

STAR STUFF

The Newsletter of the Ford Amateur Astronomy Club

Volume 22, Number 6

June 2012

In This Issue

Page One

How Many Discoveries Can You Make in a Month?

Presidents Corner

Inside Stuff

- **4 Treasurers Report**
- 4 Meeting Agenda
- 4 Classifieds
- 5 Astro-Imaging SIG
- 6 FAAC Meeting Minutes - January 26, 2012
- 7 HJRO Update

How Many Discoveries Can You Make in a Month?

By: Dr. Tony Phillips

This vear NASA has announced the discovery of 11 planetary systems hosting 26 planets; a gigantic cluster of galaxies known as "El Gordo;" a star exploding 9 billion light years away; alien matter stealing into the solar system; massive bullets of plasma racing out of the galactic center: hundreds of unknown objects emitting high-energy photons at the edge of the electromagnetic spectrum.

That was just January.

Within NASA's Science Mission Directorate, the Astrophysics Division produces such a list nearly every month. Indeed, at this very moment, data is pouring in from dozens of spacecraft and orbiting observatories.

"The Hubble, Spitzer, Chandra, and Fermi space telescopes continue to make groundbreaking discoveries on an almost daily basis," says NASA Administrator Charlie Bolden.

NASA astrophysicists and their colleagues conduct an ambitious research program stretching from the edge of the solar system to the edge of the observable Universe. Their work is guided in large part by the National Research Council's Decadal Survey of Astronomy and Astrophysics, which identified the following priorities:

- Finding new planets—and possibly new life—around other stars.
- Discovering the nature of dark energy and dark matter.
- Understanding how stars and galaxies have evolved since the Big Bang.
- Studying exotic physics in extreme places like black holes.

(continued on Page 3)

President's Corner

By Gordon Hansen

Science is wonderful! Just as predicted Venus passed between us and the sun - right on time. I was at Kensington for the event and the Michigan nebula (yes, that astronomical phenomenon is visible during daylight hours also) parted at exactly the right moment.

(continued on Page 2)

STAR STUFF

June 2012 - Vol. 22 No 6

STAR STUFF is published eleven times each year by:

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

PRESIDENT: Gordon Hansen
VICE PRESIDENT: Jon Blum
SECRETARY: Doug Bauer
TREASURER: Chuck Jones
WEBMASTER: Greg Ozimek
NEWSLETTER EDITOR: Jennifer Zdanowski

Club Information:

The Ford Amateur Astronomy Club(FAAC) meets on the fourth Thursday each month, except for the combined November/ December meeting on the first Thursday of December - at Henry Ford Community College Administration Services and Conference Center in Dearborn. Refer to our website for a map and directions (www.fordastronomyclub.com).

The FAAC observes at Spring Mill Pond within the Island Lake State Recreation Area near Brighton, Michigan. The club maintains an after-hours permit, and observes on Friday and Saturday nights, and nights before holidays, weather permitting. The FAAC also has use a private observing site near Gregory Michigan and lake Erie Metro Park. See the FAAC Yahoo Group* for more information.

Observing schedules and additional info are available on our website, or via the FAAC Yahoo Group.* Or call the FAAC Hotline, for info and leave a message, or ask questions: 248-207-2075. or send email inquiries to fordastronomy@comcast.net.

Membership in the FAAC is open to anyone with an interest in amateur astronomy. The FAAC is an affiliate of the Ford Employees Recreation Association (F.E.R.A.). Membership fees:

Annual - New Members: \$30 (\$15 after July 1) Annual - Renewal: \$25 (\$30 after January 31)

Membership includes the STAR STUFF newsletter, discounts on magazines, discounts at selected area equipment retailers, and after-hours access to the Island Lake observing site.

Astronomy or Sky & Telescope Magazine Discounts

Obtain the required form from the FAAC club treasurer for a \$10 discount. Send the completed form directly to the respective publisher with your subscriptions request and payment. Do not send any money directly to the FAAC for this.

Star Stuff Newsletter Submissions

Your submissions to STAR STUFF are welcome! Send your story and/or images to the editor at jenzdanowski@yahoo.com Email text or MS Word is fine. STAR STUFF will usually go to press the weekend prior to each general meeting. Submissions received prior to the 15th can be included in that issue.

