

The Bulletin – The monthly publication of the Indiana Astronomical Society

November, 2008  
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www.iasindy.org



# The Bulletin

**Note: In the Winter, Beginning in November, we meet at Holcomb Observatory on the Butler Campus**

**The November General Meeting, November 15, 2008 7:00 PM  
Holcomb Observatory**

## **Are we ready for a Mars Sample Return Mission?**

Geologists, biologists, and astronomers are looking for signs of extra-terrestrial life within and beyond our solar system using telescopes, satellites, and rovers. Evidence of life-sustaining processes also is being investigated through molecular and isotopic characterization of carbon compounds in meteorites, comets, and interplanetary dust particles. The current Phoenix mission and the upcoming Mars Science Laboratory mission will carry sophisticated instrument payloads to the surface of Mars for the purpose of analyzing organic molecules in sedimentary strata and ice. These two missions provide a scientific and engineering framework for a flagship mission around 2022 with the goal of collecting and returning samples from Mars to Earth for study. We have found life thriving at extremes of temperature, acidity, and salinity on Earth, leading to a new recognition of life's tenacity and invigorating the search for extra-terrestrial life. Data coming from the current orbiting and roving instruments provide many lines of evidence for persistent surface water on ancient Mars and intermittent surface water on present-day Mars. Remarkably, it may be too late to fully protect Mars from contamination by Earth organisms but improved decontamination and sterilization of spacecraft will help preserve natural conditions at Martian sites with the highest potential for habitability.

Dr. Lisa M. Pratt is a Professor of Geological Sciences at Indiana University and she is Director of a NASA Astrobiology Team entitled Biosustaining Energy and Nutrient Cycles in the Deep Subsurface of Earth and Mars. She has published more than 80 papers in scientific journals. Pratt's collaborative research with Tullis Onstott (Princeton University) on radiolysis of water as a source of energy for microbes has been highlighted worldwide by newspaper, magazine, and radio interviews. She currently serves on the NASA Planetary Science Subcommittee and she will be a Phi Beta Kappa Visiting scholar in 2009-2010.

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## **Hog Roast a Great Success**

Perfect weather! Perfect food! Perfect friends! Great conversation! We were celebrating the 75<sup>th</sup> anniversary of the Society and man did we celebrate. Thanks to Mike Kirsch's cooking and all

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the side dishes and desserts we had a ball. That just about describes the hog roast this year. They say that a picture is worth a thousand words.



We had no agenda other than to have fun. We talked and talked and talked. After words we had a grand door prize giveaway. The Society had solicited prizes from Camera Concepts, Sky and Telescope and Orion Telescopes. Members also graciously contributed to the door prizes. Thanks to all.

The Society had a special anniversary lapel pin designed to commemorate our celebration. All current members and new members for 2008 will receive the pin. Additional pins may be purchased for \$5.00. If you did not receive a pin please contact Vicki Switzer or Jeff Patterson to arrange for getting yours.

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## **Nominations Committee**

The Board has appointed Jeff Patterson (KB9SRB@Comcast.net), John Molt (1stargazer@indy.rr.com), and John Switzer (jswitzer42@verizon.net) to act as the nominations committee for this years elections. Please contact them if you are interested in running for office this year or if you know someone who would be a good candidate.

*The Pres*

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## **Elections are Coming**

It is time to begin thinking about elections again in earnest. Our elections will be held in December. There will be two Board members up for election as well as the four officers. I urge you to consider running for office. If you would like to be a part of the governing body of the Society and help steer the direction of the Society please see one of the members of the Nominations committee . This looks like it may be another exciting year in our history. If you would like to act as one of the appointed coordinators please let us know as well.

### Duties of the Officers:

(1) Except as provided by these bylaws or required by law, the entire control of the Society and its affairs shall be vested in the Board of Directors.

(2) The Board of Directors shall consist of seven (7) members elected from and by the membership at large. In addition, each Executive Officer shall be a voting member of the Board during their terms of office. In the event of a tie vote upon any matter, the President of the Society shall cast a second vote to break the tie.

(3) The age requirement for members of the Board of Directors and Executive Officers shall be 18 years or older.

(4) A member of the Board of Directors or an Executive Officer may be re-elected after their term of office expires.

(5) If a vacancy occurs in any office for any reason, including failure to attend meetings, the Board of Directors shall elect a member of the Society to fill the unexpired term of the vacant office. Failure by a Director to attend six (6) meetings of the Board of Directors during any twelve (12) month period may constitute a vacancy at the discretion of the Board.

