



## 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. 30, No. 9    October 2018

### This Month's Meeting . . .

Thursday, October 11<sup>th</sup>, 2018 at 8:00 PM  
Phillips Auditorium

Harvard-Smithsonian Center for Astrophysics

Parking at the CfA is allowed for the duration of the meeting

### Discovering New Worlds with TESS



Image courtesy of NASA/GSFC

The Transiting Exoplanet Survey Satellite (TESS) mission is to discover thousands of exoplanets in orbit around the brightest stars in the sky. In a two-year survey of the solar neighborhood, TESS will monitor more than 200,000 stars for temporary reductions in brightness caused by planetary transits. This first-ever space-borne all-sky transit survey will identify planets ranging from Earth-sized to gas giants, around a wide range of stellar types and orbital distances. No ground-based survey can achieve this feat.

Dr. Jennifer Burt Ph.D is a Torres Postdoctoral Fellow at the MIT Kavli Institute. Dr. Burt's research centers around the detection and characterization of exoplanets - planets orbiting stars other than our own sun. She uses precision radial velocity measurements taken with ground based telescopes in California and Chile to monitor the spectrum of stars and search for telltale "wobbles" which indicate the presence of a planet orbiting the

star. She was a key contributor to the commissioning and operation of the Automated Planet Finder telescope, and designed the software system that now allows the telescope to run autonomously each night.

Please join us for a pre-meeting dinner discussion at House of Chang, 282 Concord Ave., Cambridge, MA. at 6:00 pm before the meeting.

### President's Message . . .

Well, I am in it deep now and there is no playing around. I am on the hunt for speakers for our monthly meetings held in Cambridge. I have made some progress in securing a few speakers and continue to work to fill all of the slots. Please feel free to reach out to me with ideas on topics that appeal to you and names of potential speakers.

The annual potluck picnic held at the Clubhouse on September 15th was a great success. The assortment of food dishes and desserts complimented the camaraderie and fine weather. It was nice to see all the observatories open and available to tour. We also had an opportunity to celebrate the life Sai Vallabha. Art Swedlow led us on a touching remembrance of Sai with a number of other members and friends sharing experiences. It is clear from the ceremony that Sai was a good man and is missed. John Reed brought Sai's ashes and David Prowten spread them around the revamped 17-inch Dobsonian reflector. This telescope was the one that Sai used whenever he observed at the Clubhouse. The scope was dedicated at this time to the memory of Sai and a small plaque was affixed to the scope to mark the honor. Please check out the fantastic work on the scope and the Chase Hutch performed by Dave Prowten, Rich Nugent, Steve Clougherty, John Stodieck and Maria Batista. Thank you to all those that donated their time and effort to make the day such a success.

I do hope to meet up with you all on the 11th of October at Phillips Auditorium in Cambridge for our monthly meeting.

~ Tom McDonagh - President ~

### September Meeting Minutes . . .

Summary of ATMoB meeting #912 held on September 13, 2018 at the Harvard-Smithsonian Center for Astrophysics in the Phillips Auditorium. President Tom McDonagh called the meeting to order at 8:02 pm.

- The Secretary's Report was not given. Notes on the July meeting are in the September newsletter.
- Eileen Myers presented the Treasurer's Report.
- Chris Elledge presented the Membership Report.
- Glenn Chaple presented the Observing Report.
- Steve Clougherty presented the Clubhouse Report.

