

April, 2010
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The Bulletin

The April General Meeting, April 10, 2010

7:00 PM

Holcomb Observatory

Jets from Supermassive Black Holes: Beacons in the Gamma-Ray Sky

Matt Lister

Purdue University

Astrophysical jets associated with active galactic nuclei (AGN) are among the most energetic known phenomena in nature, and are among the only objects we can directly observe at extreme cosmological distances. We have been able to study these jets in great detail with radio telescopes and more recently, with the Chandra X-ray and Fermi Gamma-Ray orbiting observatories. For the first time, these facilities are being used together to provide a true multi-wavelength picture of what occurs deep in the nuclei of distant galaxies. The MOJAVE program is a long term project to investigate nearly three hundred of the brightest jets in the northern sky whose light is highly beamed toward us. These 'blazars' flicker rapidly in intensity at all wave-bands, and dominate the gamma-ray sky outside the galactic plane. I will describe some of the major contributions the MOJAVE program has made to our understanding of AGN jet phenomena, including several longstanding unresolved issues that will be addressed with current and upcoming telescopes.

Matt Lister grew up in Ottawa, Canada, where the dark skies above his family cottage in Quebec captured his imagination from an early age. After receiving degrees from University of Toronto and University of Victoria in physics and astronomy, he moved to the U.S. and obtained a Ph.D. in astronomy from Boston University in 1999. He held postdoctoral fellowships at NASA's Jet Propulsion Laboratory in Pasadena, CA, and the National Radio Astronomy Observatory in Charlottesville, VA before assuming a faculty position at Purdue University in 2003, where he is currently an associate professor of physics. Outside astronomy, his interests include playing the piano, volleyball, and marathon running. He, his wife, and two daughters currently reside in West Lafayette, Indiana.

IAS Calendar of Events for April

April 13 – Board Meeting

April 10 – General Meeting at Holcomb Observatory

April 16-18 Campout at Prairie Grass/Camp Cullom – Two nights of observing

April 24 – NAG at McCloud

Activities for April:

Link Observatory

None Scheduled

**Note the Observatory is closed for remodeling and will reopen mid April.
The grounds of the Link Property are open daily the month of April for viewing
Mrs. Link's daffodils. Be sure and go and enjoy.**

McCloud Activities–

NAG – April 24

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 McCloud to observe, please call the park office 765 676 5437 before 4PM on the day you want to go out. They will give you permission to be there at night and make arrangements to cut off the lights.

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

Other Observing Activities

The Kirkwood Observatory Solar Telescope is open on the "First Saturday" of each month from 1-3 PM. Viewers may even be able to see a solar prominence or two weather permitting. Updated weather conditions and closings will be posted at the Kirkwood Observatory Hotline at (812) 855-7736, and at the Observatory webpage, <http://www.astro.indiana.edu/kirkwood.shtml>.

Monthly openings of the solar telescope are planned for the first Saturday of each month during our 2009 observing season, in celebration of the International Year of Astronomy. And if you want to follow the Sun in between our monthly Solar Telescope openings, the website www.spaceweather.com provides daily updates.

April Under the Stars at Camp Cullom

April 16-18 will be our annual visit to Camp Cullom for our joint observing event with the WVAS. You can come one or two nights and camp and observe. Plan to arrive about 5 PM so as to get set up before dark. There is no charge. With the weather we have had watch to condition of the ground before driving on it. It is a fun event.

**New Astronomer's Group Meeting
McCloud Nature Park
Saturday April 24 7:30 PM**

It's spring again and time for the first monthly meeting of the Indiana Astronomical Society's New Astronomers Group for 2010. We will be meeting on Saturday April 24 at McCloud Nature Park starting at 7:30 pm.

THE NAG MEETING WILL BE HELD - RAIN OR SHINE.

Discussion topics for this month:

Observing the April Evening Sky and how to find these objects

Our Solar System

Our Deep Sky Objects for April

A Beginners Introduction to the Telescope

Question and answer session

The purpose and intent of the NAG is to introduce new astronomers to observing the night sky. All types of observing will be discussed including naked eye, binocular and telescope.

If the weather cooperates, following the meeting, IAS members will have telescopes set up and attendees will have an opportunity to view some of the night sky objects discussed during the meeting.

The night sky can be an intimidating place. With a little help everyone can enjoy the celestial beauty that we have all taken for granted our whole lives. From the constellations to the deep sky; with the naked eye or with a telescope, there is something for everyone to enjoy.