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

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

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

Presidents Corner

(continued from Page I)

Blue skies started to appear, I aligned my scope at the sun, focused, and voila there was Venus just moments passed first contact. The skies remained mostly clear right up to the moment the sun set behind the trees on the other side of the lake. A well deserved round of applause was heard for the great show.

I messed up, and forgot my laptop at home (has anybody ever heard of a check-list – I need some help with the concept) and couldn't take any images. That left me looking through an eyepiece. Leaving the pc at home was probably the best mistake I've made. There was an endless line at my scope of kids from 2 to 70+. I wish I had tallied the number of "cools" and "Wows" I heard. I wouldn't have had that pleasure if I had my head buried at the laptop managing pictures.

Tony Licata, with the help of Steve Harvath, once again captured both terrestrial and alien objects on the face of the sun. (See his note on Yahoo dated June 6.) If you doubted the image, it looks like the Solar Dynamics Observatory may have corroborated his findings. Check out:

http://www.universetoday.com/95878/alienprometheus-prominence-hovers-over-the-sun/ #more-95878

My understanding is that a 1000 plus people took advantage of the scopes at Kensington. Good attendance was also reported at HJRO and at Wayne State. If you have images from any of these locations please get them to Greg Ozimek. He will compile for a tech talk at an upcoming meeting.

(continued on Page 5)



Artist's concepts such as this one are based on infrared spectrometer data from NASA's Spitzer Space Telescope. This rendering depicts a quadruple-star system called HD 98800. The system is approximately 10 million years old and is located 150 light-years away in the constellation Crater. Credit: NASA/JPL-Caltech/T. Pyle (SSC)

How Many Discoveries Can You Make in a Month?

(continued from Page I)

Observing time on Hubble and the other "Great Observatories" is allocated accordingly.

Smaller missions are important, too: The Kepler spacecraft, which is only "mediumsized" by NASA standards, has single-handedly identified more than 2300 planet candidates. Recent finds include planets with double suns, massive "super-Earths" and "hot Jupiters," and a miniature solar system. It seems to be only a matter of time before Kepler locates an Earth-sized world in the Goldilocks zone of its parent star, just right for life.

A future astrophysics mission, the James Webb Space Telescope, will be able to study the atmospheres of many of the worlds Kepler is discovering now. The telescope's spectrometers can reveal the chemistry of distant exoplanets, offering clues to their climate, cloud cover, and possibilities for life.

That's not the telescope's prime mission, though. With a primary mirror almost 3 times as wide as Hubble's, and a special sensitivity to penetrating infrared radiation, Webb is designed to look into the most distant

recesses of the universe to see how the first stars and galaxies formed after the Big Bang. It is, in short, a Genesis Machine.

Says Bolden, "We're on track in the construction of the James Webb Space Telescope, the most sophisticated science telescope ever constructed to help us reveal the mysteries of the cosmos in ways never before possible." Liftoff is currently scheduled for 2018.

How long will the list of discoveries be in January of that year? Stay tuned for Astrophysics.

For more on NASA's astrophysics missions, check out http://science.nasa.gov/astrophysics/. Kids can get some of their mind-boggling astrophysics questions answered by resident Space Place astrophysicist "Dr. Marc" at http://spaceplace.nasa.gov/dr-marc-space.

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

Treasurer's Report June 8, 2012 By Chuck Jones

Ford AmateurAstronomy Club Balance Sheet

As of June 8, 2012

	Jun 8, 12
ASSETS	
Current Assets	
Checking/Savings	
FAAC Savings	0.40=.4=
GLAAC	3,167.15
Equipment FAAC Club Savings	1,856.22 451.08
Scholarship	431.06 84.06
•	
Total FAAC Savings	5,558.51
CD 89265268	1,100.38
CD 200599272	1,055.28
CD 205196033	1,000.00
Checking	524.26
Petty Cash Account	76.33
Total Checking/Savings	9,314.76
Total Current Assets	9,314.76
TOTAL ASSETS	9,314.76
LIABILITIES & EQUITY Equity	
Opening Balance Equity	8,890.38
Net Income	895.93
Retained Earnings	-471.55
Total Equity	9,314.76
TOTAL LIABILITIES & EQUI	9,314.76