(6) At each December meeting, here designated as the "Annual Meeting," the Directors shall be elected by the membership to succeed those whose terms expire.

(7) The Executive Officers of the Society shall be President, Vice President, Secretary, and Treasurer, all of whom shall be elected by written ballot or voice vote at the Annual Meeting. The term of office for the executive officers will be for one year starting January 1st of the next year.

(8) No person shall hold more than one Executive Office at a time.

(9) Members of the Board of Directors shall hold office for three years. Their terms shall be staggered so that two directors are elected at each annual meeting, with the exception of a year in which a third director is to be elected.

(10) The President shall preside at all meetings of the members and ensure that the purposes of the meeting are accomplished. The President shall annually nominate the Editor of the monthly newsletter (*The Bulletin*), the Web Supervisor of the official website, the Associate Web Supervisor, the Observatory Manager, the Loaner Program Coordinator, the Public Events Coordinator, the Librarian and the Astronomical League Correspondent. The nominations will be ratified by the Board of Directors. The President will be responsible for communication with Indiana University.

(11) The Vice President shall preside in the absence of the President and shall act as Program Coordinator. The Vice president's principal responsibility is to obtain speakers or to develop a specific program for each of the general meetings.

(12) The Board of Directors shall compile and approve an annual inventory report showing the whole amount of real and personal property owned by the Society. The report shall be presented to the President at the January Board meeting. The Secretary shall file the report with the Society's records.

(13) The Secretary shall keep minutes of all Business/Board meetings, initiate such Society correspondence as shall be directed to the Secretary, and ensure that records of the Society's business are maintained in permanent form.

(14) **(Note: We are modifying the duties of the Treasurer and off loading some of them to the Membership Coordinator)** The Treasurer shall be responsible for all monies belonging to the Society. The Treasurer shall collect dues from the members, keep accurate records of all transactions and hold Society funds ready for disbursement at the order of the Board of Directors. The Treasurer shall also maintain insurance documents, file annual corporate papers as may be required by the Indiana Secretary of State, and prepare and submit all required state and federal tax returns. In addition, the Treasurer shall update and maintain membership, Friends of the Society and IAS Astronomical League databases.

(15) The Board of Directors and Executive Officers shall establish official Standard Operating Procedures (SOPS) for operation of the Link Observatory, to clarify the requirements of these bylaws, detail

agreements between the Society and other parties and to comply with any city, state, or federal rules or regulations. These procedures may be altered by the Board of Directors without a general members' vote. Such operating procedures shall be filed with the Society's records and shall be posted where deemed appropriate.

(16) The Observatory Manager shall be responsible for routine management of the Link Observatory. The Observatory Manager shall maintain an inventory of the IAS property at the observatory and schedule the use of the Link Observatory facilities. It is the Observatory Manager's responsibility to notify the President of any situation at the Link Observatory that requires the attention of Indiana University. The Observatory Manager is responsible for the security of the keys he holds for the Society, accounting for all keys issued to the Society, reporting of the status of the keys to the Board and issuance of keys in accordance with the directions of the Board.

(17) The Editor of *The Bulletin* shall be responsible for publishing the monthly newsletter. The electronic copy is to be transferred to the Web Supervisor for placement on the website. The Editor of *The Bulletin* shall be responsible for printing and mailing copies of *The Bulletin* to members who have designated that they prefer "hard copies" and to Friends of the Society. It is the Editor's responsibility to maintain a high level of excellence in *The Bulletin*.

(18) The Web Supervisor shall be responsible for the operation and maintenance of the IAS website at the highest level of excellence. The Associate Web Supervisor shall assist the Web-Supervisor in their duties and know the system well enough to act as Web-Supervisor if needed.

(19) The Librarian shall be responsible for the Society's library including the maintenance of an inventory of all media, and check in/out records for the Society. The Librarian shall be responsible for recommendations to the Board for additional media.

(20) The Loaner Program Coordinator shall be responsible for maintaining the loaner equipment and overseeing loan activities.

(21) The Public Events Coordinator is responsible for evaluating, scheduling and coordinating events requested by public and private institutions and individuals.

(22) The Astronomical League Correspondent (ALCor) shall serve as the Society's contact person for Astronomical League matters. The ALCor will coordinate with the Treasurer to ensure that membership rosters are sent to the League in accordance

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with Astronomical League procedures. The ALCor is also responsible for communicating League benefits and programs to the Society's members.

