



STAR STUFF

The Newsletter of the Ford Amateur Astronomy Club

Volume 15, Number 6

June 2006

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From Thunderstorms to Solar Storms...

Patrick L. Barry

When severe weather occurs, there's a world of difference for people on the ground between a storm that's overhead and one that's several kilometers away. Yet current geostationary weather satellites can be as much as 3 km off in pinpointing the true locations of storms.

A new generation of weather satellites will boost this accuracy by 2 to 4 times. The first in this new installment of NOAA's Geostationary Operational Environmental Satellites series, called GOES-N, was launched May 24 by NASA and Boeing for National Oceanic and Atmospheric Administration (NOAA). A new polar-orbiting weather satellite, NOAA-18, was launched May 2005.

Along with better accuracy at pinpointing storms, GOES-N sports a raft of improvements that will enhance our ability to monitor the weather—both normal, atmospheric weather and "space weather."

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Mid-season Report

President's Corner

Don Klaser, President, FAAC

June -- the month of final exams, report cards and graduation. It's a scenario we've all been through at some point in our lives. But while it's the end of the academic year, we're only halfway through our annual trek around the sun. For those of us who are also sports enthusiasts, as well as astronomy nuts, I'm sure you're familiar with the mid-season report -- those columns of statistics that chart batting averages, ERA's, goals against averages and plus/minus, as well as points per game of the individual players. Sports writers use these stats to assess the success, or lack thereof, of the players and the organization as a whole. So, I thought that instead of waiting until January to report on the state of the club, I might do a mid-season report to see how we're doing and solicit comments on how you, the membership, think we're doing.

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FORD AMATEUR ASTRONOMY CLUB
P.O. Box 7527
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PRESIDENT:	Don Klaser
VICE PRESIDENT:	Ed Halash
SECRETARY:	Ken Anderson
TREASURER:	Gordon Hansen
NEWSLETTER EDITOR:	Dale Ochalek

CLUB INFORMATION

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

The FAAC observes at Spring Mill Pond within the Island Lake State Recreation Area near Brighton, Michigan. The club maintains an after-hours permit, and observes on Friday and Saturday nights, and nights before holidays, weather permitting. The FAAC also has use of the dark skies at Richmond Airport, Unadilla, given prior permission. See the FAAC Yahoo Group* for more information.

Observing schedules and additional information are available by calling the FAAC Observing Hotline at 313-390-5456, on our website, or via the FAAC Yahoo Group.*

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

Annual – New Member:	\$30	(\$15 after July 1)
Annual – Renewal:	\$25	(\$30 after January 31)
Life Membership:	\$150	

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

ASTRONOMY or SKY & TELESCOPE MAGAZINE DISCOUNTS

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

STAR STUFF NEWSLETTER SUBMISSIONS

Your submissions to *STAR STUFF* are more than welcome! Send your story and/or images to the editor at dake00k@yahoo.com. Email text or MS Word is fine. *STAR STUFF* will usually go to press the weekend prior to each general meeting. Submissions received prior to that weekend can be included in that issue.

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

President's Corner *(continued from page 1)*

As I've said before, public outreach is the hallmark of our club, and our efforts again this year are outstanding. Annual events that we support -- Lake Erie Ice Daze, Forest Elementary School and National Astronomy Day at the Detroit Science Center and Kensington Metro Park -- were well attended by an enthusiastic public. Our Beginner's Nights at Island Lake continues to bring both astronomy "newbies" as well as an interested public to these monthly events. And even though this month's combined Beginner's Night/GLAAC viewing event was "challenged" by the weather, we still had a number of people come out.

This year we will again present a Scholarship Award in the amount of \$250.00 to a fine young man who will be studying science and computers starting this fall at Michigan State.

The committee in charge of putting together our entry for the Astronomy Magazine Outreach Award will be finalizing our application package in the next couple of weeks.

