



STAR STUFF

The Newsletter of the Ford Amateur Astronomy Club

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September 2007

In This Issue

Page One

- A Missile in Your Eye
- President's Corner

Inside Stuff

- 3 Meeting Minutes
- 7 Next Meeting Agenda
- 7 Calendars 2008
- 8 Island Lake After-Hours Viewing Procedure
- 8 Lake Erie MetroPark After-Hours Viewing Procedure
- 9 Treasurer's Report
- 9 Items for Sale
- 9 Astro Imaging SIG
- 10 FAAC Photo Gallery



A Missile in Your Eye

Patrick L. Barry

Satellite technology designed to catch ballistic missile launches may soon help doctors monitor the health of people's eyes.

For the last 15 years, Greg Bearman and his colleagues at JPL have been working on a novel design for a spectrometer, a special kind of camera often used on satellites and spacecraft. Rather than snapping a simple picture, spectrometers measure the spectrum of wavelengths in the light coming from a scene.

From that information, scientists can learn things about the physical properties of objects in the photo, be they stars or distant planets or vegetation on Earth's surface.

In this case, however, the challenge was to capture snapshots of short-lived events—like missile launches! The team of JPL scientists designed the new spectrometer, called a computed tomographic imaging spectrometer (CTIS), in collaboration with the Ballistic Missile Defense Organization as a way to detect missiles by the spectral signatures of their exhaust.

...continued on page 3

I meant a Bud Light!

President's Corner

Don Klaser, President, FAAC

A couple of years ago (was it really that long ago!), I wrote a President's Corner about light pollution and specifically about the acorn street lights along Ford Rd. in Canton. In the article I spoke out (ranting ?) about the installation of those wasteful fixtures and how they were contributing to the loss of the night sky in that area.

I haven't had the opportunity to be over that way since, but I imagine those fixtures are still there; after all, the city spent good tax dollars on them, and they don't want to be wasteful of the taxpayers' money, do they? Last year, the City of Warren completed its new Civic Center district on Van Dyke Ave. across from the G.M. Tech Center. On the street that leads into the district

...continued on page 2

STAR STUFF

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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, Administrative Services and Conference Center in Dearborn. Refer to our website for a map and directions (www.boonhill.net/faac).

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 the dark skies at Richmond Airport, Unadilla, given prior permission. 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 Member:	\$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 subscription request and payment. Do not send any money directly to the FAAC for this.

STAR STUFF NEWSLETTER SUBMISSIONS

Your submissions to **STAR STUFF** are more than welcome! Send your story and/or images to the editor at dake00k@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 that weekend can be included in that issue.

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

President's Corner... (continued from page 1)

they installed some nicely designed full cut-off lighting fixtures; they do the job - putting the light where it's needed. Great! City officials are becoming knowledgeable about the problems of light pollution and what they can do to reduce it. Hopefully, other cities will get on the bandwagon. So, is this the happy ending to the story? Sadly, no - read on.

The City of Warren is also trying to revitalize the south end along Van Dyke between 8 and 9 Mile Roads. Recently, as I drove to work heading south along Van Dyke, I noticed that some new light poles were being installed as part of this program. A few days later, I saw what they were putting on top of those poles - ACORN LIGHTS!

AARRGHHH!!!!!! What is with the Jekyll-and-Hyde approach to public lighting in Warren? I even looked to see if the upper part of the globe had been metallized to reflect some of the light down. Nothing. While I encourage the efforts to revitalize the area, did they have to put another nail in the coffin of our night-sky heritage?

