



STAR STUFF

The Newsletter of the Ford Amateur Astronomy Club

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In This Issue

Page One

NASA Helps Europe Study a Comet-Up Close and Personal

Presidents Corner

Inside Stuff

4 Treasurers Report

4 Meeting Agenda

4 Classifieds

5 Astro-Imaging SIG

6 FAAC Meeting Minutes - March 22, 2012

7 HJRO Update

NASA Helps Europe Study a Comet-Up Close and Personal

By: Dr. Tony Phillips

Europe's Rosetta spacecraft is on its way to intercept comet 67P/Churyumov-Gerasimenko. Comets have been intercepted before, but this mission is different. Rosetta aims to make history by landing a probe on the comet's surface while the mother ship orbits overhead.

"Rosetta is the European equivalent of a NASA flagship mission," explains Claudia Alexander, project scientist for the U.S. Rosetta Project at NASA's Jet Propulsion Laboratory. "It will conduct the most comprehensive study of a comet ever performed."

Rosetta's payload contains 21 instruments (11 on the orbiter, 10 on the lander) designed to study almost every aspect of the comet's chemistry, structure, and dynamics. Three of the sensors were contributed by the U.S.: Alice (an ultraviolet spectrometer), IES (an ion and electron sensor), and MIRO (a microwave sounder).

The main event of the mission will likely be the

landing. The 100-kg lander, which looks a bit like a cross between NASA's old Viking Mars landers and a modern microsatellite, will spend two weeks fastened to the comet's icy surface. The European-built probe will collect samples for analysis by onboard microscopes and take stunning panoramic images from ground level.

"First the lander will study the surface from close range to establish a baseline before the comet becomes active," explains Alexander. "Then the orbiter will investigate the flow of gas and dust around the comet's active, venting nucleus."

(continued on Page 3)

President's Corner

By Gordon Hansen

We held the club annual banquet on Saturday, April 14th. Despite a glitch with the room booking (we shared the room with another club) I think everyone had a great time.

(continued on Page 2)

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SECRETARY: Doug Bauer
TREASURER: Chuck Jones
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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 Community 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 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: 248-207-2075. or send email inquiries to fordastronomy@comcast.net.

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 at jenzdanowski@yahoo.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 issue.

* FAAC Members are welcome to join our Ford Astronomy Club Yahoo!Group. Messages photos, files, online discussions, and more! URL: groups.yahoo.com/group/FordAstronomyClub.

This months background photos of the moon Page 1 courtesy of John Kirchhoff. See more of John's photos at:

<http://www.flickr.com/photos/33926475@N06/with/4311533997/>

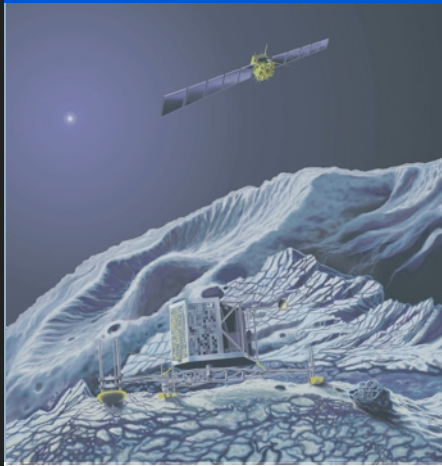
Presidents Corner

(continued from Page 1)

My highlight of the evening was presenting our annual Sirius Award to Bob MacFarland. Bob joined the club in 1994 and has actively supported the club ever since. Bob served as President in 1996 and 1997 and as Secretary in 2004. He's participated in and organized too many club events to possibly list here. His efforts also extend beyond our club - Bob served and continues to serve as a key member of the GLAAC planning group that hosts the annual Astronomy at the Beach star party. This event was singled out by Dave Eicher, Editor-in-Chief of Astronomy Magazine in the development of the magazines Astronomy Foundation's Sidewalk Astronomy Model and the Astronomy Foundation's Star Party Model. "The documents were largely inspired by Detroit's multi-organizational "Kensington Astronomy at the Beach," an annual event that brings together several astronomy clubs to popularize the subject."* Its through the efforts and leadership-by-example of members like Bob that has allowed this club to grow from the few founding members in 1992 to the one hundred and sixty-five strong that we are today. Thank you Bob - one of the club's true shining stars!