- The Mirror Making Committee Report was not given.
- The Outreach Committee Report was deferred, as particulars would be covered in the talk they would be giving later tonight.
- Announcements:  
Eileen Myers asked for help with set-up and breakdown at the up-coming ATMoB picnic.
- Old Business:  
Al Takeda announced that the Clubhouse wireless router that had gone down last month was again working. Al assisted Bruce Berger and Jim Gettys in the repair.
- New Business: None

Tom McDonagh introduced the first guest speaker for the evening, ATMoB member Julie Kaufmann, whose talk was entitled: "My Eclipse Experiences." Julie explained that for her an eclipse is more than an expedition. It's a vacation and adventure. Her globe-trotting eclipse trips included Peru in 1994, a Caribbean cruise (1998), Europe (1999), Zambia/Zimbabwe (2001), Turkey (2006), Mongolia (2008), China (2009), the Cook Islands (2010), Indonesia (2016), and Oregon (2017). At each eclipse, Julie took in the local culture, studying the customs and dances of the local populace, and exploring architecture and historical sites. In the process, she availed herself of local modes of transportation, from traditional train, boat, plane, and automobile, to horseback, elephant and camel.



Julie Kaufmann \*

Tom then introduced "ATMoB Outreach and Star Parties," a talk presented by Outreach Committee Chair Rich Nugent and members Laura Sailor and Glenn Chaple. Glenn began with the PowerPoint slide show "The Complete Idiot's Guide to Hosting Star Parties". He discussed the Do's and Don't's of preparing for and running a public star party. Laura then discussed the need to get newbies involved in star parties by giving them the proper training. After announcing upcoming star parties - Mt. Waite in Malden (October 13), Dunstable Cub Scouts (Oct 16), Acton-Boxborough 7th grade (Nov 5), and Vining Elementary in Billerica (Nov 30) - he discussed #popscope and Library

Telescope Loaner Programs, and suggested other avenues for astronomy outreach.



Glenn Chaple \*



(L-R) Rich Nugent and Laura Sailor \*

Refreshments were provided by Tom McDonagh.

The meeting was adjourned at 9:50 pm.

~ Glenn Chaple ~

## Meeting Refreshment Assignment . . . 2018 - 2019

- Oct. – Maria Batista
- Nov. – Rich Nugent
- Dec. – Tom McDonagh
- Jan. – John Harrington
- Feb. – Eileen Myers
- Mar. – Glenn Chaple
- Apr. – Chris Elledge
- May – Al Takeda
- Jun. – Bruce Berger
- July – TBD

## Meeting Recordings . . .

The recording of ATMob meeting #912 is available on YouTube: <https://youtu.be/Ynzitdlhnn4>

I would like to thank Julie Kaufmann and the ATMob Outreach Committee for giving their presentations.

This link is to the publicly available cut of the meeting recording. To view the original version of the meetings, please see the Announce Forum on the ATMob Website <http://www.atmob.org>.

~ Chris Elledge – Membership Secretary ~

## Membership Report . . .

I am pleased to welcome our newest members Abby Folger, Kenneth and Valerie Heim, Scott Moriearty, and Kyle and Netta Trumble.

As of September 24th, 2018 we have 232 memberships covering 300 members. This is broken down as follows:

- 108 Regular Members
- 80 Senior Members
- 4 Student Members
- 39 Family Memberships covering 107 Members

Renewal season is over. 120 renewals are still due. Memberships that are not renewed by December 1st will expire.

You can check if you need to renew and start your renewal process on the website at <http://www.atmob.org/renew>

You can also download the membership application from the website at <http://www.atmob.org/signup> by clicking on the "Download an application" link.

Donations are encouraged during membership renewal to help keep our club running smoothly, our clubhouse maintained, and telescopes in good condition. Donations are tax deductible to the extent allowed by law. If you choose to pay by credit card, please consider making at least a small donation. Credit card companies take a few percent of your payment to the club.

Please contact me if you need any help with renewing or logging into the website.

~ Chris Elledge – Membership Secretary ~

## Clubhouse Report . . .



(Foreground to Background) Maria Batista, Paul Cicchetti and Dave Prowten \*

### September 2018 Clubhouse Report

The last work session of the summer was immediately followed by a Special Work Party on September 8th. This session was to complete several projects before the club's annual picnic. Twenty members donated their time to make these efforts happen. Thanks to: Maria Batista, John Blomquist, Bruce Berger, Paul Cicchetti, Steve Clougherty, Nina Craven, Gregory Fontaine, Philip Goodrich, Barry Jensen, Dick Koolish, John Maher, Jim McLaren, Eileen Myers, Rich Nugent, Dave Prowten, John Reed, Phil Rounseville, Art Swedlow, Al Takeda, and Joe Tansey. Work was completed under cloudy skies and a cool 66 degrees.