We need IAS members to be ambassadors and meet the public and show our hobby. Pray for good weather.

ALCor Observations

By Bill Conner

Global Astronomy Month – April 2010 - GAM2010

The Celebration of the Universe Continues

The Astronomical League and Astronomers Without Borders are inviting all astronomy enthusiasts worldwide to celebrate the Universe for an entire month. GAM2010 will include the most popular events for both amateur astronomers and the public. As in 100 Hours of Astronomy in 2009, amateur astronomers are the key. Your participation will make it possible for the public to enjoy the following events. Inform your friends about the following events: "The Universe at Your Command" features a virtual telescope that will be available at no cost on several days during April for personal day-time and night-time observing. An astronomer will be onsite to provide assistance and give live commentary through audio/video streaming. While one participant controls the telescopes and cameras, others can watch the live stream and discuss the event through chatting. Up to 30 minutes of observing time will be available for each user. For more information go to the Virtual Telescope's web page at:

<http://virtualtelescope.bellatrixobservatory.org/tuayf2010.html>

There will be an on-line, robotic telescope, Messier marathon on April 5th, starting at 18:00 hours Universal Time (2PM EDT +4 =18:00 UT). To participate go to:

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<http://virtualtelescope.bellatrixobservatory.org/mm2010.html> The telescopes are located in central Italy, SE of Rome.

Lunar Week, 17-23 April, will highlight the Moon and focus on the Saturn, “The Lord of the Rings.” Set up your scope and invite your friends out to see for themselves this week. The 24 hour Global Star Party returns in GAM, coinciding with Astronomy Day on April 24th. The IAS is sponsoring a “New Astronomers Group” program this day. The Lyrid meteor shower, peaks on April 22th. Unfortunately the moon is 1st Qtr. Online presentations and other special events will ensure that there’s something for everyone. For more information visit the GAM2010 web site at

<http://www.astronomerswithoutborders.org/index.php/projects/global-astronomy-month.html> .

This site is the hub of all the activity, with event registration and descriptions, a broadcast channel for online events, news pages, a blog for organizers to share their events and more. There will be on-line interaction between participants as well, in keeping the GAM’s slogan, “One people, one sky.”

Observing Report from Danny Mitchell

(Danny Mitchell is one of our members from Illinois)

Just got home Tuesday night from a very memorable astro adventure thanks to Jerry and Kathie at their home near Ft. Davis, Texas.

Arrived late at Midland Airport (due to American Airlines canceling my flight) but Jerry was there with a smile. A two and a half hour ride later we were at the house under a very beautiful sky full of stars. We were both tired so we elected to talk a while and hit the sack. Wed night looked good so we decided to give Jimmi Lowery a call and to my delight he invited us down to observe. We got there about eight and met his wife Connie and got the grand tour of the house, and what a house it is. After that it was off to the BIG scope. He already had the roof rolled back and we were ready for action.

M42 was nicely placed and Jimmi slew to it and then had a look, and said whose next, Jerry hesitated and I went for the ladder. A twelve foot orchard ladder that is somewhat intimidating the first trip up:-) I made it to a comfortable position and looked in to what I believe was a 17 Ethos and looked at an unbelievable view of 42. E and F where just there plain as day, did a search to see if any others where visible and could not see them. The nebula was picture like , cloud like and pinkish red in color with wisps going off forever, could see the polypropilids(spelling) just glowing red with new star formation. The most amazing sight indeed :-)

My turn was done and Jerry was equally impressed. By the way it was just the three of us so observing was not rushed, could spend all the time you wanted at the eyepiece while moving the scope around to get the entire view.

Below is a list of objects we viewed. We used possibly a 17 Ethos, and for sure a 10 mm Zeiss, and 6mm Tak. and no Parracor. Jimmi does not want any extra glass taking away from his quest for faint fuzzys. The mirror I believe is a F4 and a bit of coma could be seen at the edge but did not take away from the view. This mirror is killer. Galaxies were allot like the pics you see in books, just an amazing amount of detail , some of the eye candy ones looked like clouds.

Planetary Nebulas like the Ghost of Jupiter, Eskimo, NGC 2371 the Peanut Neb gave up photo like detail, and color, just amazing at 900 power, that's what the 6mm produced, the 10mm was around 500 and the 17 around 300 if I remember right.

