

Monthly Publication of the Indiana Astronomical Society

September, 2004
Volume 71, Issue 9
www.iasindy.org



The Bulletin

The September General Meeting Has Been Moved!!!!

September General Meeting – September 11 general meeting has been moved to McCloud Nature Preserve as the IAS is having a star party Sept 10-12.

Speaking of Star Parties We're havin' us a star party (for the IAS)!!

Article by Jeff Patterson and Mike Wolford

We are on for the first (annual?) “**McCloud Under the Stars Party**”!! Mark your calendars for the weekend of September 10, 11, and 12. We have special permission from the park board to be able to camp for the weekend. They have a nice shaded area for camping. Come on out, the skies are great! There really **IS** a little dipper, and Draco's tail B swoop down between the dippers!!!

There will be a pitch-in picnic late Saturday afternoon, followed by September's monthly general meeting on Saturday evening in “The Hanger”.

Oh, the cost –The cost is free to the IAS. We are booked at the park as “programming”. The way that I understand this is that we have acquired our special permission, because we will be presenting “programs” to the public. That is it --- that is all that coming out for the weekend will cost you --- simply share a view and entertain the public. In the past, most folks are gone by ten in the evening, leaving us alone to enjoy the sky with little interruption.

We are planning “impromptu” talks as the curious may (or not) gather during the day on Saturday. I am thinking about simple “How to find the North Star”, “Take a look at the Sun”, type of five or ten minute topics. Bring your solar viewing equipment to show the visitors the wonders of the sun as well.

Plan to arrive by 5 PM on Friday evening to find a campsite and set up, Saturday the general meeting will be at 7PM as usual in a covered area called the hanger.

The Bulletin The monthly publication of the Indiana Astronomical Society

See the website for directions to get to the park.

If you have questions contact Mike mwolford@ccrtc.com

Indiana Family Star Party

Article by Jeff Patterson

Well the second annual Indiana Family Star Party is under our belts. I believe it was a great success. We had 99 registrants and of those I believe we had 33 IAS members. Good turnout. The weather was beautiful for camping and we even got in a little observing for a change. We still had clouds but I personally got in about 5 hours of observing. WVAS 28" Starmaster arrived Friday afternoon and was the hit of the show. I hope that next year we can do it again and hopefully have more clear skies. I encourage everyone to mark this one on your calendar. It is close, fairly dark for Indiana and easy.

Thanks to Bill Conner and the crew from the IAS that worked the registration desk. Thanks guys it was great and we appreciate the effort.

Member Brochure Cover Contest

The IAS has in the past provided a starter kit for its new members. Included in this kit was a brochure introducing the Society and provided a basic outline on astronomy. Over the years since 1988, the information describing the Society has changed and the much needed update seemed necessary. The Society wants to get back into the practice of distributing the "Starter Kit" to new members. Therefore, IAS astronomers and their family members are invited to participate and create an illustration to replace the old "new member brochure" cover, as shown with this article. A suggested theme of the cover illustration could be about Hoosier Astronomy, but this particular theme is not a requirement. Obviously the theme should be about astronomy. Members can submit more than one entry. To prevent any biased selection, outside judges will be selected from the art community and their names will be announced later. Keep your artwork as creative as possible - something different is needed.

Please submit your original entries to: IAS COVER CONTEST, 3820 E. WILSON DRIVE, MOORESVILLE, IN 46158

Questions and other inquiries please contact: J. Philip May at 317-831-8387 or e-mail: motordrive@msn.com

Contest Rules:

- 1. The brochure with its cover will be a 8.5" x 11" vertical publication. The illustration should be proportional in order to take up the entire vertical space.**
- 2. It would be best to create a black/white line drawing with no middle tones.**
- 3. The IAS logo can be inserted into the illustration as long as it is not larger than 1/4 of the entire vertical cover page. The logo is not a requirement. What is a requirement is that you do include the entire wording: The Indiana Astronomical Society, Inc. printed on the cover somewhere and is readable.**

