



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:	Ed Halash
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.

Secretary's Report

by Cheri Grissom

FAAC General Meeting – December 2, 2021

This was our combined November/December meeting, which would normally be our Holiday Potluck, but which was, out of necessity, once again a videoconference meeting. Called to order at 7:15 by President Mike Bruno. Arica Flores was unable to make it, but all other officers were present, as well as many members, for a total of 14 attendees. Damon, a new member from South Lyon, introduced himself.

Member Observing Experiences:

A couple members were able to catch the solar flares last week. John McGill was in Florida to watch NASA's Lucy launch on October 16, a probe that will be visiting parts of the main asteroid belt as well as some of Jupiter's trojan asteroids (asteroids that share Jupiter's orbital path around the sun). John said the launch was very nice, and while down there, he also had an opportunity to see one of the reusable Space X boosters in person.

What's Up:

Gordon Hansen gave the report for December and January skies. Our next board meeting will be January 6, 2022. Our January general meeting will be on the 27th, when our annual elections will take place. The winter solstice is December 21. The Geminids meteor shower will peak on December 13/14. The Quadrantids meteor shower will peak on January 3/4.

Our asterism of the month is the Winter Hexagon, a large pattern in the sky that contains six alpha stars (the brightest in their respective constellations). Comet Leonard, discovered almost a year ago in January of 2021, is brightening and could become a binocular object in a few days as it approaches its closest pass to Earth on December 12 but will dim

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

quickly after that. A couple other comets to watch for are 67P/Churyumov-Gerasimenko, (its closest distance to Earth in November 2021), and C/2019 L3 (ATLAS), (its closest approach to Earth being in January 2022), both of which may currently be visible with telescopes.

Evening planets are Mercury, Venus, Jupiter, Saturn, Uranus, and Neptune. Venus will be at its greatest brilliance the evening of December 4, magnitude -4.9. Mars is currently in the morning sky. On December 28, we will be able to see Jupiter, Saturn, Venus, Mercury, and Pluto all lined up nicely in our evening (clear, please) skies.

There are a number of nice DSOs this time of year, including the open cluster M35, and of course M42, the beautiful and well-known Orion nebula.

Treasurer's Report:

Arica was absent but had let Mike know that we currently have \$9,699 in our treasury.

Membership:

Doug Bauer has sent out renewal notices and we already have quite a few paid for 2022. He will be sending second notices out soon.

Club Elections:

A reminder that they will be coming up at our next general meeting on January 27. All positions are open, but Cheri's position as secretary is the only one that is term-limited and must be filled by someone else. If you are interested in running for any of our four board positions of president, vice president, secretary, or treasurer, please contact anyone on the board. Nominations can also be taken during the meeting. You can nominate yourself, or someone else if they have agreed to it.

Sirius Award:

We usually make this announcement at our banquet, but this is the second year that has not been possible, so tonight is when we chose to announce the winner. Congratulations to Liam Finn on being our 2021 Sirius Award winner! Thank you, Liam, for being so generous with your time and energy in promoting the club, helping to organize things behind the scenes, and doing as much outreach as has been possible in these challenging times.

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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

Hang Out with the Twins of Gemini

by David Prosper



The night skies of February are filled with beautiful star patterns, and so this month we take a closer look at another famous constellation, now rising high in the east after sunset: Gemini, the Twins!

If you're observing Orion, as discussed in last month's article, then Gemini is easy to find: just look above Orion's "head" to find Gemini's "feet." Or, make a line from brilliant blue-white Rigel in the foot of Orion, through



Castor and Pollux are Gemini's most prominent stars, and often referred to as the "heads" of the eponymous twins from Greek myth. In Chinese astronomy, these stars make up two separate patterns: the Vermillion Bird of the South and the White Tiger of the North. What do you see? The Night Sky Network's "Legends in the Sky" activity includes downloadable "Create Your Own Constellation" handouts so you can draw your own star stories: bit.ly/legendsinthesky

Image created with assistance from Stellarium.

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).

its distinct "Belt," and then on through orange Betelgeuse. Keep going and you will end up in between the bright stars Castor and Pollux, the "heads" of the Gemini Twins. While not actually related – these stars aren't bound to each other, and are almost a magnitude apart in brightness – they do pair up nicely when compared to their surrounding stars. Take note: more than one stargazer has confused Gemini with its next-door neighbor constellation, Auriga. The stars of Auriga rise before Gemini's, and its brightest star, Capella, doesn't pair up as strikingly with its second most brilliant star as Castor and Pollux do. Star-hop to Gemini from Orion using the trick above if you aren't sure which constellation you're looking at.



