



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
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Officers

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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

Sirius Award



I would like to extend special congratulations to Gordon Hansen for being the winner of this year's Sirius Award. Gordon has been a member of the club since 2001 and since 2003 he has been an officer in the club. Gordon's dedication to the club and participation in outreach over the many years was the reason he was selected above all others to be the recipient of this year's Sirius Award.

Groups.IO

This is another call for anyone who has not yet joined Groups.IO. As most of you are aware, we have moved our group chat from Yahoo to Groups.io. This move has been completed successfully. While we still have some members that have not accepted the invitation to Groups.io, the vast majority have. For anyone that has yet to accept the Groups.io invitation or any member that did not receive an invitation to Groups.io, please email me at president@fordastronomyclub.com and I will send you an invitation to ensure you receive the latest on all the club's conversations, events, and observing sessions.

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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. Contact the club for information on how to enter or exit the park in the event that the main gate is locked.

The club also has use of a private observing site near Gregory Michigan. See the FAAC Yahoo 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

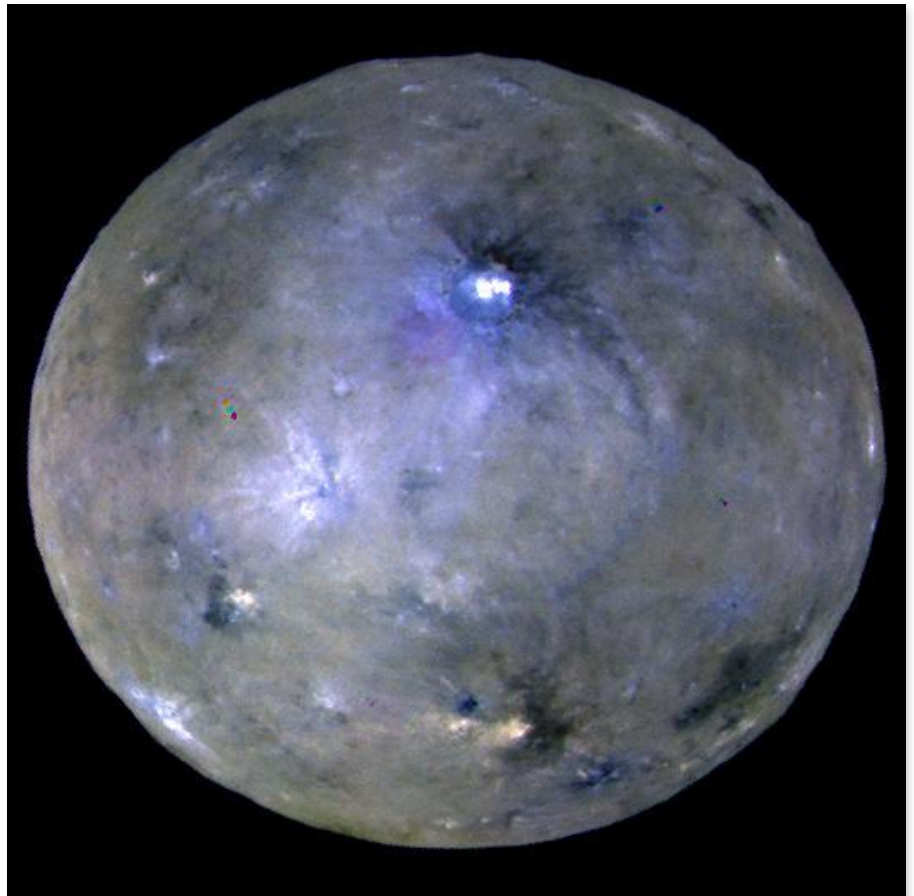
Membership includes the Star Stuff newsletter, discounts on magazines, discounts at selected area equipment retailers, and

What Is the Asteroid Belt?

By Linda Hermans-Killiam

There are millions of pieces of rocky material left over from the formation of our solar system. These rocky chunks are called asteroids, and they can be found orbiting our Sun. Most asteroids are found between the orbits of Mars and Jupiter. They orbit the Sun in a doughnut-shaped region of space called the asteroid belt.

