

February, 2004  
Volume 71, Issue 2  
www.iasindy.org



# The Bulletin

## February General Meeting - February 10 7:00PM at the Holcomb Observatory

Our speaker this month is David Williams, long time member of the IAS. Dave is our resident expert on variable star observing and on any clear evening can be found "out back" taking measurements.

### WHAT DOUBLE STARS TELL US

Double stars have been known since the first humans looked up at the night sky and noticed naked-eye pairs such as Mizar and Alcor in the Big Dipper. The first telescopic double was discovered as soon as telescopes were invented and pointed at the stars. But no one thought much about double stars until, in the late 18th century, William Herschel measured the positions of several telescopic pairs and detected orbital motion, proving that most doubles are real pairs of stars and not just random, line of sight coincidences. During the 19th century, measurement of these gravitationally attached star pairs provided the first physical information about stars other than our Sun.

At about the same time, amateur astronomer John Goodricke noticed the regular dimming and brightening of the star Algol in Perseus. He concluded that Algol is a double star whose orbital plane lies in our line of sight, resulting in regular eclipses of one star by the other. The discovery of eclipsing binary stars opened a new cornucopia of information about stellar sizes and masses.

In the late 19th century, spectroscopes were attached to telescopes and the first spectroscopic doubles were discovered - binary stars so close together that they appeared single but whose spectra show double lines that move apart and close back together as the two stars orbit each other. Spectroscopic binaries allowed astronomers to learn even more about stellar sizes, masses, and internal structure.

Today we know that most stars in the universe belong to binary or multiple star systems. Binary stars include the Type Ia supernovae that are allowing us to measure the size, age, and expansion rate of the universe, while binary pulsars reveal the secrets of neutron stars.

The Bulletin The monthly publication of the Indiana Astronomical Society

This presentation will explain how double stars have revealed almost everything we know about stars, stellar evolution, and the history of the universe.

---

The Bulletin Moves!! Beginning in February the current bulletin can be found on the website [www.iasindy.org](http://www.iasindy.org) in the open part of the site.

The Board has voted to move the current Bulletin on the website from the "Members Only" section to the open part of the website. We are an open society focused on teaching and developing an appreciation and love of our hobby; the science of Astronomy. We do not bar anyone from any of our functions and we currently hand out current Bulletins free to the public. There are two major reasons for making this change. 1) It would open us up more to our major focus of "Bringing Astronomy to the Public". We want the local public to know what we are doing and when and maybe draw more into the fold. If they see we have activities that are interesting, they will join us. Many societies throughout the country have their newsletters in open sections of their websites. 2) Making it easier to get the Bulletin on the website could reduce the number of hard copy Bulletins we have to mail each month. No more having to remember a password. We still have to provide a Bulletin to each member as part of their membership benefits so there will be hard copies for those without internet capabilities. The Board feels that making the Bulletin open to the public would not affect membership. Our feeling is that members come to gain association with others interested in their hobby. Please note this is not an attempt to make it easier to participate without becoming a member. The Board will actively monitor membership to see if this move has an adverse impact.

---

## Telescope Survey

You have the opportunity to participate in a unique survey dealing with telescopes currently available to amateur astronomers and to comment on the features they provide and the features you wish they would provide. Jim Brown, an IAS member, is conducting research on the telescope market as part of a master's degree.

Log on to our website [www.iasindy.org](http://www.iasindy.org). The survey is a text file on the website that you can fill in on a computer or print and fill in by hand. WordPad is recommended, with the page set to landscape as opposed to the default portrait layout. This will help keep the best alignment of the questions.

The survey contains questions on your telescope activities, the relative importance you place on certain telescope features, and how you would grade several telescopes on the market today in terms of these features. There is also a question on your plans to buy a telescope in the future. The survey concludes with general questions regarding membership in astronomy societies, magazines and websites you rely upon for astronomy information, and star parties you like to attend.

The results will be completely confidential and will not be shared with, given to, or sold to advertising companies, telescope manufacturers, or other agencies or organizations.

The survey should take about 1 hour to give the questions some thought. Before returning the completed survey, you have the option to enter a drawing for a pair of movie tickets that will be given to two survey respondents chosen at random.

*Survey by James Brown*

## Eagle Creek Park Stargazing Opportunities

**February Eagle Creek Sessions February 11 7-9PM, February 25 8-10PM**

*Article submitted by Jeff Patterson.*

Eagle Creek Park continues to have programs throughout the year at the Eagle's Crest. This month there are two events: February 14 7-9PM, February 28 7-9 Call 327-7148 to let them know you are coming. Registration is \$3.00. It is free to the IAS if you bring a scope for the public.

