

# 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: Sean Pickard
Secretary: Cheri Grissom
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.

# **President's Corner**

by Arica Flores, President

## Falling in Love with the Moon Again

In Michigan the weather gives us so few nights of clear skies that we need to utilize one of them. When we get closer to the full moon, I hear astronomers say the moon is washing out the sky so it's not worth observing. I say go out and enjoy it. I'm guessing the moon is one of the first things you looked at through a telescope. The moon is the first place we as people visited and explored. The moon is our faithful friend, always with us, our protector.

The ancient people used it to mark time, as some of the first calendars are lunar based. The moon records a turbulent history. Every meteor impact is like an eraser, with debris cleaning an area of the slate until the next one. So many different passages of time are marked up there. The full moon was used to light the hunt and the harvest. If it were not for the moon and its very specific size and distance, we would not have had the solar eclipse we just experienced. Sometimes all you need is to share the moon with someone who has never seen it though a telescope to remind you of its awe. So I encourage you if you have really looked at the moon in a while, take some time to explore it again.

# Secretary's Report

by Cheri Grissom, Secretary

## FAAC General Meeting – May 23, 2024

Meeting called to order at 7:07 p.m. by President Arica Flores. All board members present, a total of 28 attendees all together. Members and guests introduced themselves. Arica made a couple of preliminary announcements regarding Astronomy at the Beach coming up September 20 and 21. Most importantly, the location has been changed due to

#### **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 <a href="mailto:info@fordastronomyclub.com">info@fordastronomyclub.com</a>

# **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 ongoing construction at Island Lake State Recreation Area. This year's AATB will be held at Maybury State Park, in Northville. It is not too early to start thinking of coming out and helping at the club table or bringing a telescope for the public to look through. Please volunteer a little bit of your time. More information will follow as the event gets closer, including a sign-up sheet.

### Member Observing Reports

Liam talked about his observations of the aurora borealis from his home. He was out walking his dog when he noticed it and let some of his neighbors know so they could enjoy the view. Doug Bauer saw them from South Carolina. Dan Smith mentioned that his non-astronomy friends were not impressed! Arica Flores shared views with friends who definitely were impressed. In other observing, Tim Campbell and Tim Dey have been to the HJRO and would like to start opening it on a more regular basis to our membership. There is some work needing to be done, but watch Groups.io for notices that they are going to be there. Liam reminded us that the U of M-Dearborn observatory opens to the public on a regular basis. Check their event calendar for more information. New member Chris Rozewski had good views of two Starlink chains. John McGill got photos of the "Blaze Star" in Corona Borealis, and also got a photo of the moon with a very interesting bright area. Something new?

#### Club Business

Social Media/Website: Liam is still encountering difficulties with trying to get the club events calendar on our website to show the correct meeting dates for July and December. The calendar is correct on Groups.io.

Club Equipment: Jeff has sent out requests to caretakers to confirm our annual inventory by the end of June.

Tim Campbell spoke briefly about the STEAM Expo being held at Selfridge on June 8 and 9. Look for more information to follow soon.

# What's Up in the Night Sky

Gordon went through our events calendar. On June 14, the Lunar X and V will be visible around 10:13 p.m. Our next Beginners/Public Observing event will be on June 15 at Island Lake. The summer solstice is June 20. Our July board meeting is on July 11, since the usual first Thursday is the July 4 holiday.

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area equipment retailers, and afterhours 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 <u>groups.io</u> 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

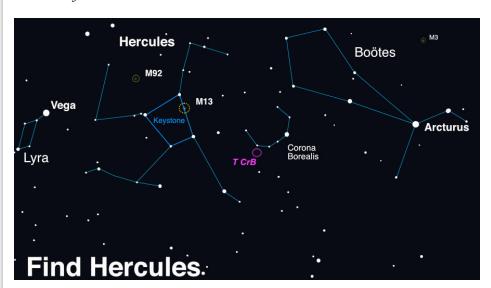
# July's Night Sky Notes: A Hero, a Crown, and Possibly a Nova!

by Vivian White



High in the summer sky, the constellation Hercules acts as a centerpiece for late-night stargazers. At the center of Hercules is the "Keystone," a near-perfect square shape between the bright stars Vega and Arcturus that is easy to recognize and

can serve as a guidepost for some amazing sights. While not the brightest stars, the shape of the hero's torso, like a smaller Orion, is nearly directly overhead after sunset. Along the edge of this square, you can find a most magnificent jewel - the Great Globular Cluster of Hercules, also known as Messier 13.



