



# 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:	Cheri Grissom
Treasurer:	Mike Bruno

## Departments

Webmaster:	Liam Finn
Membership:	Doug Bauer
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*

The year is at an end, with Black Friday deals on Astronomy equipment, (buy now so our spring will have clear skies) to overeating turkey and getting ready for the holidays. It has been a very productive year for the club with new members and busy outreach events. While January is my last meeting as president of the club I know that the future of the club is assured and strong and it's all thanks to you, our membership. Keep up the fantastic work and stay involved. If you have not attended an outreach event before, attend in 2020, you don't need a telescope just help others and enjoy.

## Astronomy Night for Scouts

We had an astronomy night on Friday October 25th at the Sandhill Soaring Club (i.e. Richmond Field) on Friday, October 25, 2019. It was a cold yet fun event even if the weather did not fully cooperate. It was also a first for me and many others to observe at our observing site at Richmond Airfield. On a clear night it would be a great location and worth the drive so consider it next time you want some private observing time or want to image.

## Board Meeting

There is no Board Meeting in December; our next will be January 9th.

## December 5th Meeting

Each year we combine our November and December meetings into one. The combined meeting will be December 5th at 7pm. This meeting is a meet and greet social event and a potluck so remember to bring a dish to

## Club Information

Refer to our website for a map and directions:

[www.fordastronomyclub.com](http://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. Club members can contact any club officer for procedures to enter or exit the park when the main gate is locked.

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

Inquiries can be directed to [info@fordastronomyclub.com](mailto: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 magazines, discounts at selected

pass. We try to keep this as more finger foods as they cause less of a mess. See John McGill's email to the group forum.

## 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](mailto: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 2019 and elected officers for 2020 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 who has gone above and beyond to highlight our club and bring the love of astronomy and science to the public.

## 2020 Officer Positions

Two officer positions are being vacated for 2020. I as president am term limited and will be stepping down as president at the January meeting to whomever the lucky person is to take up the reins and bring the club to new heights for the future. We also have the Treasurer position which is again term limited, Mike Bruno has done an astounding job as treasurer but needs to step aside and let someone else take over the clubs finances. We have a search committee searching for possible nominees but if any club member is interested in running for any 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 in a position then a ballot will be held.

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 [treasurer@fordastronomyclub.com](mailto:treasurer@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](http://LLBeanBusiness.com)

See the [groups.io](http://groups.io) files section for ordering information and instructions on how to request the correct logo.

## Communication

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

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

Any member of the club can run for any of the officer positions so even though the Treasurer and President are open positions it is still OK for someone to put their name into any of the club officer positions.

# Secretary's Report

*by Cheri Grissom*

## FAAC General Meeting – October 24, 2019

Meeting called to order at 7:00 p.m. by President Liam Finn. VP John McGill was absent. Introduction of members and guests. We had approximately 33 present. Explanation of our mentoring program and our equipment loaner program.

### *Member Observing Experiences:*

Sean Pickard has been doing some imaging with his new refractor. Gary Gibson enjoyed attending the event at the Edsel and Eleanor Ford House, which several other members also attended. Tim Campbell reported doing some imaging at the Great Lakes Star Gaze. Tim also went up to Lutz County Park in Livingston County with Liam Finn to take some sky readings and look around with binoculars. Cheri and Rick Grissom went to the Spiritus Sanctus Academy event, along with several other members. The skies were not very cooperative, but quite a few students, parents, and teachers enjoyed views of Jupiter, Saturn, and the moon through breaks in the clouds. Arica Flores recently attended a women's retreat, brought her telescope along, and was able to give a number of women their first-ever view of Jupiter and Saturn. George Korody has been imaging Comet Borisov, a visitor from outside of our solar system. Dennis Salliotte attended Great Lakes Star Gaze and reports that Thursday was a good night, Friday it rained, and Saturday was a gorgeous night. Doug Bauer was recently up north near Cross Village, where he had nice views of the night sky. Sandra Macika has been out twice this month with her meteorite collection, once with the Farmington Community Stargazers, and another time with a Girl Scout gathering.

### *Club Equipment:*

Dennis Salliotte gave an overview of our program. See him or the caretaker as listed in our newsletter if there is any equipment you are interested in borrowing.

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

Join by visiting <https://groups.io/g/FordAstronomyClub> to request membership.

## Articles & Submissions

Your submissions to Star Stuff are welcome! Send your story and/or images to the editor at: [starstuff@fordastronomyclub.com](mailto:starstuff@fordastronomyclub.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).

## Treasurer's Report:

Mike Bruno reports we have just over \$7,000.