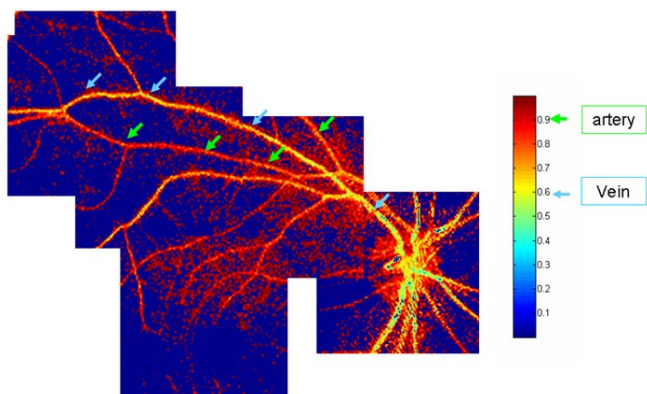
It's going to take an effort lead by a dedicated group of individuals to bring the benefits of responsible outdoor lighting to the attention of elected officials and the general public. Although the idea of dark sky views is a good one, the best way to "sell" this is to show people what it costs them in terms of dollars and wasted natural resources. I believe we'll be able to reduce greenhouse gas emissions and restore our dark skies if we can deliver a definitive response to the request by the public, quoting a famous line from the movie "Jerry McGuire," to "Show me the money!" I don't mean to sound crass, but that's usually how things get done. John Q. Public can feel good about having more money in his pocket, and elected officials can crow about how they have the public's best interests at heart, and all the while, we restore the night sky, as well as reaping the monetary and environmental benefits as well.

With this in mind, at every general meeting, you'll see an agenda item for a report from our International Darksky Association (IDA) committee. I look forward to their reports and recommendations on how we can all lead the charge to return our heritage of the night sky. If not now - when? If not us - who?

I think I could use that Bud Light now.

Missile... *(continued from page 1)*

But now the scientists are pointing CTIS at another fast-moving scene: the retina of an eye. Blood flowing through the retina has a different spectral signature when it is rich in oxygen than when it is oxygen deprived. So eye doctors can use a spectrometer to look for low oxygen in the retina—an indicator of disease. However, because the eye is constantly moving, images produced by conventional spectrometers would have motion blurring that is difficult to correct. The spectrometer that Bearman helped to develop is different: It can capture the whole retina and its spectral information in a single snapshot as quick as 3 milliseconds. "We needed something fast," says Bearman, and this spectrometer is "missile-quick."



This three-color composite image from the computed tomographic imaging spectrometer shows the oxygenation of the blood in the arteries and veins of a human retina (arteries appear red, veins appear yellow).

CTIS is even relatively cheap to build, consisting of standard camera lenses and a custom, etched, transparent sheet called a grating. "With the exception of the grating, we bought everything on Amazon," he says.

The grating was custom-designed at JPL. It has a pattern of microscopic steps on its surface that split incoming light into 25 separate images arranged in a 5 by 5 grid. The center image in the grid shows the scene undistorted, but colors in the surrounding images are slightly "smeared" apart, as if the light had passed through a prism. This separation of colors reveals the light's spectrum for each pixel in the image.

"We're conducting clinical trials now," says Bearman. If all goes well, anti-missile technology

may soon be catching eye problems before they have a chance to get off the ground.

Information about other NASA-developed technologies with spin-off applications can be found at <http://www.sti.nasa.gov/tto>.

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

August 23 Meeting Minutes

Ken Anderson

Attendance: 28+

Don Klaser started meeting at 5:40 in the Hackett conference room with introductions, and pizza and pop. We apologize for any confusion with the last minute room change and the loss of our normal parking lot, but were grateful HFCC coordinated for an alternative site. In the future if we get the Hackett conference room, we will to have the guard let us into the Health building staff parking lot, two lots down from where we normally park.

We welcomed new members John Johnson, and guest Dave Bailey from the Warren Astronomical Society. Ken Anderson observed from Mount Rushmore, Yellowstone, and the Grand Titans with his 10" Dobsonian, and they even had a blackout while at Yellowstone! He could see the Lagoon, Trifid, and Swan nebulae naked eye as well as the double cluster. And the Milky Way only looked better on Mauna Kea years back. Chuck Jones was finally able to get his Imagine 237 auto guider, Pentax lens, Cannon Rebel, and telescope working all at the same time; but had issues with Sky 6 and CCD Soft (which defaults to Sky 5 if button is not pressed), and lost images. Jon Blum observed the Perseid meteor showers and counted 20 meteors between 1-4 am. Don Klaser saw 4-10 meteors. One member went to Cheboygan and informed us the meteor shower was the best on Saturday at 1 am. Frank Ancona traveled to Stellafane in Springfield, Vermont. They had an observatory there, and he had breakfast with John Dobson. There was an underground tunnel between the Hartness House to the telescope. They also have been grinding the next mirror since 1997.

