



★ STAR STUFF ★

The Newsletter of the Ford Amateur Astronomy Club

September 2003
Volume 12 Number 9



Editor: Jim Frisbie

A MESSAGE FROM THE PRESIDENT

A month ago I was browsing FAAC website and came across a page entitled "Laws, Rules, Principles, Effects, Paradoxes, Limits, Constraints, Experiments, and Thought-Experiments in Physics", which can be found at www.boonhill.net/faac/other/laws.html. Having never seen this page before, I browsed the lists of terminology and definitions provided. The one section that intrigued me, at least enough to write about it, was the Anthropic Principles. The Anthropic Principles are divided into the strong and weak. The Strong Anthropic Principle (SAP) in its reduced form states, "because we are here, the Universe is the way it is." The Weak Anthropic Principle (WAP) in its reduced form states, "because the Universe is the way it is, we are here." Both principles share a common thread - mankind's relationship with the Universe. Before you take a position as to the principle that fits your beliefs, let me give a little more background information.

The SAP can be viewed as a philosophy that the Universe evolved in order to evolve mankind. To understand this philosophy we need to take a look at how the Universe was initially viewed through mankind's mind. Early astronomers believed the Universe as perfect and orderly. Plato, who used mathematics to describe the Universe, believed that one who studies mathematics studies the mind of God. He also went on to say that Man was viewed as God's special creation but was not part of the heavens. Thus, Earth was at the center of the Universe with all heavenly bodies revolving around it - a geocentric Universe. The scientific community supported this belief for another 1400 years. In the 1500s, Nicholas Copernicus changed how the solar system was arranged to a sun-centered universe, otherwise known as a heliocentric universe. Despite this alteration mankind's place in the Universe remained in balance.

Since Copernicus' proposed the heliocentric universe theory, major strides were made in the sciences to further evolve mankind's understanding of his place in the Universe. One major milestone in astronomy was in the mid 20th century with the proposed Big Bang Theory. The theory implied all matter and space were once compressed into a state of incredibly high pressure, from which the Universe has been expanding ever since. As the Universe formed (or became cooler) the stellar debris condensed into nebula clouds. As the nebula clouds coalesced stars, and in some cases, solar systems were born. Nebulas provided the proper conditions to which all the elements known to man can form. In other words, the essential ingredients for our solar system and life evolved from a nebula cloud. In about 300 BCE Timaeus, a Greek astronomer, believed that the Universe is not at rest, but moving in an irregular and disorderly fashion, and out of disorder God brought order. Timaeus also argued that the Universe is a living creature that contains in itself all intelligent things.

As discussed in last month's Star Stuff, the Universe not only contains the ingredients to life, but it mimics the evolutionary life cycle. This is demonstrated in the life span of a star. The star starts from stellar debris found in a nebula cloud. After which the star reaches hydrostatic equilibrium (adulthood). Then the star reaches a period where it exhausts all its hydrogen from its core. Depending on the type of star determines its final fate, but in either case the star passes its material for new stars to form.

Unlike SAP, WAP expresses that mankind was only a by-product of the universe's evolution. In 1950, chemists by the name Stanley Miller and Harold Urey conducted an experiment to create life as Earth did during its early stages. The chemists combined the ingredients that were present in Earth's atmosphere into a sterile bottle. They passed an electrical spark in the mixture for a few days. During this period of time amino acids, the building blocks of life, formed. Miller and Urey used this experiment to prove life could form if the proper materials and conditions are present.

So if life can be formed in the Universe then there should be an abundance of it to support the idea that mankind is a product of stellar material. The scientific community was gathering more support when in 1983 a meteorite chemist Cyril Ponnampereuma found DNA in a single carbonaceous meteorite.

The Universe is a mystery to man. The Universe gave use Earth and the building blocks of life. Through time, Earth provided the setting and conditions to evolve life. This process took approximately 3 billion years. The question remains as to whether the Universe had the intent to evolve the homosapian specie. Both Anthropic Principles have their merits and I'm sure that one can argue one way versus another. However, which principle supports your beliefs? **STAR STUFF** is a monthly publication of the Ford Amateur Astronomy Club, an affiliate club of the Ford Employee Recreation Association.

Don Nakic

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

Jim Frisbie
 via tele #: 734-453-1422
 or email: w8tu@peoplepc.com

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

Officers:

President	Don Nakic
Vice President	Dale Ochalek
Secretary	Don Klaser
Treasurer	Gordon Hansen

General Meetings:

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

Observing:

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

Club Information:

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

Club Membership:

Membership in the Ford Amateur Astronomy Club is open to Ford employees and non-employees. Write or call for an application.
 Annual - New Member: \$25; Renewal: \$ 20 (before Jan 31 of each year)
 Lifetime - \$ 150

Membership includes:

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

Magazine Discounts:

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

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MINUTES OF THE JULY 24, 2003
FAAC GENERAL MEMBERSHIP MEETING
By Dale Ochalek

Don Klaser not present - minutes recorded and offered for review by Dale Ochalek. Minutes approved - Gordon Hansen reported on the club treasury status. Don Nakic called for assistance (voluntary) for auto Show tickets sales as an effective and profitable fund raiser (contact Don for information). George Korody confirmed the date of September 11 for the next astrophotography SIG meeting (at the usual place - Ford Family Center on Rotunda Dr.) Don Nakic and the FAAC members lauded John Kirchhoff for a stellar effort on the three beginners' nights at Island Lake - which garnered good attendance and enthusiastic response. Dale Ochalek still pursuing the conference room internet connection - which requires a Ford laptop, and it turns out, Don Nakic has one for use. Thanks to Gordon for completion of the T-shirt design and ordering for the Club Star Party.

