

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.

Secretary's Report

by Cheri Grissom, filling in for Jesse Godsey, Secretary
FAAC General Meeting – July 27, 2023

Meeting called to order at 7:05 p.m. by president, Arica Flores. Treasurer, Joe Bostic, present. Vice President, Ed Halash, and Secretary, Jesse Godsey, absent. We had seventeen in-person attendees and six online. Members and one guest introduced themselves.

Member Observing Reports

A few of our members have been helping out at U of M Dearborn with their Friday night observing events. The Friday before our own club's observing night, Arica Flores helped out with an event put on by the Farmington Stargazers. Then, on Saturday, our club held its monthly observing night at Spring Mill Pond. We had twelve to fourteen FAAC members bring telescopes, other members who came to share the views, and several members of the public attending. We observed a variety of constellations, asterisms (The Coat Hanger), planets (a beautiful crescent Venus), Pluto (Sean assured us it was in the field of view!), a lovely waning crescent Moon, and multiple DSOs, including M3, M13, M57, and quite a few others. All in all, it was a very enjoyable night. Skies may not have been perfect, but the weather on the ground was. Also this past month, Dennis Salliotte mentioned he has been enjoying a lot of binocular viewing and solar observing of our very active Sun.

What's Up in the Night Sky

Gordon Hansen went over our upcoming meetings and events. As always, these dates can be found in our events calendars on Groups.io and fordastronomyclub.com. There will be two full moons in August, on the 1st and the 30th. Both will be supermoons, which simply means they occur at or near a time when the Moon is closest to Earth in its orbit and

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

generally does appear a little larger and brighter in the sky. Comet C/2023 E1 (ATLAS) is still relatively bright in the sky, but it is past its peak and dimming. Comet C/2020 V2 (ZTF) is also viewable but dim. Planets seen in the evening sky will be Mercury, Mars, Saturn, and Neptune. August 27 will be the opposition of Saturn. DSOs of interest will include M52 (open cluster), M76 (the Little Dumbbell), and NGC457 (known as the Owl Cluster or the E.T. Cluster).

Club Business

Liam talked briefly about plans to travel to Gatesville, Texas, which will be in the middle of the path of totality, to observe the total solar eclipse happening on April 8, 2024. Several members are planning on going. Plans will be firmed up between now and then, and more information will follow on the exact location and camping options as the date gets closer.

Club Equipment: Jeff reported that he is up to date on the annual inventory. Arica explained our club loaner program for the benefit of those not yet aware of it.

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

Treasurer's Report: Joe reported our current balance and advised that he is working on updating and upgrading our accounting software.

Social Media and Website: Liam is keeping these up to date.

Our annual Club Picnic is happening on August 12, at Spring Mill Pond, starting at 4 p.m. That date coincides with the peak of the Perseids Meteor Shower. We are planning to hold our monthly observing event that same evening, but if skies do not cooperate, we will reschedule it for August 26. This year we will be going back to the potluck style we used to do. Members attending are encouraged to bring a dish to pass. Also, please let Doug Bauer know if you are planning to attend so he can get a number for the purchase of food. We have been advised by the park that the public restroom building will most likely still be closed due to their difficulty in obtaining parts for their pump stations, but there are chemical pit toilets available.

FAAC coffee mugs are now available for sale at \$6 apiece. Contact Arica if interested.

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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

Looking Beyond the Stars

by Brian Kruse



Looking up in awe at the night sky, the stars and planets pop out as bright points against a dark background. All of the stars that we see are nearby, within our own Milky Way Galaxy. And while the amount of stars visible from a dark sky location seems immense, the actual number is measurable only in the thousands. But what lies between the stars and why can't we see it? Both the Hubble telescope and the James Webb Space Telescope (Webb) have revealed that what appears as a dark background, even in our backyard telescopes, is populated with as many galaxies as there are stars in the Milky Way.

