



# STAR STUFF

The Newsletter of the Ford Amateur Astronomy Club

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June 2007

## In This Issue

### Page One

- President's Corner
- Chew on This!

### Inside Stuff

- 2 Two New FAAC Events!
- 3 Astronomy Graying; Dying too?
- 4 Newsletter, anyone?
- 4 FAAC Equipment Checkout
- 5 Meeting Minutes
- 8 Next Meeting Agenda
- 8 FAAC Events 2007
- 8 Treasurer's Report
- 9 Astro Imaging SIG
- 9 Items for Sale
- 9 GLSG5 – Reserve Your Spot
- 9 New Members

## Life, Liberty and.....

### President's Corner

Don Klaser, President, FAAC

Fireworks, parades and picnics - in the coming weeks, these events will be common place as we celebrate our country's independence. Freedom from tyranny, repression and fear. We enjoy a variety of freedoms today: speech, assembly, religion and the right to bear arms, among others.

In the 1960's, it was deemed OK to "do my own thing" as long as "I don't hurt anybody else" and "Hey, it's my body," but in hindsight, these

*...continued on page 2*



## Chew on This!

Diane K. Fisher

The Mars robotic rovers, Spirit and Opportunity, are equipped with RATs, or Rock Abrasion Tools. Their purpose is to abrade the surface patina off the Mars rocks so that the alpha x-ray spectrometer can analyze the minerals inside the rocks, rather than just on the surface.

But future robotic missions to Mars will be asked to go even further below the surface. Scrapers and corers will gather rock samples of substantial size, that, in order to be analyzed by a spectrometer, will need to be crushed into a fine powder.

Crushing rocks on Mars? Now there's a problem that brings to mind a multitude of possible approaches: Whack them with a large hammer? Squeeze them until they explode? How about just chewing them up? It was with this latter metaphor that the planetary instrument engineers struck pay dirt—so to speak.

Thanks to NASA's Planetary Instrument Definition and Development Program, a small group of NASA engineers came up with the Mars Rock Crusher. Only six inches tall, it can chew the hardest rocks into a powder. The Mars Rock Crusher has two metal plates that work sort of like our jaws. One plate stays still, while the other plate moves. Rocks are dropped into the jaw between the two plates. As one plate moves in and out (like a lower

*...continued on page 3*

# STAR STUFF

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

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SECRETARY:	Ken Anderson
TREASURER:	Gordon Hansen
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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](http://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](mailto: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](mailto: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](http://groups.yahoo.com/group/FordAstronomyClub).

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

don't always turn out to be good additions to the list.

Our nation's first European settlers came here wanting to establish the freedom to speak their mind and to worship as they pleased without fear of reprisal or imprisonment but in doing so they also denied the same rights to others. The Pilgrims tried to suppress the religious practices of subsequent settlers to the Massachusetts colony, and Catholics had to establish their own colony (Maryland) to be able to freely practice their faith. And in more recent times, the actions of Sen. Joe McCarthy are well-documented.

Our Founding Fathers established this nation with a set of principles that would apply not to just the few, but to all. In addition to the ones I mentioned previously, they also included respect for the other person and their thoughts and opinions — even if they differ from our own.

While it has been held that freedom of speech does not include the right to yell "fire" in a crowded theatre, it does require us to extend to others the same as we would want for ourselves. It was once said "I may not agree with what you have to say, but will defend to the death your right to say it." Although amateur astronomy doesn't require such a life or death commitment, I'm sure we all can appreciate what it took, and what it takes, to keep all our freedoms intact.

Have a safe and happy 4th!!!

## Two New FAAC Events!

We will be supporting two new events (among our others) this summer; please join us. The first is our 2nd annual "Astronomy at Meadowbrook with the DSO" on Saturday, July 28th. We will have solar observing before the concert, then a short after-observing, as patrons leave the venue. To attend, send me an e-mail via the club Yahoo Group and I'll give you the necessary details.

