



STAR STUFF

Ford Amateur Astronomy Club Newsletter

Star Stuff

This newsletter is published eleven times per year by:

Ford Amateur Astronomy Club
P.O. Box 7527
Dearborn, MI 48121-7527

Officers

President:	Liam Finn
Vice President:	John McGill
Secretary:	Jessica Edwards
Treasurer:	Mike Bruno

Departments

Webmaster:	Liam Finn
Newsletter:	Tim Campbell
Equipment:	Dennis Salliotte
Speakers:	Sandra Macika

Club Information

The Ford Amateur Astronomy Club meets on the fourth Thursday of each month, except for the combined November/December meeting which meets on the first Thursday of December – at Henry Ford College Administration Services and Conference Center in Dearborn.

President's Corner

by Liam Finn

Another Year Over

2019 has been a very busy year for the club. We have seen many new members join who share our love for astronomy. We also have been very busy with our public events as they have seen an increased number of club members attending our beginner nights and an increase in non-members attending with their own telescopes. Our plan to start moving the beginner nights to the next weekend if the weather was bad has also paid off so I think we should continue this process in 2019.

December Meeting

Our December meeting does not follow our usual format. It will start with a few announcements, and then open the silent auction. While the auction is ongoing we also open the pot luck.

Please remember to bring a dish to share, make it finger foods, nothing with sauces, as they are hard to clean from the carpet and we need to leave the room clean and tidy.

Next Public Beginner's Night

We have two winter observing sessions at Island Lake State Recreational area. These will both be at Kent Lake in the parking Lot.

The first is on January 12th starting at 7pm until 11pm. This is titled *Snowmen and Stars*.

The second is February 9th. This ties in with a park event which is a lantern walk through the park. The lantern walk starts at 5pm and ends at

Club Information

Refer to our website for a map and directions:

www.fordastronomyclub.com

Observing

The FAAC primary observing location is Spring Mill Pond located within the Island Lake State Recreation Area near Brighton, Michigan. The Club maintains an after-hours permit. Contact the club for information on how to enter or exit the park in the event that the main gate is locked.

The club also has use of a private observing site near Gregory Michigan. See the FAAC Yahoo Group for more information.

Inquiries can be directed to info@fordastronomyclub.com

Membership

Membership is open to anyone with an interest in amateur astronomy. The FAAC is an affiliate of the Ford Employees Recreation Association (FERA).

Fees

Annual - New Members: \$30
Annual - Renewals: \$25
(\$30 if not renewed by Jan 31)

Benefits

Membership includes the Star Stuff newsletter, discounts on

8pm. Our observing will be between 7pm and 11pm. The event is entitled *Lantern Light and Star Light*.

Both of these events have been added to the club calendar.

Sirius Award

The Sirius Award is awarded to a member of the club who has gone above and beyond to help with any and all aspects of the club to make it successful, be that through outreach, volunteering at events, being an officer in the club or being a good ambassador for the FAAC and astronomy.

If you have someone in mind please send your nominations to president@fordastronomyclub.com. Please include the person's name and a list of the reasons why you think they deserve this award. This is your one time a year that you can recognize an outstanding member of the club.

All submissions need to be in by the January club meeting. Once the nominations are closed the officers of the club will meet and review the submissions.

Please note that existing officers for 2018 and elected officers for 2019 cannot be included as well as anyone who has received the award in the past. If any of these members are nominated the nomination will be ignored

Get your thinking caps on and help the club recognize an outstanding member.

Open 2019 Officer Position

We have one officer position that will be open for 2019, Jessica Edwards, our secretary, is term limited and can no longer be club secretary. We have a search committee searching for possible nominees but if any club member is interested in running for the club secretary position please feel free to attend our elections in January and submit your name. If only one person is interested then there will be no need for a ballot at the election but if there are more than one person interested then a ballot will be held.

Any member of the club can run for any of the officer positions so even though the Secretary position will be open, any club member can run for the other officer positions in the club.

magazines, discounts at selected area equipment retailers, and after-hours access to the Island Lake observing site and private observing sites.

Astronomy or Sky & Telescope magazine discounts are available by contacting the FAAC club treasurer at treaasurer@fordastronomyclub.com for the discount form. The form should be sent to the respective publisher with your subscription request and payment. Do not send money directly to FAAC.

The FAAC has a pool of equipment including telescopes, cameras, and other gear used for outreach. Much of the gear can be borrowed for personal use in the interest of furthering your knowledge and experience in astronomy.

Please see the equipment list for further information.