Saw some 9.1 billion year old light when we observed NGC 3097 the double quasar, and yes it was direct vision.

Galaxy clusters were fantastic , except, the scope was not quite at zenith when we went to Abell 2065 (40 Galaxies in the field) and I climbed the ladder only to find that I could not force myself to go to the next step up and get my eye to the eyepiece. In the dark I just could not do it. Told

Jerry and Jimmi they would have to explain the view to me. This happened on one other object, but I can't remember what it was. Its hell to be short.

The next killer object was M51, you can not imagine what was seen, it was just amazing the detail, the spiral arms looked like thick clouds, the bridge was like one of the arms in my scope, the dust and the hot spots just everywhere, fantastic. The only thing better could be 51 in the Denk binos with 24 Pans, you talk about a view. Also observed M104 with binos .

Jimmy and Jerry could see the Jet in M87, but it was not there for me , even in 49" of telescope. Another one that really stood out was Thors Helmet with an O111, It was like some of the better pictures you see in the books, just lots of detail and structure, wispy ends going on forever. My first southern sky objects, Omega Centauri, and Centaurs A were beyond belief. Omega Centauri filled the whole field of view and then some on a Nagler 31 mm. We did a comparison with M13 and it looked small in comparison, imagine that.

M57 was the last object we observed and yes the central star was there all the time , could not see any of the other stars, compared to most of the objects we observed it was not very well placed in the sky.

All and all it has to be my best night ever at a scope, we observed till 4 am , the night was rated at about 6.5.

The scope was lowered down, eyepiece boxes closed and the roof closed in about 10 min.

It's hard to beat a roll off roof.

The next night was spent Mallincaming on Jerry's 22. The scope tracked very well. We got 7 sec easy and 14 sec on several objects. The best of the night for that was Hickson 50 with all 5 galaxies visible, some down below 20th mag. I tried to grab some frames of the DVD and for some reason they don't look good on the computer. When we played it back on the 9" monitor it looked good, will be working with that somemore.

That was it for observing the last two nights were clouded out.

The neighbor could not make it , so we just got to look at but not thru the 32" StarStructure , I may of got eye damage if that would have happened.

Sorry if I rambled thru this but it was a truly amazing time and hard to pick the better objects and I'm sure I missed telling you about some of the nicer views. Maybe Jerry will have some commits on the 49" adventure.

Here is the list of the objects we observed

Dan

M42 - IC418 - M46 and the planetary - Thors Helmet - NGC 1888 (ARP 123) - M81 - M82 - Hickson 55 chain - NGC 3697 NGC 3714 - NGC 3097 and the double quasar - M 108 - M97 - Hickson 56 - NGC 3758 - NGC 3628 - Ghost of Jupiter - Eskimo Nebula - NGC 2371 the Peanut Nebula -

IC 3568 Lemon Slice - NGC 4490 (ARP 269) - M63 - M 64 - NGC 4565 - PGC 40901 -

Hickson 61 - M3 - UGC 9242 - M51 - M104 - NGC 4361

Antenna Galaxy - NGC4517 - M 87 - M 83 - NGC 5139 9 Omega Cen.) - NGC 5128 (Centaurus A) - M 13 and the galaxy nearby - NGC 6058 -

Virgo Galaxy Cluster - NGC 4210 - Seyfert Sextet - Abell 2065 (40 Galaxies) - M 57

Solar Eclipse perfect for Indiana and Kentucky – Put this on Your Calendars

Yeah, I know it's seven years away, but I wasn't sure if anyone in the club had yet heard about this. On August 21, 2017, a total eclipse of our Sun will occur, and the absolute best place on Earth (known as the "point of greatest eclipse") just happens to be along highway 91 about halfway between Hopkinsville and Princeton, KY. Folks, we are talking about an eclipse path that begins in the North Pacific and ends over near the western coast of Africa (some 9000 miles long), and we are at the very center of it all! Cool, huh? The length of totality is estimated to be

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2 minutes 40.1 seconds for the GE point. It appears that this is the first total solar eclipse on mainland America since 1979, and the first one to sweep across our entire country since 1918. Talk about good publicity for the club and LBL...

