March, 2006
Volume 73, Issue 3
www.iasindy.org

The Bulletin

The March General Meeting, March 11, 7:00 PM Butler Holcomb Observatory

The History of the Cincinnati Observatory
John Ventre

The Cincinnati Observatory, the country's first public observatory, was founded by Ormsby MacKnight Mitchel in 1842, and its corner stone was laid by former President John Quincy Adams. The Observatory's rich history will be presented by John Ventre, the Observatory's Historian. He will also relate why the Observatory has been designated a National Historic Landmark and has been converted to a working 19th Century astronomical museum.

Messier Marathon March 25, Link Observatory (April 1 is the rain date)

We will have our Messier Marathon at the Goethe Link Observatory March 25. Gates open at 6PM. Go to the website to get a copy of the Marathon sequence. There will be awards for the most objects observed by binoculars, regular telescopes and computerized telescopes. If you do not have a scope, partner up with someone and work as a team. Remember to get to the observing area behind the observatory enter at the north gate. See you at the Link.

Link Cleanup

There will be a cleanup at the Link Observatory in April. The Board is trying to come up with a date but there seems to be a lot of things going on. Stay tuned. We will need your help to get it ready for the observing season.

Winter Star Party - A Great Success!!

We had a ball!!! That is the only way to describe it. We arrived Sunday afternoon and got in line for the entrance at noon Monday. Parked on the side of the road Sunday night, we just met old friends and made a couple of new ones. One fellow had his scope set up next to the highway and we played with looking at Sirius. Yes we could split the two stars. I think that is the first time I have done that. Monday arose as a bright sunny 85 deg day. We scrambled into the girl scout camp and found our parking places. Boy was it different! The

last hurricane had dumped sand everywhere and took out a lot of the trees. I paced myself and tried not to get too hot. Monday night broke crisp as can be and we observed most of the night. Temperature was in the 70s with a little breeze. Shorts and a sweatshirt was the attire of the night. I think I went to bed around 3am having not slept well on the side of the road the night before and the moon being up. The wind gave me a little bit of trouble. Tuesday was the same so Wednesday I moved down on the other end of the camp and set up next to Dave Kriege and his 25". Dave was working with his new Mallincam video camera so as he would put an object up on the screen I would put it in the eyepiece. That was fun. The Mallincam looks to be an excellent and easy to use video cam. We had a good time the rest of the week. We had high haze one night and it rained for about 10 minutes at 3:30 am one morning. That is the only bad weather we had. That makes one scramble fast. Funny thing was that night John Molt and I had a discussion about leaving the scopes uncovered so they would dry out in the morning easier. WSP is known for its dew. Observing was outstanding and I played around in Puppis quite a bit and found some new planetaries to me. Chris got a great shot of Omega Centauri. The Southern objects were exceptional this year. It amazes me that Omega Centauri is so huge. Rob Stokes spent his days fishing and actually caught some fish. He and I went to Key West one day and walked Duvall Street window shopping. We had lunch at a Cuban restaurant and had an excellent meal. I strongly recommend this party if you have the time and want to get away from Indiana. It is 1350 miles which is a long way but it is really worth it.

Friday the party ended with the door prizes. We did not do well in that category except Angie Molt won an 8" Meade Richey Cretian telescope and a camera. Or at least John said she won it. Probably has to do with the diamond he owes her. Right John? Any way he was ecstatic. If you want to go next year talk to one of us and get your reservations in in October. This show is always a sellout.

The Crew

Observer's Corner –

Messiers for March – Sandy Wolford

OK, loyal friends, with conviction: SPRING is coming... Spring is COMING... Spring IS coming. After the bright deep sky objects of winter (since it is usually too cold to search for anything else), it is time to buckle down for a little more challenging observing. Along with the lion of March and warmer weather (hopefully), the spring galaxy season is arriving. The six-pack of Messier galaxies offered this month provides an appetizer for our project next month – a dive into the heart of the Virgo galaxy cluster.

Remember: brightness, size and shape of galaxies really depend on what size telescope you are using as well as the sky's darkness and transparency. If you are using a 4-in or smaller telescope, be prepared to look for nebulous or fuzzy "stars"; a 6 to 8-in telescope will reveal the same objects to have a brighter center with small glowing areas around them. Heavy light pollution or water vapor in the air can reduce the sky contrast necessary to observe any details for low surface brightness objects.

