



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. 2 February 2018

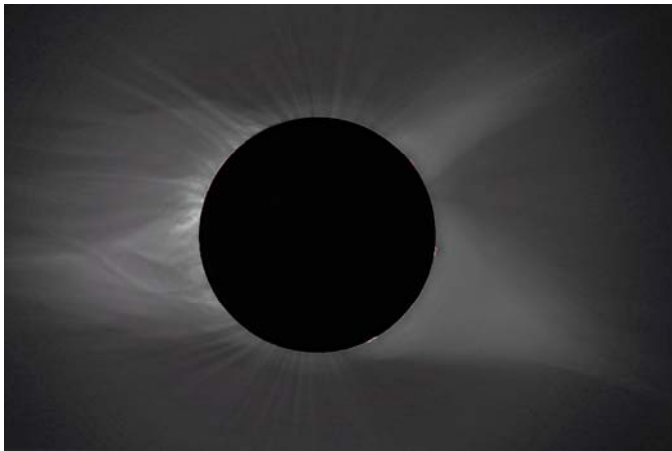
This Month's Meeting . . .

Thursday, February 8th, 2018 at 8:00 PM
Phillips Auditorium

Harvard-Smithsonian Center for Astrophysics

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

Journey Into Totality



2017 Totality. Marion, Illinois. Image by Al Takeda

Those of you who attended the April, 2017, ATMoB meeting will recall speaker Kevin Collins recounting of his project to upgrade a Coulter Odyssey 13.1-inch scope. At our February meeting, Kevin returns to take us on his "Journey Into Totality" to see the Great American Eclipse of 2017. Kevin and his eclipse chasing partner Sean started planning their epic road trip 2 years ago. They ultimately traveled 2500 miles through 12 states, chasing clear skies, often changing their direction from hour to hour. You'll see and hear about happenings on the road, stops along the way, how nail-biting decisions were made, and a recount of this amateur astronomer's heartfelt emotions as he experienced totality for the first time.

Kevin is a software developer for ATC Associates in Agawam, MA, the Assistant Winemaker for Mineral Hills Winery in Florence, MA, President of the Pioneer Valley Winemakers

Society, and former President of the Amherst Area Amateur Astronomers Association. He is also a member of the Arunah Hill Natural Science Center and the Springfield STARS Club. Besides his astronomical interests, which include telescope making, and deep sky and visible light solar observing with family and friends, Kevin is an avid cyclist, hiker, photographer, and amateur winemaker. He lives with his partner in Northampton, MA.

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 . . .

At our January 18th meeting, the ATMoB Executive Board agreed to look into setting up two new Club Committees. To complement our existing Clubhouse and Observing Committees, we've considered adding an Outreach Committee and a Telescope Making Committee.

The former would coordinate all forms of public outreach to include star parties, Popscope activities, and public presentations/lectures (i.e., library visits and talks) by ATMoB members. Outreach can be done at virtually any time of year, but we especially want to set our sights on Astronomy Day, slated for Saturday, April 21, of this year. More on that as the date approaches.

The name of our club is the Amateur Telescope Makers of Boston (note the emphasis on "Telescope Makers"). Telescope-making has become a minor part of our club activities, due in part to the availability of commercially-made scopes for modest prices, the dwindling number of members available as instructors, and the need to upgrade the telescope-making facilities at our clubhouse. By establishing a formal committee dedicated to the construction of home-built telescopes, we hope to revive this noble art within the club.

Believe it or not, the time has come to start planning for a new Board to run the club during the 2018-2019 term. As yours truly heads into the sunset****, we'll need a new President to preside over the Board. Slots will also be open for Vice President and Secretary. To that end, we'll need to establish a Nominating Committee to seek out candidates for each office. Until we start actively seeking members to fill these positions, I ask you to seriously consider how you can help ATMoB by assuming a position on the Board. Mull it over on a cloudy night. That'll give you plenty of time to think things out!

Clear Skies,

****From a truly scientific viewpoint, it's impossible for someone to "ride off in the west." A spirited horse can trot at a rate of 8 miles per hour. As it heads west towards sunset at that speed, the earth at our latitude is rotating eastward at 732 miles per hour. So as I ride off into the west, I'm really traveling $732 - 8 = 724$ miles per hour eastward! Now you know why I write astronomy articles and not western novels.