The date for the joint SEMSA/FAAC picnic, outreach and viewing event at Richmond Airport has been set for Saturday, July 8th. This will be an opportunity for us to show our appreciation for the consideration they have shown in allowing us use of their facility. Sign-up and other details will be announced at the meeting.

Discussions continue with Dr. Jacobs and the staff of the Science Department of HFCC to examine ways that FAAC can offer support to the astronomy program at the school. By the way, the conference room and dates for both SIG and general membership meetings are again set, through June, 2007.

In closing, I think that our club continues to build on its already strong involvement in the amateur astronomy community in southeast Michigan. This strength is due, in large measure, to the dedication of our members who give of their time and talent to bring the science and hobby of astronomy to the public. I welcome your comments -- pro or con -- either in person, by phone or via e-mail at dklaser4750@wowway.com.

Thanks for your continued support!!!

Don Klaser

Beginner's Nights, 2006

John Kirchhoff

Our opening Beginner's Night Saturday May 6th was a huge success with an attendance of 50+ club members under some excellent skies. FAAC members brought a wide selection of optics to our Springmill Pond site, including some very nice homemade telescopes. The moon, Saturn, Jupiter and Comet Schwassmann-Wachmann 3 were the favorite Saturday night targets along with M-13 and the Ring Nebula.

Beginner's Night #2 was held across the ditch at Kensington Park's Martindale Beach on Friday and Saturday June 2/3 as part of the GLAAC Spring Star Gaze. Friday night was a washout as a large thunderstorm rolled through the park shortly before sunset and sent a dozen or so astronomers home for an early evening.



Photo by John Kirchhoff



Photo by Diane Worth

New to our club - Tim and Katy McKim, and their 12" Meade.

The weather gods smiled on us Saturday as the storms passed to the south and east of the beach around sunset and left us with mostly clear skies for the rest of the evening. The crowd, while small compared to most Kensington events, was very enthusiastic and there was a good representation by the Lowbrows, WAS, and Eastern clubs as well as FAAC. Most of the attendees took advantage of the clear skies and extended park hours and got some good eyepiece time in.

Beginner's Night #3 will be held July 1st at our normal Springmill Pond observing site inside Island Lake starting at 7:30. Make sure you arrive before dark so you can see my new scope in the daylight (it's a big 'un)!

...continued on page 4

Beginner's Nights ... (continued from page 3)



Looks like Jim Frisbie has a kibitzer(or helper) eyeing his new binoculars, as Don Klaser looks on.

Photo by John Kirchoff

John Blum sets up for a night of observing fun.

