Star Stuff

Ford Amateur Astronomy Club Newsletter

Volume 27, Number 2 February 2017

Solar Eclipse Provides Coronal Glimpse

By Marcus Woo

On August 21, 2017, North Americans will enjoy a rare treat: The first total solar eclipse visible from the continent since 1979. The sky will darken and the temperature will drop, in one of the most dramatic cosmic events on Earth. It could be a once-in-a-lifetime show indeed. But it will also be an opportunity to do some science.

Only during an eclipse, when the moon blocks the light from the sun's surface, does the sun's corona fully reveal itself. The corona is the hot and wispy atmosphere of the sun, extending far beyond the solar disk. But it's relatively dim, merely as bright as the full moon at night. The glaring sun, about a million times brighter, renders the corona invisible. "This is a way that we hope can get the same sorts of observations: by harnessing the power of the masses from various amateurs," says Matthew Knight, an astronomer at the University of Maryland.

"The beauty of eclipse observations is that they are, at present, the only opportunity where one can observe the corona [in visible light] starting from the solar surface out to several solar radii," says Shadia Habbal, an astronomer at the University of Hawaii. To study the corona, she's traveled the world having experienced 14 total eclipses (she missed only five due to weather). This summer, she and her team will set up identical imaging systems and spectrometers at five locations along the path of totality, collecting data that's normally impossible to get.

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Presidents Article

By Liam Finn (the new 'POTAC')

Winter Blues

January was not great month for observing and the first half of February looked just as bleak but it seems that Punxsutawney Phil says we have another six weeks of winter ahead. In saying that Mother Nature seems set on proving Punxsutawney Phil wrong as while writing this the sun is shining and the forecast is looking like some observing may actually take place in the coming days.

With that being said, we do have a busy schedule already planned out for the first half of the year and as always we will be seeking as many of our members to come out with telescopes and provide a show of force to the members of the public that we are a very active club with our events and our membership participation in these events.

Using the "Meetup" Service

To drive membership to the club we have setup a Meetup, for those of you who have not heard of this service, it provides an online event planning service where our club events are published and anyone in Meetup can see the events in their area and can sign up to them. We have already seen this service bring new members into the club in January and the more we tell people about it the more we expect it to help with our membership drive. The link for our meetup is here https://www.meetup.com/Ford-Amateur-Astronomy-Club/ Please feel free to tell everyone you know about it.

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Sirius Award

The Sirius Award nominations deadline is closing fast. Please send your Sirius Award nominations to president@fordastronomyclub.com as soon as you can, if you have not already done so. This award is how we show our appreciation to the hard work of our members, those who have gone above and beyond to make FAAC a club to be proud of.

Each of you make our club proud but there are some who without thought of self, go that extra mile and without whom our club would not be the success it is today. These are the people we recognize with the Sirius Award. It is our one way we publicly recognize their hard work and dedication.

Nominations need to be in no later than the end of March so the club officers can review the nominations and go through the selection process. There are a few restrictions on the award. No past winner can be nominated again. No presently sitting officer or any officer that was in office in 2016 can be nominated. If you have questions please feel free to contact me.

Annual Astronomy Conference & Swap Meet

With March nearly upon us the Annual Astronomy Conference and Swap Meet is here. This year it is on March 11th at Eastern Michigan University in Ypsilanti. If you have any astronomy related equipment to sell please contact Jim Frisbie to rent a table. The details of the event can be found on our club website http://fordastronomyclub.com/faac-2017-conference-swap-meet/. A copy of the flyer for the event is available for download so print it out and spread the word in your schools, work and libraries. This event is one of the few ways our club has to do fundraising so I call on the membership to spread the word.

Beginners Nights

Our first beginners' night will be April 1st at Island Lake. It would be nice to put on a strong showing

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Solar Eclipse Provides Coronal Glimpse

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Ground-based coronagraphs, instruments designed to study the corona by blocking the sun, can't view the full extent of the corona. Solar space-based telescopes don't have the spectrographs needed to measure how the temperatures vary throughout the corona. These temperature variations show how the sun's chemical composition is distributed—crucial information for solving one of long-standing mysteries about the corona: how it gets so hot.

