

The IAS News & Views

Volume 78, Issue 9



www.iasindy.org

**September General Meeting
September 17, 2011
8:00 PM
Goethe Link Observatory**

A Search for Exoplanets in Short-Period Binary Star Systems

Ronald Kaitchuck

Ball State University

Over 500 exoplanets have been discovered. So far only a few have been found in binary star systems. These have been cases where the planet either orbits both stars at a very great distance (circumbinary orbit) or the planet orbits one star (circumstellar orbit) of a widely separated stellar pair. In either case the formation of the planet and its long-term orbital stability doesn't seem surprising. However, for the circumstellar situation, how close can the stars be before planetary formation and stability are no longer possible? Can exoplanets be found in short period (<20 days) binaries? The existence of exoplanets in close-binary pairs could tell us a lot about the formation of planets and binary stars. An on-going program to detect planetary transits in close binary star systems will be discussed. The stellar selection criteria, and the unique problems and advantages of searching for exoplanets in short-period binary stars will be presented.

Ronald Kaitchuck is a professor of Physics and Astronomy and director of the Ball State University Planetarium. He earned his bachelor's degree in Physics from Loyola University in Chicago, his Master of Science degree in Physics from Ball State University and his Ph.D. degree in Astronomy from Indiana University. He has authored or co-authored over 60 scientific publications, two books and contributions to Scientific American and the Encyclopedia Britannica. He is currently the director of the SARA – Southern Observatory in Chile, South America.

IAS NEWS

We can now pay dues on our website using paypal. There is a cart system where you can pay dues, order magazines, or donate to the Society. Thanks to John Shepherd and Doug Sangunetti for getting it done. It was not as easy as it seemed. The cart is found in the Join the Society section. You will have to establish a PayPal account for yourself.

Volunteer Opportunity

We have been contacted by a new tech school at Arsenal Tech asking for volunteers. If you have the time and are interested please contact the teacher or me for more information.

Mr. Patterson and Mr. Venne –

I am a physics, astronomy, and math teacher at New Tech High@ Arsenal Technical High School in Indianapolis. New Tech High is a Project-Based Learning small school that tries to partner with local businesses and organizations to make learning more authentic for our students. I was hoping some of your members would be interested in representing your organization as a project partner with my astronomy/pre-calculus integrated class sometime this school year.

It doesn't take much time commitment to be a project partner; a lot of our partners only come help introduce the project, and then see or help evaluate the results. Some partners choose to get more involved, and send people to our school a few times over the course of a project (normally 3-4 weeks) and help guide student groups in their work, or help teach certain topics. Whatever level of involvement your members would be interested in, it would have a big impact on the students. Their favorite projects are always ones in which they actually get to meet community members.

If there is anyone in your organization that might be interested, please pass along my e-mail, and encourage them to contact me anytime.

Thank you very much,

Andrew Ringham
Science and Math Facilitator
New Tech High @ Arsenal Tech
(c) 317.409.7562 (w) 317.693.5334
ringhama@ips.k12.in.us

Logo Clothing

The Board has developed a new supply of logoware with our new logo. New Logo clothing with our new Logo. However, there is some inventory of sweatshirts and t shirts with the old logo on it. So we are going to have a fire sale. All old clothing will be sold after the speaker at the general meeting for half price. Anything left over will be donated to a local charity. This is new clothing with the old logo that has never been sold. Sizes are limited.

We have clothing with the new logo as well. The plan is to take orders and then order clothing. You can pay for it on receipt.

IAS Calendar of Events for September

General Meeting September 17
Board Meeting September 20
NAG at McCloud October 1

Observing Activities

NAG

New Astronomer's Group Meeting McCloud Nature Park Saturday October 1 7:30 PM

The Indiana Astronomical Society and Hendricks County Parks Department join to provide monthly New Astronomer's Group meetings by hosting an evening of learning about our Fall sky by observing the early evening stars and planets. We will be meeting on Saturday October 1 at McCloud Nature Park starting at 7:30 pm. This may be cool so prepare for the temperatures. If it is clear, we will be observing. An indoor presentation will be planned if the skies do not cooperate. We have a new comet to look for.

Link Campout

I think at least 8 and maybe 10 scopes showed up Friday night. Pretty good night of observing. We had a few high clouds drift thru occasionally until about midnight then all clear. Watched M45 and Orion come up and then crashed about 4:30. Found a new (to me) galaxy in Pegasus. NGC7331 is bright enough that I'm surprised Mr Messier didn't add it to a list or something. There was also a comet near M71 maybe a little brighter than M76.