Asteroids come in many different sizes—from tiny rocks to giant boulders. Some can even be hundreds of miles across! Asteroids are mostly rocky, but some also have metals inside, such as iron and nickel. Almost all asteroids have irregular shapes. However, very large asteroids can have a rounder shape.



Caption: This image captured by the Dawn spacecraft is an enhanced color view of Ceres, the largest object in the asteroid belt.

Credit: NASA/JPL-Caltech/UCLA/MPS/DLR/IDA

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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 at

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 Yahoo Group for ordering information and instructions on how to request the correct logo.

Communication

The FAAC uses Yahoo Groups for our email distribution list (both formal and informal discussion.)

Observing nights & locations (scheduled and unscheduled as weather permits), equipment questions, events, outreaches, etc. are normally discussed via this list.

Asteroid Belt (cont'd from page 2)

The asteroid belt is about as wide as the distance between Earth and the Sun. It's a big space, so the objects in the asteroid belt aren't very close together. That means there is plenty of room for spacecraft to safely pass through the belt. In fact, NASA has already sent several spacecraft through the asteroid belt!

The total mass of objects in the asteroid belt is only about 4 percent the mass of our Moon. Half of this mass is from the four largest objects in the belt. These objects are named Ceres, Vesta, Pallas and Hygiea.

The dwarf planet Ceres is the largest object in the asteroid belt. However, Ceres is still pretty small. It is only about 587 miles across—only a quarter the diameter of Earth's moon. In 2015, NASA's Dawn mission mapped the surface of Ceres. From Dawn, we learned that the outermost layer of Ceres—called the crust—is made up of a mixture of rock and ice.

The Dawn spacecraft also visited the asteroid Vesta. Vesta is the second largest object in the asteroid belt. It is 329 miles across, and it is the brightest asteroid in the sky. Vesta is covered with light and dark patches, and lava once flowed on its surface.

The asteroid belt is filled with objects from the dawn of our solar system. Asteroids represent the building blocks of planets and moons, and studying them helps us learn about the early solar system.

For more information about asteroids, visit:

<https://spaceplace.nasa.gov/asteroid>

President's Corner (cont'd from page 1)

First Beginners' Nights

So far this year the weather has not been of any help to our beginner nights. Our May night was overshadowed by clouds and more clouds. Let's hope that our June event is more successful as many of us are experiencing withdrawal symptoms from the lack of stars so far this year. With the prospect of having clearer skies in June I call on our astronomers to come out in force for some starlight therapy and putting on a good show for the public for our Beginners Night on June 23rd.

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Join by visiting groups.yahoo.com/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).

President's Corner (cont'd from page 3)

Club Banquet



For those of you who attended the clubs annual banquet, I hope you enjoyed the night's fun. I would like to congratulate this year's winners of Astro Jeopardy, it was by a landslide and well deserved.

Hector J Robinson Observatory Update

by Greg Knekleian

The observatory managed to open a few times last month, despite the sparsity of clear nights.

We had three visitors one night and up to ten people arrived on another to observe Jupiter on the night of opposition. Most of the visitors were FAAC members but there was at least a half a dozen visitors who were not members and showed up to enjoy some clear skies.

Late on the night of opposition, I made a last minute decision to do some imaging of Jupiter. The sky was much better than I thought it would be — perhaps one of the better seeing conditions I've enjoyed this year. It might not have been in the top six night for Michigan but probably in the top ten — at least for the first ninety minutes. Changing conditions and dew made seeing much worse after that.