Club Wear

Club logo-wear (embroidered with club logo) can be ordered directly through LLBeanBusiness.com

See the Yahoo Group for ordering information and instructions on how to request the correct logo.

Communication

The FAAC uses Yahoo Groups for our email distribution list (both formal and informal discussion.)

Observing nights & locations (scheduled and unscheduled as weather permits), equipment

NASA Night Sky Notes: Observe Apollo 8's Lunar Milestones

By David Prosper

December marks the 50th anniversary of NASA's Apollo 8 mission, when humans first orbited the Moon in a triumph of human engineering. The mission may be most famous for "Earthrise," the iconic photograph of Earth suspended over the rugged lunar surface. "Earthrise" inspired the imaginations of people around the world and remains one of the most famous photos ever taken. This month also brings a great potential display of the Geminids and a close approach by Comet 46P/Wirtanen

You can take note of Apollo 8's mission milestones while observing the Moon this month. Watch the nearly full Moon rise just before sunset on December 21, exactly 50 years after Apollo 8 launched; it will be near the bright orange star Aldebaran in Taurus. The following evenings watch it pass over the top of Orion and on through Gemini; on those days five decades earlier, astronauts Frank Borman, Jim Lovell, and Bill Anders sped

towards the Moon in their fully crewed command module. Notice how the Moon rises later each evening, and how its phase wanes from full on Dec 22 to gibbous through the rest of the week. Can you imagine what phase Earth would appear as if you were standing on the Moon, looking back? The three brave



Caption: Earthrise, 1968. Note the phase of Earth as seen from the Moon. Nearside lunar observers see Earth go through a complete set of phases. However, only orbiting astronauts witness Earthrises; for stationary lunar observers, Earth barely moves at all. Why is that?

questions, events, outreaches, etc. are normally discussed via this list.

Join by visiting groups.yahoo.com/for/forastronomyclub to request membership.

Articles & Submissions

Your submissions to Star Stuff are welcome! Send your story and/or images to the editor at: starstuff@forastronomyclub.com

Observatory

The FAAC maintains and operates the Hector J Robinson Observatory (HJRO) at Lincoln Park Schools.

The observatory houses a 14" Celestron C14 Schmidt Cassegrain Telescope as well as other instruments and can be used by club members.

The observatory is adjacent to the athletic field situated between the Lincoln Park Middle School and High School buildings near

1701 Champaign Rd.
Lincoln Park, MI 48146

The school system has designated four "key-holders" within the club who have the ability to open the observatory.

Call (313) 444-5850 to learn when the observatory is opening (or request an opening).

astronauts spent 20 sleepless hours in orbit around the Moon, starting on Dec 24, 1968. During those ten orbits they became the first humans to see with their own eyes both the far side of the Moon and an Earthrise! The crew telecast a holiday message on December 25 to a record number of Earthbound viewers as they orbited over the lifeless lunar terrain; "Good night, good luck, a merry Christmas and God bless all of you - all of you on the good Earth." 50 years later, spot the Moon on these holiday evenings as it travels through Cancer and Leo. Just two days later the astronauts splashed down into the Pacific Ocean after achieving all the mission's test objectives, paving the way for another giant leap in space exploration the following year.

The Geminids, an excellent annual meteor shower, peaks the evening of December 13 through the morning of the 14th. They get their chance to truly shine after a waxing crescent Moon sets around 10:30 pm on the 13th. Expert Geminid observers can spot around 100 meteors per hour under ideal conditions. You'll spot quite a few meteors by avoiding bad weather and light pollution if you can, and of course make sure to bundle up and take frequent warming breaks. The Geminids have an unusual origin compared to most meteor showers, which generally spring from icy comets. The tiny particles Earth passes through these evenings come from a strange "rock comet" named asteroid 3200 Phaethon. This dusty asteroid experiences faint outbursts of fine particles of rock instead of ice.

You can also look for comet 46P/Wirtanen while you're out meteor watching. Its closest approach to Earth brings it within 7.1 million miles of us on December 16. That's 30 times the average Earth-Moon distance! While passing near enough to rank as the 10th closest cometary approach in modern times, there is no danger of this object striking our planet. Cometary brightness is hard to predict, and while there is a chance comet 46P/Wirtanen may flare up to naked eye visibility, it will likely remain visible only via binoculars or telescopes. You'll be able to see for yourself how much 46P/Wirtanen actually brightens. Some of the best nights to hunt for it will be December 15 and 16 as it passes between two prominent star clusters in Taurus: the Pleiades and the V-shaped Hyades. Happy hunting!