Jim Frisbie gave the Technical Talk "High Resolution Lunar Imaging." Jim's first photo was

...continued on page 4

Meeting Minutes... *(continued from page 3)*

Clavius in October 1998 with Quickcam webcam (10-year-old technology, \$30 now used). By October 2004 he was using ToU Cam Pro (\$50-\$70 now) with 0.8 arc sec resolution of Copernicus. Now he uses a \$490 Black and White Imaging Source DMK21AFO4 Firewall camera. The camera is connected to a Televue Powermate, with four filters and finally a 2" flip mirror diagonal. Jim visually locks for best image with Infra Red, Near Infra Red, Red, and Green filters, and without. The F25 images through the Powermate are really a telepositive Barlow, which is not really an eyepiece (telenegative); but he still focuses by eye.

Jim shoots targets of opportunity and identifies them later. He shared DMK images of: Magnius (limb shot), Alphonsus (direct shot), Blancanus (oblique, forshortend limb shot), Abulfeda (near equator), Stofler "duck", Morteus (elliptical 3D), Casatus + (limb), Miller/Huggins/Nazerthan, Arzachel (with valley on crater wall), Hyginus (with 136 mile wide rill, where meteor fell in when rill was molten), and Delambri (which matched the lunar orbiter). Jim's image of Clavius with his Celestron 11" SCT had 2 pixel detail, 775 pixel across the crater diameter, for 0.45 arc second resolution.

In summary the DMK was a "quantum breakthrough" for Jim. But what is different about the DMK? It has a firewall interface (50% faster than USB 2.0). It has frame rates up to 60 frames/sec. It has a shutter speeds as fast as 1/10,000 sec. It has uncompressed file format, 0.5 Lux low light sensitivity, low noise, and has a very rugged design. The DMK may require a new laptop (Panasonic or Toshiba). Jim uses a 6pin/4pin cable, but it can be run using 6/6 pin firewall connection. It may need an amplifier for remote. Jim recommends to sample at twice the resolution of the telescope capability. This is why Jim uses the 2x Powermate with his 11" SCT. He just gets electronic video streams, since he does not have a mechanical shutter. Registac 4.1 registers and stacks the images/overlays.

Jim informed everyone about the lunar imaging/photo (webcam.moon.images) challenge -- on the website. Also, good references are "Atlas of the Moon" by Rukl 1966, Field Map of the Moon by Sky and Telescope 2005, and Virtual Moon Atlas by Legrand 2002.

Don Klaser led the main presentation, "Ask the Astronomer." Eric Rasmussen answered the first question about laser pointers legality around airfields. University of Michigan Dearborn asked the FAA about using a green laser pointer with their observatory telescope, and received a 25 page form to fill out since they may be inside the 10 NM critical flight zone. The FAA is concerned about mw/cm², which makes it difficult for amateurs to calculate since the laser pointers only list wattage.

The most powerful laser allowed is 75 mW for \$299, and I doubt any of our astronomy lasers even come close to this. But just to be safe, never point at airplane, or near airplanes, especially when they are taking off or landing around airports. Also if you mount a laser to your telescope, if people are close advise you are turning it on, and avoid pointing it at low angles where people might walk through it, or inadvertently look at it. The Winter Star Party banned green lasers to prevent ruining film images.

Another question was on the origin of Saturn's rings. It may be a result of the Roche limit (see http://en.wikipedia.org/wiki/Roche_limit) where a celestial object was torn apart due to tidal forces. Even more amazing is that the rings are only 60 meters thick, possibly due to Shepard moons.

