



Star Stuff

Ford Amateur Astronomy Club Newsletter

Volume 27, Number 1

January 2017

Comet Campaign: Amateurs Wanted

By Marcus Woo

In a cosmic coincidence, three comets will soon be approaching Earth—and astronomers want you to help study them. This global campaign, which will begin at the end of January when the first comet is bright enough, will enlist amateur astronomers to help researchers continuously monitor how the comets change over time and, ultimately, learn what these ancient ice chunks reveal about the origins of the solar system.

Over the last few years, spacecraft like NASA's Deep Impact/EPOXI or ESA's Rosetta (of which NASA played a part) discovered that comets are more dynamic than anyone realized. The missions found that dust and gas burst from a comet's nucleus every few days or weeks—fleeting phenomena that would have gone unnoticed if it weren't for the constant and nearby observations. But space missions are expensive, so for three upcoming cometary visits, researchers are instead recruiting the combined efforts of telescopes from around the world.

"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.

By observing the gas and dust in the coma (the comet's atmosphere of gas and dust), and tracking outbursts, amateurs will help professional researchers measure the properties of the comet's nucleus, such as its composition, rotation speed, and how well it holds together.

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Presidents Article

By Timothy Campbell

Club Changes for 2017

As this is my final President's Corner article, I am reflecting back on the past three years serving as club president. I do wish to thank all of those who have volunteered to make this club what it is. This includes those who have served as club officers, those who have worked to keep the club functioning, and those who have helped the club pull off all of the events we have performed over the years. Please know that I am grateful for your support.

Several changes have recently happened and I'd like to call attention to them.

First... the meetings:

Meeting times have officially changed. Beginning this next club meeting on January 26, all club meetings will now begin at 7 pm. We're still in the same location — only the time has changed. Since the club meetings are now at 7 pm, we will serve snacks (cookies, etc.) instead of pizza.

For those who work in the area and prefer to come straight to the meeting without first driving home and back, this means there's an opportunity to grab dinner before heading over to the meeting. Several of us do this prior to the Plymouth Astrophotography meeting (we meet at a sub-sandwich shop) and I'm thinking perhaps there might be a few people interested in doing that prior to the normal club meetings.

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Presidents Article

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The format has also changed... just slightly. Our traditional meeting format has been 2 hours with introductions, observing reports, “What’s Up” then a main talk, tech talk, and finally club business and announcements.

With the meeting times changed to 7 pm, we still have a 2-hour format but want to make sure meetings can end on time (meaning... we’ll be watching the clock even more to keep the meetings running on schedule). We’ve had some discussion regarding what’s important to include in a club meeting and the social element was high on the list. The Warren club has a 30 minute social period in the middle of the meeting and this is extremely popular. So we’ll shamelessly pinch that idea ... but shorten it.

The new format still includes the introductions, observing reports, and “What’s Up” presentation, but then covers club business and announcements (all of which should take about 40 minutes) and then have 20 minutes to enjoy snacks and socialize. Rather than include both a “main talk” and a “tech talk”, we’ll usually have one “main talk” which will run from 8-9pm. We can also do two short talks (e.g. two tech talks or a short topic and a tech talk). Placing the talks at the end of the meeting has an advantage in that those who need to leave can leave, but those who have lingering questions can stay provided the speaker has the time.

Second... the website:

Liam Finn has re-worked the website so that it can support a few new features. I’ve pointed out the risk of losing Yahoo Groups. If you’ve been following the news, Yahoo isn’t doing well. They’ve been laying off staff and are now up for sale with Verizon being the likely buyer. However, Yahoo has suffered some security breaches which are now making Verizon re-think the purchase terms (things are uncertain). The latest news is that the company will be renamed to Altaba (a play on “Alibaba” which is Yahoo’s most valuable asset... the website is extremely popular in Asia.)

Continued on Page 3

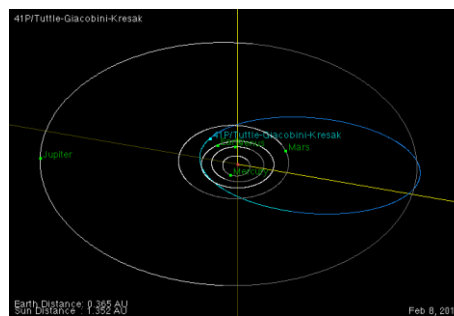
Comet Campaign: Amateurs Wanted

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The observations may also help NASA scout out future destinations. The three targets are so-called Jupiter family comets, with relatively short periods just over five years—and orbits that are accessible to spacecraft. “The better understood a comet is,” Knight says, “the better NASA can plan for a mission and figure out what the environment is going to be like, and what specifications the spacecraft will need to ensure that it will be successful.”

The first comet to arrive is 41P/Tuttle-Giacobini-Kresak, whose prime window runs from the end of January to the end of July. Comet 45P/Honda-Mrkos-Pajdusakova will be most visible between mid-February and mid-March. The third target, comet 46P/Wirtanen won’t arrive until 2018. Still, the opportunity to observe three relatively bright comets within roughly 18 months is rare. “We’re talking 20 or more years since we’ve had anything remotely resembling this,” Knight says. “Telescope technology and our knowledge of comets are just totally different now than the last time any of these were good for observing.”