Look up after sunset during summer months to find Hercules! Scan between Vega and Arcturus, near the distinct pattern of Corona Borealis. Once you find its stars, use binoculars or a telescope to hunt down the globular clusters M13 (and a smaller globular cluster M92). If you enjoy your views of these globular clusters, you're in luck - look for another great globular, M3, in the nearby constellation of Boötes. Image created with assistance from Stellarium: stellarium.org

Globular clusters are a tight ball of very old stars, closer together than stars near us. These clusters orbit the center of our Milky Way like tight swarms of bees. One of the most famous short stories, Nightfall by Isaac Asimov, imagines a civilization living on a planet within one of these star clusters. They are surrounded by so many stars so near that it is always daytime except for once every millennium, when a special alignment (including a solar eclipse) occurs, plunging their planet into darkness momentarily. The sudden night reveals so many stars that it drives the inhabitants mad.

Back here on our home planet Earth, we are lucky enough to experience skies full of stars, a beautiful Moon, and regular eclipses. On a clear night

questions, events, outreaches, etc. are normally discussed via this list.

Join by visiting <a href="https://groups.io/g/FordAstronomyClub">https://groups.io/g/FordAstronomyClub</a> 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). this summer, take time to look up into the Keystone of Hercules and follow this sky chart to the Great Globular Cluster of Hercules. A pair of binoculars will show a faint, fuzzy patch, while a small telescope will resolve some of the stars in this globular cluster.



A red giant star and white dwarf orbit each other in this animation of a nova similar to T Coronae Borealis. The red giant is a large sphere in shades of red, orange, and white, with the side facing the white dwarf the lightest shades. The white dwarf is hidden in a bright glow of white and yellows, which represent an accretion disk around the star. A stream of material, shown as a diffuse cloud of red, flows from the red giant to the white dwarf. When the red giant moves behind the white dwarf, a nova explosion on the white dwarf ignites, creating a ball of ejected nova material shown in pale orange. After the fog of material clears, a small white spot remains, indicating that the white dwarf has survived the explosion. NASA/Goddard Space Flight Center

Bonus! Between Hercules and the ice-cream-cone-shaped Boötes constellation, you'll find the small constellation Corona Borealis, shaped like the letter "C." Astronomers around the world are watching T Coronae Borealis, also known as the "Blaze Star" in this constellation closely because it is predicted to go nova sometime this summer. There are only 5 known nova stars in the whole galaxy. It is a rare observable event and you can take part in the fun! The Astronomical League has issued a Special Observing Challenge that anyone can participate in. Just make a sketch of the constellation now (you won't be able to see the nova) and then make another sketch once it goes nova.

Tune into our mid-month article on the Night Sky Network page, as we prepare for the Perseids! Keep looking up!

#### **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      | 13th      | 9:08pm | Spring Mill Pond                             |
| August    | 10th      | 8:40pm | Spring Mill Pond                             |
| September | 20 & 21st | 7:32pm | Maybury State Park<br>Astronomy at the Beach |

# **Hammond Planetarium**

| Date      | Time   | Торіс   |
|-----------|--------|---|
| June 29th | 7:00pm | The Wonderful Webb (James Webb Space<br>Telescope Show) |

