



★ STAR STUFF ★

The Newsletter of the Ford Amateur Astronomy Club

July 2003
Volume 12 Number 7



Editor: Jim Frisbie

A MESSAGE FROM THE PRESIDENT

On Friday evening, June 27th, my friend Todd and I headed out to Doug Bock's place in Fenton to partake in his 20th Annual Summer Solstice Star Party. My truck was completely loaded with astronomical equipment and camping gear in preparation for a full evening under the stars. When we arrived there were a few familiar faces already setting up their equipment. Once we settled in Todd and I began unloading the truck. We setup the telescope, leveled the tripod, and hooked up the power supplies. We then setup up the tent in what seemed to be record time. Everything looked like it was going to be a great night of CCD imaging. At this time there was about twenty more amateur astronomers that setup camp. Many arrived to spend the night like us. You could see the anxiousness in everyone's face as they built up their makeshift observatories. I had only two goals that evening: have a great time and image the North American Nebula (NGC 7000).

As twilight set in I began to polar align my telescope. This required aligning it precisely with the North Celestial Pole. It's a tedious and time-consuming process that every astrophotographer must endure. Within a half hour I felt confident that the telescope was aligned and ready to go.

At this time the sky was dark enough to start imaging. My CCD camera was mounted on top of the telescope with a 135mm lens and the auto-guider mounted to a flip mirror on the telescope's rear cell. With the assistance of TheSky software, I slewed the telescope to a region of NGC 7000 that has a bright star for me to guide on. I then began the calibrate process for the guider. As I progressed through the steps I noticed the readout of the star's brightness fluctuating. I increased exposure time as a means to correct the problem. After several attempts the readings showed limited improvements. I then stood back to collect my thoughts and noticed something in the sky - the infamous Michigan Nebula had arrived! I certainly didn't want to image this nebula, although I wouldn't need to polar align or use a guider. I patiently waited for an opening in the skies so I could resume my imaging session. In a period of an hour the sky cleared. I resumed calibrating. This time everything looked fine. Now the moment of truth, I instructed the camera to snap a quick picture. I anxiously waited for the image to download onto the computer display. "There it is," as I silently shouted. The silhouette that I have grown accustomed to see was on my computer display for the first time. Now, as I rubbed my hands together, I increased exposure time to five minutes. After waiting what felt like five hours, I saw another silhouette of the nebula, this time with a bit more detail. The stars looked perfect, which meant the guider was doing its job. My palms were sweating as I increased exposure time to ten minutes. With my eyes glued to the computer display, an image popped up. This time the stars were long streaks and the image was very faint. I pondered for a few moments as to what the problem maybe until I leaned back into my chair. "ITS BACK ... THE MICHIGAN NEBULA!" I screamed. At this time the sky was not improving. The nebula was rolling in what seemed in all directions. I felt there was little hope to catch the North American Nebula that night.

After packing everything up into the truck I headed to bed earlier than I wanted. The next day I woke to the sun's rays pushing their way through the tent's fabric. As I poked my head out with my eyes half open I heard people talking about Doug Bock preparing breakfast. Hearing the word "breakfast" purged my thoughts of the prior night of imaging. Doug offered up a terrific breakfast of pancakes, bacon, sausage, orange juice, and fruit. After sharing stories with other amateur astronomers, I quickly remembered the other reason I was out, and that was to have a great time ... and that I did. I met a lot of new people and had a chance to sleep under the stars. The experience re-energized my interest in the hobby all over again. For me, the most important party of any hobby is sharing it with others. Thanks Doug for hosting another successful summer solstice party and preparing and great breakfast for the past twenty years!



Doug at work!

Don Nakic

JULY 2003 STAR STUFF

In This Issue:	page #
- A Message from the President by Don Nakic	1
- Minutes of the June Meeting by Don Klaser	3
- Treasurer's Report by Gordon Hansen	4
- NASA's Space Place, From The Belly Of An Airplane: Galaxies by Dr. Tony Phillips	4
- Search for Life Out There Gains Respect, Bit by Bit submitted by Greg Burnett	5
- FAAC Scholarship 2003: ESSAYS	6
- Beginners Night: July 5th Recap and Next One – August 9th by John Kirchhoff	7
- Astronomical Imaging S.I.G. by George Korody	8
- Agenda for Next Meeting, July 24, 2003	8
- Astronomical Calendar	8
- FAAC Calendar	8
- ILSP Flyer	9
- Great Lakes Star Gaze Flyer by Bob McFarland	11
- Advertisement from Club Sponsor: Riders Hobby	12

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

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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.