~ Glenn Chaple - President ~

January Meeting Minutes . . .



Rich Nugent *

Summary of the ATMoB meeting held January 11, 2018 at the Harvard-Smithsonian Center for Astrophysics in the Phillips Auditorium. Club President Glenn Chaple called the meeting to order at 8:00 pm.

The Secretary, Treasurer, Membership, Observing, and Clubhouse Reports were presented. For details please see the Starfields Newsletter or the YouTube Video.

Editor:

Secretary's report given by Phil Levine.

Treasurer's report given by Eileen Myers.

Membership report given by Chris Elledge.

Observing report given by Glenn Chaple.

Clubhouse report given by Steve Clougherty.

• Announcements:

Arianna Roberts, participant in the Citizen CATE Experiment for the 2017 total solar eclipse, was highlighted in Glenn Chaple's Observing Basics column in the February 2018 edition of *Astronomy Magazine*. Arianna received funding and equipment training from ATMoB for the August 21st total solar eclipse.

The next ATMoB Board meeting will be held on January 18th at the Westford Clubhouse.

Sky and Telescope is sponsoring a summer internship. For more information contact Science Editor, Camille Carlisle at ccarlisle@skyandtelescope.com

ATMoB members are encouraged to logon and provide feedback for a new trial CfA Website:

<https://w2cx26y5.optimalworkshop.com/treejack/8v3dl4a6>

• New Business:

John Sheff informed the membership that the CfA Public Astronomy Night will not be held in the month of March.

Eileen Myers mentioned that the Action Star Party is scheduled for March 5th. The star party at the Acton Synagogue has been rescheduled for March 17th.

An email was received from a family in Chelmsford, interested in visiting the Westford Clubhouse, before joining ATMoB. Please email Secretary Phil Levine, philipmlevine@gmail.com, to be put in touch.

The guest speaker for the evening was ATMoB's Observing Committee member Rich Nugent. His talk was entitled "Observing Satellites".

Rich began by presenting a historical overview of the first satellites launched into space, which began with Sputnik on October 4, 1957. He noted that Anna Hillier, of ATMoB, was on the roof of the Harvard Observatory as part of Project Moonwatch, and was the first person to spot Sputnik.

<http://www.skyandtelescope.com/sky-and-telescope-magazine/beyond-the-printed-page/remembering-project-moonwatch/>

Rich brought an old Operation Moonwatch bench instrument to the meeting. It is a wide field optical tube which points downwards toward a reflecting mirror.

<http://www.patrickmccray.com/wp/wp-content/uploads/2013/02/MW-team-in-action.jpg>

A number of different satellites types were discussed, including geostationary, military, weather and communications.

Rich mentioned that the best time to observe satellites is in the morning and evening. He listed a number of resources to track and identify satellites: Stellarium, Cal Sky, Heavens Above, and various iphone apps. He suggested that the best method to observe a satellite was to use these resources and anticipate the track of a satellite, point a telescope at an asterism in the approach path, and wait for its passage.

Refreshments for the evening were provided by Bruce Berger.

Glenn Chaple adjourned the meeting at 9:40 pm.

~ Phil Levine - Secretary ~

Board Meeting Summary . . .

January 18, 2018

Attendance: President Glenn Chaple, Vice-President Tom McDonagh, Past President Bernie Kosicki, Treasurer Eileen Myers, Membership Secretary Chris Elledge, Secretary Phil Levine, Members-at-Large Maria Batista, Al Takeda, Bruce Tinkler, Clubhouse Committee Director Steve Clougherty, Observing Committee Chair Bruce Berger, Clamshell Observatory Manager John Maher. Members Phil Rounseville, Bob Toop, Slav Mlch and John Hinz.

Agenda:

ATMoB Website: Discussion on how to change a club user name, password or photo. Current wording of the existing tax deductible definition on the website was deemed satisfactory.

Star Party, Popscope, Outreach Issues: Discussion about possibly combining all into one Outreach Committee. Glenn will

be sending an email to the membership via ATMoB Discuss for feedback.

Observing Committee: Should there be more members?

Mirror Grinding: Should the club establish a Mirror Making Committee? Current status of mirror making discussed regarding the current usage and/or a need for new equipment. Mike Mattei, Tom McDonagh, and Phil Rounseville will be asked to meet and discuss. Glenn to ask if someone from the mirror making group would like to attend future Board Meetings.