M95 and M96 can be seen in the same low-power field under Leo's belly, about 9º W of Regulus. Locate M96 about 3º NW of ρ (rho) LEO, along a line from ρ (rho) to θ (theta) LEO. With my 8-in I see a faint circular glow with an almost stellar central condensation. The similar but slightly dimmer M95 is about 3/4º to the WSW of M96.

M105 is the brightest of a triangle of galaxies found in the same field just over 1º NNE of M96. Two of the galaxies are almost identical "fuzzy spots"; NGC 3371 (aka NGC 3384) is the slight smaller and dimmer galaxy just a little NE of M105. Those with even medium (6 to 8-in) telescopes will spot a third galaxy in the field of view; NGC 3373 (aka NGC 3389) is less than 10 arcmin ESE of M105.

M65 and M66 are only 0.5º apart and may be located midway between the stars θ (theta) and ι (iota) LEO under Leo's hindquarter. Both slightly elongated, M66 is the slightly brighter one to the E. With a low power eyepiece giving at least a 3/4º field of view, the attractive edge-on galaxy NGC 3628 should also be visible a little over 1/2º N of M66.

To locate M108, take a big leap to the bowl of the Big Dipper. M108 will appear as a faint elongated glow about 1º SE of β (beta) UMA, the star marking the outside lower corner of the "pan".

Our last object is not a galaxy but a planetary nebula that is perhaps more difficult. (Wait... Don't give up – its not THAT much harder; besides, you made it this far didn't you?). The challenge arises because M97 is very faint with a low surface brightness (ie, its light is spread out enough to give a low contrast against the background sky). Even under dark skies, it is close the magnitude limit for a small telescope. Look 1º SE of M108 or just under 2º SE of β (beta) UMA for a dim, round glow almost three times the size of Lyra's Ring Nebula.

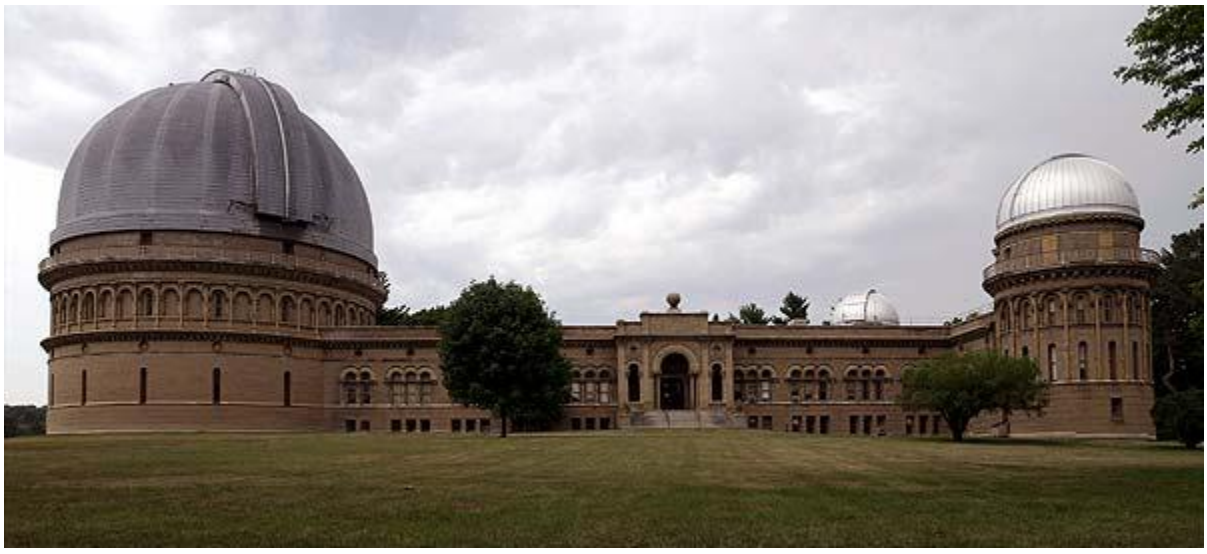
If you have trouble spying M97 or any other low surface brightness object, try using averted vision (looking just to the side or out of the "corner of your eye") or jiggling the telescope slightly (the eye often sees objects better if they are moving than if they are standing still). Also, don't forget that it is easy to get directions turned around when you flip your telescope to observe objects that are north of the zenith above your head. Turn off your drive motor (if you are using one) to verify directions:

stars will ENTER the field of view from the EAST. If you are using a system with an odd number of mirrors (like a refractor or SCT with a diagonal), North will be 90º clockwise from East. If your system has an even number of mirrors (as in most reflectors or a straight-through refractor), then North will be 90º COUNTERCLOCKWISE from East. You may also find North by nudging the front end of the telescope toward Polaris while looking in the eyepiece; stars will enter the field of view from the north.

