



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:	Cheri Grissom
Treasurer:	Mike Bruno

Departments

Webmaster:	Liam Finn
Membership:	Doug Bauer
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

September has started out as a busy month and it's not over yet.

Beginners' Night

We had a fun beginner's night on the 7th. We had great turnout even though the skies did not fully cooperate. We also had a few people turn up with telescopes needing help. Because of this we had a new member join the club. If you get the chance, say Hi to Susan Holland.

Astronomy at the Beach

This year's AATB was another success. We had a total of 3500 attendees and up to 70 telescopes over two nights. Compared to other years the attendance was a little down, but overall it was a successful event. Thanks to all that contributed to the event and those that attended. Special thanks the Kevin, Rick and Joe from PlaneWave for coming out with their L-350 mount and 14" CDK. Tim Campbell brought a 12.5" CDK which gave the public as a very nice overview of live stacking and astrophotography.

PlaneWave Open House

Saturday September 21st PlaneWave Instruments held an open house at their new HQ in Adrian, Michigan. We had a good turnout of our members, many with telescopes. Even though the weather did not cooperate it was a fantastic event as we got a nice presentation which was ideal for the members of the public and then onto a tour of their manufacturing facilities showing mirror polishing, mount and telescope building and testing. We got to see an array of their telescopes and mounts ranging from 12.5 inch up to 1 meter

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

The hope is that these open houses will become a yearly event, we are looking forward to more such events.

Upcoming Events

September 26-29th - Great Lakes Star Gaze

The Great Lakes Star Gaze is late in September this year. If you have not reserved your spot, now is a good time to do so. While it is not a FAAC event it is a purely astronomers event. Three days and nights in great skies (weather permitting). If you have not attended this, it is well worth doing so.

Visit www.GreatLakesStarGaze.com for more information and event registration.

September 28th – Edsel & Eleanor Ford House

This is a family picnic event then an indoor presentation and finally observing in the meadow with telescopes.

The schedule is as follows

6:30 – 7:30 Bring your own family picnic
7:30 – 8:30 Science presentation, Liam Finn
8:30 Observing in the Meadow with FAAC members

We do need telescopes for this event so please volunteer as many of our regular volunteers will be at the Great Lakes Star Gaze.

October 3rd – Board Meeting

As always our Board meeting is open to the members to attend. New members or old, your input on the club operations is always welcomed.

October 4th – Spiritus Santus Academy

Our annual Astronomy night for Spiritus Santus Academy in Plymouth is Friday October 4th. We do need telescopes for this event. We generally get a good turnout for this so please volunteer to bring a telescope.

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

September 5th – Final 2019 Beginners' Night & International Observe the Moon Night at Maybury State Park

This is our final beginners' night of the year and always coincides with International Observe the Moon Night. Being a 1st quarter moon it is ideal for lunar observing as long as the weather behaves itself in October. Let's end the year with a bang and have a large turnout of members and telescopes

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. 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 2019 and elected officers for 2020 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 who has gone above and beyond to highlight our club and bring the love of astronomy and science to the public.

2020 Officer Positions

Two officer positions are being vacated for 2020. I as president am term limited and will be stepping down as president at the January meeting to whomever the lucky person is to take up the reigns and bring the club to new heights for the future. We also have the Treasurer position which is again term limited, Mike Bruno has done an astounding job as treasurer

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).

but needs to step aside and let someone else take over the clubs finances. We have a search committee searching for possible nominees but if any club member is interested in running for any 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 in a position then a ballot will be held.

Any member of the club can run for any of the officer positions so even though the Treasurer and President are open positions it is still OK for someone to put their name into any of the club officer positions.

Secretary's Report

by Cheri Grissom

FAAC General Meeting – August 22, 2019

Meeting called to order at 7:00 p.m. by President Liam Finn. All board members present. Guests were introduced, then regular members. There were approximately 38 people in attendance.

Member Observing Experiences:

Jessica Edwards had the opportunity to provide night sky viewing at a girls' camp near Port Huron, with 100 to 150 girls present. Among other things, they saw a shadow transit of Ganymede. Mike Bruno, Tim Campbell, Liam Finn, Arica Flores, and Gary Gibson all took telescopes to the Dearborn Homecoming. The weather was great, there was a lot of interest from the public, and they were able to view Jupiter's Great Red Spot one night and an ISS pass both nights. Several members talked about the great time had at our annual picnic and the Meteors 'n S'mores event. Dennis Salliotte mentioned how enjoyable it was to be able to show people their first-ever view of Jupiter and Saturn. A few members stayed until about 3 a.m. and saw a good number of meteors from the Perseids. Gary Gibson had made it his mission to find Neptune, and he was successful! Gordon Hansen introduced his three grandkids to the night sky, including a 10-year-old boy who is a budding astronomer and had a great time learning to operate the telescope. Sandra Macika has been to four different events with her meteorite collection this past month, including the Dearborn Homecoming, where she also experienced a lot of interest from the crowd, what she described as perhaps her greatest nights ever. John McGill went

