



# 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:	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 Mike Bruno*

I would like to begin this month's presidents corner by wishing everyone a safe and healthy next few months. This current situation with the COVID-19 Pandemic is an experience new to all of us and has future consequences we are unsure of at this time. Although our gathering together face to face as a social club has been put on hold, we are going to do our best to keep our meetings moving forward and meet virtually. Instructions to join the General Meeting on March 26th through a WebEx conference has been sent out in our Groups.io chat, if you are not a member of that or want the details, just email me at [president@fordastronomyclub.com](mailto:president@fordastronomyclub.com) and I will send them to you. Please be patient with us as we get everything sorted out virtually and when we start to get back on a regular schedule. I know we will have some bumps in the road, but we have a lot of dedicated members trying to work through all the logistics.

Going forward as we all shelter in place I hope everyone still takes time to step away from the stress of this situation and go outside and look up at the sky on a clear night. We have a meteor shower arriving around Aprils New Moon and look for Comet C/2019 Y4 (Atlas) in the evening sky, maybe the long wait for a naked eye comet is over! I think relaxing and observing the wonderful universe is one of my many reasons why I love this hobby. Getting to know all of you is another of course!

## Secretary's Report

*by Cheri Grissom*

### FAAC General Meeting – February 27, 2020

Meeting called to order at 7:04 p.m. by President Mike Bruno. All board members present. Introduction of our members and one guest. We had approximately 29 people in attendance. Mike thanked our outgoing

## Club Information

Refer to our website for a map and directions:

[www.fordastronomyclub.com](http://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](mailto: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

president, Liam Finn, for the outstanding job he has done leading the club for the past three years. Mike explained our club's mentoring program for any new members wishing assistance in getting started in the hobby or with their equipment.

### *Member Observing Experiences:*

Jim Barnes has had good intentions and has gone out and set up his equipment on many occasions, only to have the skies turn hazy soon afterwards. Many members sympathized! Sean Pickard got a 15-hour exposure of M81 and M82. Milton French likes to observe Mercury because it can be so challenging. He has had several nice views. Chris Strang has spent some very cold nights observing things like the Rosette Nebula and M42. John McGill lamented about having trouble observing Venus, with too many palm trees in the way! Arica Flores has had family in from out of town recently and took the opportunity to give them a view of Venus and the Orion Nebula through the club's 8" Orion Dob. Jeff Gorman has also been observing things like the Orion Nebula, the Pleiades, and Venus, with binoculars, which are much easier to set up in the cold weather.

### *Club Equipment:*

Jeff Gorman, as our new equipment manager, gave the report tonight. Mike Bruno thanked Dennis Salliotte for doing a great job as our previous equipment manager. Jeff and Dennis have met and corresponded a few times to make the transition. All equipment is accounted for and correctly listed in our inventory. Jeff explained how our equipment loaner programs works, for the benefit of new members.

### *What's Up:*

Gordon Hansen was absent, so Mike Bruno did the report. On March 8, we spring forward to daylight savings time. The vernal equinox will happen on March 19. Venus will be at greatest eastern elongation on March 24, so we still have plenty of opportunities to view Venus high in the sky in the evening. Mike talked about the zodiacal light and how to look for it. March is a good month to try, if you have dark skies and unobstructed horizons to the west. The Lunar X will be visible on March 1, at 6:52 p.m. Mike went over some deep sky objects we could look for and mentioned the Messier Marathon date coming up on March 21.

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](mailto: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](http://LLBeanBusiness.com)

See the [groups.io](http://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

## Treasurer's Report:

Arica tells us there is approximately \$8,000 in the treasury. They are still in the process of getting her official access to all of our accounts, the DFCU website, etc., and she will have a more detailed report for us next month.

## Social Media/Website:

Liam Finn reports that we ended up paying for our Meet-Up membership for one more term, but as of May, we will no longer be a member of that group. He mentioned he is open to any suggestions from members on improvements that could be made to the website. Steve Flessa made the suggestion that our monthly guest speaker and topic should be one of the first things anybody sees when going to our website. Discussion followed and we will look into the possibility of doing something like that.