The full moon Work Party followed 1 week after the picnic, on September 22nd, when twenty one members volunteered their day to start or complete needed projects. A BIG THANKS go to: John Blomquist, Bruce Berger, Paul Cicchetti, Steve Clougherty, Tom Corsi, Tony Costanza, Chris Elledge, Gregory Fontaine, Jim Gettys, Philip Goodrich, Ken Heim, Valerie Heim, John Hinz, Eric Johansson, Ed Los, John Maher, Corey Mooney, Eileen Myers, Ben Myers, Dave Prowten, John Reed, and Al Takeda. The 60 degree temperatures under partly cloudy skies made the first cup of coffee even more delicious. Thanks for the donuts, John!

The grass was kept under control by John B. and his tractor. We restocked our gasoline supply for the winter. Joe T. and John H. raked up the grass cuttings and brush and transported them to the compost pile. The front flower garden was cleaned up by Nina C.

Our indoor pre-picnic vacuuming and cleanup of the Clubhouse was completed by Maria B. and Steve C. The bathroom cleaning, rotation and cleanout was performed by Steve C. and Gregory F.

Former member, Matt BenDaniel, donated telescopes, equatorial mounts, telescope parts and medium format film camera gear to the Club. Al T. and Rich N. undertook a massive documentation and inventory of all of the items.

The 10 year Clubhouse plan was reviewed and brought up to date by Steve C., Dave P., Eileen M. and John R. Started in the 1990's and revised every 10 years, it allows us to plan and implement future projects. This document gives us a historical review for dating milestones and is similar to our monthly Starfields newsletter in documenting the evolution of our club.

The largest single use of people power was used in the application of solid white stain to the North side of the far barn and the South side of the Ed Knight roll off roof Observatory. Previously a team had stained the roll off roof support structure and the front of the ATMoB Research and Imaging Observatory (ARIO). Chris E. and Corey M. led the barn team while Paul C. and Ken H. led the roll off team. Only a few work parties remain with warm weather painting conditions. We hope to finish the barn and observatory walls this fall.

Another team careful removed tree limbs next to the clamshell observatory. These limbs are obscuring alignment stars along the eastern horizon. Volunteers were utilized as safety spotters, ladder stabilizers and telescope horizon "monitors". They assisted the 2 man cutting team in selectively removing offending branches. The trees on the other side of Millstone road cannot be trimmed and are limiting our horizon. Thanks to John B., John M., Dave P. and. Al T.

Pizzas and fried chicken fed the crew at this special work session. Thanks to Eileen M. and Eric J. for preparing lunch at the full Moon work party.

The October Full Moon Work Party is on Saturday, October 27th. Let's hope for good weather, and clear skies.



(L-R) Corey Mooney and Chris Elledge painting the Clubhouse \*

**Important Notice: Please check your email on the ATMoB-ANNOUNCE list for mirror making sessions.** A revised schedule will be released soon.

~ Clubhouse Committee Chairs ~  
~ Steve Clougherty, John Reed and Dave Prowten ~

Clubhouse Saturday Schedule		
October 13	John Maher	Eileen Myers
October 20	Glenn Meurer	Dave Prowten
October 27	<b>WORK PARTY # 11 **</b> John Maher	
November 3	Joe Henry	Paul Courtemanche
November 10	Mike Hill	Brian Maerz

\*\* Closing time for the Clubhouse is determined by the work crew

Clubhouse Evening Schedule	
Friday Night Educational Videos	7:00 pm - 10:30 pm #
Saturday Afternoon Mirror Making	<b>ATMoB-Announce</b>
Saturday Night Observing	7:00 pm - ##
# Closing time is determined by the organizers ## Closing time is determined by the "A" members on duty.	
Saturday afternoon mirror making schedules will be posted to the ATMOB-ANNOUNCE email.	
Note: The Clubhouse is closed on the 2nd Thursday of the month for our monthly meeting in Cambridge.	
Due to inclement weather conditions on Saturday evenings, the "A" members on duty may elect to close the Clubhouse. Please call the Clubhouse at (978) 692-8708 or check for email messages posted to ATMOB-ANNOUNCE.	

