr. Lada was initially trained as a radio astronomer, but later became a very active infrared astronomer. He has worked with both ground-based and space-based telescopes. He was among the first scientists to discover and investigate giant molecular clouds and among the first to find and study molecular outflows and jets associated with star formation. Dr. Lada developed a classification scheme for young

stellar objects and protostars that has been used by researchers in the field for the last 20 years to investigate these objects. More recently he had been working on understanding the origin and early evolution of star clusters, protoplanetary disks, and dense molecular cloud cores, the sites of star and planet formation. Dr. Lada has developed an interest in the history of astronomy and his lecture will relate some of the fascinating and unexpected things he has learned about the development of humankind's thinking concerning stellar (and planetary) origins, from biblical times to the present.

Please join us for a pre-meeting dinner with our speaker at 5:45PM, Chang Sho Restaurant located at 1712 Massachusetts Avenue in our fair city, Cambridge, MA.

~ Virginia Renehan ~

President's Message...

Winter caught up with us in December. A formidable winter storm resulted in the cancellation of our monthly meeting. Club historian, Anna Hillier, reported the last time a meeting was canceled was back in 1995, and before that it was back in the 1980's. We have a pretty good track record given the New England weather. Unfortunately, we did not get to hear Tal Mental's rendition of *The Night Before Christmas* and *The Cremation of Sam McGee*. Tal's performance has become a club tradition in celebration of the holidays and ringing in of the New Year. Next December, Tal!

I trust everyone had a joyful holiday with family and friends. My holiday tradition is the celebration of Christmas. This year, skies were clear enough on Christmas Eve and we brought out a telescope to look at the moon with the kids. Astronomy is such a powerful tool. I was amazed to hear my friend's 3 year old exclaim, "look," pointing out the Moon and stars while repeating some of what we had discussed in the past about the Moon's oceans and craters. I enjoyed listening to their creative twists and turns about what might be going on "up there."

From the web we learned not only did a cargo vehicle make a holiday trip to the space station, delivering gifts and other holiday food and goodies, but we understand from www.noradsanta.org that Santa visited the space station as well!

This season too, NASA has a new educational DVD called "Return to Space", which shows in great detail the efforts required to prep a shuttle for space flight, and explains all the enhancements developed to increase safety of the shuttle during take-off. I made several copies and will have them at the meeting for those of you interested. It was a hit with the kids as well as adults – a good way to spark interest in the space program and astronomy in general.

In closing, I wish you and your family a very *Happy, Healthy 2008* filled with clear skies and starry nights. As always, if you have any questions, feel free to contact me at vrenehan@gis.net.

~ Virginia Renehan, President ~

Dec. Meeting Minutes . . .

The December meeting of the Amateur Telescope Makers of Boston and the Bond Astronomical Club was cancelled due to a particularly bad winter storm.

Responding to an inquiry on how some of the membership coped with this weather, a few people sent in these images.



Virginia and Cassie building a snowman on the beach



Al Takeda digs out, again.



Paul Cicchetti removing snow at the Clubhouse.

Happy New Year and I'll see you at the Jan. meeting!

~ Al Takeda, Secretary ~

Clubhouse Report . . .

The clubhouse continues to host the Thursday mirror grinding sessions, Friday Astro classes, and Saturday night observing. Attendees on Dec. 8 were observing with Steve Clougherty after the *Star Fields* folding session when they were treated to a view of a stationary satellite blinking in the center of the 25" field of view with stars whizzing by near M74 around 10 p.m. EST. Then the weather changed dramatically for the rest of the month.

By Friday, Dec. 14, the storm which cancelled the monthly meeting in Cambridge provided plenty of snow for John Blomquist and John Maher to remove from the parking area for the Astro classes that evening.

The next day a huge snow removal effort by Paul Cicchetti, Al Takeda, John Blomquist and Art Swedlow gave us back our observing field. Then more snow came! The process was repeated for the Dec. 21 Astro class and the major effort during the Dec 22 work party was more snow removal.