So, why is the night sky dark and not blazing with the light of all those distant galaxies? Much like looking into a dense forest where every line of sight has a tree, every direction we look in the sky has billions of stars with no vacant spots. Many philosophers and astronomers have considered this paradox. However, it has taken the name of Heinrich Wilhelm Olbers, an early 19th century German astronomer. Basically, Olbers Paradox asks why



NASA's James Webb Space Telescope has produced the deepest and sharpest infrared image of the distant universe to date. Known as Webb's First Deep Field, this image of galaxy cluster SMACS 0723 is overflowing with detail. This slice of the vast universe is approximately the size of a grain of sand held at arm's length by someone on the ground. (Image Credit: NASA, ESA, CSA, STScI) <https://bit.ly/webbdeep>

the night sky is dark if the Universe is infinitely old and static – there should be stars everywhere. The observable phenomenon of a dark sky leads us directly into the debate about the very nature of the Universe – is it eternal and static, or is it dynamic and evolving?

It was not until the 1960s with the discovery of the Cosmic Microwave Background that

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

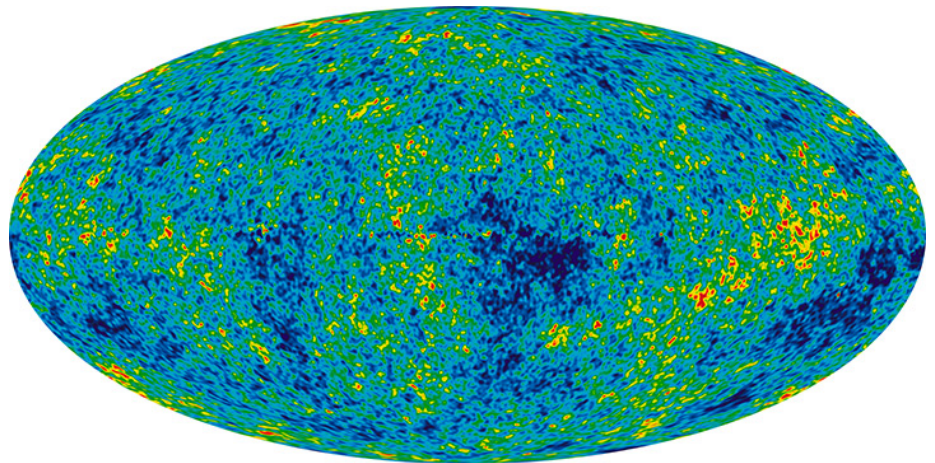
The school system has designated four "key-holders" within the club who have the ability to open the observatory.

Call (313) 444-5850 to learn when the observatory is opening (or request an opening).

the debate was finally settled, though various lines of evidence for an evolving universe had built up over the previous half century. The equations of Einstein's General Theory of Relativity suggested a dynamic universe, not eternal and unchanging as previously thought. Edwin Hubble used the cosmic distance ladder discovered by Henrietta Swan Leavitt to show that distant galaxies are moving away from us – and the greater the distance, the faster they're moving away. Along with other evidence, this led to the recognition of an evolving Universe.

The paradox has since been resolved, now that we understand that the Universe has a finite age and size, with the speed of light having a definite value. Here's what's happening – due to the expansion of the Universe, the light from the oldest, most distant galaxies is shifted towards the longer wavelengths of the electromagnetic spectrum. So the farther an object is from us, the redder it appears. The Webb telescope is designed to detect light from distant objects in infrared light, beyond the visible spectrum. Other telescopes detect light at still longer wavelengths, where it is stretched into the radio and microwave portions of the spectrum. The farther back we look, the more things are shifted out of the visible, past the infrared, and all the way into the microwave wavelengths. If our eyes could see microwaves, we would behold a sky blazing with the light of the hot, young Universe – the Cosmic Microwave Background.

The next time you look up at the stars at night, turn your attention to the darkness between the stars, and ponder how you are seeing the result of a dynamic, evolving Universe.