Club Wear

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

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

Meeting Agenda - June 28th

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

Opening/Introduction/Member Observing

Main Presentation:

Beginning Astrophotography

Tony Licata

Tech Talk:

Beijing Observatory

Jon Blum

Club Projects/Committees/Member Support

- July 13th Girl Scout Camp north of Milford
- July 25th Caroline Kennedy Library in Dearborn 9 pm
- Friday, July 27 Lake Erie Metropark Star Party
- · Spring Mill Pond
- July 28th Beginner's Night Island Lake 7:00 pm
- Saturday, August 25 FAAC Picnic at Island Lake
- Open Discussion

Club Business/Secretary/Treasurer/Equipment Reports

Items For Sale

Orion 3 inch telescope-Orion spaceprobe 3EQ-complete with mount and tripod, finder and eyepieces. This is a reflector for beginners. Never used, like new. in box. Lists for \$150 on Orion website. Asking \$110. If interested please contact Tom Blaszak at stringfingerer@gmail.com.

- 8 inch Zhumell Dobsonian Telescope
- F/5
- 2 inch Crawford low profile focuser with 1.25 inch adapter.
- 26 mm 2 inch eyepiece and 9 mm 1.25 inch eyepice
 - 8 x 50 right angle finderscope
 - Laser Collimator
 - cooling fan with battery pack
- 2 " and 1.25" eyepiece rack and glow-inthe-dark tape on bearing box.
- Extras Include: Desert Storm Shield, padded carrying case for optical tube, Telrad
- \$300 Firm Call John 248-538-1514 or email to ka8grh@gmail.com

Astro Imaging SIG

Gordon Hansen

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

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

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

Next meeting is **July 12th.** The meeting room location – HFCC Admin. Services and Conference Center (same building), Berry Amphitheater Auditorium.

Topics invited. Pizza served.

FAAC Events 2012

July 12th - Astro SIG 5 pm

July 13th - Girl Scout Camp north of Milford

July 25th - Caroline Kennedy Library in Dearborn 9 pm

July 27 - Lake Erie Metropark Star Party

Spring Mill Pond

July 28th - Beginner's Night - Island Lake - 7:00 pm

August 25 - FAAC Picnic at Island Lake-5 pm

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

One FAAC members blog

http://hjrobservatory.blogspot.com/

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

Items For Sale

(continued from page 4)

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

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

Presidents Corner

(continued from Page 2)

While the number of people that shared our views of the transit was great we can do better the next time. One thought is to spread a rumor that Venus will be the size of the moon.

Don't forget to come out for Beginner's Night on July 28th. We've also been requested to set up scopes at the Girl Scout Camp north of Milford on Friday, July 13th, and at the Caroline Kennedy Library in Dearborn on Wednesday, July 25th at 9 pm. Please join us at these events if you can.

FAAC General Meeting Minutes May 24th, 2012

By Doug Bauer Secretary

Opening:

- The meeting was called to order in the Berry Amphitheater Auditorium of at HFCC at 5:30 pm by FAAC President, Gordon Hansen
- All attendees introduced themselves. There were 34 people present.
- Members contributed their observing experiences.
 - John Schroer observed the partial eclipse in Cincinnati
 - Several others reported watching the partial eclipse
 - Greg Knekleian described his new solar projection device using a mirror and lens to project the image about 80 feet to a screen
 - Several members attended a Star Party in Cadillac
 - Jon Blum described his use of a 22" Dobsonian to learn star hopping. He was able to find several objects, but has decided to stick to his GoTo scope.

What's Up In June:

- John Schroer gave the What's Up in the Night Sky talk. He included:
- Moon Phases:
 - June 4 Full
 - June 13 Last Quarter
 - June 19 New
 - June 26 1st Quarter
- June 5th Transit of Venus last one for 108 years don't miss it!
- Jupiter appears before dawn
- June 1st last time Venus is visible before its transit
- Mars is in Leo
- Saturn is in Virgo
- John showed a video called "8 Year Around Saturn" that was a number of Cassini photos used to form video movies and is available on UTube
- Antares is rising
- Vega is rising
- M13 in Hercules is visible
- John showed another video time-lapse movie of the Milky Way over Texas

Main Program:

Frank Ancona gave a presentation on Preserving the Night Sky. Frank covered various topics including:

- CFL and LED lighting and shielding
- Light Pollution:
 - Over Illumination
 - Glare
 - Light Trespass
 - Clutter

Tech Talk:

The tech talk was done by Dan Barriball - he is the FAAC Social Network person and has been actively updating the FAAC Facebook page. Take a look at it and if you see any other content or links that he should add let him know.