While the sun's surface is ~9980 Farenheit (~5800 Kelvin), the corona can reach several millions of degrees Farenheit. Researchers have proposed many explanations involving magneto-acoustic waves and the dissipation of magnetic fields, but none can account for the wide-ranging temperature distribution in the corona, Habbal says.

You too can contribute to science through one of several citizen science projects. For example, you can also help study the corona through the Citizen CATE experiment; help produce a high definition, time-expanded video of the eclipse; use your ham radio to probe how an eclipse affects the propagation of radio waves in the ionosphere; or even observe how wildlife responds to such a unique event.

Otherwise, Habbal still encourages everyone to experience the eclipse. Never look directly at the sun, of course (find more safety guidelines here: https://eclipse2017.nasa.gov/safety). But during the approximately 2.5 minutes of totality, you may remove your safety glasses and watch the eclipse directly—only then can you see the glorious corona. So enjoy the show. The next one visible from North America won't be until 2024.

For more information about the upcoming eclipse, please see:

NASA Eclipse citizen science page
https://eclipse2017.nasa.gov/citizen-science

NASA Eclipse safety guidelines
https://eclipse2017.nasa.gov/safety

Presidents Article

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of members participating as these are the events that put our club and its activities in the public eye. Yes, we know April weather may be questionable but as long as it is not raining we are a go!

State Wide Astronomy Night (SWAN)

The FAAC in conjunction with Henry Ford College (HFC) will be putting on our own SWAN night event. This event will be advertised across all of Michigan as many Colleges, planetariums and clubs participate in similar events throughout Michigan. The event will be held at HFC on Friday April 7th from 7PM to 11PM. The event will include Planetarium shows, scientific presentations on gravity, size of the solar system and how stars work. Tim Campbell and I will be doing the classroom presentations and we have Hayden and Bob have offered to do the planetarium shows. We will need members of the club to turn up with telescopes to do some night sky observing with the public as well as some without telescopes to help in directing and people management. If you are interested to assist with or without a telescope please contact me stating in what way you are available to assist so I can get you on the schedule as a participant.The club also has a members-only section so we can maintain the files that we don't want to distribute to the general public and give members certain abilities (e.g. the ability to add pictures to the photo albums or the ability to download documents that are intended only for club members — such as the lock procedures for Island Lake).

Astronomy At The Beach 2017

As the Vice President of GLAAC I'm pleased to announce that AATB 2017 location has been selected. This year it won't be held in Kensington Metropark. This year's event will be held at Island Lake State Recreation area at Kent Lake Beach on September 29th and 30th. As GLAAC are still in the process of planning the event there is little details available at present. I will keep you up to date as the planning progresses and new details become available. A new location brings new challenges but also new opportunities.

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Secretary's Report
26th January 2017 General Meeting

By Jessica Edwards

Member Observations and What's up

There were few opportunities for observing due to the plentiful clouds but there were a few glimpses of the sun and Venus looks particularly good when conditions are favorable. There is an asteroid passing near Earth that is the size of a small house and can be viewed on SLEW. Feb 10th is a penumbral eclipse that began at 7:44 pm. Comet 2PENKE is at about magnitude 8-9 and can be seen near Venus. Neptune, Venus, and Mars are visible during the evening hours and Jupiter, Saturn and Pluto are visible in the morning..

Election Results

A vote to agree to the Nominating Committee's proposed slate of officers was passed and a move to have the election was also passed. Liam Finn was presented and elected to the office of President. Tim Dey was presented and elected to the office of Vice President. Jessica Edwards was presented and elected to the office of Secretary. Mike Bruno was presented and elected as Treasurer. Each officer will serve for the year 2017.

Main Talk – Coronado Personal Solar Telescope – John McGill

The club owns a Coronado Personal Solar Telescope that can be borrowed by club members. It offers views of the sun in Hydrogen Alpha. This allows for the observation of granulation, prominences, filaments, and sun spots. Set up and tracking of the sun is a relatively simple procedure and everything that is needed is included with the scope.

Presidents Article

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Final Thoughts…

As this is my first StarStuff article as president, I was hoping to keep it short but we have so much going on in the club it has made such an endeavor impossible. I look forward to seeing each and every one of you at our upcoming events and throughout 2017!

