

Monthly Publication of the Indiana Astronomical Society

September, 2003
Volume 70, Issue 9
www.iasindy.org



The Bulletin

Mars Watch - Five nights at the Link to Observe Mars in August

The Link will be open 5 nights weather permitting to observe Mars. Dates include August 22, 23, 27, 29 and 30. Gates open at 7:30.

General Meeting September 13, 2003 7:00 PM at the Link Observatory

Dr. Michael Lipschutz of Purdue University will be our speaker at our General Meeting. Dr. Lipschutz will speak on Dark Asteroids and Their Terrestrial Droppings. See synopsis on page two concerning the topic.

Indiana Astronomical Society, Inc.
1780 S. Morgantown Rd.
Greenwood, In 46143

First Class Mail

membership expires as of the date on your address label

September General Meeting - 7:00PM at the Link Observatory

Dark Asteroids and Their Terrestrial Droppings

Dr. Michael E. Lipschutz of Purdue University

Nearly all of the thousands of known meteorites come from minor planets (asteroids): a few dozen come from Mars and our Moon. Some asteroids are large enough and close enough to Earth to measure their spectral reflectance. Links between dark or low-albedo asteroids (of types C, G, B, F and D) and carbonaceous chondrites have long been suspected but spectral differences between asteroids and most of these rocks (their presumptive droppings) are serious. Recent trace element (chemical) studies at Purdue demonstrate that a small subset of carbonaceous chondrites from cold (Antarctica) and hot (Sahara) deserts were heated preterrestrially, in some cases as high as 900°C, in their parent bodies. Collaborative petrographic data confirm this and their reflectance spectra match those of low-albedo asteroids (except D). We show that surfaces of C-, G-, B- and F-asteroids are mixtures of thermally metamorphosed, interior material excavated by impacts and redeposited on them. A unique carbonaceous chondrite, Tagish Lake, that fell in the Canadian Arctic on Jan. 8, 2000, is the only known D asteroid dropping.

Great Quotes

Written by Frank Dilatush

>"Spectabulous, magnerific"...there just really aren't words for the Veil under a great sky are there?...Touring works, or cruising...through and around the ghostly pleats of the east, swirling through the red helix smoke of the west. The beauty and immensity overwhelming any earthly cares. And after many minutes pass like a few seconds, you stumble away from the eyepiece all buzzed and stoked, muttering something like, "Dang...I think I just saw God's shower curtain"...

These are the moments that a mere mortals best memories are made of.

Field Trip to Oakley Observatory a Great Success

Article submitted by Bill Conner.

A Field Trip to Oakley Observatory

Ever since Professor Ditteon from Rose-Hulman visited us and made a presentation on the Oakley observatory, I have wanted to go and see it for myself. I arranged to ride with Gerald Venne and the trip went quickly as we discussed our backgrounds and interests in astronomy. A short stop at Arby's on the way, prepared us for an evening of observing and we hoped that the sky would clear by observing time. We found the gate locked

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upon our arrival and parked with several other early arrivals. As the time for the presentation came and went we decided to slip through the gate and walk up to the observatory to obtain pictures before sunset. As we returned to our cars, Professor Ditteon arrived and let us drive in. Nineteen members made the trip.

The professor invited us into a home that had been converted into a classroom, computer lab and warming station. He briefly reviewed the history of the observing facilities at Rose-Hulman and how they came to be funded and constructed.

We then trudged up the hill to the observatory itself. A long flight of stairs led up to the observing deck some twenty feet above ground. The professor related that this was necessary in order to see over the trees that isolated the site from lights on the campus.

The lightweight roof, adapted from a greenhouse, was slid back for observing. Professor Ditteon then proceeded to introduce us to each of the eight telescopes on the observing deck. A six inch f15 brass Clarke refractor, circa 1886 or so, was installed in position number one on top of an early, computer controlled, Paramount GEM. It was a sight to behold and all of us wanted to take a look through it. The professor obliged by slewing it to the double double and we all took a look. Wow, with a 15mm eyepiece it split this double pair with room to spare and no color was evident from the two element acromat. That Clarke knew how to meticulously figure lenses was quite evident.