OBJECT	CON	TYPE	RA	DEC	MAG	SIZE	NOTES
NGC 3351	LEO	sGal	10h 44m	11º 42'	10.6	7.3' x 4.4'	M95
NGC 3368	LEO	sGal	10h 47m	11º 49'	10.1	7.8' x 5.2'	M96
NGC 3379	LEO	eGal	10h 48m	12º 35'	10.5	5.3' x 4.8'	M105
NGC 3373	LEO	sGal	10h 48m	12º 32'	12.5	2.9' x 1.3'	aka NGC 3389
NGC 3371	LEO	eGal	10h 48m	12º 38'	10.9	5.4' x 2.7'	aka NGC 3384
NGC 3623	LEO	sGal	11h 19m	13º 05'	10.1	9.0' x 2.3'	M65
NGC 3627	LEO	sGal	11h 20m	12º 59'	9.7	9.1' x 4.1'	M66
NGC 3628	LEO	sGal	11h 20m	13º 35'	10.4	13.1' x 3.1'	
NGC 3556	UMA	sGal	11h 11m	55º 40'	10.6	8.6' x 2.4'	M108
NGC 3587	UMA	PN	11h 15m	55º 01'	12.0	3.2'	M97, Owl Nebula

sGal = spiral galaxy, eGal = elliptical galaxy, PN = planetary nebula

Save Yerkes Observatory



Yerkes Observatory in William's Bay, Wisconsin

See more photos here.
Photo of the 40 inch refractor here.

This wonderful and famous observatory and its grounds are in danger of being sold to a developer by the University of Chicago. Yerkes is a 100-year-old observatory located in Williams Bay, Wisconsin. It has five research telescopes, one of which is the **largest refractor in the world**.

Yerkes occupies a place of great significance as a world leader in 20 century astro-physics, a place of reverence and respect, where Einstein visited, where Chandrasekhar did his work on black holes that led to his Nobel Prize. A list of astronomers who have studied here reads like the Who's Who of twentieth century astronomy. It is one of the important mile-stones in humanity's march into space.

Ten, twenty or fifty years from now, we can either tell our children about what a special place Yerkes used to be, or **we can preserve it** so they can see it for themselves -- and appreciate it -- and enjoy it -- and treasure it as we do today.

You can help save "The Mt. Rushmore of American Astronomy" in a number of ways:

- **Write a letter** to the president of the University of Chicago telling him of your concerns:

  Dr. Don Randel, President
  University of Chicago
  5801 S. Ellis Avenue
  Chicago, IL 60637

  Jan. 1, 2006 -- For your letters to be most effective,
  please see this IMPORTANT UPDATE.

  Below are links to articles containing topics you might mention in your letter(s). Copies of your letters, mailed to "Yerkes 21" (below) will be filed and retained as archival information about saving Yerkes for the 21st Century.

- **Refer others** to this website and ask them to write a similar letter.

- **Publish the URL of this site** (**www.saveyerkes.com**) in astronomy-related newsletters, websites, etc.

- **Join or contribute to "Yerkes 21"** (Yerkes in the 21st Century).
  Yerkes 21 Corporation is a not-for-profit corporation registered with the State of Wisconsin. The corporation is listed with the IRS under Section 501(c)3 of the Internal Revenue Code, allowing contributions to be deductible from income for federal tax purposes. Please e-mail us for more information.

