STAR STUFF

The Newsletter of the Ford Amateur Astronomy Club

May 2004
Volume 13 Number 5

Editor: Jim Frisbie

A MESSAGE FROM THE PRESIDENT

What's New?

It's spring, finally, and things are starting to warm up around here – for the FAAC astronomers especially. For one, we completed our 2004 Astronomy Day efforts at the Detroit Science Center, on April 24, along with the first of our Beginner's Nights this year; thanks to all who came out, and to all those helping with the displays, and brought out the telescopes!

Also, recently we began looking for a new home for the FAAC general meetings, and found one, at Henry Ford Community College. Ed Halash led the effort, and contacted Charles W. Jacobs, Ph.D., Associate Dean of Science at HFCC. Dr. Jacobs invited us over to meet and have a look around; HFCC offers a planetarium and some nice conference rooms, lots of parking, and other advantages. We were sold! Now we are looking at a possible liaison with HFCC, and maybe helping with the establishment of a student astronomy club. It looks like we will begin having our FAAC general meetings there in July. Stay tuned!

Coming up - don't forget - GLAAC's Astronomy at the Beach, staring at 6 pm on May 21 and 22, at Kensington Metropark (www-personal.umich.edu/%7Edgs/kensington/). If it's not already past when you read this, be sure to go, and enjoy the star fest. Better yet, you might even contact Bob MacFarland via the FAAC web site (www.boonhill.net/faac/info/clubinfo.html), to volunteer for a stint. Last year, attendance was easily in the thousands. Help is always appreciated!

Early June will bring the Venus transit. We'll be gathering at the Lyon Township Municipal Park at New Hudson in the South Lyon/Brighton/Milford area. Who's bringing the donuts?

New, and old - some interesting things learned or remembered, on the way to looking other things up:

Russians first to the moon? The Soviets launched Sputnik in October in 1957, the first space satellite, as we all know. What I didn't remember - the Russians went to the moon as early as 1959! The Lunar missions included the Luna I fly-by (it was supposed to crash on the moon apparently, but missed by 5995 km). Luna II crashed into the moon, and Luna III provided the first glimpse of the far side, and transmitted a photo back - using a photocell to detect the moon and thus aim the camera, and an on-board film processor, and scanner. Not bad, for 1959 technology, is it? No wonder we were getting a little edgy about those Russians getting ahead in the space race.

We (the U.S.) were first to land men on the moon, of course, and, later, first to land on an asteroid - Eros - on February 12, in 2001! This was some 200 years after Ceres was discovered - the first asteroid to be so identified. On New Year's Day, 1801, Father Guiseppe Piazza, Catholic priest, astronomer, and teacher, was looking closely among the stars, for the fainter ones, in trying to update the current star catalogs of the day. He then noticed motion in a mysterious object, later named Ceres. Its movement was further observed, and soon gauged as faster than that of Jupiter, and slower than Mars, placing it in an area between the two. Astronomers at that time were looking for a planet in that area, owing to Bode's Law and predictions of planetary orbits. Some thought the asteroids might have been formed of an exploded former planet. Ceres was the first of 600 such objects to be discovered over time in the same general orbital area. All asteroids found thus far though, combined, would form a "planet" much smaller than the moon.

"New" comets are always seemingly coming into view, including the NEAT and LINEAR comets this spring, though actually the comets and their sightings are anything but new. Records show comet sightings dating back to ancient times - although interpretations may have changed; they are fun to observe, but have not always been so popular. For example, historical records reveal centuries-old sightings of what would have been Halley's comet, judging by the observation dates. The Chinese blamed the comet for an empress's death, in 240 B.C. Babylonians reported further sightings in 164 and 87 B.C. Romans blamed a comet's appearance for the death of a statesman, in 12 B.C. Halley's comet, reappears for earth observers every 76 years, and is named after Edmund Halley, of course, who suspected the same comet was periodically reappearing over the years, and correctly predicted its next periodic showing.