The oldest light in the universe, called the cosmic microwave background, as observed by the Planck space telescope is shown in the oval sky map. An artist's concept of Planck is next to the map. The cosmic microwave background was imprinted on the sky when the universe was just 380,000 years old. It shows tiny temperature fluctuations that correspond to regions of slightly different densities, representing the seeds of all future structure: the stars and galaxies of today. (Image credit: ESA and the Planck Collaboration - D. Ducros) <https://go.nasa.gov/3qC4G5q>

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

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	Topic
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)**Speaker*

Michael Poxon, member of the American Association of Variable Star Observers (AAVSO) presented to us via videoconference from the UK. His talk was entitled "Tantrums in the Stellar Nursery," and covered Young Stellar Objects (YSOs). Mr. Poxon's main interest is in irregular variable stars, or very young stars. The first known discovery of a YSO was made by John Russell Hind in 1852, the star being T Tauri. Young stars change in brightness for many reasons, primarily: (1) Star-spotting, (2) Eclipse by forming planets, (3) Interaction with circumstellar disc, (4) Interaction with a companion. Mr. Poxon discussed these different occurrences, detailing what we have learned since the initial discovery of young variable stars.

Question-and-answer period followed.

Meeting adjourned at 9:08 p.m.

August 3, 2023 Board Meeting Summary

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

Our speaker for the August general meeting will be Andy Macica, talking about "Lick Observatory Historical Collections." This will be a virtual presentation.

Treasurer's report given by Joe Bostic, with summation of our expenses for the month. Discussion was had about the need for a second key to our PO box. Motion was made, seconded, and passed unanimously to do this provided the cost is no more than \$100.

Shortly after starting the meeting, we had some technical difficulties with our Webex connection, and

it was determined the best solution was to end that connection and continue via Zoom, which Tim C. facilitated for us. Thanks, Tim!

Liam made a few corrections to our club's website, in the "Past Officers" section. He will also work on adding our 2023 Sirius winner (Sean Pickard) to the proper page, along with photos for the most recent four winners.

Doug Bauer gave an update on our Club Picnic which is coming up very soon (August 12). All arrangements are in place and ready to go. If the weather does not permit evening observing, we will change the observing night to August 26.

We had a discussion about the upcoming Astronomy at the Beach event put on by GLAAC, of which FAAC is a member (September 22 and 23). Celestron has donated an 8" Go-to Starsense Dob for raffle, and our club will be facilitating that raffle. We hope to see a lot of members turn out for AATB, both to bring telescopes and to volunteer for one or more of the many positions where their assistance is greatly needed and appreciated.

Our October general meeting will have to be held in a different room at the college, the Ghaffari Room. Watch for a map and directions coming soon..

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.