## For Sale . . .

Meade heavy duty tripod. Can be used for Meade 14" SC and other heavier scopes. Excellent condition. \$250 or best offer (new would cost \$750).

Meade standard tripod. Can be used for 8" and 10" Meade SC scopes. Excellent condition. \$75 or best offer (new would cost \$295).

Meade super wedge with AZ fine adjustment. Excellent condition. \$160 or best offer.

Astro-Physics 6" portable pier, 48" tall, used but in good shape. \$275 or best offer.

Meade LX200 12" fork mount with handheld controller. Perfect working order. Tantalum capacitors replaced by Astronomy Shoppe. \$275 or best offer

Cash or PayPal only

Meet me in the greater Boston area. I strongly prefer to avoid shipping.

Contact: Peter Bealo  
Plaistow, NH  
[pbealo@comcast.net](mailto:pbealo@comcast.net)

~ Submitted by Peter Bealo ~

## October Outreach Report . . .



Laura Sailor at the binoculars during the Star Party training session. \*

If you were at or have watched the recording of the September meeting, then you know the Outreach Committee presented an overview of our current and potential future endeavors.

Glenn Chapel went over star party basics. He discussed the anatomy of a star party, detailing how to plan and set up an event. My favorite part of his presentation was the “Star Party Do’s and Don’ts” slides. Glenn suggested that organizers try to plan for an evening when the Moon is visible, bring telescopes that aren’t intimidating to the attendees, know a little about the object you’re observing, and to provide handouts with star charts and information about our club. Thanks, Glenn. Well done!

To conclude our presentation, Laura Sailor and I spoke about the star party training session she planned and ran this past August. If you missed that one, Laura and I will be holding another “class” at the Clubhouse on Saturday, October 20th at 6:00 p.m. It should be posted on our website’s event page.

Finally, I discussed some possible future activities the club members might be interested in:

- Becoming involved in the Library Telescope Loaner Program
- Supporting #popscope events
- Giving presentations at local libraries/community centers
- Teaching a course through local adult education
- Volunteering to help with your local school’s astronomy program
- Organizing ATMoB star parties at your local school

Here is a list of upcoming outreach opportunities...

- Sat., Oct. 13: Mount Waite Star Party, Malden, MA
- Tues., Oct. 16: Cub Scout Pack, Dunstable, MA

- Sat., Oct. 20: Star Party Training for ATMoB Members
- Mon., Nov. 5: Acton-Boxborough 7th Grade Star Party
- Fri., Nov. 30: Vining Elementary School, Billerica, MA

Please consider joining us for any or all of these events! Please sign up on the club’s website so we’ll have a head count. As always, for more information you can contact your Outreach Committee: Laura Sailor, Bernie Kosicki, John Harrington, Glenn Chapel or me, either directly or via email at [starparty@atmob.org](mailto:starparty@atmob.org)

~ Rich Nugent - Outreach Committee Chair ~

## Sky Object of the Month . . .

**October 2018**

(Courtesy LVAS Observer’s Challenge\*\*\*

NGC 7129

Cluster/Nebula in Cepheus

Magnitude: 11.5, Size: 7’ X 7’



Image of NGC 7129 and NGC 7142 (cs.astronomy.com)

Young open star clusters are often embedded in the nebula that spawned them. An example is this month’s Observer’s Challenge, NGC 7129. This one-million-year-old cluster was discovered by William Herschel on October 18, 1794. Of NGC 7129 (H.IV-75 in Herschel’s catalog), Herschel wrote, “Three stars about 9th magnitude involved in nebulosity.” It’s the nebulosity that must have impressed Herschel, as his Class IV was reserved for what he referred to as “Planetary nebulae.” The cluster itself is rather unimpressive, being comprised of a handful of 9th to 11th magnitude stars that form a group similar in appearance to the constellation Delphinus.