For more info...

http://xjubier.free.fr/en/site_pages/solar_eclipses/TSE_2017_GoogleMapFull.html

<http://eclipse.gsfc.nasa.gov/SEgoogle/SEgoogle2001/SE2017Aug21Tgoogle.html>

<http://eclipse.gsfc.nasa.gov/SEplot/SEplot2001/SE2017Aug21T.GIF>

<http://www.mcglan.com/eclipse/2017/maps/mo-il-ky.gif>

http://www.eclipse2017.org/ECLIPSE2017_main.HTM

Jay McNeil

www.deepskyastro.com

Spectacular Spiral

April, 2010

By Tom Koonce

Antelope Valley Astronomy Club, Inc.

Lancaster, California

Every year around mid-April the Whirlpool galaxy is well placed for observation in the northern sky in Canes Venatici (The Hunting Dogs). The Whirlpool is also known as M51 and NGC 5194, but most people know it by the nickname that is obvious after your first view. It has a smaller, yellowish companion galaxy, NGC 5195 in the distance. The Whirlpool is the best spiral galaxy in the sky, in my opinion. It can be seen with a small telescope, the spiral arms detected in an 8" scope, and when it is viewed through a really large telescope it is a stunning sight that you'll never forget. It's always a star party favorite when it's visible higher in the sky. A friend once let me observed it through his 51" reflector and I could hardly tear myself away from the view after 15 minutes. I thought I had only been at the eyepiece for 30 seconds...



Photo Credit: HST, ACS

You will find it quickly by following the curved handle of the Big Dipper away from the dipper to the star Alkaid at the end of the handle. Then look 2 degrees (outer ring of your Telrad) lower to the south and west in declination at about a 90 degree angle to the handle of the dipper. Scan around the area at low powers and you'll spot it as a fuzzy patch of gray.

The more magnification that you apply to the view, the more of the galaxy's structure will be revealed. Under clear, dark skies you will easily be able to make out the spiral structure of the two tightly wound spiral arms, dust lanes and the illusion of a connecting bridge of material between the two galaxies that is not actually there, at least to the extent that it looks like through the eyepiece. The two galaxies interacted about 70 million years ago, with M51 coming out the winner, gaining mass and kick starting many regions of active star formation. While it certainly would have been an exciting (bad?) time to be living in the Whirlpool galaxy, the result today is a spectacular face-on spiral galaxy just 31 million light years away from us with plenty of interesting details, such as the pinkish knots of star forming regions and the radial wisps of interactions between the spiral arms. At medium power, sharp observers may be able to spot another much smaller edge-on galaxy, NGC 5229, to the northwest in the same field of view.

There are a few tricks to observing the Whirlpool galaxy and other 'faint fuzzies' like it. Obviously clear, dark skies and steady seeing are important. Filters will not enhance your views of galaxies, since galaxies are composed of stars emitting at all frequencies, filtering the view down to a particular band of frequencies will not increase the contrast of the view, like looking at the Ring Nebula with an OIII filter. The best way to visually observe extended, dim, magnitude 8.4 objects like the Whirlpool is to increase the amount of light getting to your eye... thus "bigger aperture is better." Please be careful when viewing awesome deep sky objects like M51 through really big telescopes, as it has been known to lead to serious infections of "Aperture Fever" in some observers. Sadly, there is no known cure for it and no known health insurance plans cover the cost of treatment. Trips to the Texas Star Party, Winter Star Party and other major deep sky events where big telescopes are present only offer temporary relief.

Now that the weather is warming up once again, take some time in April to get to know the spectacular Whirlpool galaxy, either for the first time or perhaps visit your old friend and study it in new detail.

Clear Skies,
Tom

For More Information:

<http://hubblesite.org/newscenter/archive/releases/2005/12/image/a>
<http://apod.nasa.gov/apod/ap090526.html>

From the Space Place

Deadly Planets

By Patrick L. Barry and Dr. Tony Phillips

About 900 light years from here is a rocky planet not much bigger than Earth. It goes around its star once every hundred days, a trifle fast, but not too different from a standard Earth-year. At least two and possibly three other planets circle the same star, forming a complete solar system.

Interested? Don't be. Going there would be the last thing you ever do.

The star is a pulsar, PSR 1257+12, the seething-hot core of a supernova that exploded millions of years ago. Its planets are bathed not in gentle, life-giving sunshine but instead a blistering torrent of X-rays and high-energy particles.

"It would be like trying to live next to Chernobyl," says Charles Beichman, a scientist at JPL and director of the Michelson Science Center at Caltech.

