



## 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. 33, No. 8    September 2021

### This Month's Meeting . . .

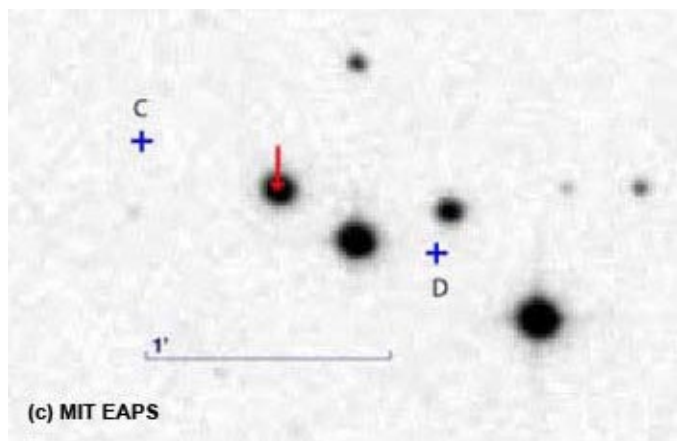
Thursday, September 9<sup>th</sup>, 2021 at 8:00 PM

[Zoom On-line Meeting](#)

All ATMoB meetings scheduled for the Harvard-Smithsonian Center for Astrophysics in Cambridge, MA have been **canceled indefinitely** due to concerns over the [coronavirus](#) outbreak.

We are holding virtual on-line meetings using the Zoom application. Please refer to the [ATMoB website](#) for future meetings. Members should check their email on the ATMOB-ANNOUNCE list for additional information. Please [select this Zoom link to attend the 944th Meeting of the Amateur Telescope Makers of Boston.](#)

### How to Observe and Record Occultations



Occultation of Kuiper Belt Object 55636. Courtesy MIT EAPS

When I think about our two imaging systems, the William Toomey and Mittelman-ATMoB (MAO) observatories, I wonder how far these instruments will take our members. If you've been following the updates at our monthly meetings, you know that the

MAO is being prepared for active duty. We are waiting for several imaging filters to arrive, but the facility has been used for test images and should be up and running soon. At last month's work party, Tom McDonagh and I chatted about increasing the versatility of the Toomey observatory. While both rigs will be capable of taking pretty pictures, they are also available for us to do real science. Like what?

This month's speaker is Richard Nugent. Not our Richard Nugent - the Richard Nugent from Houston, Texas! The one associated with the [International Occultation Timing Association \(IOTA\)](#). Richard's talk will address how to observe and record occultations using backyard telescopes and how occultations are used to discover new double stars, measure the size and shape of asteroids, and update their orbits.

Our speaker graduated from the Department of Astronomy at the University of South Florida/University of Florida in 1979 with a B.S. and M.S. in Astronomy, specializing in positional astronomy. His graduate work was with the world-renowned astronomer, astrometrist and the father of modern astrometry, Heinrich K. Eichhorn. Richard's career at NASA's Lyndon B. Johnson Space Center in Houston, Texas included analyzing satellite data, and in the Shuttle program: flight design, rendezvous maneuvers and instrument pointing to celestial targets along with military applications. He's traveled worldwide on over 150 scientific expeditions collecting scientific data on solar eclipses plus stellar eclipses by asteroids (asteroid occultations).

Does this sound like something you might be interested in doing? No matter how you answered that question, please join us at the September meeting to hear more about this! Hope to see you there.

~ Rich Nugent – President ~

### President's Message . . .

Observing in New England can be challenging. During the short nights of summer, we experience hazy, hot, and humid conditions and, bone-chilling cold during the long winter nights. At least there aren't bugs when it's cold outside! Many folks are limited to weekend observing and some of those nights are washed out by bright moon light so, when our skies are just right for observing, you'll want to be ready! Over the years I've tried to make my observing as easy and rewarding as possible and I thought I'd share some of what works for me.