As a collateral duty, the ALCor shall serve as the Society's Awards Coordinator (AC) for the League. The Awards Coordinator will carry out these duties in accordance with directives from the Astronomical League National Observation Program Coordinator.

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### **Librarian**

Regretfully, Larry Marcus has informed the Board that due to other obligations, he can no longer act as the Librarian. We want to thank Larry for all that he has done to promote the library and organizing it. If you would like to serve as Librarian, please contact me.

*The Pres*

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### **Membership Coordinator**

The Board has appointed Vicki Switzer as our new membership coordinator. The position was developed to move some of the responsibilities of the Treasurer to a coordinator for new members. Membership retention will be a focus in 2009. We need to serve our new members better.

*The Pres*

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### **IAS Calendar of Events for November**

**November 15 - General meeting at Holcomb Observatory\**

**November 17 Board Meeting**

**November 29 General Observing at Link weather permitting**

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### **Upcoming Star Parties and Registrations**

**Winter Star Party** – February 21-28, 2008- Registration has opened. Tickets are generally available on Astromart and elsewhere.. Check [www.scas.org](http://www.scas.org) or call the registrar at 386-362-5995. This party is always sold out and you need to get a ticket early. This is a premium party and the weather is generally fantastic in the Florida Keyes in February.

**Smokey Mountain Stargaze** Just outside Smokey Mountain National Park - TBD. This is a new party. Should be pretty that time of year.

<http://www.smokymtstargaze.com/index.php>

**Tennessee Spring Star Party** - Fall Creek Falls State Park      TBD

<http://www.personal.bna.bellsouth.net/s/p/spsmith/default.htm>

**Mid-South Stargaze**      TBD

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The Observatory is one mile southeast of the Natchez Trace Parkway at French Camp. French Camp is about half-way between Jackson and Tupelo, Mississippi, at Natchez Trace mile marker 181. Mississippi <http://www.rainwaterobservatory.org/stargaze/index.htm>

**Indiana Astronomy Day** (IAS/PGO) - TBD  
<http://jmmahony.home.insightbb.com/pgo/schedule.html>

**Apollo Rendezvous** – Dayton, Ohio June 12-13,2009  
<http://mvas.org>

**Texas Star Party** West Texas April 19-26,2009. This is a premier party with very dark skies and a great site. Just a long way. Online registration will open November 15.  
[www.texasstarparty.org](http://www.texasstarparty.org)

**Tennessee Spring Star Party** – April 24-26, 2009

**Cherry Springs Star Party** Cherry Springs State Park, PA June 18-21, 2009  
<http://www.astrohbg.org/s4>

**Heart of America Star Party MO** October 15-18. 2009  
<http://www.hoasp.org/>

**Nebraska Star Party** – July 19-24, 2009- North Central Nebraska - This is a premier dark site and has fantastic observing. However, the weather is brutal. Temperatures can reach 105-110 degrees. However you can cool off in the shade of the tree. All activities will be at the Snake Creek Campground again this year. (I wonder why they call it Snake Creek). No activities will be at the resort. <http://www.nebraskastarparty.org/>

**EPOCH 2007** The 21st Century Midwest Star Party July 21-26, 2009  
Beaver City, Indiana. This is a new star party put on by 20-20 Telescopes.  
<http://www.2020telescopes.com/EPOCH2007.html>

**JEPC Star Gazing Event** IL Date To be announced  
<http://www.mikewolford.com/IEPC%20Event.htm>

**Indiana Family Star Party** Camp Cullum, Frankfort, IN July 23-26, 2009  
<http://jmmahony.home.insightbb.com/pgo/starparty/>

**Black Forest Star Party** PA Date To be announced  
<http://www.bfsp.org/starparty/>

**Twin Lakes Star Party** – October 15-18, 2009  
This is an excellent star party located in western Kentucky. One not to miss  
If you know of events coming up let me know and I will get them in the Bulletin

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## ALCor News

### Choosing Binoculars for Astronomical Observing

Your first concern when considering the purchase of binoculars for astronomical observing is the age and condition of your own eyes. Matching the binocular characteristics with your eyes will make a significant difference in your ability to see faint objects and detail.