FOR SALE: Celestron C102 Refractor (~4-inch). 1987 vintage. Like new condition. Purchased in Ohio in 1987 at a star party for \$850. Rarely used. Optics are clean. Very sharp images. Objective has "Newton Rings" but that does not seem to affect the light gathering power or the image quality of the telescope. Was asking \$800 but I'll consider your offer. Please contact Greg Miller at gmlle17@ford.com or 313-845-3588. Thanks.

FOR SALE: Meade 8" SCT excellent condition
Now you can reach out for detailed observation of the solar system, as well as the deep space. Prepare to be amazed, gathers 73% more light than a 6". You won't have to call it a night after you've observed the Messier Catalog. Comes complete with HD steel tripod, 15mm ep, 6x30 finder & telrad. Price reduced from \$875.00 to \$700. 1-734-722-3959 ask for Michael

**MINUTES OF THE JUNE 2003
FAAC GENERAL MEMBERSHIP MEETING
By Don Klaser**

The meeting was called to order by President Don @ 5:00 p.m. Several members talked about their observing experiences during the last month as we all enjoyed pizza and pop. Gordon Hansen gave the Treasurer's report. The secretary's report was accepted. A reminder -- the combination on the lock at Island lake has been changed as of 6-1-03; to obtain the new combination, please contact one of the club officers or board members.

The three recipients of this year's Scholarship Awards were in attendance and received their prize -- Karen Kudelko, Mimi Nguyen and Sarah Pulis. Congratulations to all of our Scholarship winners !! The July meeting of the Astro-Imaging SIG will be held at the Ford Family Learning Center on Rotunda Dr. on Tuesday, July 8, from 5 to 7 p.m..

Beginning January 1, 2004, the dues for an individual member will be increased to \$25.00, and late renewals will be assessed an additional \$5.00 fee for a total of \$30.00. Lifetime memberships will remain the same at \$150.00. A motion was made and seconded to approve the board's decision to raise the dues; discussion followed and the motion was passed 21 to 1.

Upcoming events were discussed. The idea of re-designing our Tee-shirt was discussed -change the look by removing the Star Party date and/or the Star Party logo. A committee was established to research this - members are Gordon Hansen, John Kirchoff, Don Klaser & George Korody.

The technical discussion was given by Jim Frisbie on telescope magnification. The main program " The Sky is Not Burning " was presented by John Symanski.

The meeting was adjourned at 7:15 p.m.

TREASURER'S REPORT – 6/26/2003

By Gordon Hansen

Bank Accounts

Checking	\$	540.82
Savings	\$	1,180.80

TOTAL Bank Accounts	\$	1,721.62

Cash Accounts

Cash Account	\$	91.60

TOTAL Cash Accounts	\$	91.60

Asset Accounts

Books	\$	-
GLAAC	\$	319.00
Projector	\$	223.70
Scholarship	\$	160.13

TOTAL Asset Accounts	\$	702.83

OVERALL TOTAL	\$	2,516.05
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FROM THE BELLY OF AN AIRPLANE: GALAXIES

By Dr. Tony Phillips

On April 28th a NASA spacecraft named GALEX left Earth. Its mission: to learn how galaxies are born, how they grow, and how they die.

"GALEX-short for Galaxy Evolution Explorer-is like a time machine," says Caltech astronomer Peter Friedman. It can see galaxies as far away as 10 billion light years, which is like looking 10 billion years into the past. The key to the mission is GALEX's ultraviolet (UV) telescope. UV rays are a telltale sign of hot young stars, newly formed, and also of galaxies crashing together. By studying the ultraviolet light emitted by galaxies, Friedman and colleagues hope to trace their evolution spanning billions of years. This kind of work can't be done from the ground because Earth's atmosphere absorbs the most energetic UV rays. GALEX would

July 2003

STAR STUFF

have to go to space. To get it there, mission planners turned to Orbital Science Corporation's Pegasus rocket.

"Pegasus rockets are unusual because of the way they're launched-from the belly of an airplane," says GALEX Project Engineer Frank Surber of JPL.