Our own Sun emits small amounts of pulsar-like X-rays and high energy particles, but the amount of such radiation coming from a pulsar is "orders of magnitude more," he says. Even for a planet orbiting as far out as the Earth, this radiation could blow away the planet's atmosphere, and even vaporize sand right off the planet's surface.

Astronomer Alex Wolszczan discovered planets around PSR 1257+12 in the 1990s using Puerto Rico's giant Arecibo radio telescope. At first, no one believed worlds could form around pulsars—it was too bizarre. Supernovas were supposed to destroy planets, not create them. Where did these worlds come from?

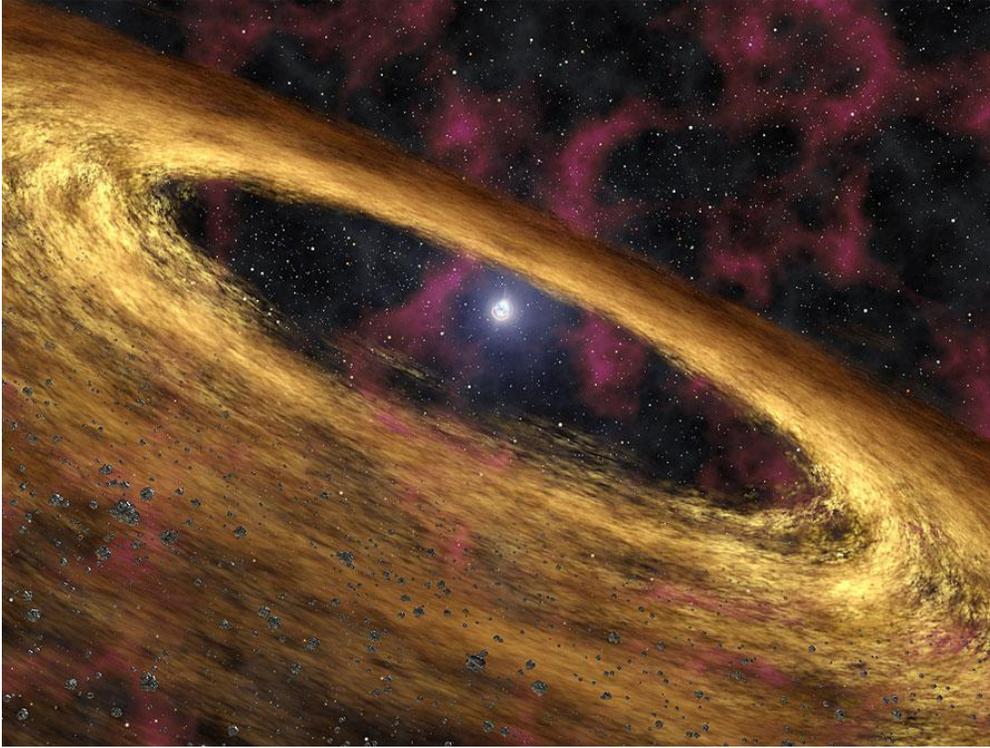
NASA's Spitzer Space Telescope may have found the solution. In 2005, a group of astronomers led by Deepto Chakrabarty of MIT pointed the infrared telescope toward pulsar 4U 0142+61. Data revealed a disk of gas and dust surrounding the central star, probably wreckage from the supernova. It was just the sort of disk that could coalesce to form planets!

As deadly as pulsar planets are, they might also be hauntingly beautiful. The vaporized matter rising from the planets' surfaces could be ionized by the incoming radiation, creating colorful auroras across the sky. And though the pulsar would only appear as a tiny dot in the sky (the pulsar itself is only 20-40 km across), it would be enshrouded in a hazy glow of light emitted by radiation particles as they curve in the pulsar's strong magnetic field.

Wasted beauty? Maybe. Beichman points out the positive: "It's an awful place to try and form planets, but if you can do it there, you can do it anywhere."

Find more news and images from Spitzer at <http://www.spitzer.caltech.edu/>. In addition, The Space Place Web site features several games related to Spitzer and infrared astronomy, as well as a storybook about a girl who dreamed of finding another Earth. Go to <http://tiny.cc/lucy208>.

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



Artist's concept of a pulsar and surrounding disk of rubble called a "fallback" disk, out of which new planets could form.