Plymouth Astro Imaging SIG Events

By Gordon Hansen

This group meets on the third Tuesday of every month (scheduled confirmed through next spring) and "members" include all the regulars from our SIG and some other very talented astrophotgraphers from the region.

All are welcome to attend. The meetings are at the Plymouth Library at 6 pm on the third Tuesday of each month. Reminders are published on the club's Yahoo Group.

Treasurers Report

February 2017
By Mike Bruno

Ford Amateur Astronomy Club
Balance Sheet
2/22/2017

ASSETS	
Checking / Savings	
Checking	$ 1,013.01
FAAC Savings	
General	2,024.45
Equipment	2,353.48
Scholarship	359.26
Total FAAC Savings	4,737.19
Petty Cash	100.00
Total CD's	3,190.05
Total Checking / Saving	9,040.25
TOTAL ASSETS	$ 9,040.25

FAAC Equipment Holders Report

By Dennis Salliotte

FAAC Equipment Report 2/18/17

Item	Currently Held By:	Date Last Verified
Telescopes		
4" Dobsonian (Harold's donation)	George Korody	1/20/17
Presentation Tools		
Projector (older)	Jim Frisbie	1/15/17
Projection Screen 8'	Bob MacFarland	1/15/17
Speaker System w/wireless mic	Bob MacFarland	1/15/17
Bullhorn	George Korody	1/20/17
DVD Player	Jim Frisbie	1/15/17
Projection Screen 6'	Mike Dolsen	1/15/17
Projector, ViewSonic	Gordon Hansen	1/16/17
Demonstration Tools		
Weight On Planets Scale	George Korody	1/20/17
Lunar Phase Kit	Bob MacFarland	1/15/17
100 ft Scale Model Solar System Kit	Bob MacFarland	1/15/17
Display Items		
Astronomy Event Sign (3' X 6')	Gordon Hansen	1/16/17
PVC Display Board - Folding	Sandra Macika	1/23/17
Banner – Small (24" X 32")	George Korody	1/20/17
Banner – Medium (24" X 72")	Sandra Macika	1/23/17
Banner – Large (32" X 16')	George Korody	1/20/17
Tri-Fold Presentation Boards	Don Klaser	1/26/17
Tri-Fold Poster Board (Early Club Photos)	George Korody	1/20/17
Other		
Canopy (10' X 10')	Dennis Salliotte	2/18/17
Equipment Etching Tool	Greg Ozimek	1/20/17
Pop Cooler	Michael Dolsen	1/15/17
EQUIPMENT KITS	**CARETAKER**	
Telescopes		

TK3 Celstrn 130 Newt Goto mount	Liam Finn	1/15/17
TK4 Clstrn 90 Refrctr w/man mount	Liam Finn	1/15/17
TK5 4 ½ " Reflector, on Fitz GEM mount	Bob MacFarland	1/15/17
TK6 8" Orion 8XTi Dobsonian	Dennis Salliotte CARETAKERSHIP IS AVAILABLE	1/20/17
TK1 Coronado PST solar scope w/double stack, Meade Autostar Goto mount & tripod and accessories	John McGill	1/15/17
TK7 TPO 8" f/4 Imaging Newtonian Telescope (OTA)	Jim Barnes	1/16/17
Binoculars		
BK3 15x70 binocs, monopod mount	Bob MacFarland	1/15/17
BK4 20x80 binocs,altaz goto mount	Sandra Macika	1/23/17
BK5 25x70 binocs w/tripod adaptor	Tim Dey	1/16/17
Eyepiece Kit		
EPK1 Eyepieces, filters & accesories	Liam Finn	1/15/17
Other		
TA Sky Quality Meter	Syed Saifullah	1/18/17
TA Sky Atlas 2000.0	Tim Dey	1/16/17
TA Orion telescope binoviewer	Liam Finn	1/15/17
Lincoln Park Observatory		
LPO Celestron binoviewer #93691	Tim Dey	1/16/17
LPO Celestron 2X 1.25" Barlow	Tim Dey	1/16/17
Imaging SIG		
C1 Celestron NexImage Solar System Imager model #93712	Gordon Hansen	1/16/17
C2 Meade Deep Sky Imager PRO III w/AutoStar Suite	Gordon Hansen	1/16/17
C3 Orion StarShoot Deep Space Video Camera NTSC #52185 w/video capture device #52178	Gordon Hansen	1/16/17
C4 Meade Electronic Eyepiece w/cable to a video monitor, VCR or TV. Pairw#43 AND Meade 3.5" LCD Color Monitor Kit #	Gordon Hansen	1/16/17