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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 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

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

MeetUp

meetup.com/Ford-Amateur-Astronomy-Club

Scheduled Club Events

Month	Date	Sunset	Location
October	5th Int'l Astronomy Day	7:08pm	Mayberry State Park
November	11th Mercury Transit	7:20am-1pm	Lincoln Park Observatory

Upcoming Club Meeting Topics & Speakers

Meeting	Speaker	Topic
September 26th	Jim Shedlowsky	The Evolution of Giant Telescopes
October 24th	Jon Blum	Astronomy Tourism

September Talk Details

The Evolution of Giant Telescopes

Jim Shedlowsky

Warren Astronomical Society & Skee Brothers

What is a modern Giant telescope? How and from where do they come about? What technologies make them possible? These questions, along with a brief history of notable telescopes are discussed in this presentation.

Since Galileo first turned his handmade 1 1/8" diameter refractor to the night sky in 1610 and began a new era in astronomical discoveries, astronomers have continually sought more "powerful" telescopes to uncover the mysteries of the heavens. For nearly three hundred years, "more powerful" telescopes meant modestly larger, longer and much more refined instruments, to support the "positional astronomy" which dominated that era.

Then around the turn of the 20th century, with the advent of new technologies (i.e. photography, spectroscopy, etc.), the science of Cosmology was born. George Ellery Hale seized the moment, built the 60-inch reflector at Mt. Wilson and the age of the modern megareflector was begun, culminating with the dedication of the 200-inch Hale

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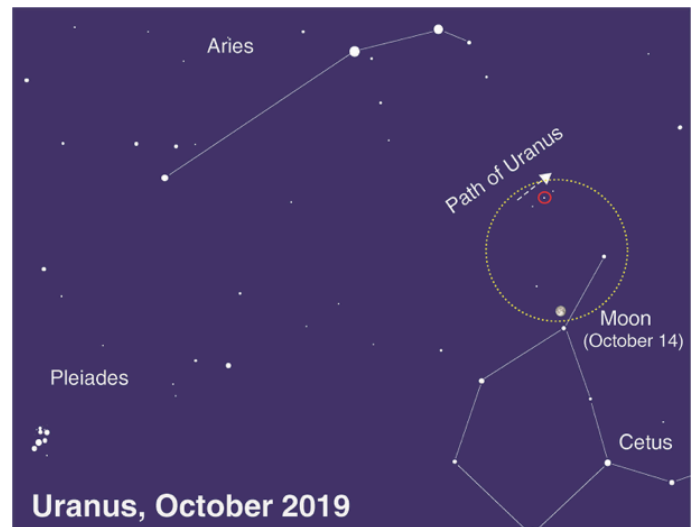
Find Strange Uranus in Aries

by David Prosper

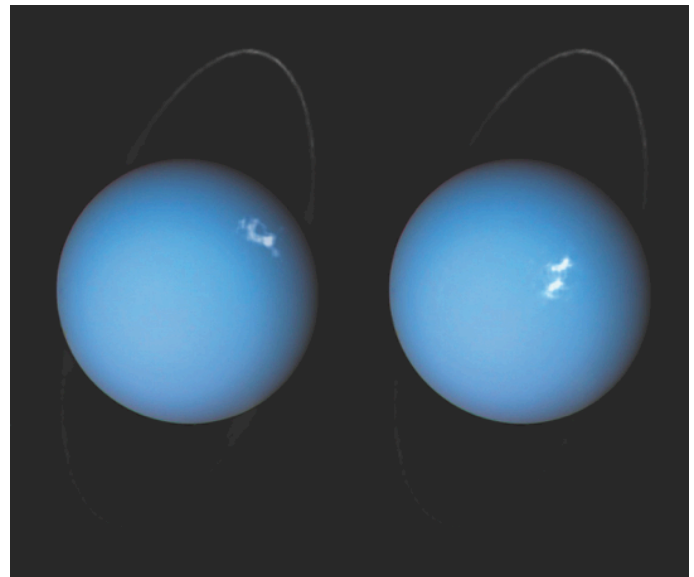
Most of the planets in our solar system are bright and easily spotted in our night skies. The exceptions are the ice giant planets: Uranus and Neptune. These worlds are so distant and dim that binoculars or telescopes are almost always needed to see them. A great time to search for Uranus is during its opposition on October 28, since the planet is up almost the entire night and at its brightest for the year.