## Club Business/Projects/Committees/Events:

Our elections will be coming up at the January meeting, and thanks to the hard work by our nominating committee (Jim Frisbie, Gordon Hansen, Dennis Salliotte), we have a candidate for each of the four officer positions. They are: President, Mike Bruno; Vice President, John McGill; Secretary, Cheri Grissom; Treasurer, Arica Flores. Of course, nominations will remain open up to and including the January meeting. If no one else runs for any of the four positions, we will not need to have a formal election. We had a discussion about how being the president of the club is a tough job. We are grateful to those who volunteer their time and effort for the position, and we are also fortunate to have a number of good people doing the job of various "department heads" who help the club run smoothly. Their names are all listed in our monthly newsletter. Liam has agreed to continue working on our social media and website, even though he is term-limited and will be stepping down from the presidency.

Liam again gave an explanation of what our annual Sirius Award is, and reminded everyone that we will need nominations no later than our January meeting. He also reminded us that the combined November/December meeting will be a potluck social. Please bring a dish to pass. Easy finger foods preferred, as we don't really have a good way to clean up in the auditorium, and there is no place to keep dishes hot or cold.

## What's Up:

Gordon Hansen listed our upcoming meeting dates. The Mercury transit of the sun is November 11. Our club will be going to the U of M Dearborn roof parking lot to observe. The Leonid meteor shower peaks November 18. Mercury's greatest western elongation is November 28. The Northern Taurids will be active in mid-November. Gordon also listed some comets that may be viewable. Morning planets are Mercury and Mars; the others are viewable at different times in the evening. With the changing of the seasons, the eastern sky should start to have some interesting DSOs. Sandra Macika advised that the Farmington Community Stargazers will be holding Telescopes 101, for people thinking of maybe getting their first telescope for Christmas, at the Nature Center, Heritage Park, Farmington, November 9. Jim Barnes advised us that the

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## 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](http://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](https://facebook.com/FordAstronomyClub)

### Twitter

[twitter.com/Ford\\_Astro](https://twitter.com/Ford_Astro)

### MeetUp

[meetup.com/Ford-Amateur-Astronomy-Club](https://meetup.com/Ford-Amateur-Astronomy-Club)

## Scheduled Club Events

Month	Date	Sunset	Location
April	4th	8:02pm EDT	Island Lake
May	2nd	8:34pm EDT	Island Lake
May	30th	9:02pm EDT	Island Lake
June	27th	9:13pm EDT	Island Lake
July	25th	8:59pm EDT	Island Lake
August	8th Club Picnic Meteors & S'mores	8:43pm EDT	Island Lake
August	22nd	8:22pm EDT	Island Lake
September	25th & 26th Astronomy at the Beach	7:24pm EDT 7:22pm EDT	Island Lake
October	24th	6:36pm EDT	Maybury State Park

## Upcoming Club Meeting Topics & Speakers

Meeting	Speaker	Topic
January 23rd	TBD	TBD

The November-December combined general club meeting is a social event. The club does not schedule a speaker for this event.

Speakers for 2020 meetings will be updated after the 1st of the year.