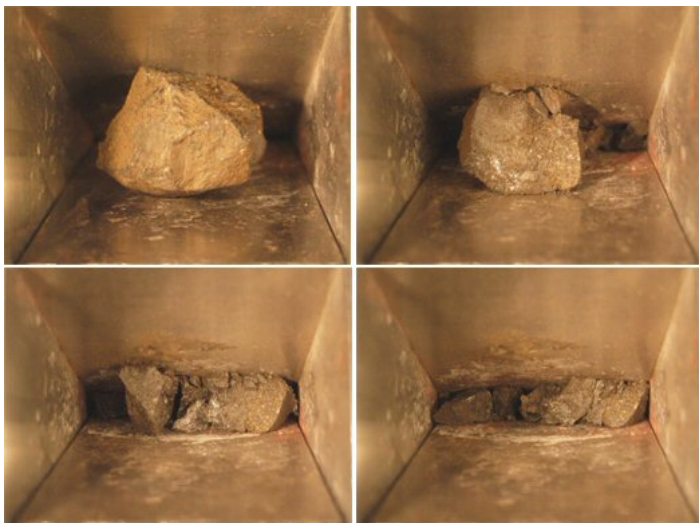
The second event is Astronomy Day II, on Saturday, September 15th. We will be joining Eric Rasmussen at the U-M Dearborn campus. No details yet, but, send me an e-mail via the club Yahoo Group and we will hook you up!

— Don Klaser

## Chew on This... *(continued from page 1)*

jaw), rocks are crushed between the two plates. The jaw opening is larger toward the top and smaller towards the bottom. So when larger rocks are crushed near the top, the pieces fall down into the narrower part of the jaw, where they are crushed again.

This process repeats until the rock particles are small enough to fall through a slit where the two plates are closest.



*Looking down on the jaws of the Mars Rock Crusher, we see a magnetite rock get crushed into smaller and smaller particles.*

Engineers have tested the Mars Rock Crusher with Earth rocks similar to those expected to be found on Mars. One kind of rock is hematite. The rusted iron in hematite and other rocks help give Mars its nickname "The Red Planet."

Another kind of rock is magnetite, so-called because it is magnetic. Rocks made by volcanoes are called basalts. Some of the volcanoes on Mars may have produced basalts with a lot of a mineral called olivine. We call those olivine basalts, and the Rock Crusher chews them up nicely too.

Visit [www.jpl.nasa.gov/technology](http://www.jpl.nasa.gov/technology) to read the latest about other NASA technologies for exploring other planets and improving life on this one.

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

## Astronomy Graying; Dying too?

Greg Ozimek

If astronomy-as-a-hobby survives, and continues as a lead-in to understanding science and a life of science-savvy, it might be because some guy named Jerry conveys the intriguing possibilities of astronomy in simple ways to others.

Let me explain...

On the evening of June 8, 2007, I attended the First Light Party and inauguration of the radio astronomy telescope at Grosse Pointe North High School in Grosse Pointe Woods. The evening had been planned by the Radio Astronomy Team (RATz Club) students and their dynamo of a teacher, Mrs. Ardis Herrold.

There were two slide presentations wherein the students gave an overview of Radio Astronomy, and later, answered the still-elusive question, "What is Radio Astronomy." Two other sections included a tour of the newly completed RATz Control Room and their new crowning glory — the 25' telescope on site.

Next Mrs. Herrold presented the small plaques which had been displayed during the social mixer before the event began – sitting next to a small rubber rat, of course. Each graduating senior accepted the acknowledgment of Club work-well-done and made a short acceptance speech.

There were underlying themes in the sometimes nervous, talking-in-front-of-parents speeches.

Most kids had joined in their freshman year. One joined because he was fascinated with the possibilities of building a radio-astronomy telescope and using it.

Most joined because another student, named Jerry, had said, "Join, it's really cool!"

During their impromptu speeches, nearly all admitted joining because of what Jerry said — "It's really cool, you get to use power tools! And you get to go up on the roof of the school!!!"

Those last two bullet points were the clincher that likely sold all 10 of these graduating seniors — their eyes were at least slightly glazing over as they recalled contemplating the possibilities

*...continued on page 4*



## Astronomy Graying... *(continued from page 3)*

three or four years earlier, some even waxing nearly poetic. Seriously. They all seemed cohesive around those two points.

