



★ STAR STUFF ★

The Newsletter of the Ford Amateur Astronomy Club

June 2004
Volume 13 Number 6



Editor: Jim Frisbie

A MESSAGE FROM THE PRESIDENT

The Transit was a “ball!”

We had a ball Tuesday, June 8 - a large, glowing orange ball, actually, appearing through the dawn haze, with a little beauty spot, moving ever-so-slowly, off its face.

The occasion was the Venus transit, of course. Organized by George Korody, and supported by many others, the event was attended, beginning at 4 am or so, by a large throng, filling the parking area at the Lyon Municipal Recreation area hill. The crowd grew as the sun rise drew near. The sun came up around 6 am, but the view was at first obscured by low clouds and haze along the horizon. Shortly after though, we were rewarded with some wonderful naked eye, and unfiltered telescopic views of the transit, as the sun shone through the haze.

And thus the game was on! The scopes and filters were set, cameras began to click, and for over an hour, we were witness to this once-or-twice in a lifetime event (we're due for the next one in 2012, then not again until 2117). When the final contact finally occurred and passed, a gang of us retired, around 8 am or so, to Leo's, just down the way, for a great breakfast, and more discussion. Al Bates agreed to capture some of the many photos taken for a special presentation at our next meeting. Can't wait!

Many thanks to all who supported and attended! A great time was had by all - and a special thanks must go to that big weatherman in the sky - the viewing was perfect, for a change.

There's a lot to be said, by the way, for daytime astronomy. The deep shades of darkness that provide the wonderful night views, also mar our earthly functionality -cloaking our presence, hindering our efforts, and our interactions with colleagues. During daytime observations, not only can you see what you are doing - without tripping over someone's equipment and cables - you can easily see what everyone else is up to. It seems all the more communal.

Well, we've had our fun with Venus and the sun, but the solar system continues to be in vogue of late. Last year it was the close approach of Mars, and the rover missions, the planetary alignment, and just now the Venus transit. Later this year, Saturn returns to the fore, with the arrival of the Cassini mission to Saturn, and orbital insertion due on July 1, after nearly seven years in the pursuit.

I have to confess, this Cassini mission excites me. The resulting science benefits and images of its four-year visit are sure to be phenomenal. Stay tuned!

Saturn always ranks high as the target of amateur astronomers, and is certainly at the top of my list. As a kid, I looked to the night sky with wonder, and dreamed of a time we might routinely visit other planets, speed off to space stations with our rocket packs, set up colonies under geodesic domes on distant globes. But my first real thrill in “space” actually came along later, the result of catching a glance of a yellow-greenish ball, with amazing rings, floating across the field of view of a large Dobsonian.

When I first saw Saturn, seemingly moving along its starry path like an ethereal PacMan, I was hooked. One day I heard about the Ford Amateur Astronomy Club, and after attending one meeting, I immediately joined. Chuck Boren led a group for telescope-making, at the time, and soon I was building my first telescope, an 8-inch dob. I have it still, the dob, although I have ventured further with purchases of other telescopes, cameras, eyepieces, filters... Sounds like a familiar story, I bet - although I'm sure many of you have far more interesting stories and exploits in your astronomical pursuits.

So, what about you? What did you first see through a telescope? How did you get “hooked?” Where have you gone, and where do you intend to go in the future, in this, your beloved hobby? Drop me a note, if you like - it might be fun to ponder, and then compare notes for a future compilation...

Dale Ochalek

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<http://www.boonhill.net/faac>

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@comcast.net

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

Officers:

President	Dale Ochalek
Vice President	Don Klaser
Secretary	Bob McFarland
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: \$30; Renewal: \$ 25 (before Jan 31 of each year); \$15 for new members after July 1.

