FORD AMATEUR ASTRONOMY CLUB
FAAC
Established 1992

STAR STUFF

The Newsletter of the Ford Amateur Astronomy Club

Volume 14, Number 11

November-December 2005

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Inside Stuff

Gifts for the Astronomer

John Kirchhoff / Dale Ochalek

So, another holiday season is upon us. Our attention and senses drift to those we know and love, and to possible gift ideas that might suffice – to continue the annual holiday tradition, to exchange gifts, and best express our sentiments.

For the amateur astronomer on your list, the idea of a new filter, eyepiece, camera, adapter, telescope, book, or other trinket that enhances, is ever enticing. Visions of astro-widgets dancing in our heads... and who might better help quell those dreams, than someone in the telescopes biz - such as our own John Kirchhoff, FAAC member, of Rider's Hobby Shop in Livonia. According to John, there are lots of great new gift possibilities this season.

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A Thought for the Holidays

President's Corner

Don Klaser, President, FAAC

Energy is a part of everything we sense in our lives - the light and warmth of the sun, the crash of a wave on the shore. Scientists have been studying electro-magnetic and kinetic energy to better understand its nature (I would suggest a detailed study of a group of five year olds might help the investigations). Even the study of the origin and effects of dark matter in the universe are under scrutiny.

I remember an old brain teaser that went something like: If a tree fell in a forest and no one was there to hear it, would it still make a sound? I would have to say - yes, because whether or not an ear was there to hear it, the energy released by the wood as it exceeded its breaking point would still be generated and be transmitted as a pressure wave through the air.

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STAR STUFF

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FORD AMATEUR ASTRONOMY CLUB
P.O. Box 7527
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VICE PRESIDENT:	Ed Halash
ACTING SECRETARY:	Bob MacFarland
TREASURER:	Gordon Hansen
NEWSLETTER EDITOR:	Dale Ochalek

CLUB INFORMATION

The Ford Amateur Astronomy Club (FAAC) holds regular general meetings on the fourth Thursday of each month, except for the combined November/December meeting held on the first Thursday of December. Meetings are held in the Administrative Services and Conference Center building at Henry Ford Community College 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.

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

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 are as follows:

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 ASTRONOMY and SKY & TELESCOPE 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 will be included in that issue.

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

Another form of energy, created by humans in all cultures is music! Whether it's a string that's plucked, struck or bowed, air that is pushed past a reed or through a series of valves, or a skin drawn tight and beaten, music is an important part of us all.

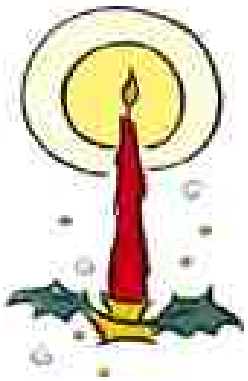
It also has a connection with astronomy and space. One of the best known compositions is 'The Planets Suite' by British composer Gustav Holst (his parents were Swedish immigrants to England). After buying a recording of this work, it puzzled me why the segments were not in order! When I read a biography of Holst, I found out why -- he believed in astrology and cast horoscopes for his friends! In spite of his beliefs, it's still a great piece of music! Then there's the use of the Theremin in the '50's Sci-Fi classic 'The Day the Earth Stood Still'. Invented by Soviet scientist Leon Theremin, it was operated by moving a hand between two antennae and modifying a radio frequency. It produced an eerie sound unlike anything else.

Then there's the work I think is most closely associated with space - the theme from Brahm's "Thus Spoke Zarathustra" in the film "2001 - A Space Odyssey." How many other examples can you think of?

It seems that music, no matter the style or rhythm, strikes a chord in our human psyche (pardon the pun). Perhaps it's the harmonic nature that satisfies something within us. I think that's true because in music there is harmony, and in harmony there is peace.

Wishing you and your family the joy and peace of the holiday season.