UP Coming Star Parties

The North Central Region of the Astronomical League (NCRAL) will hold its annual meeting on April 16-17, 2010 at the Holiday Inn hotel at the Bloomington-Normal, Illinois Airport. The meeting will be hosted by the Twin City Amateur Astronomers. Members of the Indiana Astronomical Society are welcome to attend this adjacent AL Region meeting. We are located in the Great Lakes region.

Online registration and additional information about the conference, including speakers, is available at <http://www.ncral2010.org> .

Mid-South Stargaze April 14-18 Mississippi The Observatory is one mile southeast of the Natchez Trace Parkway at French Camp. French Camp is about half-way between Jackson and Tupelo, Mississippi, at Natchez Trace mile marker 181.
<http://www.rainwaterobservatory.org/stargaze>

Tennessee Spring Star Party 2010 - Fall Creek Falls State Park April 16-18
<http://personal.bna.bellsouth.net/s/p/spsmith/default.htm>

Indiana Astronomy Day (IAS/PGO) – April 16-18
<http://jmmahony.home.insightbb.com/pgo/schedule.html>

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Texas Star Party West Texas May 9-16, 2010. This is a premier party with very dark skies and a great site. Just a long way. Online registration will open November 15.
www.texasstarparty.org

Michiana Star Party Potawatomi Wildlife Park near Tippecanoe Indiana May 14-16, 2010
Contact Michiana Astronomical Society for information and registration. www.michiana-astro.org

Apollo Rendezvous – Dayton, Ohio June 11 - 12
<http://mvas.org>

Two Rivers Spring Star Party May 13-16
www.freewebs.com/tworiversstarparty

JEPC Star Gazing Event IL June 10-13
<http://www.mikewolford.com/IEPC%20Event.htm>

Cherry Springs Star Party Cherry Springs State Park, PA June 10-13
<http://www.astrohbg.org/cssp/information>

Nebraska Star Party – August 8th - 13th, 2010 - North Central Nebraska - This is a premier dark site and has fantastic observing. However, the weather can be brutal. Temperatures can reach 105-110 degrees. However you can cool off in the shade of the tree. All activities will be at the Snake Creek Campground at Merritt Reservoir. <http://www.nebraskastarparty.org/>

Earth Wind and Sky Star Party August 5-8
www.freewebs.com/earthwindsky

Indiana Family Star Party Camp Cullum, Frankfort, IN August 5-8, 2010
<http://jmmahony.home.insightbb.com/pgo/starparty/>

Astrofest Kankakee IL Date To be announced
www.chicagoastro.org

Black Forest Star Party PA September 10-12
<http://www.bfsp.org/starparty/>

Okie-Tex Star Party – October 2-10 This is reported as one of the darkest sites in the US. It is a great deep sky event.

Twin Lakes Star Party October 2-10 This is a great party very close to home
www.wkaa.net

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

Membership Status

The following changes in membership took place in March: Total Membership 147

Renewals: 12

New student members: 0

New Member: 1

Steven P. Aldridge - Greenwood

Inactive status: 3 notices sent last week – no responses at this time.

Daniel Cervantes

Zach Conrad

Jim Ehler

Renewed from Inactive status: 3

Sherwood Waggy – Morris Plains, New Jersey

Rob Stokes – Westfield, Indiana

Bruce Bowman – Clayton, Indiana

IAS LIBRARY:

The complete list can be found (<http://www.iasindy.org/memonly/iasfiles.php>, which is password protected). We have a new additions for the library. There is now a link on our website page for our new Multi-Media Library. Greg has built this library of a multitude of videos that are on the web. The only problem is that you will have to have high speed internet to observe these video streams. We think it will be a great addition to our library for both novices and experienced observers. Greg has many more sources to go through so the library will continue to grow. If you have comments or questions about the library please contact Greg McCauley at 317 663-3289 or greg@ultrasoundconsulting.net .

IU Kirkwood Observatory

Kirkwood Observatory on the IU campus will be open each Wednesday evening through the fall, weather permitting! Join us for a night of observing the night sky with the Kirkwood 12" refractor. Please visit our schedule at <http://www.astro.indiana.edu/kirkwood.shtml>, for a list of dates and times. For updated weather conditions and closings, please call the Kirkwood Observatory Hotline at (812) 855-7736.

The IU Astronomy Department has an electronic bulletin to let people know about local astronomy activities and events. If you would like to subscribe, send an email to astdept@indiana.edu and we'll put you on the distribution list. Information about activities and events to be included in the e-bulletin should be sent to catyp@astro.indiana.edu.