Many thanks go to Paul Cicchetti, John Blomquist, Dave Prowten, John Maher, Steven and Fred Morlock, John Reed, Stephan Schmitt and Al Takeda for the dedicated snow removal. And this crew was fed by Art Swedlow, Sai Vallabha, and Eileen Myers. Gary Jacobson distributed the ordered Observer's Handbooks, Bruce Berger delivered the power tools donated by Fred Ward (Thanks again, Fred!) and a box full of used screwdrivers he obtained for the machine shop. Paul Valleli and Mike Mattei tested Paul's new iOptron scope mount keeping the 2009 eclipse in mind.

Dave Prowten, Al Takeda, and Paul Cicchetti added two kitchen area speakers to enhance the Astro class sound reception. Al Takeda and Art Swedlow mounted the dual clock (UT and sidereal time) donated by Mike Mattei.

On Sunday, Dec. 30th the house was cleaned and decorated by Eileen M., Art S., Al T., Sai V., Paul C., and Dave P. The old microwave gave up in a puff and was replaced by a new unit donated a few months ago by Virginia Renehan. Thanks to Tal Mentall for years of hot chocolate, popcorn, and warmed over food in the old microwave; thanks to Virginia for continued good eating during cold nights of observing. You will also notice a new fluorescent light above the kitchen work area; thanks to Dave Prowten.

An additional amount of snow was removed by John Blomquist and John Maher on Dec. 31st, allowing for parking and observing through the 17" Wray Newtonian reflector. The party was a success, due to grit and determination! Job well done as a record December snowfall fell.

Clubhouse Saturday Schedule

Jan 5	Brian Leacu	Phil Rounseville
Jan 12	Chuck Evans	Tom Luminello
Jan 19	Bruce Berger	Dave Prowten
Jan 26	Eileen Myers	Sai Vallabha
Feb 2	Ed Budreau	Gary Jacobson

~ John Reed, Steve Clougherty, and Dave Prowten ~

Star Party Announcement . . .

Reading Star Party – Coolidge Middle School

Tuesday, Feb. 12, 2008.

Location: Coolidge Middle School in Reading
89 Birch Meadow Drive, Reading

Inside Lecture by Paul “Galileo” Manning - 1st Group starts at 6:15 - 6:45.

Telescopes for the outdoor program are needed from 7 to 9.

5 Elementary schools will be participating in this star party with approximately 250 students and their guardians.

Contact: Charlie McDonald (781) 944-6140.

~ Charlie McDonald ~

Observing Committee Report . . .

Participation in the Friday night Astronomy Courses has been strong. Many thanks to John Maher for getting permission from the DVD publisher to provide this course to the club! There have been a few inquiries about running the courses on a second night. Doing this would require the club to purchase their own copy of the DVD. It is an expensive item so we would need to insure we had enough member interest before making the purchase. Please send Steve Beckwith an email (stevebeckwith@comcast.net) if you would like to take this course.

New Member Night at the Clubhouse – Jan. 17th . . .

New members are invited to the clubhouse for a tour of the facilities and observatories on Thurs., Jan. 17. A tour of the observatories, a mirror grinding demonstration and an over-view and walk through on the club’s website will be given. Most of the Executive Board will be present to answer any questions regarding ATMob and (most importantly) to listen to your thoughts and any ideas you may have in regards to club activities.

Weather permitting; we can have an observing session with the club instruments. As always, this is not just limited to our new friends; veteran members are encouraged to attend too! If possible please sign-up via the website www.atmob.org . Signing up is not required but it’s a great way to get a headcount on who will be attending. Directions to the clubhouse can also be found on the website.

If you’ve any questions Please contact Steve Beckwith stevebeckwith@comcast.net

~ Steve Beckwith, John Maher and Mike Mattei ~

Membership Report . . .

We have had three new members join over the last month:

Olav van Genabeek	Newton, MA
Harry Jacobson	Harvard, MA
Steven Morlock	Groton, MA

~ Dave Siegrist – Membership Secretary ~

We Welcomed 2008 . . .



Around 30 members, families and friends enjoyed a quiet evening of conversation, music, eating, merriment and observing on the evening of December 31, 2007. The sky was clear (as predicted, thank you) and the 17-inch was open for viewing. Glasses were raised and noisemakers sounded the call every hour, even on the half hour to include Newfoundland at 10:30 PM local time, as we enjoyed the passing of time as the Earth rotated. Some folks who couldn’t be there phoned in good wishes.