Planetarium

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

Twitter

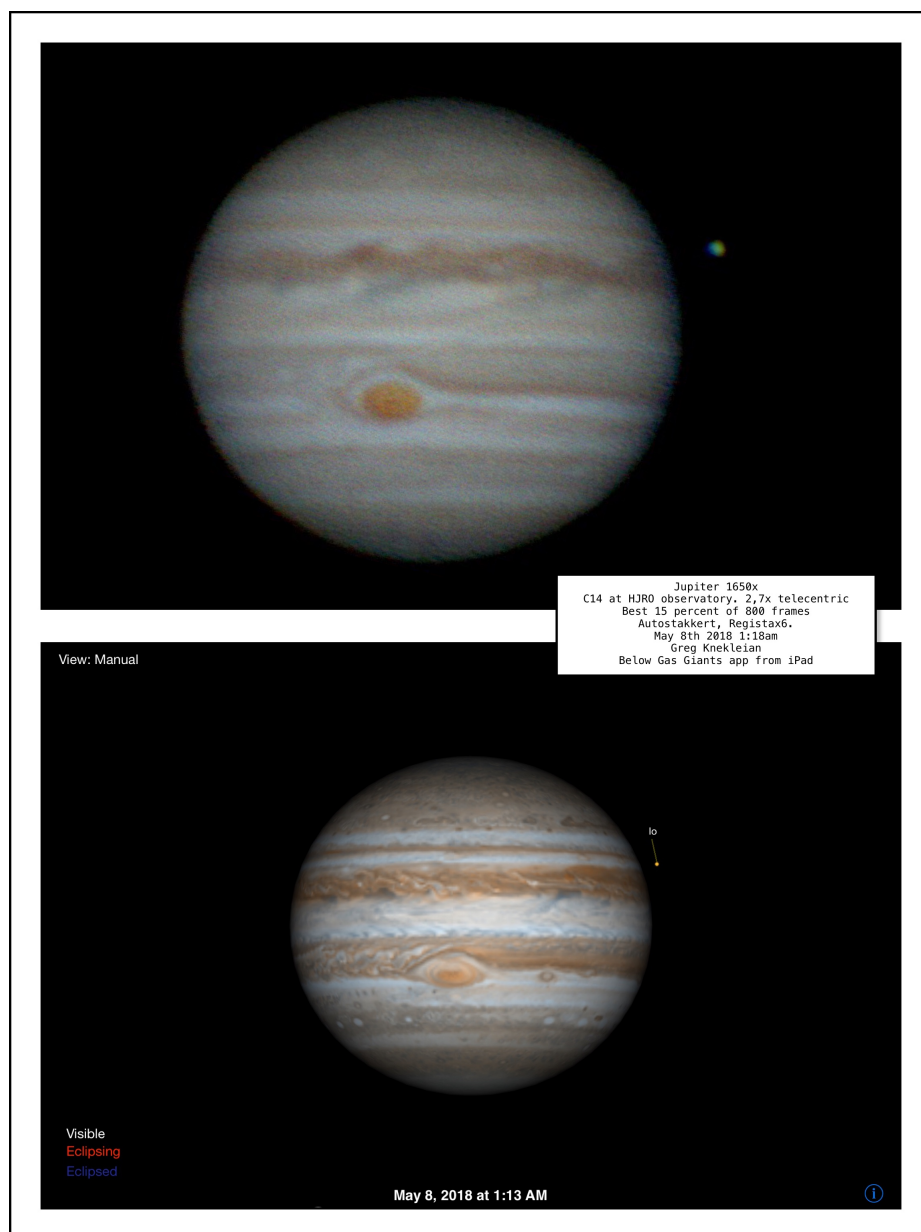
twitter.com/Ford_Astro

MeetUp

meetup.com/Ford-Amateur-Astronomy-Club

My lack of recent observing or photography brought some delays in my tests of different cameras I wanted to test with a 2.7x tele-centric setup for imaging Jupiter using the observatory's Celestron C14 telescope. I left two cables at home which delayed tests a bit.

My best photos were from earlier in the night when seeing was better. Here is one of them.



Jupiter is near opposition which makes this time of year the best chance to get a better image. With a C14 one can reportedly get better results with a

2.5 or 3x optical Barlow like a Televue brand. This coupled with a decent camera and frame rate should provide some awesome photos of the planet. Of course my test photos aren't necessarily competing with the top level planetary photographers. . . but I'm "just testing" this 2.7 tele-centric lens. The tele-centric is a part of my large solar setup.

Highlights of the last month at HJRO included having the time to actually show up and be there, Seeing Hayden Barrett tear down his photographic setup very efficiently after getting some nice test photos with his Celestron C8 Edge telescope, and chatting with some visitors from the FAAC club who had not visited the observatory in a while.