Jim Frisbie is working on the first annual Swap Meet. An arrangement for a building site is in the works, with Rider's Hobby Shop in Livonia, and tentative date is 1st Saturday in December. Chuck Jones generously put his Kendrick's Astronomer's observatory tent up for auction as a club fundraiser (beginning bid \$250). Email your bid - ccj4232@hotmail.com. Auction will move to eBay for final bidding. Contact Ken Anderson if you have any questions regarding your role in the Island Lake StarParty October 4th - kanders2@ford.com.

Robert McFarland gave an update on the upcoming GLAAC star party, having run into a problem getting the projection equipment - but possible solutions are being explored.

Clay Kessler is organizing 1st annual Great Lakes Star Gaze for the September 26 weekend. Mars Family Outing is offered for Saturday, August 30 at 6 pm, Island Lake/Mill Pond area. Jeff Thrush was sited on the local news, from his home observatory, commenting on the recent Martian approach in the sky.

Mary Caruso from St. Stanislaus Kostka Catholic School in Wyandotte visited, and asked for FAAC help in providing an astronomy session for the K-8 students. Gordon Hansen offered to help coordinate with club members.

Chuck Jones offered a contest - with a \$50 prize - to help solve his mount problem (same email as above), or contact ckessler@gate.com, jdthrush@wideopenwest.com, gkorody@comcast.net

TREASURER'S REPORT - 8/27/2003

By Gordon Hansen

Bank Accounts	
Checking	\$ 568.28
Savings	\$ 757.12

TOTAL Bank Accounts	\$1,325.40
Cash Accounts	
Cash Account	\$ 116.14

TOTAL Cash Accounts	\$ 116.14
Asset Accounts	
Books	\$ -
GLAAC	\$ 132.00
Projector	\$ 309.70
Scholarship	\$ 187.13

TOTAL Asset Accounts	\$ 628.83

OVERALL TOTAL	\$2,070.37



(UN)FASTEN YOUR SEATBELTS

by Patrick Barry and Tony Phillips

The "fasten seatbelts" light turns off, and you get up to ask the stewardess for a pillow; it's going to be a long flight. Only a kilometer ahead in the cloudless sky, a downward draft of sheering winds looms. When the plane hits these winds, the "turbulence" will shake the cabin violently and you could be seriously hurt.

You don't know about those winds, of course, and neither does the pilot. Today's weather satellites can't see winds in clear skies: they rely on the motion of clouds to infer which way the winds are blowing.

"Believe it or not, their best indication of wind sheer right now is warnings from aircraft that have gone through it ahead of them," says Bill Smith of NASA's Langley Research Center.

But a new satellite technology being pioneered by NASA and NOAA could improve this shaky situation. It's called GIFTS, short for Geosynchronous Imaging Fourier Transform Spectrometer. GIFTS is an infra-red sensor that can detect winds in cloudless skies by watching the motions of atmospheric water vapor. Water vapor is mostly invisible to the human eye, but it reveals itself to GIFTS by the infra-red radiation it absorbs.

Smith is the lead scientist for EO-3, a satellite designed to test out this new technology. Slated for launch in 2005 or 2006, EO-3 will carry GIFTS to Earth orbit where it can produce 3-dimensional movies of winds in the atmosphere below.

These wind data will not only improve safety, but also help the airlines save money. Knowing the winds along a flight route allows airlines to adjust the plane's fuel load accordingly, thus reducing the weight that the engines must lift. Saved fuel means saved money and less pollution.

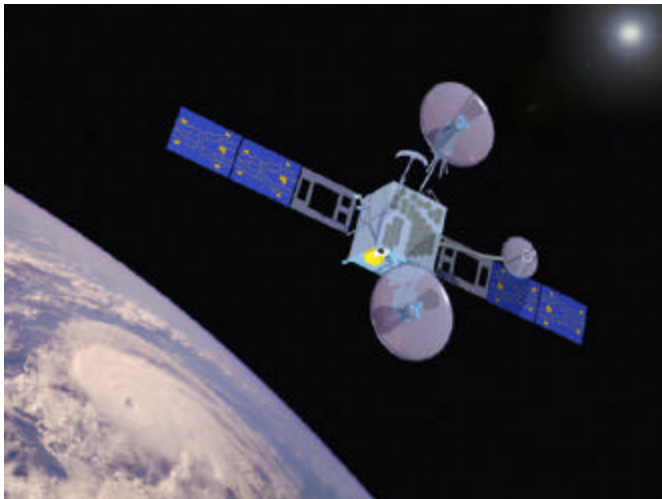
GIFTS can help planes avoid another potentially lethal problem, too: Ice forming on their wings. If a cloud contains

"supercooled" water droplets whose temperature is below freezing, those droplets will form ice on the wings of planes that pass through it. By looking at about 1700 different frequencies of the light coming from clouds, GIFTS can measure the temperature of the cloud top and determine whether it contains water droplets that could cause aircraft icing. With information from GIFTS in hand, pilots can simply avoid clouds that appear dangerous.