Club Archivist: Discussion regarding who has historical materials and where this information is located. Should material be scanned and placed on ATMoB website? Should Starfields Newsletter highlight the clubs historical events from 10, 15, 25 years ago?

Two Person Rule: Clarification of this Clubhouse Rule is needed for safety reasons. There was a discussion about installing a phone land line in the machine shop, and possible purchase of a Automated External Defibrillator (AED) for the Clubhouse. Tom McDonagh, of the "Two Person Rule" subcommittee, will re-write the "Two Person Rule" and submit to the Board for approval.

Workshop reservation system discussed.

Telescope Donations to ATMoB: Future donations will be selectively evaluated for possible inclusion to telescope inventory. The board discussed the possibly of selling some telescopes to raise funds for the Club.

ATMoB Pin, Patch, Decal: The Board determined that no logo changes for these items are necessary. Glenn will contact Paul Valleli for a photo of a previously made club pin.

Shortening of Monthly Business Meeting: Glenn is leaving the club President format of the meeting up to the next incoming President. Phil Levine suggested that the next incoming club Secretary use the abbreviated Secretary Report format as was presented at the January Meeting.

Volunteers for Monthly Meeting Refreshments: The board discussed opening participation to the general club membership.

Club Officers: There will be openings for Club President, Club Vice-President, and Club Secretary when the current term expires.

~ Phil Levine - Secretary ~

Meeting Recordings . . .

The recording of ATMoB meeting #905 is available on YouTube: <https://youtu.be/6MbfDy4Bn-w>

I would like to thank Richard Nugent for allowing us to record his presentation.

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 Gregory Flaherty, Brandon Johnson, James Ritscher, Connor Summers, and Richard Taylor.

As of January 22nd, 2018 we have 307 memberships covering 377 members. This is broken down as follows:

- 160 Regular Members
- 100 Senior Members
- 9 Student Members
- 34 Family Memberships covering 104 Members
- 4 Guest Members

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

~ Chris Elledge - Membership Secretary ~

Clubhouse Report . . .



Joe Tansey cleaning the Ed Knight Observatory. *

January 2018 Clubhouse Report

During the month we held two work parties a week apart. The first on Dec. 30th was attended by 12 volunteers for the pre-New Year's Eve party set up under the direction of Eileen Myers and Al Takeda. The second was held on Saturday, January 6th with a total of 10 members. In addition, Eileen, Al and others returned on New Year's day to clean up after the party.

Snow removal was the priority this month and we greatly appreciate the effort put in by our volunteers. The club owned snow blower malfunctioned during the first work session. John Stodieck took the machine to his local repair shop only to find out that they were backlogged with several weeks of work! John

took matters into his own hands and went ahead and replaced the starter on the blower and returned it to the Clubhouse just in time for the big snowstorm that hit us on January 5th. We were then able to clear the walkways and observatories right after the 15 inch snowfall. Many thanks go out to John for taking the initiative. Other members shoveled the stairways and roof raked the sheds and observatories during that work session.

One additional problem we experienced during the month involved a PVC water pipe and valve freezing and rupturing causing water to be sprayed onto the grinding room floor. Al Takeda handled this problem by replacing the valve during the first work party. The following week we noticed that the cold water stopped flowing. It was determined that the outside frigid air was freezing a section of water pipe leading into the grinding room. After thawing out the pipe with a blow dryer, Al quite cleverly opened up the wall and placed a length of oversized PVC pipe around the supply pipe. He then wrapped insulation around the entire assembly. We are happy to report that the problem is now solved!

As luck would have it our run of bad luck with facility problems was not quite over. Our furnace was randomly shutting off during the cold spell. Fortunately our friends at Healey Oil arrived midweek and replaced an old furnace control box and the heater is coming on as it should.

Many thanks to Eileen Myers, John Reed and Sai Vallabha for handling the lunch prep and clean up.

Thanks to the following members who volunteered during the month of January: Bruce Berger, John Blomquist, Paul Cicchetti, Steve Clougherty, Chris Elledge, Barry Johnson, Dick Koolish, John Maher, Eileen Myers, John Reed, John Stodieck, Art Swedlow, Al Takeda, Joe Tansey and Sai Vallabha.