Search for Uranus in the space beneath the stars of Aries the Ram and above Cetus the Whale. These constellations are found west of more prominent Taurus the Bull and Pleiades star cluster. You can also use the Moon as a guide! Uranus will be just a few degrees north of the Moon the night of October 14, close enough to fit both objects into the same binocular field of view. However, it will be much easier to see dim Uranus by moving the bright Moon just out of sight. If you're using a telescope, zoom in as much as possible once you find Uranus; 100x magnification and greater will reveal its small greenish disc, while background stars will remain points.

Try this observing trick from a dark sky location. Find Uranus with your telescope or binoculars, then look with your unaided eyes at the patch of sky where your equipment is aimed. Do you see a faint star where Uranus should be? That's not a star; you're actually seeing Uranus with your naked eye! The ice giant is just bright enough near opposition - magnitude 5.7 - to be visible to observers under clear dark skies. It's easier to see this ghostly planet unaided after first using an instrument to spot it, sort of like "training wheels" for your eyes. Try this technique with other objects as you observe, and you'll be amazed at what your eyes can pick out.



The path of Uranus in October is indicated by an arrow; its position on October 14 is circled. The wide dashed circle approximates the field of view from binoculars or a finderscope. Image created with assistance from Stellarium.



Composite images taken of Uranus in 2012 and 2014 by the Hubble Space Telescope, showcasing its rings and auroras. More at bit.ly/uranusauroras Credit: ESA/Hubble & NASA, L. Lamy / Observatoire de Paris

By the way, you've spotted the first planet discovered in the modern era! William Herschel discovered

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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, Dennis Salliotte, 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	Bob MacFarland	Astronomy Event Signs 18x24" (x8)	Liam Finn
TK6 8" Orion XT8i Dobsonian	Sean Pickard	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
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	Ahmad Musheinish
Bullhorn	George Korody	TA Sky Quality Meter	Liam Finn
Speaker System w/Wireless Mic	Liam Finn	Demonstration Tools	
DVD Player	Dennis Salliotte	Weigh on Planets Scale	George Korody
		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
CA2 Celestron 1.25" to T-Adapter (male) #93625	Tim Dey
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	Sandar Macika
TAK1 Night Vision Image Intensifier for telescopes (2" barrel size)	George Korody

August Talk Details (continued from page 5)

telescope at Mt. Palomar.

This presentation will concentrate on the “post Hale” period from 1949 until the present, and discuss the trials, tribulations, politics and personalities, which had to be overcome, along with the significant technological advances, which resulted in the current and near future generation of Giant telescopes. I will review these huge instruments and the technologies that make them “tick.”

I will conclude my presentation with my usual musical interlude, this time “An ode to Giant telescopes.”

Bio:

Jim Shedlowsky, long time member and former WAS treasurer and rockabilly legend, worked for 36 years as a Vehicle Development Engineer/Manager, specializing in Acoustics and Noise & Vibration, retiring in 1999. He graduated from the University of Michigan in 1960 with a degree in Engineering Physics and spent two

years as an officer in the U.S. Army in Germany. In his spare time, he wrote and recorded music for Epic and Roulette Records, as one of the “Skee Brothers” (they were on Dick Clark’s “Bandstand” in 1958). Jim’s astronomical interests include observation and outreach (he owns several telescopes), but in recent years his passion for astronomical history and technology has become a major factor. He is a member of the McMath-Hulbert Astronomical Society, and has visited a number of major observatories. He thoroughly enjoys the WAS Discussion Group.

He and his wife winter in Mesa, Arizona (a great place for observing), and he participates in activities of the East Valley Astronomy Club. He took part in the “All Arizona Messier Marathon” in March of 2009, earning a certificate for observing 104 Messier Objects in one night.

Secretary's Report (Cont'd from page 4)

to the Tangent Gallery event and had a great time. They went all out with a reenactment of the Moon landing and live musical selections from that other famous 1969 event -- Woodstock! John also attended an Astronaut Reunion in Tucson, AZ, where several Apollo astronauts and mission controllers were present.

Club Equipment:

Dennis Salliotte gave us an overview of our loaner program.