In 1992 Greg Burnett formed the club and was soon joined by Brian Gossiaux, Carolyn Patterson, Al Czajkowski, Joe Sprys, and others. Its now twenty years later and we were honored to have Brian Gossiaux join us from North Carolina. Brian painted a fun picture of the club starting in the early years - he even had some mementos - a t-shirt from the first Island Lake Star Party (a bygone club star party supplanted by AATB.) How much would that shirt demand on E-Bay?? Don Klaser (member since '95 and President in 2005 and 2006) then filled in the history of the middle years. Don refreshed memories of some memorial events like the multiple thefts of Uranus from the solar system!

(continued on Page 5)



Rosetta's lander Philae will eject from the spacecraft, touch down on the comet's nucleus, and immediately fire a harpoon into the surface to anchor itself so it won't drift off in the weak gravity.

NASA Helps Europe Study a Comet—Up Close and Personal

(continued from Page 1)

Rosetta's sensors will perform the experiments that reveal how the chemicals present interact with one another and with the solar wind. Alice and MIRO detect uncharged atoms and molecules, while IES detects the ions and electrons as the solar wind buffets the nucleus.

One problem that often vexes astronomers when they try to study comets is visibility. It's hard to see through the dusty veil of gas billowing away from the heated nucleus. The microwaves MIRO detects can penetrate the dust, so MIRO can see and measure its target molecules even when other instruments can't.

MIRO is one of several experiments focused on the comet's structural properties. It will determine the comet's dielectric constant, emissivity, and thermal conductivity to determine whether it is made of a powdery loose material, has a detectable layer of loose material, or is hard as rock.

"We want to find out whether comets have retained material from when the solar system formed," says Alexander. "If the ancient materials are still there, we can get an idea of

what conditions were like at the dawn of the solar system."

Rosetta enters orbit in 2014. Stay tuned for updates!

Check out "Comet Quest," the new, free iPhone/iPad game that has you operating the Rosetta spacecraft yourself. Get the link at spaceplace.nasa.gov/comet-quest.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

Treasurer's Report

April 9, 2012

By Chuck Jones

Ford Amateur Astronomy Club Balance Sheet As of April 9, 2012

	Apr 9, 12
ASSETS	
Current Assets	
Checking/Savings	
CD 200599272	1,055.28
CD 205196033	1,000.00
CD 89265268	1,100.38
Checking	2,490.71
FAAC Savings	
Equipment	1,805.12
FAAC Club Savings	451.08
GLAAC	2,317.15
Scholarship	41.56
Total FAAC Savings	4,614.91
Petty Cash Account	123.08
Total Checking/Savings	10,384.36
Total Current Assets	10,384.36
TOTAL ASSETS	10,384.36
LIABILITIES & EQUITY	
Equity	
Opening Balance Equity	8,890.38
Retained Earnings	-471.55
Net Income	1,965.53
Total Equity	10,384.36
TOTAL LIABILITIES & EQUITY	10,384.36

Club Wear

To our "New and Current Members" Our club has "FAAC" Official Club Wear with our Logo Embroidered.

Anyone with an interest or need in FAAC Club Wear, I will be placing an order in the next few months, for more information please call me - Diane at 248 980-7832. The FILES section in the Yahoo group has a form noting each ITEM with PRICES. The listing name - "FAAC Club Wear" - please do not hesitate to call me.

Diane Worth

Meeting Agenda - April 26th

HFCC – Berry Auditorium -Admin. Services & Conference Center www.fordastronomyclub.com
5:30

Opening/Introduction/Member Observing

Main Presentation:

Radio Astronomy Ardis Harrold

Tech Talk:

Transit of Venus Tim Campbell

Club Projects/Committees/Member Support

- April 28th – Astronomy Day - Kensington Metropark
- April 28th – First Beginner's Night - Island Lake – 7:00 pm
- May 12th – Inter-club Observing Event at D-Bar-A Scout Camp (Sponsored by 7 Ponds)
- May 19th & 20th – Kensington Metropark - Heron Day. Daytime club solar observing
- June 5th – Kensington Metropark East Boat Launch - Observe the Transit of Venus, 5:30pm – sunset
- Open Discussion

Club Business/Secretary/Treasurer/Equipment Report

Items For Sale

Celestron 6x30 finder scope-\$25

Starter scope (similar to the Celestron power seeker) D=60mm F=700mm with tripod, and 3 lenses-\$50

For more information on these two items, please contact Lynn Spielman at: lynnscats@wowway.com