Once you’ve captured NGC 7129 in the eyepiece field, look one-half degree to the southeast for the 9th magnitude open cluster NGC 7142 (the unlabeled dotted circle in Chart B). NGC 7142 consists of several dozen 12th-14th magnitude stars in an area about 10’ across. It was discovered by Herschel on the same night he found NGC 7129. The cluster bears the Herschel identity H.VII-66. This designation means it was the 66th entry in his catalog, and the category Herschel named Class VII

consists of what he called "Pretty much compressed clusters". NGC 7129 is about 3000 to 3300 light years away; NGC 7142 is some 2 times more distant. At an estimated age of 4 billion years, NGC 7142 is one of the oldest open clusters.

The charts will help you locate NGC 7129. It is located about 4 1/2 degrees NE of magnitude 2.5 Alderamin. Chart A shows the location of Alderamin in Cepheus. Chart B provides a star-hopper's route from Alderamin to NGC 7129 and NGC 7142.

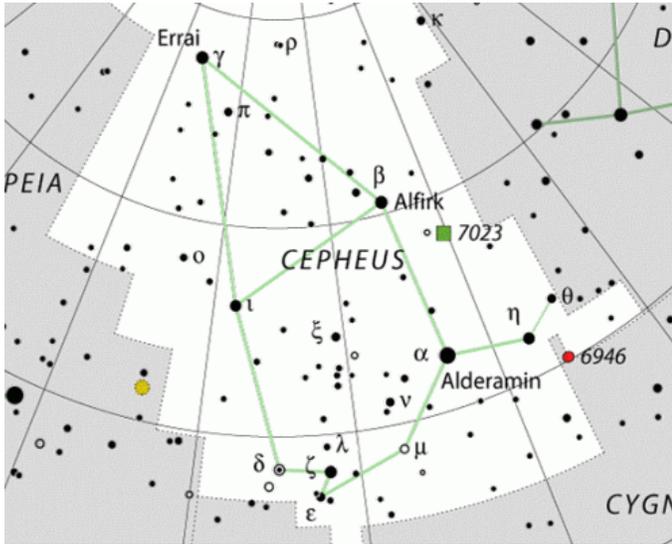


Chart A (www.constellation-guide.com)

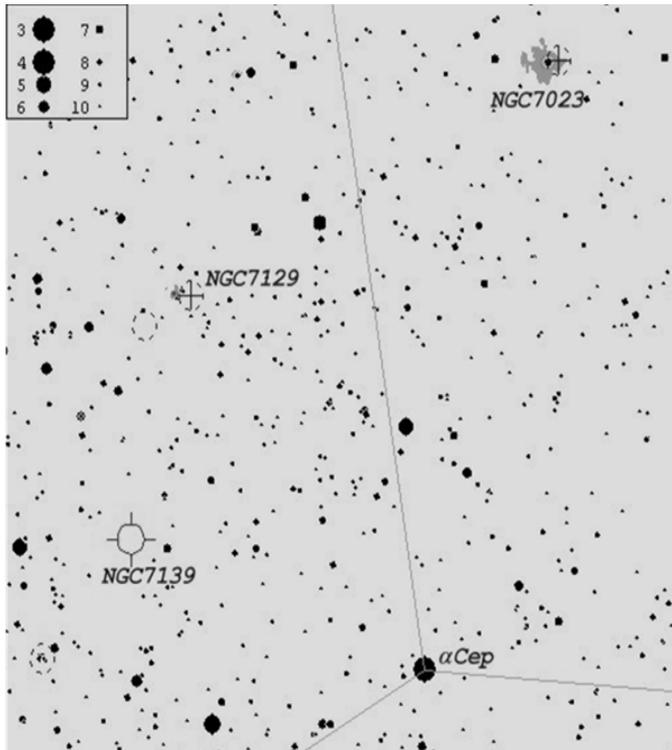


Chart B (www.astrosurf.com)