Paul Courtemanche working on a "fast" f/ratio mirror. *

Important Notice: Mirror making sessions will now take place on **Saturday afternoons beginning at 1:00 pm.** Other times may be scheduled. Check your email on the ATMoB-ANNOUNCE list.

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

Clubhouse Saturday Schedule		
February 3	WORK PARTY # 2 ** John Maher	
February 10	John Panaswich	Jim Gettys
February 17	Bruce Berger	Glenn Meurer
February 24	George Paquin	Tom Wolf
March 3	WORK PARTY # 3 ** Dave Prowten	
March 10	Eileen Myers	Rich Nugent
March 17	Nina Craven	Brian Maerz
March 24	Karl Dean	Mike Hill

** 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	1:00 pm - ##
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 messages posted to ATMOB-ANNOUNCE.	

ATMoB Member Picks . . .

January 2018

- Galactic cluster: NGC 663 in Cassiopeia
- Galaxy: NGC 404 (Mirach's Ghost) in Andromeda
- Multiple star: omicron-2 Eridani
- Carbon Star: S Cephei

"Do you have a list of favorite deep-sky objects you'd like to share with the ATMoB membership? We began a "Member Picks" program where an ATMoB member would list 4-6 of their favorite deep sky targets visible that month. The list would be announced during the Observing Committee report at the monthly meeting." Contact [Glenn Chaple](#).

~ Submitted by Rich Nugent ~

Sky Object of the Month . . .

February 2018

Courtesy LVAS Observer's Challenge***

Messier 41 – Open Cluster in Canis Major

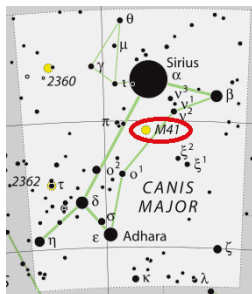
Mag. 4.5; Size 40'



M41. Image by Mario Motta, MD

The open star cluster Messier 41 might not seem like much of an observer's challenge. It's bright enough (magnitude 4.5) to be seen with the unaided eye and is resolvable with binoculars. A small telescope magnifying just 30X will capture about two dozen cluster members scattered across an area slightly larger than a full moon. Large aperture scopes will capture upwards of 100.

One of the cluster's more interesting features is a ruddy star located near the center. I learned about it in William Tyler Olcott's *Field Book of the Skies* – my primary guide during my early days as a backyard astronomer in the mid 1960s and early 1970s. My earliest attempts with a 3-inch f/10 reflector proved disappointing. I expected a ruby red star to dominate the eyepiece field. No such luck, and it wasn't until 1977 that I saw what seemed to be a reddish star near the heart of M41. I wasn't positive this was the star Olcott referred to and wrote, "Bright star in center seems reddish, but this may be a result of prior knowledge." I re-observed M41 with a 4.5-inch f/8 reflector in 2004 and labeled the red star on a drawing I made (see below). Compare it with an image made by Mario Motta using a 6-inch scope.



www.messier-objects.com



Drawing by Glenn Chaple

M41 is easily found just 4 degrees south of Sirius. It was possibly seen by Aristotle around 325 B.C and recorded by the Italian astronomer Giovanni Battista Hodierna around 1654. Situated about 2100 light years away, M41 spans some 25 light years.

***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 \(rogerivester@me.com\)](mailto:rogerivester@me.com) or [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 ~

New Year's Eve Party Wrap Up . . .



It was a very pleasant way to welcome 2018. It was fun talking with old and new friends, who were wearing funny hats, shiny

beads, making noise, dancing, and enjoying eating. Good conversations all around. Watching a super bright and fast moving iridium flare, with Rich Nugent pointing out to newbies what to notice, was exciting. Lively line dancing lead by Julie Kaufmann kept the dancers moving and those watching entertained. Ed Los played traditional Scottish music on his fiddle. Food kept arriving all the time. No one went hungry.



(Clockwise from top left) John and Susi Stodieck, Julie Kaufmann, Debbie and Paul Cicchetti and Phil Rounseville *

Statistics: Over thirty five revelers came to the party. Twelve members came to the setup work party on Saturday. Their efforts made the decorating process go quickly and smoothly. Eight members came to the New Year's Day decoration take down work party, and enjoyed our traditional New Year's Day brunch of bagels, lox, cream cheese, OJ, etc. Julie Kaufmann and Al Takeda worked tirelessly during the party, directing the placement of pot luck dishes to their appropriate stations. Monique Reed kept the food and beverage tables well-ordered and tidy. Marsha Bowman and Debbie Cicchetti helped serve beverages. Thank you to everyone else who lent a hand whenever it was needed.