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 MAY 27th FAAC GENERAL MEMBERSHIP MEETING

By Bob MacFarland

Dale Ochalek opened the meeting at 5:00 pm by asking for a round of introductions. **Jim & Sharon Betzhold** introduced themselves as new members. **Welcome aboard Jim & Sharon!** Dale asked for everyone who had purchased equipment, had a significant observing experience or other related experience to give a short recap. Several members commented on seeing or photographing the comets. **Greg Burnett** also reported that his significant other had received an "A" in her Astronomy class at Wayne State University. **Great Job Vicky!**

The minutes of the April meeting and the report out on the state of the budget (**Gordon Hansen**) were accepted with minor discussion. **Ed Halash** summed up his alternative meeting location efforts by reporting that **Dr. Charlie Jacobs** of the Henry Ford Community College was very interested in having the club meet at the school in return for assistance in getting his astronomy club started. He confirmed that FAAC meetings could be held in the classrooms of the Science Building as early as July 24th. There would be no fees charged for the room or parking and a club locker could be accommodated at the site. The general consensus held that FAAC should support on this date.

Greg Burnett offered to give his newly updated and digitized version of the Astronomy 101 at one of the next general membership meetings. **Dale Ochalek** reported that due to personal reasons, **Jim Frisbie** would no longer be continuing to serve as newsletter editor at the September meeting. Volunteer(s) for the job is (are) being sought out. Note: (Thank you Jim for all the time and energy you put into this impressive periodical. Your editorial skills will be sorely missed.)

Our scholarship chairman **Gordon Hansen** awarded **Lisa Schumann** (daughter of club members **Lee and Gloria**) one of the

two annual FAAC scholarships (\$200). Lisa will be studying chemical engineering at the University of Michigan this fall. Congratulations Lisa!

George Korody announced that the Astronomical Imaging SIG will be meeting at the Ford Family Service and Learning Center at 5:00 pm on June 13th. **Jeff Thrush** will be discussing techniques on how to capture the June 8th transit of Venus. George also announced that he has arranged for the club to view the transit of Venus from Lyon Township Municipal Park.

Bob MacFarland reported out of the May 21st & 22nd Astronomy on the Beach event. Bob also announced the opportunity for the club's participation at the June 24th Nautical Extravaganza. This is a Ford Employee's Recreational Association event organized to highlight the various FERA clubs and their activities. Unfortunately, the time of 5:00 pm to 7:00 pm is concurrent with our regularly scheduled general membership meeting. However, a small contingent of volunteers will go and set up some display tables at the very least. Contact Bob if you are interested.

Gordon Hansen and Jim Betzhold won the 50/50 raffle. Jeff Thrush was scheduled to give a presentation for the meeting. However, he had been called out of town on business. So, Dale Ochalek concluded the meeting with an "Ask the Astronomer" session.

TREASURERS REPORT MAY 27, 2004

By Gordon Hansen

Bank Accounts

Checking	\$	291.90
Savings	\$	<u>1,435.79</u>
TOTAL Bank Accounts	\$	1,727.69

Cash Accounts

Cash Account	\$	<u>100.25</u>
TOTAL Cash Accounts	\$	100.25

Asset Accounts

FERA Ticket Sales	\$	-
GLAAC	\$	795.00
Projector	\$	401.20
Scholarship	\$	163.13
Swap Meet	\$	<u>-</u>
TOTAL Asset Accounts	\$	<u>1,359.33</u>
OVERALL TOTAL	\$	3,187.27

LIGHTS..... CAMERA..... ACTION.....

GETTING STARTED IN ASTROPHOTOGRAPHY

By Clayton Kessler

Astrophotography does not have to be a big "production". You can take very satisfying, very professional looking, astrophotos with fairly minimal equipment. If this is a part of the hobby that interests you I urge you to take the plunge!

Let me give you some background. I have been in the hobby of astronomy for about three years. I don't make any claim to be some kind of "expert", I am just an average schmoe with less than average patience. I did, however, have a driving force. Ever since I was a child I have been fascinated by the astrophotos taken by observatories and placed in magazines. I did not realize that many amateur astronomers were getting similar results, and getting published, using equipment available to us all. I will let you in on a little secret, many of the photos that I see, in magazines, are piggyback exposures through regular camera lenses. Secret #2 – piggyback astrophotos are relatively easy to take! In piggyback photography you take pictures through a camera lens – not the telescope. The telescope is used to make "guiding corrections" or correct any errant drifting of the stars by watching a star through a crosshair eyepiece.