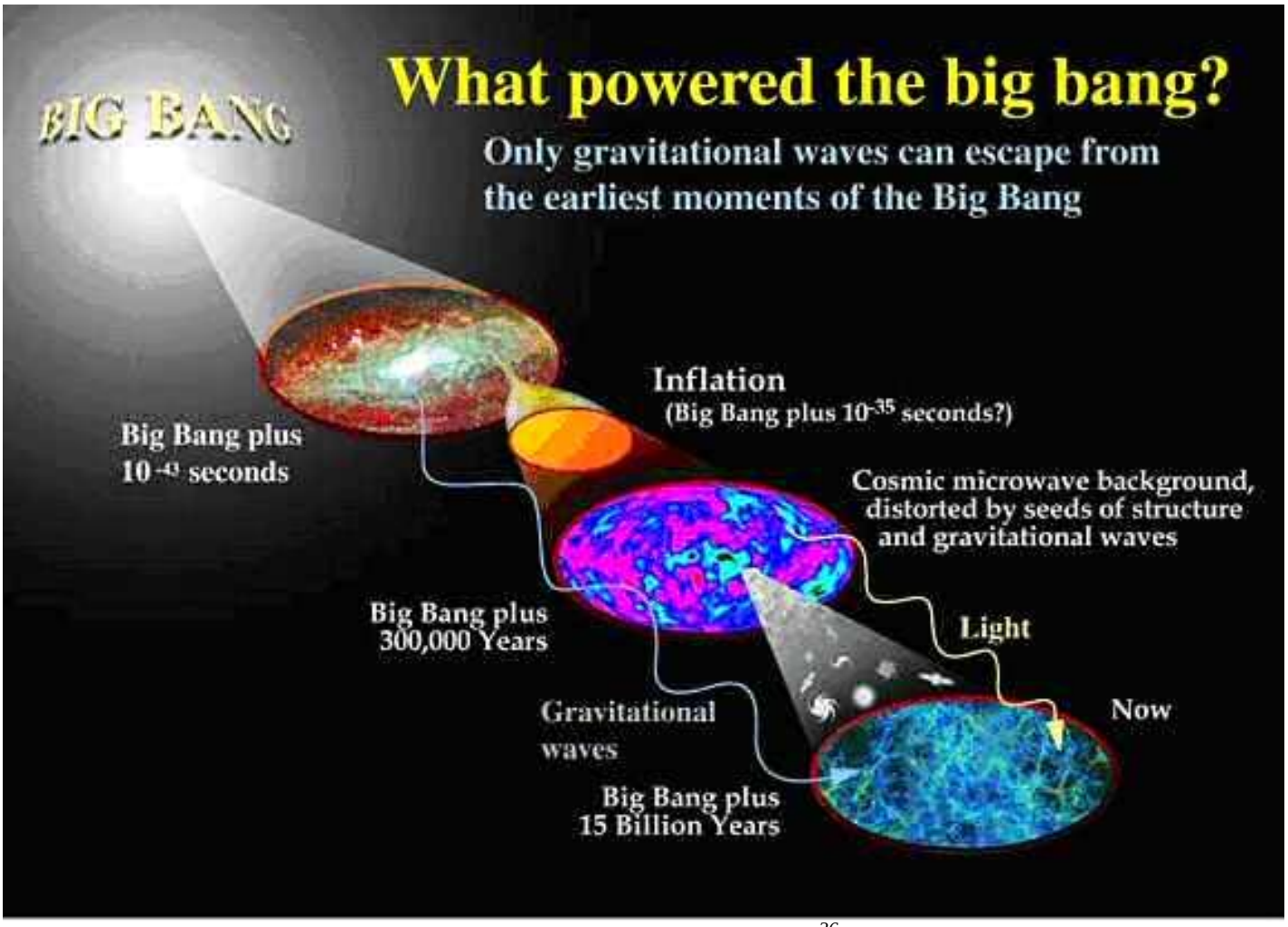
Don Klaser



NASA Space Place

Voices from the Cacophony

Trudy E. Bell and Dr. Tony Phillips



LISA will be able to detect gravitational waves from as far back as 10^{-36} second after the Big Bang, far earlier than any telescope can detect.