For more information about how to participate in the campaign, visit <http://www.psi.edu/41P45P46P>



An orbit diagram of comet 41P/Tuttle-Giacobini-Kresak on February 8, 2017—a day that falls

during the comet’s prime visibility window. The planets orbits are white curves and the comet’s orbit is a blue curve. The brighter lines indicate the portion of the orbit that is above the ecliptic plane and the darker portions are below the ecliptic plane. This image was created with the Orbit Viewer applet, provided by the Osamu Ajiki (AstroArts) and modified by Ron Baalke (Solar System Dynamics group, JPL). <http://ssd.jpl.nasa.gov/sbdb.cgi?orb=1;sstr=41P>

Presidents Article

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This makes us wonder... what will become of Yahoo Groups and can we depend on it to continue to provide services.

And of course, we've had issues with the reliability of the Yahoo Calendar to send out event notices. Sometimes they show up. Sometimes they don't. Sometimes they get sent out with incorrect event times. Reliability is an issue.

The new FordAstronomyClub.com website now relies on the Google Calendar system and this provides the club with at least two advantages. One advantage is reliability — times and timezones for events won't mysteriously change. But the other advantage (this one is a big deal to me) is that it is now possible to have club events show up on your computer or smart-device (phone, tablet, etc.). Google uses an internet calendar standard called "iCal". Using your own phone, tablet, or computer calendar system it is possible to "subscribe" to a calendar URL and all events on that subscribed calendar will show up on your own calendar. That means when you check the calendar on your smartphone, you'll see the club events. If you're still using paper then Google can't help you (but I'm sure they're working on that.)

I plan to do a write-up on how you can add the calendar to your computer or smart-device in the future but you can certainly catch me during the social period at a club meeting and I can show you how to do this.

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).

To gain access to the "members only" area, you have to sign-in. Rather than make you create yet-another username and password, the club website uses a "social" sign-in system. This system leverages your existing social-media accounts such

as Facebook, Google, Yahoo, or LinkedIn accounts. When you sign in, it will ask you to pick a social system (you'll have to remember which one you chose). Suppose you pick Facebook. It will pop up a login screen for Facebook and Facebook will ask if it's ok to verify the login for FordAstronomyClub.com and will ALSO ask you if it is ok to share basic profile information. What we really want is your name and email address... that way we know who you are at the club website. But the important bit... we NEVER know your password. If a security breach were to occur at the club website you wouldn't have to worry about your password becoming known to anyone else... because we don't actually have your password in our database. The system relies on a security industry standard called OAuth (pronounced "oh auth") which provides assurance that you have signed in at a site we trust and tells us who you are without sharing your password. You'll find the login link by clicking "Club Links" on the left, then "Member Login" from the slide-out panel.

The bottom line on the social sign in is that benefits you in that you get the convenience of signing in with an account you already have and know.

Important tips: (1) Once you do sign into the website for the first time... drop a note to Liam Finn. He will then add your account to the "members" group which will give you access to the members-only content on the website (you won't see this part of the website until he adds you to the group.) (2) Remember which social media account you used. You must use that same account on subsequent visits. If you change the social media selection then the website won't recognize that you are the same person (you won't have member access).

Third... the Annual Conference & Swap Meet:

This year the Annual Conference & Swap is moving to a new location. Jim Frisbie is organizing this year's event. Norb Vance has invited the club to use Eastern Michigan University.

The event will take place on Saturday, March 11, from 9 am to 3 pm in Strong Hall. Eastern Michigan University is located in Ypsilanti. This provides us with what we believe will be a better venue to attract more traffic to the event. There will be two rooms hosting the conference talks (concurrently). Each room will have four talks for a total of eight different conference topics. The talks range from general interest topics as well as some more advanced topics and technical talks.

Additionally, EMU will operate the planetarium shows and EMU students will be offering observatory tours for this event. As in the past, there will still be food (coffee, pizza, etc.) It is our hope that this academic setting in a higher-traffic area will help grow the event and encourage stronger sponsorship.

And other news...

The club is now doing a trial of MeetUp.com to post upcoming events meant for the general public. The Warren club uses this with great success (claiming this has boosted membership ... typically at least 1 to 2 new people per meeting.)

Other events have already been scheduled including an event at Henry Ford College for Statewide Astronomy Night on April 7 as well as the Annual Club Banquet on May 20th. The annual club picnic has been pulled forward to July 29th this year because our normal August date would have been much too close to the 2017 Eclipse (and many would still be out of town.) Look for more info on these events in the weeks ahead.

Happy 2017 and I hope to see you at 7pm for our January 26th General Membership Meeting.

Secretary Report

By Jessica Edwards

Member Observations and What's up

The super moon was seen by most members and it was noted that "day vision" as opposed to "night vision" is better when observing the full moon. Members also made attempts at seeing the Bubble Nebula.