Hobbit Galaxies are very faint and smaller than dwarf galaxies. Globular clusters are within galaxies. LMC, SMC, and other galaxies are outside our Milky Way galaxy.

Black holes can be seen from the nearby rotating stars at the event horizon, moving faster than gravity would predict. The center is black since it is so dense even light can not escape. M87 shows an effect of a black hole with very small regions of high density. Our Milky Way has two to four black holes at Sag A near the center in the Sagittarius.

Don Klaser led the business portion. Ken Anderson gave the Secretary's Report, and the minutes found on both the web and newsletter was approved, with one correction to the newsletter being last month's meeting was in the Rossenau conference room. Don Klaser informed us Gordon Hansen was on vacation, and the official FAAC Financial report will be in the newsletter.

...continued on page 5

Meeting Minutes... *(continued from page 4)*

Harold Thomason, Equipment Manager, expects to get the 4.5" Dobsonian telescope at the end of the month. Harold will etch and take photos of all club equipment. Reminder the club owns a new 10x10 ft² canopy, laptop, projector, screen, sound system, and bullhorn. Club members are reminded to read the new Process and Rules, found in the July 2007 Star Stuff and on our Yahoo website, to sign out equipment.

Ed Halash will draft procedures/standards by which HFCC would select a worthy student. We will prefer a physical science major. We currently have about \$400 in it, and Dr. Carl Jacobs, the HFCC Science Dean said we could send the money to HFCC Foundation, and the Science Board would review the criteria. The FAAC science committee consists of Ed Halash, Gordon Hansen, John Schroer, and Bob FitzGerald.

In club events:

Bob MacFarland reported 10 FAAC members and spouses enjoyed dinner and participated in the FAAC at Meadowbrook Detroit Symphony Orchestra's Beethoven concert on Saturday July 28. They showed spectators Jupiter and the full moon.

16 FAAC members and spouses enjoyed the 2nd Annual SESMA/FAAC Picnic at Richmond, Saturday August 11. We enjoyed good food and a three piece band, and conducted solar observing with SEMSA members, families, and friends. Both Bob MacFarland and Doug Bauer enjoyed 20 minute glider rides. Unfortunately Greg Ozimek did not get to fly because the glider landed somewhere else, and had to be recovered. FAAC provided \$300 To SEMSA for use of their field at night. Jim Frisbie brought our new 10x10-ft. canopy to provide some shade and weather protection. We all enjoyed the traditional SEMSA \$500 Fireworks and impromptu FAAC green laser show.

Afterwards we showed SEMSA guests deep sky objects and planets (Jupiter Io eclipse) through our various telescopes, and enjoyed the Perseid meteor shower either naked eye or with binoculars. We encourage more to attend next year!

The FAAC Dark Sky Workshop September 5 (noon) -12 at Gladwin, Michigan, is being coordinated by Tony Licata, Jim Frisbie, and Gordon Hansen. The \$15 Dark Sky Star Imaging

Party and Workshop for club members and families (not public in general). Discuss, learn, image — this is not exclusively for imaging. Speaker(s) will present every day, but clustered more around the weekend. Speakers include John Kirchhoff, Clay Kessler, Jeff Thrush, Gordon Hansen, Tony Licata, etc. See the handout on the FAAC website, in Files. It is \$5 a tent per day to camp on the hill; the hill is free for those already camping in the park (for about \$29/day RV Park fee). No camper trailers or RVs are allowed on the hill. Advance registration ends August 15. Sites are first-come, first-serve. The FAAC will coordinate porta-potty and path lighting down hill to RV area. Plan to provide your own meals, since we will not make food available. Workshop ends 30 hours before Great Lakes Star Gaze, and attendees must leave the morning of September 12. For additional information contact Gordon Hansen at GordonH2006@comcast.net or Jim Frisbie at w8tu@comcast.net.

No SIG meeting in September due to the above FAAC Dark Sky Workshop. The SIG meetings are the second Thursday of each month (next is October 11) at 5:30 pm at HFCC Rossenau conference room, Topic TBD.