What is needed to take astrophotos? Well..... a camera, of course, and you need to be able to hold the shutter open for a length of time. This means the camera should have a "bulb" or "B" setting. An older Single Lens Reflex (SLR) is perfect. You also need a cable release, if you touch the camera to trip the shutter you will blur the photo. You also need some kind of mount that will track the stars. This is not as difficult as it seems. Look at your telescope, is it a fork mounted SCT?, a newtonian on a german equatorial mount?, does it have a motor drive? If so, you are golden. You just need to attach your camera to the telescope, OR THE MOUNT, and start to take photos. The mount, you say? How come? Well a lot of scopes, notably 4.5" reflectors, come with a small GEM and a motor drive is a frequent accessory. This small mount is fine for visual work but somewhat light duty to drive both the telescope and the camera. The solution? Remove the telescope! This takes enough strain off of the motor that you can use the mount for photography with shorter focal length lenses. Without a telescope you cannot guide the mount but this is not so critical with a short focal length lens.

Ok, you have a camera and a motorized equatorial mount – now what? Well, we need to attach the camera to the mount. Many mounts or telescopes have the facility to attach a "piggyback camera mount" and these are available from scope dealers. The cost for a piggyback mount runs from 30 to 50 dollars and they will support a camera and up to a moderate telephoto lens. When you are just starting don't use more than a moderate telephoto (135mm or so). If your scope does not have any way to attach a piggyback mount there are other ways.....

You need to look at the mount and be creative. Often there are screw holes that can be used to attach a "ball swivel camera mount" available from a camera store. Every mount is different so take a look. If you see something that you think will work try it! You can even use a piece of wood, a 1/4-20 screw and a roll of duct tape (or "Doug" tape at the NCO). Attach the camera to the wood with

the ¼-20 screw (sink the screw head into the wood so it will not scratch anything). Duct tape the wood to your telescope tube near its' balance point. Take astrophotos. Is this an elegant solution? **Heck no!** Does it look good? **Heck no!** Will it take astrophotos? **You Betcha!!!**

What else do you have to do? When you set up you have to **POLAR ALIGN** your mount very carefully. Polar alignment is critical to good astrophotos – especially if you want to use that 500mm telephoto. Polar alignment means you are going to adjust your mounts' polar axis parallel with the axis of the earth. If your scope has a polar alignment finder scope this is easy. If not you may have to rough align with a compass and protractor and do a drift alignment to perfect your alignment. The method for drift aligning a scope is written up in many reference books far better than I could here. If I could give you a hint, find someone at a star party that is proficient in this and have them teach you. It is not hard and takes around 20 minutes or so. If this seems hard, don't worry! It is not difficult and if you are going to take photos with short focus lenses (35mm, 50mm, 100mm) just set north with a compass and set your latitude with a protractor. Sight on Polaris through your finder scope and start shooting!

OK, we have a mount, a camera and a cable release. We have duct taped our camera to the scope. What else do we need? How about film! It must take some special kind of high speed scientific film to take astrophotos, doesn't it? Nah, you don't need any special film, the ones available from your local drug/department/camera store are fine. What kind do I recommend? Well – stay away from black and white. It is hard to get developed, most places have to send it out. You really don't need Tech Pan 2415 that has been hypereyed for this kind of astrophotography. Leave that to the "pro-amateurs" that get published in the national magazines. Color film is much more impressive! There are lots of colorful things in the sky that are so dim we see them as shades of gray. Color film, however, shows lots of red emission nebulas and blue reflection nebulas. In addition, stars themselves have lots of color variation and look great on color film. In general almost any color film is good for lunar, solar and comet photography – 400 speed is a good place to start. While good nebula astrophotography films are getting thin on the ground I can recommend several color print and slide films that should be easy to get a hold of. Right now the best bet for color print film is Konica Centura 200 and 400 speed. These are a little hard to find but Adray's carries them. Kodak sells Ektachrome Elite II 200 and Ektachrome 1600. The Ektachrome films are slide films. Fuji used to have several good films but they have been improved into uselessness.