Easy Listening:

Weekly pod casts are available at <http://www.astronomycast.com/> for those who love astronomy and want to learn, yet have no time (or desire) to do extra reading. They cover a variety of topics,

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and feature a different topic each week, so you can choose your flavor. The cast includes Fraser Cain, the publisher of Universe Today (<http://www.universetoday.com/>), and Dr. Pamela Gay, an assistant professor of physics at Southern Illinois University Edwardsville. You do not need an iPod or portable device to enjoy these.

Mentor Program

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

Do you have a question or need?

We are establishing a list of members who would be willing to receive calls for help on specific objects. If you have a specific skill and would be willing to help others please contact Jeff Patterson KB9SRB@hotmail.com.

Based upon the responses we received to your intro question recently, perhaps we should add a section to the bulletin naming those members who would be willing to receive calls for help on specific subjects.

William Conner (wmtconner@att.net) - for CCD imaging and film photography.
Jeff Patterson (KB9SRB@Hotmail.com) – Observatory design and construction

Public Outreach Programs – If you want to schedule a program at the Link Observatory or at your site, please contact the following people:

Gerald Venne is our Public Events Coordinator. He will be responsible for coordinating Public Events for the IAS. To schedule a public event contact Gerald Venne 1 317 826-2680. He needs your help. Let Gerald know if you would like to show the public our sky. We need people to help at Link and elsewhere. It is actually a lot of fun.

If you would like to schedule the Link, please contact Gary Schoppenhorst at 1-317-297-1405 or at schoppy@att.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. The ad will stay in the Bulletin for 4 months and may be renewed at the owner's request.

To place an ad, contact:

Bulletin Editor
Jeff Patterson
1780 S. Morgantown Rd.
Greenwood, IN 46143
(317) 300-0449
E-Mail: KB9SRB@Hotmail.com

For Sale

Celestron NexStar 8 Computerized GoTo Telescope
8" Schmidt-Cassegrain Optical Tube
GoTo Computerized Mount with 14,000 Object Database
Auto Align and Auto Tracking Work Great
Telescope is in Excellent Condition

Includes:

1-1/4 Visual Back
1-1/4 Diagonal
15 MM Celestron Eyepiece
40 MM Celestron Eyepiece
Celestron Lens Shade for C8
Heavy-Duty All Metal Tripod
Celestron Red Dot Finder
Bob's Knobs Collimation Knobs
All Original Items
Very Clean Optics
Read the Cloudynights.com review of this scope here:
http://www.cloudynights.com/item.php?item_id=1527

\$750 for all - Local Pickup

Contact Greg McCauley
IAS Librarian
317-709-1710
gm1727@hotmail.com

For Sale: - Astro-Physics 400 German Equatorial Mount

Near new condition. Used less than a dozen times.

**9 lb. Stainless Steel Counterweight
6 lb. Stainless Steel Counterweight**

Wood AP case

AP Encoders and cables

NGC-MAX DSC Computer

\$1700

Contact: Jim Rinehart 317-881-3475

For Sale:

2 eyepieces for sale:
3mm Televue Radian
7mm Pentax SMC
Both for \$300

Jim Zdobyak
zobe1@aol.com
317-862-4715

For sale - 2001 Rexhall-39'6" Motor Home, Like New

Diesel Cummins 330, 35K miles, 2-Slides, New Slide Awnings New Front Tires, Like New Rear Tires, Aluminum Alloy Chrome Wheels, 6-Speed Allison transmission, W/Electric Air brake, Generac Quiet 7.5 KW Generator, Cruise, Tilt & Adjustable height Steering Wheel, Adjustable & Heated Mirrors, 6-Way driver & Passenger Front Seats, In Motion TV Satellite, New House & Coach Batteries, Closet Lights, All Bay Lights, Cherry Wood Trim, Corian Counter Tops, Ice Maker, Double Door Freezer – Refrigerator, 3-Burner Stove & Oven, Convection Microwave Oven, 2- Roof Top A/C with Dual Controls, Floor Furnace, 2000watt Inverter, Master Bedroom with Queen Bed – Recliner Chase Lounge Chair – TV – 2- Bed Vanities, Sleeps – 6, Closets Everywhere, All Cables and Hoses Included, Excellent Shape, 2nd Owner, All Records Kept to Date.

Contact Ralph 317-839-6620 pictures available \$250,000.00 New \$75,000.00 OBO

Equipment Loaner Program

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

Did you know you could 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.