The Bulletin The monthly publication of the Indiana Astronomical Society

- 4. The illustration will be credited to the artist each time it is published. Your name can be included within the illustration to guarantee your creditation. Please do not copyright your artwork as the material will be used for other IAS purposes, such as: flyers, announcements, tri-folds and the monthly newsletter. These are a few of the possible samples of continuing usage. The IAS will copyright the entire publication in order to protect the text and artwork.**
- 5. The size of the final image should be submitted no smaller than on a 5" x 7" format and no larger than on a 11" x 14" format - keeping in mind that the final image size will be printed on a full 8.5" x 11" format.**
- 6. Remember the drawing should be an original piece of art created by the IAS artist. Do not copy other works - this may cause copyright infringement and an embarrassment to the IAS. Stay away from brand name products. Generic illustrations are best. Do not use recognizable people, they may not be around in years to come.**
- 7. Do not include any image illustration that depicts the Goethe Link Observatory. This site is owned and operated by IU; the Astronomy Department does not want to advertise this site as if it was an IAS facility.**
- 8. More than one entry is allowed to be submitted - no limitation. Once the original artwork is submitted, they immediately become the property of the Indiana Astronomical Society, Inc. It may be necessary to copy your submission(s) for personal record purposes.**
- 9 Deadline: September 30th, 2004**
- 10. The winner will receive an IAS T-shirt and a year's free membership in the IAS.**
- 11. The winner will be announced first at the Link Hog Roast, October 9th, 2004 at the Goethe Link Observatory during the 7pm General Meeting. The winner will also be announced on the IAS website and in the November, 2004 issue of the BULLETIN.**

Upcoming Star Parties and Registrations

McCloud under the Stars - September 9 - 12, 2004. This is a private party for the IAS to camp, picnic, have our general meeting under the stars Saturday night and two nights of observing. There will not be any vendors or people from other societies but the public will be invited by the park.

Prairie Skies Star Party (Old Astrofest Site) - September 9 -12, 2004-The Amateur Astronomy Events and Conventions Association (AAECA) will sponsor the Prairie Skies Star Party at Camp Shaw-Waw-Nas-See, near Kankakee IL, September 9 -12, 2004. Our brochure containing details of the event will be available shortly. Individuals familiar with Camp Shaw-Waw-Nas-See, and interested in attending Prairie Skies, should forward their name and mailing address (via e-mail or by phone) to the contact listed below as soon as possible. If you would like more immediate information concerning this event, do not hesitate to contact me.

The Prairie Skies committee looks forward to your attendance.

The Bulletin The monthly publication of the Indiana Astronomical Society

Prairie Skies Star Party
prairieskies@ameritech.net
708 481-7970

Astrofest - Kankakee, Il. - September 16, 17, 18 - This is a very good three day event with about a thousand astronomers. Beware, early registration is required. Walk-ins will be charged \$100/day per person. Get information off the Chicago Astronomical Society website <http://www.chicagoastro.org>. Astrofest will be at a new site this year.

"ScopeOut 2004" – Saturday September 25, 2004. ScopeOut is held at the historic Cincinnati Observatory and is geared toward children, families, teachers and amateur astronomers of all levels.

Tour our nation's first professional observatory! Lectures and presentations throughout the day. Astrophotography and telescope making displays. Local and regional vendors of astronomical merchandise. Doorprizes and raffle. Marvel at our recently restored astronomical clocks. Help celebrate our 16" Clark refracting telescope's centennial. Activities for all ages and experience levels! ScopeOut 2004 is held rain or shine.

The Cincinnati Observatory Center, 3489 Observatory Place, Cincinnati, OH 45208

Date & Time: Saturday, September 25, 2004, 12-10:30 p.m.

Activities Run 12-5pm.

Vendors and Exhibitors 12-10pm

Dinner and Keynote Lecture at 6pm.

