

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:	Ed Halash
Secretary:	Jesse Godsey
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. STAR STUFF

Ford Amateur Astronomy Club Newsletter

President's Corner

by Arica Flores

Meeting and Elections 2023

We had our officers' elections at our January club meeting. The new officers and retained officers are listed below. I want to thank our departing President, Mike Bruno, for his time as an officer in both Treasurer and President position. Thank you to our new board member Joe Bostic our new Treasurer, as well as our Secretary and Vice President for serving another year. We are fortunate to have a club where many of the former officers continue to support the club even after their term has ended.

2023 Officers

President:	Arica Flores	president@fordastronomyclub.com
Vice President:	Ed Halesh	vp@fordastronomyclub.com
Treasurer:	Joseph Bostic	treasurer@fordastronomyclub.com
Secretary:	Jesse Godsey	secretary@fordastronomyclub.com

Sirius Award

The Sirius Award is awarded to a member of the club who has gone above and beyond to help with 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. 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 February club meeting. Once the nominations are closed, the officers of the club will meet and review the submissions.

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

Future Events

As we head into 2023, it is with excitement as we are able to begin to have our in-person events again. We have started meeting in person for our monthly meetings. How wonderful it is to have such tech-savvy people to have the meeting in a hybrid form. If you are comfortable meeting in person, join us at HFC, or if you prefer you can still join us online. I think the January meeting went better for sound, but we will continue to improve as we get used to this new format. This year we are bringing back the Swap Meet and Club Banquet as well as our monthly Public Observing Nights. Dates and times available in the club calendar.

Secretary's Report

by Jesse Godsey

FAAC General Meeting – January 26, 2022

The meeting was called to order by our club President, Mike Bruno.

Club Equipment

Members should take a look at the club equipment list [Editor's note: see page 7]. Most of this equipment is available for member use. Before selecting a telescope, come out a club observing event to look through other member's scope and take the opportunity to ask questions.

What's Up in February

Gordon Hansen presented this segment. **Meetings:** There is a Board meeting on the 2/2. The General Meeting is on 2/23. **Moon:** There is a Full moon on the 2/5 and a New Moon on the 2/20. **Comets:** Comet C/2022 E3 (ZTF) will be visible at magnitude 5. It is reaching its peak for observing this month. Look towards the north to see it. Also, Comet /2020 V2 (ZTF) is also visible with an aide of a telescope; magnitude 10. While it is in the west, will be very low by mid-February. **Planets:** Evening sky through the month will have Venus, Mars, Jupiter, Saturn, Uranus and Neptune. **Deep sky:** Objects for the month are The Heart Nebula in Cassiopeia and M103 cluster also in that area. M40 a double star is also a good object to find.

Club Business

The Sirius award is up and we are looking for nominations. Submit your nomination to president@fordastronomyclub.com. Secretary's report is

area equipment retailers, and afterhours 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 <u>treasurer@fordastronomyclub.com</u> 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 <u>LLBeanBusiness.com</u>

See the <u>groups.io</u> 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

Spot the Messenger: Observe Mercury

by David Prosper



Most planets are easy to spot in the night sky, but have you spotted Mercury? Nicknamed the Messenger for its speed across the sky, Mercury is also the closest planet to the Sun. Its swift movements close to our Sun accorded it special

importance to ancient observers, while also making detailed study difficult. However, recent missions to Mercury have resulted in amazing discoveries, with more to come.



Mercury is hot, small, and heavily cratered across its gray surface, as seen in this image from NASA MESSENGER. Mercury is the most heavily cratered planet in our solar system, since it lacks either a substantial atmosphere or geologic activity to erode surface features like craters - similar in certain aspects to the surface of our own Moon.

Credit: NASA/Johns Hopkins University Applied Physics Laboratory/Carnegie Source: https:// solarsystem.nasa.gov/resources/439/mercurys-subtle-colors/

Mercury can be one of the brightest planets in the sky – but also easy to miss! Why is that? Since it orbits so close to the Sun, observing Mercury is trickier than the rest of the "bright planets" in our solar system: Venus, Mars, Jupiter, and Saturn. Mercury always appears near our Sun from our Earth-bound point of view, making it easy to miss in the glare of the Sun or behind small obstructions along the horizon. That's why prime Mercury viewing happens either right before sunrise or right after sunset; when the Sun is blocked by the horizon, Mercury's shine can then briefly pierce the glow of twilight. Mercury often appears similar to a "tiny Moon" in a questions, events, outreaches, etc. are normally discussed via this list.