I thought I heard the geek anthem in a resonating chorus ("Woooooo") as each graduate spoke.

Looking closer, there are two vital elements at play here: First, nearly all joined because someone said it was cool and urged them to join, and second, there was the promise of doing something that would put them on the other side of a limit or boundary. Both elements give a sense of liberation, a sense of freedom.

It was obvious they all enjoyed being a group together. Any proof needed? The Radio Astronomy Team's First Light party was on a Friday night, the night of their graduation from High School.

The bottom line: If astronomy is going to thrive, it will because people talk about it. And probably because some guy named Jerry will say,

"It's really cool! You get to use cool scientific instruments!!!"

And power tools.

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## Newsletter, anyone?

Dale Ochalek

If you're a current FAAC member, you can opt to get a printed version (non-color) of the Star Stuff newsletters mailed to you monthly.

To do this, talk to Gordon Hansen, or send an email request to [fordastronomy@comcast.net](mailto:fordastronomy@comcast.net), or send a request via snail-mail to Gordon at P.O. Box 7527, Dearborn, MI 48121-7527. Include your name and current address, just in case.

You can still get the newsletter online (.pdf), including past editions, from Doug Bock's club website — <http://www.boonhill.net/faac/starstuff>. Do download this full-color version, if possible, rather than our sending you the printed version — saves money, even trees!

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## FAAC Equipment Checkout

Doug Bauer

The FAAC has presentation equipment, including projector, screen, and sound system, available for use by FAAC members for your FAAC educational outreach needs! Member Harold Thomason is our Equipment Manager. Contact Harold c/o FAAC (or call 313-584-7465) to reserve the equipment.

### Process for Reserving Equipment

1. Contact the Equipment Manager (EM) with request for the needed equipment, and the specific date(s).
2. EM verifies the equipment is available, and determines who would have it prior to the date requested.
3. The EM tells you who will have the equipment requested, and supplies the contact information.
4. The EM records the reservation information on the Equipment Reservation Sheet for you.
5. Contact the person identified as having the equipment, and arrange for transfer of possession. The person receiving the equipment **must provide picture identification for verification**.
6. The EM tells the requester who is scheduled next, and when they must return/transfer the equipment.
7. If you have the equipment, and will not be available for any reason to pass the equipment on the next reservation date (due to out of town business, vacation, etc.), **return it to the EM before leaving**.
8. If you decide not to use the equipment after reserving, please be courteous; call the EM as soon as possible, and cancel the reservation.

### Rules for Equipment Use

1. Equipment priority will be given to FAAC sponsored activities.
2. Equipment may only be reserved by active FAAC members.
3. The equipment must be signed out through the Equipment Manager (EM).
4. Store equipment securely while not in use.
5. Handle and use equipment so as not to cause damage (outside the normal wear and tear).
6. Make sure those operating the equipment will use it properly (always ask for help if needed).
7. Report any problems with the equipment to the EM within 24 hours.
8. Work with the EM and others needing the equipment to find a way to get the equipment to the next person on the reservation list.

## May 24 Meeting Minutes

Ken Anderson

Attendance: 33+

Meeting officially started at 5:30 pm with pizza and pop available, in the Hackett conference room of the HFCC Health Careers Building. Don Klaser, President, chaired the meeting and led the introductions, and asked for observations.

We welcomed new-old member Al Bates, and honored recent Ford retirees Bob MacFarland and Doug Bauer. Dick Harris reported seeing 6th magnitude asteroid Vesta in 10x50 binoculars. Ken Anderson tracked the movement of Vesta thanks to the July Sky & Telescope map, and observed the antenna galaxies for the first time from Richmond. Will Sopha observed with his new telescope, made from old elements. Jon Blum stayed at a bed and breakfast in Tuscon Arizona, and visited Starazona to see Vesta, Pluto, and 100+ telescopes but only bought a T-shirt. Bob Bertha did solar viewing of sunspots, and aligned his telescope on the sun to observe Venus, Saturn, Proceyon, and Castor in daylight. Dave Bailey observed Venus as late as 12:15 am. Harold Thomason has flier for many different types of solar filters to put on "night" scopes. Jim Frisbie had troubles with his LX200 classic, so he now uses a LX90 Autostar which is very easy to use. Jim can write ASCII programs to tour double stars, etc.