Around 2015, NASA and the European Space Agency plan to launch one of the biggest and most exacting space experiments ever flown: LISA, the Laser Interferometer Space Antenna.
LISA will consist of three spacecraft flying in a triangular formation behind Earth. Each spacecraft will beam a laser at the other two, continuously measuring their mutual separation. The spacecraft will be a mind-boggling 5 million kilometers apart (12 times the Earth-Moon distance) yet they will monitor their mutual separation to one billionth of a centimeter, smaller than an atom's diameter.

LISA's mission is to detect gravitational waves—ripples in space-time caused by the Universe's most violent events: galaxies colliding with other galaxies, supermassive black holes gobbling each other, and even echoes still ricocheting from the Big Bang that created the Universe. By studying the shape, frequency, and timing of gravitational waves, astronomers believe they can learn what's happening deep inside these acts of celestial violence.

The problem is, no one has ever directly detected gravitational waves: they're still a theoretical prediction. So no one truly knows what they "sound" like.

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for the Astronomer…

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John has offered a few ideas – including filters, telescopes, a binoviewer….

Filters, of course, can be lighter on the pocket than other items, and still very handy. Some filters at Rider's included: a "Venus" filter by Baader – at $109; a "fringe killer" for stifling chromatic aberrations – for $69, a bargain; a Baader solar continuum filter, to help detail out those sunspots, for $89; and a new Baader UV/IR filter for webcams, at $59.99.

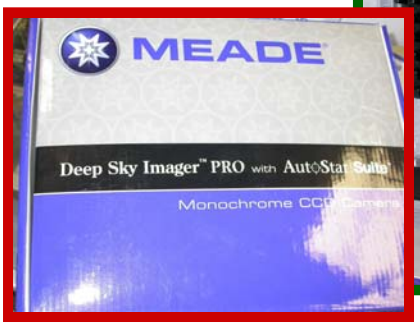
Some new offerings from Orion are real values: the "Orion Express," a short tube, rich field semi-apochromatic priced at $399. There is also the Starblast, a 4.5" EQ-mounted reflector, complete with two Expanse eyepieces ($50-value each), mount, and tripod, for $199.

Also, John says, check out the new binoviewer from Orion, for only $199! Some great gifts ideas …. (**NOTE:** prices are approximate, and may vary, depending on packages, and specials).

Foreground: Beginner's outfit from Orion costs just $199 – the Starblast EQ! Behind: New "Orion Express" for $399, here displayed at Rider's.

New binoviewer from Orion, for only $199, includes a nice padded case- here displayed at Rider's.

New Meade Deep Sky Imager, B/W CCD camera with filter set, filter slide, at $499.



Gifts for the Astronomer…

(continued from page 4)

These puppies are lined up in the window at Rider's Hobby, and eagerly await a new home. Some real bargains can be had – including "previously owned" telescopes available at substantial savings!

"Santa's helper" John Kirchhoff, on duty at Rider's Hobby, proudly displays the hardware – in this case, a Meade 6" apochromatic refractor, on a heavy duty tripod and equatorial mount, selling for $3500. For telescope and accessory needs, or information, contact John at Rider's Hobby Shop – call (734) 425-9720.

Voices from the Cacophony…

(continued from page 3)

Furthermore, theorists expect the Universe to be booming with thousands of sources of gravitational waves. Unlike a regular telescope that can point to one part of the sky at a time, LISA receives gravitational waves from many directions at once. It's a cacophony. Astronomers must figure how to distinguish one signal from another. An outburst is detected! Was it caused by two neutron stars colliding over here or a pair of supermassive black holes tearing each other apart in colliding galaxies over there?

"It's a profound data-analysis problem that ground-based astronomers don't encounter," says E. Sterl Phinney, professor of theoretical physics at the California Institute of Technology in Pasadena.

Profound, but not hopeless: "We have lots of good ideas and plans that work—in theory," he says. "The goal now is to prove that they actually work under real conditions, and to make sure we haven't forgotten something."