Business Meeting:

- Secretary's Report was printed in the StarStuff, it was pointed out that the date of the May Beginner's Night was incorrect it should have been May 26th. It was approved with that correction.
- Treasurer's Report was printed in the StarStuff and approved as printed.

Upcoming Project and Events:

- Saturday, May 26th Beginner's Night at Island Lake Recreation Area
- Tuesday, June 5th Venus Transit Kensington Metropark - East Boat Launch (5:30 PM until Sunset) - take Kent Lake exit off of I-96 take first left after ticket booth
- Friday, July 27 Lake Erie Metropark Star Party
- Saturday, August 25 FAAC Picnic at Island Lake Spring Mill Pond

New Business:

- Tim Dey has setup Lake Erie MetroPark observing agreement with the park management. This allows FAAC Members access to the Marsh Landing Center for after hours observing. You must enter the park before closing time, but can exit at anytime after that. Tim has 12 passes, so if you want to use the park contact Tim for a pass. Also, you need a MetroParks Pass to get into the park.
- Gordon Hansen will work to setup a field trip to Grosse Pointe North High School to tour their Radio Astronomy setup.
- John Schroer announced that The Astronomical League Dues are due. If you would like to renew or join, get \$7.50 in check or cash to Chuck Jones by the June 28th meeting.
- If you have not joined the FAAC Yahoo Group and would like to join, send a note to Gordon Hansen at <u>ghansen@comcast.net</u> and he will send you an invitation to join the Yahoo Group.
- Mike Bruno raised an issue on the frequency with which the club submits Astronomy Magazine subscriptions. The Board will discuss this issue at the June Board Meeting.

The meeting was adjourned at 8:10 pm.

Thanks to Greg Ozimek for bringing the pizza and to Ellen Duncan for bringing the pop!

HJRO Update

By Greg Knekleian

The Venus transit overshadowed other events this month at HJRO, it being the biggest draw. estimate between 300 to 500 visitors at HJRO during the 3 hour event.

Before the event, I stayed up late fabricating some Baader white light solar filters. I created about six filters, adding a little more white light capability for more optical instruments at HJRO. I actually left four solar telescopes at home which could have been brought out as well.

FAAC members running telescopes included Tim Dey, Brian Kutscher, Rick Arzadon, Sandra Macika, Jim Barnes and myself. Greg Ozimek took photos and helped out. We also had a frequent visitor, James French, who has been coming out to HJRO regularly. James volunteered to help out. He's excited about astronomy and helped out a lot. James setup the sign, setup a laptop that he brought providing a live NASA feed. He ran my old Sears refractor telescope that had the old fashioned projection screen on it. He also ran back and forth to the long throw solar projector to re-aim the sun on our large screen. He also helped me setup the large screen that we were using for live solar projection.

Greg Ozimek took photos and from time to time chatted with visitors and FAAC members. basically running about, between the observatory and other telescopes from time to time. I spent a little bit of time in the observatory near the end of the event chatting with visitors and took photos and videos with four cameras. Also showed some people the iPad. Sandra also showed some visitors her meteorites.

Other FAAC members showed up to visit and observe as well. This included Jennifer Zdanowski our editor, and Sean Swisz. Both Jennifer and Sean brought relatives with them to experience the transit event. Jennifer brought her two kids and Sean brought his I had a fun time chatting with everyone. father.



Photo taken through Vixen BT-80 Binoculars, solar filter with an Apple iPhone 4. Venus Transit 2012

There were some teachers that showed up and staff members from the Lincoln Park Our event was not widely school system. announced in the news or even on the GLAAC (We didn't want it to be too popular, because we knew we only had a half a dozen volunteers.) Some regulars at HJRO went elsewhere for the transit. Harold Thomason decided to setup at his usual spot on Michigan Avenue, and he had at least 30 visitors stop by and look at the transit. thought before our event, maybe I'd get a chance to drive out and take a picture of Harold and say hello during the transit and then cruise back to Lincoln Park. But there were so many people at HJRO, we were kept busy the entire time, and it was very exciting.

