



Star Stuff

Ford Amateur Astronomy Club Newsletter

Volume 28, Number 1

January 2018

Sixty Years of Observing Our Earth

By Teagan Wall

Satellites are a part of our everyday life. We use global positioning system (GPS) satellites to help us find directions. Satellite television and telephones bring us entertainment, and they connect people all over the world. Weather satellites help us create forecasts, and if there's a disaster—such as a hurricane or a large fire—they can help track what's happening. Then, communication satellites can help us warn people in harm's way.

There are many different types of satellites. Some are smaller than a shoebox, while others are bigger than a school bus. In all, there are more than 1,000 satellites orbiting Earth. With that many always around, it can be easy to take them for granted. However, we haven't always had these helpful eyes in the sky.

The United States launched its first satellite on Jan. 31, 1958. It was called Explorer 1, and it weighed in at only about 30 pounds. This little satellite carried America's first scientific instruments into space: temperature sensors, a microphone, radiation detectors and more.

Explorer 1 sent back data for four months, but remained in orbit for more than 10 years. This small, relatively simple satellite kicked off the American space age. Now, just 60 years later, we depend on satellites every day. Through these satellites, scientists have learned all sorts of things about our planet.

Presidents Article

By Liam Finn

First meeting and Elections 2018

The Elections are at this month's meeting. There is one chair that will be opening as it is term limited, for which we will be seeking a new Vice President. The existing officers that have yet to reach their term limits are willing to remain in their positions. The nominating committee has been busy searching for someone to take on the VP responsibilities.

If you would like to run for any of the officer positions, you need to be present at the club meeting in January and you can nominate yourself. Your nomination needs to be seconded. You must be at the January meeting to be considered.

Sirius Award

The Sirius Award is awarded to a member of the club who has gone above and beyond to help with any and all aspects of the club to make it successful, be that through outreach, volunteering at events, being an officer in the club or being a good ambassador for the FAAC.

If you have someone in mind please send your nominations to president@fordastronomyclub.com. Please include the person's name and a list of the reasons why you think they deserve this award. So far I have received three nominations submissions. This is your one time a year that you can recognize an outstanding member of the club.

All submissions need to be in by the January club meeting. Once the nominations are closed the officers of the club will meet and review the submissions.

Presidents Article

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Please note that existing officers for 2017 and elected officers for 2018 cannot be included. If they are nominated they will be just dropped from the final list. Also this is a once in a lifetime award so you can't nominate anyone who has received the award in the past.

Get your thinking caps on and help the club recognize an outstanding member.

Secretary's Report

By Jessica Edwards

There is no Secretary's Report this month as the Secretary was not able to attend the December meeting.

Sixty Years of Observing Our Earth

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For example, we can now use satellites to measure the height of the land and sea with instruments called altimeters. Altimeters bounce a microwave or laser pulse off Earth and measure how long it takes to come back. Since the speed of light is known very accurately, scientists can use that measurement to calculate the height of a mountain, for example, or the changing levels of Earth's seas.

Satellites also help us to study Earth's atmosphere. The atmosphere is made up of layers of gases that surround Earth. Before satellites, we had very little information about these layers. However, with satellites' view from space, NASA scientists can study how the atmosphere's layers interact with light. This tells us which gases are in the air and how much of each gas can be found in the atmosphere. Satellites also help us learn about the clouds and small particles in the atmosphere, too.

When there's an earthquake, we can use radar in satellites to figure out how much Earth has moved during a quake. In fact, satellites allow NASA scientists to observe all kinds of changes in Earth over months, years or even decades.

Satellites have also allowed us—for the first time in civilization—to have pictures of our home planet from space. Earth is big, so to take a picture of the whole thing, you need to be far away. Apollo 17 astronauts took the first photo of the whole Earth in 1972. Today, we're able to capture new pictures of our planet many times every day.

Today, many satellites are buzzing around Earth, and each one plays an important part in how we understand our planet and live life here. These satellite explorers are possible because of what we learned from our first voyage into space with Explorer 1—and the decades of hard work and scientific advances since then.

To learn more about satellites, including where they go when they die, check out NASA Space Place: <https://spaceplace.nasa.gov/spacecraft-graveyard>



This photo shows the launch of Explorer 1 from Cape Canaveral, Fla., on Jan. 31, 1958. Explorer 1 is the small section on top of the large Jupiter-C rocket that blasted it into orbit. With the launch of Explorer 1, the United States officially entered the space age.