  Yerkes 21 Corporation
  W3170 County Road BB
  Lake Geneva, WI 53147
  yerkes21@saveyerkes.com

For more information:

- SEWRPC Letter (01/11/06)
- Einstein: "I would rather see Yerkes ... " (pdf) (01/31/06)
- Pennypacker letter to Dr. Randel (pdf) (01/18/06)
- Larkin letter to Dr. Randel, RE: Chicago Tribune article (pdf) (01/08/06)
- letter from Michael Simmons, Mt. Wilson Observatory Assoc. (01/02/06)
- *Janesville (WI) Gazette* article (11/30/05)
- Editorial - Lake Geneva Regional News (11/17/05)

- October *AstroNotes* (posted 11/7/05)
- Janeville (WI) Gazette endorsse Aurora proposal vs. Mirbeau (11/3/05)
- Williams Bay plays the waiting game on Yerkes (10/31/05)
- Dr. Donald Osterbrock's letter to President Randel at the University of Chicago (10/18/05)
- Newspaper articles RE: proposals to purchase, etc. (10/09/05)
- U. of Chicago's 'Chicago Maroon' (10/7/05)
- Astronomy Magazine (10/7/05)
- Chicago Tribune Editorial (10/01/05)
- Aurora's proposal to purchase (pdf)
- The situation as of August, 2005
- *Chicago Tribune* article (8/17/05)
- Larkin's Comments to WB Board (8/2/05)
- A *Sky & Telesope* article (12/15/04)
- Save the Stargazer (4/30/05)
- Excerpts from a National Landmarks Theme Study
- A virtual tour
- Some articles (01/05)
- Encyclopedia of Astrobiology Astronomy & Spaceflight -- Yerkes
- The trees at Yerkes (pdf)
- *Janesville (WI) Gazette* article (6/25/05)
- Wisconsin Tech Network (3/28/05)
- Tourist Information (1/25/04)

And . . . the **Geneva Lake Conservancy** website includes a **Yerkes Update** section.

There is nothing of moneyed value to be gained by the devotee to astronomy ... there is nothing he can sell ... Consequently the devotee of astronomy has as his only reward the satisfaction which comes to him in the glory of the work which he does and the results which he accomplishes.
... spoken by **Charles Yerkes** on the front steps of the observatory, when presenting Yerkes Observatory to the University of Chicago on October 21, 1897. (As reported in *The University of Chicago Magazine* of February, 1997.) The speech received a thunderous ovation, said the article.

The Largest Refracting Telescope in the World

Micro-sats with Macro-potential

The Space Technology 5 mission will test crucial micro-satellite technologies.

By Patrick L. Barry

Future space telescopes might not consist of a single satellite such as Hubble, but a constellation of dozens or even hundreds of small satellites, or "micro-sats," operating in unison.

Such a swarm of little satellites could act as one enormous telescope with a mirror as large as the entire constellation, just as arrays of Earth-bound radio telescopes do. It could also last for a long time, because damage to one micro-sat wouldn't ruin the whole space telescope; the rest of the swarm could continue as if nothing had happened.

And that's just one example of the cool things that micro-sats could do. Plus, micro-sats are simply smaller and lighter than normal satellites, so they're much cheaper to launch into space.

In February, NASA plans to launch its first experimental micro-sat mission, called Space Technology 5. As part of the New Millennium Program, ST5 will test out the crucial technologies needed for micro-sats—such as miniature thrust and guidance systems—so that future missions can use those technologies dependably.

Measuring only 53 centimeters (20 inches) across and weighing a mere 25 kilograms (55 pounds), each of the three micro-sats for ST5 resembles a small television in size and weight. Normal satellites can be as large and heavy as a school bus.

”ST5 will also gather scientific data, helping scientists explore Earth’s magnetic field and space weather,” says James Slavin, Project Scientist for ST5.

Slavin suggests some other potential uses for micro-sats:

