

# 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: 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.

# **President's Corner**

by Arica Flores, President

#### **Meteors and More**

It's that time again for the Perseid meteor shower. This meteor shower is named after the constellation Perseus, because the meteors appear to come from that location in the sky. This meteor shower is caused when the Earth passes through the debris Field of the comet Swift-Tuttle. This comet passed by Earth in 1992. When you watch the meteor shower you are seeing pieces of the debris burn up in the atmosphere.

Last year's event was washed out by the full moon, but this year's event weather permitting should be a good one. This event takes place from mid-July through August, with the peak between Aug 11th-12th. With the moon beginning a small crescent it will hopefully be a good show. NASA states that in an average year you can expect to see up to 100 and hour at peak.

The Club's annual picnic will be held on Aug 12th at 4pm, at Spring mill pond pavilion. Bring chairs as getting space at the pavilion can be tricky since we cannot reserve it. The club will provide refreshments such as chips, soda and water, corn, hot dogs, and burgers (Ketchup, Mustard and relish), plates. Napkins and Plasticware. We are returning to having everyone bring a dish to pass (Salads, desserts, and other side dishes). So fill up then set up your telescope and enjoy the night. The park is not doing Meteors and S'mores this year, but I am sure it will be a great event.

## **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 <a href="mailto:info@fordastronomyclub.com">info@fordastronomyclub.com</a>

# **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, filling in for Jesse Godsey, Secretary

FAAC General Meeting – June 22, 2023

Meeting called to order at 7:08 p.m. by president, Arica Flores. Treasurer, Joe Bostic, present. Vice President, Ed Halash, and Secretary, Jesse Godsey, absent. We had eighteen members attending in person and three online. Everyone introduced themselves. We welcomed new member, Vahan K. Arica explained the club's mentoring program for newer members who may be interested.

# Member Observing Reports

Sean had clear skies last night and did some imaging. Tim C. reported that the observing session at the U of M observatory did not have clear skies, and the best they could do was about three stars, though a thin crescent moon and Venus were very nice. Jeff G. also had a similar observing experience. Mike B. went camping over Memorial Day weekend and was able to enjoy nice skies. Arica went camping near Cadillac and did some solar observing of sunspots and prominences, and the moon and Venus at night. She also mentioned how enjoyable it was to share views with people who had never looked through a telescope.

# What's Up in the Night Sky

Gordon Hansen went over our monthly calendar of meetings and events, including the upcoming Beginners' Night public observing event at Island Lake this Saturday, June 24.

Comet C/2023 EI (ATLAS) has now reached magnitude 10 and can be seen with the aid of binoculars or a telescope a bit above Polaris at this time. Gordon is also keeping an eye on Comet C/2020 V2 (ZTF), which is becoming more visible and may be good in September. Planets viewable in the evening sky are Mercury, Venus, and Mars. On July 20, there will be a nice grouping of Mars, Venus, and a crescent moon, all near Leo. Gordon talked about the supernova in M101, officially named SN 2023ixf. He shared his images with us. Scorpius and Sagittarius are starting to rise in the evening and are rich with Messier objects, including the Trifid and Lagoon nebulae, and the beautiful red supergiant star Antares in Scorpius.

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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 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 <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

# Super Blue Sturgeon Moon

by Vivian White



On August 1st, catch a full Moon rising in the east just 30 minutes after sunset. We are seeing the entire sunlit side of the Moon as it is nearly (but not quite) in line with the Sun and Earth. The Farmers' Almanac calls this month's Moon the

"Sturgeon Moon", for the time of year when this giant fish was once abundant in the Great Lakes. Cultures around the world give full Moons special names, often related to growing seasons or celebrations.

As the Moon rises later and later each night, the bright sunlit part appears to get smaller or "wane" - we call this a waning gibbous Moon. About a week later, on August 8th, we see only one half of the Moon alight. At this phase, the Moon rises around midnight and sets around noon. Have you ever seen the Moon in the daytime? You may notice this phase towards the southwest in the morning sky. Hold up a ball or egg beside it and see how the Sun lights up the same part.



Image of waning crescent Moon shown next to a ball on a stick that is lit by the Sun on the same side as the Moon, with trees and a blue sky in the background. Try this with an egg or any round object when you see the Moon during the day! Credit: Vivian White

By August 16th, the Moon has gone through its crescent phase and is now only showing its dark side towards the Earth. Did you know the dark side and the far side of the Moon are different? The Moon always shows the same face towards Earth due to the gravitational pull of Earth, so the far side of the Moon was only viewed by humans for the first time in 1968 with the Apollo 8 mission. However, the dark side is pointed at us almost all the time. As the Moon orbits the Earth, the sunlit side changes slowly until the full dark side is facing us during

a new Moon. When the Moon is just a small crescent, you can sometimes even see the light of an Earthshine reflecting off Earth and lighting up the dark side of the Moon faintly.

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

Join by visiting <a href="https://groups.io/g/FordAstronomyClub">https://groups.io/g/FordAstronomyClub</a> 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). Then as the Moon reappears, making a waxing (or growing) crescent Moon, best seen in the afternoons. By the time it reaches the first quarter on August 24th, we see the other half of the Moon lit up. At this point, the Moon passes through Earth's orbit and marks the spot where the Earth was just 3 hours prior. It takes the Earth about 3 hours to move the distance between the Moon and Earth.

