



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: Mike Bruno
Vice President: John McGill
Secretary: Cheri Grissom
Treasurer: Arica Flores

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 Mike Bruno

I have to say I am looking forward to this month's speaker! Our own John McGill will be talking about the Mars Perseverance 2020 rover mission. The landing was a success, and I was not expecting to see the actual landing video that was released a few days ago. Another amazing accomplishment by Nasa & JPL! All our club activities remain on hold but there is still a lot of exciting space science and astronomy to keep us involved in this exciting hobby.

Our January elections were a success, and I would also like to congratulate and welcome our 2021 Board Members. Long-time member Ed Halash was elected Vice-president to fill the term limited John McGill and Cheri Grissom & Arica Flores were re-elected for another term in their positions of Secretary & Treasurer. I would like to thank John for all his hard work over the past three years as Vice-President and we look forward to John's continued service as the "FAAC Official Rocket Launch Photographer"

I have been noticing the days have been getting a little longer and we will be leaping into Spring before we know it. So, I hope everyone finds a clear night or two to get out and observe and shares with the Club their experiences. Clear skies!

Secretary's Report

by Cheri Grissom

FAAC General Meeting – January 28, 2021

Our videoconference meeting was called to order by President Mike Bruno at 7:05 p.m. All board members present except Arica Flores. A total of 24 people were listed as being in attendance. New members and guests introduced themselves.

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

With January and February being the anniversary months of three of the major space program disasters in US history, Mike wanted to take a moment to acknowledge that, to honor those lives lost, and to be grateful for all of the successful missions that have been accomplished through the years.

Member Observing Experiences:

Weather has been difficult, both temperature-wise and cloud cover, but several brave members have been out observing.

What's Up:

Gordon Hansen presented. Our asterism of the month is Kemble's Cascade, named after amateur astronomer Father Lucien Kemble, who first noted this beautiful chain of 20 or so stars, with the open cluster NGC 1502 at its bottom. It is located in the dim constellation of Camelopardalis but can more easily be found using the stars of Cassiopeia as pointers. Mars, Uranus, and Neptune are our evening planets for February, with Mercury, Venus, Jupiter, and Saturn visible in the early morning.

Club Reports:

The Secretary's Report is always in "StarStuff," so Cheri had nothing to add. Arica was absent, so we didn't have a treasurer's report. As far as web site and social media, Liam advised that this has been a quiet time, not much going on. Mike had no GLAAC update for us but will keep us informed if anything new comes up. Doug Bauer gave us a membership update. He will send one more reminder to those who have not yet renewed. The online payment option is popular.

FAAC Observer's Award:

Mike wanted to remind everyone about the FAAC Observer's Award. Details can be found in the files on our Groups.io site. This award is pretty new for us, and so far, no one has completed it. Ed Halash is providing us with a Seasonal Observing Challenge four times a year, and Mike will make sure it gets published to all of us, if you haven't seen it yet.

2020 Sirius Award:

We are still accepting nominations for our 2021 Sirius Award. If there is someone you would like to nominate, please send a short note to Mike at president@fordastronomyclub.com. We will accept nominations through the end of February.

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

Election of Officers:

Gordon Hansen presided over our annual elections. After opening the floor for any new nominations, we had only one candidate for each of the four board positions. Our 2021 officers are as follows: President, Mike Bruno. Vice President, Ed Halash. Secretary, Cheri Grissom. Treasurer, Arica Flores.

Speaker:

Our guest speaker was Ed Cackett, and the topic was "Mapping a Black Hole." Ed is originally from Manchester, England, and is currently a professor at Wayne State University, in the Department of Physics and Astronomy.

Ed is currently involved in research to discover if what we think we know about black holes is in fact true. An Englishman named John Michell first conceived of black holes back in 1783. Ed took us through a history of our understanding of black holes and the theories that have developed. He explained the formation of several different types of black holes. Sizes can range anywhere from what is called stellar mass to supermassive, with the mass of millions or billions of stars.

At the center of our own galaxy is a supermassive black hole known as Sagittarius A*. It is equal to about 4 million solar masses. There is strong evidence that there is a very large black hole at the center of every galaxy.

These are exciting times to be studying black holes. We cannot see them directly, but gravity enables us to view them indirectly by observing the orbital motions of nearby stars, the infall of matter to the black hole (the accretion disk), and through gravitational waves. The shadow of the 6.5 billion solar mass black hole at the center of galaxy M87 has been imaged by the Event Horizon Telescope and was announced to the world on April 10, 2019.