Bob Bertha, from Warren Astronomical Society (WAS), presented "Testing Astronomical Optics" – telling how to fix your telescope, and how good are the optics in your telescope. The best reference, suggested Bob, is "Star Testing Astronomical Telescopes", by Harold Richard Suiter. Many of us have Newtonian and Schmidt Cassegrain telescopes that are performing far below potential. Manufacturers may misrepresent  $\frac{1}{4}$  to  $\frac{1}{12}$  wavelength, etc. When making a refractor increasing focal length steps down the aperture. A 6" Acromat comes as a F8, but you can make/add an aperture stop to increase it to F15 for planets (or effectively eliminate central blockage of diagonal mirror in Newtonians and Schmidt-Cassegrains).

A Strehl ratio of 0.8 is approximately  $\frac{1}{4}$  wave, and is a measure of the optical performance of glass. Most Dobsonian reflectors are 0.9. Achromatics are 0.95. Perfect optics have a Strehl ratio of 1.0. The modulation transfer function (MTF) is a different measurement outside the telescope to your eye.

Star testing consists of getting a very sharp focus of a single star in the direct center of view. You should see a star and ring(s). The next step is to go out of focus. Unobstructed refractors do not have a central dark spot, whereas, obstructed reflectors (diagonal mirror) and Schmidt Cassegrains both have a dark spot in the center. It is good to have everything circular, or in concentric circles. Likewise, it is bad in non-circular. Wide angles usually cause more problems with a large dark center in the middle (like 55mm Possils on a fast (low F) telescope. Therefore longer field focal lengths have more clarity for the same aperture. Also a 2" diagonal may not provide better results. 1.25" diagonal has an eyepiece limit of 32mm, so a 40mm eyepiece may not provide a wider view.

An out-of-collimation telescope results in spherical aberration. This would appear angular and non-concentric. When correctly collimated, out-of-focus should appear the same on both sides of focus, including brightness. When doing check, make sure the telescope is cooled for about one hour. If new do on different days three times. Celestron and Meade telescope main mirrors are very good these days. In the past, some had turned down mirror edges, which is a bad mirror with randomness at the edge. Spherical aberrations are not due to bad mirrors, they are due to good mirrors that are out of collimation, or alignment. Therefore, collimate your telescope to get the most out of it!

Step 1 – Cool down one hour. Center and track on a star. For Schmidt-Cassegrains remove diagonal. Out of focus should not be zigzagging. The bright out of focus disk should be centered. If off to the left, loosen the right and tighten the left screws until centered.

Step 2 – Repeat process with higher powered eyepiece.

Step 3 – Use highest power eyepiece on the best night possible (cold steady calm winter night), and focus knob counter clockwise for less slop in gears. Use minimum movement just touching (barely turning) screwdriver, to center. You won't be able to get any better than this.

Williams and Astrophysics have some of the best design diagonal mirrors, and Bob considers these much better than Meade, Celestron, or Orion diagonals. A Chesire eyepiece has a mirror and a

*...continued on page 6*

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

hole, for a flashlight to shine in. Newtonians with fast optics require a laser collimator. A barlowed laser collimator is even more effective. Note lasers do not work for SCTs since they are too short; chesires are more accurate. Align secondary first, so you do not combine errors.

Tracking is requires to keep the star centered; however, if you don't have tracking you can still do a daylight star test. Mount a ball bearing 150 feet away. The glint of the sun (behind you) simulates the star. Rigidly align and center telescope. Since you are looking at something terrestrial, it will remain stationary and centered throughout the collimation process.

On the F 1.8 SCT, you can replace center with very wide field camera from manufacturer - Hyperstar. How do you remove a Celestron secondary since there are screws and double sided sticky tape issue?