Viewing follows (weather permitting) through our historic 1842 11" Merz & Mahler & 1904 16" Clark refracting telescopes.

Admission:

General	\$7.00
Student (13-18)	\$5.00 Under 13 Free
Add the Lecture & Dinner	\$15.00

For more information, directions, or to pre-register for the Dinner and Keynote Lecture, contact the Cincinnati Observatory Center: (513) 321-5186, or visit www.cincinnatiobservatory.org

Twin Lakes Star Party – October 8-16 Western Kentucky Astronomical Association's great star party in western Kentucky. Information can be found at www.wkaa.net. Several of us will be going to this party.

If you know of events coming up let me know and I will get them in the Bulletin

Jeff

Simple Eyepiece Spectroscopes

Article by Simon Auclair

Please note I have removed all references to observing the Sun with this equipment for safety reasons. Never observe the sun without appropriate filters. Jeff

The Bulletin The monthly publication of the Indiana Astronomical Society

This is a way to make a simple spectroscope. If you have further questions contact Simon directly. Fig 1 is modified from a transmission -grating spectroscope available from Edmund Scientific for \$2.00. It is nothing more than a plastic tube with 2 ribbed caps stuck on the ends—one has a crude slit and the other a 12mm hole with the grating on the inside. To this we add a positive achromatic lens whose focal length matches the length of the tube D (you may cut D to match the fl). The long focus achromat from American Science and Surplus' \$3 experimenters achromat kit of three lenses works well.

The lens B is taped over the end of the cap C and an eyegaurd formed of rubber or leather and taped over both. Plastic tape is now wrapped around the tube F until it is built up to match the I.D. of the 1" copper water pipe coupling (the O.D. of 1" caps and couplings matches 1.25" focusers) which is now slipped over cap F and tape E until slit is flush with the bottom of G. This completes the assembly.

This scope is capable on a 203mm Newtonian, of showing spectra of only the brightest stars, planets, and artificial lights. It would do better on a larger scope and you can forget it on anything much smaller. There just isn't enough light.

I have found the crudity of this slit objectionable. It's irregular and not even which causes dark lines across the length of the spectra and recommend using a brass one as in fig 2.

A slightly more sophisticated version of this (in that the slit width can be varied) is shown in Fig2. The variable slit allows you to trade off resolution and brightness

The main part of this is the 1" copper cap F modified as shown in Fig2 A slot about 1/8" wide is drilled, sawed and filed across the cap. Two small holes are drilled H and tapped to match the screws J. Next, buy a mild steel or brass feeler gauge set (autozone has a brass one for \$5.00) and use tin snips or diagonal cutters to clip a pair of semi-circles from one of the thicker ones as shown in I. Make sure one of the original edges forms the straight side of each semi-circle. Drill an oval or egged hole in each—the hole should be larger than the screw shaft, but smaller than the head. You can adjust the slit by leaving these screws loose, inserting a feeler gauge of the slit width desired, move the jaws I against it and tighten.

The body is a short section of 1" copper tube that fits between the cap F and the coupling C. The total length of this assembly should be equal to the focal length of the achromat B. I used the short fl achromat (50mm fl) from the American Science and surplus achromat kit here. This lens is taped to the coupling C and an eye guard formed of rubber or leather is taped over it. This completes the assembly.