How often do I clean my optics? Well, almost never! I've owned my 20-inch for nearly 30 years and I recall cleaning the mirror only 3 times! I have both reflectors and refractors that I keep capped to minimize the dust and pollen that can collect on the glass. When there is dust, I use a can of air and a camel-hair brush to gently sweep the glass clean. If the glass is really dirty, I will clean it. With eyepieces and refractor objectives I am always very gentle, so as not to mar the anti-reflection coatings. The overcoat on mirrors is (I think) a bit more durable but I'm still really careful. If you want advice on cleaning your glass, stop by

during one of the work parties and ask...most likely your optics are fine!

Many telescopes allow for alignment of the optical components (collimation), low cost refractors are an exception, but if you can collimate your scope, you should learn how. Once you learn how, it's pretty easy...if you have the right tools. If your mirror doesn't have a center spot, you may want to add one. I use the white reinforcing rings for loose-leaf paper. You can buy these at any office supply store. I make a paper mask to fit over the mirror. Folding this into fourths and cutting the tip of the wedge gives a nice pinhole right in the center of the paper. I place this over the mirror and use a Sharpie® to mark the glass and then center the ring on the mark. The Sharpie® mark can be removed with isopropyl alcohol if you like.

For the actual collimation, some scopes come with a pinhole cap that fits into the focuser. I have sight tubes and a Cheshire eyepiece, but I do like my laser collimators. If the secondary mirror needs adjustment, do it first. Then, adjust the primary mirror. For this step, it's easier if you have a helper. I move my scopes in and out of my garage, so I check the collimation every time I observe. If your scope is stationary, the alignment should hold for quite some time. If you've never done this before, the process can be daunting so it's always best to learn from those who know how. Again, bring your scope to a work party and ask.

Don't forget to align your finder with the main scope – especially after you've adjusted the telescope during collimation. This can be done in daylight by finding a distant object with the main telescope then aligning the finder to the view. Be sure to check that you haven't moved the scope when you tweak the finder. Fine tune it as necessary. Do the finder crosshairs have to be perfectly aligned with the view? No. If you know where the alignment is you're all set. Some folks use finders without crosshairs...right, Steve Clougherty?

I'm a visual observer so when it comes to doing a polar alignment of my equatorial mount, I'm never too worried about hitting the pole perfectly. However, imagers and those using a mount's Go-To function need accurate polar alignment. It's easier said than done. Learn how to it works for your mount and then follow the manufacturer's instructions. Don't let it drive you crazy...practice, practice, practice!

Some equatorial mounts have manual setting circles, which in theory allow you to locate objects not visible to the unaided eyes. One of my first telescopes was a Sears 60mm refractor on an equatorial mount. After several nights of trying (unsuccessfully) to use the setting circles to find Vega, I gave up on them. If I couldn't find Vega, how would I find deep sky objects? Plan B? I bought a star chart and learned the sky. It worked! Today, I can "shoot from the hip" to aim my scope at many deep sky objects. With my Dobsonian and other alt-az mounts, I use my iPhone's compass and tilt meter to aim. It takes practice and is not perfect, but the method will certainly get you into the ballpark.

Today's amateur astronomers have many options for star charts. At the Clubhouse, we have quite a variety of them so visit and look them over to see which one works best for you. I have many

paper atlases and I love each one but what do I use at the telescope? I use a digital star atlas on my iPhone and iPad. I love Sky Safari Pro because it goes very deep and allows me to set the true field of view for each eyepiece/telescope combo I'm using. Also, I can set the limiting magnitude to match the view. This greatly helps with star hopping to objects! And I can look up an object's altitude and azimuth for pointing those Dobs. There are lots of digital atlases out there. Some are free and some are not. Ask members which they like and why. Oh, my favorite paper atlas? For casual observing, Sky & Telescope's *Pocket Star Atlas*. Fantastic. For deeper work, Cambridge University Press's *Interstellarum Deep Sky Atlas*.