It works like this: a modified L-1011 airliner nicknamed *Stargazer* carries the rocket to an altitude of 39,000 feet. The pilot pushes a button and the Pegasus drops free. For 5 seconds it plunges toward Earth, unpowered, which gives the *Stargazer* time to get away. Then the rocket ignites its engines and surges skyward. The travel time to space: only 11 minutes.

"The aircraft eliminates the need for a large first stage on the rocket," explains Surber. "Because *Stargazer* can be used for many missions, it becomes a re-useable first stage and makes the launch system cheaper in the long run." (To take advantage of this inexpensive launch system, GALEX designers had to make their spacecraft weigh less than 1000 lbs-the most a Pegasus can carry.)

A Pegasus has three stages--not counting the aircraft. "Its three solid rocket engines are similar to the black powder rockets used by amateurs. The main difference is that the fuel is cast into a solid chunk called a 'grain'-about the consistency of tire rubber. Like black powder rockets, once the grain is lit it burns to completion. There's no turning back."

In this case, turning back was not required. The rocket carried GALEX to Earth orbit and deployed the spacecraft flawlessly. On May 22nd, the UV telescope opened its cover and began observing galaxies-"first light" for GALEX and another success story for Pegasus.

For adults, find out more about the GALEX mission at <http://www.galex.caltech.edu/>. Kids can read and see a video about Pegasus at <http://spaceplace.nasa.gov/galex/pegasus.html>.

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



L-1011 "Stargazer" takes off to carry Pegasus rocket on the first 39,000 feet of its climb to deliver a spacecraft to orbit.

SEARCH FOR LIFE OUT THERE GAINS RESPECT, BIT BY BIT

From the New York Times, by Dennis Overbye
Submitted by Greg Burnett



A radio telescope in Green Bank, W.Va., part of SETI's network.

Years after Congress ordered NASA to pull the plug on a survey looking for alien radio signals from the stars, the Search for Extraterrestrial Intelligence, or SETI, as it is known to aficionados, seems to have gradually achieved a modicum of respect in the halls of Washington. The most recent indication appeared at the end of last month, when NASA named 12 groups that had won five-year grants to participate as "lead teams" in its Astrobiology Institute, which investigates the origin and future of life in the universe. On the list was the SETI Institute, an organization in Mountain View, Calif., that has carried on the abandoned survey. The group proposed a variety of basic research on the way planetary environments affect life or are affected by it. One project is aimed at determining whether certain kinds of stars are promising abodes for life and thus good targets for a planned expansion of the institute's search for intelligent radio signals. That would make the grant the first money in a decade that NASA has allocated for work related to radio searches, the astronomers at the institute said. For most of the last decade, "SETI was a four-letter word in NASA," said Dr. Frank Drake, a radio astronomer and former chairman of the SETI Institute. "It was not uttered in speeches, or in documents." NASA said nothing had changed. The agency does not as a rule finance ground-based astronomy and, thus, has no SETI (pronounced SEH-tee) program. But SETI research can be supported as long as it meets the strictures of good science and emerges from a competitive peer-reviewed process, explained Dr. Edward J. Weiler, associate administrator of the NASA Office of Space Science. Dr. Michael Meyer, a biologist who heads the Astrobiology Institute, described the proposed study as "pure astronomy," aimed at looking for potential habitable planets, research that fits with the institute's mission. NASA, he added, is eager to use the results to find targets for its planned Terrestrial Planet Finder satellite. Astronomers around SETI and elsewhere said NASA and Congress had recently shown warming attitudes toward the politically embattled subject of intelligent life Out There. Dr.