Orion 100 mm Achromat refractor, F6, with older CG4 equatorial mount. Diagonal and finder included. Asking \$250

Miscellaneous eyepieces and filters for beginners also available. Ask for \$\$

Call Tom Blaszk at 313.585.3351.
key_string_guy@yahoo.com

Meade Lightbridge Deluxe 12" – F/5, 1524mm focal length. Purchased new last year. Perfect condition mechanically, optically and cosmetically. Big, clear deep sky views. Built-in battery powered cooling fan, two-speed Crayford focuser (1.25 / 2-inch). Easy to transport, set up collimate and use - smooth as silk. Upgraded with Bob's knobs and heavier collimation springs. Includes shroud, cover, Telrad and secondary mirror heater. Over \$1000 invested, will sell for \$650.

Contact John Johnson at jjohnsonpub@yahoo.com
or (248) 515-0014.

Astro Imaging SIG

Gordon Hansen

The August meeting was held at HFCC in the Berry Amphitheater in Dearborn

All are invited to join us in the Astro Imaging SIG meetings, to share and discuss images, experiences, and techniques.

We always have a good time, with lively discussion, and sharing of valuable information.

Next meeting is **May 10th**. The meeting room location – HFCC Admin. Services and Conference Center (same building), Berry Amphitheater Auditorium.

Topics invited. Pizza served.

FAAC Events 2012

April 28th - Astronomy Day - Kensington Metropark - Solar Observing during the day

April 28th - Beginner's Night at Island Lake - (7:00 PM)

May 19th and 20th - Kensington Metropark - Heron Days - daytime solar observing

June 5th - Venus Transit - Kensington Metropark - East Boat Launch (5:30 PM until Sunset)

Background Photo from Lunt Solar Scope Image taken at the Hector J Robinson Observatory, June 28, 2010

One FAAC members blog

<http://hjrobservatory.blogspot.com/>

A few updates on the observatory, quick articles and photos. I'll try to improve my writing on this blog. Also, I try to keep daily updates on this blog. - Greg Knekleian, HJRO volunteer.

Presidents Corner

(continued from Page 2)

Dale Ochalek led us through another exciting round of Astro Jeopardy. This was a special edition with a couple of categories that focused on the club: It Was a Very Good Year and And Just a Few of Our Memorable Members. Dale stumped several tables this year that ended the night with a score of ZERO! Can't wait for next year's edition.

A big thank you needs to go out to Greg Ozimek who arranged for this year's speakers and to Pat and George Korody who spent many hours shopping for and organizing this year's door prizes. Every prize had a link to the stars and everyone went home with a gift. A special thanks also to Barb and Chuck for the wonderful plant and flower arrangements they donated. If your in the New Haven side of town stop in to Rose Cellar Florist and say hello. Thanks also to John Kirchoff for the Venus transit glasses he supplied to all. He couldn't join us this year, but, he once again earns the title of "Enabler."

Finally, thanks to everyone who attended. Without you how could we have a banquet?! For those that didn't make it, put it down on your must list for 2013. Ask those who attended – we had a great time.

*Note:

<http://www.astronomy.com/Community/Astronomy%20Foundation/2011/08/Astronomy%20Foundation%20Star%20Party%20models.aspx>

FAAC General Meeting Minutes

March 22nd, 2012

By Doug Bauer Secretary

Opening:

- The meeting was called to order in the L-14 Auditorium of the Liberal Arts Building at HFCC at 5:40 pm by FAAC President, Gordon Hansen
- All attendees introduced themselves. There were 43 people present.
- Members contributed their observing experiences. With many observing Jupiter, Venus and Mars. There were some outreach events at HJRO and another at a Troy Cub Scout meeting. One observer commented on seeing Hindes Crimson Star and recommended that if you haven't seen it, you should take a look.

What's Up In December/January:

- April 3 - Venus just under the Pleides
- April 6 - Full Moon
- April 22 - Lyrid meteor shower
- April 26 - New Moon
- Mars is in Leo in the eastern sky after sunset
- Mercury visible just after sunset near Pisces
- Venus continues rising higher in the sky
- Jupiter is headed for the western horizon at sunset
- A supernova has been spotted in M95
- Saturn returns to the evening sky
- June 5th - Transit of Venus - last one for 108 years - don't miss it!