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

Articles & Submissions

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

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). telescope since, like fellow inner planet Venus, it shows distinct phases when viewed from Earth! Mercury's small size means a telescope is needed to observe its phases since they can't be discerned with your unaided eye. Safety warning: If you want to observe Mercury with your telescope during daytime or before sunrise, be extremely careful: you don't want the Sun to accidentally enter your telescope's field of view. As you may already well understand, this is extremely dangerous and can not only destroy your equipment, but permanently blind you as well! That risk is why NASA does not allow space telescopes like Hubble or the JWST to view Mercury or other objects close to the Sun, since even the tiniest error could destroy billions of dollars of irreplaceable equipment.

Despite being a small and seemingly barren world, Mercury is full of interesting features. It's one of the four rocky (or terrestrial) planets in our solar system, along with Earth, Venus, and Mars. Mercury is the smallest planet in our solar system and also possesses the most eccentric, or noncircular, orbit of any planet as well: during a Mercurian year of 88 Earth days, the planet orbits between 29 million and 43 million miles from our Sun – a 14-million-mile difference! Surprisingly, Mercury is not the hottest planet in our solar system, despite being closest to the Sun; that honor goes to Venus, courtesy its thick greenhouse shroud of carbon dioxide. Since Mercury lacks a substantial atmosphere and the insulating properties a layer of thick air brings to a planet, its temperature swings wildly between a daytime temperature of 800 degrees Fahrenheit (427 degrees Celsius) and -290 degrees Fahrenheit (-179 degrees Celsius) at night. Similar to our Moon, evidence of water ice is present at Mercury's poles, possibly hiding in the frigid permanent shadows cast inside a few craters. Evidence for ice on Mercury was first detected by radar observations from Earth, and followup observations from NASA's MESSENGER mission added additional strong evidence for its presence. Mercury sports a cometlike tail made primarily of sodium which has been photographed by skilled astrophotographers. The tail results from neutral atoms in its thin atmosphere being pushed away from Mercury by pressure from the nearby Sun's radiation.

NASA's Mariner 10 was Mercury's first robotic explorer, flying by three times between 1974-1975. Decades later, NASA's MESSENGER first visited Mercury in 2008, flying by three times before settling into an orbit in 2011. MESSENGER thoroughly studied and mapped the planet before smashing into Mercury at mission's end in 2015. Since MESSENGER, Mercury was briefly visited by BepiColombo, a joint ESA/JAXA probe, which first flew by in 2021 and is expected to enter orbit in 2025 - after

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/hfcplanetarium

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

Scheduled Club Events

Month	Date	Sunset	Location
April	29th	7:30pm	Spring Mill Pond
May	27th	8:59pm	Spring Mill Pond
June	24th	9:13pm	Spring Mill Pond
July	22nd	9:02pm	Spring Mill Pond
August	26th	8:17pm	Spring Mill Pond

Upcoming Club Meeting Topics & Speakers

Meeting	Speaker	Торіс
February 23	Mark Christensen	Webb: Development & Testing
March 23	Ken Bertin	Edward Emerson Barnard
April 27	Dennis Conti	Whacky World of Exoplanets
May 25	Thomas Drummond	Using the ISS to Engage in STEM
June 22	TBD	TBD
July 27	Michael Poxon	Tantrums in the Stellar Nursery
August 24	Andy Macica	Lick Historical Collections

January Talk Details

Webb Space Telescope: Development, Testing, & Deployment Mark J Christensen, Ph.D.

The JWST has been in operation for a year and a week and has proven to be a resounding success. This lecture will discuss the design, manufacturing, testing, and deployment of the JWST. In addition to the overall architecture of NASA's current premier space telescope, the instruments carried on the JWST will be described as well as the goals of those instruments.

Bio:

Mark J. Christensen, Ph.D. fabricated his first telescope mirror while in High School and was a member of the DOAA. He received his BS in

Mercury (Con't from Page 4)

completing six flybys. Need more Mercury in your life? Check out NASA's discoveries and science about Mercury at solarsystem.nasa.gov/mercury/, and visit the rest of the universe at nasa.gov.