What's Up:

Gordon Hansen reminded us that we have a busy month coming up. Beginners' Night will be September 7 to coincide with the first quarter moon. Neptune will be at opposition the night of September 10. Astronomy at the Beach is September 13 and 14. The event at PlaneWave Instruments, in Adrian, is September 21. Great Lakes Star Gaze, in Gladwin, is September 26 - 29. Beginners' Night on October 5 will be at Maybury State Park. Gordon also talked about the planets and deep sky objects that will be visible in the upcoming month, and a few comets, as well. Sandra advised us that the Farmington Community Stargazers will have their monthly event on September 10, at Heritage Park, at Sled Hill. They are always in need of people to bring telescopes. You don't have to be a member of their club.

Secretary's Report:

Cheri reminded everyone that she is the person to see if you need a plastic sleeve and lanyard for your membership badge.

Treasurer's Report:

Mike reported that our current balance is \$7,842.

Social Media and Website:

Liam reminded everyone that we have a presence not only on our regular Internet website but also on Facebook, Meetup, and Twitter.

Club Business/Projects/Committees/Events:

Our next board meeting is September 5. Our next general meeting is September 26. Liam reviewed all of the other September events covered earlier in the minutes. We are all invited to bring telescopes to the PlaneWave event. They will also be giving a tour of their facility. We have been contacted by the Edsel and Eleanor Ford House, in Grosse Pointe Shores, about the possibility of putting on an observing event at their location, with a tentative date of September 28. More information will be shared when it becomes available.

Sandra spoke about the upcoming Astronomy at the Beach event and reminded everyone that many volunteers are needed to make this a success. People are needed to work the tables, bring telescopes, and help with many other large and small tasks. Contact Sandra directly for more information about signing up.

Main Speaker:

Dr. Karen Collins, a member of the Harvard-Smithsonian Center for Astrophysics and the TESS (Transiting Exoplanet Survey Satellite) Mission Team, gave a remote presentation via video, talking about the objectives and accomplishments of this exciting mission that is searching for planets in orbit around nearby bright stars. (See last month's StarStuff for a detailed article about Dr. Collins and the TESS Mission.) Dr. Collins started with a brief history of the search for exoplanets. She then gave us an explanation of how TESS does the imaging of the sky and how the data is then interpreted to determine if there are exoplanet candidates. Follow-up observations are made to validate, confirm, or rule out planets due to a false positive such as an eclipsing

binary star. So far, TESS has found over 1,000 objects of interest, and of those, so far, 27 have been confirmed as planets. We heard specific details about quite a few of those planets, including several near-Earth-sized and/or hospitable-zone planets. The TESS Mission has been approved by NASA to extend through 2022. A question-and-answer period followed the presentation.

September Board Meeting Summary

(Please note that these summaries published each month are a condensed and abbreviated form of the full slate of topics and discussions that take place at our board meetings. Full board meeting minutes are taken each month and kept for club records.)

Our board meeting was held on September 5, 2019. All board members were present, as well as ten additional members. Our September general meeting speaker will be Jim Shedlowsky, talking about "The Evolution of Giant Telescopes."

Mike Bruno gave the financial report. We currently have \$6,961.75. We have had quite a few new members join in the last six weeks or so.

The club will no longer pay to be listed on MeetUp. The cost is outweighing any benefits. The board discussed the various events coming up every weekend in September. See our Calendar of Events for details.

Our search committee reports that we have a nominee for each of the open board positions (president and treasurer). Other members are welcome to volunteer

to run for any of the four officer positions between now and the election in January, if interested.

SWAN (State-Wide Astronomy Night) is scheduled for April 17, 2020, and we will be looking for members interested in putting on presentations at the various locations.

We had discussion about the upcoming Astronomy at the Beach two-day event. Our club is still looking for volunteers to help man the tables. Contact Sandra or look for the sign-up sheet in an upcoming email.

Find Uranus (Cont'd from page 6)

Uranus via telescope in 1781, and Johan Bode confirmed its status as a planet two years later. NASA's Voyager 2 is the only spacecraft to visit this strange world, with a brief flyby in 1986. It revealed a strange, severely tilted planetary system possessing faint dark rings, dozens of moons, and eerily featureless cloud tops. Subsequent observations of Uranus from powerful telescopes like Hubble and Keck showed its blank face was temporary, as powerful storms were spotted, caused by dramatic seasonal changes during its 84-year orbit. Uranus's wildly variable seasons result from a massive collision billions of years ago that tipped the planet to its side.

Discover more about NASA's current and future missions of exploration of the distant solar system and beyond at nasa.gov

Classifieds

StarStuff will run classified advertisements for club members. Each classified advertisement will be run in up to two consecutive editions of the StarStuff Newsletter. Submit your listing to starstuff@fordastronomyclub.com