Catch up on all of NASA's past, current, and future missions at nasa.gov

Planetarium

FAAC members are volunteer operators for the Hammond Planetarium at Henry Ford College.

Planetarium shows are free and open to the public.

Four seasonal planetarium shows are offered per year with the stars and constellations of the current season as well as a multi-media presentation featuring select planets.

Public planetarium shows are normally offered each Wednesday at 7:30pm and every 2nd Saturday at 3:00pm – however there are some exceptions. Please see the planetarium schedule for specific times. It is posted here:

fordastronomyclub.com/hfc-planetarium

Social Media

The FAAC has several social media accounts. Members are encouraged to join and follow them.

Facebook

facebook.com/FordAstronomyClub

Twitter

twitter.com/Ford_Astro

MeetUp

meetup.com/Ford-Amateur-Astronomy-Club

Secretary's Report

by Jessica Edwards

27 September General Meeting

Member Observations and What's Up

Approximately 170 people attended the event hosted at Mayberry State park. Skies allowed for the observing of the Moon and Planets. Trying to observe the Lunar X is tricky. It is only visible for 3 to 4 hours each month. There are conflicting reports on when it is to happen with 14 December at 5:22 pm and 12 February at 8:49 pm being best guesses. Mercury, Jupiter, Saturn, Mars, Uranus, and Neptune are visible in the evenings with Venus now a morning object. On 14 Nov Venus and Spica will be about 1° apart.

Main Talk – The Zowada Observatory – Jerry Dunifer

The Zowada observatory was donated to Wayne State University by Russ Carroll. It is a 20" PlaneWave telescope located in southwest New Mexico. This instrument is very good at tracking changes in the brightness of objects in the night sky including supernovae and echo mapping of the accretion discs of super massive black holes at the center of galaxies. Upgrades to the filters are planned so more data can be gathered.

Equipment

The FAAC maintain an equipment pool of telescopes, binoculars, cameras, and other equipment used for special events. Much of this equipment is available to members.

Each piece of equipment is either stored by a club volunteer who offers to be the caretaker of the item, or by the person who last borrowed the item.

Most equipment can be borrowed for one-month durations. At the end of the month, the borrower can extend the loan if no other members have requested it.

Some items are reserved for special events use and are not normally available to be borrowed.

If you are interested in borrowing an item, please contact either the current holder of the equipment, or contact the club equipment manager, Dennis Salliotte, at equipment@fordastronomyclub.com

Note: Items in **RED** text are scheduled to be auctioned at the December club meeting.

Item	Held by	Item	Held by
Telescopes		Eye Pieces	
4" Dobsonian (Harold's donation)	George Korody	EPK1 Eyepieces, Filters & Accessories	Liam Finn
TK1 Coronado Personal Solar Telescope (Doublestack) w/Meade Autostar Goto Mount	John McGill	Binoculars	
TK3 Celestron 130mm Newtonian w/goto mount	Liam Finn	BK3 15x70 Binoculars w/monopod mount	Bob MacFarland
TK4 Celestron 90mm Refractor w/manual mount	Liam Finn	BK4 20x80 Binoculars w/alt-az goto mount	Sandra Macika
TK5 4.5" Reflector on Fitz GEM mount	Bob MacFarland	BK5 25x70 Binoculars w/tripod adapter	Tim Dey
TK6 8" Orion XT8i Dobsonian	Jed & Jacob Datema	Display Items	
TK7 TPO 8" f/4 Newtownian Astrograph (OTA Only - no mount)	Jim Barnes	Astronomy Event Sign (3' x 6')	Gordon Hansen
Presentation Tools		Astronomy Event Signs 18x24" (x8)	Liam Finn
Projector (older)	Jim Frisbie	PVC Display Board - Folding	Sandra Macika
Projector (newer)	Gordon Hansen	Banner - Small (24" x 32")	George Korody
Projection Screen 8'	John McGill	Banner - Medium (24" x 72")	Sandra Macika
Projection Screen 6'	Liam Finn	Banner - Large (32" x 16')	George Korody
Bullhorn	George Korody	Tri-Fold Presentation Boards	Don Klaser
Speaker System w/Wireless Mic	Liam Finn	Other	
DVD Player	Jim Frisbie	Canopy (10' x 10')	Liam Finn
Demonstration Tools		Pop Cooler	Hayden Barrett
Weigh on Planets Scale	George Korody	Equipment Etching Tool	Dennis Salliotte
Lunar Phase Kit	Bob MacFarland	TA Sky Quality Meter	Liam Finn
100' Scale Model Solar System Kit	Bob MacFarland	TA Sky Atlas 2000.0	Tim Dey
		TA Orion Telescope Binoviewer	Liam Finn