Martin Rees, a cosmologist at the University of Cambridge in England, used an e-mail message to attribute the change partly to growing scientific interest in extraterrestrial biology and the origins of life, as well as, perhaps, "the growing visibility and manifest professionalism of the SETI Institute." The issue is so important, Dr. Rees said, that "even though the chances of success are exceedingly low, it's worth a moderate effort." Dr. Michael Turner, an astrophysicist at the University of Chicago, used a football analogy to describe the odds, saying, "SETI is definitely throwing deep, and oh what a touchdown it would be!" Astronomers who testified two years ago to a House subcommittee on space and aeronautics reported that members seemed to support SETI. According to the journal *Nature*, Representative Lamar Smith, the Texas Republican who called the hearing, said the discovery of life elsewhere in the universe would be "one of the most astounding discoveries in human history." "Funding should match public interest," Mr. Smith said, "and I don't believe it does." In recent years, the reports from the National Academy of Sciences have endorsed the idea of SETI, and the institute itself, once advised to change its name, has become a respected "brand" in astrobiology, said Dr. Drake, as evidenced by the recent announcement. "All of this is indeed a major sea change," he said. It was Dr. Drake who in 1960 first pointed a radio telescope at two stars, hoping to hear the cosmic equivalent of "hi there." He did not hear anything, but he earned a curious sort of scientific immortality for his frustration. No amount of cosmic silence has been able to discourage astronomers who theorize that radio signals can bridge the unbridgeable gulfs between stars much more cheaply than spacecraft, allowing distant species to communicate by a sort of cosmic ham radio. The Milky Way has 200 billion stars, the astronomers point out, and billions of frequencies available for signaling, if "they" exist. SETI had been in eclipse at NASA since September 1993, when Congress, fearing a backlash if it spent tax dollars on "little green men," amended the NASA appropriation to kill a 10-year search program that had begun a year before. Part of the project, a survey of 1,000 nearby Sun-like stars, was to have been managed by NASA's Ames Research Center in Moffett Field, Calif., and carried out by the SETI Institute, formed in 1984 as a conduit for scientists to obtain grants and conduct astrobiology research. When NASA pulled out, the astronomers at the SETI Institute decided to take the search private.

In 1995, with grants from Silicon Valley titans like David Packard, William Hewlett and Dr. Barney Oliver of Hewlett-Packard; Gordon Moore, co-founder of Intel; and Paul G. Allen, co-founder of Microsoft; as well as Arthur C. Clarke, the science fiction author and inventor of the communications satellite, the search was reborn as Project Phoenix. The astronomers expect to finish surveying the original list in the fall, but they are already laying plans for an expanded survey of up to a million stars. The survey will be performed by a dedicated array of 350 small radio telescopes that will be built in conjunction with the University of California at Berkeley, at its Hat Creek Observatory near Mount Lassen in Northern California. The telescope, which can be used for SETI and regular radio astronomy, will be known as the Allen

Telescope Array, after Mr. Allen, who invested \$11.5 million for developing the telescopes. Meanwhile, the SETI Institute, with about 120 employees and an annual budget of \$10 million, not counting the cost of the new telescope array, has grown into a powerhouse of astrobiological research. Its scientists say they have never had any trouble obtaining support from NASA and the National Science Foundation for this branch of their activities, which are as diverse as studying the chemistry of interstellar clouds and ways to handle Martian soil samples. In all, the institute has more than 36 individual grants and cooperative agreements with NASA, said Thomas Pierson, chairman of the institute. "Only our SETI work is (has been, actually) without federal support for the past 10 years," Mr. Pierson wrote in an e-mail message. That exclusion has particularly stung, as NASA has embarked on highly publicized programs to search for cosmic origins — of life, matter and everything else — and begun planning for the Terrestrial Planet Finder, which will search for Earth-like planets. The search for intelligent life in the cosmos was a logical part of those endeavors, the staff argued, and should be eligible for federal money. "The questions SETI asks are a natural component of the questions that get asked in astrobiology," said Dr. Christopher F. Chyba, a Stanford professor who is head of astrobiology research at the SETI Institute. As an indication of changing fortunes, astronomers point to remarks that Dr. Weiler made at the House subcommittee hearing on July 12, 2001. Dr. Weiler made clear in the session that the Congressional ban on SETI applied just to 1994.

"NASA is no longer prohibited by any congressional language from considering funding SETI research," he said, "so SETI is currently eligible and considered fairly under peer review for NASA opportunities."