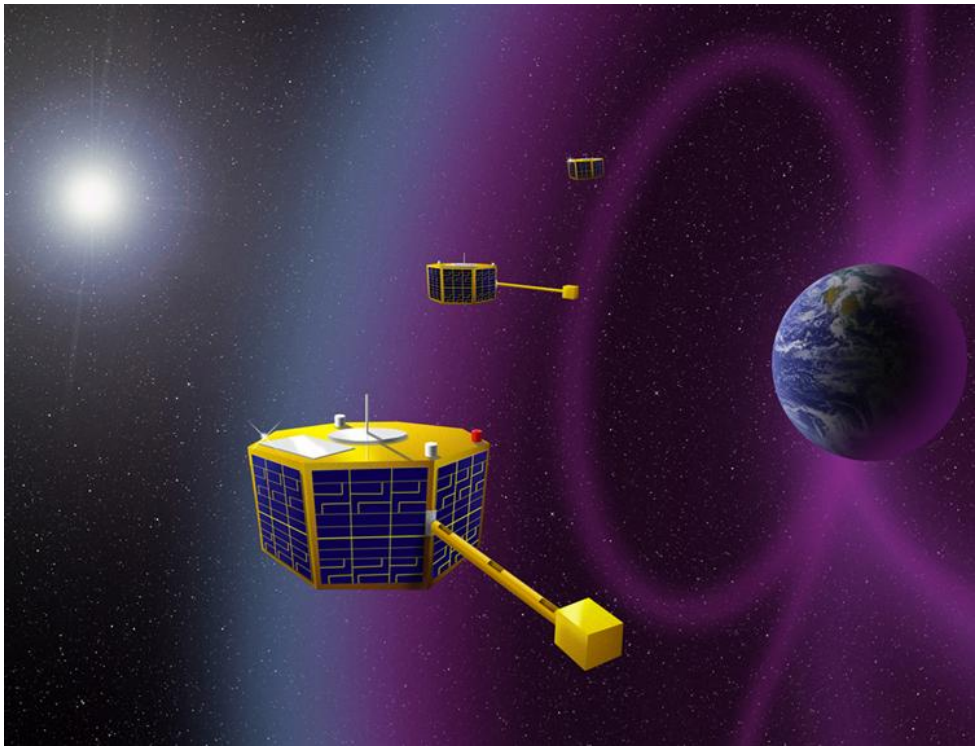
A cluster of micro-sats between the Earth and the Sun—spread out in space like little sensor buoys floating in the ocean—could sample incoming waves of high-speed particles from an erupting solar flare, thus giving scientists hours of warning of the threat posed to city power grids and communications satellites.

Or perhaps a string of micro-sats, flying single file in low-Earth orbit, could take a series of snapshots of violent thunderstorms as each micro-sat in the “train” passes over the storm. This technology would combine the continuous large-scale storm monitoring of geosynchronous weather satellites—which orbit far from the Earth at about 36,000 kilometers’ altitude—with the up-close, highly detailed view of satellites only 400 kilometers overhead.

If ST5 is successful, these little satellites could end up playing a big role in future exploration.

The ST5 Web site at nmp.jpl.nasa.gov/st5 has the details. Kids can have fun with ST5 at spaceplace.nasa.gov, by just typing ST5 in the site’s Find It field.

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



2006 Observer's Handbooks

John tells me he has about 6 left. John Shepherd has them for $18.00. They are chocked full of celestial information and are really handy.

See John if you want one.

2006 McCloud Schedule

The New Astronomers Group held from April thru September is designed with the beginning amateur astronomer in mind. Meetings start at 7:00 pm on the Friday closest to the 1st Quarter Moon (see schedule below). Emphasis is on actual observing to help beginners find their way around the night sky and, in particular, how to find those faint but interesting objects such as planets, galaxies and nebulae of all kinds. In addition to discussing the night sky for the current month, a selected topic of interest to the beginning astronomer will be covered. The currently scheduled selected topics for 2006 are:

April 7 Telescopes, binoculars and other viewing aids

May 5 Resources on Internet for the beginning astronomer

June 2 Our closest neighbor, the Moon

June 30 The Beginners Year around Observing Planner The Messier List

July 28 Celestial Fireworks Meteor Showers

September 1 Autumns Finest Double Stars

September 29 To Be Determined

All sessions are taught by experienced IAS members. If weather conditions permit, observing through IAS members telescopes and binoculars will be available for attendees following the meeting.

John Switzer

McCloud Nature Park

Tentatively on March 4, at 8am we will begin building the 6 pads for the park. Mike Kirsch and Thad Hatchett will be leading the project. Mike will furnish the equipment but we will need bodies to help finish the concrete and bury the electrical lines. Hopefully everything will be done, smoothed out and reseeded for the April start up of observing. We have not set a date yet due to weather . We will need volunteers. If you would like to help please contact Thad Hatchett (astronomynut@sbcglobal.net).

McCloud Nature Park Project Fund

In an effort to fund the project the IAS Board has created a "McCloud Fund". All donations to the Fund will go directly towards funding the improvement project which will include the storage building and warming room and six electrified concrete pads.

If you would like to make a cash donation to the McCloud Fund, please send it to:

John Shepherd, Treasurer
4609 Callahan St.
Indianapolis, IN 46239

The IAS in a Not-For-Profit 501 C-3 corporation. Your donation may be tax deductible. Consult your tax advisor.

Upcoming Star Parties and Registrations

Niagfest Near Warsaw**,** IN **CANCELLED!!!** This was a good party and it will be missed.