Once EO-3 demonstrates the accuracy of GIFTS, airlines will be able to capitalize on this potential to make flying a cheaper and safer experience.

Learn more about the GIFTS instrument and other advanced technologies being tested on the EO-3 mission at nmp.jpl.nasa.gov/eo3. Kids can go to The Space Place to play a data compression game related to EO-3 at spaceplace.nasa.gov/eo3_compression.htm.

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



EO-3, carrying the GIFTS instrument, will be in a geosynchronous orbit for extended monitoring of large regions of our planet and enabling observation of weather patterns at higher resolution than possible with existing geostationary satellites.

A MEASUREMENT WHOSE TIME HAS COME

From the New York Times, by Amir D. Aczel

Submitted by Greg Burnett

With all eyes on Mars, this may be the right time to demystify distances used in astronomy.

Astronomers have several different measures of distance in space, and all of these are puzzling to the general public and even confuse some scientists.

The distance to the Sun is defined as one astronomical unit, or A.U. It is about 90 million miles. The distance to Mars right now, although it is moving away from Earth again, is about 34 million miles, which is 0.4 of an astronomical unit.

This is fine, and the average distances to the other planets are all several A.U.'s (5 for Jupiter, 9 for Saturn, 39 for Pluto).

September 2003

But when we go to the nearest star, astronomers suddenly switch the unit of distance on us. Distances to the stars are measured in light-years. One light-year is the distance light travels in one year, about six trillion miles.

Most people do not have an intuition about the light-year. At 186,000 miles per second, a ray of light will go around the world a little more than seven times in one second. But to expand to the distance light travels in a year, one would have to multiply this number by 60 seconds in a minute, 60 minutes in an hour, 24 hours a day, and 365 days a year.

The nearest star, Alpha Centauri, is 4.2 light-years away, about 25 trillion miles. Go farther, and astronomers change the unit of measurement again. Now they talk about a parsec (about 3.26 light-years) and the megaparsec, which is a million times greater, or 3.26 million light-years.

No wonder few people have a good feel for astronomical distances.

I suggest a new unit of measurement, which I call a jet-year. A jet-year is just what it sounds like: the distance a jet travels in one year, flying nonstop.

People who have flown on airplanes have a very good intuition for what a jet-year is. At roughly 600 miles an hour, a jet travels 5 1/4 million miles a year. Now, the distance to Mars these days is about six jet-years.

A pilot or air crew member who has worked for 14 or 15 years has already traveled the distance to Mars. A crew member who has served for 40 years and is about to retire has traveled the distance to the Sun, which is about 17 jet-years.

Now, the same intuitive unit of measurement can work for the stars as well.

Alpha Centauri, our nearest neighbor, is 4.7 million jet-years away. This measurement gives us good intuition about the distance to the nearest star: if you flew in an airplane nonstop for a little under five million years, you would get to the nearest star.

Sirius is about 9.5 million jet-years away, and the center of our galaxy is about 30 billion jet-years away.

To go to the nearest neighbor to our Milky Way galaxy, the Great Galaxy at Andromeda, which is 2.2 million light-years away, would take about 2.5 trillion jet-years. The Moon, however, is a mere two weeks away by jet, or 0.04 jet-years.

So next time you look up at that beautiful red dot in the evening sky, think of it as being as close as six years on your favorite airline.

TELESCOPE REVIEW: THE LITTLE 80ED THAT COULD!

By Jim Frisbie



Background: John Kirchoff from Rider's Hobby introduced me to the new Orion refractor on the day it arrived at his shop. My daytime observations were so pleasing, it caused me to want another look under dark skies. I had that opportunity in late August. A short time later, John asked me if I would consider writing a review for Star Stuff. So here goes!

Most of us have received or taken a peek at the latest fall Orion catalogue which describes their new 80mm APO Refractor in detail so I won't be repeating that information, instead, I will offer my own opinions.

Fit & finish: The workmanship is a definite cut above what I have seen other Chinese refractors. I find the highlights to be: a heavy aluminum dew shield, machined & anodized aluminum objective lens cell, and a feather touch focuser with brushed aluminum knobs.

Packaging: The shipping container was a double wall corrugated box, sealed with tape. Snuggly fit inside was a second container made of single wall corrugated. The scope was wrapped with bubble wrap and covered with a polyethylene bag. Each end of the inner container had a molded polystyrene block to capture and secure the scope. Desiccant and instructions were included. The packaging was excellent and protected the scope well.