## Events:

Our Conference and Swap Meet will be held on March 21, at HFCC. Jim Frisbie advises that fliers have been sent out through Groups.io, Facebook, and our website. If you have rented a table, set-up begins at 8 a.m., with the meet opening to the public from 9 a.m. to 3 p.m. We have eight guest speakers lined up on a variety of topics. We will have planetarium shows going on all day.

We do not yet have a guest speaker lined up for our March meeting. Several possibilities were discussed. Perhaps a visit to the planetarium, an ask-the-astronomer session, some type of tech talk. This will be discussed more at the upcoming board meeting.

Our first Beginners' Night is scheduled for April 4, at Island Lake State Recreation Area.

SWAN will be April 17. Our club will be putting on presentations at HFCC and will possibly have telescopes on the roof, weather permitting.

Our Banquet will be April 25, same location, Tanglewood Golf Club, in South Lyon. Tim Campbell will be our speaker and will talk about the 30th Anniversary of the Hubble Space Telescope.

Mike advises that GLAAC has a new board and is in the process of planning Astronomy at the Beach. Anyone interested in being a part of that should contact them.

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](mailto: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).

We have been contacted by a gentleman who has put together a film that is showing at the Henry Ford Museum entitled "In Saturn's Rings." He was wondering if we or any other local clubs might be interested in a private screening. We will look into this a little more.

### *Main Speaker:*

Sandra Macika is a long-time astronomer and wonderful outreach ambassador. She has previously worked at NASA and Lick Observatory, and now as a Michigan resident, she is an active member of our own as well as a couple other Michigan clubs. She gave a presentation on the upcoming Dragonfly Mission to Saturn's moon Titan. The mission is planned for a 2026 launch, arriving at Titan in 2034. Titan is Saturn's largest moon, its size being larger than our own moon and the planet Mercury, and smaller than the planet Mars. It is one-half the diameter of Earth. The average surface temperature is -179C. It is the only moon in the solar system to have a substantial atmosphere.

We learned a lot about Titan from the Cassini mission to Saturn, which made 126 fly-bys of Titan, as well as the Huygens lander that was deployed from Cassini to the moon's surface. We have learned from Cassini and Huygens that Titan has mountains, lakes, rivers, cryovolcanoes that spew water and ammonia, as well as atmospheric clouds and a rain cycle. No other earth craft has ever landed on a surface so far from our home planet.

Scientists believe Titan is similar now to what our early Earth was like. Among the goals of the Dragonfly mission are to understand our own origins and the chemical processes that led to life. Among the compounds known to be in Titan's atmosphere are all of the building blocks of DNA. The science instruments aboard Dragonfly are designed to provide the next step in seeking answers to fundamental questions such as: What makes a planet or moon habitable?

The Dragonfly craft itself operates similar to a large drone. It has eight rotors mounted in four pairs. It will have the capability of moving about the planet in both short hops or for longer flights. It is hoped that Dragonfly's rechargeable batteries will keep it sending data back to Earth for many years.

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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](http://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](https://facebook.com/FordAstronomyClub)

### Twitter

[twitter.com/Ford\\_Astro](https://twitter.com/Ford_Astro)

### MeetUp

[meetup.com/Ford-Amateur-Astronomy-Club](https://meetup.com/Ford-Amateur-Astronomy-Club)

## Scheduled Club Events

Month	Date	Sunset	Location
April	4th	8:02pm EDT	Island Lake
May	2nd	8:34pm EDT	Island Lake
May	30th	9:02pm EDT	Island Lake
June	27th	9:13pm EDT	Island Lake
July	25th	8:59pm EDT	Island Lake
August	8th Club Picnic Meteor & S'mores	8:30pm EDT	Island Lake
August	22nd	8:22pm EDT	Island Lake
September	15th & 16th Astronomy at the Beach	7:24pm EDT 7:22pm EDT	Island Lake
October	24th	6:36pm EDT	Maybury State Park

## Upcoming Club Meeting Topics & Speakers

Meeting	Speaker	Topic
March 26th	ALL	Ask the Astronomer
April 23rd	Jenny Pon	Our Place in Space
May 28th	Don Klaser	Antikythera Mechanism
June 25th	Jim Shedklowsky	The LSST: Faster, Wider, Deeper