Great Lakes Star Gaze (GLSG5) is September 13 (5 pm) -16 at River Valley RV Park in Gladwin, MI. Send your e-mail with the completed registration form to jeniferrobb@gmail.com, and mail fees postmarked before August 24 to avoid \$15 late fee. Prices vary depending on individual or family, 2 or 3 nights, RV (park fees) plus trailer. Sites are first-come, first-serve.

Astronomy Day 2 is on September 15, with Eric Rasmussen and Mike Lapresto presenting the HFCC Spring Planetarium Show every 2 hours, and Tour of the "scaled" Solar System Walk (similar to that in Washington D.C.) every other two hours. The club is looking volunteers (of those not attending GLSG5) to help Eric at HFCC starting at 10:30 am with solar observing and tours; and U of M-Dearborn 7:30 pm for night time observing at the U of M-D Dearborn's new Science Learning Resource Center (not the parking lot). Eric is checking into opening the U of M -Dearborn Observatory, but there are a lot of politics involved. Gordon was asked if he still has Ken's planisphere making equipment (scissors, glue, folders, and paper planisphere cutouts) for the kids, from the last Island Lake Star Party.

...continued on page 6

Meeting Minutes... *(continued from page 5)*

FAAC will have the banner, canopy, sound system, and projector supporting. This event was requested from the Astronomy League to determine if the Spring or Fall is better for celebrating Galileo's 400th anniversary in a few years.

September 19 at 8 pm on channel 56 "Seeing in the Dark" depicts the excitement of amateur astronomy in high definition. Pass the word to friends and families, while you encourage them to come out to AATB that weekend afterwards.

GLAAC Astronomy at the Beach (AATB) is September 21-22, at Kensington MetroPark for the general public - Bob MacFarland thanked Bob FitzGerald, John Schroer, and George Korody for help in planning this event. Solar observing earlier, 6 pm official start (6:30 pm first show). John Schroer coordinated for NASA's Rob Landis to speak about, "The Orion Manned Program and the Mission to Return to the Moon". Supporting presenters have all agreed to be there. Gordon Hansen plans to do Astronomy 101 for Adults on Friday, and a new "Astronomy for Kids" on Saturday, but this can change depending on the audience. Ms. Ardis Harold from Grosse Point North High School will have radio astronomy teams (RATs) static displays, but their new radio antenna is not portable. One student won a Wayne State scholarship for his display on the "Evolution of Galaxies." Mark Deprest will be setting up two 12'x12' portable planetariums from both DSC star lab and University Lowbrows.

New this year, to encourage equipment setup even with cloudy weather, Tele Vue, Meade, and Orion will provide donation raffles for those club members who actually set up a telescope and/or volunteer. John Kirchhoff is coordinating with 14 vendors/suppliers. Frank Ancona is the Meade 4M Club liaison for the Meade 4M Banner, and advises Meade will be providing a ETX90 telescope for the raffle. Greg Ozimek is the Celestron contact and advises they will be providing hats. GLAAC will have Tony's Dogs, a new concession vendor.

FAAC will donate \$200 and provide the FAAC sound system, speakers, and microphone (previously rented for \$125). University of Michigan Lowbrows will donate \$300. Detroit Science Center to donate the same as last year -- Mars Phoenix Lander. GLAAC is proposing changing the pavilion lighting for this year, but

there is talk about the pavilion being torn down next year to expand the water park. There will be a "Shadow of the Moon" Apollo astronaut giveaway. DVDs and water bottles are also to be given away.

For club members only, Rob Landis will give his main presentation on Saturday at 1:30 in the Nature Center, and you may join for informal lunch/dinner afterwards, before AATB starts.

Kensington MetroPark is seeking recommendations for a new pavilion (next year), acknowledging that the GLAAC AATB brings in more people than any other single event at the park. Next GLAAC planning meeting is Sunday TBD at 1 pm at the Nature Center. Contact Bob MacFarland or Bob FitzGerald for details or future meetings.