Wayne State had two FAAC members go out to bring and setup solar telescopes. Barriball and Steve Uitti supplied solar telescopes for the public at WSU. State was a huge event. Dan stopped by later in the evening and told me they could probably have used a couple more volunteers and telescopes at the Wayne State event. Long lines waited patiently to look through a half a dozen scopes at Wayne State.

HJRO update (continued)

Dan also took a piece of number 14 green glass welders glass for naked eye viewing. This proved so popular with the large crowds at WSU, that a professor became responsible for being "the holder of the glass" for a viewing line.

Dan also said, he thinks his telescope, although small and affordable, might have been the only scope setup at the Wayne State event that showed the entire disk of the sun. He thinks the other scopes were using higher power and may have cropped the sun to show a larger Venus shadow. Dan said people seemed to appreciate seeing the entire disk of the sun.

We have had some other observing nights as well. We had a few visitors who stopped by after hearing about the Venus transit event or being at the Venus transit event. We sent photos of the HJRO event to the Heritage newspaper and a nice transit story was published in the local Wednesday newspaper and on their web site.

Five classes see Solar Projector test: purchased a solar projector from Ed Jones who is an astronomer and optician in Ohio. I found out about him when a speech he was giving was advertised a couple years ago. Mr. Jones builds interesting telescopes, many being unobstructed reflector designs. His solar projector telescope is a simple device. A small board has a flat optical mirror on it. This flat is adjustable and can aim the sun through another lens on the other end of the board. A Plano convex lens causes the sunlight to expand to a larger 9.5 inch disk that is in focus about 88 feet away. It's a really simple projector and works really well. It projects a white light image of course and it shows sunspots and of course transit/eclipse events. The nice thing about projection of course is more than one person can see the sun. It reduces crowd pressure and lines at eyepieces.



Watching the transit with both eyes: Greg Ozimek (left) and Dave Switz(right) take a peek at the Venus Transit through safe solar filters, at HJRO.

I wanted to see and test the solar projector and see how it would work at the middle school. I went to the office and soon was directed to a room that was located in a pretty good location on the East side of the rising sun. Contacting the teacher, Miss McKenney, I found she was willing and excited to try out the test. We shot a beam of light up into her second floor window with the solar disk hitting a projector screen that was setup near the window, giving a space of about 8 feet for students to walk near the window and look at the large disk of the sun. All of her classes were able to see the sun in the space of two hours. She actually called her classes from other teachers rooms during the test and five classrooms worth of kids saw the sun and sunspots. I watched from a distance re-aiming the sun as three to five students at a time would walk up near the screen and many would look out of the window to see the projector. No need for internet that day, we had live optical images beaming into the classroom. This is a much faster way to show people the sun and sunspot activity compared to using a telescope.

Some nights have been very clear and Saturn has been providing wonderful first time views to new visitors at HJRO.



ASTRONOMICAL LEAGUE

A FEDERATION OF ASTRONOMICAL SOCIETIES A NON-PROFIT ORGANIZATION

- ★ To promote the science of astronomy:
- By fostering astronomical education;
- ★ By providing incentives for astronomical observation and research;
- * By assisting communication among amateur astronomical societies.

ASTRO NOTES Produced by the Astronomical League

Note 5: Astronomical League Membership and Benefits

The mission of the Astronomical League is clearly stated in the masthead: to promote the science of astronomy. Being an all volunteer organization, the League has pursued this goal for more than 60 years among the lay public by encouraging the formation and joint efforts of amateur astronomy societies. Today, our membership totals more than 250 societies and, together with members-at-large, represents more than 15,000 individuals.

Our Bylaws define the following categories of membership:

Member Society: any club, society or organization with a bonafide interest in astronomy.

Affiliate Member: any national astronomical society or organization.

Patron Member: Any individual with a bonafide interest in astronomy wishing to make an increased contribution to the League above the Member-at-Large rates.