Main Program:

Bob MacFarland gave a presentation on his trip to Maui for a family wedding last year. He had pictures of different places on Maui and his visit to the Pearl Harbor Memorial. Most of his presentation was centered around his trip to the top of Mount Haleakala to observe at the Haleakala Amateur Astronomy Club's observing site which is nestled among many professional observatories at 10,000 feet. It is a great site for observing as you are above the clouds and there is no light pollution.

Tech Talk:

The tech talk was an Ask the Astronomer session. Several questions were raised and discussed.

Business Meeting:

Secretary's Report was printed in the StarStuff and approved as printed. Treasurer's Report was printed in the StarStuff and approved as printed.

Upcoming Project and Events:

- March 31st - Lake St Clair Metropark - Sidewalk Astronomy (6:00 PM- midnight)
- March 31st - Kensington Metropark Nature Center - (8:00 PM - Midnight)
- April 14th - FAAC Banquet (6:00 PM - 11:00 PM, Karl's Cabin - Plymouth - tickets \$35 / person)
- April 28th - Astronomy Day - Kensington Metropark - Solar Observing during the day
- April 28th - Beginner's Night at Island Lake - (7:00 PM)
- May 19th and 20th - Kensington Metropark - Heron Days - daytime solar observing
- June 5th - Venus Transit - Kensington Metropark - East Boat Launch (5:30 PM until Sunset) - take Kent Lake exit off of I-96 take first left after ticket booth

New Business:

- There was a brainstorming session on March 15 with several club members looking at various does right, does wrong, does enough, do more, and do less ideas to address possible changes in the way the club works. Gordon Hansen led the session and captured the ideas. More work will be done to figure out what ideas need to be addressed. He will report back to the club as progress is made.
- The meeting was adjourned at 7:30pm.
- Thanks to Greg Ozimek for bringing the pizza and to Ellen Duncan for bringing the pop!

HJRO Update

By Greg Knekleian

I worked a bit on some draft articles for Star Stuff, but became distracted with other things and haven't completed them, so this month's update is fairly short. After a few good weeks, Michigan weather become cold and cloudy. The few clear nights were cold enough to discourage many of us from viewing.

Tim Campbell and Tim Dey spent some time at HJRO one night, experimenting with photography using Tim Dey's new Canon DSLR. They also worked on installing software on a Tim Dey's laptop. Basically new software loads. They also spent a little time capturing a spectrograph of a bright star, testing the low resolution spectroscopy option we have at HJRO. They used Tim Dey's Canon camera for that test, I was there for maybe 30 minutes while they worked.

I didn't open up the few clear and very cold nights due to other commitments and little interest from the FAAC members. We had one scheduled school class event - cancelled and to be rescheduled due to clouds. I think the core group regulars had their fill of observing when it was warmer.

VENUS VIEWS and HJRO transit plans

Last month some visitors were able to see M45 and Venus close together in the same field of view. There was a request to use the Stellacam for the Venus Transit. We will likely setup and observe the Venus Transit at HJRO, but we don't need the Stellacam for that event. FAAC will use it at the GLAAC event.

We'll likely use a Canon T1i/laptop with live view options from time to time on the Meade, for the Venus Transit at HJRO. We don't have the horizon advantage of the remote site, but if students and locals want to see it and it's clear I'll be at HJRO.



Observatory is open for public visits based on weather.

To find out if the observatory is open, call:

313-444-5850

For more information about the observatory, visit:

<http://observatory.lincolnparkpublicschools.com>



Tim Campbell designed and will donate the above sign which will be posted outside of the HJRO observatory.

There was some activity geared toward getting the phone numbers and website and Facebook information updated for the school. Tim Campbell designed a sign for the observatory.

On the telescope front, there was not much going on. I didn't utilize my own personal telescopes much for any impromptu viewing this month. I might have observed once. I drove by Harold Thomason's house and had Harold show me the quick collimate trick specific to Big Bertha. We did a quick rough alignment (Harold to the rescue) at his house with Big Bertha still in the back of my truck bed. Harold later left a message to find out if I did any more work on aligning the optics, but the weather and cold kept me inside. I'll finish work on that when it's warmer out.

April 21st it was clear outside, but cold. I looked up and saw what appeared to be the Milky Way. That couldn't be the Milky way I thought, and sure enough it was a thin Cirrus cloud pattern. (Sorry no photo.)

We tested and setup the google number for the HJRO school site and are working on improving the LP Astronomy web site.

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