How long do you expose the film? This depends upon sky conditions and the "speed" of the camera lens. Generally speaking, the darker the sky – the longer you can expose the film. I can give you the rule of thumb that I use from "moderately dark" (Boon on a mediocre night) skies.
Camera Lens Speed: Exposure Time:
f 2.8 10 min, f 3.5 20 min, f 5.6 30 min, and f 8 45 minutes

Another hint I can give is to "stop down" your 50mm lens

to at least f2.8. This will reduce or eliminate the coma that is present in all camera lenses. This coma does not show up in terrestrial subjects but stars are pinpoints and they show aberrations that would otherwise not be noticed.

So! You took some photos – now what? You have to get them processed. Color print films can be processed at your favorite "One Hour Photo" joint. But be prepared for some more work when you get them back. Many photos will be very washed out looking, or they may be a strange green color. This is quite normal, your photos have to be "color balanced". Most automatic processing systems have no idea what an astrophoto is, and neither do most processing machine operators. If you have the necessary computer hardware and software to do this yourself that is wonderful, but most people do not. This is where a good photo processor is a jewel. Cultivate your local shop, bring your stuff in at a non busy time and schmooze. Ask what they can do to darken the background and bring out details. Bring in magazine pictures and show them what you want. Most places like happy customers and will make the adjustments necessary to make your photos look their best. Before I became computerized with this stuff I had a great deal of satisfaction with Quicksilver Photo in Plymouth and Photo 1 in Cadillac. Both shops have done a very fine job with my astrophotos but it took communication to let them know what I wanted.

Well, we didn't talk about how to take astrophotos if you have a dobsonian, or how to take prime focus astrophotos or where to take astrophotos. Maybe some future articles there. Go out, set up, take astrophotos and show them off!



SPACE WEATHER

By Patrick Barry and Tony Phillips

Radiation storms, 250 mile-per-second winds, charged particles raining down from magnetic tempests overhead ... it sounds like the extreme weather of some alien world. But this bizarre weather happens right here at Earth.

Scientists call it "space weather." It occurs mostly within the gradual boundary between our atmosphere and interplanetary space, where the blast of particles and radiation streaming from the Sun plows into the protective bubble of Earth's magnetic field. But space weather can also descend to Earth's surface. Because the Earth's magnetic field envelops all of us, vibrations in this springy field caused by space weather reverberate in the room around you and within your body as much as at the edge of space far overhead.

In fact, one way to see these "geomagnetic storms" is to suspend a magnetized needle from a thin thread inside of a bottle. When solar storms buffet Earth's magnetic field, you'll see the needle move and swing. If you live at higher latitudes, you can see a more spectacular effect: the *aurora borealis* and the *aurora australis*. These colorful light shows happen when charged particles trapped in the outer bands of Earth's magnetic field get "shaken loose" and rain down on Earth's atmosphere.

And because a vibrating magnetic field will induce an electric current in a conductor, geomagnetic storms can have a less

ASTROPHYSICS PHUN PHACTS

By Vicki Burnett

SUPERNOVA OF 1054 AD

Moving on from my Astronomy class at Wayne State University to my current class of Medieval History, I am combining the two to give you an idea of what the world was like in the year and century that the supernova* of 1054, which we now know as Messier object one (M1), or the Crab Nebula, was first observed.

In 1054, Chinese astronomers observed a supernova in the constellation Taurus. That supernova reached a magnitude of about -6, or four times brighter than Venus, and was visible during the day for 23 days. Some older sources had speculated that this supernova might have been as bright as the full moon (or magnitude -12). The reason for this assumption was probably the intention to fit its 23-day visibility with older model light curves. It remained a naked eye object at night for 653 days. That supernova was recorded by civilizations ranging from the Chinese to the Anasazi Indians in present day Arizona and New Mexico (as evidenced by the Anasazi's drawing of it in the stone of Chaco Canyon in northwest New Mexico). Bizarrely, no European record of it exists.

The Supernova 1054 was later also assigned the variable star designation CM Tauri, a designation which is sometimes also used for the (optical) Crab pulsar. It is one of few [historically observed supernovae](#) in our [Milky Way Galaxy](#). In all of history, including 1054, people(s) of the world were looking heavenward and thinking heavenward. Religion and monarchies were forefront and primary for these times. Astronomy was taught in monasteries and other places of higher learning as one of the (7) Liberal Arts, particularly the four-fold Quadrivium (Astronomy, Arithmetic, Geometry, Music).