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

in Star Stuff. The annual election of officers took place. The new officers for 2023 are:

President:	Arica Flores
Vice President:	Ed Halash
Secretary:	Jesse Godsey
Treasurer:	Joe Bostic

Projects & Special Events

Gordon brought up the Conference & Swap meet. It looks like we will be back in the college on Saturday 4/1 from 9am - 3pm. You can buy a table for \$15 in advance and \$45 at the door. (includes cover charge). There is is a \$5 cover charge to participate (included in the table fee if you are reserving a table to sell items). There will be talks and planetarium shows. Food and refreshment will be available for purchase.

Speaker

The featured speaker was Sandra J. Macika on Saturn – Planet and Ring Features. It was an excellent presentation that she went over Saturn and it's rings and composition, the Cassini Division, and also discussed the planet's make-up.

FAAC Board Meeting Summary February 02, 2023

Meeting called to order Club President Arica Flores at 7pm. A total of twelve club members were in attendance — including all officers.

Next Meeting

February 23rd at 7pm at Henry Ford College and also online via Webex. The speaker is Mark Christensen who will discuss the development and deployment of the Webb Space Telescope.

Social Media & Meeting & Events Info

Gordon H. will handle the meeting updates on the web site calendar and Tim C. will update the other information on other events, I.e. observing nights, etc.. Liam is handling the primary admin on the Facebook site and Tim C. is the secondary. Cheri will keep the NightSky Events (nightsky.ipl.nasa.gov) site up to date.

Membership

We still have 12 people who have not renewed. We will be sending out one more notification and if they decide not to renew they will be removed from the Groups IO.

Old Business

Ed brought up the banquet for this year and it will be at Logans restaurant. We are going to make sure we have a meat, fish and a vegetarian option. It will be May 6th 2023 at 5pm with dinner at 6pm. Ed also updated us on the gifts for the banquet. He stated that he would be willing to also donate to the cause. There are also several other people wanting to donate to the banquet as well.

We discussed the fee for the banquet and we decided as a group to include desert as well which will bring the new required cost per plate to \$35.00. We also discussed sending out an email when we get close to the limit of the banquet room as well as the initial email communicating this limitation.

Continued 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, Jeff Gorman, at <u>equipment@fordastronomyclub.com</u>

ltem	Held by	ltem	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)	Bhru Patel	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
Presentation Tools		Banner - Large (32″ x 16′)	George Korody
Projector (older)	Jim Frisbie	Tri-Fold Presentation Boards	George Korody
Projector (newer)	Gordon Hansen	Other	
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	Demonstration Tools	
		Weigh on Planets Scale	Liam Finn
		Lunar Phase Kit	Bob MacFarland
		100' Scale Model Solar System Kit	Bob MacFarland
		NSN Meteorite (Outreach) kit	Sandra Macika

ltem	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

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

The SWAP meet was also discussed, it is on April 1st between 9:00 am and 3:00 pm. All the essential information is on the flyer which will be sent out. We approved a \$400.00 expense for the SWAP meet as well. The Sirius award event and plaque was discussed and the lead time necessary to obtain it. We will keep the nominations open until the end of February.

New Business

We opened the meeting with discussion on running the meetings and muting people, due to background noise, when necessary such as a speaker, etc.. We also discussed the recorded meetings and how and where to publish them.

Gordon H. will do the "What's Up" moving forward.

We need to remove Mike from the bank and add Joe. Arica will also be looking into adding a link to pay through the square application for the banquet, etc. We discussed as a group the club mugs for speaker gifts, etc. Arica is going to get some pricing on this as an option.

Speaker (Con't from Page 5)

Physics with a second major in Mathematics from Wayne State Univ. in 1969 and went on the get a MS in Physics at Purdue in 1970. He returned to Wayne and earned his Ph.D. in Mathematics in 1975. He went on to join the Faculty of the School of Mathematics of the Georgia Institute of Technology where he taught and did research from 1975 to 1984. While at Georgia Tech is was a member and officer of the Atlanta Astronomy Club and served as the construction chairman for their first observatory in Villa Rica, GA. He continued his interest in astronomy over the years and is now a member of the Fox Valley Astronomical Society and the Northwest Suburban Astronomers in the western suburbs of Chicago.