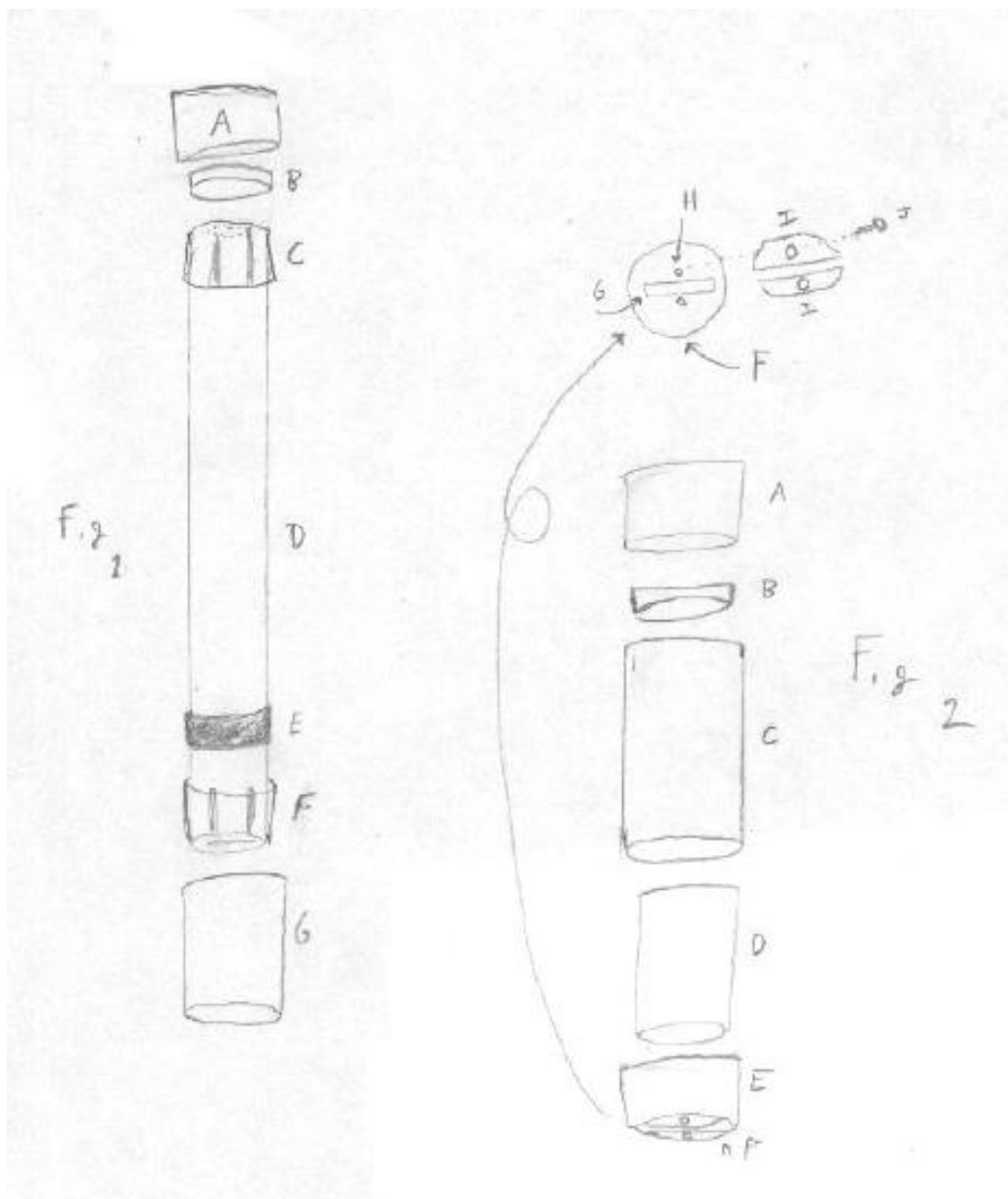
These spectroscopes are clamped in the eyepiece holder of the focuser and used as an eyepiece. I view non-astronomical light sources directly, relying on the slit to limit the amount of light.