First, consider the size of your pupils, that black dot in the center of your iris. Have a friend measure your pupil in dim light or use one of those measuring devices that you can hold in front of your eye. A young person's pupils can be up to 7mm in diameter, whereas, an older person's pupils will be significantly smaller. For example, at age 70, my pupils only open up to around 3.5mm in dim light. A smaller pupil reduces the amount of light that can be transmitted to the sensory organs in the eye. For maximum light transmission we would want the exit pupil of the binocular to be similar to our pupil size so that all of the light gathered by the objective lenses enters the eye. Exit pupil is calculated by dividing the diameter of the objective lenses in mm by the magnification. For example, standard military issue 7X50 binoculars are designed with the young serviceperson in mind and have 7mm exit pupils. All of the light transmitted via the 7mm exit pupils can enter the young person's eyes. At a star party in Nebraska several years ago, I discovered that I could see more dim objects and detail through my 9X35s than I could with my trusty old 7X50s. The reason, 75% of the light from the 7X50's exit pupils could not enter my old eyes and was wasted. By contrast, my 9X35 hunting binoculars have 4mm exit pupils and almost all of the light enters my eyes.

If you wear eyeglasses to compensate for astigmatism, round things look oval or worse, you will need a binocular with 15 to 20mm of eye relief and fold down eyecups. This will allow you to place your glasses on the folded eyecups and see the full field of view.

As for power, 7 to 10X can be hand held. 15X and higher will require some sort of mount to steady the view sufficiently to see detail. Here's where those "stabilized" binos come into their own.

With binoculars, as usual, you get what you pay for so here are a few pointers on what to look for: For astronomical viewing you will want binoculars that have a deep green coating on the lenses. Those yellow and amber objectives are to improve contrast during daylight events like hunting so they won't do. The best binoculars are coated on all air-glass interfaces. Quality multi-coatings maximize the amount of light that passes through the lens. An uncoated lens surface passes only 95% of the light that hits it. 5% is lost due to reflection and scattering. A single-coated lens surface is more efficient, passing 98-99% of the light. A multi-coated lens surface is the most efficient, passing about 99.5% of the light. Binoculars have many air-to-glass surfaces (between 14 and 22 for each side), so the number of uncoated, single-coated, and multi-coated surfaces can make a huge difference in overall efficiency. For example, .95 to the 14<sup>th</sup> power equals only a 49% light through-put whereas .995 to the 14<sup>th</sup> power equals 93% through-put, a big difference! To check out the coatings, look into the objective lenses with a bright white light behind you. Deep green reflections are from multicoated lenses, light blue from single coated lenses and white reflections are from uncoated lenses. This information is courtesy of Oberwerk.

The prisms in binoculars turn what would otherwise be an upside-down image right-side up. There are two main types of prism systems: porro prisms and roof prisms. Porro prisms are easier to align precisely at the factory, so porro-prism binoculars cost less for a given size. Roof prism binoculars have a more streamlined shape, but the roof prisms lose slightly more light to reflection than porro prisms. That's a disadvantage for astronomical use but not a concern for daytime viewing.



Prisms made from BAK4 glass give the best performance across the entire field of view. Less-expensive BK-7 prisms create darkening of the image near the edges of the field of view.  
ALCor Observations by Bill Conner

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## Observer's Corner

STARGAZER #491 for Nov. 1, 2008

### **When Will Humans Return to the Moon, and Beyond?**

Each year I present dozens of astronomy programs and classes, and I'm often asked--by adults and youngsters alike--about the future of humans in space. Many know we maintain a small crew in the Earth-orbiting International Space Station, but most (including myself) find that less than satisfying.

What they really want to know is: When will humans return to the Moon, and when will we send humans to Mars and beyond? Here's the official answer. In 2004, the Bush administration set a goal of having humans on the Moon by as early as 2015 and no later than 2020. Unfortunately, it's easy to set goals others will have to achieve. NASA chief Michael Griffin said in 2007, "Space travel is going to be expensive, difficult, and dangerous."

So the question of space exploration really involves at least three more fundamental questions relating to science and technology, affordability, and priorities. Without pretending to be an expert, I'll offer some ideas, and I welcome hearing yours. If we can get a dialogue going, I'll create a page on my Website and post your responses.

First, do we have the science and technology? Probably. In 1957, when Russia launched Sputnik 1 and 2, U.S. rockets were still blowing up on the launchpad. Yet in 1969, a mere 12 years later, U.S. Astronauts Neil Armstrong and Buzz Aldrin walked on the Moon. So surely we could be back on the Moon by 2015.

However, I doubt we will, and maybe not even by 2020--but not for lack of science and technology. Space travel is expensive. Even assuming our current national and world economic crisis won't be prolonged, can we afford to send humans to the Moon and beyond? When we went to the Moon in the 1960s we were also financing the Viet Nam war and the social programs of the Great Society. So can we afford it? Probably--if we have the resolve.