Sit in front of telescope with one eye open, for concentric reflectors. Make engraving or pencil mark at 3 o'clock; since everything must remain aligned when finished, and the secondary may rotate. Bob recommends putting dots where the screws are when you receive a new SCT telescope (or do it now if it is still fairly new). The secondary may move with temperature expansion /contraction (hot-cold). The ring may move on glass, so you may want to add two drops of epoxy and tighten screws to prevent movement.

Bob Bertha previously worked for Celestron; if you have questions with these steps, please contact Bob: Remove focusing knob, three screws, threaded rod with two ball bearings, remove focuser, remove split ring or O ring, notch for casting. One minute removal of salt (not dust) with one drop of liquid 50% alcohol and 50% distilled water. Use 100% cotton handkerchief to remove, blue wipe in straight line to keep coatings good. This procedure will not work for dust; however, do clean for pollutants and smears on both mirrors and eyepieces with light damp cloth.

Next, about glass refractor types - Aires has a Chromocorphe. APO manufacturers have standard crown and flat, ED, and super low dispersion (SD). ABBE Reflective Index of 80+ or higher.

Astrophysics Takahashi is near APO, but require research. Televue, by Al Nagler, has doublets

that perform almost as well as triplets. ED and SD are very expensive. Homogeneous glass and shape make a large aperture more expensive. Chinese Sprintex are very good and consistent.

Vixen is an inexpensive aprochromatic. To modify align focuser w/ optics, blacken edges of glass, use 100% cotton cloth, and finally turn upside down and push in (do NOT drop double in right side up, or damage may result).

Next Bob showed pictures from 25 Mile Rd. and Hayes. The first was the Rosette Nebula taken with H-alpha, O III, and Red/Green/Blue (RGB). He made a very nice H-alpha shot of the complete Veil nebula using a Televue 85. For CCD imaging he uses CCD inspector to measure the tilt X and tilt Y for both curvature and collimation. The Maximum DL has three screws. Finally big chip cameras include TAK 105 SSQ, Austrian Astrosystems 10" and 12" flat field correction F3.8, and OC Richie-Chretien.

Don Klaser led the business portion. Ken Anderson gave the Secretary's Report. One correction to last month's minutes is that Gliese 581C is 120 trillion miles away from us. Another is the Great Lake Star Gaze (GLSG5) is from September 13-16, 2007. The minutes, found on both the web and newsletter, were approved. Gordon Hansen gave the Treasurer's report totaling \$6600 (FAAC Only, excluding GLAAC), plus \$1866 for GLAAC. Next, Don led the club through events, listed in chronological order, plus generic reminders at the end:

HFCC Planetarium "Spring Sky" from April 1 to June 19 2007, Tuesday only, doors open 7:15-7:30 pm, free. Dennis Salliotte, Eric Rasmessa, and Bob Clubb presenting. Families, kids, and scouts welcome.

SIG meetings are every second Thursday of each month. The next meeting is June 14 at HFCC Rosenau conference room, topic TBD (Jim Frisbie will post on FAAC Yahoo site).

Tim McKim invited FAAC members to join him observing in his Alpena condo June 15-16, 2007.

FAAC meetings are fourth Thursday each month. The next meeting is June 28 at HFCC Rosenau conference room, Presentation "Gamma Ray Bursts, ROTSE Project" - Heather Swan (U-M).

*...continued on page 7*

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

FAAC Library is open one hour before meeting HFCC Science Center Conf Room 109 – see Gary Stahl. List of books is available in FAAC Yahoo site, which can be signed out for one month. Gary requested to have an assistant to check out books, since he is not always available. Don Klaser agreed to have backup key to return books.

FAAC Road Trip 2007 to MSU Abrahms Planetarium & Observatory 6/22/07 5:30PM -1AM Cancelled due to insufficient number of attendees (24 signed up, needed additional 20) and a smaller bus without bathroom was not significantly cheaper, and would have still cost \$500 for FAAC. Gordon Hansen refunded advance deposits. Jim Frisbie was thanked for his efforts in coordinating. Those interested could still go by themselves or carpool and see for \$3 the 8 pm Abrams planetarium show plus observatory.

