



# 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
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*

### First Outreach Event

Our first outreach event of 2019 was successful despite the cold and the park cancelling the lantern walk. It has set the stage for the remainder of the year.

### Annual Conference & Swap Meet

Reserve the date for the FAAC annual Astronomy Conference and Swap Meet. The Sixteenth Annual FAAC Astronomy Conference & Swap Meet will be held on the Henry Ford College Campus in Dearborn Michigan on March 23rd. It will be Co-Hosted by the Henry Ford College Amateur Astronomy Club and the Ford Amateur Astronomy Club. There will be General Astronomy Presentations, Technical Talks for Amateur Astronomers, a Swap Meet, and Planetarium Shows. The event starts at 9am and runs until 3pm

The first presentations begin at 9:30am and the last one starts at 1:30pm. Planetarium shows at 10:00 am, 11:30 am & 1:00 pm

**Admission: \$5.00**  
(children 15 and younger – Free / must be accompanied by an adult)  
**Sales Table: \$15 in advance, or \$20 at the door as available**  
(one admission ticket included).

**Advanced Table Registration ends Mar 1, 2019**

If you want to sell some old astronomy equipment buy a table. If you looking for something used but new to your astronomy kit bring your cash.

## 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. 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 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

## Outreach Events

**April 12:** Outreach event at Spiritus Santus Academy, Plymouth 8pm start time – Scopes Needed

**April 12:** SWAN Night at HFC. Start at 7pm Ending at 11 pm

**April 13:** Beginners night at Spring Mill Pond, starting at 7pm

I know we have a conflict on April 12th, I think we can cover both events by dividing our resources. If we put a few scopes at each location (weather permitting) we can make both events successful.

## Secretary's Report

*by Cheri Grissom*

### January General Meeting

Meeting called to order. Member and guest introductions were made. Explanation of our mentoring program.

**Member Observing Experiences:** Almost everyone had a chance to observe at least part of the recent lunar eclipse. Several members observed meteors from the Quadrantids shower. There were a couple of sundog sightings this past month, as well as a circumzenithal arc.

**Club Equipment:** Our sale at last month's meeting was a success. All but three items that were offered for sale now have new homes.

**What's Up:** Gordon Hansen and Brian Kutscher shared some very nice lunar eclipse photos. The Lunar X is expected to be visible on February 11. Comet 46P Wirtanen is fading but still visible in our skies. There will be a nice conjunction of Venus and Saturn in the morning sky on February 18. February is also a great month for the attractions in and around Orion.

**Club Business/Projects/Committees/Events:** Calendars are still available for purchase. Contact Mike Bruno. Our annual Conference and Swap Meet is scheduled for March 23, 9 a.m. to 3 p.m. There was discussion about our banquet date, with the options being May 17, 18, or 19. Members were asked to vote, and May 17 was chosen.

**Elections:** President, Liam Finn; Vice President, John McGill; and

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Stuff newsletter, discounts on 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](mailto: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](http://LLBeanBusiness.com)

See the Yahoo Group 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

# Hexagon at Night, Quartet in the Morning

*by David Prosper*

The stars that make up the Winter Hexagon asterism are some of the brightest in the night sky and February evenings are a great time to enjoy their sparkly splendor. The Winter Hexagon is so large in size that the six stars that make up its points are also the brightest members of six different constellations, making the Hexagon a great starting point for learning the winter sky. Find the Hexagon by looking southeast after sunset and finding the bright red star that forms the “left shoulder” of the constellation Orion: Betelgeuse. You can think of Betelgeuse as the center of a large irregular clock, with the Winter Hexagon stars as the clock’s hour numbers. Move diagonally across Orion to spot its “right foot,” the bright star Rigel. Now move clockwise from Rigel to the brightest star in the night sky: Sirius in Canis Major. Continue ticking along clockwise to Procyon in Canis Minor and then towards Pollux, the brighter of the Gemini twins. Keep moving around the circuit to find Capella in Auriga, and finish at orange Aldebaran, the “eye” of the V-shaped face of Taurus the Bull.