Comets have always seemed to get a bad rap. Halley's comet last appeared in 1986, the year the Challenger space shuttle exploded, and the Chernobyl nuclear plant melted down . hmmm. coincidence??!!

Dale Ochelak

Ford Amateur Astronomy Club
P.O. Box 7527
Dearborn MI 48121-7527

http://www.boonhill.net/faac

Submissions to STAR STUFF are welcome Please write to the address above or contact the editor:

Jim Frisbie
via tele #: 734-453-1422
or email: w8tu@comcast.net

Dead line is the 15th of each month of publication.

Officers:

President	Dale Ochalek
Vice President	Don Klaser
Secretary	Bob McFarland
Treasurer	Gordon Hansen

General Meetings:
The Ford Amateur Astronomy Club holds regular general meeting on the fourth Thursday of each month (except the combined November/December meeting held the first Thursday of December) at 5:00 PM at the Ford Motor Credit Building off Mercury Drive near Michigan Ave. in Dearborn.

Observing:
The Ford Amateur Astronomy Club observes at Spring Mill Pond within the Island Lake State Recreation Area near Brighton, Michigan. The club maintains a permit for after-hours access. Weather permitting, the club observes on Friday nights, Saturday nights, and nights before holidays.

Club Information:
Observing schedules and additional Club information is available by calling the Observing Hotline at: (313) 390-5456
or via the Ford Intranet: www.be.ford.com/astro/faac.html
or the public Internet: www.boonhill.net/faac.

Club Membership:
Membership in the Ford Amateur Astronomy Club is open to Ford employees and non-employees. Write or call for an application.
Annual - New Member: $30; Renewal: $ 25 (before Jan 31 of each year); $15 for new members after July 1.
Lifetime - $ 150

Membership includes:
A subscription to the STAR STUFF newsletter and the quarterly newsletter the REFLECTOR published by the Astronomical League.
Discounts on ASTRONOMY and SKY & TELESCOPE magazines, after-hours access to the observing site and discounts at selected area equipment retailers.

Magazine Discounts:
Do not send money to FAAC for SKY & TELESCOPE or ASTRONOMY magazine subscriptions. We have a form that you send in with your subscription directly to the publisher to receive a $10 discount. Pick up a form at the next meeting, or contact a club officer.

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FOR SALE: Reduced for Quick Sale - GOTO Computer. JMI Micromax computer with encoders and with cables. $275 OBO; People interested may either send an e-Mail to TBLASZAK@ford.com or call 313.323.9842.

FOR SALE: Nikon Coolpix 995, Battery Charger, Lexar USB enabled 16MB CF Card, Nikon MC-EU1 R emote cord, RS-232 cord, ScopeTronix Digi-T adapter, Targus Bag, Manuals, cables and software $400.00 Contact Jeff Thrush: jdthrush@wideopenwest.com

GIVE OR TAKE A FEW

Submitted by George Korody

The number of stars in the visible universe is estimated to be ten times more than the number of grains of sand on Earth and eleven times the number of cups of water in all the Earth's oceans-- or 70 sextillion, or 70,000,000,000,000,000,000,000 [seven followed by twenty-two zeros].
Credit:NASA/STScI/ESA

MINUTES OF THE APRIL 22ND FAAC GENERAL MEMBERSHIP MEETING

By Bob MacFarland

Dale Ochalek opened the April 22, meeting promptly at 5:00 pm with introductions of the attendees. He also commented on how he and other board members were going to attempt to keep the business portion of the meeting to a minimum to avoid running overtime. 35 members were in attendance. **George Korody** commented favorably on the Ford Photo Club presentation he attended where an Adobe Photoshop expert gave a talk on the new Adobe Creative Suite product, which would greatly enhance photo images. George obtained enough brochures to pass around to everyone.