FAAC meetings are every fourth Thursday of each month (next meeting September 27 at 5:30 pm) at HFCC Rossenau conference room; Main Presentation is "Future of the Universe" by Fred Adams; Tech Talk is "Lights, Lasers, and Lunacy", by Gary Strumolo. The FAAC Board meeting is the first Thursday of each month (September 6, 5 pm) at Dimitri's Restaurant in Dearborn, MI. We are requesting help from Doug Bock or someone familiar with www.myspace.com, to link an astronomy myspace account with our FAAC website.

The FAAC Library in HFCC Science Center, conference room 109 will be open one hour before monthly FAAC meeting above – Gary Stahl. The list of 100+ books and brief descriptions is available at the FAAC Yahoo site; books can be signed out for one month, with extensions allowable. There are still 20 or more books to be cataloged. Gary recommends a courtesy e-mail a day before the meeting. President Don Klaser and V.P. Doug Bauer are backup key holders for returning books.

The next FAAC Beginner's Night is TBD at our Island Lake State Park Spring Mill Pond site. TBD is an officer in charge implementing new policy of informing guests, with a bull horn or megaphone, for gate being opened on the hour, so guests can be let out without having to wait long.

The 2008 FAAC Swap meet (date TBD) at Holy Cross Lutheran Church on 6 Mile, Livonia, is being coordinated by Tom Blaszk.

...continued on page 7

Meeting Minutes... *(continued from page 6)*

George and Pat Korody plan to attend Winter Star Party (February 2008). Register or find out more details on the Winter Star Party web site. Cost is about \$75 per person, plus \$48 to camp.

Observing site policies and procedures have been written by Ed Halash (Richmond), George Korody (Island Lake), and Gordon Hansen and Dennis Salliotte (Lake Erie), and these have been posted on the club website. Thanks to Ed, George, Gordon, and Dennis.

Frank Ancona will be meeting with our State Congressman about \$10 million cost savings for new rheostat dimming lights, and downward light fixtures. He also plans to take his talk to city counselors and mayors. We wish him the best luck in encouraging our legislature to purchase efficient lighting, saving taxpayers money, and preserving our night sky. At Yellowstone, Park Rangers informed that animals, plants, and trees also benefit from the night sky; especially nocturnal animals which lose their advantage. Frank is our club spokesperson for the International Dark Sky Association.

There is a \$10 FERA discount for dinner show packages at Andiamo Second City of Novi. Normal price for two is \$50 on Wednesday, Thursday, and Sunday, and \$60 on Friday. Call 248-891-8702 and tell them you are a FERA member to get the \$10 discount.

Gordon Hansen has sweatshirts, shirts, hats, and patches available for purchase from Diane Worth's last order. We are considering a new order from Saginaw for sweatshirts, jackets, shirts, hats, and patches and a possible expansion of items from a new catalog. Gordon has new small logo on chest stenciled \$10 T-shirts and \$20 sweatshirts, which were available for the SESMA/FAAC picnic. One club member asked if we could also have the large logo stenciled on the back for additional cost in future orders.

The 2008 Astronomy calendars are available for \$7. Please contact Gordon Hansen if interested.

Seeking 2007 speakers for both FAAC 30-60 minute Main Presentations, and 15-20 minute Tech Talks. Contact Don Klaser at dklaser4750@wowway.com or call 586-596-9510.

Meeting Agenda - Sept 27

5:30 pm

Opening/Introduction/Member Observing

Tech Talk: "Light, Lasers and Lunacy" - Gary Strumolo

Presentation: "Future of the Universe" - Dr. Fred Adams - U. of Michigan

Club Business/Secretary/Treasurer reports

Club Projects/Committees/Member support

- Scholarship Fund - Ed Halash
- Astro-Imaging SIG / Dark Sky Workshop recap - Gordon Hansen / Jim Frisbie
- GLAAC/AATB - recap - all
- Astronomy Day II - Eric Rasmussen/All
- Assistant Librarian - Don Klaser
- 5th Annual Swap Meet - Feb. 16th, 2008 Tom Blaszk
- International Darksky Association (IDA) - Frank Ancona/Greg Ozimek/John Schroer
- International Year of Astronomy - 2009 - Don Klaser
- Open - All

Calendars 2008

Gordon Hansen

The Astronomy Magazine calendar normally sells for \$12.95. Club members can purchase them for \$7.00 - a 45% discount!