Two naked-eye planets are visible in the evening sky this month. As red Mars moves across Pisces, NASA’s InSight Mission is readying its suite of geological instruments designed to study the Martian interior. InSight and the rest of humanity’s robotic Martian emissaries will soon be joined by the Mars 2020 rover. The SUV-sized robot is slated to launch next year on a mission to study the possibility of past life on the red planet. A conjunction between Mars and Uranus on February 13 will be a treat for telescopic observers. Mars will pass a little over a degree away from Uranus and larger magnifications will allow comparisons between the small red disc of dusty Mars with the smaller and much more distant blue-green disc of ice giant Uranus.

Speedy Mercury has a good showing this month and makes its highest appearance in the evening on February 27; spot it above the western horizon at sunset. An unobstructed western view and binoculars will greatly help in catching Mercury against the glow of evening twilight.

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weather permits), equipment 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).

# Scheduled Club Events

Month	Date	Sunset	Location
April	12th Statewide Astronomy Night	8:11pm 7-11pm Talks, Planetarium, & Viewing	Henry Ford College Science Building
April	12th	8:11pm 7:00pm Setup	Spiritus Sanctus Academy Outreach
April	13th	8:12pm	Island Lake Spring Mill Pond
April	14th Indoor Exhibit	12noon-1:30pm	Michigan Outdoor Adventure Center
May	11th Int'l Astronomy Day	8:43pm	Island Lake Spring Mill Pond
June	8th	9:07pm	Island Lake Spring Mill Pond
July	6th	9:12pm	Island Lake Spring Mill Pond
August	10th FAAC Club Picnic Metemors & S'mores	8:41pm	Island Lake Spring Mill Pond
September	TBD Astronomy at the Beach		Island Lake Kent Lake Beach
October	5th Int'l Astronomy Day	7:08pm	Mayberry State Park?
November	11th Mercury Transit	7:20am-1pm	TBD

## 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)

# Upcoming Club Meeting Topics & Speakers

Meeting	Speaker	Topic
February 28th	Jonathan Kade	Venus Missions
March 28th	Dr. Jerry Dunifer, Prof. Emeritus at Wayne State University Dept. of Physics	A Tour of Chile with Sky & Telescope Magazine
April 25th	Diane Hall	Soviet Moon Program
May 23rd	Jim Shedlowsky	Arizona - A Great Place for Astronomy
June 26th	Dr. Nour Raoiafi NASA Chief Scientist Parker Solar Probe	Parker Solar Probe
July 25th	Mike O'Dowd	Grumman's Lunar Module and Simulating the first moon landing
August 22nd	Dr. Karen Collins	TESS Mission
September 26th	Jim Shedlowsky	The Evolution of Giant Telescopes
October 24th	Jenny Pon	Space Ghosts

## February Talk Details

### Satellites of Love: Missions to Venus by Jonathan Kade

Venus is our sister planet, and understanding its history and evolution is probably important for understanding Earth's past and future. In recent years, Mars has gotten all the attention (and funding), but it was not always this way. In this presentation, Jonathan Kade will review humankind's past explorations of the veiled planet and look forward to possible future missions.

### Bio:

Jonathan Kade is a long-time member of the Warren Astronomical Society and currently serves as their First Vice President. He is a visual observer, a star hopper, a sometimes-astronomical sketcher, and a recovering cosmology aficionado.

## 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	John McGill	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	Jed & Jacob Datema	PVC Display Board - Folding	Sandra Macika
TK7 TPO 8" f/4 Newtownian Astrograph (OTA Only - no mount)	Jim Barnes	Banner - Small (24" x 32")	George Korody
<b>Presentation Tools</b>		Banner - Medium (24" x 72")	Sandra Macika
Projector (older)	Jim Frisbie	Banner - Large (32" x 16')	George Korody
Projector (newer)	Gordon Hansen	Tri-Fold Presentation Boards	George Korody
Projection Screen 8'	John McGill	<b>Other</b>	
Projection Screen 6'	Liam Finn	Canopy (10' x 10')	Liam Finn
Bullhorn	George Korody	Pop Cooler	Hayden Barrett
Speaker System w/Wireless Mic	Liam Finn	TA Sky Quality Meter	Liam Finn
DVD Player	Dennis Salliotte	<b>Demonstration Tools</b>	
<b>Eye Pieces</b>		Weigh on Planets Scale	George Korody
EPK1 Eyepieces, Filters & Accessories	Liam Finn	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
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
CA5 Celestron Canon EOS T-ring adapter #93419	Tim Dey
<b>Special Event Items - Not available for Loan Out</b>	
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