The minutes of the March meeting were accepted without comment. **Gordon Hanson** gave the Treasurer's report (details elsewhere in this issue) and raised the issue of continuing FAAC membership in the Astronomical League. The League's renewal time is in June. However, they elevated their dues from $3.50 to $5.00 per member costing the club some $700 per year. A discussion around the pros and cons of retaining the membership ensued and a motion by **Jim Frisbie** to drop the membership was seconded and carried. **Harry Juday** made a motion to contribute a portion of the Astronomical League savings directly to the Dark Sky Association (which the A.L. supports heavily). After some discussion, the motion was deferred to the board for further study.

In his research to find a better general membership meeting location, **Ed Halash** had met with a Dr. Jacobs (Dean of the Astronomy) at the Henry Ford Community College. Dr. Jacobs is very interested in working with FAAC on a meeting facility at the college in turn for the club's assistance in getting a student astronomy club started at HFCC. Various proposals were offered up by the membership and a motion was made to have Dr. Jacobs come to the next FAAC board meeting to lay out his vision on how the relationship would work.

The group discussed plans for various Astronomy Day (April 24th) activities at the Detroit Science Center, Cranbrook and Island Lake Recreational Area. Also discussed were the GLAAC plans for the May 21st and 2nd Astronomy at the Beach at the Kensington Metropark. **Bob MacFarland** asked for members who will help in greeting visitors and staffing the FAAC table during the event. At the meeting, **Ed Halash, Diane Worth, Don Klaser, Gordon Hanson, Pat & George Korody and Abhijit Sengupta** have volunteered. More hands are needed to spread the work out. Contact Bob at 248-879-7018 or see him at the event.

Several sites were proposed for a club Transit of Venus event on the morning of June 8th. These included Lake Erie Metropark, South Lyon's mu nicipal park of I-96 and State parks overlooking Lake Huron. Members are asked to investigate these and report out at the May General Membership Meeting.

George Korody gave a talk on his experiences at the Winter Star Party and unfortunately, a talk by **Jeff Thrush** was canceled due to a computer equipment failure. The talk will be rescheduled for a future date.

TREASURERS REPORT APRIL 22, 2004

By Gordon Hansen

Bank Accounts		
Checking	$	276.91
Savings	$	913.73
TOTAL Bank Accounts	**$**	**1,190.64**
Cash Accounts		
Cash Account	$	149.50
TOTAL Cash Accounts	**$**	**149.50**
Asset Accounts		
Astronomical League Dues	$	648.00
FERA Ticket Sales	$	-
GLAAC	$	345.00
Projector	$	335.20
Scholarship	$	336.13
Swap Meet	$	-
TOTAL Asset Accounts	**$**	**1,664.33**
OVERALL TOTAL	**$**	**3,004.47**

X-RAY TELESCOPES

By Dick Lawrence

Attached is an excerpt from an email sent to me by one of our out of state club members.

Hi Jim,

NASA is ready to send up two different types of X-ray telescopes on balloons to a height of 120,000 feet to study for x-ray emissions. The emissions they are looking for are called hard x-ray which is very near the freq used in x-raying the human body. These two telescopes are called "Infocus" and "Hero"

Hero has 8 approximately 4 inch diameter mirrors (consisting of several smaller mirrors) which feed 8 sensors which are electronically combined for one image. Hero may be ready to send up this week.