To that end, theorists and instrument-designers have been spending time together brainstorming, testing ideas, scrutinizing plans, figuring out how they'll pluck individual voices from the cacophony. And they're making progress on computer codes to do the job.

Says Bonny Schumaker, a member of the LISA team at the Jet Propulsion Laboratory: "It's a challenge more than a problem, and in fact, when overcome, a gift of information from the universe."

To learn more about LISA, aim your browser to http://lisa.jpl.nasa.gov. Kids can also learn, and do a gravitational wave interactive crossword at http://spaceplace.nasa.gov/en/kids/lisaxword/lisaxword.shtml.

Kids can learn about black holes and play the new "Black Hole Rescue!" game on The Space Place Web site at:
http://spaceplace.nasa.gov/en/kids/blackhole/ .

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

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.

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

Time to Renew!

Gordon Hansen

Its time to renew your membership in FAAC!

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

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

Renewal fees for 2006 are only $25 or sign up for a Life Membership for $150 and never have to worry about paying dues again. If you wait till after January 31, it'll cost you an additional five bucks!

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

The first FAAC Astro Imaging Contest is history; some really beautiful images were submitted in each category.

Astro Imaging SIG

Jim Frisbie

The January Meeting of the Astro Imaging S.I.G. will be held, Thursday, January 12, 2006, 5:30 pm at Henry Ford Community College in Dearborn.

The topic for the meeting will be announced later. All Club members and their guests are invited.

We will meet in the Roseneau Conference Rooms at the Administrative Services and Conference Center (same room as the FAAC General Meeting). If you approach the Faculty parking lot gate with your car, it should open allowing you to park close to the building.

The first **FAAC Astro Imaging Contest** is done. A total of 33 images were submitted: 10 in Beginner, 4 in Intermediate, and 19 in Advanced. Nineteen FAAC Club Members cast a Total of 202 votes for their favorites in each level and category. There really are some beautiful images in the group of entries. All images will be shown and winners of the Riders Gift Certificates will be announced at the December 1st FAAC General Meeting. Thanks to all Members who participated.

FAAC General Meeting Agenda

December 1, 2005 (5:30 pm)

Opening/Introductions

Club Business Items

- Secretary / Minutes (Bob MacFarland)
- Treasurer's Report (Gordon Hansen)

Tech Talk - Astro Photo Contest (Jim Frisbie)

Presentation - Astro Equipment Show & Tell
(John Kirchoff)

Club Projects / Committees / Member support

- Mars Observing Events (Don Klaser)
- Pop Management (Don Klaser)
- Astro Imaging SIG (Jim Frisbie)
- Meeting Location Change for January
- 2006 Officer Election (Don Klaser)
- Ice Daze at Lk. Erie Metro Park
- 2006 Program Presenters (Don Klaser)
- Walk-ins

Minutes - October Meeting

Bob MacFarland

Don Klaser opened the meeting at 5:30 pm by welcoming everyone including **Derek Maxey** a first time visitor. 29 members and visitors were in attendance. **Garry Stahl, Jim Frisbee, Chuck Jones, Garry Strumolo**, **Ed Halash** and **Tony Licata** reported on their recent observing experiences. **Tony** passed around some of his latest astro photographs for everyone to see.

The normal meeting format was altered to first cover club business and then move for a showing of the Fall sky program at the planetarium.

The September meeting minutes were accepted without comment. **Gordon Hansen** reported out on the status of the treasury. (See his detailed report elsewhere in this newsletter.).

Don Klaser reported that a he and few other volunteers had set up their scopes outside the Henry Ford IMAX Theatre on Tuesday, October 25th. Some 60 students from the Columbus, Ohio area were staying overnight at the museum and had a great time viewing the moon and other objects through the club members' scopes**.**

Jim Frisbie reported that the Astro-Imaging SIG plans to meet at 5:30 pm on November 10th in the HFCC Administrative Services and Conference Center building (same room used for the general meetings). **Tony Licata who** will be sharing his Photoshop software tricks. Members are encouraged to enter their favorite photographs in the Fall Astro Imaging contest - deadline on November 15th for beginner, intermediate and advanced ... (details elsewhere in this issue).