Some of our regulars did not attend this year, and we missed them. After all, it was 11 degrees and icy. We are looking forward to seeing them for the first time in 2018.



(Left to Right) Phil Rounseville, Julie Kaufmann and Eileen Myers Dancing *



Desserts were "Over the Moon" *

Thank you to those who toiled at the work parties: John Blomquist, Paul Cicchetti, Dick Koolish, Nkosi Muhangi, Eileen Myers, John Reed, Monique Reed, John Stodieck, Art Swedlow, Barry Swenson, Al Takeda and Sai Vallabha.



(Clockwise from top left) Rich Nugent and John Reed, Ray and Marsha Bowman, Monique Reed, and Eileen Myers and John Reed. *



Ed Los playing the fiddle. *

We wish a Happy and Healthy New Year to all ATMob members and friends near and far.

~ **New Year's Eve Party Organizers:**
Eileen Myers, Al Takeda, John and Monique Reed and Julie Kaufmann ~

2018 Astronomical Conventions . . .



NEAF 2017 *

Northeast Astronomical Forum (NEAF)
 April 21 - 22
 Suffern, New York
www.rocklandsstronomy.com/neaf.html

Astronomy Day
 April 21
 TBD

Texas Star Party
 May 6 - 13
 Fort Davis, Texas
www.texasstarparty.org

Riverside Telescope Makers Convention (RTMC) Astro. Expo
 May 24 - 28
 Big Bear City, California
www.rtmcastronomyexpo.com

Cherry Springs Star Party
 June 14 - 17
 Coudersport, Pennsylvania
astrobg.org/CSSP

Stellafane Convention
 August 9 - 12
 Springfield, Vermont
www.stellafane.org/convention



(Left to Right) Dave Kelly and Dave Prowten at Stellafane. *

Model Engineering Show . . .



On Saturday, February 17th from 10:00 am to 4:00 pm, the [New England Model Engineering Society](http://www.nemesis-model-engineering.com) will be presenting the [N.E.M.E.S. Model Engineering show](http://www.nemesis-model-engineering.com). The show will be held at the Charles River Museum of Industry in Waltham, Massachusetts.

Comet C/2016 R2 . . .

Comet C/2016 R2 (PANSTARRS Sky Survey comet) will be within 2 - 3 degrees East of the Pleiades open cluster (M45) in the constellation of Taurus during the first half of February. The faint comet will be a round, diffuse glow at around 10th or 11th magnitude. It should be visible under dark skies with a 5 or 6-inch telescope.



Comet C/2016 R2 in Taurus. Copyright Stellarium.

Editor: * Photos by Al Takeda unless otherwise noted.

March Star Fields DEADLINE
Sunday, February 18th

Email articles to Al Takeda at
newsletter@atmob.org

Articles from members are always welcome.

POSTMASTER NOTE: First Class Postage Mailed February 3, 2018

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

EXECUTIVE BOARD 2017-2018

PRESIDENT:	Glenn Chaple	(978) 597-8465
VICE PRES:	Tom McDonagh	(617) 966-5221
SECRETARY:	Phil Levine	(781) 956-6509
MEMBERSHIP:	Chris Elledge	(781) 325-3772
TREASURER:	Eileen Myers	(978) 456-3937
MEMBERS AT LARGE:	Bruce Tinkler	(781) 862-8040
	Al Takeda	(508) 494-7877
	Maria Batista	(617) 347-3730
PAST PRESIDENTS:		
2012 - 14	Mike Hill	(508) 485-0230
2010 - 12	Bernie Kosicki	(978) 263-2812
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

PUBLIC OUTREACH

STAR PARTY COORDINATOR:
Virginia Renehan starparty@atmob.org

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 see 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.

Heads Up For The Month . . .

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

Jan 31 Full Moon
Feb 7 Last Quarter Moon (Moonrise at midnight)
Feb 15 New Moon
Feb 23 First Quarter Moon (Moonset at midnight)
Mar 1 Full Moon
Mar 5 Mercury 1.4 degrees North of Venus
Mar 9 Last Quarter Moon (Moonrise at midnight)
Mar 11 Daylight Saving Time begins