# **Club Meeting Topics & Speakers**

| Meeting     | Speaker       | Topic   |
|-------------|---------------|---|
| May 23rd    | Samer Hariri  | Volcanoes of our Solar System                           |
| June 27th   | Peter Michaud | Virtual Visit to the Gemini<br>Observatory Control Room |
| July 25th   | Andy Macica   | Lick Observatory Telescope                              |
| August 22nd | Club Members  | Open Forum  |

#### June Talk Details

Live From Gemini - Virtual visit to Gemini Observatory Control Room

Peter Michaud, Education and Engagement Manager / CEE Deputy at University of Hawaii, Institute for Astronomy

#### Description:

The presentation will be held live from the Gemini North remote control room in Hilo HI, where observations are conducted nightly. As it will be daytime in HI during the presentation I will show how operations work at Gemini, highlighting some of the recent scientific results from Gemini and the technology used to explore the Universe.

#### Bio:

Peter Michaud is the Education and Engagement (E&E) manager for NSF's NOIRLab and works out of the Gemini Observatory's Hilo Base Facility on Hawai'i Island. In his capacity as NOIRLab's E&E Manager, he oversees programs in Hawai'i, Arizona, and Chile. Prior to taking the helm leading community engagement and education efforts at the Gemini Observatory over 25 years ago, Peter managed the Bishop Museum's planetarium in Honolulu HI. During his tenure of nearly a decade at Bishop Museum, Peter led planetarium program production on diverse topics for public and school audiences, wrote a monthly skywatching newspaper column, and other activities including leading a film crew to the summit of Maunakea for the 2001 total solar eclipse, followed by a public eclipse tour to South America in 2004. In addition to his admitted eclipse addiction (he has seen eight to date), Peter is passionate about science education and inspiring students to pursue STEM careers. He also enjoys amateur telescope making, climbing long hills on his bicycle, and striving for unattainable perfection as a DIY audiophile by designing and building speakers and amplifiers. Peter has two (grown) children, who are pursuing careers in STEM fields — like his B.S. degree in Atmospheric Physics (augmented by secondary teaching certification in Physical Science Education).

#### Secretary's Report (Con't from Page 2)

Comet C/2023 A3 should be a naked eye object soon. Unfortunately, we are going through a time where there are no easily visible planets in the evening sky. In the early morning of June 4, if you have an unobstructed view to the low east, there will be a lineup of Jupiter, Mercury, Uranus, the moon, Mars, and Neptune. Gordon again mentioned the star T Coronae Borealis, a recurring nova, nicknamed the Blaze Star, which is expected to be visible to the naked

eye between now and September. Other favorite DSOs: M57, the Ring Nebula; M13, the Hercules Cluster; M92, the second-brightest globular cluster in our sky; and M40, the only double star in the Messier catalogue.

#### Guest Speaker

Samer Hariri is a professor of earth and environmental sciences at Schoolcraft College. He is also a cofounder of the Farmington Community Stargazers astronomy club. The subject of his talk is "Volcanic Wonders of our Solar System."

Professor Hariri began with the definition of what a volcano is and then took us through the different types of volcanoes on Earth and other solar system objects. Some can occur in several locations in the solar system; others are unique to Earth, and still others are unique to objects other than earth. The dwarf planet Pluto, the asteroid Ceres, and the Saturnian moon Enceladus have cryovolcanoes, that is, ice volcanoes. These still need a deep heat source. We don't have any images yet, but studies suggest the dwarf planets Eris and Makemake are also likely to have cryovolcanoes.

Professor Hariri covered the ten most active volcanic bodies in the solar system, as well as some of the youngest and some of the most-studied surfaces. The maria on our moon are actually basalt lava plains. Mars is home to the largest known volcano in the solar system, a shield volcano we call Olympus Mons. It is approximately 14 miles high and covers a surface area about the size of the state of Arizona. Venus has a thick enough atmosphere that it is impossible to make direct visual observances, but by using radar to image the surface, we have documented approximately 85,000 volcanoes.