Star hopping requires a good finder scope. To get to the right area of the sky I like to use a green laser pointer. I always check for aircraft before firing the laser and I always wait for them to pass and when I do fire up the laser, it's on only briefly! Some folks like to use red dot finders or a Telrad but my neck is too stiff and achy for these. The same goes for straight-through finders! For the sake of comfort, I have outfitted all of my scopes with right angle correct image (RACI) finders. No sore neck and, despite my digital atlas's ability to flip and reverse the chart, I like the left is left, right is right, up is up and down is down view. Try one, you may like it. Oh, one last thing about my finders...they're oversized. Bigger aperture allows you to see fainter stars and that's usually better for star hopping. Also, many deep sky objects can be seen in the finder scope. If you can see it, you own it!

Well, that's enough for this month's newsletter. Keep in mind that the collective experiences of the members of our club are a wonderful resource. All you have to do is ask for help or advice. Hopefully, your observing will become easier and more gratifying which will help you to get outside more often! More to come next month!

As we leave the summer of 2021, I hope you are paying attention to the spread of the COVID Delta variant. Please, be careful. Get vaccinated, wash your hands, be mindful when in group settings, and practice effective social distancing. Be well, my friends!

~ *Rich Nugent – President* ~

## **Annual Picnic - 2021 Canceled . . .**

With The health and safety of our members in mind and in response to the increased threat of COVID due to the highly contagious and virulent Delta variant, the club will not be holding a September picnic this year.

~ *Rich Nugent – President* ~

# July Meeting Minutes . . .

## ATMoB 943rd Meeting Minutes July 8, 2021

Rich Nugent presented the President's welcome and welcomed our new board members.

- Corey Mooney - Vice President
- Mark Helton - Member-at-large
- Cai Kai - Member-at-large

Due to Covid-19 shutdowns we are not sure we'll be able to return to the CfA this year. The rules for the Westford site include that people who are not fully vaccinated must wear masks on site at all times. Fully vaccinated members are required to wear masks in the Clubhouse and enclosed spaces unless eating, drinking, or alone. The possibility of an ATMoB picnic has yet to be explored.

- Alva Couch presented the Secretary's report, including a summary of the inspiring presentation in meeting #942 by Geoff Chester of the United States Naval Observatory.

- Eileen Myers presented the Treasurer's report. About half of the members have renewed so far for this fiscal year, leading to a substantive net inflow. Many thanks to the members who promptly renewed!

- Chris Elledge presented the Membership report and welcomed new member Lawrence Geary.

- Glenn Chaple presented the Observer's report. Venus and Mars a half degree apart on July 12, as well as Mars and Mercury 10 minutes apart on August 18. Rich Nugent announced some new observer-centered mailings, including a Monthly Mini Messier Marathon and a Jupiter Events list with red spot and Galilean moon transits. The July observer's challenge is NGC 6572. The August observer's challenge is Messier 57.

- Steve Clougherty presented the Clubhouse report. 16 volunteers showed up on Saturday, June 19, and the main order of the day was lawn mowing. We also refurbished the telescope shed by adding white vinyl trim board to the bottom, and we expect to stain the whole shed at the next work party. Thanks to Eileen Myers for providing lunch for the work party!

- Maria Batista presented the Website committee report. The first meeting is Thursday, July 15th at 8 pm. The goal of the committee is to update our existing website to create an engaging, modern, and welcoming website for existing and potential members.

Planned activities of the committee include:

- Analyze, inventory, and organize our existing site content.
- Reach out to content experts and committees to re-write or update pages.
- Review other astronomy club websites for ideas and inspiration.
- Review available templates and determine the best fit for us.

- Rich Nugent presented the Outreach report. The Tower Hill Botanical Gardens viewing sessions are planned for Thursday, July 15 and Thursday, August 12. On July 15th, we'll probably only be able to see the moon, while on August 12, Venus will also be visible. Rich also mentioned the possibility of resuming public, in-person star parties in September.

Kelly Beatty reported that libraries in Belmont and Carlisle have interest in organizing star parties. He also reported on the telescope donation program, including overtures to libraries on the South Shore. Chelsea and Wareham libraries have expressed interest in receiving donated telescopes. It might be possible to get MathWorks to fund some telescope donations through their community grant program.

Bruce Tinkler described a live stacking telescope that can be controlled via WIFI, providing the possibility of a no-contact star party.