In Europe, in the 11th century (1000-1100), an agricultural revolution was underway. People cleared land, established settlements; there were inventions such as the heavier wheeled plow and three-field system for increased production of crops, which resulted in increased population. From 1000 to about 1350 (the time of the plague), European population almost doubled in size.

In 1054, the Roman Catholic Church severed its ties with the Eastern Orthodox (Byzantine) Church (known as the "Great Schism"). East and West are now not only politically but also religiously separated. This was the beginning of what is termed the "high middle ages." This era ended in 1517, with Martin Luther's posting of his Ninety-Five Theses on the door of the Wittenberg church.

In 1066, Halley's comet makes an appearance. Later that year, the Battle of Hastings is fought in which William the Conqueror (of Normandy France) defeats Harold II of England. The Bayeux Tapestry tells the story of the battle, which William won (and became King of England), and woven into one of the panels, the 32nd frame on the 231-foot long tapestry, is the image of Halley's comet. The comet is depicted as a portent of doom for Harold II of England. The beginning of the crusades was just around the corner

June 2004

(1095).

*A **supernova** is a stellar [explosion](#), which appears to result in the creation of a new [star](#) upon the [celestial sphere](#). ("Nova" is [Latin](#) for "new"). The "super" [prefix](#) distinguishes this from a [nova](#), which also involves a star increasing in brightness, though to a lesser extent and through a different mechanism. Supernovae involve the expulsion of a star's outer layers; filling the surrounding [space](#) with [hydrogen](#) and [helium](#) (along with other [elements](#)); the debris eventually forms [clouds](#) of [dust](#) and [gas](#). When the explosion of a supernova compresses nearby clouds (the results of nearby explosions), such compression can form a [solar nebula](#).

BEGINNER'S NIGHT AT ISLAND LAKE

By John Kirchhoff

Just a reminder that our next Beginner's Night will be held Saturday June 26th at our Spring Mill Pond observing site located inside the Island Lake State Recreation area. We will start at 7:30 pm cloudy or clear but the event will be cancelled if it's raining.

We should have a great view of the moon (one day past first quarter) as well as our last good look at Jupiter before it leaves the evening sky. Remember that Beginner's Night is an excellent way to introduce your friends and co-workers to our hobby and the club!

On a personal note I will not be attending this month's gaze. I will be up at Mackinaw City attending the rededication and opening of the Old Mackinac Point Lighthouse. The lighthouse was built in 1892 by my great-grandfather John Peter Schmitt and has been the focus of extensive restoration efforts over the last couple of years. I'll be traveling up to the bridge on Friday and hope to do some stargazing family style on Friday and Saturday night. Wishing you clear skies!

ASTRONOMICAL IMAGING S.I.G.

By George Korody

The next meeting of the Astronomical Imaging S.I.G. is scheduled for Thursday, July 8 from 5:00 to 7:00 PM at the usual location (Ford Family Service and Learning Center Dearborn West). Jeff Thrush will lead a demonstration and discussion on imaging filters for enhancing both film and CCD images. All FAAC members are welcome to attend the discussion.

June 24, 2004

General Membership Meeting

5:00 pm to 7:00 pm

Agenda

- | | | |
|--|--------------------------------|--------|
| - Opening | Dale Ochelak | 8 min |
| - Observing | All | 10 min |
| - Reports: Treasurer's Secretary's | Gordon Hansen
Bob McFarland | 7 min |
| - Old/New Business | Dale Ochalek | 15 min |
| - Upcoming Events | Dale Ochalek | 15 min |
| - Technical Discussion | TBD | 15 min |
| - Main Program | TBD | 30 min |
| - Meeting adjourns to Nautical Extravanza (optional) | | |

FAAC CALENDAR

Activity	Date	Time
- General Meeting	Jun 24	5 pm
- Beginners Night	Jun 26	6 pm
- Board Meeting	Jul 8	5 pm
- General Meeting	Jul 22	5 pm
- Beginners Night	Jul 24	6 pm
- Board Meeting	Aug 12	5 pm
- Beginners Night	Aug 21	6 pm
- General Meeting	Aug 26	5 pm
- Board Meeting	Sep 9	5 pm
- Beginners Night	Sept 11	6 pm
- General Meeting	Sep 23	5 pm
- Board Meeting	Oct 14	5 pm
- General Meeting	Oct 21	5 pm
- Board Meeting	Nov 11	5 pm
- General Meeting	Dec 2	5 pm

Venus Transit Images... A few of many!