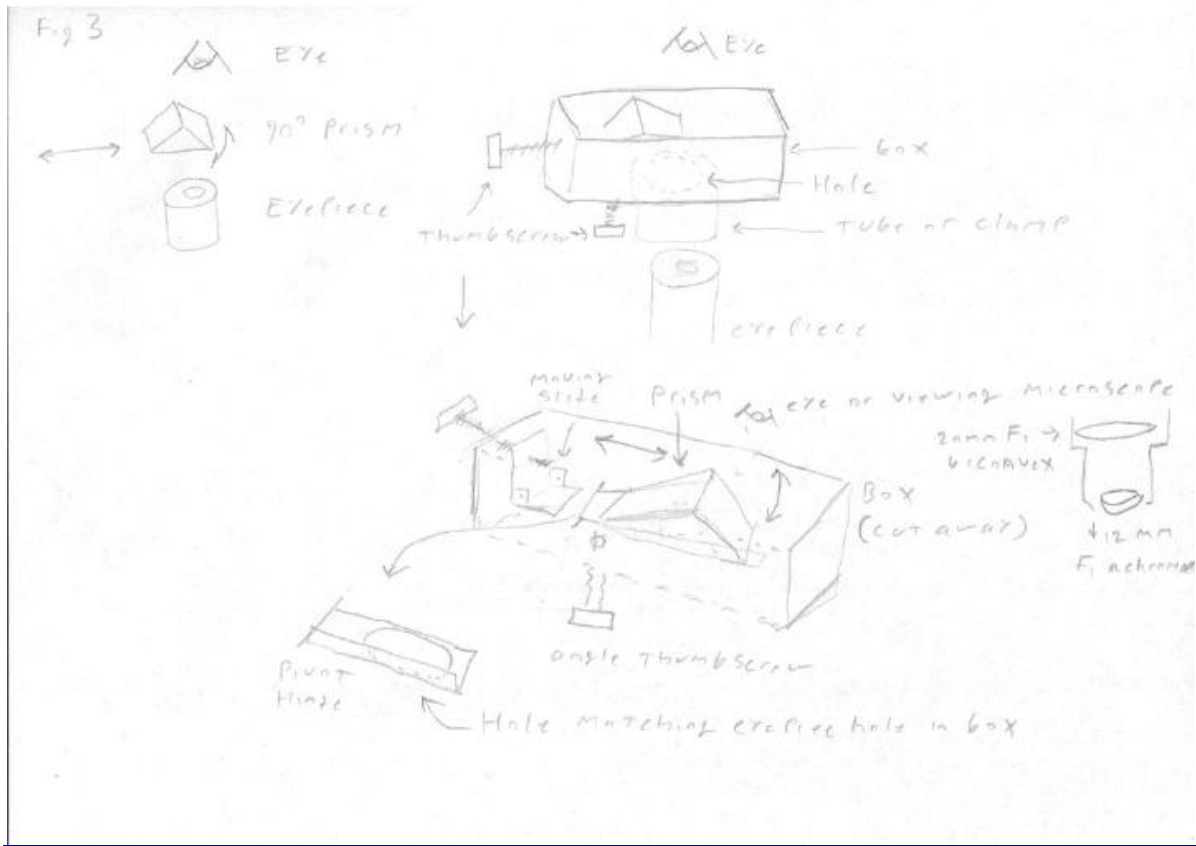
Ideally, to prevent any light loss, the F ratio (and therefore the angle of the focused light cone) of the eye lens in the spectroscope should match that of the telescope.

The Bulletin The monthly publication of the Indiana Astronomical Society

A simpler spectroscope that has no slit, is easier to align on a star and gives a spectrum about 2.5X as bright as the preceding may be constructed using a right angle prism as found in porro prism binoculars or surplus where it costs a few dollars. You can see the spectra of both stars in a binary (which can be a beautiful illustration of spectral types), all the stars in an open cluster or betray the non stellar nature of small planetary nebula (no spectra) with it. Its sole disadvantage compared to the grating type is that a prism exhibits dispersion (ie spreads short wavelengths more than long ones) which wont even be apparent unless you magnify the spectrum considerably.

This can be as simple as holding or clamping the prism over the eyepiece and peering through it or a slightly more elaborate and convenient version may be constructed—both shown in Fig 3.