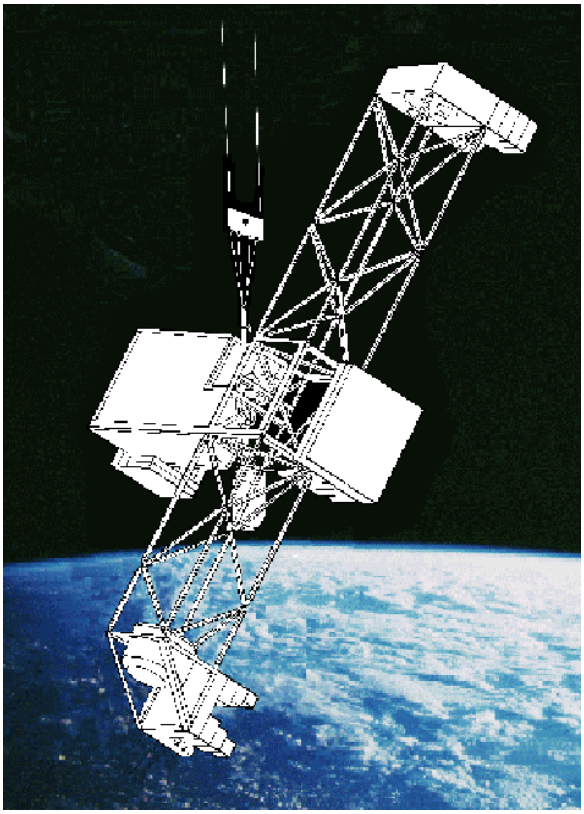
There is a good description of Infocus telescope on line at "infocus.gsfc.nasa.gov". I also saw this telescope this morning and it should be ready to send up later today. Over the past weekend I met on the highway a couple of guys who work for NASA who were riding motorcycles (Harleys) and had stopped for a break. They told me about this balloon ascension which was to take place near my home in New Mexico at a airport near the town of Ft Sumner, where Billy the Kid is supposed to be. I arrived there this morning shortly after dawn and was there to meet the early arrivals who were just coming to work. They are nice people and friendly but not very willing to talk to me as they were busy. That is until they saw my ham call letters on my cap which I had

forgotten I was wearing. Once I was recognized as a ham I was welcome at once and given a grand tour of the whole area. They are even going to call me and tell me when the launch is supposed to take place so I can attend it.

When you think of all the electronics in these sort of things it is not surprising that hams are involved and can better understand what the experts are trying to tell you. I advise every one interested in astronomy to become a ham also. This is not the first time I had doors opened for me just because I was a ham.

The balloon that is to take up these scopes will lift 8000 pounds and is more than 200 meters in diameter. The balloon material is some sort of rather clear plastic material and the whole assembly with the scopes, parachutes and equipment attached is over 1000 feet high with the balloon being over 700 feet. The whole trip will take 24 to 36 hours depending on the winds and will end up probably in eastern California this time of year.

More later. If I get to see the launch.



A visualization of the InFOCmS balloon-borne gondola in flight

ASTROPHYSICS PHUN PHACTS

By Vicki Burnett

Which American observatory is also a tomb?

California's Lick Observatory carries the dubious distinction of serving not only as an astronomical research center, but also as a tomb for its founder, James Lick. Lick was an eccentric millionaire who made his fortune through land speculation during the California gold rush. He is buried beneath the observatory's oldest telescope, the 36-inch aperture refractor Lick Telescope. At its base is a bronze plaque that reads simply: "Here lies the body of James Lick."

Founded in 1888 at Mount Hamilton in California, Lick Observatory was the first U.S. observatory to be placed on a mountaintop. Lick wrote that his purpose in funding the venture was to construct "a powerful telescope, superior to and more powerful than any telescope ever yet made . . . and also a suitable observatory." He saw both of his wishes fulfilled. At the time it became operational, the Lick Telescope was the world's largest, and the Mount Hamilton observatory has proven "suitable" for a wide range of astronomical endeavors.

More recently, in 1996, adaptive optics were added to Lick's Shane* telescope and in 2003, a sodium dye laser was added to simulate bright stars as a guide system. The addition of the laser makes Lick the only observatory to provide a laser guide star for routine use. Now that the Lick system is up and running, a team from Lawrence Livermore National Laboratory (LLNL) and other astronomers from the University of California are beginning high-resolution, near-infrared observations of star-forming regions, quasars, and other interesting astronomical objects.

Adaptive Optics added to Lick Observatory: In 1996, an adaptive optics system, which removes the blurring effects of atmospheric turbulence, was added to Lick's Shane telescope. Adaptive Optics is a process in which distortions from the Earth's atmosphere are removed from a telescope's image in real time. First, a wavefront sensor uses a reference star to measure the distortions that are occurring. The distortions are then removed with a phase corrector by "warping" the telescope's mirror to compensate.