Submitted by Tony Licata

ASTRONOMICAL CALENDAR

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

June

- 17 Th New Moon
- 19 Sa Moon near Saturn
- 20 Su Moon near Mars
Solstice - 8:57 PM
- 23 We Moon near Jupiter
- 25 Fr First Quarter Moon
- 26 Sa 1730 Astronomer Charles Messier born

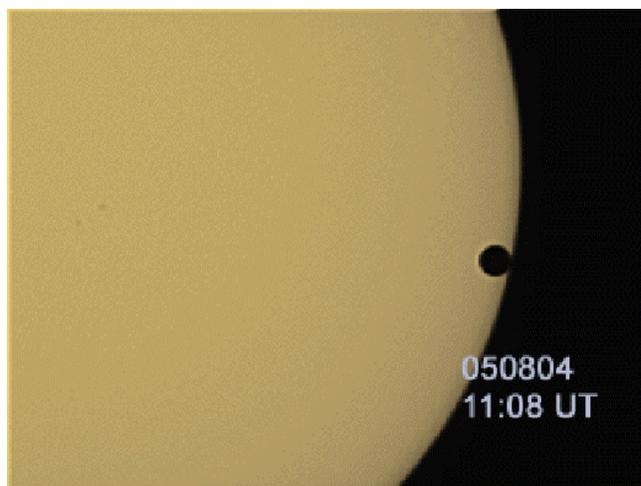
July

- 2 Fr Full Moon
- 5 Mo Earth at Aphelion
- 9 Fr Last Quarter Moon
- 10 Sa Mercury near Mars
- 13 Tu Moon near Venus
- 17 Sa New Moon
- 18 Su Moon near Mars
- 19 Mo Moon near Mercury
- 21 We Moon near Jupiter
- 24 Sa First Quarter Moon
- 26 Mo Mercury at Greatest Elongation East
- 31 Sa Full Moon

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



Submitted by Jeff Thrush



Submitted by John Kirchhoff

Ford Motorsports Enthusiasts,
The Ford Model Boat Club, Ford Seahorses Scuba Club,
Ford Photo, Ultimate Frisbee & Astronomy Clubs present a

"Nautical Extravaganza"



Thursday,

June 24, 2004

5:00pm to 7:00pm



**in the SRL Entry, Atrium & Auditorium
SW Corner of Military & Village Rds.**

Come on out & bring the family! See Vintage, Race, and Personal Watercraft. Tie a Lure, Practice your Casting Technique, Find out what mods are available for Full sized & Model Boats this season. Hear guest speakers & see DVD's in the nautical fields of interest to all 3 groups! Play Euchre! Ham Radio around with us! See Venus & the craters of the moon! Nautical Arts & Crafts will be on display & you can share the Enthusiasm of all things Nautical!

On-Time Door Prize Drawing at 6:00pm, you must be present to win! RSVP to enter.
You must RSVP by no later than 5:00pm on June 23, 2004.

Event Registrar: Tyong7@ford.com 734-523-5437



Ford Amateur Astronomy Club

Beginner's Night at Island Lake

Saturday from 7:30pm to Midnight

June 26th, July 24th, August 21st, and Sept 11th

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.

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



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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 Release by Meade Instruments!

LXD 75 Series Telescopes for Astrophotography

New scopes feature high precision stainless steel ball bearings on both DEC and RA axis.

Enhanced precision alignment of motor gear assembly virtually eliminating backlash

Pricing starting at \$469.99 plus \$75.00 packing and shipping for 6"f/5 Newtonian