Observing Report: During my testing, I made the following observations:

- 1) No color fringing on the moon at 90% full.
- 2) No blue or violet halo around Vega.
- 3) Sharp, high contrast images with no blue haze at focus
- 4) Crisp views of Saturn's Cassini division @ 150X with no serious image degradation at 500X!
- 5) Splitting double stars was a joy, including: Polaris, Eta Cassiopeia, Albireo, and the Epsilon Lyra (with all 4 elements of E1 and E2 visible at 100X).
- 6) Mars revealed its shrinking southern polar cap and geographical features with no color fringing.
- 7) For me, the optimum magnification is about 150X. Although the scope is capable of higher power, my estimate for the 80 ED is based on a Dawes limit at

1.45 arc seconds, my visual acuity of 120 arc seconds and a minimum exit pupil diameter of 0.5mm at 150X.

- 8) Star Test: diffraction rings were round and amazingly similar before and after focus. At focus, the airy disk was well defined with a relatively dim first diffraction ring. The second diffraction ring was barely noticeable. This is indicative of excellent optics.

During my observations, I used a Televue Everbright, 1 1/4" diagonal, TV 3-6mm zoom eyepiece, and a TV 2.5 Powermate.

Conclusions: Orion's new 80mm ED should not be compared with a standard Chinese achromat. It is clearly in a higher class! I would venture to say, it is a cut above the Ranger and Pronto Televue offerings which cost twice as much. Having no optical test equipment, I hesitated at first to accept Orion's claim of the new scope being an Apochromatic (APO) class refractor. I kind of thought it was advertising hype, that is until I ran across the prestigious "Company Seven" eight page review at

<http://www.company7.com/orion/telescopes/orion80EDf7.5.html> In the Company Seven review, they have not hesitated to call this new scope an APO. Company Seven has added the 80mm ED to their product line, display it in their showroom, and continue to test & document each arriving ED 80. The following is a quote from their review:

"While this ED lens is not as esoteric in design or materials as those of our most advanced Apos such as the [Astro-Physics 92 f7 triplet Apo](#), and [TeleVue 85 f7 Doublet Apo](#), the cost of the complete Orion 80 mm ED telescope will be a fraction of the cost of its superior cousins. The Orion 80mm ED will remain a lightweight, user-friendly, quick set up and go telescope capable of providing a lifetime of good service." I recently sold a competitive model 80mm ED refractor because I was not satisfied with its optics. The Orion 80mm ED meets or exceeds virtually all of my requirements. The only problem now is to convince Maureen (my wife) that 6 scopes are just not enough and I need one more!

RECAP: GLAAC Astronomy on the Beach September 5th & 6th

By Bob McFarland

Martindale Beach provided its usual beautiful backdrop for this year's GLAAC star party with the green grass and trees all around with the setting Sun glimmered on the lake. On the opposite shore, we watched a multicolored hot air balloon bob just over the water while the sailboats tacked on the last of the evening's zephyrs. At one point, an ultra-light pusher seaplane circled around and dabbed into the water for a touch-and-go right in front of our observing spot. This was probably had the best weather for any of the star parties that I can remember. Clear skies both nights! The temperature was on the cooler side on Friday but warmer on Saturday night. The moon was somewhere around 60% full.

For the veterans, this was certainly too much glare. However, I suspect that all of the ambient moonlight might have provided a certain level of comfort for all the newcomers who might not have been accustomed to venturing out through dark fields at nighttime.

It is always great to see so many fellow astronomers from all the different clubs. I've certainly enjoyed their friendships over the years since we started organizing these events. It's also great to see all the new variations on the newer home made and store bought equipment, which they brought.

This year, I spent my time on the observing field both nights; so, I didn't have an opportunity to see the presentations. I am told that all the talks were very well attended and received. Our visiting astronaut, Jerry Ross, the astronaut joined the elite group of presenters on Saturday night. A few unsolicited "Martian" costumed visitors stopped in and the Metropark added a nice touch by having "War of the Worlds" and "Flash Gordon" videos showing in their mobile training trailer.

This year's Sky Tour provided a great challenge for a lot of youngsters and adults alike. My wife Holly and I signed off on several dozens sheets as our guests filed across our eyepiece. In the process, we had a chance to enjoy the various reactions of many people who were seeing those objects for the first time. Star party tour guiding always takes me back to me of first my first reactions to these amazing sights. In addition, the questions people ask remind me of how much I don't know about this science of astronomy.

The first up amongst the scavenger hunters was a family with two kids about 8 and 10 years old who anxiously came around just after sunset asking us to show them something on the list. I explained that it was still too bright out to see anything significant. However, I kiddingly suggested that they could get a rather poor view of the moon, which at the time was hiding low behind the trees. They said they really wanted to. So, I swung the scope over and focused on the mostly obscured orb. To me, just seeing a few craters through the out-of-focus trees was not very impressive. However, the older boy just beamed with an "Oh WOW!" Then, one by one, the others angled up to the scope and reacted similarly. Did they ever get charged up! I tried, but couldn't get it across to them that the much better views were yet to come. They moved on. But, I think they eventually understood before the night was over.