*Cont'd on page 9*



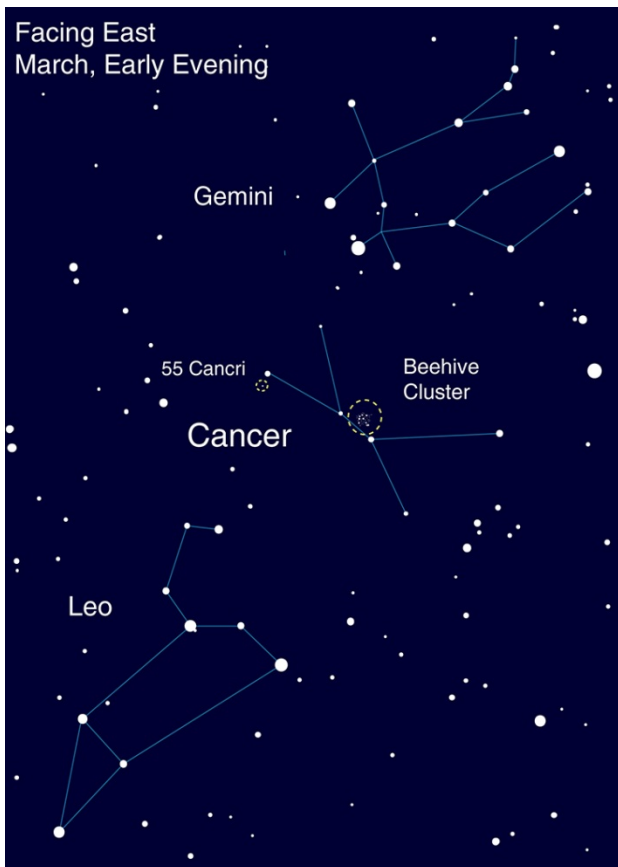
# Dim Delights in Cancer

by David Prosper

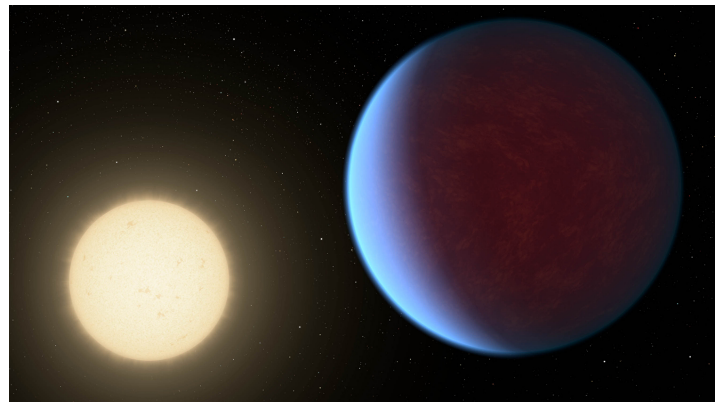
Cancer the Crab is a dim constellation, yet it contains one of the most beautiful and easy-to-spot star clusters in our sky: the Beehive Cluster. Cancer also possesses one of the most studied exoplanets: the superhot super-Earth, 55 Cancri e.

Find Cancer's dim stars by looking in between the brighter neighboring constellations of Gemini and Leo. Don't get frustrated if you can't find it at first, since Cancer isn't easily visible from moderately light polluted areas. Once you find Cancer, look for its most famous deep-sky object: the Beehive Cluster! It's a

large open cluster of young stars, three times larger than our Moon in the sky. The Beehive is visible to unaided eyes under good sky conditions as a faint cloudy patch, but is stunning when viewed through binoculars or a wide-field telescope. It was one of the earliest deep-sky objects noticed by ancient astronomers, and so the Beehive has many other names, including Praesepe, Nubulum, M44, the Ghost, and Jishi qi. Take a look at it on a clear night through binoculars. Do these stars look like a hive of buzzing bees? Or do you see something else? There's no wrong answer, since this large star cluster has intrigued imaginative observers for thousands of years.