The 2nd Annual SESMA/FAAC Picnic at Richmond is postponed to August, TBD (they will contact Ed with details). FAAC has provided \$300, but they would like FAAC volunteers to do the work (buy food, cook, etc). Glider flights available for TBD cost. Fireworks. Bring red or green lasers for surprise laser show afterwards (but don't shine at any airplanes).

Gladwin on the hill FAAC Dark Sky Workshop September 5-11 is being coordinated by Tony Licatta. It costs \$15 Dark Sky Star Imaging Party/Workshop for club members and families (not public in general), and \$5 per tent to camp on hill. Hill is free for those camping in the park (\$29 RV Park fee). No campers or RV allowed on the hill. Advance registration to FAAC ends August 15. Sites are first-come, first-served. FAAC will coordinate port-a-potty and path lighting down hill to RV area. See handout on web. For additional info contact Gordon Hansen at GordonH2006@comcast.net or Jim Frisbie at w8tu@comcast.net. Ends a half day before Great Lakes Star Gaze, and must leave hill for lane marking (FAAC can not claim best positions for GLSG5), etc.

The Great Lakes Star Glaze (GLSG5) begins 5 pm, September 13 to 16 at River Valley RV Park in Gladwin, MI. E-mail completed registration form to jeniferrobb@gmail.com with 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-served.

Astronomy Day II is also September 15, and the FAAC is looking for volunteers (not attending GLSG5) to set up events at Island Lake, HFCC Planetarium, U of M Dearborn, etc., depending on club member interest (DSC will not be participating). This event was requested from the Astronomy League to determine if the Spring or Fall is better for celebrating Galileo's 500th anniversary in a few years.

GLAAC Astronomy on the Beach is September 21-22, at Kensington Metropark for the general public. Solar observing earlier, 6 pm official start (6:30 pm first show), John Schroer coordinating main guest speaker. Supporting presenters have all agreed. Gordon Hansen plans to do Astronomy 101 for Adults on Friday, and new Astronomy for kids on Saturday, but he can change depending on the audience. Mrs. Ardis Herrold from Gross Point North High School will have radio astronomy displays, but their new radio antenna is not portable. Mark Deprest will be setting up two portable planetariums.

New this year, to encourage equipment setup even with cloudy weather, Televue, Meade, and Orion will provide donation raffles for telescope volunteers who actually set up. Frank Ancona is the Meade 4M Club Liaison for the Meade 4M Banner. Greg Ozimek is the Celestron contact. FAAC to donate \$200 and provide sound system, speakers, and microphone (previously rented for \$125). University of Michigan Lowbrows will donate \$300. Detroit Science Center will donate the same as last year, the Mars Phoenix Lander. The GLAAC planning meeting is every first Sunday of the month at 1 pm, at Kensington park Nature Center; contact Bob MacFarland for details.

George Korody will set up the kickoff meeting to brainstorm and determine interest in the proposed Astronomy Village, and if any volunteer (other than George) would like to lead this major undertaking.

Harold Thomason volunteered to be Equipment Chairperson, to store and track or log equipment in/out! Jim Frisbie purchased Yamaha Stagepas 300 sound system, and will be evaluating wireless microphone, and tent. We also own laptop, projector, and screen for presentations. We are

*...continued on page 8*



## Meeting Minutes... (continued from page 7)

also seeking a missing Dobsonian telescope believed to be with a previous club officer, since we did not have an equipment policy at the time. Doug Bauer is now writing Equipment Manager Responsibilities, Rules, and Process.

Gordon Hansen said 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. Please contact Gordon if interested.

Greg Ozimek has free Celestron hats for any interested club members.

FAAC is seeking speakers for both FAAC 30-60 minute presentations, or 15-20 minute Tech Talks. Contact Don Klaser at 586-596-9510 or dklaser4750@wowway.com.