- Old business:

<https://smile.amazon.com> provides a donation to ATMoB every time you purchase something from Amazon. Check it out.

- New business

A list of ATMoB members giving presentations at this year's Stellafane convention was announced.

## Annual Committee Reports for 2020-2021

Tonight we received annual reports from all subcommittees except the treasurer, who presented her report at meeting # 942.

### Observing Committee Annual Report

Rich Nugent reported that due to Covid-19 restrictions, Westford was mostly closed last year, except for some limited observing sessions in October and the spring, subject to MIT guidelines for social distancing and masking. Glenn Chaple continued monthly observing summaries at the monthly meetings, while Rich Nugent emailed members extended observing suggestions, including the "19 objects to observe this month" series and a guide to Jupiter's red spot and moon transits.

### Outreach Committee Annual Report

The outreach committee reported the placement of two library telescopes, and a hope that star parties will be resumed in the coming year.

### Mittelman-ATMoB Observatory Annual Report

Rich Nugent summarized the report of the Mittelman-ATMoB observatory committee, including activities to make the telescope functional in Lincoln, MA before moving it onsite in Westford, and ongoing activities in Westford to make it fully functional. Al Takeda took the lead in setting up the control room in the Clubhouse Electronics room. Alan Sliski designed interface parts

for the optical stack and supervised their manufacture and installation. Bruce Berger coordinated cabling between the observatory and Clubhouse, and secured donated labor to lay and terminate fiber-optic cables. Arne Hendon of AAVSO helped to configure telescope software, including the “ACP” software that makes the telescope fully autonomous and web-accessible. We expect the observatory to come online in the coming months, and look forward to collaborations between ATMob and local high schools and colleges in utilizing this new and fully web-accessible astronomy resource.

## Presentations by Members

### Kelly Beatty: The *Sky and Telescope* “Flight into Annularity”



Kelly Beatty on Zoom \*

Kelly Beatty described his June 10, 2021 “flight into annularity”. The chartered eclipse flight was arranged by *Sky and Telescope* with the help of Delta Airlines. Delta provided an A319-200 aircraft for the purpose of viewing the June 10 eclipse. The aircraft took off from the Minneapolis - St. Paul airport and flew a 3-hour course that allowed for a maximum viewing time of the annular eclipse for 35 enthusiastic eclipse chasers. Similar flights are planned for future eclipses.

### Mario Motta: Planning for Future Eclipse Trips



Mario Motta on Zoom \*

Mario Motta described the logistics involved in traveling to view future solar eclipses, including the annular eclipse on Oct 14, 2023 and the total eclipse on April 8, 2024. Optimal United States viewing points for the 2024 eclipse are in Texas, due to the path of the eclipse and weather predictions. Hotel and car rental reservations can only be made 11 months in advance, but

conference center room blocks can be reserved now if groups organize these. The possibility of chartering buses was discussed, but rental cars, if one can get them, provide more flexibility.

### Mark Helton: Recent Adventures with Astrophotography



Mark Helton on Zoom \*

Mark Helton described his recent adventures with astrophotography, at his “Great Neck Observatory” in Ipswich, MA. He first showed a photo of the recent partial eclipse, shot on Pavilion Beach across from Plum Island. This was followed by images of the Crab, Ring, Elephant Trunk, Bubble, Flame, and Horsehead, Rosette, Dumbbell, and Eastern and Western Veil nebulae taken with a ZWO ASI533 MC (color) camera and a 6-inch Newtonian. Mark thanked the club members who have helped him with astrophotography over the last four years.

### Important dates:

Thursday, Sept. 9, 2021: next monthly meeting.

Thursday, Sept. 23, 2021: next ATMob Board meeting.