Philip Dimpelfeld philip.dimpelfeld@comcast.net 812-764-0620

Board Meeting – Board Meeting April 13, 2010

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 entrance to the building is to the left of Starbucks around on the side. We meet in the basement. Ride the elevator (around the corner to your left) to the basement. Turn right as you exit the elevator and go through the first door on your right. This is the conference/meeting room. If you need further assistance, please contact Brian P. Murphy on his cell phone 716-8124 or Jeff Patterson 317 506-0325.

IAS Calendar Dates 2010

	NAG	General	Board
January		9-Jan	12-Jan
February		6-Feb	2-Feb
March		13-Mar	9-Mar
April	24-Apr	10-Apr	13-Apr
May	22-May	8-May	4-May
June	19-Jun	5-Jun	8-Jun
July	24-Jul	10-Jul	13-Jul
August	21-Aug	14-Aug	17-Aug
September	18-Sep	11-Sep	14-Sep
October		16-Oct	19-Oct
November		13-Nov	16-Nov
December		18-Dec	

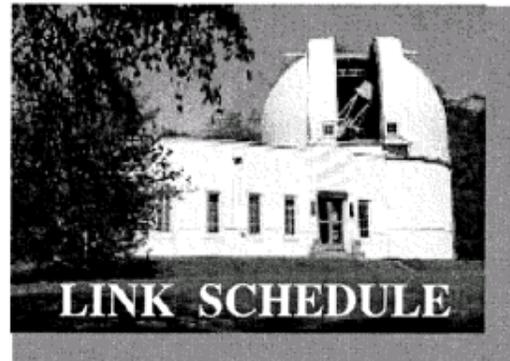
Goethe Link Observatory

Observatory Address

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

Observatory 's Phone:

(317) 831-0668



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

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

Bulletin Stats

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

The Bulletin – The monthly publication of the Indiana Astronomical Society

Greenwood, IN 46143
Phone: (317) 300-0449
KB9SRB@hotmail.com

Membership information

Contact any IAS officer or the Treasurer John Shepherd (317) 862-3442 or Vicki Switzer vswitzer42@verizon.net 1 812-835-2251

Link Observatory

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

Executive Officers

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

Board of Directors

Tom Borlik (2010)	John Molt (2011)
John Switzer (2010)	Bill Conner(2012)
Ron Burgess (2010)	Gerald Venne (2012)
Greg McCauley (2011)	

Webmaster

Gary Schoppenhorst 1 317 297-1405

Observatory Manager

Gary Schoppenhorst 1 317 297-1405

Public Event Coordinator

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

Equipment Loan Program Coordinator

Philip Dimpelfeld philip.dimpelfeld@comcast.net 812-764=0620

Library Committee Coordinator

Greg McCauley greg@ultrasoundconsulting.net

Astronomical League Coordinator

Bill Conner wmtconner@att.net 1-812 828-0449

Membership Coordinator

Vicki Switzer vswitzer42@verizon.net 1 812-835-2251

April Calendar, 2010						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6 3rd QTR ☾	7	8	9	10 General Meeting
11	12	13 Board Meeting	14 New Moon ●	15	16 WVAS/IAS S Observing	17 WVAS/IAS Observing
18	19	20	21 1st QTR ☾	22	23	24 NAG
25	26	27	28 Full Moon ○	29	30	

Membership Application to the IAS

Benefits:

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

Please mark whether this is a new or renewal application

New

Renewal

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

Name: _____

Address: _____

City: _____ State: _____ ZIP: _____

Telephone: () _____

E-Mail Address: _____

For the "membership only" section you need to provide a user name and a password:

User name: _____ Password _____

List Server - This service is our main communication tool. The list server is accessible only by IAS members and only for IAS related business. It is controlled very carefully to prevent spam. Unless you opt out for the List server, you will automatically have access to it when you are approved for the "members only" section.

I do **not** want to receive IAS communications via the List Server

The Bulletin – The monthly publication of the Indiana Astronomical Society

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

Make checks payable to: The Indiana Astronomical Society, Inc

Please complete Member Profile and include with the application

Mail Application to:

Vicki Switzer Membership Coordinator
2115 N. Private Rd 50 E
Centerpoint, IN 47840

Member Profile

Spouse's Name: _____

Children's names and ages: _____

Note: Profile information is not a requirement for membership to the Society.