## Meeting Agenda - June 28

5:30 pm

**Opening/Introduction/Member Observing**

**New Members and Guests** Diane Worth

**Tech Talk:** Electrical Safety – Jim Frisbee

**Presentation:** Gamma Ray Bursts - Heather Swan, U-M

**Club Business/Secretary/Treasurer reports**

**Club Projects/Committees/Member support**

- Club Equipment Management - Doug Bauer
- Astro-Imaging SIC - Gordon Hansen
- SEMSA/FAAC Picnic - TBD - Ed Halash
- GLAAC/AOTB - September 21 & 22, 2007 - Bob MacFarland
- Astronomy Day II - September 15 - Don Klaser
- Assistant Librarian - Don Klaser
- Scholarship Fund - Don Klaser
- Club Wearables - Gordon Hansen
- Open discussion - All
- Close - Don Klaser

## FAAC Events 2007

Bob MacFarland

<b>July</b>	<b>21</b> – Beginners' Night, Island Lake Recreation Area
	<b>28</b> – Detroit Symphony Orchestra night
<b>August</b>	<b>18</b> – Beginners' Night, Island Lake Recreation Area
<b>September</b>	<b>5-11</b> – Astro-Imaging Workshop, Gladwin <b>13-16</b> – Great Lakes Star Gaze, Gladwin <b>15</b> – Astronomy Day II <b>21-22</b> – Astronomy on the Beach – GLAAC, Kensington Park
<b>October</b>	<b>20</b> – Beginner's Night - Island Lake
<b>TBD 2007</b>	– Sand Hill / FAAC Picnic (August)

## Treasurer's Report

Gordon Hansen

### Bank Accounts

Checking	\$	524.03
Savings	\$	4,391.91
<b>TOTAL Bank Accounts</b>	<b>\$</b>	<b>4,915.94</b>

### Cash Accounts

Cash Account	\$	98.17
<b>TOTAL Cash Accounts</b>	<b>\$</b>	<b>98.17</b>

### Investment Accounts

Certificate of Deposit	\$	1,001.08
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### Asset Accounts

Equipment	\$	283.95
Scholarship	\$	338.05
<b>TOTAL Asset Accounts</b>	<b>\$</b>	<b>622.00</b>

<b>OVERALL TOTAL</b>	<b>\$</b>	<b>6,637.19</b>
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### Memo:

GLAAC	\$	1,866.81
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## Astro Imaging SIG

Tony Licata

The next meeting of the Astro Imaging SIG is Thursday, July 12, 2007, 5:30 pm, Roseneau Rooms A-B, at 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. Discussion is T.B.D.

Also, mark your calendars! The Dark Sky Workshop is scheduled for Sep 5th-11th, at River Valley RV Camp in Gladwin, MI. A flyer and sign-up sheet will be posted at the Yahoo group site. Hard copies will also be made available at the general meeting.

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## Items for Sale

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

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**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

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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

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**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

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

Contact Clay Kessler, ckessler@gatecom.com.

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## GLSG5 - Reserve Your Spot

Jenifer Robb, SAS

The universe is expanding, and so is our observing hill and observing nights!

The Fifth Annual Great Lakes Star Gaze will be September 13th – 16th, 2007, at River Valley RV Park, Gladwin, MI ([www.rivervalleyrv.com](http://www.rivervalleyrv.com)). A flyer and registration forms and information can be found on the Sunset club (SAS) website at [www.boonhill.net/sunset](http://www.boonhill.net/sunset). Return the registration postmarked before August 24, to avoid a late fee.

This year's event has been extended by one day, and features an expanded observing field as well.

This is a star party for the astronomer who loves to observe and mingle with other astronomers. Limiting magnitudes are estimated to be around 6.5 at zenith with some minor light domes from the cities of Mt. Pleasant and Midland, some 30 miles away. Some practical and interesting talks are scheduled, to enhance your experience.

Food, photo contests, door prizes, and much, much more!

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## New Members

Gordon Hansen

The FAAC acknowledges and welcomes these new members in 2007. Let us know how we can help you enjoy amateur astronomy:

- Sachin Modi
- Lawrence Hoffman
- Dennis Love

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



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**Now in stock!**

**"Nightwatch" by Terrance Dickinson**  
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**Recently revised and updated!**

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