~ *Alva Couch* – *Secretary* ~

## Membership Report . . .

I am pleased to welcome our newest members: Greg Berghorn, Wenhan Chang, Lawrence Geary, Aditya Gupta, Everett Heller, Carlos Johnson, Alexander Lemiszki, Gail Mower, Robert Nick, Carol Swoyer, & Ed Weber

As of August 28th, 2021 we have 360 memberships covering 455 members. This is broken down as follows:

- 149 Regular Members
- 142 Senior Members
- 6 Student Members
- 58 Family Memberships covering 153 Members
- 3 Guest Members
- 2 Honorary Members

Renewals for FY2021-2022 are past due for all members except for members who joined after January 1st this year. Please visit the website at <https://www.atmob.org/renew> to begin your renewal. You may need to login and revisit the link to proceed. If you want a printed newsletter mailed to you each month, then you need to select one of the membership levels that include “with Mailed Newsletter” in the type.



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

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

~ *Chris Elledge – Membership Secretary* ~

## Meeting Recordings . . .

The recording of ATMob meeting #943 is available on YouTube: <https://youtu.be/26hsvENE7Ss>

I would like to thank Kelly Beatty, Mario Motta, and Mark Helton for giving their talks.

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 <https://www.atmob.org/forums>

~ *Chris Elledge - Membership Secretary* ~

## Clubhouse Report . . .



Chris Elledge driving the new riding mower \*

### July and August 2021 Clubhouse Report

Over the summer the Clubhouse committee held two work sessions at the Westford site. Much of the effort revolved around outdoor lawn mowing and trimming. Fortunately, we had a good group of volunteers for both sessions; 15 members for the July 17th session and 19 members for the August 14th work session.

During the August work party we took delivery of a new Cub Cadet 42-inch rider mower. This mower cuts the mowing time to a third of what it was when we had three volunteers using the power-push mowers. In order to accommodate this new piece of equipment we spent a good deal of time cleaning out the far barn as well as the metal utility shed. Room was made for the rider mower in the far barn and the two remaining power mowers are located in the metal shed, along with our collection of rakes and shovels. Surplus equipment consisting of a fertilizer spreader,

Craftsman chipper and a large two-wheeled blower are available for any member to have on a first come, first serve basis.

During the previous 16 months our observatories and telescopes have been lying dormant, so our priority was to bring each facility up to operational status. Phil Rounseville took the lead and carefully cleaned the corrector plates on the Meade 16-inch, Celestron 14-inch and the Meade 10-inch telescopes. Other volunteers cleaned and organized each one of our observatories and we are happy to announce that all are back online! We are eager to provide training to any member who is interested in operating our club telescopes and observatories. The following members can be contacted for those who would like to operate the following telescope/observatory this coming season:

- Ed Knight roll-off  
Meade 16-inch SCT: John Maher  
25-inch StarSplitter Dob: Steve Clougherty
- William Toomey Observatory  
14-inch Celestron SCT/Paramount imaging system: Tom McDonagh, Bruce Berger
- Clamshell Observatory  
10-inch Meade SCT: John Maher, John Stodieck
- Chase Hutch Observatory  
17.5-inch Dob: Steve Clougherty

We would like to thank the following members for their efforts over the summer months:

Maria Batista, John Blomquist, Marsha Bowman, Phillip Carney-Goodrich, Paul Cicchetti, Steve Clougherty, Tom Consi, Alva Couch, Chris Elledge, Maureen Galevi, Chase Green, Joe Henry, Eric Johansson, Dick Koolish, Ed Los, John Maher, Avery Mangum, Seth Mangum, Tom McDonagh, Corey Mooney, Eileen Myers, Rich Nugent, John Reed, Phil Rounseville, Steve Scampini, Alan Sliski, John Stodieck, Art Swedlow and Al Takeda,

Our next work session will be held on Saturday, Sept. 18.

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

## Astronomy Day Event . . .

New England Sci-Tech plans to host a public Astronomy Day event on Saturday, October 9, 4-9 pm, at 16 Tech Circle, Natick. As in past years, we would love to have ATMob co-host with us and bring telescopes, mirror grinding, and ATMob promotional materials. Current plans include indoor astronomy activities and planetarium shows, a Galileo show, as well as outside telescopes. See website for tentative schedule and to fill out the volunteer form if you would like to help: <https://nescitech.org/astronomy-day/>

For questions, contact Bob Phinney or Rusty Moore at [info@nescitech.org](mailto:info@nescitech.org).

Best regards,

Bob Phinney, President New England Sci-Tech Inc.