Ed took questions from the group. The meeting adjourned at 9:06 p.m.

Board Meeting – February 4, 2021

(Videoconference meeting.) All board members present. Eight additional members attended.

The main topics of discussion at this month's board meeting included: Upcoming speakers for our General Meetings. Sandra believes she has or will soon have someone scheduled for each month this year.

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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).

Taking the Dog Stars for a Springtime Walk: Sirius and Procyon

by David Prosper



March skies feature many dazzling stars and constellations, glimmering high in the night, but two of the brightest stars are the focus of our attention this month: Sirius and Procyon, the dog stars!

Sirius is the brightest star in the nighttime sky, in large part because it is one of the closest stars to our solar system at 8.6 light years away. Compared to our Sun, Sirius possesses twice the mass and is much younger. Sirius is estimated to be several hundred million years old, just a fraction of the Sun's 4.6 billion years. Near Sirius - around the width of a hand with fingers splayed out, held away at arm's length - you'll find Procyon, the 8th brightest star in the night sky. Procyon is another one of our Sun's closest neighbors, though a little farther away than Sirius, 11.5 light years away. While less massive than Sirius, it is much older and unusually luminous for a star of its type, leading astronomers to suspect that it may "soon" - at some point millions of years from now - swell into a giant star as it nears the end of its stellar life.

Sirius and Procyon are nicknamed the "Dog Stars," an apt name as they are the brightest stars in their respective constellations - Canis Major and Canis Minor - whose names translate to "Big Dog" and "Little Dog." Not everyone sees them as canine companions. As two of the brightest stars in the sky, they feature prominently in the sky stories of cultures around the world. Sirius also captures the imaginations of people today: when rising or setting near the horizon, its brilliance mixes with our atmosphere's turbulence, causing the star's light to shimmer with wildly flickering color. This vivid, eerie sight was an indication to ancient peoples of changes in the seasons, and even triggers UFO reports in the modern era!

Both of these bright stars have unseen companions: tiny, dense white dwarf stars, the remnants of supermassive companion stars. Interestingly, both of these dim companions were inferred from careful studies of their parent stars' movements in the 1800s, before they were ever directly observed!

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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
April	17th	7:17pm	Island Lake
May	15th Int'l Astronomy Day	7:48pm	Island Lake
June	19th	8:12pm	Island Lake
July	17th	8:06pm	Island Lake
August	14th	7:35pm	Island Lake
September	11th (Tentative)	6:49pm	Island Lake
October	9th	6:00pm	Maybury State Park

Upcoming Club Meeting Topics & Speakers

Meeting	Speaker	Topic
February 25th	John McGill	Mars Perseverance 2020
March 25th	Andy Macica	Exploring the Universe with Astrophotography
April 22nd	Don Klaser	Skylore & Mythology
May 27th	Jeffery (Buddy) Stark	
June 24th	Elinor Gates	What's Up at Lick Observatory