\*\*\*The purpose of the LVAS Observer's Challenge is to encourage the pursuit of visual observing. It is open to everyone who is interested, and if you are able to contribute notes, drawings, or photographs, the LVAS will be happy to include them in their monthly summary. If you would like to contribute material, submit your observing notes, sketches, and/or images to either [Roger Ivester](mailto:Roger Ivester) ([rogerivester@me.com](mailto:rogerivester@me.com)) or [Fred Rayworth](mailto:Fred Rayworth) ([fred@fredrayworth.com](mailto:fred@fredrayworth.com)). To find out

more, click on the following links: [LVAS Observer's Challenge past reports](#) and/or visit the [Las Vegas Astronomical Society website](#).

~ Glenn Chaple for the LVASS ~

## STEM Education Center . . .

There is a new startup STEM education center - New England Sci-Tech, Inc. It plans to increase public awareness of astronomy by offering special hours for telescope viewing to Metrowest families.

The Astronomical League has selected Saturday, October 13th as Astronomy Day. Telescopes will be set up on the hilltop of 16 Tech Circle, Natick, on either or both Friday, Oct 12, 6-9 pm and Saturday, Oct 13, 5-8 pm, depending on weather conditions.

We encourage any interested ATMoB member to join us. You can set up your telescope next to your car. Parking is available for 120 vehicles.

Contact Bob Phinney for details if you are interested - [bobphinney@nescitech.org](mailto:bobphinney@nescitech.org), 508-720-4179.

Many thanks!

~ Submitted by Bob Phinney ~

## Club Picnic . . .



(L-R) Steve Clougherty and Art Swedlow remembering Sai Vallabha \*

How lovely to have perfect daytime weather for an outdoor event. The tent setup crews on Saturday, September 15<sup>th</sup>, the day of the Annual ATMoB Picnic, were greeted by sunshine and a temperature of 67-degrees. Later, after hours of observing, some of them, along with the last picnic-goers, were forced to leave in the fog at 1:30 A.M. The day also provided the opportunity for the club as a whole to remember dear long-time ATMoB member Sai Vallabha, who passed away in June.

In addition to having the time to eat, relax and talk, members participated in different activities.

Paul Cicchetti, Phil Rounseville, Jim McLaren, and other members offered H-alpha and white light views of the Sun. No

sun spots this year, but seeing actual solar prominences and granulation using a small telescope is always amazing.

Julie Kaufmann and Nina Craven were at the ready with astronomy-related activities for kids.

Bob Phinney set up a table with many meteorites and books. And more than one person was pleased to know how much they weighed on different planets.

Eileen Myers gathered small crowds and led demonstrations of how a telescope works, followed by demonstrations of mirror grinding. Everyone who watched tried their hand at mirror grinding, asking many questions as they worked.



(L-R) Eileen Myers, Keira Powell and Corey Mooney \*

Eileen also set up a table with all sorts of optics – refractor lenses, colored filters, projector lenses, kaleidoscopes, and much more. Corey Mooney watched as each person examined the items, letting them play with them for a while, and then explained what the optics were and how they could be used.

The Club observatories - the Clamshell Observatory with its Meade 10-inch Schmidt-Cassegrain, the Ed Knight Observatory with its 25-inch StarSplitter Dob and 16-inch Meade Schmidt-Cassegrain, the ATMob Research and Imaging Observatory with its Celestron C-14 Schmidt-Cassegrain, and the Chase Hutch Observatory with its 17-inch Dob - were open for visiting and observing thanks to John Maher, Nina Craven, Jim Gettys and Steve Clougherty.