Laser Simulated Star: Astronomers have had to rely on bright stars in the field of view to provide the reference needed to remove turbulence and blur. Only about one to 10 percent of the objects in the sky are sufficiently near a bright star for such a "natural" guide star system to work. A sodium dye laser, developed by ace laser scientists Deanna M. Pennington and Herbert Friedman of LLNL, finally completes the adaptive optics system so that astronomers can use it to view any part of the sky, whether or not a bright star is nearby.

Strapped to the bore of the Lick telescope, the laser shines a narrow beam about 60 miles through the turbulent zone into the upper atmosphere, where the laser light stimulates sodium atoms to absorb and re-emit light of the same color. The sodium comes from micrometeorites that flame out and evaporate as they enter the Earth's atmosphere. The yellow glowing spot created in the atmosphere is equivalent to a 9th magnitude star - about 40 times fainter than the human eye can see. Nevertheless, it provides a steady light source just as effective as a bright distant star.

*THE SHANE TELESCOPE is the premier research instrument of Lick Observatory. Its name honors astronomer C. Donald Shane, who led the effort to acquire the necessary funds from the California Legislature, and who then oversaw the telescope's construction. In recognition of his efforts, the UC Regents voted in May 1977 to rename the 120-inch the C. Donald Shane telescope. The Shane reflector began collecting data in 1959, and it remains one of the world's most productive telescopes.

(Engelbert, P. and Dupuis, D.L., *The Handy Space Answer Book*, Visible Ink Press 1998).

(Spaceflight Now, U.S. Berkeley News Release, February 2004)

RECAP: BEGINNER'S NIGHT AT ISLAND LAKE

By John Kirchhoff

The Michigan Nebula came out on top again and the score is now MN 2 FAAC 0. This after a very promising weather report showing nothing but clear skies for Saturday evening. Ahhh, you just have to love the weather in this State!

Regardless of the clouds we had a very respectable showing for our second Beginner's Night of the season. I arrived at 7:30 only to find that the parking lot was already well on it's way to filling up with cars even under the grey sky. John Schroer and Bob MacFarland were busy with a bunch of scouts under the pavillion. George Korody and Mike Rousseau were setting up equipment as was Binocular Bob Fitzgerald , Dan Wellbaum and Tony Licata. Rick Thompson and Ray Rauen both had their NexStar 11's ready for some NEAT observing. We also picked up a new member, Matt G. who is the proud owner of an Orion 10" Dob. Jim Moscheck , Dennis Salliotte and Ed Isabell were also present to lend a hand and keep an eye on those oh so SLOW moving clouds.

Most of the group called it a day by 11pm and are wishing for good weather for the upcoming Kensington "Astronomy at the Beach". Thanks to everyone who showed up even under less than promising skies and remember that our next Beginner's Night is scheduled for Saturday June 26th.

P.S.: I would like to report that Dennis, Dan and Jim made the long drive over to my backyard on Sunday and we had an excellent view of NEAT. Jim gets a purple heart as well as he had to be at work at 7am Monday morning. WHAT DEDICATION!

ASTRONOMICAL IMAGING S.I.G.

By George Korody

The next meeting of the Astronomical Imaging S.I.G. is scheduled for Thursday, June 3 from 5:00 to 7:00 PM at the usual location (Ford Family Service and Learning Center Dearborn West). Jeff Thrush will lead a demonstration and discussion on solar imaging with emphasis on techniques that can be used to image the Venus transit on June 8. All FAAC members are welcome to attend the discussion.

