



STAR STUFF

The Newsletter of the Ford Amateur Astronomy Club

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March 2012

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The Planet in the Machine

By: Diane K. Fisher and Tony Phillips

The story goes that a butterfly flapping its wings in Brazil can, over time, cause a tornado in Kansas. The "butterfly effect" is a common term to evoke the complexity of interdependent variables affecting weather around the globe. It alludes to the notion that small changes in initial conditions can cause wildly varying outcomes.

Now imagine millions of butterflies flapping their wings. And flies and crickets and birds. Now you understand why weather is so complex.

All kidding aside, insects are not in control. The real "butterfly effect" is driven by, for example, global winds and ocean currents, polar ice (melting and freezing), clouds and rain, and blowing desert dust. All these things interact with one another in bewilderingly complicated ways.

And then there's the human race. If a butterfly can cause a tornado, what can humans cause with their boundlessly reckless disturbances of initial

conditions?

Understanding how it all fits together is a relatively new field called Earth system science. Earth system scientists work on building and fine-tuning mathematical models (computer programs) that describe the complex inter-relationships of Earth's carbon, water, energy, and trace gases as they are exchanged between the terrestrial biosphere and the atmosphere. Ultimately, they hope to understand Earth as an integrated system, and model changes in climate over the next 50-100 years. The better the models, the more accurate and detailed will be the image in the crystal ball.

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President's Corner

By Gordon Hansen

As I write this the 9th Annual Astronomy Show and Swap Meet is only a couple of days away. This represents the kick-off of club events for the year and based upon what's already on the calendar there's a lot coming.

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STAR STUFF

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FORD AMATEUR ASTRONOMY CLUB
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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

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First, I have to put in another plug for the club banquet scheduled for April 14th. Details can be found in the flyer later in this newsletter and also in the Files section of the Yahoo Group. The cost this year is \$35/ person with the choice of three entrees: NY Strip, Chicken Marsala, or White Fish. 2012 is the twentieth anniversary of the club and we're planning a look at the club's history. Once again Dale Ochelak will lead us through another rousing game of Astro Jeopardy. Please make your reservations either by seeing me or Chuck Jones, dropping a note on Yahoo, or sending in your check!

Here's a brief rundown of the events coming up:

Beginner's Nights -

- April 28th (Astronomy Day)
- May 26th (Memorial Day weekend)
- June 23rd
- July 28th
- August 25th (Club Picnic)
- October 20th

Other Events-

- March 31st: Lake St. Clair Metropark - Sidewalk Astronomy 6:00pm - 12:00am
- March 31st: Kensington Metropark Nature Center (8 pm)
- April 14th - Club Banquet
- April 28th - Astronomy Day - Kensington Metropark (solar observing in the afternoon)
- 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
- September 21st & 22nd - Astronomy at the Beach

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Caption:

CloudSat is one of the Earth-observing satellites collecting data that will help develop and refine atmospheric circulation models and other types of weather and climate models. CloudSat's unique radar system reads the vertical structure of clouds, including liquid water and ice content, and how clouds affect the distribution of the Sun's energy in the atmosphere. See animation of this data simulation at www.nasa.gov/mission_pages/calipso/multimedia/cloud_calip_mm.html.

The Hidden Power of Sea Salt, Revealed

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NASA's Earth System Science program provides real-world data for these models via a swarm of Earth-observing satellites. The satellites, which go by names like Terra and Aqua, keep an eye on Earth's land, biosphere, atmosphere, clouds, ice, and oceans. The data they collect are crucial to the modeling efforts.

Some models aim to predict short-term effects—in other words, weather. They may become part of severe weather warning systems and actually save lives. Other models aim to predict long-term effects—or climate. But, long-term predictions are much more difficult and much less likely to be believed by the general population, since only time can actually prove or disprove their validity. After all, small errors become large errors as the model is left to run into the future. However, as the models are further validated with near- and longer-term data, and as different models converge on a common scenario, they become more and more trustworthy to show us the future while we can still do something about it—we hope.

For a listing and more information on each of NASA's (and their partners') Earth data-gathering missions, visit science.nasa.gov/missions/earth.html. Kids can get an easy introduction to Earth system science and play Earthy word games at <http://spaceplace.nasa.gov/ecosphere>.

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

March 15, 2012

By Chuck Jones

Ford Amateur Astronomy Club Balance Sheet As of March 15, 2012

	Mar 15, 12
ASSETS	
Current Assets	
Checking/Savings	
CD 200599272	1,054.76
CD 205196033	1,000.00
CD 89265268	1,099.56
Checking	1,759.93
FAAC Savings	
Equipment	1,777.72
GLAAC	1,305.95
Regular Savings	451.08
Scholarship	353.56
Total FAAC Savings	3,888.31
Petty Cash Account	178.10
Total Checking/Savings	8,980.66
Total Current Assets	8,980.66
TOTAL ASSETS	8,980.66
LIABILITIES & EQUITY	
Equity	
Opening Balance Equity	8,890.38
Retained Earnings	-771.55
Net Income	861.83
Total Equity	8,980.66
TOTAL LIABILITIES & EQUITY	8,980.66

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 - March 22nd

HFCC - **L-14 Liberal Arts Building**

www.fordastronomyclub.com

5:30

Opening/Introduction/Member Observing

Tech Talk:

Ask An Astronomer

All

Club Projects/Committees/Member Support

- March 31st: Lake St. Clair Metropark - Sidewalk Astronomy 6:00pm - 12:00am
- March 31st: Kensington Metropark Nature Center (8 pm)
- April 14th - Club Banquet
- April 28th - Astronomy Day - Kensington Metropark
- 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 Reports

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: lynncats@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 **April 12th**. The meeting room location – HFCC Admin. Services and Conference Center (same building), Berry Amphitheater Auditorium.