NASA Night Sky Network

Next Telecon: NOVA: Origins Mini-Series

Mark your calendars for Thursday, September 9th at 6 pm Pacific, 9 pm Eastern for the next exclusive Night Sky Network Telecon. Join us for an evening with the host, astrophysicist **Neil deGrasse Tyson**, and the producer, **Tom Levenson**, of the **NOVA mini-series, Origins**. Mark your calendars for Thursday, **September 9th at 6 pm Pacific, 9 pm Eastern** for this exclusive NASA Night Sky Network Telecon.

Airing September 28th and 29th, this groundbreaking four-part NOVA miniseries will lead viewers on a cosmic journey to the beginning of time and into the distant reaches of the universe, searching for life's first stirrings and its traces on other worlds.

For more information on the series: [NOVA Origins Series](#).

More details on the September 9th telecon will be announced soon. All your club members are welcome to attend.

Observer's Corner

Nova in NGC 2403 - An IAU Circular issued in the last few hours includes a description of a spectrum of the supernova taken at Calar Alto in Spain. As we > suspected, the event is a type II supernova a few weeks past maximum. This means that although it won't be getting brighter, it will

The Bulletin The monthly publication of the Indiana Astronomical Society

not drop dramatically in brightness, but slowly decline in the coming couple of months. So there'll be an extra star on the galaxy for visual observers as it comes around in the morning sky.

Brian

This will make you sick. Joe Goss is a past president of the IAS who retired and moved to Arizona.

“It only took me 53 years to learn, you can't do any real observing in Indiana. My worst night out here was better than any night I had in Indiana. I bought a 14" Celestron CGE this year. Had to get more aperture to finish my goal of seeing 500 galaxies in Virgo. With the 10" Meade I had reached my limit at just under 400 galaxies observed. If you can get away in October we are having the All Arizona Star Party on the 15-17 of October.”

Joe

I guess we have to live in Indiana and accept those days that we do get. We can enjoy our hobby. We can dream however. I recommend that each of you take the time to go to one of the dark sky star parties at least once and see the Milky Way the way it can be seen. It is fantastic when it goes from horizon to horizon and actually lights the sky with its brightness.

The Pres

Public Events

Article by Jeff Patterson

One of more fun opportunities as a member of the IAS is to go to various public events and share our hobby with the public. More and more schools are asking for our help to participate in their astronomy events. We need you!! You don't have to be an expert; just willing to take time and show someone the wonders of the heavens. If you have interest, please contact Bill Conner or me.

Challenger Center Anniversary – Brownsburg November 12-13

New Members - Welcome to the IAS

Joni Germaine Indianapolis
Orin Weitzel Plainfield
Frank Hanou Indianapolis
Robert Stokes Westfield
Richard G. Niehaus Greenfield

Find these members and make them welcome.

Elections are Coming

It's that time of year to begin thinking about elections. Each year in November we elect new officers and Board members up for election. This year there will be three Board positions up for election as well as the four officers. If you would like to run or have ambitions to work and help set policy for the Society, please contact one of the officers or Board members. A nominating committee will be selected this month and we will be looking for good candidates. You have to be a member in good standing, a member for a year and willing to attend the Board meeting each month. Actually it is fun guys! We look forward to hearing from you.

The Pres

New Astronomers Group "How to Use Star Charts"

This Months Program will be held September 25 at 7PM at the Link. Note if weather is bad call John May to confirm the program will be presented.

Article submitted by J. Philip May

The New Astronomers Group (NAG) is a program designed to teach the novice amateur astronomer and even for those experienced astronomers who may want a refresher course in the basics of astronomy. The NAG meets in the early evening of the 4th Saturday of every month at the Goethe Link Observatory. The classes start at 7pm in the Link auditorium. During the winter months, if the snow is deep and/or the temperatures have dropped considerably below freezing, the event will be canceled. To confirm program schedules please contact J. Philip May, the NAG program coordinator, at motordrive@msn.com or 317-831-8387. If any IAS member or new IAS member has a suggestion for a meeting topic, please contact Mr. May. Also, experienced IAS members are encouraged to participate as an instructor for any choice of the following NAG programs - please volunteer your time and expertise. This should be a fun event as well as being instructive for the novice astronomer.