The next year, a National Academy of Sciences report, "Life in the Universe, an Assessment of U.S. and International Programs in Astrobiology," called the SETI Institute a "unique endeavor" and an "important national resource in astrobiology." The search for intelligent life, it said, is "the most romantic and publicly accessible aspect of the search for life, yet is perhaps the most problematic." "It would be dissembling," the report added, "to say the least, to discourage such a search (especially one enabled by private funding) at the same time that astrobiology as a whole taps into the same emotions and aspirations to excite the public about the general search for life's origins, evolution and cosmic ubiquity." Last year, the idea of searching for intelligent signals was explicitly endorsed in the newest version of "The NASA Astrobiology Roadmap," an outline of questions and goals assembled by 200 astrobiologists inside and outside NASA as a guide to research. Although technology may be rare in the universe, its effects may nevertheless be easier to detect from a distance than biological ones. "Accordingly," the roadmap said, "current methods should be further developed and novel methods should be identified for detecting electromagnetic radiation or other diagnostic artifacts that indicate remote technological civilizations." The selection of the SETI Institute as part of the Astrobiology Institute is more evidence, Dr. Chyba said, that "there has been a sea change in attitudes toward SETI, as evidenced by the 'Astrobiology Roadmap' and, explicitly, by NASA."

The higher end of evolution, intelligence, has been missing from astrobiology, he said, adding, "We're bringing it to the institute

now for the first time." In a statement from the institute, Dr. Jill Tarter, a radio astronomer who directs the search program, called the selection "the stamp of approval that what we started so long ago is a really good idea." "The cross-fertilization of all these disciplines," Dr. Tarter said, "pays big dividends."

FAAC SCHOLARSHIP 2003

Don Sommers, John Schroer, and Gordon Hansen reviewed many applications and selected three recipients. Each person has received \$300 from the FAAC Scholarship Fund. Following are the names of this years winners, a brief biography and their essay.

KAREN JENNIFER KUDELKO

Graduating: Mercy High School

GPA: 4.0 / 4.0

Activities:

Awards: National Honor Society, Athletics, Student Government and many others

Attending: TBD (many applications)

Major: Arts & Sciences

"Well Miss, I have another nature question for you." During his weekly visit, my godfather uses these words to prepare me for a piece of science trivia. If it is not my godfather's tidbits about the largest land animal or the oldest living creature, it is my father's chemistry experiments and lessons in car repair that keep me interested in science. My siblings' knowledge as doctors also updates me on the latest in medicine. These experiences have led me to explore chemistry, AP physics, and AP biology classes. Biology has interested me most, and I am amazed at the width and depth of the diversity of living things. Being surrounded by science all my life, it has become a part of me, and I am looking into pursuing the science field. Overall, science intrigues me because its applications are broad, offering opportunities to help others and the environment in every part of the world.

Science is also the backbone of mankind. It saves us, creating cures for diseases and safer vehicles for travel. Science defines us, examining our origins through studies in evolution. It keeps us comfortable, being responsible for everything from aspirin to air conditioning. Finally, science prepares us for the future, exploring colonization of the moon and global warming.

Science will definitely be a part of my future. Although, I do not know yet which occupation is right for me, I plan on finishing college, perhaps with a major in Biology. I would either continue on to graduate school, or do some research in health or environmental studies. I also plan on doing some fieldwork in another country, perhaps studying in the rainforest. Finally, I plan on settling down to the occupation that best fits me. One day, I will be the one passing on the nature tidbits and science lessons to others, just as my family has done for me.

MIMI TRAN NGUYEN

Graduating: Sterling Heights High

GPA: 4.056

Activities: National Honor Society, Athletics, Debate Team and many others

Awards: Michigan Merit Award, Student Leadership

Conference, Foreign Language Award, and many others

Attending: U of M - Dearborn

Major: Pre-Medicine or Engineering

As I enjoyed reading medical books and watching science shows since elementary school, one can tell that my attraction towards the sciences began early on. My fascination for how the world works went beyond the colorful buttons and flashy lights. It has evolved into the pursuit for a future in a field that allows me to have a hand, in the growth and improvements of society.

Whether the field is biology, chemistry, or physics, science not only impacts mankind but is mankind. Science is the plant that releases the oxygen that allows humanity to thrive. Science is the cornucopia of elements that provides the medicines to relieve the inhabitants of our world of their ailments. Science is the framework of our vast skyscrapers, extensive bridges, and breathtaking automobiles. The experiments that were completed by past scientists and the research that is being conducted by current individuals have resulted in more than the technological advancements man has witnessed, but has also continued the development of intellectual growth for future generations. Science has been and continues to be the drive mankind has to figure out who and what it is and why it thinks and feels the way it does.