Montage of Gemini North, located on Mauna Kea in Hawaii, and Gemini South, located on Cerro Pachón in Chile. These "twin" telescopes work together as the Gemini Observatory to observe the entire sky.

Image Credit: NOIRLab Source: <https://www.gemini.edu/gallery/media/gemini-northsouth-montage>

Pollux is the brighter of Gemini's two "head" stars - imagine it has the head of the "left twin" - and located about 34 light-years away from our Solar System. Pollux even possesses a planet, Pollux b, over twice the mass of Jupiter. Castor - the head of the "right twin" - by contrast, lies about 51 light-years distant and is slightly dimmer. While no planets have been detected, there is still plenty of company as Castor is actually a six-star system! There are several great deep-sky objects to observe as well. You may be able to spot one with your unaided eyes, if you have dark skies and

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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	9th	8:08pm	Spring Mill Pond
May	7th	8:39pm	Spring Mill Pond
June	4th	9:05pm	Spring Mill Pond
July	9th	9:11pm	Spring Mill Pond
August	13th Perseid Meteors & Club Picnic	8:46pm	Spring Mill Pond
September	16 & 17th AatB	7:40pm	Kent Lake Beach
October	1st	7:14pm	Spring Mill Pond

Upcoming Club Meeting Topics & Speakers

Meeting	Speaker	Topic
January 27th	Dan Durda	All These Worlds: The Exoplanet Revolution
February 24th	TBD	
March 24th	Gerald Dunifer	TBD
April 28th	Ed Cackett	Science with the JWST: Searching of the First Stars

December Talk Details

All These Worlds: The Exoplanet Revolution

Dan Durda, Principal Scientist

For generations we've wondered whether we are alone in the Universe. Thanks in large part to space missions like Kepler, we now know that we live in a galaxy full of diverse planetary systems. Not only are we detecting planets around thousands of other stars, we are also beginning to characterize them as well, revealing the vast stage for the play of life in the Universe.

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Gemini (Cont'd from Page 4)

sharp eyes: M35, a large open cluster near the “right foot” of Gemini, about 3,870 light-years away. It’s almost the size of a full Moon in our skies! Optical aid like binoculars or a telescope reveals the cluster’s brilliant member stars. Once you spot M35, look around to see if you can spot another open cluster, NGC 2158, much smaller and more distant than M35 at 9,000 light-years away. Another notable object is NGC 2392, a planetary nebula created from the remains of a dying star, located about 6,500 light-years distant. You’ll want to use a telescope to find this intriguing faint fuzzy, located near the “left hip” star Wasat.

Gemini’s stars are referenced quite often in cultures around the world, and even in the history of space exploration. NASA’s famed Gemini program took its name from these stars, as do the appropriately named twin Gemini North and South Observatories in Hawaii and Chile. You can discover more about Gemini’s namesakes along with the latest observations of its stars and related celestial objects at nasa.gov.

*Secretary’s Report (Cont’d from Page 2)**Speaker (No speaker for this meeting):*

The remainder of our meeting was as close as we could get to the social hour we usually have at the potluck. Sean Pickard is building a very nice home observatory and shared photos of the progress. So far, the project has gone from stakes in the ground, to site preparation, to pouring of concrete, to framing and siding. Next will be the roll-off roof. We talked about a few things of interest, in general, such as the James Webb Space Telescope, which is scheduled for launch later this month.

Meeting adjourned at 8:50 p.m.

FAAC Board Meeting Summary – January 6, 2022

(Videoconference meeting.) Meeting called to order at 7:13 p.m. by secretary, Cheri Grissom. Mike Bruno and Ed Halash absent, Arica Flores present. Also present: Doug Bauer, Joe Bostic, Tim Campbell (left early), Liam Finn, Jesse Godsey, Jeff Gorman, Gordon Hansen, John McGill, Sean Pickard, and Dennis Salliotte. Greg Knekleian joined later.

Gordon will do "What's Up" for our general meeting on January 27, 2022. Our speaker will be Dan Durda, speaking on the topic of what we now know and are continuing to learn about exo-planetary systems and the possibility for life elsewhere in the universe.

We talked about our upcoming 2022 meeting schedule and the likelihood that for several months, at least, we will still be doing videoconference meetings. Up to now, hosting duties have been alternating between Tim and Gordon, and between Zoom and Webex. After some discussion, it was agreed that Gordon will host all of our upcoming meetings, board and general, via Webex.