Item	Held by
Imaging Cameras	
C1 Celestron NexImage Solar System Imager model #93712	Gordon Hansen
C2 Meade Deep Sky Imager Pro III w/Autostar Suite	Gordon Hansen
C3 Orion StarShoot Deep Space Video Camera NTSC #52185 w/video capture device #52178	Gordon Hansen
C4 Meade Electronic Eyepiece w/video cable for monitor or TV w/3.5" video monitor	Gordon Hansen
C5 Orion StarShoot Deep Space Video Camera II #52195 and Orion StarShoot iPhone Control for Deep Space Video Camera II #52195	Gordon Hansen
C6 Canon 60Da Astrophotography DSLR and accessories	Tim Dey
Other Imaging Equipment	
CA1 Rigel Systems Spectroscope	Gordon Hansen
CA2 Celestron 1.25" to T-Adapter (male) #93625	Tim Dey
CA3 Canon EOS Deluxe Astrophoto kit for Canon EOS mount, T-thread adapter and variable 1.25" extender	Tim Dey
CA4 Orion StarShoot LCD-DVR #58125 2.5" LCD screen	Gordon Hansen
CA5 Celestron Canon EOS T-ring adapter #93419	Tim Dey
Special Event Items - Not available for Loan Out	
BK1 Orion BT-100 Binocular telescope w/hard case, Orion VersaGo h.d. manual Alt/Az mount w/ Vixen dovetail head and Vixen style binocular holder bracket	Ken Anderson
BK2 Zhumell 25x100 Binoculars, hard case, & Zhumell TRH-16 tripod w/soft fabric bag	Sandar Macika
TAK1 Night Vision Image Intensifier for telescopes (2" barrel size)	George Korody

Astronomy at the Beach Needs your Help!

by Tim Campbell

Although it's only December, the Great Lakes Association of Astronomy Clubs (GLAAC - the organization that plans Astronomy at the Beach) has already started preparations for next year.

Astronomy at the Beach, founded in 1996, is the largest multi-club public outreach event in the area with typical attendance numbers at around 5000 visitors per year. Several years ago when David Eicher, Chief Editor for Astronomy Magazine, attended as the keynote speaker, he mentioned that while he gets invited to numerous astronomy events around the world, he has never seen an annual public outreach on this scale. This may be the largest event of it's kind.

GLAAC now needs your help. There are two ways you might be able to help.

Need #1: Volunteers

GLAAC needs volunteers. There are numerous tasks required to pull off the event. Many activities don't need any particular skills ... just a few people who can help perform them. These might include things like helping to to setup chairs in the big tent or helping to place road signs. Some tasks require some organization and planning skills.

In past years, GLAAC was able to count on quite a number of volunteers to make light work of everything. This past year, however, volunteer participation has dropped off. Last year's event was primarily planned and staffed by the five officers of GLAAC and just a few volunteers. This can be overwhelming for such a small number of people.

At the most recent GLAAC planning meeting, we recognized the need to get more club members actively

engaged. We still have nearly 10 months before the next event, so we do have time. But you should expect to hear many more requests for help. We'd like to get each GLAAC affiliated club to designate at least two delegates to attend planning meetings, and many more to help make light work of the various tasks necessary to make a successful event.

Need #2: Officers (Urgently)

GLAAC needs to field at least two candidates willing to accept an officer role in the organization. This request is a bit complex so I'll try to net this out.

GLAAC was not an officially recognized legal entity. Everything was conducted as a group of volunteers acting with a common vision. However GLAAC needs funding for the event. There are numerous costs involved for things such as tent rentals, speaker expenses, equipment rentals, printing expenses, and so on. Since event attendance is free, GLAAC relies on annual donations to fund operations. Donations are much easier to come by if an entity has legal 501(c)(3) charitable status with the IRS. But this meant that GLAAC needed to incorporate as a legal entity to start to the request process. This, in turn, means the organization needs a set of by-laws and a governing board.

To ensure that the board would consist of experienced members, one of the by-laws has a clause that to be eligible to serve as an officer, a person must have actively participated in the previous year and must have attended at least 60% of the planning meetings. This clause has resulted in a unanticipated problem. It turns out, there were zero volunteers (other than the current GLAAC officers) who attended enough meetings to qualify. There were volunteers — just not any that attended a minimum of 60% of all meetings. This means that under the current by-laws, only the current five officers are able to be elected as officers for next year. Two of the officers, however, do not wish to run

for re-election. This creates a bit of a constitutional-crisis in that GLAAC needs to find two officers but the current by-laws disqualify everyone who might be willing to run.