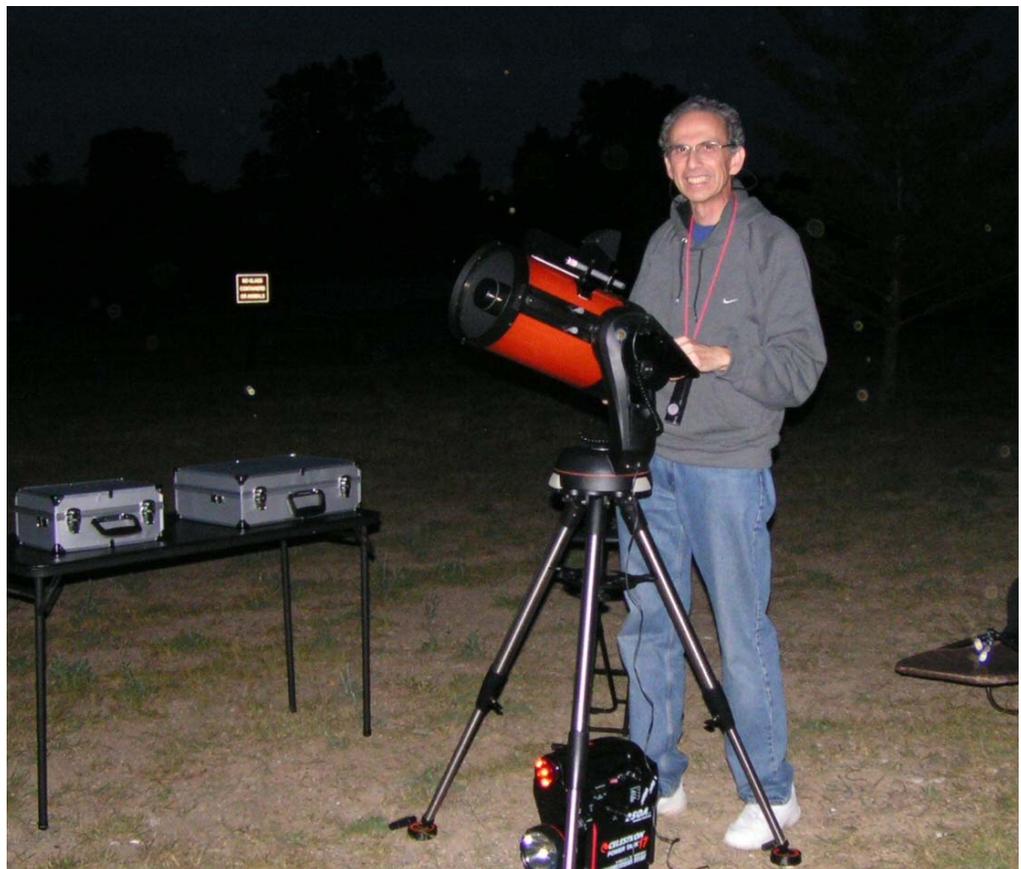


Photo by Diane Worth

Thunderstorms ... *(continued from page 1)*

"Satellites eventually wear out or get low on fuel, so we've got to launch new weather satellites every few years if we want to keep up the continuous eye on weather that NOAA has maintained for more than 30 years now," says Thomas Wrublewski, liaison officer for NOAA at NASA's Goddard Space Flight Center.



New GOES-N satellite launches, carrying an imaging radiometer, an atmospheric sounder, and a collection of other space environment monitoring instruments.

Currently, GOES-N is in a "parking" orbit at 90° west longitude over the equator. For the next 6 months it will remain there while NASA thoroughly tests all its systems. If all goes well, it will someday replace one of the two active GOES satellites—either the eastern satellite (75°W) or the western one (135°W), depending on the condition of those satellites at the time.

Unlike all previous GOES satellites, GOES-N carries star trackers aboard to precisely determine

its orientation in space. Also for the first time, the storm-tracking instruments have been mounted to an "optical bench," which is a very stable platform that resists thermal warping. These two improvements will let scientists say with 2 to 4 times greater accuracy exactly where storms are located.

Also, X-ray images of the Sun taken by GOES-N will be about twice as sharp as before. The new Solar X-ray Imager (SXI) will also automatically identify solar flares as they happen, instead of waiting for a scientist on the ground to analyze the images. Flares affect space weather, triggering geomagnetic storms that can damage communications satellites and even knock out city power grids. The improved imaging and detection of solar flares by GOES-N will allow for earlier warnings.

So for thunderstorms and solar storms alike, GOES-N will be an even sharper eye in the sky.

Find out more about GOES-N at goespoes.gsfc.nasa.gov/goes. Also, for young people, the SciJinks Weather Laboratory at scijinks.nasa.gov now includes a printable booklet titled "How Do You Make a Weather Satellite?" Just click on Technology.

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

Astro Imaging SIG

Jim Frisbie

The next meeting of the Astro Imaging S.I.G. is Thursday, July 13, 5:30pm, Roseneau Rooms A-B at Henry Ford Community College in Dearborn, in the Administrative Services and Conference Bldg. (same as the FAAC General Meeting).

Gordon Hansen will discuss his setup mount testing in cloudy sky conditions.

All Club members and their guests are invited. If you drive up to the Faculty parking lot gate, it should open, allowing you to park close to the building.

May 25 Meeting Minutes

Ken Anderson

Attendees: 31+

Don Klaser, President, opened the meeting at 5:30 PM chaired and led the introductions and observational/equipment discussion.

