



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: Arica Flores
Vice President: Sean Pickard
Secretary: Cheri Grissom
Treasurer: Joseph Bostic

Departments

Webmaster: Liam Finn
Membership: Doug Bauer
Newsletter: Tim Campbell
Equipment: Jeff Gorman
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 Arica Flores, President

Holiday Potluck

December 5th: As a reminder — *no general meeting* in November instead we have a combined Nov/Dec meeting on December 5th. This is an in-person meeting not online. Enjoy socializing, bring your appetite and a dish to pass.

Discord

Our club has another way to connect with our members. We will continue to use Groups.io for our official club communications such as beginners' nights, annual swap meet, and banquet, but we have this as an additional way to discuss astronomy topics, get to know the members of the club and possibly meet up. If you are interested in participating contact Sean at VP@fordastronomyclub.com for an invite to the group. [Editor's note: The Discord link is located in the Social Media category of the sidebar on page 5.]

Officer Nominations

It is that time of the year for nominations for the board. Please contact Gordon to nominate anyone for any of the positions. We are defiantly looking for a treasurer this year so if you are interested let Gordon know.

Astronomy Events

October has been full of great astronomy events. The Auroras graced us again this month and Comet Tsuchinshan-Atlas was a sight to see. The morning skies of late have been very clear with Mars in Gemini and Jupiter above Orion. I hope you were able to check these out.

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. 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

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

Secretary's Report

by Cheri Grissom, Secretary

FAAC General Meeting – September 27, 2024

Meeting called to order at 7:11 p.m. by President Arica Flores. All board members present, a total of 31 attendees all together. Members and guests introduced themselves. We welcomed several new members to their first meeting tonight, as well as a few people who were former members and have rejoined FAAC.

Member Observing Reports

Sean Pickard has recently observed/imaged the star Alnitak as well as galaxies M81 and M82. Jameson Sullivan had brought his equipment to Astronomy at the Beach, but was frustrated by technical difficulties, which we can all relate to. Milton French commented on the beautiful rainbow observed at AATB. Jeff Gorman reported on his observations of the recent partial lunar eclipse.

Club Business

Astronomy at the Beach was a huge success, despite having to change the location this year. Liam Finn reports that estimated attendance for Friday night was 900, and for Saturday night, 2,500.

We had brief officer and committee reports.

What's Up in the Night Sky

Tim Campbell did the presentation tonight. He went through our events calendar. There is an annular solar eclipse coming up soon, October 2. Unfortunately, it will not be visible from the continental US. October 7 will be the peak of the Draconids Meteor Shower. There will be planetarium shows at HFC on October 11 and 16. Pluto will be well-positioned for viewing in October, if you have the right equipment. NGC 6946, aka the Fireworks Galaxy, is a beautiful face-on spiral, part of the Virgo Supercluster, that would make a nice target in October.

We had a short break for socialization and snacks.

Guest Speaker

Jonathan Kade is a long-time member of the Warren Astronomical Society (WAS) and currently serves as their First Vice President. He is a

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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 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 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

November's Night Sky Notes: Snowballs from Space

by Kat Troche



If you spotted comet C/2023 A3 (Tsuchinshan-ATLAS) in person, or seen photos online this October, you might have been inspired to learn more about these visitors from the outer Solar System. Get ready for the next comet and find out how comets are connected to some of our favorite annual astronomy events.

Comet Composition

A comet is defined as an icy body that is small in size and can develop a 'tail' of gas as it approaches the Sun from the outer Solar System. The key traits of a comet are its **nucleus**, **coma**, and **tail**.



Comet McNaught over the Pacific Ocean. Image taken from Paranal Observatory in January 2007. Credits: ESO/Sebastian Deiries

The nucleus of the comet is comprised of ice, gas, dust, and rock. This central structure can be up to 80 miles wide in some instances, as recorded by the Hubble Space Telescope in 2022 – large for a comet but too small to see with a telescope. As the comet reaches the inner Solar System, the ice from the nucleus starts to vaporize, converting into gas. The gas cloud that forms around the comet as it approaches the Sun is called the **coma**. This helps give the comet its glow. But beware: much like Icarus, sometimes these bodies don't survive their journey around the Sun and can fall apart the closer it gets.