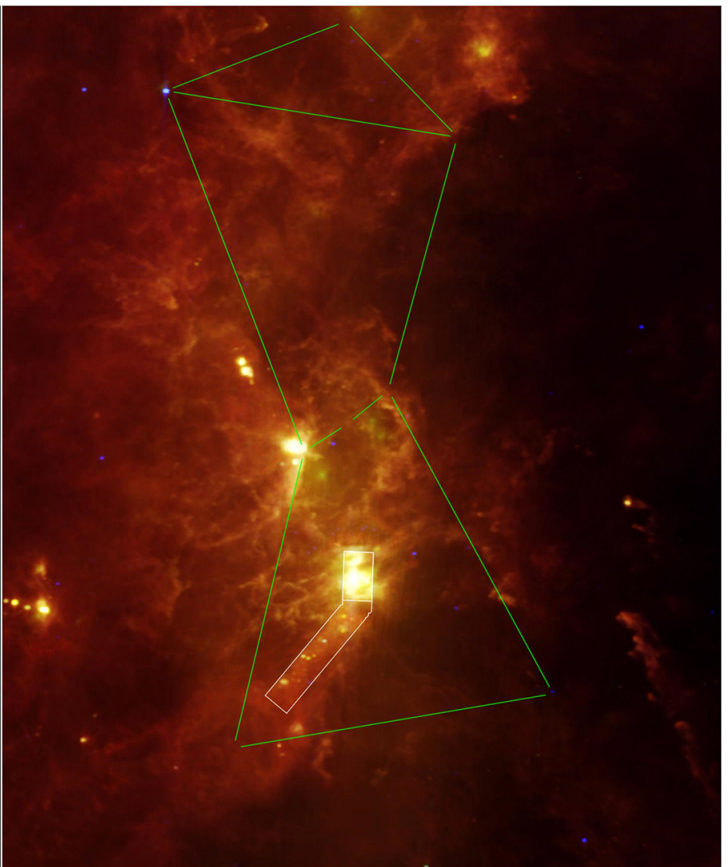
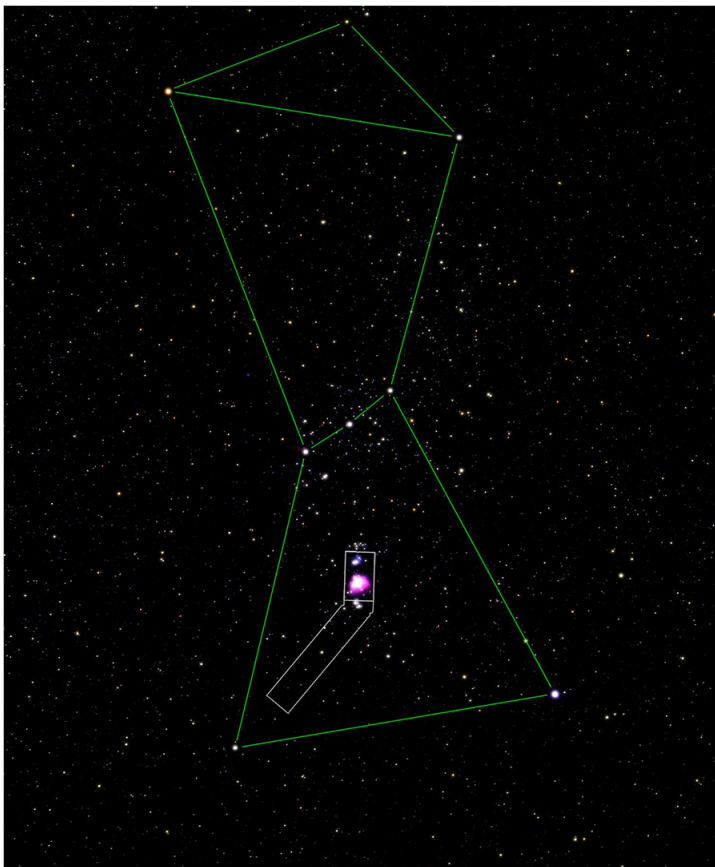
# The Orion Nebula: Window Into a Stellar Nursery

*by David Prosper*

Winter begins in December for observers in the Northern Hemisphere, bringing cold nights and the return of one of the most famous constellations to our early evening skies: Orion the Hunter!

its visibility since it's roughly 1,344 light years away! Baby stars, including the famous "Trapezium" cluster, are found inside the nebula's whirling gas clouds. These gas clouds also hide "protostars" from view: objects in the process of becoming stars, but that have not yet achieved fusion at their core.

The Orion Nebula is a small window into a vastly larger area of star formation centered around the constellation of Orion itself. NASA's Great Observatories, space telescopes like Hubble, Spitzer,



Orion is a striking pattern of stars and is one of the few constellations whose pattern is repeated almost unchanged in the star stories of cultures around the world. Below the three bright stars of Orion's Belt lies his sword, where you can find the famous Orion Nebula, also known as M42. The nebula is visible to our unaided eyes in even moderately light-polluted skies as a fuzzy "star" in the middle of Orion's Sword. M42 is about 20 light years across, which helps with

Compton, and Chandra, studied this area in wavelengths we can't see with our earthbound eyes, revealing the entire constellation alight with star birth, not just the comparatively tiny area of the nebula. Why then can we only see the nebula? M42 contains hot young stars whose stellar winds blew away their cocoons of gas after their "birth," the moment when

*Cont'd on page 8*

## 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](mailto:equipment@fordastronomyclub.com)

Item	Held by	Item	Held by
<b>Telescopes</b>		<b>Display Items</b>	
TK1 Coronado Personal Solar Telescope (Doublestack) w/Meade Autostar Goto Mount	Jessica Edwards	Astronomy Event Sign (3' x 6')	Gordon Hansen
TK5 4.5" Reflector on Fitz GEM mount	Bob MacFarland	Astronomy Event Signs 18x24" (x8)	Liam Finn
TK6 8" Orion XT8i Dobsonian	Sean Pickard	PVC Display Board - Folding	Sandra Macika
TK7 TPO 8" f/4 Newtownian Astrograph (OTA Only - no mount)	Gary Gibson	Banner - Small (24" x 32")	George Korody
TK8 20" f/5 Obsession Dob, Ladder & EP Kit	Liam Finn	Banner - Medium (24" x 72")	Sandra Macika
<b>Presentation Tools</b>		Banner - Large (32" x 16')	George Korody
Projector (older)	Jim Frisbie	Tri-Fold Presentation Boards	George Korody
Projector (newer)	Gordon Hansen	<b>Other</b>	
Projection Screen 8'	John McGill	Canopy (10' x 10')	Liam Finn
Projection Screen 6'	Liam Finn	Pop Cooler	Sean Pickard
Bullhorn	George Korody	TA Sky Quality Meter	Liam Finn
Speaker System w/Wireless Mic	Liam Finn	<b>Demonstration Tools</b>	
DVD Player	Dennis Salliotte	Weigh on Planets Scale	George Korody
		Lunar Phase Kit	Bob MacFarland
		100' Scale Model Solar System Kit	Bob MacFarland
		NSN Meteorite (Outreach) kit	Sandra Macika