Eric, Ed, & I reported the interesting IO moon and shadow transit across the face of Jupiter, with the surprise short term effect near the darker limb where the moon is more visible than the shadow. Jon Blum reported also observing a shadow transit on Jupiter. I also reported observing the Leo galaxies, Saturn near M44 Beehive, and solar observing. Don, Gordon, and I conducted solar observing during Astronomy Day at the Detroit Science Center. Twenty or more astronomers brought their telescopes to Island Lake to close out a very successful Astronomy Day. Steve Harvath used his Takahashi 140.

Jim Frisbie gave the Technical Talk on Binocular Observing. As part of "selecting binoculars and mounts" he showed his new Vixen 45 deg 80mm objectives at 36-100x (accepting 25mm, 18mm, 12mm, and 9mm 1.25" eyepieces). 45-degree viewing allows you to look straight up (almost impossible for large straight through binoculars). Adjusting inter-pupillary distance is important to match the observers eyes. Independent eyepiece focus is a plus. Jim uses a sturdy alt-azimuth mount with custom D fine tuning.

A nice feature that binoculars have is portability; you can take them on trips (I took my 25x100 binoculars to Mauna Kea, Hawaii where M33 was visible naked eye, so you can imagine how they looked in the binoculars, extending beyond the 3.5 degree field of view). Jim has a 4-reticle finder with choices of dot, plus, gunners sight, and dot plus circle; but a red dot finder would be a cheaper option.

"Binocular eyepiece selection": tradeoff between FOV & resolution (Jim's 900mm focal length yields 36x with 25mm 42-deg AFOV ortho eyepiece). Flat field is desired so everything is in focus.

"Jim's Personal Observations": relaxed viewing, better concentration, twice as much light with both eyes (for binoculars only, not binoviewers which yield half as much light to each eye), lower power and greater field of view, better ability to split doubles at lower powers. Moon looks fascinating, using both eyes!

Don Klaser gave the main presentation on the Calendar and Western Culture. The Calendar is a form of time keeping. Roman bills calans as the first day of each month. The lunar month is 29.53 days and starts at a new moon x 12 gives a lunar year 354.36 days which differs from 364.25 tropical year based on orbit of earth around sun. Calendar design is based on: 1. solar (Roman, Gregorian), 2. lunar (Muslim, ancient Rome), 3. Lunar/Solar (Chinese, Hebrew). The Sumerians used 12 lunar months (starting at the vernal equinox) with a leap month every 3 years. The Egyptians were the first to use a solar calendar.

Flooding of the Nile fertilizing the soil was known to happen when Sirius rose. They had 3 seasons with 4 months each (Indolation, Winter, Summer). They also kept track of Regal years which is the number of years the king has been in power. They had a 12-hour day and 12-hour night, and used a water clock.

Babylonian and Jewish months varied from 12-13 based on number of new moons per year. Islamic calendars used 29.53 days in lunar months x 12 month and was based on first moon sighting. This also had a 33-year cycle. 2006 AD - 622 = 1384 A.H. (Christian years) or 1426 A.H. (Islamic years).

Don had a handout for the Roman Calendar. The original Roman Calendar kept track of the days based before/after new, first quarter, and/or full/Ides moon. So Ides of March was not March 25, but the actual full moon in March.

Constantine the Great established the 7-day week with Red worship days. The middle-east named the days after gods/planets. Latin name for the days is easily converted to the solar system objects: solis, lunae, martis, mercurii, jovis, veneris, and saturni. Originally there was no name for the days, just the hours cycling in order of the planets. When they decided to switch and name the days they just used the first hour of each day to name the day (hence it is now out of order due to being shuffled).

In 525 AD, the nineteenth year cycle March 21st equinox switched from 247th year Diocletian and also 532nd year A.D. (Anno Domini). They made additional corrections in 703 AD and 1200 AD (became 1268 AD).