Later on, we had two girls about 10 years old come by when the line shortened up. These two were so businesslike! They had three objects to complete the sheet and by-golly they were going to bag them! At that point, I decided that they were going to take the scope to these objects. So, I had them take the (Go-To) paddle and gave them a little guidance as they punched in the numbers. Boy, did they enjoy operating the scope. But they really took in long views of the objects as I described what globular clusters, double stars and nebulae were, how far away they were and so on. Meanwhile, other people were coming around and getting in line for a to look tool. Before I knew it, the girls were giving the Dumbell Nebula description and telling the new visitors what it was they were looking at, how far away it was and how to use averted vision to see it. I was out of a job!

As I mentioned earlier, the questions people ask sometimes turn out to be those, which you never thought of asking about. But, you end up wanting to go check out for yourself later on. This

happened again on Saturday night when I was showing the Great Hercules Cluster to a young couple. I was roughly describing what a globular cluster was when the curious young lady asked me "Are those stars moving closer together or farther apart over time?" At that point, I had to struggle inwardly to build up the courage to speak out those three little words every man has such a terrible time saying to a woman - "I don't know".

My favorite visitor of the weekend was a young man of about six who was part of a family (complete with Grandparents). I guided both the boy and his sister as they coded in the scope to steer to the M57 nebula. As I changed eyepieces, I explained to the group that this would be a small dim object and how to look for it. The boy's sister couldn't see it on the first try. However, within seconds, this youngster cried out excitedly "I see it!" When I asked him what it looked like, he said, "It looks like an Onion Ring! "

Holly & I had a great time seeing our old friends and especially sharing the night sky to our visitors. The park estimated that over the two nights, they probably had over 10,000 kids and adults at the GLAAC event. Think of what a positive experience this was for everyone. All at the cost of a vehicle permit Many kudos go out to Kensington Metropark, Riders Hobby Shops, the Detroit Science Center, Jack Ross, the GLAAC clubs and to all the volunteer presenters and planners of this event. You should all be proud of your efforts!

P.S. If you missed this one, try to get out to our Island Lake Star Party event on October 4th. You too can get in on the fun.



Astronaut, Jerry Ross speaking at the GLAAC Star Party

PREPARATION FOR ISLAND LAKE STAR PARTY 2003

By Don Nakic

For all of you that haven't heard, GLAAC was a huge success. It was estimated that 12,000 people attended. That's right 12,000! There is still a high demand to see Mars, Sun, Moon, and other celestial objects as well as to hear stories and participate in astronomy dialog. Well Island Lake on October 4th will be that next opportunity. I anticipate the turnout to be over 1,000. So to prepare ourselves for this, we will be utilizing the Main Program time of our next general meeting to work out logistical details with Ken Anderson, ILSP Coordinator. I feel this upfront planning will alleviate many issues later. This is a time to give the club a hand to manage what could be FAAC largest star party event. I appreciate your help in advance.

COSMIC ORIGINS: A SERIES OF PUBLIC LECTURES AND OBSERVATORY NIGHTS

Submitted by Don Sommers

The Astronomy Department, Exhibit Museum and the Student Astronomical Society, have organized a public lecture series on "Cosmic Origins". The series will run through out the fall semester. We have lined up a truly outstanding set of speakers who are both leading scientists as well as proven experts in public outreach. The lectures will be followed by telescope open houses organized by the undergrads.

Schedule of Events:

October 3

Gus Evrard, University of Michigan, "The Birth of Galaxies"

October 17

Alyssa Goodman, Harvard University, "Origin of Stars & Planets"

October 24

Geoffrey Marcy, University of California at Berkeley

"Extrasolar Planets and Prospects for Life"

Astronomy Department Orren C. Mohler Distinguished Lecture

November 7

Fred Adams, University of Michigan

"Future of Life, Universe and Everything"

All lectures will be held on Fridays at 7:30pm in Angell Hall Auditorium D followed by telescope viewing on Angell Hall roof, weather permitting. Organized by Prof. Ray Jayawardhana. For more information: rayjay@umich.edu

NEW MEMBER WELCOME !

FAAC Welcomes the following 2003 new members:

Ron Barnette & Family

Morton Chalom

Dave Corkery

Wesley & Michelle Horner

Rick Kilgore

Randolf Miller

Michael Kinnell (Life)

September 2003

STAR STUFF

ASTRONOMICAL IMAGING S.I.G.

By George Korody

The next meeting of the Astronomical Imaging S.I.G. will be held at the Ford Family Service and Learning Center on Thursday, October 16, from 5:00 to 7:00 PM. This is the same location as all previous meetings. The main topic at this meeting will be on how to acquire and process images for mosaics to cover large sky areas. A group of S.I.G. members will show the techniques using different software that is available. All FAAC members are welcome to come to the meetings. Directions to the meeting place can be found at <http://www.boonhill.net/faac/newlocationmap.htm>

Crestwood School District - Ensign Planetarium Public Shows

1501 Beech-Daly

Dearborn Heights, MI 48217

(313) 274-3711

Submitted by Bob Fitzgerald

All shows begin at 7:00 pm

October 8: *UFO's and Aliens – Anyone Out There?*

Fact, fiction, fantasy and the future; what do we really know about extraterrestrial life? Get the facts so you can decide!

November 12: *On to Mars...*

A look at the armada of spacecraft arriving at the Red Planet in the coming weeks.