Texas Star Party West Texas April 23 – 30 1500 miles Camping sites is still available for this year's party. This is a premier party with very dark skies and a great site. Just a long way. There are several of us registered already. www.texasstarparty.org

Apollo Rendezvous Dayton Ohio, June 16 - 17. Speakers include Al Nader, David Eicher (Astronomy Magazine), Terry Mann, and Tom Trusock. www.mvas.org

Heart of America MO Jun 22-25 - 530 miles 9 hour drive
http://www.askconline.org/dssstarparty.pdf

Nebraska Star Party North Central Nebraska Jul 23-28 - 950 miles 18 hour drive
http://www.nebraskastarparty.org/

Black Forest Star Party PA Aug 25-27 600 miles 11 hour drive http://www.bfsp.org/starparty/

Indiana Family Star Party – Camp Cullum near Frankfort August 18-20 – 50 miles
http://jmmahony.home.insightbb.com/pgo/starparty/

Illinois Dark Skies IL Sep 21-23 225 miles 5 hour drive http://www.sas-sky.org/main.htm

Astrofest Sept 21-24 Kankakee , IL 4 hour drive http://www.chicagoastro.org/In the past this has been a premier party with lots of vendors. Lately they have had some organizational problems and last year many vendors did not come.

Prairie Skies Star Party Kankakee, IL Sep 28-30 175 miles 4 hour drive
http://www.prairieskies.org/

Twin Lakes Star Party KY Oct 14-21 225 miles 5 hour drive http://www.wkaa.net/

McCloud Under The Stars (MUTS) will happen one weekend of September.

If you know of events coming up let me know and I will get them in the Bulletin
Thanks to Mike Wolford for this information.

Local School Events and Star Parties

Gerald Venne is our Public Program Chairman. 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.

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

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) 882-8055
E-Mail: JMPSR@Iquest.net

Loaner Equipment Program

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. Contact John Molt at 1stargazer@indy.rr.com.

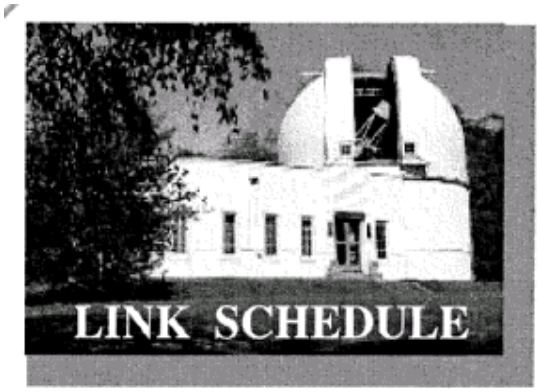
List Server Online - Don't be left in the cold - Sign up!

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.

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.

Board Meeting – March 16, 2006 - 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

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.

Designated Link Observatory Key Holders

Jeff Patterson: 882-8055
Tom Borlik: 849-4113
Gary Schoppenhorst: 297-1405
Brian Murphy: 841-8511
Dave Williams: 769-7430
Gerald Venne: 826-2680

Link Activities for March:

Observer's Meeting – March 25
Link Training – None this month

McCloud Activities:

Non this month

Observing Activities

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 caretaker Cecil Rich at 765 366-3235 before 5PM on the day you want to go out.

Bulletin Stats

All personal and professional opinions presented herein do not, in any way, represent the opinion or policy of JPL or NASA.

Accessing the Bulletin
The current bulletin can be found on the website 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
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

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: John Shepherd (317) 862-3442

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Gary Schoppenhorst (2006)
Gerald Venne (2006)
Thad Hatchett (2007)
Doug Brown (2007)
Bill Conner (2007)
Marion Hakes (2008)
John Molt (2008)

Public Event Chairman

Gerald Venne gvenne@iquest.net 1 317 826-2680

Library Committee Chairman

Ed Otto ecotto1@comcast.net

March Calendar, 2006

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	**2**	3	4 McCloud Work Day First Qtr Moon
5	6	7	8	9	10	11 General Meeting Butler
12 Full Moon	13	14	15	16 Board Meeting	17	18
19	20	21 Last Qtr Moon	22	23	24	25 Messier Marathon at Link New Moon Meeting Observers Meeting
26	27 New Moon	28	29	30	31	

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 ($25.00)	
Annual Student Membership ($10.00)	
Astronomy Magazine Renewal ($34.00)	
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: 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.