Treasurer's Report: Arica gave us our current total balance of \$9,849. She needs information from Mike as to who to send our scholarship donation check to at HFCC. We normally send them \$300, but Tim Campbell had given a talk at the Henry Ford Museum on December 18, and the museum sent our club a stipend of \$250. At last month's board meeting, we made the decision to donate that amount, plus \$50 from our own account, and to then send the college two \$300 scholarships this year. Arica is also no longer receiving financial statements from the credit union. She is able to log into the

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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, 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

Board Meeting (Cont'd from Page 6)

account to see the totals, but is not able to view the details of our income and expenses. (Note: Mike Bruno joined during the Treasurer's Report, approximately 7:21 p.m.) Mike believes Arica should be able to see the details of our account, there was some discussion of what to do, and Arica will try again.

2022 Elections: They will be held at our January 27 general meeting. Jesse Godsey will be running for secretary, as Cheri is term-limited. Mike and Arica have agreed to run again. We still need to confirm with Ed that he is willing to run for VP again. Mike will contact him. Liam suggested Mike send out a Groups.io email reminding members of the election at the January meeting. Mike will do that.

Membership Report: Doug Bauer reports that we have been getting new members on a regular basis, around six or seven in the last six months or so. Quite a few members have sent in dues for renewal. Doug has sent out an email reminder to those who have not done so yet.

Liam had done a NASA talk/display at the Henry Ford Museum a few weeks ago. The museum indicated interest in having Solar System Ambassadors give some additional presentations at the museum. Maybe an Apollo presentation in the month of April. We will talk more about this.

2022 Events Calendar: Liam will put together a proposed list of Beginners' Night dates and submit them for approval by the board. We need to decide on a date for our Club Picnic. We talked briefly about the Awards Banquet, usually held in the spring, but it is not known at this point if that will be a go or not. We may postpone that to the fall.

At 7:50 p.m., club business concluded and there was casual discussion about a few topics of interest to those in attendance. Sean's progress on his observatory. A battery case Jesse has made. Topics then circled back to club business, and we talked about a solar projection device and whether that might be something for the club to consider purchasing. Liam will put together some details and a price and present it to the board at a future meeting. We talked about

the need for more lanyards and badge holders. Mike will get with his contact for prices. John McGill mentioned he would like to see the club do more sidewalk astronomy presentations in the coming year. Discussion followed. Hopefully, something like that will be possible as the year progresses. We discussed who will be running the election later in the month. Bob McFarland usually takes on that responsibility, but he hasn't been to any of our meetings in a very long time, so Gordon volunteered to do the job.

Meeting adjourned at 8:40 p.m.

Speaker Info (Cont'd from Page 5)

Bio:

Dan Durda is a Fellow and former member of the Board of Directors of the International Association of Astronomical Artists. His artwork has appeared in hundreds of magazine articles, books, and web news stories and his animations have been featured in television documentaries on PBS and The Science Channel. Dan is a professional astronomer whose research focuses on asteroids. He appears regularly on The Science Channel series "How The Universe Works" and he was the 2015 recipient of the American Astronomical Society's Division for Planetary Sciences Carl Sagan Medal for excellence in public communication in planetary science.

For sale: Meade ETX-125EC

Contact Cheri Grissom

I am the original owner, purchased in 1999, over \$1500 for the whole package. Optically, this telescope gives excellent views (though the corrector plate has some dust and dew spots - I am not comfortable trying to clean it). The problem is with both the Audiostar computerized controller and the motors on the fork mount. Both will work fine for a while but then the Audiostar controller doesn't want to work and/or the telescope moves in strange directions. Also, it will no longer run on its internal AA batteries and requires an external power source (a known problem with these ETXs). I guess I'm just testing the waters to see if there is any interest. It needs an owner who is electronically and mechanically knowledgeable and doesn't mind a project. It would be helpful to be experienced with these Meade go-to scopes. Or, if someone wanted to de-fork it and use on a different mount, that would certainly work.

Included with the five-inch Maksutov-Cassegrain telescope:

- Audiostar go-to controller (brand-new, a replacement for the original Autostar that stopped working)
- Electronic controller/focuser (if you want to use the telescope without the go-to Audiostar)
- Right-angle finderscope
- Astrozap flexible dew shield
- Meade #883 Deluxe Field Tripod
- Meade Hard-Sided Carrying Case
- All original manuals

I'm asking \$350 for the whole package, but talk to me if you think that's out of line. If there's no interest in the whole package, I would consider parting it out. Cheri Grissom, 734-461-0281, or email, rcgrissom@aol.com.