



# 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*

### Astronomy at the Beach

Astronomy at the Beach is always a fun event for astronomers and the public. This year's event was no exception. There were 48 telescopes on the beach on Saturday, I believe slightly less on Friday and the overall numbers reported is 5000 members of the public attended.

This always has been and continues to be an amazing event. For those who attended, I hope you had as much fun as I did. For those who have yet to attend this annual event, I highly recommend it to all.

I hope our new members plan on attending it in future as it does highlight the love the members of the public have in astronomy as we clearly see from our own club events but this is highlight my the numbers of the public that attend AATB each year to not only look through telescopes but to ask questions of the astronomers and attend the amazing presentations in the big tent each year.

I would like to make a few special call outs for this event.

Diane Hall GLAAC President without whose leadership this event would not happen

Sandra Macika GLAAC VP who is involved in the planning and fund raising to make the event happen

A Second call out to Sandra as she also plans, manages and schedules everyone at the FAAC Table for the event. This is no easy task and I commend her drive and enthusiasm to make this successful.

Joe Valez GLAAC Treasurer who manages the funds for the event and works to keep the free event on budget

## 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 Yahoo 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

Shannon Murphy GLAAC Secretary who not only does the secretaries job but is involved in making so many other things happen, too many to list.

Brian Ottum GLAAC Communications who gets the word out about AATB to everyone, communicates with the clubs to ensure they are aware, distributes the media for the event and ensures the world knows the event is happening.

There are many others in the background, beyond the board that are heavily involved in making this event a success and as club president I would like to thank each and every one of you for all your hard work. If any members of the FAAC would like to be involved in the planning of the AATB event please contact me and I will be happy to put you in touch with the right person.

## Next Public Beginner's Night

Our next club public beginner's night is on Saturday October 13th at Maybury State Park. We do one event each year at this park and it is fun. The park is located on the south side 8 mile road between Beck and Napier

We will setup by the baseball diamonds which is on the left as you enter the park. We start at 7pm so it may be a good idea to get there a little before 7 to setup. This is our last public event for 2018 so let's hope for clear skies and let's go out with a bang

## Possible New Event in January at Island Lake

We are in talks with Island Lake State Recreational Area regarding a winter Astronomy event. We used to do Ice Days at Lake Erie Metro Park but seeing as that's no longer an option for the club, ILSRA has asked if we would be interested in doing an event with them. Keep this in mind for early next year. I will post details once we have confirmed a date with the park.

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 [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 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

## 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 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.

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

Join by visiting [groups.yahoo.com/fordastronomyclub](https://groups.yahoo.com/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).

# Observe the Moon

*By Jane Houston Jones and Jessica Stoller-Conrad*

This year's International Observe the Moon Night is on Oct. 20. Look for astronomy clubs and science centers in your area inviting you to view the Moon at their star parties that evening!

On Oct. 20, the 11-day-old waxing gibbous Moon will rise in the late afternoon and set before dawn. Sunlight will reveal most of the lunar surface and the Moon will be visible all night long. You can observe the Moon's features whether you're observing with the unaided eye, through binoculars or through a telescope.

Here are a few of the Moon's features you might spot on the evening of October 20:

Sinus Iridum—Latin for "Bay of Rainbows"—is the little half circle visible on the western side of the Moon near the lunar terminator—the line between light and dark. Another feature, the Jura Mountains, ring the Moon's western edge. You can see them catch the morning Sun.

Just south of the Sinus Iridum you can see a large, flat plain called the Mare Imbrium. This feature is called a mare—Latin for "sea"—because early astronomers mistook it for a sea on Moon's surface. Because the Moon will be approaching full, the large craters Copernicus and Tycho will also take center stage.

Copernicus is 58 miles (93 kilometers) across. Although its impact crater rays—seen as lines leading out from the crater—will be much more visible at Full Moon, you will still be able to see them on October 20. Tycho, on the other hand, lies in a field of craters near the southern edge of the visible surface of the Moon. At 53 miles (85 kilometers) across, it's a little smaller than Copernicus. However, its massive ray system spans more than 932 miles (1500 kilometers)!

And if you're very observant on the 20th, you'll be able to check off all six of the Apollo lunar landing site locations, too!

In addition to the Moon, we'll be able to observe two meteor showers this month: the Orionids and the Southern Taurids. Although both will have low rates of meteors, they'll be visible in the same part of the sky.

The Orionids peak on Oct. 21, but they are active from Oct. 16 to Oct. 30. Start looking at about 10 p.m. and you can continue to look until 5 a.m.

## 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)

With the bright moonlight you may see only five to 10 swift and faint Orionids per hour.

If you see a slow, bright meteor, that's from the Taurid meteor shower. The Taurids radiate from the nearby constellation Taurus, the Bull. Taurids are active from Sept. 10 through Nov. 20, so you may see both a slow Taurid and a fast Orionid piercing your sky this month. You'll be lucky to see five Taurids per hour on the peak night of Oct. 10.

You can also still catch the great lineup of bright planets in October, with Jupiter, Saturn and Mars lining up with the Moon again this month. And early birds can even catch Venus just before dawn!

*continued on page 6*

## Secretary's Report

*by Jessica Edwards*

### 23 August General Meeting

#### Member Observations and What's Up

Clouds made and later rain made observing meteors at the Meteors and S'mores event difficult. The launch of the Parker Solar Probe was observed in Florida. The Hocking Hills Astronomy Park in Ohio is an excellent place to visit if the opportunity presents itself.