February Talk Details

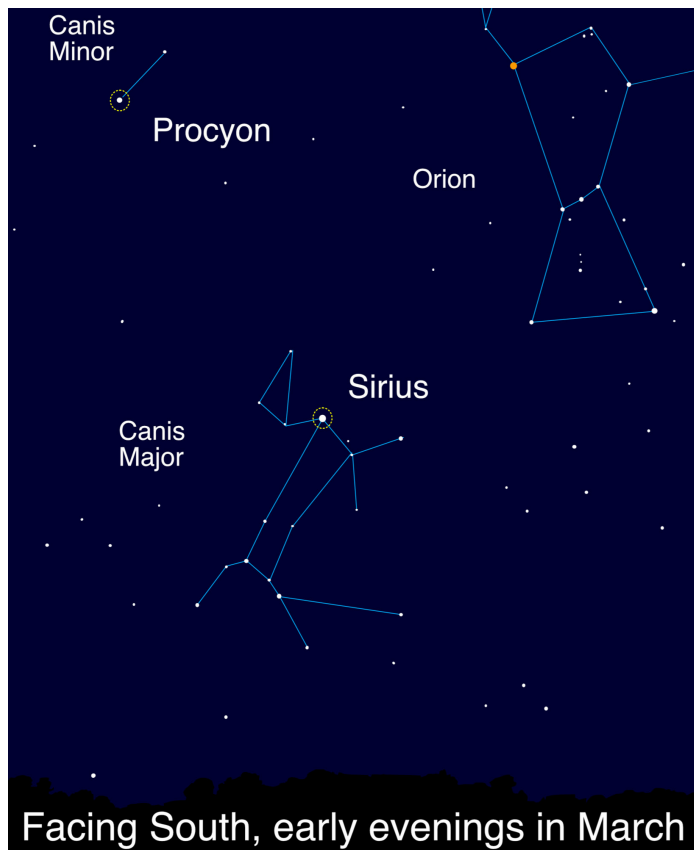
Mars Perseverance 2020

John McGill

*Editor/Photojournalist of Astronomy For Everyone
& NASA/JPL Solar System Ambassador*

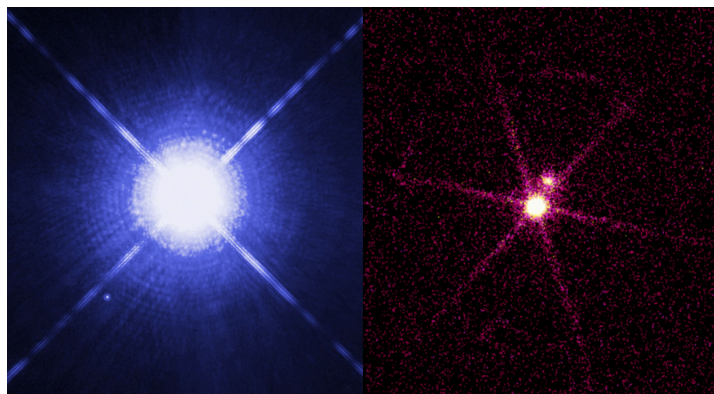
Update of the Mar's 2020 Perseverance Rover mission. John will discuss some of the history, science objectives and hopefully the successful landing of the Perseverance Rover.

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Sirius and Procyon (Cont'd from page 4)

Sirius and Procyon, the loyal hunting dogs of nearby Orion the Hunter! What other stories can you imagine for these stars? Learn about “Legends in the Sky” and create your own with this activity: <https://bit.ly/legendsinthesky> Image created with assistance from Stellarium.

They are a challenging observation, even with a large telescope, since their parent stars are so very bright that their light overwhelms the much dimmer light of their tiny companions. The white dwarf stars, just like their parent stars, have differences: Sirius B is younger, brighter, and more energetic than Procyon B. Careful observations of these nearby systems over hundreds of years have helped advance the fields of: astrometry, the precise measurement of stars; stellar evolution; and astroseismology, the study of the internal structure of stars via their oscillations. Discover more about our stellar neighborhood at nasa.gov!



Sirius A and B imaged by two different space telescopes, revealing dramatically different views! Hubble’s image (left) shows Sirius A shining brightly in visible light, with diminutive Sirius B a tiny dot. However, in Chandra’s image (right) tiny Sirius B is dramatically brighter in X-rays! The “Universe in a Different Light” activity highlights more surprising views of some familiar objects: <http://bit.ly/different-light-nsn> NASA, ESA, H. Bond (STScI), and M. Barstow (University of Leicester) (left); NASA/SAO/CXC (right)

Secretary’s Report (cont’d from Page 4)

We went over our usual topics of discussion, but there is very little going on now, so no updates to report. We had some discussion about possibly planning some virtual events for this spring. Several ideas were presented such as doing live view presentations similar to how we did them for Astronomy at the Beach; doing a binoculars-only event where the public is invited to bring their own binoculars, following Covid precautions, and we could guide them around the night sky. We could reach out to schools in a similar fashion, maybe doing a Zoom solar observing event. We also talked about having a members-only observing session, following proper protocols. We also discussed how to encourage more people to attend our monthly General Meetings. All of these topics and ideas will be discussed in more detail at future meetings. We welcome input from all members.

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	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	Sean Pickard
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 Spectrascopes	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)	George Korody

February Talk (Cont'd from page 5)

Bio:

John McGill is a member of the FAAC and NASA's Museum Alliance. He is also a NASA/JPL Solar System Ambassador and a credentialed launch photographer that makes numerous trips down to the Kennedy Space Center where he attends media conferences and sets up cameras right at the launch pad.