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 then may be renewed at the owner's request.

To place an ad contact:
Bulletin Editor
Jeff Patterson
1780 S. Morgantown Rd.
Greenwood, IN 46143
317 882-8055
e-Mail: JMPSR@Iquest.net

The Bulletin The monthly publication of the Indiana Astronomical Society

For Sale - Giro 2 alt-az mount. Not a mark on it. Comes with SS counter weight shaft, 8.8 lb. counter weight and carrying case. \$250
Contact: Jim Rinehart at 317-881-3475 jrine@iquest.net

For Sale - WAGNER's best Wide Shot Super Duty Paint Sprayer used on Link Observatory Machine Shop only twice & thoroughly cleaned - 7.2GPH - \$150 at Lowes. Used two times. Will sell for \$95 OBO. - Tom Borlik at (317) 849-4113/tomborlik@aol.com .(10/04)

For Sale - Criterion RV-6 f/8.1 six inch Newtonian with equatorial mount. Includes original eyepieces, telestar, as well additional motor drive. \$375 or will also consider trade for a equal price GOTO telescope. Marion Hakes at vhorani@yahoo.com .(10/04)

For Sale - One heavy-duty, wood, surveyors' tripod in fair shape cosmetically, but in functional condition. Price: \$60. It makes a great replacement tripod for commercial mounts on shaky, undersized legs Brian, bmurphy@monumentcompanies.com .(10/04)

For Sale - Celestron C-5 with tripod, astromaster(installed), power pack/inverter, cases, filter, eyepieces, and lots more. \$1500 Call: Paul at 317 888-1605 .(10/04)

For Sale - Orion 120st refractor with mount and tripod, dual axis drive. Less than a year old.
Contact: Jerry Vessels at jvessels@iquest.net .(10/04)

For Sale - Price Reduced: 5" f5 refractor, Jaegers Objective. Orion Skyview Deluxe EQ with Accutrack SVD DC Motor Drive (New) 17mm and 12.5mm Plossl eyepieces plus Barlow 3X \$500.00 (OBO) Jerry Barnett (317) 888-8945 .(12/04)

For Sale - Meade LX200 Schmidt-Cassegrain (non GPS), 10" f/6.3. Equatorial Superwedge, Custom Steel Pedestal, Pictor CCD, and many lenses. Sell whole Package for \$5,482, or portions.
Contact: Mike Smith, 317-823-8171 for further details. .(10/04)

For Sale: Astro-Physics Star 12ED, F/8.4 120mm Refractor. S/N ED12049. Built in 1991. Includes Parallax mounting rings and original case. A-P offers a focal reducer that fits this scope to make it an F/5.5. I am only the third owner. It is in very good condition, the focuser looks brand new, the optics are excellent. According to Thomas Back of TMB Optical, who wrote a brief history of A-P scopes, this was the first ED scope that Roland Christen of Astro-Physics made. I am offering this to the IAS prior to placing an ad on Astromart. I will wait one week after the September Bulletin is released. \$3500. Also have available two Losmandy G11 mount dovetail plates that mate to the Parallax mounting rings for \$100.Larry Phillips, LLPastro@lightbound.com, 317-739-2447 evenings (Edinburgh phone number), 317-230-2043 days (Indpls number). (12/04)

Loaner Scope Program

Did you know you can borrow a scope 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 scope 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 Bulletin The monthly publication of the Indiana Astronomical Society

the use of the particular instrument. This is a great way to see what telescope you want to purchase. We have several scopes to loan. Contact John Molt at 1star-gazer@earthlink.net.