The Moon on August 30th is referred to as a blue moon. Blue moons are not actually blue in color of course; it refers to the second full Moon in any month. Since it takes 29.5 days to complete the cycle from full to new and back to full, most months will see only one. But occasionally, you'll fit two into one month, hence the phrase "once in a blue moon." We see a blue moon about once every 3 years on average - next in May 2026. In addition, this full Moon appears larger in the sky than any other full Moon this year - an unofficial supermoon. A supermoon appears larger than average because it is closer in its slightly elliptical orbit. The



Earthshine as seen from the International Space Station with the sun just set - Astronaut Photograph ISS028-E-20073 was taken on July 31, 2011, and is provided by the ISS Crew Earth Observations Facility and the Earth Science and Remote Sensing Unit, Johnson Space Center

difference in apparent size between the smallest and largest full Moon is about the size difference between a quarter and a nickel. Even at its largest, you can always cover the whole Moon with your pinky extended at arm's length.

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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/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
July	22nd	9:02pm	Spring Mill Pond
August	26th	8:17pm	Spring Mill Pond
September	22nd & 23rd	7:30pm	Astronomy at the Beach Kent Lake Beach

# **Upcoming Club Meeting Topics**& Speakers

Meeting	Speaker	Торіс
July 27	Michael Poxon	Tantrums in the Stellar Nursery
August 24	Andy Macica	Lick Historical Collections
September 28	Eric Hintz	Got a few hours? Observing Short Period Pulsating Stars
October 26	Sandra Macika	100 yr Anniversary of the Day we Discovered the Universe

# **July Talk Details**

#### Tantrums in the Stellar Nursery

Michael Poxon,

American Association of Variable Star Observers (AAVSO)

#### Talk Description:

Michael will describe why baby stars are variable and discuss this Young Stellar Objects (YSO).

#### Bio:

Background – Imaging Science Engineer, 30+ years Astronomical Observing, 20 years Astrophotography, 20 years as a volunteer for Lick Observatory, 5 years as a 36" Great Refractor Telescope Operator, 2 years as staff at Lick Observatory.

Astrophotography – Hypersensitized Film Photography, CCD Imaging, Planetary Imaging (video), Spectroscopy, H-alpha and Calcium-K Solar Imaging, Detected a transiting exoplanet around HD209458, Performed Nava searches in M31.

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

#### Club Business

Club Equipment: Jeff reported that he is still waiting on two members to get back to him before he can complete his annual inventory.

Secretary's Report: Published in "StarStuff." Cheri has nothing else to add.

Treasurer's Report: Joe reported our current balance and advised that he has received a check from one new member.

Social Media and Website: Up to date. Liam has nothing to add at this time.

We had a discussion of the upcoming Beginners' Night at Island Lake this Saturday. Weather looks hopeful. Hope to have a good turnout.

# Speaker

Dr. Steven Neil Shore, Professor of Astrophysics, University of Pisa, and Associate Editor, Astronomy and Astrophysics, gave a talk on supernovae and the recent supernova in M101.

Dr. Shore started the discussion with an overview of when and how scientists began to understand that supernovae are a separate phenomenon and require an essentially different explanation than ordinary stars. He covered significant supernovae discoveries of the last hundred years or so, with each new discovery answering more questions about supernovae. He covered the different classifications based on their composition, structure, etc. We learned about the mechanics of different types of supernovae. SN 2023ixf is a classic Type 2 supernova.

Question-and-answer period followed.

Meeting adjourned at 9:30 p.m.

# July 6, 2023 Board Meeting Summary

(Videoconference meeting.) All board members present except for Jesse Godsey. Seven additional members present.

Our speaker for the July general meeting will be Michael Poxon, talking about "Young Stellar Objects." He will be presenting virtually, and Gordon will contact him ahead of time to make sure we are all set for the WebEx connection.

Secretary's report: Cheri wanted to clarify that the Secretary's Reports we see in "StarStuff" each month are the official minutes of the general meetings. The full board meeting minutes are not published but are kept for club records. A brief, more reader-friendly Board Meeting Summary is what you see in "StarStuff." We also do not publish our treasury balance in either the Secretary's Report or the Board Meeting Summary since we prefer that not be posted on our public website.

Treasurer's report given by Joe Bostic, with summation of our expenses for the month. Jeff Gorman advises the annual club equipment inventory has been completed. Membership, social media, and website are all up to date

We discussed the upcoming annual Club Picnic to be held on August 12, at Spring Mill Pond. Meat and beverages will be provided by the club. Members may bring a dish to pass if they would like, but it is not required. It seems that the park will not be having a Meteors n' S'mores event this year, but we are looking into the possibility of our club having some type of public event in its place. More communication with the park will be needed before a decision can be made.

The board approved the renewal of our subscription to WebEx, which provides us with online access for our meetings. Gordon will take care of this. Dennis mentioned that it seems "Sky and Telescope" no longer offers a club discount on its subscriptions.

# **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

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	Liam Finn	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			
Lunt 100mm H-alpha Solar Telescope with Celestron CG-5 equatorial mount	Tim Campbell			

# Sturgeon Moon (Con't from Page 4)

Follow the Moon with us this month and keep a Moon journal if you like - you may be surprised what you discover!

moon.nasa.gov/moon-observation