With scientific knowledge I have acquired over the years, and the new knowledge that I will gain through my studies and research during college, I hope to become a shining example of not only what a college education can provide – knowledge, wisdom, morals, and ethics – but also how an understanding of the sciences results in numerous opportunities that suddenly become within reach. More importantly, though, with the wisdom that I will receive from an education in the sciences, I hope to give back to the scientific community, through my hard work, patience, determination, and dedication, all that it has given me.

SARAH ELIZABETH PULIS

Graduating: Wixom Christian School

GPA: 4.02

Activities: Choir, Pep Squad, Youth Group, and others

Awards: Honor Roll, Highest Honors

Attending: Clearwater Christian College

Major: Biology

Hi, my name is Sarah Pulis and after graduating this coming June, I plan on going to college to earn a bachelor's degree in Biology. After that, I would like to go on to graduate school and earn a doctorate in Physical Therapy. I have always been interested in human anatomy and physiology. A career in Physical Therapy will allow me to use the knowledge I will have gained through

these studies.

While all areas of science impact mankind in tremendous ways, the health sciences impact on the most personal level. Every person is affected every day by advances made in medical knowledge. Scientific methods are used to diagnose, treat, and prevent illnesses. For instance, people who would have died from cancer 100 years ago are now living long, healthy lives thanks to the scientific discoveries in treatments and medicines. People who are surviving debilitating accidents and able to walk and lead normal lives again due to the knowledge of the human body and the therapy that can now be provided.

As a physical therapist I want to provide good, effective care for my patients. I would like to accomplish this by one day working in a rehab hospital helping people who are disabled. It would be rewarding to see them regain basic mobility and find relief from their pain. I would also like to teach people the importance of having consistently healthy lifestyle. By being a good role model and using the skills I will acquire in college, I hope to become a successful physical therapist.

BEGINNERS NIGHT – AUGUST 9th

By John Kirchhoff

Thanks to everyone (including the weather guy/gal) for making our third Beginner's Night of 2003 a huge success. We counted over 20 cars after the swimmers left with 16 scopes, two binocular rigs and at least one camera set up on the field. The sky conditions were superb, George Korody mentioned that the air was as steady as he has seen at our observing site. He proved it too by splitting a tight 1.5 arc second double star with his 6" reflector. Joe Vargas and his father were comparing 10" Dobs at the end of the parking lot. Both the Orion and the Hardin Optical performed very well. Mike Russo really had his new Cassegrain dialed in. We had great views of Rima Ariadaeus and Rima Hyginus, a beautiful pair of lunar rille that were just off the terminator. Tony Licata had his Celestron 11GPS on the field and demonstrated the set up he is using for astrophotography. Thanks to Tom and Patty Cokley for testing the 2" Televue and Thousand Oaks O3 filters on their Meade LX200 10". Both filters worked well but the views were different. The big scope on the field was an 18" Obsession truss Dob owned by a new club member (sorry I didn't catch your name). Bob Fitzgerald had his Fujinon's out on his parallelogram mount and showed the moon off to a number of swimmers as darkness fell.

We were also treated to a couple of wonderful fireworks displays. A big thanks to the City of Brighton for a great show just after sunset from a mile or so away. Thanks also to the US Government for saving the Iridium satellites. We saw two very bright flares, a minus 6 and a minus 7 from 200 plus miles away. Jim Frisbie noted that the second flare was bright enough to illuminate the moisture in the air causing a halo of light around it.

I regretfully called it a night around 1AM (long drive home) just as Mars was rising over the SE horizon. Thanks again for the great turnout and hope to see everyone

again on August 9th for our last Beginner's night of the season. I promise I will stick around for Mars this time!

The next **FAAC Beginner's Night at Island Lake** will be **Saturday August 9th from 7:30pm to Midnight**

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

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

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

For more info or details on this event, send an E-mail message to riderslivonia@aol.com or check the club website at www.boonhill.net/faac

You may also contact John or Dan at Rider's Hobby Shop 734-425-9720

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

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, August 7, from 5:00 to 7:00 PM. This is the same location as all previous meetings. The main topic is TBD. Directions to the meeting place can be found at <http://www.boonhill.net/faac/newlocationmap.htm>. All FAAC Members are welcome.