Gordon Hansen reported that roughly 50% of the membership has joined the FAAC Yahoo discussion group. **Dale Ochalek** asked for article submissions for the next Star Stuff issues and also reminded everyone that the new member newsletter delivery default is now through the web page. All members who have internet access and are still having the Star Stuff mailed to their homes are encouraged to switch from the hard copy format to the electronic download method (www.boonhill.net/faac/starstuff/index.html) to help reduce the mailing costs and volunteer handling time.

Club librarian, **Garry Stahl**, reminded all to contact him one week before the general meeting to borrow a book, and he will bring it to the meeting. **Susan Stahl** maintains the listing of the books and other media. The list can be viewed or downloaded by members who join the FAAC Yahoo group (look in the Files section), by leaving a message on the FAAC hotline at 313-390-5456 or by e-mailing desral@comcast.com.

Diane Worth asked for the donation of your old Astronomy and Sky & Telescope magazines, or photographs to use as inserts to her new member hospitality packets.

Don Klaser reported that the club will have 2006 Auto Show tickets for sale at the combined November/December general membership meeting on December 1st.

In addition, the January 26th meeting (and **only the January 26th** meeting) will be held at a different location - the Hackett Conference room H-150 in the Health Careers Building, which is located 2 buildings west of where we normally meet, on the west side of parking lot where we normally park, just west of the Science building. A map of the HFCC Campus can be found at http://www.hfcc.edu/contact/campus_maps.pdf If you approach the Faculty parking lot gate with your car, it should open allowing you to park close to the building. The start time of 5:30 remains the same.

After club business, the meeting adjourned to the HFCC planetarium to see the Fall Night Sky program created by Mike Lopresto. This was the first time that the FAAC's volunteer team lead by **Mike Bruno** was given the opportunity to conduct the program. **Ken Anderson** presented the show under the oversight of HFCC instructor **Steve Murrell.** We sat back and enjoyed a tour of the Fall constellations in the comfort of the planetarium's high backed chairs. In addition, we were treated to the opportunity to ask questions and get visual answers projected on the dome's interior. **Steve** adjusted the projection system to give us a Southern hemispherical view by an automated shift in latitude.

BTW, **Mike Bruno's** team will be giving Fall Sky tours at the planetarium on Tuesday nights throughout the season. Other FAAC members who would like to learn how to run the planetarium and participate in the program should contact Mike Bruno (FAAC Hotline or Yahoo group).

Sky Calendar

Jim Frisbie

December

1	Th	●	New Moon 10:01 am
4	Su		Moon to lower left of Venus- dusk
8	Th	◑	First Quarter Moon 4:36 am
11	Su		Moon close to Mars – dusk
12	Mo		Mercury: Greatest Western Elongation (21 degrees) am
13	Tu		Geminid Meteor Shower peaks
15	Th	○	Full Moon 11:15 am "Cold Moon"
18	Su		Moon to upper left of Saturn
21	We		Winter Solstice 1:35 pm
23	Fr	◑	Last Quarter Moon 2:36 pm
26	Mo		Crescent Moon near Jupiter – dawn
27	Tu		Crescent Moon under Jupiter – dawn
30	Fr	●	New Moon 10:12 pm

All times in Eastern Daylight Time.
This information was obtained from the Henry J. Buhl, Jr. Planetarium in Pittsburg, PA.

Mars in Hindsight

This image is offered by John Kirchhoff, taken October 29.

Treasurer's Report

Gordon Hansen

Bank Accounts		
Checking	$	120.41
Savings	$	2408.86

TOTAL Bank Accounts	**$**	**2529.27**
Cash Accounts		
Cash Account	$	100.49

TOTAL Cash Accounts	**$**	**100.49**
Asset Accounts		
GLAAC	$	626.45
Projector	$	543.97
Scholarship	$	354.60

TOTAL Asset Accounts	**$**	**1525.02**

OVERALL TOTAL	**$**	**4154.78**

January Meeting Site!

Bob MacFarland

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