Image credit: NASA

Treasurers Report

January 2018

By Mike Bruno

Going forward, the financial report will be available at all the club meetings and on request to the treasurer. You can submit a request for a copy to treasurer@fordastronomyclub.com

FAAC Equipment Holders Report

By Dennis Salliotte

FAAC Equipment Report 1/21/18

<u>Item</u>	<u>Currently Held By:</u>	<u>Date Last Verified</u>
<u>Telescopes</u>		
4" Dobsonian (Harold's donation)	George Korody	1/8/18
<u>Presentation Tools</u>		
Projector (older)	Jim Frisbie	1/3/18
Projection Screen 8'	Bob MacFarland	1/3/18
Speaker System w/wireless mic	Bob MacFarland	1/3/18
Bullhorn	George Korody	1/8/18
DVD Player	Jim Frisbie	1/3/18
Projection Screen 6'	Hayden Barrett	8/4/17
Projector, ViewSonic	Gordon Hansen	1/3/18
<u>Demonstration Tools</u>		
Weight On Planets Scale	George Korody	1/8/18
Lunar Phase Kit	Bob MacFarland	1/3/18
100 ft Scale Model Solar System Kit	Bob MacFarland	1/3/18
<u>Display Items</u>		
Astronomy Event Sign (3' X 6')	Gordon Hansen	1/3/18
PVC Display Board - Folding	Sandra Macika	1/5/18
Banner – Small (24" X 32")	George Korody	1/8/18
Banner – Medium (24" X 72")	Sandra Macika	1/5/18
Banner – Large (32" X 16')	George Korody	1/8/18
Tri-Fold Presentation Boards	Don Klaser	1/5/18
Tri-Fold Poster Board (Early Club Photos)	George Korody	5/25/17
<u>Other</u>		
Canopy (10' X 10')	Liam Finn	1/4/18
Equipment Etching Tool	Greg Ozimek	1/3/18
Pop Cooler	Hayden Barrett	7/27/17
<u>EQUIPMENT KITS</u>		
<u>CARETAKER</u>		
<u>Telescopes</u>		
TK3 Celstrn 130 Newt Goto mount	Liam Finn	1/4/18

TK4 Clstrn 90 Refrctr w/man mount	Liam Finn	1/4/18
TK5 4 ½ “ Reflector, on Fitz GEM mount	Bob MacFarland	1/3/18
TK6 8” Orion 8XTi Dobsonian	Jed & Jacob Datema CARETAKERSHIP IS AVAILABLE	1/3/18
TK1 Coronado PST solar scope w/double stack, Meade Autostar Goto mount & tripod and accessories	John McGill	1/4/18
TK7 TPO 8” f/4 Imaging Newtonian Telescope (OTA)	Jim Barnes	1/3/18
<u>Binoculars</u>		
BK3 15x70 binocs, monopod mount	Bob MacFarland	1/3/18
BK4 20x80 binocs,altaz goto mount	Sandra Macika	1/5/18
BK5 25x70 binocs w/tripod adaptor	Tim Dey	1/3/18
<u>Eye-piece Kit</u>		
EPK1 Eyepieces, filters & accesories	Liam Finn	1/4/18
<u>Other</u>		
TA Sky Quality Meter	Liam Finn	1/4/18
TA Sky Atlas 2000.0	Tim Dey	1/3/18
TA Orion telescope binoviewer	Liam Finn	1/4/18
<u>Lincoln Park Observatory</u>		
LPO Celestron binoviewer #93691	Tim Dey	1/3/18
LPO Celestron 2X 1.25” Barlow	Tim Dey	1/3/18
<u>Imaging SIG</u>		
C1 Celestron NexImage Solar System Imager model #93712	Gordon Hansen	1/3/18
C2 Meade Deep Sky Imager PRO III w/AutoStar Suite	Gordon Hansen	1/3/18
C3 Orion StarShoot Deep Space Video Camera NTSC #52185 w/video capture device #52178	Gordon Hansen	1/3/18
C4 Meade Electronic Eyepiece w/cable to a video monitor, VCR or TV. Pairw#43 AND Meade 3.5” LCD Color Monitor Kit # 07700 Complete (unused). Pair w#34	Gordon Hansen	1/3/18

C5 Orion StarShoot Deep Space Video Camera II #52195 AND Orion StarShoot iPhone Control for Deep Space Video Camera II #52195	Gordon Hansen	1/3/18
C6 Canon 60 DA and accessories	Tim Dey	1/3/18
CA1 Rigel Systems Spectroscope	Gordon Hansen	1/3/18
CA2 Celestron 1.25" to T-Adapter(male thread) Model #93625	Gordon Hansen	1/3/18
CA3 Canon EOS deluxe astrophoto kit FOR Canon bayonet T-thread adapter and variable 1.25" extender	Tim Dey	1/3/18
CA4 Orion StarShoot LCD-DVR #58125 2.5" LCD screen	Gordon Hansen	1/3/18
CA5 Celestron Canon EOS T-ring adapter #93419	Gordon Hansen	1/3/18
<u>Special Event Use Only- Not Available For Loan Out</u>		
TK2 Meade 8" ETX-LS-ACF w/tripod, voice assist, computerized GPS plus MANY (35+) accessories	TK2 kit destroyed in fire	10/22/17
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	1/3/18
BK2 Zhumell 25x100 binoculars, hard case & Zhumell TRH-16 tripod w/soft fabric bag	Sandra Macika	1/5/18
TAK1 Night Vision Intensification binocular unit	George Korody	1/8/18
Dennis Salliotte equipment@fordastronomyclub.com		

STAR STUFF

This Newsletter is published eleven times each year by:
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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.