July 24, 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	10 min

- Upcoming Events	Don Nakic	15 min
- Technical Discussion	Gary Strumolo	15 min
- CCD Image Processing	Jeff Thrush	30 min

ASTRONOMICAL CALENDAR

July 2003

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

July 20	Anniversary: 1st Manned Moon landing
July 21	Last Quarter Moon 3:01 am
July 29	New Moon 2:53 am
July 30	Crescent Moon near Jupiter - dusk

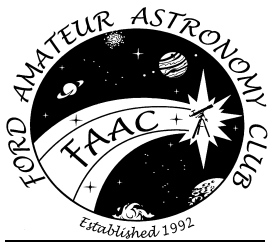
August 2003

Aug 12	Full Moon 12:48 am Grain Moon
Aug 13	Peak of Perseid Meteor Shower 1:00 am
Aug 13	Moon near Mars – Evening
Aug 19	Last Quarter Moon 8:48 pm
Aug 23	Waning Crescent Moon near Saturn - am
Aug 27	New Moon 1:26 pm
Aug 27	Mars at Closest approach to Earth
Aug 28	Mars at opposition – up all night -
Aug 30	Mars at Perihelion – closest to sun

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

FAAC CALENDAR

Activity	Date	Time
- General Meeting	Jul 24	5 pm
- Beginners Night	Aug 9	7:30 pm
- FAAC Board Mtg	Aug 14	5 pm
- General Meeting	Aug 28	5 pm
- GLACC	Sept 5,6	
- FAAC Board Mtg	Sep 11	5 pm
- 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



Our Sponsors:



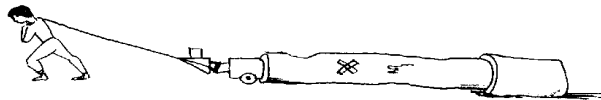
Saturday October 4th 2003
6 PM - ??

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



Event Listing:

- ◆ **Telescopes of all kinds** – these are available to look at and look through . Have questions? Just ask!
- ◆ **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.
- ◆ **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.
- ◆ **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!



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!

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



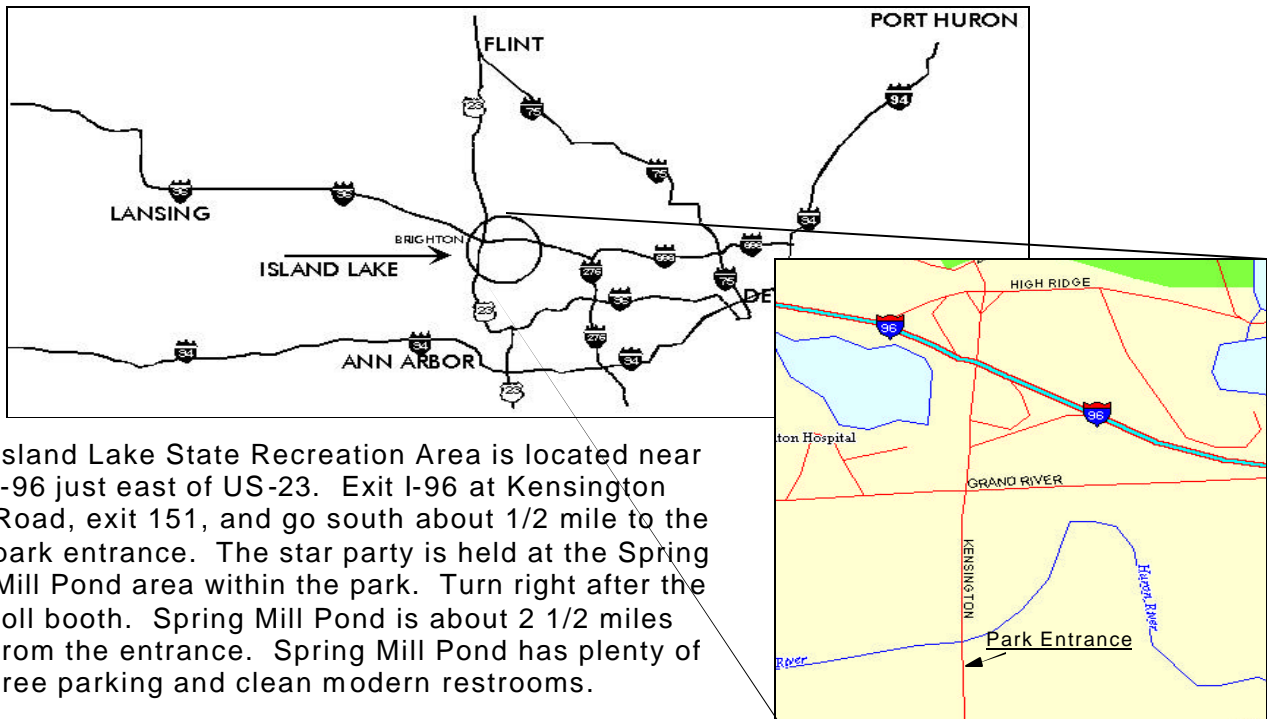
Time *	Presentations:	Speaker/ Presenter
6:30	Comet making	Barry Craig – FAAC
7:00	Beginner Telescopes & Basic Equipment Facts	John Kirchhoff – FAAC
7:30	Light Pollution	Norb Vance/Tom Kasper - Eastern Michigan University Astronomy Club
8:00	Astronomy 101	Greg Burnett – FAAC
8:45	Clay Kessler's Astronomy Photos	Clay Kessler – FAAC
9:30	Pointing Out Constellations / @ Beach	Kevin Denhe – Delta College
10:00	Drawing for Sponsor Prizes (You must be present to win)	See Prize List Below
6 - 9	Daytime Equipment Checkout	All