“This Old Farmhouse” was filled with wonderful aromas as John Reed finished baking a 20-lb turkey in the oven. The feast even included stuffing and gravy. While feet were tapping in time to the rhythm, Ed Los played several lively traditional Irish and Scottish tunes on his fiddle.

Eileen and Al provided games and prizes. The wonderful appetizers, entrees and desserts provided by everyone who attended

were delicious and plentiful. Marsha Bowman added delightful entertainment reading her answers to the Find Someone Who... list. It was fun learning things about each other that we never would have known otherwise. Al Takeda provided CD's with soothing "Solstice music" for background music. Al also treated us to images of Comet Homes, Comet 8P/Tuttle in the vicinity of M33, Orion's Horse Head Nebula, and other magnificent astrophotographs, projected on the "big screen".



What was the number one topic of conversation? The History of Time Zones. So, taken from the general conversation and from a couple of educational websites, this is what was discussed: Even in the late 1800s, people used to work out their own "local time". The town clock would be set to 12 Noon when the Sun was at its highest point in the sky. Once people began to travel quickly over large distances by train or other ways, getting the right time at the destination, and all places on the way, became very important. Imagine trying to set up a train timetable when all places on the route have slightly different times!

The need for a standard time was felt most particularly in the United States and Canada, where several extensive railway routes passed through places that differed by several hours in local time.

Sir Sandford Fleming, a Canadian railway planner and engineer, outlined a plan for worldwide standard time in the 1878. Following this initiative, in 1884 delegates from 27 nations met in Washington, D.C., for the Meridian Conference and agreed on a system basically the same as that now in use.

The present system employs 24 standard meridians of longitude (lines running from the North Pole to the South, at right angles to the Equator) 15° apart, starting with the prime meridian through Greenwich, England. These meridians are theoretically the centers of 24 standard time zones; in practice, the zones have in many cases been subdivided or altered in shape for the convenience of inhabitants.

Time is the same throughout each zone and differs from the international basis of legal and scientific time,

Greenwich Mean Time (GMT) or Coordinated Universal Time (UTC), by an integral number of hours; minutes and seconds are the same.

In a few regions, however, the legal time kept is not that of one of the 24 standard time zones because half-hour or quarter-hour differences are in effect there.



Thank You's: We humbly thank John Maher and John Blomquist, who spent hours clearing away snow everywhere, creating clean observing pads and creating a safe, wide path to the 17-inch. The clubhouse had a good cleaning inside and a festive party atmosphere was created by the cleaning and creative decorating skills of Sai Vallabha, Al Takeda and Art Swedlow, assisted by Paul Cicchetti and Eileen Myers. Thank you Karen Swedlow, sous-chef for John. Thank you to Al, Art, John, Sai and to my husband Ben, for taking down all of the decorations and the doing a thorough clean-up. Thank you Susan Mudgett (wife of Eric Johansson) for the lovely card signed by all. And thank you Dave Prowten for putting up the new light in the kitchen and installing the new microwave oven, just in time for the party.

Wishing you a Happy and Healthy 2008,

~ Al, Art, Eileen, John and Sai ~

~ The Party Team ~

2008 Events . . .

Courtesy Barlow Bob and Friends

Feb 4 - 10

Winter Star Party

Florida Keys, FL

<http://www.scas.org/wsp.htm>

Apr

Zombie Party

Atlanta, GA

<http://www.atlantaastronomy.org/Zombie/>

Apr 4 - 6

South Jersey Spring Star Party

Belleplain State Forest, NJ

<http://hometown.aol.com/sjastroc/spring.html>

Apr 2 - 6

Delmarva Star Gaze Star Party

Tuckahoe State Park, MD

<http://www.delmarvastargazers.org>

Apr 24 - 25 **NEAIC**
Northeast Astronomical Imaging Conference
 Suffern, NY
<http://www.rocklandastronomy.com/neaf.htm>

Apr 26 - 27 **NEAF**
NEAF Solar Star Party
 Suffern, NY
<http://www.rocklandastronomy.com/neaf.htm>

May 31 – June 1 **AOS Starfest**
 Roxbury, NY
<http://AOSStarFest@aosny.org>

May 29 – June 1 **Cherry Springs Star Party**
 Cherry Springs Park, PA
<http://www.astrohbg.org/s4/index.php>

Jul 2 - 5 **Green Bank Star Quest**
 Green Bank, WV
<http://www.greenbankstarquest.org/>