We then went through a showcase of earth's most well-known volcanoes. We also were able to have a

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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

| ltem   | Held by         | Item                              | Held by        |
|--|-----------------|-----------------------------------|----------------|
| Telescopes   |                 | Display Items                     |                |
| TK1 Coronado Personal Solar Telescope<br>(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)                         | 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  |
| TKn Celestron 6" Refractor & AGT<br>Mount  |                 | Banner - Large (32" x 16')        | George Korody  |
| TKn Meade 8" f/5 Newtonian & LX-70 Mount   |                 | Tri-Fold Presentation Boards      | George Korody  |
| Zhumell 20x80 Binoculars   |                 | Other                             |                |
| Presentation Tools   |                 | Canopy (10' x 10')                | Liam Finn      |
| Projector (older)  | Jim Frisbie     | Pop Cooler                        | Sean Pickard   |
| Projector (newer)  | Gordon Hansen   | TA Sky Quality Meter              | Liam Finn      |
| Projection Screen 8'   | John McGill     | Demonstration Tools               |                |
| Projection Screen 6'   | Liam Finn       | Weigh on Planets Scale            | Liam Finn      |
| Bullhorn   | Liam Finn       | Lunar Phase Kit                   | Bob MacFarland |
| Speaker System w/Wireless Mic  | Liam Finn       | 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  |  |  |  |

#### Secretary's Report (Con't from Page 6)

close-up in-person look at many lava and ash samples. A question-and-and answer period followed.

Meeting adjourned at 9:08 p.m.

# June 6, 2024 Board Meeting Summary

(Videoconference meeting.) All board members present, along with eight other members. The speaker for our June meeting will be Peter Michaud, giving a talk entitled, "Virtual Visit to Gemini Observatory Control Room." This will be a video presentation.

**Club Business/Old Business:** Brief secretary and treasurer reports given. The annual FERA report has been submitted by Joe, and receipt has been acknowledged.

**Social Media/Website:** Arica is posting on Facebook, trying to make sure our page is kept active and current. Liam continues to have technical

difficulties with our calendar not showing the correct meeting dates on our website. The dates are correct on Groups.io.

**Equipment:** Jeff reports he is waiting for two more caretakers to complete the annual inventory form and return it to him. Also, the audio-visual equipment we use for each in-person meeting should be included in our club inventory going forward, with the stipulation it is not available for borrowing. Gordon will send Jeff an itemized list.

**AATB Committee:** Gordon Hansen has volunteered to be the chairperson. Other committee members are Cheri Grissom, John McGill, and Arica Flores. We would like to have one or two more people. Please consider volunteering! Gordon will be setting up online meetings for this group.

**Outreach:** We of course already have quite a few members involved in outreach activities, including those put on by FAAC, in addition to our club being

invited to other events and locales. We are getting the HJRO open more often.

Welcoming: Arica and Kristie have volunteered. While Doug Bauer already sends out a new member packet when someone joins, we discussed perhaps having some additional information we can pass out to new members and guests who attend our in-person meetings, Beginners' Nights, etc. Gary has already been bringing printed copies of "Star Stuff" to pass out and will continue doing that. Tim C. said he can bring extra copies if needed.

**New Business:** Gordon advises that our Webex subscription will expire soon. After brief discussion, it was moved, seconded, and passed unanimously to approve renewing it.

We needed to decide if we are going to go with another social meeting for October, or would we like to have a speaker. After discussion, Tim C. offered to do his "The Wonderful Webb" talk about the James Webb Telescope. Alternatively, he offered to do a planetarium show. The consensus was a preference for a talk or planetarium show. Tim will decide between the two before the meeting. We will advise Sandra that she does not need to come up with a speaker for October.

It was agreed by all present that we will go ahead with our Annual Club Picnic on August 10, at Spring Mill Pond. That will be the same date as our Beginners' Night. The park has confirmed that there will be no construction impediments on that date.

Tim C. talked about the upcoming Air Show, Open House, and STEAM Expo being held at Selfridge Air National Guard Base on June 8 and 9. Tim answered questions about where to park, where to set up, what time to be there, etc.