...continued on page 7

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

"Quirks in the Calendar": Halloween or Oct 31st is of Celtic/Roman Harvest festivals where they dressed as animals. US Halloween pumpkin tradition comes from Irish Oicke Shwana. Valentine's Day comes from the Roman celebration of fertility which was an orgy fest. Passover (and Easter 3 days after Passover) was the slaughter of the first spring lamb based on the day Moses delivered the Jews to Israel. Finally Christmas is celebrated in December today to coincide with Roman Saturnalia and Lither – God of Light Dec 25th or winter solstice when days start getting longer signaling the end of winter). Prior to 200AD Christmas may have been celebrated between May 20-March 28th in Egypt, since the star of the nativity was in the spring.

Ken Anderson gave the secretary report, and his April minutes were approved without correction. Gordon Hansen gave the treasurer's report, and we had \$6933.69 total in the bank, of which \$1400 is committed to GLAAC, equipment, and the scholarship, leaving \$4605 (\$2446 total assets). See Treasury Report in this newsletter.

Next, we discussed the projects/ committees/ events:

Recapping Astronomy Day, Saturday May 6, 2006 - supported at the following sites:

Detroit Science Center -Solar Observing. Jon Blum inside FAAC table reported winner of telescope, and Ryders. Astro/Sky Imaging Contest winners – Tony Licata for Advanced and Gordon Hansen for beginner; Kensington Metropark Nature Center– Bob Fitzgerald reported Solar Observing (George Korody with Coronado PST, plus 4 other PSTs, and 6 other white light scopes); Island Lake Beginner Night after dusk – 20+ telescopes. Harold Thomason manned his familiar Dearborn intersection.

Don led a discussion about submitting for a \$2500 award for Astronomy Magazine Outreach Program. The application is due July 13, 2006. Dale Ochalek and John Schroer had volunteered to lead this effort to fill out the application and submit the packet before the deadline.

Thursday, July 13, 5:30pm, is the next recurring Astro Imaging SIG meeting.

Bob MacFarland gave an update for the two GLAAC events:

June 2-3, 2006 Kensington Summer Star Gazing/Observer Night Sky Tours and Public Invited Beginner Night and Sky Orientation (reservations recommended for one-on-one help). Concessions/rest rooms/sales tables are open, no presentations, no shows (mini-star party).

September 29-30, 2006 10th Annual Astronomy on the Beach. NASA guest speaker – TBD, but may be astronaut Jack Lousma or Tony England, who live locally in Michigan, and other presentations and shows.

Gordon Hansen announced \$250 FAAC scholarship winner has been selected, and award will take place next month. Don Klaser mentioned there is a FERA Triathlon swap meet on April 22nd.

Next meeting, Mike Bruno will give HFCC Science Building Planetarium "Spring Sky" Presentations similar to that given by Mike/Don Sommers on Tuesdays, with doors opening at 7:15pm, and presentations starting either when all seats are full or NLT 7:30pm when doors are locked.

The meeting was adjourned, hastily, due to bad weather approaching, around 7-7:30 PM.

Meeting Agenda - June 22

(5:30 pm) - Opening/Introductions/Member Observing

New Members & Guests – Diane Worth

Club Business / Secretary/ Treasurer Report

Club Projects / Committees / Member support

- Scholarship Award - Gordon Hansen/ Don Klaser
- Richmond Airport Picnic - Ed Halash
- Astro Imaging SIG – Jim Frisbie
- Pop Management - Don Klaser
- GLAAC Update – Bob MacFarland
- Outreach Award Entry Update - Dale Ochalek
- FERA Summer Promotions - Don Klaser
- Walk-ins

Presentation: HFCC Planetarium – Mike Bruno

(Agenda adjusted for this meeting – to allow for Planetarium show at conclusion of meeting business)

FAAC Calendar of Events 2006

Bob MacFarland

July	1 - Beginner's Night - Island Lake Recreational Area
	8 - Summer FAAC / Sand Hill Soaring Club Combined Picnic
August	5 - Beginner's Night - Island Lake Recreational Area
September	22-24 - Great Lakes Star Gaze – Gladwin 29-30 - Astronomy on the Beach - GLAAC
October	28 - Beginner's Night - Island Lake