Topics invited. Pizza served.

FAAC Events 2012

March 22nd-FAAC General Meeting

March 31st-Lake St. Clair Metro Park-sidewalk Astronomy

March 31st-Kensington Metropark Nature Center - (8:00 PM - Mi

April 12th-Astro SIG Meeting

April 14th- FAAC Banquet, at Karls' Kabin

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

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

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.

Items For Sale

(continued from page 4)

MEADE Telescope and Tripod 6 years old - in excellent shape **LXD 75** - Series Schmidt - Cassegrain 8" f/10 SC-8AT (Super Coated, Autostar Guided) - Focal Length 2000 mm Telescope weight = 24 lbs - with MEADE EMC Super Multi-Coatings and with optional Ultra-High Transmission Coating Tripod weight = 45 lbs - Die cast Aluminum German-Type Equatorial Mount with Variable-Height Field Adjustments Autostar Controller guides to 30,223 objects

Includes a Sun Filter, Overnight Protective Cover, Transportation Containers. Contact phone no. 248-851-5053, e-mail robertboswell@comcast.net

Presidents Corner

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You'll notice April 28th showing up on both lists. That's Astronomy Day – we'll start at Kensington in the afternoon for solar observing and then move to Island Lake for our 1st Beginner's Night.

The February club meeting was once again SRO! That is absolutely a fantastic happening. I don't know what's causing the upswing, but, keep on coming. I know the stairs are not the most comfortable place to sit and I apologize to those sitting there. We will start looking for a bigger room if we have another sell out meeting. Keep on coming!

FAAC General Meeting Minutes February 23rd, 2012

By Doug Bauer Secretary

Opening:

- The meeting was called to order in the Berry Auditorium at 5:30 pm by FAAC President, Gordon Hansen
- All attendees introduced themselves. There were 47 people present.
- Members contributed their observing experiences.

What's Up In December/January:

- March 1st and 30th - Two first quarter moons in one month
- March 5th - Mercury a greatest eastern elongation
- March 8th - Full moon
- March 12th - Jupiter and Venus in close proximity
- March 13th - Comet Garradd (mag 6.5) will pass near NGC 4236 near Ursa Major
- March 15th - Eros passes by Earth
- March 20th - Spring Equinox
- March 22nd - New moon
- March 27th - Crescent moon, Pleiades, and Venus in close proximity
- Mars is in the evening sky all of March
- Saturn returns to the evening sky near Spica
- June 5th - Transit of Venus - last one for 108 years - don't miss it!

Main Program:

Dennis Salliotte led the meeting attendees to the newly refurbished Henry Ford Community College Planetarium. He treated us to a planetarium show.

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 10th - Swap Meet -
 - Tables are \$20 and includes one admission
 - Admission is \$5 per adult, children under 15 are free
 - There will be a 50/50 raffle
 - Presentations include:
 - Wide Field Imaging - Axel Mellinger
 - Basic Backyard Astronomy - Jim Frisbie
 - JPL Solar Missions - Shannon Murphy
 - Talk by Larry Halstead
- 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:

- We received thank you notes for our participation in a science day at Burger School in Garden City.
- George and Pat Korody are looking for a few more door prizes for the FAAC Banquet - if you have some items to donate, bring them to the March FAAC General Meeting
- 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

Tuesday March 14th, Jupiter and Venus were three degrees apart in the sky. We had four FAAC members show up for late night observing. I tried to get some photographs of both planets through a wide field telescope at HJRO. The Meade f6 80mm refractor could not provide a wide enough field of view for the Canon T1i photo attempts. I was able to take a photo of the both planets through my F4 four inch telescope, but the results were poor.

Visually, both Planets were visible through the F4 telescope with 32mm and 40mm eyepieces. The F4.2 Bushnell telescope could barely show them with the 32mm TV Plossl eyepiece. Some visitors we able to view both planets through 10 by 50 binoculars.

Mars is near opposition and looked wonderful Wednesday morning at 1AM. Brian Kutscher bought his afocal projector setup and we had it setup at 5x providing very interesting "live" digital views with the Canon t1i and 10x live view magnification.

Math Night - March 15

After the success of "science night" the school asked Tim Dey if we could open up for "Math night" as well. Tim Campbell created an astronomy powerpoint presentation that explained math in the context of verifying the speed of light. During math night many students and visitors viewed this presentation. Tim Campbell tirelessly presented the 13 minute presentation to each student who visited the HJRO observatory during the event.



Tim Campbell sets up a monitor for his Astronomy Power Point presentation, "Math night" at HJRO.
(Photo by: Rick Arzadon.)



Many telescopes setup above. Waiting for visitors.

Art Parent, Brian Kutscher, Dan Barriball, Rick Arzadon (above)

Some of the answers to extra credit questions were contained inside Tim's presentation.

Tim Dey, George Korody, Art Parent, Brian Kutscher, Rick Arzadon, Dan Barriball and Ken Anderson were at the Math night event. Solar telescopes were setup ahead of time allowing early visitors a chance to safely view the sun before the Math event began.

Visitors saw Jupiter, M42, Venus, Mars, and other objects.

March 16

Friday afternoon and evening we opened up HJRO as well. FAAC members Rick Arzadon, Sandra Macika, and about a dozen visitors came by during the day and evening.

LogMeIn Ignition test

A successful test of remote control of the observatory PC happened on March 16th. I can control the telescope from an iPad over the internet.

Teachers were excited enough to wonder if we could integrate HJRO into "poetry night".

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