Which, I think, brings us to the fundamental issue: Where does human space exploration rank among our priorities? Many say such an effort will be too expensive for any one nation, and will have to be multinational. Yet the demands on our finite resources are myriad--poverty, disease, famine, energy, wars, deteriorating infrastructures, to name but some on an overwhelming list.

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Few would put space exploration as a top priority, yet I wonder if we can afford NOT to keep it prominently on the list. I welcome your ideas.

**Next Two Weeks.** Avg. sunrise: 6:50 a.m.; avg. sunset: 5:34 p.m. (both CST, exact for Waco, TX). Tonight a crescent Moon is to the upper left of Venus. Wed. morning, the Southern Taurid meteor shower peaks with best viewing after the Moon sets at midnight. The Nov. 13 full Moon is called the Frosty Moon and Beaver Moon.

**Naked-eye Planets.** (*The Sun, Moon and planets rise in the east and set in the west due to Earth's west-to-east rotation.*) **Evening:** Venus is the brilliant "evening star" in the west with Jupiter the bright object higher in the southwest. **Morning:** As dawn breaks Saturn is well up in the east as Mercury hovers near the eastern horizon.

**Time Change.** Before retiring tonight, set your clocks back 1 hour ("fall back") to Standard Time. [Remember the old Stargazer adage: When you set your clocks back, you repeat that hour. Thus whatever you thought you did during the previous hour really didn't happen. So you can relive it...and get it right this time, OK?]

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Stargazer appears every other week in the *Waco Tribune-Herald* and other Texas newspapers. Paul Derrick is an amateur astronomer who lives in Waco. Write him at 918 N. 30th St., Waco, TX 76707, call or fax at (254) 753-6920, or e-mail at [paulderrickwaco@aol.com](mailto:paulderrickwaco@aol.com).

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Meteor Showers: Three classic meteor showers occur in the month of November. The South Taurids will produce a handful of meteors an hour, with a peak occurring around 1-2 AM on November 4th or 5th. The North Taurids will peak on November 11th or 12th, but will be washed out by the almost full moon. Likewise, the often spectacular Leonids will peak on November 17th, but will likely be completely washed out by the waning gibbous moon this year. For more information, see <http://www.earthsky.org/article/earth-skys-meteor-guide-for-2008>.

## **Link Activities for November:**

General Observing November 22

## **McCloud Activities for November–**

None planned

## **Observing Activities**

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We are able to go to the Link, Prairie Grass Observatories and McCloud Nature Park at non scheduled times if they do not conflict with reserved activities:

For those interested in going to The Link Observatories for observing call Gary Schoppenhorst 1 317 297-1405.

For those interested in going to Prairie Grass Observatories for observing call Hoppe at 1-765-296-2753.

For those interested in going to McCloud to observe, please call the park caretaker, Jim Holtsclaw, at the park office 765 676 5490 before 4PM on the day you want to go out. He will give you permission to be there at night and cut off the lights.

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### Recent New Members

Seek out these new members and welcome them and see if there is anything they need.

Chris	Chambers
James	Fisk
Kevin	Fisk
Jeff	Licquia
Joe	Marek
Reino	Mattson
Gregory	McCauley
Walter	Schroeder
Rob	Stokes
Arvel	Turner

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### IAS LIBRARY:

Our complete list can be found (<http://www.iasindy.org/memonly/iasfiles.php>, which is password protected).

Larry A. Marcus

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### IU Kirkwood Observatory

The Observatory will be open every Wednesday night, weather permitting, until November, 2008. Please visit our schedule at [http://www.astro.indiana.edu/kirk\\_sch.shtml](http://www.astro.indiana.edu/kirk_sch.shtml), for a list of dates and times. For updated weather conditions and closings, please call the Kirkwood Observatory Hotline at (812) 855-7736.

The IU Astronomy Department has an electronic bulletin to let people know about local astronomy activities and events. If you would like to subscribe, send an email to

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[astdept@indiana.edu](mailto:astdept@indiana.edu) and we'll put you on the distribution list. Information about activities and events to be included in the e-bulletin should be sent to [catyp@astro.indiana.edu](mailto:catyp@astro.indiana.edu).

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## Easy Listening:

Weekly podcasts are available at <http://www.astronomycast.com/> for those who love astronomy and want to learn, yet have no time (or desire) to do extra reading. They cover a variety of topics, and feature a different topic each week, so you can choose your flavor. The cast includes Fraser Cain, the publisher of Universe Today (<http://www.universetoday.com/>), and Dr. Pamela Gay, an assistant professor of physics at Southern Illinois University Edwardsville. You do not need an iPod or portable device to enjoy these.