~ *Submitted by Bob Phinney* ~

## Newsletter Announcement . . .

ATMoB has resumed mailing printed newsletters beginning with the June newsletter; however, we will only do so for memberships that renew this year while paying a required \$14 additional fee for mailed newsletters. We will be using a service to handle the printing and mailing, and this fee will cover the expense to the club. When renewing online starting on June 1st, select the appropriate membership listing "with Mailed Newsletter" on the end to be charged the fee and receive the newsletter by mail.

Any member who paid the \$5 donation for postage in 2020 may request a refund from ATMoB since we were unable to handle the printing and mailing for that period of time. If you want to request a refund, please contact our Treasurer, Eileen Myers.

As always, any member with a financial hardship may request a waiver of dues. Contact the Membership Secretary for further information.

~ *Chris Elledge – Membership Secretary* ~

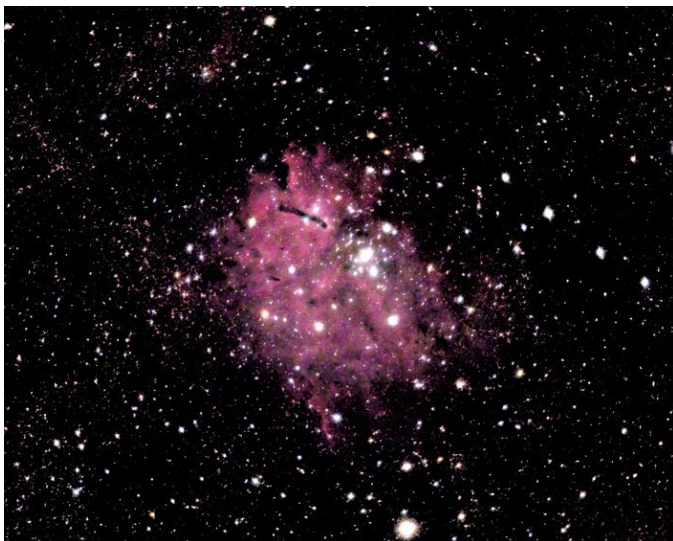
## Observer's Challenge\*\* . . .

September, 2021

NGC 6823/20 Open Cluster/Emission Nebula in Vulpecula

Magnitude: 7.1,

Cluster Size: 7', Nebula Size: 40' by 30'



Wide-field view of NGC 6823/6820. Canon Ra, 600mm f/4.0 lens, ISO 1600, 60 x 2 min. = 2 hrs. total exposure, North up. Image by Doug Paul

A popular celestial designation for clear, moonless September evenings is M27, the "Dumbbell Nebula." Next time you visit the

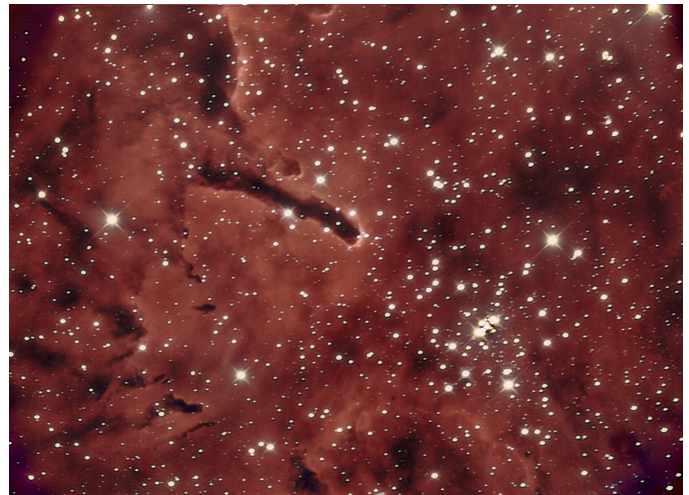
Dumbbell, take a side trip three degrees west and slightly north to the open cluster NGC 6823 and its surrounding nebula NGC 6823.