Bill Toomey led a large group up the hill for the annual walk and talk about the radio telescopes and the history of the area. A happy group took off and took their time returning, enjoying the day.

Steve Mock brought many boxes spilling over with astronomy equipment, accessories, books and charts, offering them to club members at the picnic. Members made donations to the club for the items, and everyone was happy.

Nina Craven brought balloons that watched over the day – a smiling Sun and bright colorful stars. She did not float away with them this year.

Bill Toomey and his brother Ray once again loaned us a big tent, set it up, and the tent breakdown crew took it down.

Maria Batista worked hard for hours, doing a little of everything, and then left before eating.

John Reed cooked hamburgers and hot dogs by the dozens.

Julie Kaufmann worked the entire time, hardly ever taking a break.

Al Takeda, the club's unofficial photographer, sacrificed eating for photo taking.

Thank you to everyone who brought food. It was all terrific. Very little was left over.

Thanks to all who set up tents, tables, chairs, food stations, gave informal tours, and cleaned up before, during, and after the event. Attendance this year was over 70, and everyone helped out in some way. Thank you all! We had a good time.

All in all, it was once again a wonderful time, and Eileen Myers and Al Takeda thank each other, as they do every year, for all of the hard work each did. Congratulations to all, and see you at next year's picnic.

*~ Eileen Myers and Al Takeda – Picnic Coordinators ~*



Picnic Balloons \*

*Editor: \* Photos by Al Takeda unless otherwise noted.*

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**November Star Fields DEADLINE  
Sunday, October 21<sup>st</sup>**

**Email articles to Al Takeda at  
[newsletter@atmob.org](mailto:newsletter@atmob.org)**

**Articles from members are always welcome.**

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**POSTMASTER NOTE:** First Class Postage Mailed October 8, 2018

Amateur Telescope Makers of Boston, Inc.  
c/o Chris Elledge, Membership Secretary  
99 College Ave  
Arlington, MA 02474  
**FIRST CLASS**

**EXECUTIVE BOARD 2018-2019**

PRESIDENT: Tom McDonagh (617) 966-5221

VICE PRES: Rich Nugent

SECRETARY: John Harrington

MEMBERSHIP: Chris Elledge (781) 325-3772

TREASURER: Eileen Myers (978) 456-3937

MEMBERS AT LARGE: Maria Batista (617) 347-3730

Alan Sliski

Al Takeda (508) 494-7877

PAST PRESIDENTS:

2015 - 18 Glenn Chaple (978) 597-8465

2012 - 14 Mike Hill (508) 485-0230

**COMMITTEES**

CLUBHOUSE: John Reed (781) 861-8031

Steve Clougherty (781) 784-3024

David Prowten (978) 369-1596

OBSERVING: Bruce Berger (978) 387-4189

NEWSLETTER Al Takeda [newsletter@atmob.org](mailto:newsletter@atmob.org)

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**PUBLIC OUTREACH**

COMMITTEE CHAIR: Rich Nugent [starparty@atmob.org](mailto:starparty@atmob.org)

STAR PARTIES: Bernie Kosicki

Laura Sailor

John Harrington

**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 see [www.atmob.org](http://www.atmob.org) and check your email on the ATMOB-ANNOUNCE list.

**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.

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**Heads Up For The Month . . .**

**To calculate Eastern Daylight Time (EDT) from Universal Time (UT) subtract 4 from UT.**

Oct 8 New Moon, Draconid meteors peak

Oct 16 First Quarter Moon (Moonset at midnight)

Oct 21 Orionid meteors peak

Oct 24 Full Moon

Oct 31 Last Quarter Moon (Moonrise at midnight)

Nov 4 Daylight Saving Time Ends

Nov 6 Mercury at Greatest Eastern (Evening) Elongation (23 degrees)

Nov 7 New Moon