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## Mentor Program

We are reinstating the mentor program which will provide the new member with lots of information and help them assimilate into the Society. Thad Hatchett has volunteered to lead this program. We need your help. If you are interested in becoming a mentor please contact me at Jeff Patterson [KB9SRB@hotmail.com](mailto:KB9SRB@hotmail.com) or Thad Hatchett at [astronomynut@sbcglobal.net](mailto:astronomynut@sbcglobal.net). We will put your name on the list and assign a new person to you. Our goal is to retain people and make this hobby a lot more fun.

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## Public Outreach Programs

Gerald Venne is our Public Events Coordinator. He will be responsible for coordinating Public Events for the IAS. He needs your help. Let Gerald know if you would like to show the public our sky.

We need people to help at Link and elsewhere. It is actually a lot of fun.

To schedule a public event contact Gerald Venne 1 317 826-2680 or Jeff Patterson at 1-317 882-8055.

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## Astro Ads

Are you changing or upgrading your equipment? Do you have or are you looking for astronomical materials and equipment? The Indiana Astronomical Society as a service to its members, will publish non-commercial ads at no charge. The ad will stay in the Bulletin for 4 months and may be renewed at the owner's request.

### To place an ad contact:

Bulletin Editor

Jeff Patterson  
1780 S. Morgantown Rd.

Greenwood, IN 46143  
(317) 300-0449

E-Mail: [KB9SRB@Hotmail.com](mailto:KB9SRB@Hotmail.com)

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**For Sale** - I have a Orion Space Probe 130 mm focal length F/7.0 brand new about 5 months old used about 5 times. Comes with a protective case. 10mm 25mm with a 3x barlow, a solar filter for the sun, a moon filter 25% all filters are still in original boxes and a laser collimator. I have about 600.00 invested into it or more all bought from Orion company still under warranty. Asking 400.00 great for someone just starting out Chris Mendoza 317 731-4241 or my cell 317 654-9871

**For Sale** - Astronomy photographic prints for sale. The prints are displayed at <http://www.dougsastro.net>. 12" X 18" prints are \$25.00 and 8" X 12" are \$15.00. All of the images were taken by Doug Sanquetti. Most were taken locally near Cicero, IN but a few were taken at Star Parties. Any print on the web site may be ordered by contacting Doug at [drsanqun@gmail.com](mailto:drsanqun@gmail.com)

**For Sale** – Celestron 102mm F/5 acromat OTA. I purchased this scope to use as a finder but really do not use it. It would make a great first scope. \$175 Jeff Patterson [kb9srb@hotmail.com](mailto:kb9srb@hotmail.com) or 317 506-0325.

**For Sale** – Tele-Vue Gibraltar mount and ash tripod. This is the older style but is in good shape and makes a fine alt/az mount. \$400 Jeff Patterson [kb9srb@hotmail.com](mailto:kb9srb@hotmail.com) or 317 506-0325.

**For Sale** – Losmandy GM-8 mount and tripod. I have added a G-11 saddle that takes the Losmandy D dovetails. In addition I have the Losmandy tube extension that makes it a nice for use with refractors. Includes a Losmandy polar alignment scope. The mount is about a 1990 model and drives well and is in pristine shape. \$1200 Jeff Patterson [kb9srb@hotmail.com](mailto:kb9srb@hotmail.com) or 317 506=0325.

**For Sale:** Large Format prints from YOUR digital astrophotographs. I got tired of taking my favorite digital astrophoto to a “big box” office supply store and getting back a large format image that had subjective colors on a brown background. So I bought my own printer! I will print your astrophotographs on glossy or matte paper stock or on glossy or matte canvas stock up to 44 inches wide by virtually any length. The printer has a built in spectrophotometer that guarantees the color recorded in the digital file is the color that will print. I am an astrophotographer and know what astrophotographs are supposed to look like. I will print astrophotos for any member of the ISA for \$8 per square foot on paper stock and \$15 per square foot on canvas stock. Minimum order is 2 square feet. Actual shipping charges are added for USPS or FedEx. My discount for FedEx is about 70% off list. Contact me at [starkey73@mchsi.com](mailto:starkey73@mchsi.com) to submit digital images and ask any questions. The invoice accompanies the shipment. Payment is due upon receipt of the print. If you don't like, don't pay for it. Personal checks are accepted.