Position number two held the cassegrain from the original observatory. The remaining positions were filled by two 11 inch Celestrons with Apogee cameras, two 12 inch Meades and two 14 inch Celestrons also with advanced Apogee cameras. Paramount GEMs supported all these telescopes. I couldn't help but drool over the equipment. One of the Paramounts was a brand new state-of-the-art Millennium. All the equipment could be operated via the internet.

Professor Ditteon indicated that most observing from this site was conducted during the Spring and Fall months. When ice, snow and overcast prevents operation, Rose-Hulman uses a rented robotic scope out in Arizona to obtain images for research.

All of us enjoyed the experience and the trip home was filled with conversation about the observatory, scopes and mounts that we had seen. It was well worth the trip.

New Members

The IAS would like to welcome the following new members:

Charles T Roberts, Greenwood
Zach Brahma, Indianapolis
Chris Torratto, Greenfield
Gerald Lahmann, Indianapolis
Max Henschen, Indianapolis
Christopher Haynes, Bloomington

Scott Houseman, Carmel
Brian Carney, Indianapolis
William P. Wasser, Greenwood
Kent L. Obenchain, Brownsburg
Chuck Fields, Indianapolis

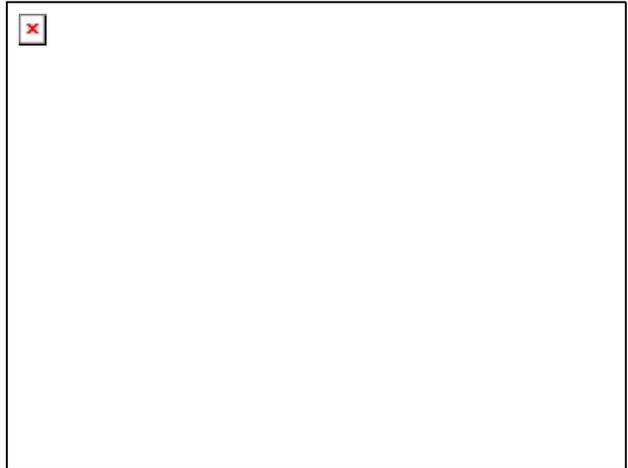
IFSP A Success

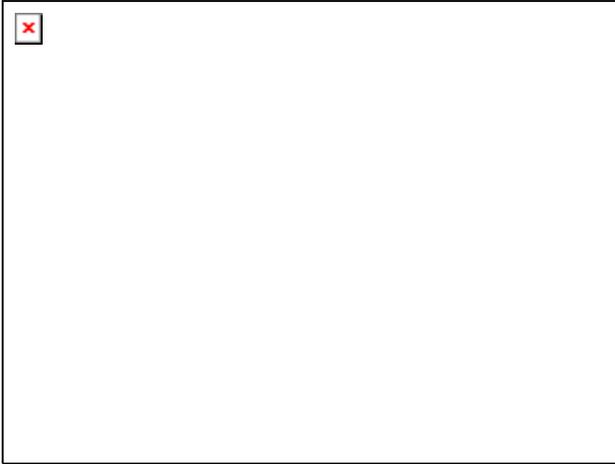
Article submitted by Jeff Patterson

The first family star party held at Camp Cullum is over. In many ways I consider it a great success. Although we had terrible weather, we had approximately 85 campers (56 families). Seven societies were represented. Not bad for a first time with no sky. In addition of those attending the IAS had more representation than any of the other Societies. We handled the registration well and most of the speakers were representatives from the IAS. Our Own Dan Kaiser and Kevin Fleming were the focus speakers of the event. I was proud. We have performed an analysis and plans are to make some changes for next year to improve attendance. It is hard to get people to come out when is cloudy both during the day and the night. I never even opened my scope up. Hopefully next year we can have better weather.

The field trip to Kentland to see the "Kentland Anomaly" was very interesting. This is the site of a prehistoric meteor strike (97 million years ago). It was completely smoothed out by the glacial action. Geologists apparently were confused about the geological structure. The normal layers of shale go every which direction due to the impact. All that is left are shatter cones in the limestone (note picture). A couple of us found ourselves purchasing a bit of history. We imagine the truck drivers think we are crazy paying \$10 for a single stone about the size of #53 crushed stone when they buy it for about \$10/ton. Astronomers have never been classified as normal.