*Caption: Look for Cancer in between the “Sickle” or “Question Mark” of Leo and the bright twin stars of Gemini. You can’t see the planets around 55 Cancri, but if skies are dark enough you can see the star itself. Can you see the Beehive Cluster?*



*Caption: Artist concept of 55 Cancri e orbiting its nearby host star. Find details from the Spitzer Space Telescope’s close study of its atmosphere at: [bit.ly/spitzer55cancrie](http://bit.ly/spitzer55cancrie) and the Hubble Space Telescope’s observations at [bit.ly/hubble55cancrie](http://bit.ly/hubble55cancrie) Credit: NASA/JPL-Caltech*

55 Cancri is a nearby binary star system, about 41 light years from us and faintly visible under excellent dark sky conditions. The larger star is orbited by at least five planets including 55 Cancri e, (a.k.a. Janssen, named after one of the first telescope makers). Janssen is a “super-earth,” a large rocky world 8 times the mass of our Earth, and orbits its star every 18 hours, giving it one of the shortest years of all known planets! Janssen was the first exoplanet to have its atmosphere successfully analyzed. Both the Hubble and recently-retired Spitzer space telescopes confirmed that the hot world is enveloped by an atmosphere of helium and hydrogen with traces of hydrogen cyanide: not a

*Cont'd 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, Dennis Salliotte, at [equipment@fordastronomyclub.com](mailto:equipment@fordastronomyclub.com)

Item	Held by	Item	Held by
<b>Telescopes</b>		<b>Display Items</b>	
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
<b>Presentation Tools</b>		Banner - Large (32" x 16')	George Korody
Projector (older)	Jim Frisbie	Tri-Fold Presentation Boards	George Korody
Projector (newer)	Gordon Hansen	<b>Other</b>	
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	<b>Demonstration Tools</b>	
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
<b>Imaging Cameras</b>	
C2 Meade Deep Sky Imager Pro III w/Autostar Suite	Gordon Hansen
C6 Canon 60Da Astrophotography DSLR and accessories	Tim Dey
<b>Other Imaging Equipment</b>	
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
<b>Special Event Items - Not available for Loan Out</b>	
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

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### *Delights in Cancer (Cont'd from page 6)*

likely place to find life, especially since the surface is probably scorching hot rock. The NASA Exoplanet Catalog has more details about this and many other exoplanets at [bit.ly/nasa55cancrie](http://bit.ly/nasa55cancrie).

How do astronomers find planets around other star systems? The Night Sky Network's "How We Find Planets" activity helps demonstrate both the transit and wobble methods of exoplanet detection: [bit.ly/findplanets](http://bit.ly/findplanets). Notably, 55 Cancri e was discovered via the wobble method in 2004, and then the transit method confirmed the planet's orbital period in 2011!

Want to learn more about exoplanets? Get the latest NASA news about worlds beyond our solar system at [nasa.gov](http://nasa.gov).



*Meeting Topics & Speakers (cont'd from page 5)*

## March Talk Details

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### Ask the Astronomer

#### *Club Membership*

The March meeting does not have a scheduled main topic and will not be meeting at Henry Ford College — the college is closed and we are under the “Stay Home, Stay Safe” orders.

Instead, we'll do our first all online meeting via web-conferencing software.

There will be a short presentation followed by a session of “Ask the Astronomer”.

Ask the Astronomer is an open-floor session where club members can ask astronomy-related questions and members will respond. This is a highly-interactive session.

*Secretary's Report (cont'd from page 4)*

## February Board Meeting Summary

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(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 March 5, 2020. All board members were present, as well as five additional members. Our next general meeting will be March 26. Liam Finn and Tim Campbell will do a presentation on spectroscopy.

Arica Flores reports that our current balance is \$8,890.30. She is now officially authorized on all of our club accounts as the new treasurer.

GLAAC has a new board, and they are discussing some changes that may be made to Astronomy at the Beach. More information will follow.

Mike went over our admin account list to make sure everything is up to date on who is authorized to do what, etc.

Our first Beginners' Night will be April 4. We discussed that we may move the date to the Friday before, or even the following Saturday, if weather is bad. There would be notice posted on all of our social media sites.

We discussed Banquet plans, including what types of gifts we will have this year. We talked about our club's mentoring program and making it a bit more formal. We talked about the possibility of having an FAAC Observer's Award. Mike is putting some ideas together and will present them at the next meeting.

## 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](mailto:starstuff@fordastronomyclub.com)