Treasurer's Report

Gordon Hansen

Bank Accounts

Checking	\$	597.91
Savings	\$	4007.39

TOTAL Bank Accounts	\$	4605.30

Cash Accounts

Cash Account	\$	81.96

TOTAL Cash Accounts	\$	81.96

Asset Accounts

GLAAC	\$	1276.45
Projector	\$	572.38
Scholarship	\$	397.60

TOTAL Asset Accounts	\$	2246.43

OVERALL TOTAL	\$	6933.69

Items for Sale

Meade 10" LXD55 Schmidt Newtonian telescope Autostar guided, German Equatorial mount, "T"- adapter, Super Plossl 26-mm eyepiece, 1.25" and 2" eyepiece holders, battery pack for 8 "D" cell batteries, 25ft. 110v. power cord. Bought in 2002 for \$1200, will sell for \$1000, or possibly trade for another scope.

E-mail inquiries to: eddyelectro@talkamerica.net

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

8" LX200 'classic' F/10, low hours, great shape. 2nd owner, new in 2001. Includes all std. plus optional - Scopestuff long Dec. cord, Scopestuff collimation knobs installed, Meade 1812 power adapter, Meade heavy duty Cordura soft case, Kendrick Dew Strap, Homemade counter weight and rail, dew shield, and scope transporter, Telrad base. On display at Rider's Livonia. \$1400.00 OBO

Call Jim: 313-386-6944 day, 313-928-9042 eve.

Meade ETX Spotting Scope, 5 inch, Paragon Plus tripod, 26mm Super Plössl, 9.5mm Orion Epic, 13mm Orion Superwide Lanthanum. Nearly new, must sell. Could sell individually.

Contact Jack Fournier, 248-219-6222

Welcome New Members

Gordon Hansen

The FAAC welcomes our new members, with all rights and privileges applying thereto:

Warren Gaither
Joshua Lipshaw
Tim McKim

Sky Calendar

Jim Frisbie

June

- 17 Sa Mars and Saturn about .5 degree apart at dusk
- ☾ 18 Su Last Quarter moon 10:08 AM
- 20 Tu Mercury Greatest Elongation east (25 degrees)
- 21 We Summer Solstice 8:26 AM
- 22 Th Moon passes 6 degrees north of Venus-AM
- 25 Su New moon 12:05 PM
- 27 Tu Mercury, the crescent moon, Mars and Saturn clustered near western horizon at dusk

July

- 3 Mo Earth at aphelion 7 PM (152,095,602 km from sun)
- ☾ 3 Mo First Quarter moon 12:37 PM
- 5 We Moon passes 5 degrees south of Jupiter-PM
- ☾ 10 Mo Full moon 11:02 PM Buck Moon
- ☾ 17 Mo Last Quarter moon 3:12 PM
- 17 Mo Crescent moon occults Pleiades starting around 1:30 AM
- 22 Sa Mars passes 0.7 degrees north of Regulus 2 AM
- 22 Sa Moon passes 6 degrees north of Venus-AM
- 25 Tu New moon 12:31 AM
- 27 Th Moon passes 1.1 degrees north of Mars-PM

All times in Eastern Daylight Time.

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

The Great Red Spot

John Kirchhoff



The Great Red Spot and Red Jr
June 5, 2006
Celestron 9.25SCT f/25 ToUcam Pro II



John Kirchhoff
Hudson, Michigan USA



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New Arrivals from Sky and Telescope !!

- **Celestial Sampler** - a new book by Sue French, \$24.95
- 60 deep sky tours for small telescopes
- **Pocket Sky Atlas** - by Roger W Sinnott, \$19.99
- the best 20 bucks you will ever spend on a star atlas!
- **Double Stars for Small Telescopes** - by Sissy Haas, \$29.95
- more than 2100 double and multiple stars. Easy to use!

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