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

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).

The most prominent feature is the **tail** of the comet. Under moderately dark skies, the brightest comets show a dust tail, pointed away from the Sun. When photographing comets, you can sometimes resolve the second tail, made of ionized gases that have been electronically charged by solar radiation. These ion tails can appear bluish, in comparison to the white color of the dust tail. The ion tail is also always pointed away from the Sun. In 2007, NASA's STEREO mission captured images of C/2006 P1 McNaught and its dust tail, stretching over 100 million miles. Studies of those images revealed that solar wind influenced both the ion and dust tail, creating striations – bands – giving both tails a feather appearance in the night sky.



A view of the 2023 Perseid meteor shower from the southernmost part of Sequoia National Forest, near Piute Peak. Debris from comet Swift-Tuttle creates the Perseids. Credit: NASA/ Preston Dyches

Coming and Going

Comets appear from beyond Uranus, in the Kuiper Belt, and may even come from as far as the Oort Cloud. These visitors can be **short-period** comets like Halley's Comet, returning every 76 years. This may seem long to us, but **long-period** comets like Comet Hale-Bopp, observed from 1996-1997 won't return to the inner Solar System until the year 4385. Other types include **non-periodic** comets like NEOWISE, which only pass through our Solar System once.

But our experiences of these comets are not limited to the occasional fluffy snowball. As comets orbit the Sun, they can leave a trail of rocky debris in its orbital path. When Earth finds itself passing through one of these debris fields, we experience meteor showers! The most well-known

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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 the third Wednesday of each month at 7:00pm. 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

Discord

<https://discord.gg/RH6rhAPWb8>

Scheduled Club Events

Month	Date	Sunset	Location
April	5th	8:03pm	Spring Mill Pond
May	3rd	8:35pm	Spring Mill Pond

Hammond Planetarium

Date	Time	Topic
November 8th	7:30pm	Fall Seasonal Planetarium Show
November 13th	7:30pm	Fall Seasonal Planetarium Show
December 13th	7:30pm	Winter Solstice Show

Club Meeting Topics & Speakers

Meeting	Speaker	Topic
October 24th	Tim Campbell	The Wonderful Webb
December 5th	Club Members	Club Social (Combined Nov/Dec)

October Talk Details

The Wonderful Webb (Space Telescope)

Tim Campbell, NASA/JPL Solar System Ambassador & Ford Astronomy Club Member

Description:

The James Webb Space Telescope is an infrared wavelength space observatory with many first-of-its-kind features. It is designed to look deeper into the universe than previously possible and peer through the veil of clouds and dust that previously obscured our vision.

Join us to learn more about this instrument along with the images and research projects being undertaken.

Bio:

Tim Campbell has always been interested in space. He was inspired watching the Apollo missions as a young child, but was really hooked

when he saw the rings of Saturn through a telescope. While you can still find Tim looking through telescopes, these days he wants to know how these things work... so cool geeky science experiments are often added in for extra fun. Tim is a past president and active member of the Ford Amateur Astronomy Club in Michigan and is also a planetarium operator and presenter at Henry Ford College. Tim does numerous outreach events and talks both under the night sky and indoors.

Secretary's Report (Con't from Page 2)

visual observer, a star-hopper, a sometimes-astronomical sketcher, and a recovering cosmology aficionado. His talk this evening is entitled "Alternatives (?) to the Big Bang Theory."

The Big Bang Theory, aka Standard Cosmology, is the most commonly accepted scientific explanation for the history of our universe. Jonathan started with a detailed explanation of what the Big Bang Theory is. While it seems very complicated, it is basically a set of mathematical equations more than anything else. Jonathan took us through the various epochs that occurred, beginning with the singularity. Some of these were extraordinarily fast, and others took thousands or millions of years. The currently accepted age of the universe is 13.7 billion years. After its beginning, it took approximately 100 million to 150 million years to become the universe as we know it. It is not quite correct to think of the Big Bang as an explosion; it is more accurately described as an expansion. The universe is still expanding.

The Big Bang Theory is less than 100 years old. It was first proposed by Georges Lemaitre, a Belgian cosmologist and Catholic priest, in 1931. Jonathan talked about other models of the universe older than the Big Bang Theory. Today, there are still many unanswered questions (for example, dark energy and

dark matter). Jonathan talked about those "problems" and possible answers that are still being worked out.