### **Directions to Eagle's Crest**

1. Go west on 56<sup>th</sup> St. across the reservoir and past the golf course.
  2. Turn Right on Raceway Rd 0.99 Miles
  3. Turn right onto E CR 700N 0.11 Miles
  4. E CR 700N becomes N Raceway Rd 1.14 Miles
  5. N Raceway Rd becomes Fishback Rd 0.24 Miles
- 

### **New Members**

The IAS would like to welcome the following new members:

Ken Noble III Avon

Jim Brown Fairland

Michael D Smith Greenwood

Chad McCullough Beech Grove

You old members seek out these guys and show them the ropes. Get them involved.

---

## Upcoming Star Parties and Registrations

**NIAGfest/GreatCon** April 23-24 Warsaw IN

<http://clubs.kconline.com/was/niag.htm>

This is a great small, close star party focusing on speakers on Saturday. Generally observing is available on Friday and Saturday nights. Camping is \$5 and a warm cabin is \$10. Not a bad deal for a couple of days. I strongly recommend it.

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

Jeff

---

## Hard Copy of the Bulletin - Do you really need yours?

This last month we mailed 89 Bulletins. Forty five of those were to members and seventeen of those had e-mail. Did you know it costs approximately \$1.75 for each Bulletin printed and mailed? That means it costs us \$21 per year for a \$20 membership! We understand that there are members who have to have their Bulletin by snail mail but please review your needs and help the Society out. We have had several people send us a note to cease the hard copy. Thanks to each of you. Hopefully the change in location of the Bulletin on the Web Site will entice some of you to opt for electronic versions.

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.

### Upcoming events

Lakeside Elementary	February 26
Eagle Creek Park	See articles in Bulletin
Fishback Creek Academy	March 11
Decatur Central High School	April 16
Franklin Library	April 29
McCloud Park	See articles in Bulletin

---

## Observer's Corner

*Article by Jeff Patterson*

Its time to begin preparing for the Messier Marathon. Take time in February to hone your skills to find those faint fuzzy objects. Again this year in March we will have a competition to see how many of these beauties you can find. Competition will be held on New Moon Night and Observer's Night in March. If you don't have a scope or feel too inexperienced, team up with someone and go at it. I will provide a handout with tips for the best sequence to search. There will be awards for the best team using computerized telescopes, best team using a non computerized telescope, awards for the highest total in one night and for total aggregate

---

## McCloud Nature Park - A Dark Site for Observing

### **McCloud Park Observing For February - weather permitting -February 20, 2004**

McCloud Nature Park is located in Hendricks County. It is 230 acres of Nature!!! The interpretive naturalist has requested that we come out for new moon and show the sky to the public.

It's only 30 miles from the intersection of I-465 and I-74 Off of SR-75. Curious? Come and join us on New Moon Friday.

Call, or e-mail Mike Wolford for further information. 317 445-2173 e-mail: mwolford@crtc.com

---

## New Astronomers Group "Setting Circles and How to Use Them"

**This Months Program will be held February 28 at 7PM at the Link. Note if weather is bad (Cold) 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

## The Bulletin The monthly publication of the Indiana Astronomical Society

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.

To place an ad contact:

Bulletin Editor

Jeff Patterson

1780 S. Morgantown Rd.

Greenwood, IN 46143

317 882-8055

e-Mail: [JMPSR@Iquest.net](mailto:JMPSR@Iquest.net)

Meade Pictor 216XT CCD w/Homeyer flip mirror, never used, \$400 (\$895 new)

Larry Phillips, 317-230-2043 daytime, 317-729-2447, after 5:30PM

Celestron S-80+ 80mm Dia. spotting scope/guide scope \$150.

Larry Phillips, 317-230-2043 daytime, 317-729-2447, after 5:30PM

60mm Dia, 540mm focal length guide scope \$100.

Larry Phillips, 317-230-2043 daytime, 317-729-2447, after 5:30PM

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

For Sale: Orion 120st refractor with mount and tripod, dual axis drive. Less than a year old.