Member-at-Large: any individual with a bonafide interest in astronomy.

Supporting Member: any company, manufacturer, corporation or organization with a sincere belief in the ideals of the Astronomical League.

Honorary Member: bestowed only with unanimous approval of Council upon any individual who has made a significant, sustained or outstanding contribution to the Astronomical League or the science of astronomy.

Lifetime Member: any individual with a bonafide interest in astronomy and a desire to lend financial support to the League.

In order to become a member, the organization or individual must apply to the National Office, accept the League Bylaws, pay the prescribed dues and be accepted by Council, the governing body of the Astronomical League. Dues are set by Council for each membership category. Contact the National Office Manager or visit the League's website www.astroleagur.org for a copy of the Bylaws and the current dues schedule.

Conventions

Because League members are distributed across the United States, the Astronomical League is divided into ten geographic, administrative *regions*. Each of these regions sponsors an annual convention. These regional meetings provide an opportunity for amateurs to gather without traveling large distances as may be required for the national convention. Most regional conventions are one- or two-day, weekend affairs although others, like the Texas Star Party of the Southwest Region, have grown and drawn national attention and participation.

Each year, the Astronomical League sponsors a national convention. The location of this event moves around the country as different local societies vie for sponsorship. This movement also gives members from different parts of the country an opportunity to attend an occasional national meeting without long distance travel. Thus, amateur astronomers from around the country can meet to share ideas, establish networks with others having similar interests, and meet new friends or renew past friendships.

National conventions usually last three or four days and may include paper sessions, exhibits, telescope displays, art and photographic contests, field trips and star parties. Council meets during the national convention to conduct League business and the general membership elects national officers.

At the paper sessions, amateurs and invited professionals present their experience and ideas relating to their particular field of interest in astronomy. Field trips may provide a chance to see a nationally famous observatory in the vicinity and, on occasion, may offer an opportunity to observe through the professional telescopes. It is also customary to set aside at least one evening for a star party by the host society where all attendees have the chance to share experiences at the eyepieces of the variety of telescopes available.

Other Activities

Each member receives the *REFLECTOR*, the quarterly newsletter of the Astronomical League. This publication carries news of other club's activities, articles by individual members, reports of observing activities and news and notices about the League.

Members can order astronomy-related books at a 10 percent discount through the **Book Service**. **Observing Clubs** offer encouragement and certificates of accomplishment for demonstrating observing skills with a variety of instruments and objects. Our **Education Committee** provides planned study guides for societies who want to provide organized courses or group study in astronomy.

Besides the *REFLECTOR* newsletter, the League publishes a variety of *Observe* manuals and pamphlets. The *Observe* series are thorough, introductory guides to observing and deal with deep sky objects, eclipses, the Sun, comets and meteors. Most of these manuals form the basis for participation in the associated observing club.

Why Join?

You can see from this material that the Astronomical League is a service organization which strives to fulfill its mission by serving the needs of its members both as individuals and as member societies. But most of all, the League is people: people who share a common joy and wonder as they explore the various objects and phenomena in the sky. The League is here to help you see ... and wonder ... and marvel ... and become more enriched for having done so.

Dues for the Astronomical League 2012-2013 membership are now due. Please bring your \$7.50 to me and FAAC Treasurer Chuck Jones at the June 28th FAAC General Meeting. If you can not make the June meeting, please contact me at ka8grh@gmail.com so we can make arrangements. The dues will be sent to the Astronomical League at the end of this month.

Fourth Annual FAAC Multi-Club Picnic

Saturday August 25th, 2012 5pm-Late

Island Lake Recreation Area - Spring Mill Pond



State Park Pass Required.
You may purchase a day
pass at the gate if you do not
have one.

Image above: Suat Eman / FreeDigitalPhotos.net

Members of the following Astronomy Clubs and their families:

All Ford

Ford Amateur Astronomy Club

university Lowbrows

Oakland Astronomy
Club

Seven Ponds Astronomy Club

Warren Astronomical Society

SEMSA Soaring Club

Henry Ford Community College





mage above. Vernmer Zaanowski

FAAC will provide hamburgers, hot dogs, veggie burgers, soft drinks, plates & utensils

Please bring a dish to pass

salads, snacks, fruit, desserts.....

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