Jul 30 – Aug 3 **Mason Dixon Star Party**
 Shreveport Airport / Footlight Ranch
 York County, PA
<http://www.masondixonstarparty.org/>

Jul 31 – Aug 3 **Stellafane**
 Springfield, VT
<http://www.stellafane.com>

Aug 9 – 12 **Spruce Knob Star Party**
 Spruce Knob, WV
<http://www.ahsp.org>

Aug 29- 31 **The Conjunction**
 Northfield, MA
<http://www.philharrington.net/astroconjunction/>

Jul 25 – Aug 3 **Rockland Summer Star Party**
 Savoy, MA
<http://www.rocklandastronomy.com/special-events.htm>

Sept 5 – 7 **Arunah Hill Days**
 Cummington, MA
<http://www.arunah.org/calendar.htm>

Sept **Black Forest Star Party**
 Cherry Springs State Park, PA
<http://www.bfsp.org/starparty/index.cfm>

Sep 26 - 28 **Connecticut Star Party**
 Ashford, CT
<http://www.asnh.org/>

Sep 26 – 28 **Astroblast**
 Oil City, PA
<http://www.oras.org/astrbllst.htm>

Oct 10 - 14 **Delmarva No-Frills Star Party**
 Tuckahoe State Park, MD
<http://www.delmarvastargazers.org/archive/nofrills2005/index.html>

Oct **Hidden Hollow 2007**
 Mansfield, OH
<http://www.wro.org/hiddenhollow2006.html>

Oct **Jersey Starquest Star Party**
 Hope, NJ
<http://www.princetonastronomy.org>

Rochester Fest
 Rochester, NY
<http://www.rochesterastronomy.com>

Oct **Novac Star Gaze**
 Manassas, VA
<http://www.novac.com/gaze/>

Oct 4? **Astro Assembly**
 Skyscrapers, Inc
 North Scituate, RI
 Amateur Astronomical Society of Rhode Island
<http://www.theskyscrapers.org/>

Oct 25 **Custer Institute Jamboree**
 Southold, NY
<http://www.custerobservatory.org>

Oct 27 – Nov 2 **Mid Atlantic Star Party**
 Robbins, NC
<http://www.masp.org/>

~ Eileen Myers ~

Feb. Star Fields deadline
Sat., Feb 2nd

Email articles to Al Takeda at
secretary@atmob.org

POSTMASTER NOTE: First Class Postage Mailed Jan. 5th, 2008

Amateur Telescope Makers of Boston, Inc.
c/o Dave Siegrist, Membership Secretary
34 Millwood Dr
Shrewsbury, MA 01545-2228
FIRST CLASS

EXECUTIVE BOARD 2007-2008

PRESIDENT: Virginia Renehan (978) 283-0862
president@atmob.org

VICE PRES: Stephen Beckwith (978) 779-5227
SECRETARY: Al Takeda (508) 494-7877
MEMBERSHIP: Dave Siegrist (508) 753-7498

TREASURER: Gary Jacobson (978) 692-4187
MEMBERS AT LARGE:
Bruce Tinkler (781) 862-8040
Dave Prowten (978) 369-1596
Chuck Evans (978) 649-7157

PAST PRESIDENTS:
2005-06 Bernie Volz (603) 968-3062
2002-04 Eileen Myers (978) 456-3937

COMMITTEES

CLUBHOUSE : John Reed (781) 861-8031
Steve Clougherty (781) 784-3024
David Prowten (978) 369-1596

HISTORIAN: Anna Hillier (781) 861-8338

OBSERVING: Stephen Beckwith (978) 779-5227
Mike Mattei (978) 264-0017
John Maher (978) 568-1253

How to Find Us...

Web Page 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)

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 The Month . . .

To calculate Eastern Standard Time (EST) from Universal Time (UT) subtract 5 from UT.

Jan 8 New Moon
Jan 15 First Quarter Moon
Jan 22 Mercury at greatest eastern elongation (19 degrees)
Jan 22 Moon is 0.3 deg. N. of M44 (Beehive Cluster)
Jan 22 Full Moon
Jan 30 Last Quarter Moon
Feb 1 Venus 0.6 deg. N. of Jupiter (both rise at 10 UT – 5 a.m. EST)