The Geminids peaked on 13 Dec with an estimated peak of 120 per hour. Unfortunately, this coincided with a full moon. Venus Mars are setting in the evening and Jupiter and Saturn rise early in the morning. New Year's Eve features Mars and Neptune 13 arcminutes apart.

Tech Talk – QHYCCD PoleMaster – Chris Strang

The PoleMaster is a useful tool that can be used by deep sky imagers for precise aligning. Visual observers and those taking short exposures do not need such precise alignments. Using this instrument greatly improves polar alignment of the telescope as opposed to traditional methods.

Planetarium

After the tech talk, Liam demonstrated the new FAAC website. Members then gathered at the planetarium where we enjoyed the Winter Sky Program.

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 astrophotographers 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

December 2016

By Gordon Hansen

2:32 PM
12/10/16
Accrual Basis

Ford Amateur Astronomy Club Balance Sheet

As of December 10, 2016

Dec 10, 16

ASSETS

Current Assets

Checking/Savings

10000 · Checking	113.01
11000 · FAAC Savings	
11100 · FAAC Club Savings	1,902.05
11200 · Equipment	2,337.48
11300 · Scholarship	342.26
Total 11000 · FAAC Savings	4,581.79
12000 · Petty Cash Account	104.86
13000 · CD's	
13100 · CD 200599272	1,064.83
13200 · CD 205196033	1,009.37
13300 · CD 89265268	1,113.93
Total 13000 · CD's	3,188.13
Total Checking/Savings	7,987.79
Total Current Assets	7,987.79
TOTAL ASSETS	7,987.79

Treasurers Report

January 2017

By Gordon Hansen

9:24 AM
01/16/17
Accrual Basis

Ford Amateur Astronomy Club Balance Sheet

As of January 16, 2017

Jan 16, 17

ASSETS

Current Assets

Checking/Savings

10000 · Checking	313.01
11000 · FAAC Savings	
11100 · FAAC Club Savings	2,057.27
11200 · Equipment	2,337.48
11300 · Scholarship	342.26
Total 11000 · FAAC Savings	4,737.01
12000 · Petty Cash Account	129.86
13000 · CD's	
13100 · CD 200599272	1,065.36
13200 · CD 205196033	1,009.87
13300 · CD 89265268	1,114.62
Total 13000 · CD's	3,189.85
Total Checking/Savings	8,369.73
Total Current Assets	8,369.73
TOTAL ASSETS	8,369.73

FAAC Equipment Holders Report

By Dennis Salliotte

FAAC Equipment Report 1/20/17

<u>Item</u>	<u>Currently Held By:</u>	<u>Date Last Verified</u>
<u>Telescopes</u>		
4" Dobsonian (Harold's donation)	George Korody	1/20/17
<u>Presentation Tools</u>		
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
<u>Demonstration Tools</u>		
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
<u>Display Items</u>		
Astronomy Event Sign (3' X 6')	Gordon Hansen	1/16/17
PVC Display Board - Folding	Sandra Macika	1/8/16
Banner – Small (24" X 32")	George Korody	1/20/17
Banner – Medium (24" X 72")	Sandra Macika	1/8/16
Banner – Large (32" X 16')	George Korody	1/20/17
Tri-Fold Presentation Boards	Don Klaser	9/14/16
Tri-Fold Poster Board (Early Club Photos)	George Korody	1/20/17
<u>Other</u>		
Canopy (10' X 10')	Tim Campbell	1/20/17
Equipment Etching Tool	Greg Ozimek	1/20/17
Pop Cooler	Michael Dolsen	1/15/17

<u>EQUIPMENT KITS</u>	<u>CARETAKER</u>	
<u>Telescopes</u>		
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
<u>Binoculars</u>		
BK3 15x70 binocs, monopod mount	Bob MacFarland	1/15/17
BK4 20x80 binocs, altaz goto mount	Sandra Macika	1/8/16
BK5 25x70 binocs w/tripod adaptor	Tim Dey	1/16/17
<u>Eyepiece Kit</u>		
EPK1 Eyepieces, filters & accesories	Liam Finn	1/15/17
<u>Other</u>		
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
<u>Lincoln Park Observatory</u>		
LPO Celestron binoviewer #93691	Tim Dey	1/16/17
LPO Celestron 2X 1.25” Barlow	Tim Dey	1/16/17
<u>Imaging SIG</u>		
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	Gordon Hansen	1/16/17

or TV. Pairw#43 AND Meade 3.5" LCD Color Monitor Kit # 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 and 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
<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	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	1/8/16
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:

FORD AMATEUR ASTRONOMY CLUB P.O. Box 7527 Dearborn MI 48121-7527

PRESIDENT: Tim Campbell

VICE PRESIDENT: Tim Dey

SECRETARY: Jessica Edwards

TREASURER: Gordon Hansen

WEBMASTER: Greg Ozimek

NEWSLETTER EDITOR: Liam Finn

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.