A question-and-answer period followed.

Meeting adjourned at 9:15 p.m.

October 3, 2024 Board Meeting Summary

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(Videoconference meeting.) Board members present: Arica Flores, Sean Pickard, Cheri Grissom, Joe Bostic (joined late). Seven other members present. The speaker for our October general meeting will be Tim Campbell, giving a talk entitled, "The Wonderful Webb." Sean Pickard will do the "What's Up" segment. Dan Smith will bring and set up the electronic equipment needed.

Brief secretary, treasurer, membership, social media/website, and club equipment reports were given. We've had a few expenses recently which have dropped our balance. The donation jar is helping a bit. We had five new memberships from AATB. We had discussion about the various methods of club communication we use. We started using Discord this year. Sean reports it is going well. Groups.io remains our official club communication platform. All members are welcome to participate in one, both, or neither of them. Additionally, we have a Facebook page where Arica posts club events when we have them. The calendar of events on our website has an error for the December general meeting. There is no meeting on December 26 as shown. Efforts to fix this mistake have been unsuccessful so far. So to reiterate: There are no general meetings in either November or December. Instead, we will have our combined holiday potluck meeting on Thursday, December 5, at the usual time and location. A few items from our club equipment inventory are in need of repair. These are being examined for what's needed, worked on, parts ordered, etc.

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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, Jeff Gorman, at equipment@fordastronomyclub.com

Item	Held by	Item	Held by
Telescopes		Display Items	
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	Jerry Jamula	Astronomy Event Signs 18x24" (x8)	Liam Finn
TK6 8" Orion XT8i Dobsonian	Dan Smith	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
TKn Celestron 6" Refractor & AGT Mount		Banner - Large (32" x 16')	George Korody
TKn Meade 8" f/5 Newtonian & LX-70 Mount		Tri-Fold Presentation Boards	George Korody
Zhumell 20x80 Binoculars		Other	
Presentation Tools		Canopy (10' x 10')	Liam Finn
Projector (older)	Jim Frisbie	Pop Cooler	Sean Pickard
Projector (newer)	Gordon Hansen	TA Sky Quality Meter	Liam Finn
Projection Screen 8'	John McGill	Demonstration Tools	
Projection Screen 6'	Liam Finn	Weigh on Planets Scale	Liam Finn
Bullhorn	Liam Finn	Lunar Phase Kit	Bob MacFarland
Speaker System w/Wireless Mic	Liam Finn	100' Scale Model Solar System Kit	Bob MacFarland
		NSN Meteorite (Outreach) kit	Sandra Macika

Item	Held by
Imaging Cameras	
C2 Meade Deep Sky Imager Pro III w/Autostar Suite	Gordon Hansen
C6 Canon 60Da Astrophotography DSLR and accessories	Tim Dey
Other Imaging Equipment	
CA1 Rigel Systems Spectrascope	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
Special Event Items - Not available for Loan Out	
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)	Tim Dey
Lunt 100mm H-alpha Solar Telescope with Celestron CG-5 equatorial mount	Tim Campbell

Secretary's Report (Con't from Page 6)

For our upcoming meetings in 2025, it was decided to go with the usual format of a business meeting followed by a guest speaker for eight of the general meetings, and have a social hour format for March, July, and of course the potluck in December.

There was discussion about having a Beginners' Night in October. There was interest in opening the HJRO for that occasion. It was decided we would go ahead with that on October 12, weather permitting. Notice will be sent out via Groups.io if this is a go.

Nominating Committee: Gordon Hansen is heading this. Elections will be at the January general meeting. Any member in good standing is welcome to run for any of our four officer positions.

Comets (Con't from Page 4)

of these is the Perseid meteor shower, caused by Comet 109P/Swift-Tuttle. While this meteor shower happens every August in the northern hemisphere, we won't see Comet Swift-Tuttle again until the year 2126.

See how many comets (and asteroids!) have been discovered on [NASA's Comets page](#), learn how you can [cook up a comet](#), and check out our mid-month article where we'll provide tips on how to take astrophotos with your smartphone!