Other News

I've been spending some of my time figuring out how to create some fast setups of a few meteorites as I've been getting into that as a niche part of my astronomy hobby. One thing I'm researching a bit on how to have models or some meteorite pieces which have good tactile feedback for those who are blind. These visitors are students who occasionally show up for Solar day outreach. Having some 3D like sculpture pieces of 3D pieces may allow the occasional blind visitor something more to see with a tactile sense. I'm hoping to work on some kind 3D model of the sun to show some of the features it show us in the eyepiece. To build a model of the sun with tactile feedback should be a fun project.

Scheduled Observing Nights

Month	Date	Sunset	Location
June	16th	9:02pm	Island Lake Spring Mill Pond
July	21st	8:28pm	Island Lake Spring Mill Pond
August	18th FAAC Club Picnic	8:28pm	Island Lake Spring Mill Pond
September	14th & 15th Astronomy at the Beach	7:43pm 7:41pm	Island Lake Kent Lake Beach
October	13th	6:63pm	Mayberry State Park

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		Eye Pieces	
4" Dobsonian (Harold's donation)	George Korody	EPK1 Eyepieces, Filters & Accessories	Liam Finn
TK1 Coronado Personal Solar Telescope (Doublestack) w/Meade Autostar Goto Mount	John McGill	Binoculars	
TK3 Celestron 130mm Newtonian w/goto mount	Liam Finn	BK3 15x70 Binoculars w/monopod mount	Bob MacFarland
TK4 Celestron 90mm Refractor w/manual mount	Liam Finn	BK4 20x80 Binoculars w/alt-az goto mount	Sandra Macika
TK5 4.5" Reflector on Fitz GEM mount	Bob MacFarland	BK5 25x70 Binoculars w/tripod adapter	Tim Dey
TK6 8" Orion XT8i Dobsonian	Jed & Jacob Datema *Caretakership is available	Display Items	
TK7 TPO 8" f/4 Newtownian Astrograph (OTA Only - no mount)	Jim Barnes	Astronomy Event Sign (3' x 6')	Gordon Hansen
Presentation Tools		Astronomy Event Signs 18x24" (x8)	Liam Finn
Projector (older)	John McGill	PVC Display Board - Folding	Sandra Macika
Projector (newer)	John McGill	Banner - Small (24" x 32")	George Korody
Projection Screen 8'	John McGill	Banner - Medium (24" x 72")	Sandra Macika
Projection Screen 6'	John McGill	Banner - Large (32" x 16')	George Korody
Bullhorn	George Korody	Tri-Fold Presentation Boards	Don Klaser
Speaker System w/Wireless Mic	Bob MacFarland	Tri-Fold Poster Board (Club Photos)	George Korody
DVD Player	John McGill	Other	
Demonstration Tools		Canopy (10' x 10')	Liam Finn
Weigh on Planets Scale	George Korody	Pop Cooler	Hayden Barrett
Lunar Phase Kit	Bob MacFarland	Equipment Etching Tool	Greg Ozimek
100' Scale Model Solar System Kit	Bob MacFarland	TA Sky Quality Meter	Liam Finn
		TA Sky Atlas 2000.0	Tim Dey
		TA Orion Telescope Binoviewer	Liam Finn

Item	Held by
Imaging Cameras	
C1 Celestron NexImage Solar System Imager model #93712	Gordon Hansen
C2 Meade Deep Sky Imager Pro III w/Autostar Suite	Gordon Hansen
C3 Orion StarShoot Deep Space Video Camera NTSC #52185 w/video capture device #52178	Gordon Hansen
C4 Meade Electronic Eyepiece w/video cable for monitor or TV	Gordon Hansen
C5 Orion StarShoot Deep Space Video Camera II #52195 and Orion StarShoot iPhone Control for Deep Space Video Camera II #52195	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	Gordon Hansen
CA3 Canon EOS Deluxe Astrophoto kit for Canon EOS mount, T-thread adapter and variable 1.25" extender	Tim Dey
CA4 Orion STarShoot LCD-DVR #58125 2.5" LCD screen	Gordon Hansen
CA5 Celestron Canon EOS T-ring adapter #93419	Gordon Hansen
Special Event Items - Not available for Loan Out	
BK1 Orion BT-100 Binocular telescope w/hard case, Orion VersaGo h.d. manual Alt/Az mount w/ Vixen dovetail head and Vixen style binocular holder bracket	Ken Anderson
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