Calendars will be available at club meetings. If you will not be attending, but, would still like to purchase one (or more!), send an email to: fordastronomy@comcast.net. Charge of \$3 will be added for mailing.



Island Lake After-Hours Viewing Procedure

George Korody

FAAC maintains an annual permit for after-hours use of the park. The permit covers club members in good standing, along with family members and guests who are with the club member. Park hours are from 8:00 am to 10:00 pm the year round. No special viewing arrangements need to be, but carry your FAAC membership card at all times, in order to show the card if requested by park staff. The normal FAAC observing site is from the Spring Mill Pond parking lot just beyond the pavilion.

The park has an entrance gate that is locked after normal park hours during certain times of the year. Following is an important and detailed gate lock procedure for entry and exit during those times when the gate is locked.

Island Lake Gate Lock Procedure: This is not a new procedure. It simply details, for clarification, long-established practices.

Park personnel normally lock the entry gate after-hours during the summer months from Memorial Day to Labor Day. However, the Park may decide to lock the gate at any other period based on circumstances they deem appropriate. So, FAAC members should always be prepared to find the gate locked at any time after-hours.

Always leave the gate in the position you found it (opened or closed). FAAC has installed a heavy steel lock box with a combination lock in the web of the south gate post. The Park uses a keyed padlock to secure the two gate halves together.

To unlock the gate, insert the combination numbers into the FAAC combination lock to open the box and obtain the padlock key from inside the box. ALWAYS leave the FAAC combination lock at the box while taking the key to open the Park's padlock on the gate.

The gate halves are massive and made of welded steel beams. It is a good idea to have someone with you the first time you go through the procedure. Keep your fingers away from pinch points. The gate halves tend to swing open. It is not necessary to open both halves of the gate. There is a pole about four feet long on the south gate half which can be used to prop one half of the gate from swinging open.

To relock the gate, reposition the gate halves and fasten with the securing pin and relock with the Park's padlock. Immediately, return the key to the FAAC lock box and reinstall the combination lock for the next person to use.

The lock combination numbers are rarely changed and are kept from year to year. However, if the numbers are changed for security reasons, a notice will be clearly placed on the front page of the FAAC Starstuff Newsletter, as well as on the FAAC's Yahoo group user list. The combination numbers can be obtained from any Board Member.

For the security of club members while observing and to protect Park property, it is imperative that the combination numbers never be given to anyone who is not a confirmed FAAC club member.

Lake Erie MetroPark After-Hours Viewing Procedure

Gordon Hansen

Lake Erie MetroPark allows us to use the park after-hours for astronomical viewing. The club agreed to the following stipulations:

- All cars will need to have a valid MetroPark sticker
- Additionally, the park issued us a number of permits. If you think you will be using Lake Erie contact Gordon Hansen at the club's email address (fordastronomy@comcast.net.) Please keep the permit with you in case a security officer challenges you.
- Anyone planning to observe must notify the park before 4 pm that afternoon (telephone 734-379-5020) so that security can be informed of your presence.
- You must arrive before the park closes at 10 pm. The park normally closes and locks the entrance gate. Under no circumstances should you drive through the exit gate once the park is closed.

Note: The exit gate is left open so you can leave when you want.