Four members of the IAS (Bill Conner, Jay Simmons, Jeff Patterson, Brian Murphy) resting on a shattercone after the tour of the quarry.





A good example of the shock lines in a shattercone
Thanks to Bill Conner for the pictures.

Science Lectures Exploring Space at IUPUI

Article submitted by Brenda Bishop

4th Annual FRONTIERS IN SCIENCE

An out of this world lecture series exploring SPACE
presented by the IUPUI School of Science Alumni Association

Saturday, September 13

1:00-2:30 p.m.

IUPUI University Library Lilly Auditorium

on the IUPUI campus

"Studying the Earth from the Space Shuttle"

Explore space with a pictorial study of the Earth from the Space Shuttle, brought to you from the man who has trained 17 classes of NASA astronauts. You'll be awed by brilliant photos taken by astronauts from orbit.

William R. Muehlberger is the Peter T. Flawn Centennial Chair in Geology Emeritus at The University of Texas at Austin, where he taught geology for 38 years. His interests lie in structural geology and tectonics, as well as the mechanics of transport of material by wind, rivers and ice.

Thursday, October 2

6:30-7:30 p.m., star-gazing immediately following

University Library Lilly Auditorium

on the IUPUI campus

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"Backyard Astronomy"

What do you see when you look up at the stars? Discover brilliance in your own backyard. Discover the stars and heavens with nothing more than your eyes. No telescope needed! "Backyard Astronomy" will help you identify nearby galaxies and observe where we live in the galaxy. A star-gazing session will follow this stellar workshop.

Fritz Kleinhans has been looking at the stars for more than 50 years. He received his first telescope in the 6th grade. "Professionally," the IUPUI School of Science professor is a biophysicist who works on problems in cryobiology, but he is always waiting for that next comet and that next eclipse.

Brenda Bishop
Director of External Affairs
IUPUI School of Science

Orchids and Onions

Orchids to the IAS members who helped man the activities at the IFSP. It is really good to have a group of volunteers who take the reins and get the job done. I thank each and every one of you.

Jay Simmons
Dan O'Brien
Julane Beetham
Jeff Patterson
Jerry Vessels
Dave Stevens
Lisa Stevens

Larry Phillips
Gerald Venne
Terry Steadham
Thad Hatchett
Doug Brown
Betsy Brown
John Shephard

Notes from the Pres - Do You want to be President - Secretary - Board Member - etc?? Elections are Coming

Have you ever thought about the direction you would like to see us going in the Society? Do you not like what's going on? Do you want a change? Would you like to mould the Society? Well it is that time of year when we begin to think of elections. The Board has appointed a nominations committee and by October we need to have a slate of nominees. We really do need you to nominate a slate of people to be the leaders of the society next year. The Officers need to be elected every year and the board members serve 3 year terms. So there are two board positions to be filled. If you like to lead, contact one of the members of the Nominating Committee. The only criteria is that you be a member in good standing, been a member for at least a year, and are willing to attend the Board meetings.

Observer's Corner Mars is coming Are you ready? Mars Watch

Well it is here. The 27th of this month, Mars will be closer to the Earth than it has been in recorded times. It will be the size of Jupiter! Do you have your filters and short focal length eyepieces ready. It is best to view Mars in an orange or a red filter. Green is sometimes used. We should have a couple of months of pretty good observing. Make the best of it. We will have Mars nights on August 22, 23, 27, 29, and 30

I received this the other day from Alwyn Botha

"I started a website 2 months ago that documents successful webcam settings when taking pictures of the planet Mars:

<http://www.webcam-astrophotography.com>

Some of the questions it answers are:

- How many frames should be stacked from an astrophotography AVI?
- How many minutes long can my webcam capture AVI be before rotational blurring occurs?
- How do dust donuts affect image quality?
- What percentage gamma should I use for my webcam?

At the moment there are more than 50 sets of images of Mars taken during June, July and August 2003. Your club's members could use this website to learn what works and what does not when taking pictures of Mars.

This way, they need not waste time experimenting, but can spend it more productively taking pictures and AVIs using settings that work.