Saturday night started cloudy and did not clear out until about midnight but, once they did, we got some good observing in. We observed Ganymede transiting Jupiter about 1:30. We also saw Comet Garrand near M71. We were also treated to some pretty good meteors as well. In addition John Shepherd was training in the observatory and we were allowed to take a look at what they were observing.

Heart of America Star Party

The Heart of America Star Party is put on by the Kansas City Astronomical Society and is located on their own dark observing site near Butler Missouri. It is about 550 miles from Indy but every bit worth the trip. If you have never been to this party it is a great week of super hospitality good

meals, and great skies. I went out a day early to see if I could get one of the electric outlets that they have installed but to no avail. Mike and Sandy Wolford had already arrived and was down in the northwest corner of the field. We like it there as we can run our generators without a problem. First night was really good. However, I had some electrical issues and had to push the scope. Still had a blast. Second day Rick Singmaster and I went through the scope with a fine tooth comb to find out the power issue. on the way to the shop he mentioned that sometimes he had seen batteries that had good voltage just not work. He said it was due to corrosion and shorting the plates. Well after a 45 minute ride to Kansas we installed a new battery and low and behold it ran like a champ. Second night was even better. I was able to see NGC 7331 as Mike had described at the campout but also could see 5 companion galaxies with it. By the way this is my favorite galaxy cluster. We moved to Stephen's Quintet and could see all 5 galaxies there as well. Terry Kerzan was imaging the new nova with his Malincam and I was impressed. Bottom line we all had a ball. There were seven IAS members there and four I call QUASI IAS members that worked together. The days were super with sitting and talking and enjoying the shade. The girls went into town to shop and couple of times.

It is a really nice place to go and hope you can make it some time.



Sandy's and Mike's scopes. Danny' and Terry's tents for their Malencam imaging in the background

Activities for September:

Link Observatory

General Meeting September 17

McCloud Activities—

NAG –. See you September 10
October 1 Last NAG of 2011..

Prairie Grass Observatory 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 John Shepherd at 1 317-862-3442.

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 Observatory 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 monthly during our 2010 observing season. And if you want to follow the Sun in between our monthly Solar Telescope openings, the website www.spaceweather.com provides daily updates.

IU Kirkwood Observatory

Kirkwood Observatory on the IU campus will be open each Wednesday evening through the summer, 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

September 9, 2011
Stargazer #564

Comet Elenin and Other Fables

With my BA, MSW, and PhD degrees in the behavioral sciences, one would think I should have greater insight into a certain perplexing human behavior, one that overlaps with my avocational field of astronomy. In the two decades I've been writing "Stargazer" and presenting astronomy programs, I've been asked numerous times about "threats" to us and our planet, mostly relating to things from outer space. And though I do my best to allay such fears, some continue to accept uncritically what they read on the Internet.

One of the latest is Comet Elenin which, according to various Internet stories, might not be a comet at all but rather a "rogue planet" larger than Jupiter, or maybe a brown dwarf star which has entered our solar system. And it's going to rain all kinds of havoc on us Sept. 26, 2011 – or is October, or maybe November, or sometime in 2012? Depends on which crackpot you read.

Some claim it might crash into Earth. Others say even if misses, its gravitational pull will cause devastating earthquakes and tsunamis. And if that doesn't happen, then its powerful magnetic force will bring about changes in Earth's tilt, and perhaps even cause a pole shift. And why aren't we reading more about this in the mainstream media? Because there is a government conspiracy to keep it hushed lest the masses (that's us) panic.