#### Main Talk – X3 Hall Effect Drive – Dr. Benjamin Jorns

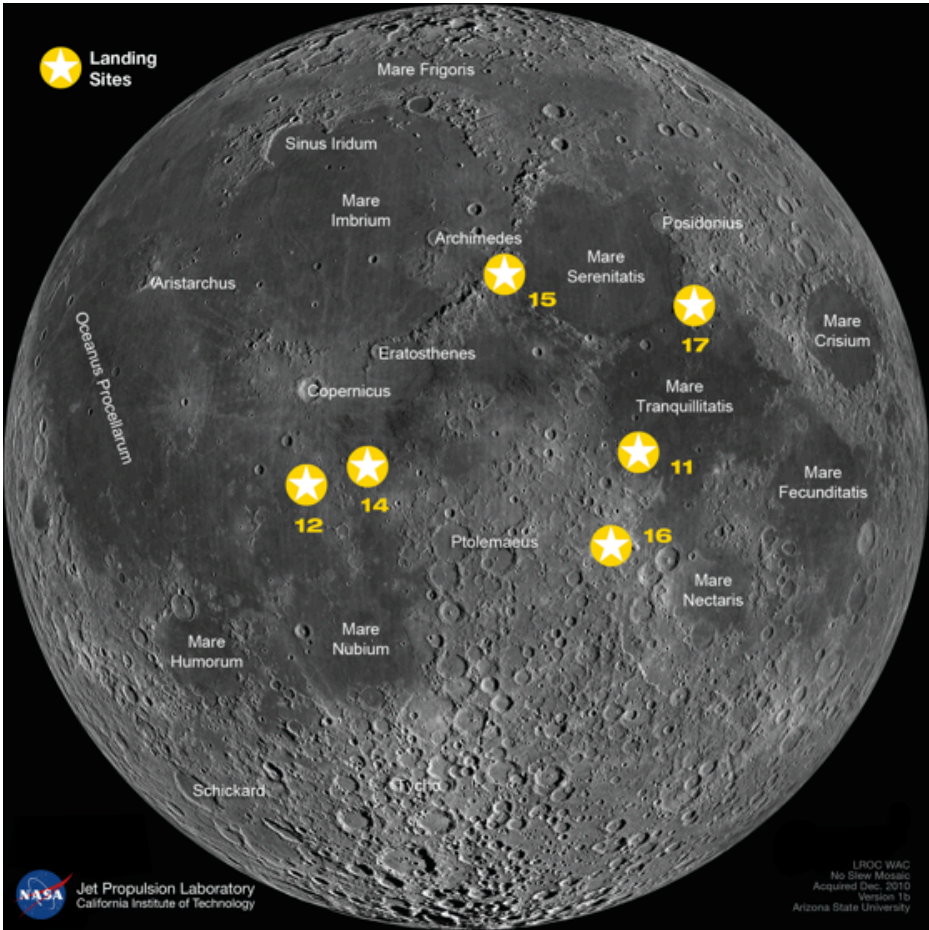
There are many factors when creating a rocket engine. The amount of energy that can be extracted per unit of fuel is a major concern. Conventional rocket fuel is heavy and in order to get to desired targets in the solar system, payloads must be reduced. Ion drives allow for more energy to be imparted per unit of fuel so larger payloads can be sent to places of interest. They do not impart enough thrust to get out of the earth's atmosphere so conventional engines are used for that portion of the mission. Ion drives can take over once the payload is in earth orbit. The trade off is the time it takes to get places. Ion drives take a long time to get places: 3 months for geocentric orbits, 7 years to get to Vesta, 2-5 years to get to Mars. Different configurations of Hall Effect thrusters are in development. Current engines can generate about 0.2N of thrust. Testing and development of these drives is a monumental task that is currently being done by several teams including the team at the University of Michigan.



Observe the Moon (cont'd from page 5)

You can find out more about International Observe the Moon Night at <https://moon.nasa.gov/observe>.

Caption: This image shows some of the features you might see if you closely observe the Moon. The stars represent the six Apollo landing sites on the Moon.  
Credit: NASA/GSFC/Arizona State University (modified by NASA/JPL-Caltech)



# Upcoming Club Meeting Topics & Speakers

Meeting	Speaker	Topic
September 27th	Dr. Jerry Dunifer, Prof. Emeritus Dept. of Physics & Astronomy Wayne State University	The South Pole and Its Telescopes - Expedition to the South Pole with Antarctic Logistics & Expeditions (ALE)
October 25th	Dr. David Cinabro Dept. of Physics & Astronomy Wayne State University	The Zowada Observatory - Robotic observatory located in Southwest New Mexico.

## 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>Eye Pieces</b>	
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	<b>Binoculars</b>	
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	<b>Display Items</b>	
TK7 TPO 8" f/4 Newtownian Astrograph (OTA Only - no mount)	Jim Barnes	Astronomy Event Sign (3' x 6')	Gordon Hansen
<b>Presentation Tools</b>		Astronomy Event Signs 18x24" (x8)	Liam Finn
Projector (older)	Jim Frisbie	PVC Display Board - Folding	Sandra Macika
Projector (newer)	Mike Bruno	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	<b>Other</b>	
DVD Player	Jim Frisbie	Canopy (10' x 10')	Liam Finn
<b>Demonstration Tools</b>		Pop Cooler	Hayden Barrett
Weigh on Planets Scale	George Korody	Equipment Etching Tool	Greg Ozimek
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
<b>Imaging Cameras</b>	
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
<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
CA4 Orion StarShoot LCD-DVR #58125 2.5" LCD screen	Gordon Hansen
CA5 Celestron Canon EOS T-ring adapter #93419	Tim Dey
<b>Special Event Items - Not available for Loan Out</b>	
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

## Scheduled Observing Nights

Month	Date	Sunset	Location
October	13th	6:63pm	Mayberry State Park