Your members that do not do webcam astrophotography might still get value from this website, just by admiring the beauty of Mars. My pictures really started to get impressive and beautiful when I started using a 3x Barlow lens on 15 July 2003. I am using an unmodified Logitech Quickcam Pro 4000. Most other standard webcams with ccd chips will work as well. All the techniques I use will be useful when taking webcam images of Jupiter and Saturn as well." Alwyn Botha

The Pres

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McCloud Nature Park - A Dark Site for Observing

Submitted by Mike Wolford

Hey, when was the last time that you actually saw the Mag 5 stars in the little dipper? Or noticed that one of the stars in Draco's tail is actually a group of four? Or actually even noticed that there **are** stars between the Big Dipper and Polaris? Well, come on out to McCloud Nature Park and see for yourself! McCloud Nature Park is located in Hendricks County and just recently opened. It is 230 acres of --- well --- Nature!!! Those of us who have been out there have been well received and the welcome mat is in place for us when we want to go back.

The interpretive naturalist has requested that we come out for new moon and show the sky to the public. A few of us have been out there for the last two new moons, and have had a few small but very inquisitive groups each time.

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@ccrtc.com

The Society Needs a New Bulletin editor

As you know John May has decided to resign as editor of the Bulletin. I am acting as editor until we appoint a new one. It looks like it takes about 10 -15 hours per month and includes editing articles submitted by members, writing stories as well as mailing out copies to members who receive the Bulletin by mail. If you are interested in volunteering to be the editor of the Bulletin, please contact Jeff Patterson 317 882-8055. E-mail JMPSR@Iquest.net.

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

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

WANTED: 6" f/5 Newtonian primary mirror, completely made. Will consider a 6" f/5 Newtonian OTA, but prefer mirror alone. Contact Mark Bradbury, e-mail only. NO PHONE CALLS. e-mail: sn1996bk@yahoo.com

For Sale: Meade 201XT CCD Autoguider. Like new, Complete, in original box, Cost \$400 new
Asking \$187
Fritz Kleinhans
Starman@iupui.edu
317 274-6904 (W)
317 290-1689 (H)

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: Like new Orion Skyview Deluxe 6" EQ Newtonian with Polar alignment scope, Padded case, premium 25mm and 9mm Plossl eyepieces, and moon filter. Please call Tammy at (317) 8942437 or E-Mail jeffand tammy@msn.com

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

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. This is a great way to see what you want to use. We have several scopes and at this time there is no demand. Contact Brian Murphy at bmurf@tcon.net.

List Server Now online

The list server is now on-line for use of Society business. The Board has authorized Gary Schoppenhorst to add members addresses to this server. It can only be used according to the rules as outlined previously. Members abusing the service will be eliminated from the service. In this time of transition with the Bulletin, this service will be our main communication tool. The list server is in the "Members Only" section of the site and is accessible only by IAS members. You will be contacted by Gary Schoppenhorst with more information.

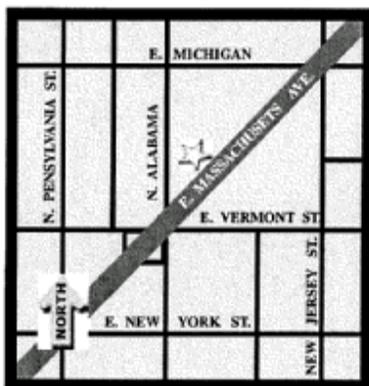
The Pres

September Board Meeting – September 11 - 7:00 PM

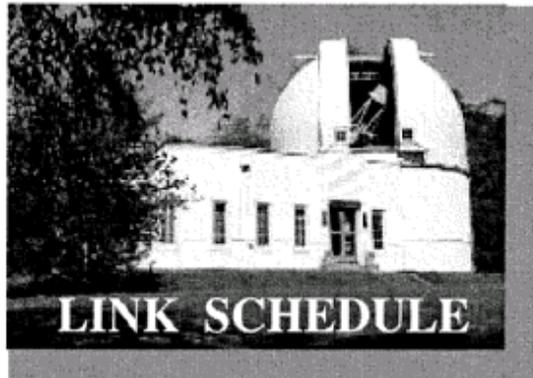
Note the Change in Date due to Astrofest.

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.