### *Hexagon/Quartet (continued from page 3)*

The morning planets put on quite a show in February. Look for the bright planets Venus, Jupiter, and Saturn above the eastern horizon all month, at times forming a neat lineup. A crescent Moon makes a stunning addition on the mornings of February 1-2, and again on the 28th. Watch over the course of the month as Venus travels from its position above Jupiter to below dimmer Saturn. Venus and Saturn will be in close conjunction on the 18th; see if you can fit both planets into the same telescopic field of view. A telescope reveals the brilliant thin crescent phase of Venus waxing into a wide gibbous phase as the planet passes around the other side of our Sun. The Night Sky Network has a simple activity that helps explain the nature of both Venus and Mercury's phases at [bit.ly/venusphases](http://bit.ly/venusphases)

You can catch up on all of NASA's current and future missions at [nasa.gov](http://nasa.gov)



Caption: The stars of the Winter Hexagon  
Image created with help from Stellarium



*Secretary's Report (continued from page 2)*

Treasurer, Mike Bruno have all agreed to run for their respective offices for 2019. Our Secretary, Jessica Edwards, was term-limited and so unable to run again at this time. Cheri Grissom had previously been contacted by the nominating committee and agreed to run for that position. The floor was opened for any additional nominations. None being heard, a motion was made, seconded, and passed to accept the slate of four nominees.

Main Speaker: Dr. Dale Partin, Adjunct Professor of Astronomy, Macomb Community College. "Measuring the Speed of Light Using Jupiter and Io." For five years beginning in 2013, Dr. Partin undertook the project of measuring the speed of light using the same methods that were first used in the 1600s. It's much harder than you would imagine! In 1610, Galileo made observations of Jupiter and some nearby "stars," eventually realizing he was seeing four objects that were orbiting Jupiter. Jupiter's four Galilean moons are precision clocks with fixed periods.

Fifty or so years later, using painstaking measurements of Io being eclipsed by Jupiter, Ole Roemer and others were able to make the light speed calculation well within the ballpark of modern measurements. In good humor, Dr. Partin described the challenges he encountered in his efforts, including sometimes having to get up and go outside at two or three in the morning, equipment problems, watering eyes from the cold, forgetting to check his calendar or set an alarm ahead of time, and, of course, the endless Michigan clouds. After five years of dedication, Dr. Partin was able to arrive at a speed of light with an error rate of around 10 percent, as the astronomers from history did, but he feels that Arizona would have been a better location for the study!

## 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)

## February Board Meeting Summary

Our board meeting was held on February 7th, 2019. President Liam Finn was absent, all other board members present, six additional members present.

Financial report was provided by Mike Bruno. Membership report was provided by Doug Bauer. There are a number of members who have not paid 2019 dues. An email reminder will be sent out. Club equipment report was provided by Dennis Salliotte. The Sirius Award was discussed. The deadline for submissions has passed, and Liam will notify board members of the nominees.

Our 2019 Conference and Swap Meet is approaching fast. It will be March 23, 2019, at Henry Ford Community College. Our annual banquet will be on May 17, 2019. It was decided that we will have cocktail hour starting at 6:00 p.m. and dinner served at 7:30 p.m., a half hour later than usual, to allow for people working on Friday. Location is Tanglewood Golf and Country Club, in South Lyon.

Discussion about adding a club observing night in March, either the 2nd or the 9th. It will be weather-dependent. More information will follow.

Sandra spoke about the needs of GLAAC and AATB for volunteers. GLAAC needs a vice president and secretary, and much help is needed to make AATB a success. Discussion about our monthly speakers. It was agreed that the mix of topics and speakers we have been having is a good balance.