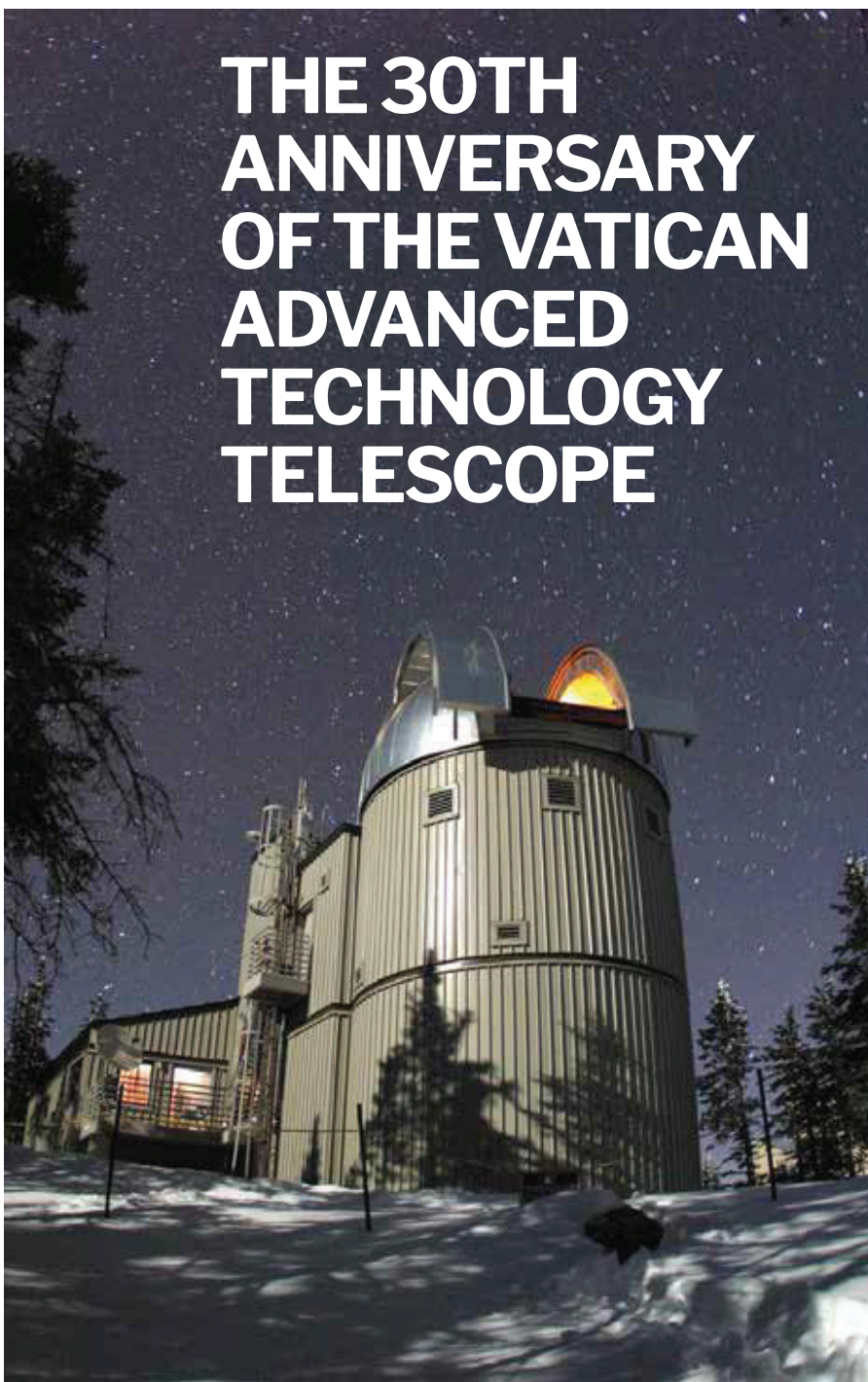
Some items are reserved for special events use and are not normally available to be borrowed.

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)	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

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

THE 30TH ANNIVERSARY OF THE VATICAN ADVANCED TECHNOLOGY TELESCOPE



**Vatican
Observatory**
F o u n d a t i o n

The Alice P. Lennon
Telescope
The Thomas J. Bannan
Astrophysics Facility
**September 29-October 2,
2023 • Tucson, AZ**

FRIDAY, SEPTEMBER 29TH

THE ANNIVERSARY GALA
Hacienda del Sol Resort

5:00 PM

With featured guest Maj. Gen. Charles
Bolden, Jr., USMC (Ret), Former NASA
astronaut and administrator
Sponsorship opportunities available
RSVP Required

SATURDAY, SEPTEMBER 30TH

TOUR TO THE VATICAN ADVANCED
TECHNOLOGY TELESCOPE

8:00 AM Departure from Tucson

6:00 PM Return to Tucson

RSVP Required

Transportation (to and from Tucson)
and lunch will be provided

SUNDAY, OCTOBER 1ST

MEMORIAL MASS FOR THE REV.
GEORGE V. COYNE, S.J.

Director of the Vatican Observatory:
1978-2006

President of the Vatican Observatory
Foundation: 1987-2011

11:00 AM

Ss. Peter & Paul Church
Reception immediately following
RSVP Not Required

For more details, and the
full schedule of events
Friday through Monday, visit:
**[vaticanobservatory.org/
vatt30/](https://vaticanobservatory.org/vatt30/)**