Map to the Board Meeting



Link Schedule



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: 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:841-851

Dave Williams:769-7430

Mars Watch August 22, 23, 27, 29, 30
New Moon Group Meeting September 27
Observer's Meeting September 27
New Astronomers September 27
Link Training September 27

Bulletin Stats

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, acting editor

1780 S. Morgantown Rd

Greenwood, IN 46143

Phone: 317-882-8055

JMPSR@Iquest.net

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Membership information

Contact any IAS officer or the membership chairman

Larry Phillips

9413 South PR Black Hawk Hills Dr.

Edinburgh, In 46124

lpastro@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

Board of Directors

Gary Schoppenhoirst (2003)

Mike Kirsch (2003)

Thad Hatchett (2004)

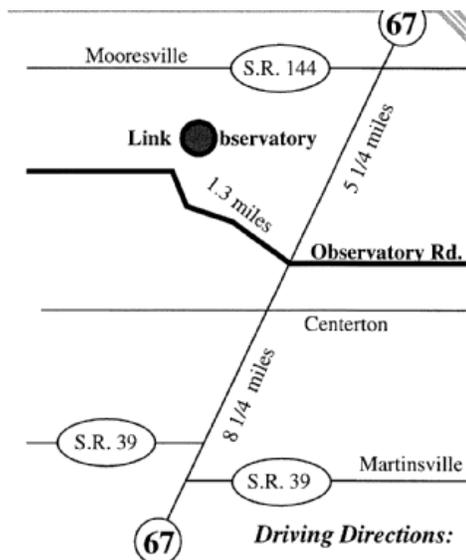
Doug Brown (2004)

Bill Conner (2004)

Marion Hakes (2005)

John Molt (2005)

Map to the Goethe Link Observatory



The 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.

Indiana Astronomical Society, Inc. Calendar

August 2003

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Indiana Family Star Party	2 Indiana Family Star Party
3 Indiana Family Star Party	4	5 1 st Qtr Moon	6	7 Pioneer Park Nature Program	8	9 Field Trip to Oakley Observatory 7PM
10	11	12 Full Moon	13	14 Board Meeting 7:00 PM	15	16
17	18	19 Last Qtr Moon	20	21	22	23 Observer's Meeting Link Training New Moon Group
24	25	26	27 New Moon Mars at maximum diameter	28	29	30 Mars Observing at the Link
31						

Membership Application

- BENEFITS**
- * Use of the Goethe Link Observatory
 - * Formal Monthly Programs with Guest Speakers
 - * Local and Regional Astronomical Functions
 - * Telescope Making Classes
 - * Discounted Astronomy Publications
 - * New Moon Group Meetings at various dark sky locations
 - * Access to IAS member expertise and problem solving
 - * The *WZZZZZK* Monthly newsletter with Astro-Classifieds
 - * Informal Astronomy and Astrophotography Seminars
 - * Access to the "Members Only" section of the IAS website
 - * Free Admission to the Holcomb Planetarium
 - * Star Party Events and Annual Messier Marathons



Please indicate by checking new or renewal membership on this application. The magazine subscription centred in this application. U.S. MAIL Download from the Website

NEW RENEWAL

Name: _____
 Address: _____
 City: _____ St _____ Zip _____
 Phone: (____) _____
 E-Mail Address: _____
 How do you want to receive the IAS monthly newsletter:
 U.S. MAIL Download from the Website

Annual Regular Membership Fee:	\$20
Annual Student Membership Fee:	\$10
Astronomy Magazine:	\$29/yr
Sky & Telescope Magazine:	\$30/yr
Observers' Handbook: (when available)	
	TOTAL

Make Checks Payable to: **THE INDIANA ASTRONOMICAL SOCIETY, INC.**

Mail this Order Form to:
Dave Timmerman, Treasurer
 786 Woodview North Drive
 Carmel, IN 46032

Member Profile

Spouse's Name: _____
 Children's Names & Ages: _____
 Education: _____
 Occupation: _____
 How Many Years Involved With Astronomy: _____
 Special Astronomical Interests or Projects: _____
 Equipment/Computers/Telescopes: _____
 What Can The Society Do For You: _____
 What Can You Do For The Society: _____

Profile information is not a requirement for membership in the Indiana Astronomical Society. This survey is entered into the IAS data base and it is not given or sold for solicitation purposes. It does provide for a brief/welcoming article about a new member that may be published in the BULLETIN.