6 - 7	Solar Observing	Solar Filters Required, Selective Sites
Dark	Night time Public Observing & Sky Tour	All
11:00	Food Concession Last Call	-

* all times are approximate

PRIZE LIST

- TBD – Rider's Hobby Shop
- TBD – Meade Instruments
- TBD – Ken Press
- TBD – Orion Telescopes & Binoculars
- TBD – Ford Amateur Astronomy Club
- Many prizes for the Kids!



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



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. Kawkwawin, 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:

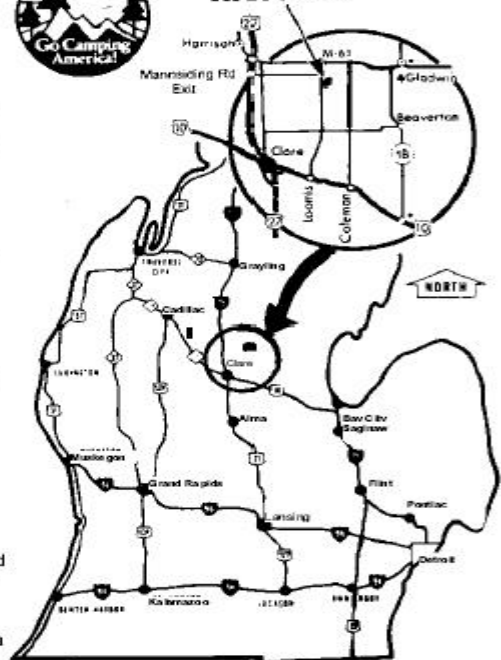
- Travel trailer site
- Full hook-up sites are available by contacting **River Valley RV Park at (989) 386-7844**; their website is <http://www.rivervalleyrv.com>
- Cost of full hook-up sites is an additional \$25-27 per night above and beyond the star party registration fees.

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.

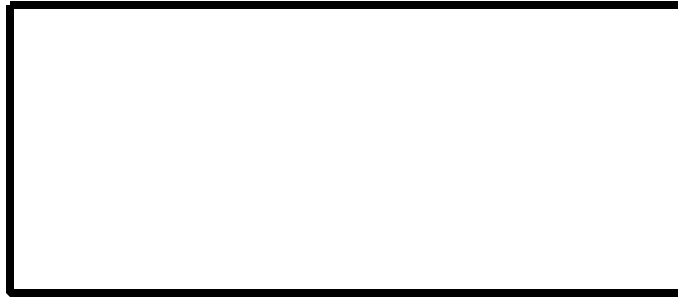


RIVER VALLEY R.V. PARK



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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"THE LEGEND CONTINUES" ...

- Rider's Hobby Livonia is now an authorized dealer for Lumicon International. Save 10% on your prepaid order for filters, film and accessories.
- New! Celestron Baader Contrast-Booster Filter \$49.99
Club Member price \$39.99 with this ad!
- Celestron Observer's Kit (includes case, eyepieces and filters) with purchase of Celestron telescope \$99.99 (over \$300 retail value)