07700 Complete (unused). Pair w#34		
C5 Orion StarShoot Deep Space Video Camera II #52195 AND Orion StarShoot iPhone Control for Deep Space Video Camera II #52195	Gordon Hansen	1/16/17
C6 Canon 60 DA and accessories	Tim Dey	1/16/17
CA1 Rigel Systems Spectroscope	Gordon Hansen	1/16/17
CA2 Celestron 1.25” to T-Adapter(male thread) Model #93625	Gordon Hansen	1/16/17
CA3 Canon EOS deluxe astrophoto kit FOR Canon bayonet T-thread adapter ans variable 1.25” extender	Gordon Hansen	1/16/17
CA4 Orion StarShoot LCD-DVR #58125 2.5” LCD screen	Gordon Hansen	1/16/17
CA5 Celestron Canon EOS T-ring adapter #93419	Gordon Hansen	1/16/17
Special Event Use Only- Not Available For Loan Out		
TK2 Meade 8” ETX-LS-ACF w/tripod, voice assist, computerized GPS plus MANY (35+) accessories	Tim Dey	1/16/17
BK1 Orion BT-100 binocular telescope w/hard case, Orion VersaGo h.d. man altaz mount w/Vixen dovetail head and Vixen style binocular holder bracket	Ken Anderson	1/15/17
BK2 Zhumell 25x100 binoculars, hard case & Zhumell TRH-16 tripod w/soft fabric bag	Sandra Macika	1/23/17
TAK1 Night Vision Intensification binocular unit	George Korody	1/20/17
Dennis Salliotte equipment@fordastronomyclub.com		

STAR STUFF

This Newsletter is published eleven times each year by:
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SECRETARY: Jessica Edwards
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Club Information:

The Ford Amateur Astronomy Club (FAAC) meets on the fourth Thursday each month, except for the combined November/ December meeting on the first Thursday of December - at Henry Ford College Administration Services and Conference Center in Dearborn. Refer to our website for a map and directions. www.fordastronomyclub.com .

The FAAC observes at Spring Mill Pond within the Island Lake State Recreation Area near Brighton, Michigan. The club maintains an after-hours permit and observes on Friday and Saturday nights, and nights before holidays, weather permitting.
The FAAC also has use of a private observing site near Gregory Michigan and Lake Erie Metro Park. See the FAAC Yahoo Group* for more information.
Observing schedules and additional info are available on our website, or via the FAAC Yahoo Group.* Or call the FAAC Hotline, for info and leave a message, or ask questions: 313-757-2582. You may also send email inquiries to info@fordastronomyclub.com .
Membership in the FAAC is open to anyone with an interest in amateur astronomy. The FAAC is an affiliate of the Ford Employees Recreation Association (F.E.R.A.).

Membership fees:

Annual - New Members: $30 ($15 after July 1)
Annual - Renewal: $25 ($30 after January 31)
Membership includes the STAR STUFF newsletter, discounts on magazines, discounts at selected area equipment retailers, and after-hours access to the Island Lake observing site.
Astronomy or Sky & Telescope Magazine Discounts Obtain the required form from the FAAC club treasurer for a $10 discount.
Send the completed form directly to the respective publisher with your subscriptions request and payment. Do not send any money directly to the FAAC for this.

Star Stuff Newsletter Submissions Your submissions to STAR STUFF are welcome! Send your story and/or images to the editor: StarStuff@fordastronomyclub.com Email text or MS Word is fine. STAR STUFF will usually go to press the weekend prior to each general meeting.
Submissions received prior to the 15th can be included in that month's issue.

* FAAC Members are welcome to join our Ford Astronomy Club Yahoo! Group. Messages photos, files, online discussions.