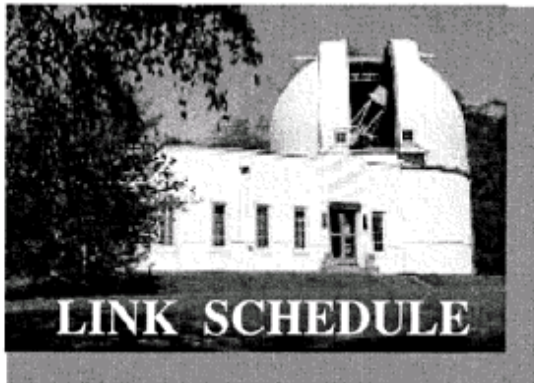
List Server Now Online - Don't be left in the cold - Sign up!

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 e-mail and you have access for late updates to events and functions.

Note: The list server is for use of Society business. It can only be used according to the rules as outlined previously. Members abusing the service will be eliminated from the service.

September Board Meeting – September 19, 2004 - 7:00 PM

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, but it will be locked. To get into the building, walk around the building to the left as you are facing Starbucks. You will cross Starbucks outdoor patio seating area and you will come to the double door entry into the building (this is the south building façade). These doors will be unlocked. Enter the lobby and ride the elevator (to your right) 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.



Observatory Address

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

Observatory 's Phone:317-831-0668

The Bulletin The monthly publication of the Indiana Astronomical Society

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: J. Philip May (317)831-8387. DON 'T WAIT UNTIL THE LAST MINUTE TO MAKE YOUR REQUEST OR YOU MAY NOT GET ACCESS.*

Designated Link Observatory Key Holders
Jeff Patterson: 882-8055
J. Philip May: 831-8387
Tom Borlik: 849-4113

Gary Schoppenhorst: 297-1405
Brian Murphy: 841-8511
Dave Williams: 769-7430
Gerald Venne 826-2680

Link Activities for September:

General Meeting - none
Observing session - September 25*
New Moon Group – None*

Observer's Meeting – September 25
Link Training – September 25
New Astronomers – September 25

Bulletin Stats

Accessing the Bulletin

The current bulletin can be found on the website www.iasindy.org in the "Upcoming Events" section.

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
Jeff Patterson, editor
1780 S. Morgantown Rd
Greenwood, IN 46143
Phone: 317-882-8055
JMPSR@Iquest.net

Membership information

Contact any IAS officer or the membership chairman
Larry Phillips
9413 South PR Black Hawk Hills Dr.
Edinburgh, In 46124
llpastro@lightbound.com

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>

The Bulletin The monthly publication of the Indiana Astronomical Society

Executive Officers

President: Jeff Patterson 317 882-8055
 Vice-President and Program Director Brian Murphy 317 841-8511
 Secretary: Larry Phillips 317 729-2447
 Treasurer: Dave Timmerman 317844-9431

Board of Directors

Gary Schoppenhorst (2006)	Bill Conner (2004)
Gerald Venne (2006)	Marion Hakes (2005)
Thad Hatchett (2004)	John Molt (2005)
Doug Brown (2004)	

September Calendar, 2004

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6 Last Qtr Moon	7	8	9	10 McCloud IAS Star Party	11 McCloud IAS Star Party Gen Meeting at McCloud New Moon Group
12	13	14 New Moon	15	16 Board Meeting 7:00	17	18
19	20	21 First Qtr Moon	22	23	24	25 NAG Meeting Observer's Mtg Link Training General Observing
26	27	28 Full Moon	29	31		

The Bulletin The monthly publication of the Indiana Astronomical Society

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
- 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.

Annual Regular Membership (\$20.00)	
Annual Student Membership (\$10.00)	
Astronomy Magazine Renewal (\$29.00)	
Sky and Telescope Magazine (\$33.00)	
Total Enclosed	

Make checks payable to : The Indiana Astronomical Society, Inc

Please complete Member Profile and include with the application

Mail Application to: Dave Timmerman, Treasurer
786 Woodview North Drive
Carmel, IN 46032

The Bulletin The monthly publication of the Indiana Astronomical Society

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 articles for new members and may be used by the society to match people with similar interests.