December 3: *Telescopes for Dummies!*

Got one, want one? Learn what it takes to be a good observer of the Universe. BYOT: (Bring your own telescope... or use one of ours!)

NEW!

Saturday, October 20, 10am: *Saturday Morning for Young Stargazers*

Children ages 1-6 are especially invited to visit the starry skies of the planetarium to hear stories and meet some constellations!

ENTERTAINMENT AND GOLD C BOOKS FOR SALE

By Don Nakic

I received twenty Entertainment books (\$30 each) and ten Gold C books (\$10 each) from FERA. These books provide an easy means to raise money for FAAC. The sale of these books alone can raise \$65 for our club. In addition to raising money, they can save you money. My Gold C book alone saved me over \$30! To sell one, all you have to do is place a flyer outside your office or place of business. They simply sell themselves. If you are interested in some to sell or buy let me know via e-mail (dnakic@yahoo.com) or get with me at the next general meeting. Hurry, they will be going fast!

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ITS TIME TO RENEW YOUR FAAC MEMBERSHIP!

By Gordon Hansen



Avoid the year-end rush and send your check in today to:

FAAC
P.O. Box 7527
Dearborn, Michigan 48121-7527

Renewal fees for 2004 are only \$25 or sign up for a Life Membership for \$150 and never have to worry about paying dues again.

Please include any updates to your address (snail mail or email), phone numbers, etc.

September 25, 2003 General Membership Meeting 5:00 pm to 6:45 pm Agenda

- Introductions	Don Nakic	25 min
- Reports: Treasurer's Secretary's	Gordon Hansen Don Klaser	10 min
- Old/New Business	Don Nakic	25 min
- Upcoming Events	Don Nakic	5 min
- Technical Discussion	Gordon Hansen	15 min
- Island Lake Oct. 4	Ken Anderson	25 min

ASTRONOMICAL CALENDAR

September 2003

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

Sept 20	Moon near Saturn - morning
Sept 23	Equinox 6:47am
Sept 24	Mercury near Moon – morning
Sept 24	Thin crescent Moon near Jupiter – dawn

October 2003

Oct 2	First Quarter Moon 3:09 pm
Oct 3	Venus near bright star Spica – evening
Oct 6	Moon near Saturn – morning
Oct 10	Full Moon 3:27 am (Hunters Moon)
Oct 17	Moon near Saturn – morning
Oct 18	Last Quarter Moon 8:31 am
Oct 21	Waning Crescent Moon near Jupiter morning
Oct 25	New Moon 8:50 am
Oct 26	Daylight Savings Time Ends
Oct 26	Venus near moon – evening
Oct 31	First Quarter Moon 11:25 pm

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

FAAC CALENDAR

Activity	Date	Time
- General Meeting	Sep 25	5 pm
- GLSG	Sep 26	5:30 pm
- Island Lake Star Party	Oct 4	6 pm
- FAAC Board Mtg	Oct 9	5 pm
- General Meeting	Oct 23	5 pm
- FAAC Board Mtg	Nov 13	5 pm
- General Meeting	Dec 4	5 pm



The Ford Amateur Astronomy Club
Presents:

THE 11TH ANNUAL



RIDER'S
HOBBY SHOPS
THE BETTER HOBBY PEOPLE!



Saturday, October 4th, 2003
6 PM – ??



This event will be held rain or shine – cloudy or clear!!

Event Listing:

- ◆ **Telescopes of all kinds** – Available to look at and look through . Have questions? Just ask!
- ◆ **Observing Tour for Children** – Kids who register will be given an observing list. Marked telescopes will be on the field for the challenge. A certificate of achievement, and a gift from the Ford Amateur Astronomy Club, will be awarded to all who complete the observing list!
- ◆ **Astronomical Equipment**, educational material, books and star charts will be on display and made available by our sponsors.
- ◆ **PRIZES!!!** - There will be door prize drawings for telescopes and other items (10PM).
- ◆ **Presentations and Demonstrations by local Technical Experts.** These are designed to answer your questions about equipment and observing techniques and help you to get the most from your telescope, which will include: **Comet Making 6PM; How Cold is Space? (Liquid Nitrogen) 6:30PM; Beginner Telescope Equipment & Facts 7PM; Astronomy 101 7:30PM; Clay Kessler's Astronomy Photos 8:15PM; Autumn Sky 9PM; and Pointing Out Constellations on the Beach 9:30PM.**

Your Telescope is Welcome!!