The 2000.0 coordinates for NGC 6823 are R.A. 19h43.2m, Dec. +23°18'. I star-hopped to that location using a 10-inch f/5 Dobsonian-mounted reflector and a magnifying power of 80X. My starting point was alpha ( $\alpha$ ) Vulpeculae - a wide optical double situated about 3 degrees south of Albireo (beta [ $\beta$ ] Cygni).

Before arriving at NGC 6823, I came across an eye-catching half-degree-long chain comprised of 6 magnitude 9 and 10 stars. It began about a half degree west of the cluster and ended just north of it. NGC 6823 itself proved to be a neat little group dominated by a bright double star. In all, I saw some dozen stars down to about 14th magnitude.

A scan of the online edition of the Washington Double Star Catalog uncovered a stellar pair of magnitudes 9.4 and 10.4 and 37 arc-second separation at NGC 6823's coordinates. This is most likely the double I saw. The brighter component has a spectral class of O6.5V, which makes sense as NGC 6823 is dominated by hot, young stars.

What about NGC 6820? There was no sign of the surrounding nebula, even when I used a narrowband filter. Resources note that it is extremely difficult to see visually. This is understandable when you consider that William Herschel discovered the cluster in 1785 and the nebula remained unknown until seen by Albert Marth nearly 80 years later. A noticeable feature of NGC 6820 is a dark trunk-like pillar similar to the "Pillars of Creation" seen in the Hubble image of the Eagle Nebula (M16) in Serpens.



Close-up view of NGC 6823/6820. Taken with 32-inch f/6.5 scope, with ZWO ASI6200 camera, using 2 hours H-alpha, 1 hour each OIII and SII NB filters. Processed with Pixinsight. Image by Mario Motta, MD.

NGC 6823 and NGC 6820 are approximately 6000 light years from the earth. The cluster is about 50 light years in diameter.

NGC 6572 is approximately 5000 light years away. This translates to an actual diameter of  $\frac{1}{3}$  light year.



Chart A. Finder Chart for NGC 6823/6820. [theskylive.com](https://theskylive.com)

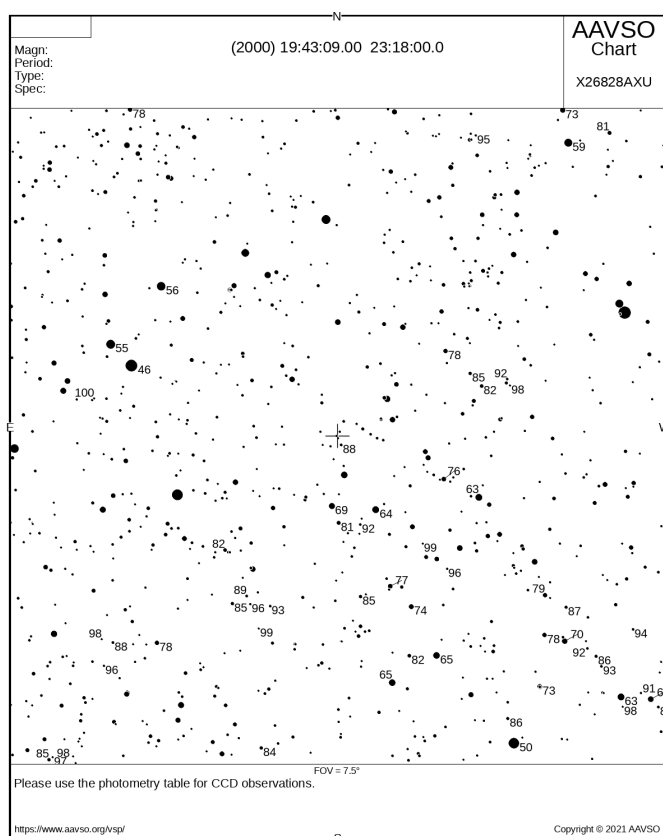


Chart B. Finder chart from AAVSO's [Variable Star Plotter \(VSP\)](https://www.aavso.org/vsp/). Numbers are stellar magnitudes, decimals omitted. Bright star at upper right is alpha Vulpeculae. Field size is 4° by 3° with north up. Stars plotted to 10<sup>th</sup> magnitude.