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## Onions and Orchids

Thanks to Angie Molt and Tom Borlik for planning the Hog Roast  
Thanks to Mike Kirsch for cooking a perfect hog roast

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## **The Loaner Program**

The Loaner Program has been helpful to those new to the hobby and others in need of observing equipment. We consider offers of equipment you may not have need for any longer.

Did you know you can borrow a scope or piece of astronomy equipment from the Society and take it for a test drive? The Society has a program where members who are trying to determine what kind of equipment to buy can borrow one of the Society's scopes for a month or two and see how they like it. John Molt is the chairman of the program and can arrange for your pickup and training on the use of the particular instrument. This is a great way to see what telescope you want to purchase. We have several scopes, eyepieces and binoculars to loan.

John Molt ([1stargazer@indy.rr.com](mailto:1stargazer@indy.rr.com)) or (317) 989-1875

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## **List Server Online - Don't be left in the cold - Sign up!**

This service is our main communication tool. The list server is in the "Members Only" section of the site and is accessible only by IAS members. Make sure we have your correct e-mail and you will have access for late updates to events and functions.

Being a member does **not** mean you are automatically entered into the "Members Only" section and the have the List Serve available. If you are a new member please go to the "Members Only" section and fill out an application. Also within the Members only section you will find aa application for the List serve. The webmaster will set you up and notify you that you can get into the system.

Note: The list server is for use of Society business. It can only be used according to the rules as outlined previously. Basically it is used to communicate astronomical information to the general Society that would be unique. Please do not send out information from websites that we all generally subscribe to. Also please note: Do not add the list server address to your general address lists. Our problems have generally come from this when a member sends out mail to all their addressees. Members abusing the service will be eliminated from the service.

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## **Board Meeting – Board Meeting November 18, 2008**

The IAS Board Meeting is being held at 430 Massachusetts Avenue in downtown Indianapolis. The building is at the point of convergence of Mass. Ave., Vermont and Alabama Streets. There is a Starbucks located in the frontage of the building. The coffee shop stays open late into the evening. Try to park as close to Starbucks as possible, preferably in a metered space. On-street parking is free after 5pm. Handicapped parking is directly in front of Starbucks entrance. The main entrance to the building is to the right of Starbucks. We meet in the basement. Ride the elevator (around the corner to your left) to the basement. Turn right as you exit the elevator and go through the first door on your right. This is the conference/meeting room. If you need further assistance, please contact Brian P. Murphy, IAS Vice-President on his cell phone 716-8124.

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## **General Meeting Dates 2008 and 2009**

December 20 Christmas Party at Holcomb Observatory

NAG

General

Board

The Bulletin – The monthly publication of the Indiana Astronomical Society

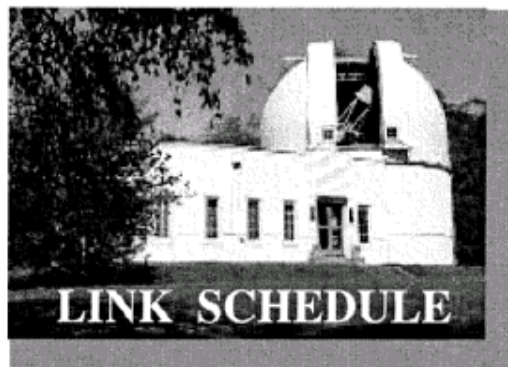
January		17-Jan	19-Jan
February		14-Feb	17-Feb
March		14-Mar	17-Mar
April		18-Apr	21-Apr
May	2-May	16-May	19-May
	30-May		
June	27-Jun	13-Jun	16-Jun
July	25-Jul	11-Jul	14-Jul
August	22-Aug	8-Aug	11-Aug
September	26-Sep	12-Sep	15-Sep
October		10-Oct	13-Oct
November		7-Nov	10-Nov
December		12-Dec	15-Dec

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## Goethe Link Observatory Observatory Address

**Goethe Link Observatory  
8403 N. Observatory Lane  
Martinsville, IN 46151**

**Observatory 's Phone:  
(317) 831-0668**



This schedule is being published to assure proper access to the Link Observatory for programs that are designed as observational, general education, astronomy conferences or amateur research projects. Training programs are tentatively scheduled for Saturday evenings only. Although other requests can over-ride these sessions. It is the purpose of this listing to prevent activity conflicts.