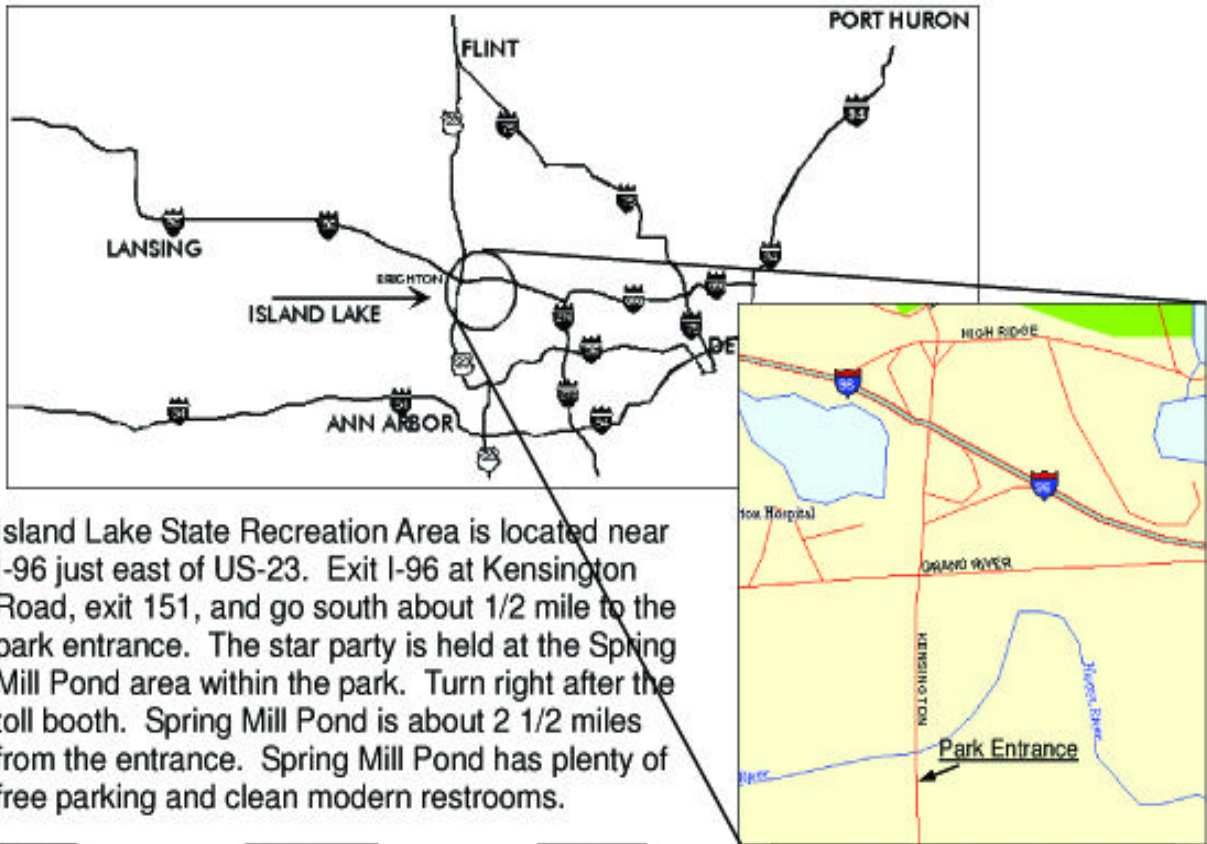
If you have questions about your equipment this is the perfect opportunity to get the helpful advice you need. Limited AC power and plenty of space is available. Please arrive before dark to allow for set-up time.

No telescope? No Problem! There will be lots to look through – just bring your curiosity!

Admission is Free* and Children are Welcome! Please dress warmly. All events are outdoors.

* You need a State Park Vehicle Permit if you don't have one – a daily permit is \$4.00





Island Lake State Recreation Area is located near I-96 just east of US-23. Exit I-96 at Kensington Road, exit 151, and go south about 1/2 mile to the park entrance. The star party is held at the Spring Mill Pond area within the park. Turn right after the toll booth. Spring Mill Pond is about 2 1/2 miles from the entrance. Spring Mill Pond has plenty of free parking and clean modern restrooms.



Please Remember – Clear Autumn nights can get very cool. Bring warm clothes. And don't forget the State "Bird" - bring mosquito repellent.

It is polite to cover your flashlight with a red filter so as to avoid spoiling anyone's night vision.



Comet Ikeya-Zhang - By Clayton Kessler



**Ford Employees
Recreation Association**



The Island Lake Star Party is an ideal outing for Scout Troops and Class Trips. We strive to provide an atmosphere where presentations are educational and FUN. Don't forget – Spring Mill Pond is our regular observing site. Members are there most clear Friday and Saturday evenings. Call our Observing Hotline at (313) 390-5456 to confirm an observing weekend and join us! Check out our Web site at <http://www.boonhill.net/faac/>. E-mail faac1992@hotmail.com

CCD Image of Saturn by George Korody, CCD Image of Jupiter by Doug Bock, Northern Cross Observatory

GENERAL INFORMATION

Location and dark sky are the main attractions of this star party. Gladwin's central location provides excellent observing without traveling hours into Northern Michigan. 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. This is a star party for the amateur astronomer who loves to observe and mingle with other amateurs. Some practical and interesting talks are scheduled to enhance your weekend experience.

STAR PARTY HIGHLIGHTS

Friday, September 26th:

5:30 – 6:30

- Registration begins

6:30 – 7:30

- Star Party Kickoff...
- Opening Comments

7:30 – 8:30

Astronomy Talk

- "Observing Challenge" - *Tom Trusock*
- "Astrophotography" - *Clayton Kessler*

8:30 – ???