The GLAAC board met on December 2nd to propose and pass an amendment to the by-laws to allow for an accommodation in this situation. The new wording that has been passed, allows any member in good-standing with a GLAAC-affiliated club to be nominated for an officer position should an insufficient number of persons be available based on the 60% rule.

And this brings us to the point...

We need to find at least TWO candidates willing to run for an officer position in GLAAC. Officer elections take place in January.

What does this mean? If you paid your dues to join the Ford Astronomy Club... you qualify to serve as an officer on the GLAAC board.

The GLAAC board consists of five officers (with a very brief description)

- President - Sets agendas and runs meetings
- Vice President - Runs meetings in the absence of the president. Also handles connections to the park and regional science institutions that support GLAAC.
- Secretary - maintains records: keeps meeting minutes; roster of member bodies; roster of club delegates and contact info. Sends meeting notifications.
- Treasurer - keeps financial records & receipts of income & expenditures as well as donations-in-kind.
- Communications Director - responsible for oversight of press and media interactions, schools, and also digital communication such as Facebook, etc.

Officer can, of course, delegate. An officer isn't

necessarily expected to do everything themselves... but they do agree to be responsible for making sure their duties are handled (either by themselves or by another volunteer).

Consider *any position* to be available. While two current officers have indicated that they do not plan to run for re-election (the current president and current secretary), the three remaining officers have expressed that they are willing to run for re-election and may consider running for a different position.

How much work is this?

In years past, GLAAC meant on one Sunday per month, in person, at the park nature center.

But in these modern times... they meet via web-meeting. This means you meet from the comfort of your own home while sitting at your computer via web-conferencing software.

Additional effort varies ... but remember that officers can delegate.

How you can help!

There are several ways you can help keep Astronomy at the Beach alive.

1. Join the GLAAC [groups.io](https://groups.io/g/glaac) mailing list

You're probably already on the [groups.io](https://groups.io/g/glaac) Ford Club mailing list. GLAAC uses the same system. Just visit <https://groups.io/g/glaac> and subscribe. You'll be able to see and interact with rest of the GLAAC volunteers. You'll be able to learn when meetings are taking place (and how to join them.)

2. Join the web meetings!

Anyone can join in the web meetings. The meetings are online (currently using software called "Bluejeans" ... you can join via a website or by

downloading and installing the client on your computer, tablet (such as an iPad) or smartphone.

You don't have to volunteer to "do" anything... just join, be aware. You may learn that GLAAC has some relatively simple needs where you could easily volunteer for something. Joining the meeting doesn't imply a commitment.

3. Consider running for office

Due to the current situation in which no willing nominees are available who currently fulfill the normal requirements (attendance at at least 60% of the prior year's planning meetings), *any* member in good-standing with *any* member club is currently qualified to be nominated to run. You may

nominate yourself. Nominations do not require an additional person to 2nd the nomination.

4. Volunteer to help

As previously mentioned... though you don't have to volunteer, there are numerous volunteer opportunities that are simple tasks... GLAAC just need people willing to help.

GLAAC has a rich 22 year history of delighting the public and inspiring curiosity among young and old alike. Most of you reading this have been involved by bringing a telescope to the event. Consider being an officer or a volunteer to keep this rich history going for years to come.

Classifieds

StarStuff will run classified advertisements for club members. Each classified advertisement will be run in up to two consecutive editions of the StarStuff Newsletter. Submit your listing to starstuff@fordastronomyclub.com

Gary Gibson

Unitron 128 kit	\$650	Excellent
Unitron 115 kit	\$350	Great
Shrine Manon kit (60x700)	\$150	Excellent
Homemade 4 1/4" f/13 reflector on GEM	\$300	Excellent
Meade 395 90x1000 OTA	\$100	Good
Sears 4420 kit 50x600	\$75	Excellent
Tasco 9TE-5 kit	\$75	Excellent
Tasco 12TE kit	\$100	Great
Tasco 14TE kit	\$100	Excellent
10" f/7 homemade reflector on Meade RG mount	\$850	VGC
Unitron Unihex with caps	\$120	VGC

All items require local pick-up only (Southgate, MI). I do not want to ship these items.

Contact Gary Gibson at Garyth50@aol.com