**\*\*The purpose of the Observer's Challenge is to encourage the pursuit of visual observing. It is open to everyone who is interested. If you'd like to contribute notes, drawings, or photographs, we'll be happy to include them in our monthly summary. Submit your observing notes, sketches, and/or images to Roger Ivester ([rogerivester@me.com](mailto:rogerivester@me.com)). To find out more about the Observer's Challenge or access past reports, log on to <https://rogerivester.com/category/observers-challenge-reports-complete/>.**

*~ Submitted by Glenn Chaple ~*

## Outreach . . .

This summer, I have been providing telescopic views of the moon at the Tower Hill Botanical Gardens in Berlin, MA. They host member-nights on Thursdays during the summer. Of course, daylight limited our viewing to the moon and Venus. I used my Burgess 5-inch refractor on June 17 and July 15. The two August evenings were clouded out. These evenings are very casual with 50-100 folks enjoying the view. I'd like to thank ATMobB member, Maureen Galevi and Aldrich Astronomical Society member Bruce van Graff for helping. I had a really nice time at the Gardens and I'm sure we will be asked back next summer!

Looking forward, we have the following events scheduled:

- **(CANCELED)** Gleason Public Library, Carlisle, MA: Saturday, September 11
- Belmont Public Library: Monday, September 13

Also, there are star parties being planned at the Willard House & Clock Museum in Grafton and for the Westford Cub Scouts. If you are fully vaccinated and comfortable with these types of gatherings, please consider volunteering. Of course, each of these events may be cancelled due to COVID restrictions. I'll email updates on the atmob-discuss mailing list.

*~ Rich Nugent – President and Outreach Chair ~*

## AstroAssembly 2021 . . .

**Saturday, October 2, 2021**

[In-person and Zoom attendance](#)

Seagrave Memorial Observatory

47 Peepoad Road, North Scituate, RI

This is a reminder that AstroAssembly 2021 is approaching quickly; October 2 is less than four weeks away. [If you want to order lunch or participate via Zoom, please register before Noon on Friday, October 1.](#)

**Note: We are not holding a Friday evening program this year. Nor will there be a Saturday evening banquet and speaker. Instead, the observatory will be open for observing by attendees on Saturday Night. Masks will be required for indoor activities.**

*~ Submitted by Linda Bergemann: Skyscrapers, Inc. Amateur Astronomical Society of Rhode Island ~*

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

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**September Star Fields DEADLINE**

**Sunday, August 22<sup>nd</sup>**

**Email articles to Al Takeda at**

[newsletter@atmob.org](mailto:newsletter@atmob.org)

**Articles from members are always welcome.**

\*\*\*\*\*



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

#### EXECUTIVE BOARD 2021-2022

PRESIDENT: Rich Nugent (508) 935-8158

VICE PRES: Corey Mooney

SECRETARY: Alva Couch

MEMBERSHIP: Chris Elledge (781) 325-3772

TREASURER: Eileen Myers (978) 456-3937

MEMBERS AT LARGE: Alan Sliski  
Kai Cai  
Mark Helton

#### PAST PRESIDENTS:

2018 - 20 Tom McDonagh (617) 966-5221

2015 - 18 Glenn Chaple (978) 597-8465

#### COMMITTEES

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

OBSERVING: Bruce Berger (978) 387-4189

#### NEWSLETTER

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ASSOCIATE EDITOR: Eileen Myers

#### 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:** Zoom On-Line Meetings until further notice. Meetings held the second Thursday of each month (September to July) at 8:00 PM. For meeting details go to [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 CLOSED. 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.

## Heads Up For the Month . . .

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

Sept 6 New Moon

Sept 13 First Quarter Moon (Moonset at midnight)

Sept 13 Mercury at greatest eastern (evening) elongation (27 degrees)

Sept 14 Neptune at opposition

Sept 20 Full Moon

Sept 22 Autumnal Equinox

Sept 28 Last Quarter Moon (Moonrise at midnight)

Oct 6 New Moon

Oct 7-8 Draconid meteors

Oct 12 First Quarter Moon (Moonset at midnight)

Oct 20 Full Moon