Treasurer's Report

Gordon Hansen

Bank Accounts

Checking	\$	633.29
Savings	\$	2,085.04
TOTAL Bank Accounts	\$	2,718.33

Cash Accounts

Cash Account	\$	99.17
TOTAL Cash Accounts	\$	99.17

Investment Accounts

Certificate of Deposit	\$	1,014.29
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Asset Accounts

Equipment	\$	381.95
Scholarship	\$	413.05
TOTAL Asset Accounts	\$	795.00

OVERALL TOTAL	\$	4,626.79
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Memo:

GLAAC	\$	1,966.81
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SkyWatcher 120mm refractor, f8.3 F/L 1000mm. Comes with tube rings and 2in -1.25 adapter. Good condition, sharp-contrast views. Great for planets and brighter deep sky objects. Killer double-star splitter. Asking \$225.00

Contact Michael, 734-777-3605 or email: mharri1000@netzero.com

Schmidt-Newtonian 10" — F5.35, 1360 mm focal length with 2" focuser. Includes 60 mm guide scope, Full aperture solar filter by Thousand Oaks (Mylar). Also includes cooling fan, extra set of "O" rings. Corrector plate made by Optron systems (division of Nazca Corp. of Callifornia). Also available is the Crestliner mount (on wheels). Scope made by Nelson Lewis of Detroit Astronomical Society in 1962. Purchased 1981. Selling telescope for \$325. Mount for \$200.

Contact: Harold Thomason 313-584-7465

AstroSystems 12.5" F5.26 TeleKit Dobsonian, 2" thick 1/15 peak to valley wave front Pegasus primary, new Sky Commander XP4 DSC, AstroSystems Phase IV focuser, 9 x 70 finder, internal filter slide, secondary heater, base mirror fan with 2 boundary layer fans, light shroud, full nylon cover, truss bag, wheelbarrow handles, other extras. \$4400 new, asking \$2150.

Contact Bob, stargzr@wowway.com

Televue Pronto 70mm refractor. Includes the carry case/bag and the Televue diagonal to go with it. Excellent condition. Now asking \$525 for the telescope and accessories.

Please contact me through e-mail. Tom Blaszak, key_string_guy@yahoo.com

Items for Sale

Coulter 10" Dobsonian telescope. \$400.
Contact Bob Stonik, 313-361-4954.

Celestron Orange Tube 8" (mid-1970s) Very good condition, no scratches, w/camera mount, tripod. RA bearings, slo-mo Dec fine. Corrector plate needs cleaning; needs visual back, diagonal. Contact Dr. Nicolle Zellner, Albion College
nzellner@albion.edu

Photon 127 5" f9 achromatic refractor for sale. \$300 OBO.

Contact Clay Kessler, ckessler@gatecom.com.

SIG - Astro Imaging

The next meeting of the Astro Imaging SIG is Thursday, October 11, HFCC in Dearborn, in the Administrative Services and Conference Bldg. (same as the FAAC General Meeting).

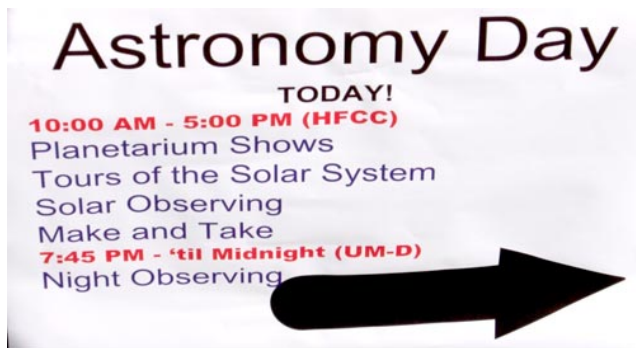
If you drive up to the Faculty parking lot gate, it should open allowing you to park close to the building.

Topic is TBD.

FAAC Photo Gallery

With all the events of late, including Astronomy Day II September 15, the Great Lakes Star Gaze in Gladwin, September 13-15, the Dark Sky workshop in Gladwin preceding that, and the GLAAC Astronomy at the Beach September 21-22, there are doubtless lots of fun times and tales to tell – but a few pictures tell a story, too.

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Astronomy Day II -
Photos by Greg Ozimek

Harold Thomason explains chart to a visitor.



FAAC Photos ... *(continued from page 10)*

John Schroer and other FAAC members are readying for the Star Gaze nights in Gladwin. Photo by Jon Blum.



Astronomy at the Beach
Photo by Dennis Salliotte

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



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