Contact: Jerry Vessels at [jvessels@iquest.net](mailto:jvessels@iquest.net)

For Sale: Celestron 8" Dobsonian, metal tube \$400 Contact Jeff Patterson [JMPSR@Iquest.net](mailto:JMPSR@Iquest.net)

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 \$600.00 (OBO) Jerry Barnett (317) 888-8945

For Sale: Giro GR-2 Alt/Az mount. Capacity of 25 lbs. on each side. Like new condition. Mount comes with 4kg. counterweight, SS counterweight shaft, and carrying case. \$300 Contact: Jim Rinehart 317-881-3475 -- [jrinehart@spitfire.net](mailto:jrinehart@spitfire.net)

For sale: Starlight Express MX7C one-shot color CCD camera, STAR2000 self-guider, and AstroArt software. \$1300. [srussell@iquest.net](mailto:srussell@iquest.net)

The Bulletin The monthly publication of the Indiana Astronomical Society

---

## **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 but Brian Murphy can arrange for your pickup and training as John recovers from his injuries. This is a great way to see what you want to use. We have several scopes to loan. Contact Brian Murphy at [bmurphy@monumentcompanies.com](mailto:bmurphy@monumentcompanies.com)

---

## **List Server Now online - Don't be left in the cold**

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.

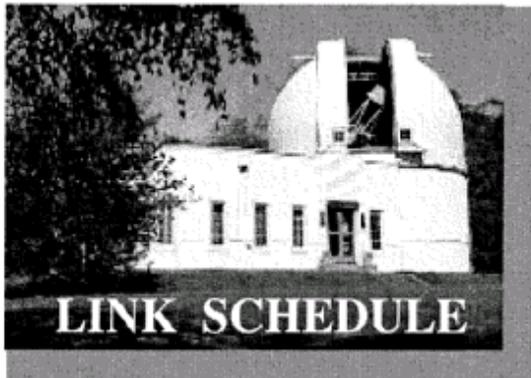
**Note: The list server is for use of Society business. It can only be used according to the rules as outlined previously. Members abusing the service will be eliminated from the service.**

---

## **February Board Meeting – February 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'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

### Link Activities for February:

New Moon Group Meeting February 21  
Observer's Meeting February 28

New Astronomers February 28  
Link Training February 28

---

## Bulletin Stats

### Bulletin - Bulletin deadline on the 20<sup>th</sup> 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](mailto: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](mailto: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>

### 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

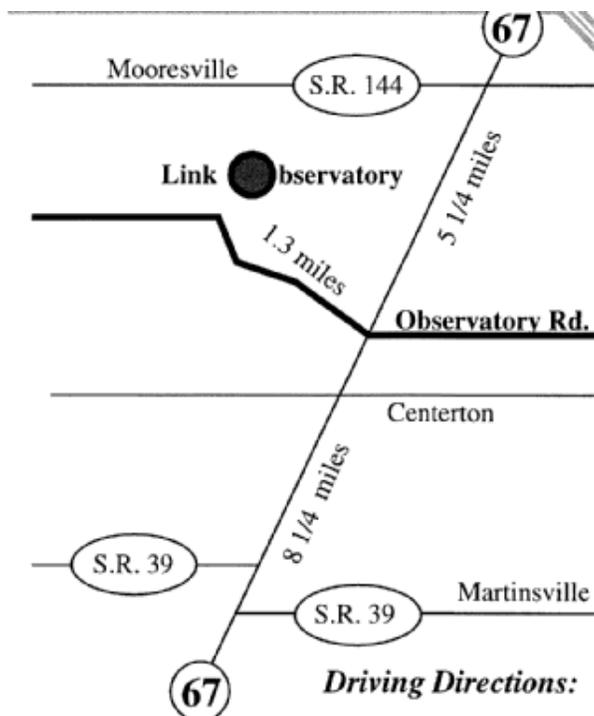
The Bulletin The monthly publication of the Indiana Astronomical Society

Board of Directors

Gary Schoppenhorst (2006)  
Gerald Venne (2006)  
Thad Hatchett (2004)  
Doug Brown (2004)

Bill Conner (2004)  
Marion Hakes (2005)  
John Molt (2005)

**Map to the Goethe Link Observatory**



***Driving Directions:***

**T**he Link Observatory is located 5 1/4 miles south of the S.R. 67 & S.R. 144 interchange in Mooresville. A diamond shape hi-way transportation sign will warn you of the approaching Observatory Road intersection. Turn right (west) up the steep hill and continue 1.3 miles to the observatory, where there is a one-lane drive on your right named: Observatory Lane. The driveway to the observatory is immediately to your right when you make your turn onto the lane. It's easy to miss; watch your odometer.

**February Calendar, 2004**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6 Full Moon	7
8	9	10	11 Eagle Creek Park	12	13 Last Qtr Moon	14 Gen. Mtg 7:00PM
15	16	17	18	19 Board Meeting 7:00	20 New Moon	21 New Moon GP
22	23	24	25 Eagle Creek Park	26 Lakeside Elementary SP	27 First Qtr Moon	28 NAG Meeting Observer's Mtg Link Training
29						

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

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  
780 Woodview North Drive  
Carmel, IN 46032

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.