If you need to acquire use of the 36-inch telescope: remember two important IAS guidelines: 1) *There has to be two or more IAS members present.....* 2) *contact the Observatory Manager: Gary Schoppenhorst (317)297-1405. DON'T WAIT UNTIL THE LAST MINUTE TO MAKE YOUR REQUEST OR YOU MAY NOT GET ACCESS.*

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## Bulletin Stats

### Accessing the Bulletin

The current bulletin can be found on the website [www.iasindy.org](http://www.iasindy.org)

### **Bulletin - Bulletin deadline on the 20th of every month**

The monthly newsletter welcomes articles of local astronomical interest information and want ads:

Please submit to

The Indiana Astronomical Society, Inc

The Bulletin – The monthly publication of the Indiana Astronomical Society

Jeff Patterson, editor  
1780 S. Morgantown Rd  
Greenwood, IN 46143  
Phone: (317) 300-0449  
[KB9SRB@hotmail.com](mailto:KB9SRB@hotmail.com)

### **Membership information**

Contact any IAS officer or the Treasurer  
John Shepherd (317) 862-3442

### **Link Observatory**

Latitude: 39 degrees, 33 minutes North  
Longitude: 86 degrees, 24 minutes West  
Phone: (317) 831-0668  
IAS Internet address  
<http://www.iasindy.org>

### **Executive Officers**

President: Jeff Patterson (317) 300-0449  
Vice-President and Program Director: Doug Brown (317) 872-4050  
Secretary: Betsy Brown 1-317-872-4050  
Treasurer: John Shepherd (317) 862-3442

### **Board of Directors**

Gary Schoppenhorst (2009)  
Gerald Venne (2009)  
Tom Borlik (2010)  
John Switzer (2010)

Ron Burgess (2010)  
Marion Hakes (2008)  
John Molt (2008)

### **Public Event Coordinator**

Gerald Venne [gvenne@iquest.net](mailto:gvenne@iquest.net) 1 317 826-2680

### **Library Committee Coordinator**

Larry Marcus [marcus@mwmacoustics.com](mailto:marcus@mwmacoustics.com) 317 842-6658

### **Astronomical League Coordinator**

Bill Conner [wmtconner@sbcglobal.net](mailto:wmtconner@sbcglobal.net) 1-812 828-0449



### November Calendar, 2008

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5 1 <sup>st</sup> QTR ☾	6	7	8
9	10	11	12	13 Full Moon ○	14	15 General Meeting at Butler
16	17	18	19 3 <sup>rd</sup> QTR ☾	20	21	22 General Observing At Link
23	24	25	26	27 New Moon ●	28	29 Observing at Link Weather permitting
30						

## Membership Application to the IAS

### Benefits:

- Use of the Goethe Link Observatory
- Formal monthly programs with guest speakers
- Local and regional astronomical functions
- Discounted Astronomy publications
- New Moon observing activities
- Access to IAS member experts and problem solving
- The Bulletin monthly newsletter
- Membership in the Astronomical League
- Free admission to the Holcomb planetarium
- Star party events and observing sessions

Please mark whether this is a new or renewal application

New

Renewal

Note: Magazine subscription renewals forms and payment must be submitted to the Treasurer in order to maintain publisher's club discount.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

Telephone: ( ) \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

How do you want to receive the IAS monthly newsletter?

Downloadable from Website  Hard Copy\*

\* Please note that hard copy costs the Society about \$1.50 per issue. Please consider this when selecting mode of receiving the newsletter.

The Bulletin – The monthly publication of the Indiana Astronomical Society

Annual Regular Membership (\$30.00)	
Annual Student Membership (\$10.00)	
Astronomy Magazine Renewal (\$34.00)	
Sky and Telescope Magazine (\$33.00) (New Subscription)	
Total Enclosed	

Make checks payable to: The Indiana Astronomical Society, Inc

Please complete Member Profile and include with the application

Mail Application to: John Shepherd, Treasurer

4609 Callahan St.

Indianapolis, IN 46239

Member Profile

Spouses Name: \_\_\_\_\_

Children's names and ages: \_\_\_\_\_

Education: \_\_\_\_\_

Occupation: \_\_\_\_\_

How many years associated with Astronomy? \_\_\_\_\_

Special astronomical interests or projects: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

-

Equipment: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

What can the Society do for you? \_\_\_\_\_

\_\_\_\_\_

What can you do for the Society? \_\_\_\_\_

\_\_\_\_\_

Note: Profile information is not a requirement for membership to the Society. This information is entered into the IAS database and is not given nor sold for solicitation purposes. It does provide for a brief welcoming article for new members and may be used by the society to match people with similar interests.