Item	Held by
<b>Imaging Cameras</b>	
C2 Meade Deep Sky Imager Pro III w/Autostar Suite	Gordon Hansen
C6 Canon 60Da Astrophotography DSLR and accessories	Tim Dey
<b>Other Imaging Equipment</b>	
CA1 Rigel Systems Spectrascopes	Gordon Hansen
C7 Canon EOS EF 70-200mm f/1.4L IS USM lens & tripod mounting ring (for Canon EOS cameras)	Gordon Hansen
Rokinon 8mm f/3.5 Fish-Eye Lens (Canon EOS Mount)	John McGill
<b>Special Event Items - Not available for Loan Out</b>	
BK2 Zhumell 25x100 Binoculars, hard case, & Zhumell TRH-16 tripod w/soft fabric bag	Sandra Macika
TAK1 Night Vision Image Intensifier for telescopes (2" barrel size)	George Korody

### *Orion Nebula (Cont'd from page 6)*

they begin to fuse hydrogen into helium. Those gas clouds, which block visible light, were cleared away just enough to give us a peek inside at these young stars. The rest of the complex remains hidden to human eyes, but not to advanced space-based telescopes.

We put telescopes in orbit to get above the interference of our atmosphere, which absorbs many wavelengths of light. Infrared space telescopes, such as Spitzer and the upcoming James Webb Space Telescope, detect longer wavelengths of light that allow them to see through the dust clouds in Orion, revealing hidden stars and cloud structures. It's similar to the infrared goggles firefighters wear to see through smoke from burning buildings and wildfires.

Learn more about how astronomers combine observations made at different wavelengths with the Night Sky Network activity, "The Universe in a Different Light," downloadable from [bit.ly/different-light-nsn](https://bit.ly/different-light-nsn). You can find more stunning science and images from NASA's Great Observatories at [nasa.gov](https://nasa.gov).



*Secretary's Report (Cont'd from page 4)*

club has been invited to a Boy Scout pack meeting that will be held at Richmond Field, in Gregory, on October 25, where the scouts will be having a combination aviation/stargazing event.

*Main Speaker:*

Jon Blum, longtime member of our club and several other astronomy clubs, gave a presentation on "Astronomy Tourism." Jon and his family and/or friends have traveled extensively on astronomy-related vacations to many locales in the United States and elsewhere. Jon highlighted these trips for us, with photos and information. Jon has served as his own travel guide many times but has also participated in group astronomy tours put on by "Sky and Telescope" magazine and other organizations. He has traveled to many places within the continental US, as well as Hawaii, and in countries as diverse as Iceland, China, Denmark, and Chile, visiting observatories, planetariums, museums, and various space and science-themed destinations. Jon closed by telling us of some locations he would still like to visit, including the prime meridian in Greenwich, England, so he can stand with one foot in each hemisphere, and of course, maybe someday, the Moon!

**October Board Meeting Summary**

(Please note that these summaries published each month are a condensed and abbreviated form of the full slate of topics and discussions that take place at our board meetings. Full board meeting minutes are taken each month and kept for club records.)

Our board meeting was held on November 7, 2019. All board members were present, as well as six additional members. Our final general meeting for the year will be the combined November/December potluck, on December 5.

Mike Bruno reports we currently have around \$7,000 in the treasury. We have been getting new members on a very regular basis all year.

The club has been invited to the U of M Dearborn roof parking structure to observe the Mercury transit. However, the weather forecast looks bad, so anyone planning on attending should watch their Groups.io email to see whether the event will proceed.

State-Wide Astronomy Night for 2020 will be held on April 17. Club Beginners' Nights dates for 2020 were approved. Our banquet date for 2020 is tentatively set for April 25. We will try to get the same location. Several of our members visited EMU's new science building at their invitation to see about the possibility of holding some of our events there, such as the Conference and Swap Meet. Unfortunately, the parking situation makes it unworkable.

We had a discussion about possibly having some hands-on tech discussions at some of our upcoming general meetings and/or our Conference and Swap Meet.

**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](mailto:starstuff@fordastronomyclub.com)