NEW MEMBER WELCOME !
FAAC Welcomes:

Frank Papp
Lynn Umbarger

May 27, 2004
General Membership Meeting
5:00 pm to 7:00 pm
Agenda

- Opening	Dale Ochelak	8 min
- Observing	All	10 min
- Reports: Treasurer's	Gordon Hansen	7 min
Secretary's	Don Klaser	
- Old/New Business	Dale Ochalek	15 min
- Upcoming Events	Dale Ochalek	15 min
- Technical Discussion	TBD	15 min
- Home Astro Projects	Jeff Thrush	30 min

FAAC CALENDAR

Activity	Date	Time
- GLACC Star Party	May 21,22	
- General Meeting	May 27	5 pm
- Board Meeting	Jun 10	5 pm
- General Meeting	Jun 24	5 pm
- Beginners Night	Jun 26	6 pm

ASTRONOMICAL CALENDAR

All times are Eastern Standard Time or Eastern Daylight Saving Time, whichever applies

May

22 Sa Moon near Mars
24 Mo Moon near Saturn
Mars near Saturn
27 Th First Quarter Moon
Moon near Jupiter

June

3 Th Full Moon
8 Tu Venus transits Sun
9 We Last Quarter Moon
17 Th New Moon
19 Sa Moon near Saturn
20 Su Moon near Mars
Solstice - 8:57 PM
23 We Moon near Jupiter
25 Fr First Quarter Moon
26 Sa 1730 Astronomer Charles Messier born

This information was obtained from the
Henry J. Buhl, Jr. Planetarium in Pittsburg, PA.

Ford Amateur Astronomy Club

Beginner's Night at Island Lake

Saturday from 7:30pm to Midnight

June 26th, July 24th, August 21st, and Sept 11th

Do you have a new telescope that you would like to learn to use? Do you want to see samples of what the night sky has to offer (weather permitting)? You should consider coming out to Island Lake Recreation Area on Beginner's Night. These nights are dedicated to providing equipment and observing assistance to new astronomers.

(The event will take place on the date indicated regardless of sky conditions, cloudy or clear. If it is raining, the event will be cancelled.)

The exact location of the observing site is the "Spring Mill Pond" parking lot and picnic area, at the Island Lake State Recreation Area, on Kensington Road, south of I-96 between South Lyon and Brighton.

For more info or details on this event, send an E-mail message to riderslivonia@aol.com or check the club website at www.boonhill.net/faac
You may also contact John or Dan at Rider's Hobby Shop 734-425-9720

The Ford Amateur Astronomy Club observes at the Island Lake site on Friday and Saturday evenings year round, provided skies are clear. You are welcome to visit the observing site on any weekend, but you must be with a club member if you plan to observe after 10PM. Call 1-313-390-5456 to find out if anyone is going out on any particular night.

Kensington Metropark Eighth Annual Astronomy at the Beach May. 21st & 22

(Time: 5:00 pm to Midnight rain or shine)

Great Lakes Association of Astronomy Clubs

http://www-personal.umich.edu/~dgs/kensington/

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(Friday) NASA Astronaut Tony England

(Sat)NASA Crew Surgeon Dr. Patricia Santy

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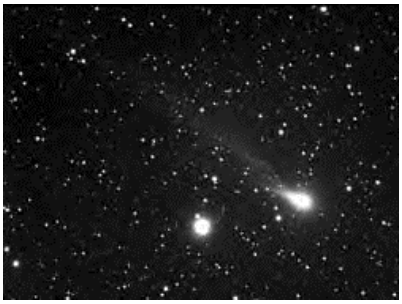
?? *Sunset Astronomical Society*
?? *Genesee Astronomical Society*
?? *Amateur Astronomers of Jackson*

Visit the GLAAC web page at: http://www.boonhill.net/glaac/



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Kensington Metropark I-96 at Kent Lake Rd exit (153)
North to *Martindale Beach*. Ph. 1-800-477-3178
This Event is FREE!
$4.00 Park Vehicle Pass Required

Revised 3/19/2004

Ford Amateur Astronomy Club
Star Stuff Newsletter
P.O. Box 7527
Dearborn, MI 48121-7527