Observing on the hill

- *Welcome tent open all night*
Free hot chocolate/ coffee
Pop and popcorn available
- Bring your scopes!

Saturday, September 27th:

11:00 – 1:00

- Swap meet on the hill
- Bring your old equipment

1:00 – 2:00

- Lunch on your own

2:00 – 3:00

- Solar Observing Presentation by *T.B.A.*

3:00 – 4:30

- "Build a Dob in an Hour"
Kevin Dehne & Kristen Rill

4:30 – 6:00

- Dinner on your own

6:00 – 8:00

Astronomy Talks

- "Equipment Talk" - *Jason Blaschka*
- "Lunar Observations" - *Dick VanEffen*
- "Double Stars" - *Dale Penkala*

8:00 – 8:30

- Door Prize Drawing

8:30 – ???

Observing on the hill

- *Welcome tent open all night*
Free hot chocolate/ coffee
Pop and popcorn available
- Bring your scopes!

Sunday, September 28th:

Departure by 12:00

The First Annual
Great Lakes Star Gaze
"A star party with dark skies!"



September 26-28, 2003

Held under the dark skies of
**River Valley RV Park,
Gladwin, MI**

Sponsored by the
Sunset Astronomical Society



REGISTRATION FORM: Complete, detach and mail this registration form along with a check or money order.

Name: _____ Phone: _____ e-mail: _____

Address: _____ City: _____ State: _____ Zip: _____

Check appropriate box below and make check out to the "Sunset Astronomical Society".
Mail to: **Joseph Bruessow 2200 Nine Mile Rd. Kawkaulin, MI 48631**

One Night Tent - \$10.00 individual (Friday, September 26th or Saturday, September 27th) \$17.00 per family
 Two Nights Tent - \$15.00 individual (Friday, September 26th and Saturday, September 27th) \$28.00 per family
 One Night (travel trailer) - \$5.00 + campground fees in RV park. (See other page)
 Two Nights (travel trailer) - \$10.00 + campground fees RV Park. (See other page)

Registration must be post-marked no later than August 31, 2003. Late registration (after 8/31/03) and "at the gate" is limited to space available and will cost an additional \$5.00 per night.

Great Lakes Star Gaze GETTING TO RIVER VALLEY RV PARK

From US-10

Travel 12 Mi. N. from Loomis Exit.

From US-27

Travel 6-1/2 Mi. E. from Lake George Exit.
From M-61 travel 2-1/2 Mi. S. on Bailey Lake Ave. (midway between Gladwin and Harrison).

WHAT IS INCLUDED WITH YOUR REGISTRATION:

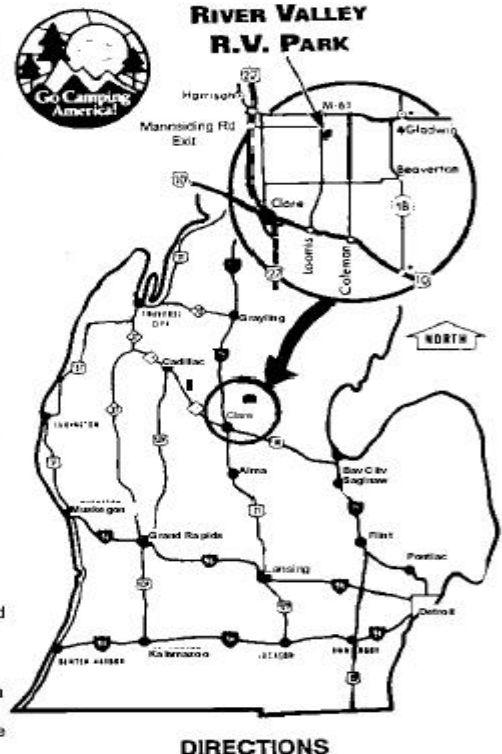
- Registration of your family
- Tent camping on the observing hill for you and your family.
- Hot coffee/ chocolate in welcome tent
- 1 ticket for door prize raffle
- Hot shower/ clean restroom facilities

WHAT IS NOT INCLUDED WITH YOUR REGISTRATION:

- Travel trailer site
- Full hook-up sites are available by contacting **River Valley RV Park at (989) 386-7844**; their website is <http://www.rivervalleyrv.com>
- Cost of full hook-up sites is an additional \$25-27 per night above and beyond the star party registration fees.

LATE REGISTRATION:

Registrations after 8/31/03 should include a \$5.00 late fee and are limited to available space. This includes registration at the gate.



DIRECTIONS

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



RIDER'S[®]

HOBBY SHOPS

Store Hours: M-F 10am-9pm SAT 10am- 6pm SUN Noon-5pm	Gen. Manager: John Kirchhoff Website: http://www.riders.com Email: riderslivonia@aol.com	30991 Five Mile Rd. Livonia, MI 48154 Tele: 734.425.9720 Fax: 734.425.2029
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- New products coming soon from Meade, Celestron and Orion!
- Now in stock- Orion Atlas EQ mount \$799.99
- Due in October: Meade LPI Imager/Autoguider
Celestron NexStar 130GT
- Orion IntelliScope Dobs and 80mm ED Refractor
- See you at Island Lake!