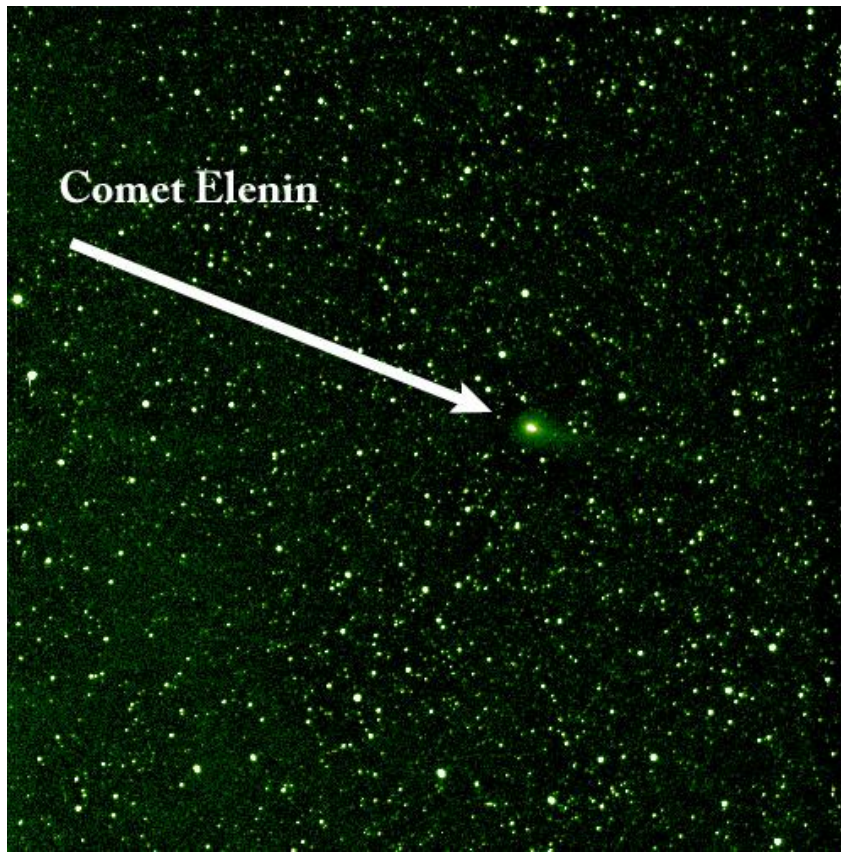


Image: Comet Elenin as imaged by NASA's STEREO spacecraft Aug. 6, 2011

Wow, that's a lot of worry about Comet Elenin which is, in fact, a small chunk of rocky ice less than 3 miles in diameter that will pass 21 million miles from Earth Oct. 16. The worry is all the more remarkable given the fact that Venus, which is close to Earth's size, regularly passes nearly that close to us, and nothing happens – no earthquakes, no tsunamis, no pole shifts – nothing beyond giving us a beautiful “evening star” or “morning star.”

Elenin is just the most recent of such fables. Perhaps you've heard of Nibiru, Planet X, the aliens who crash-landed near Roswell, NM, or the 2012 Maya prophecy, to name but a few. And while I find no credible evidence to support any of these, I recognize that such stories hold a certain fascination – even for me.

As a teenage in the 1950s, I was captivated by amateur hypnotist Morey Bernstein's book *The Search for Bridey Murphy*, about the woman who under hypnosis was “proving” the existence of reincarnation by revealing information from her supposed previous lives. And there were the countless UFO “sightings” reported in the news that always made my ears perk up.

Then in the 1970s I was attracted to Erich Von Daniken's books, especially *Chariots of the Gods?* in which he set out to prove that many seemingly mysterious occurrences were the work of

ancient astronauts thousands of years ago. But as much as I wanted to believe these things, they simply didn't hold up to critical scrutiny.

Most of the Internet-based fantasies in recent years seem to deal with threats to us and our planet – asteroids, comets, rogue planets or whatever on paths to destroy poor, hapless and helpless us.

That's not to say there is no chance of a large space object impacting Earth – it's happened many times before in Earth's history, and will certainly happen again, although probably not in our lifetime. There are efforts underway to find and track all near Earth objects (NEOs) that might pose a threat to Earth; to date none have been found that justify seriously worry. If and when any are found, it is unlikely our government, or any other, would try to keep it secret, or be able to if it tried.

Even though these Internet-fostered imagined threats can almost always be easily dispelled by scientific evidence, they still attract some folks like iron to a magnet. Many seem to want so strongly to believe them that no evidence can budge their thinking, and my behavioral scientist self has trouble coming up with a satisfactory answer to “Why?”

Perhaps these stories simply entertain us, just as we're entertained by novels, movies, and science fiction – even when we know the stories aren't true. But that seems only a partial answer; it doesn't explain why many people apparently really want to, and do, believe these fictions.

If they are attracted by ideas of drastic and dramatic threats to us and our planet, they need look no further than the many real threats we face, like our endless wars, or the tragic maldistribution of wealth, or our species' role in global warming, or our overpopulating, trashing, and depleting the finite resources of our planet. These are real horror stories, so why aren't there more Internet warnings about things that are truly threats to our well-being and survival. Why does there seem to be so much denial about these dangers?

Ah! Denial. Maybe that explains the curious behavior of our gullibility to fanciful dangers. Perhaps by dreaming up and preoccupying our thoughts with imagined threats, which deep in our subconscious we know or strongly suspect aren't real, it makes it easier to ignore those threats which, deep in our subconscious, we fear are real and which scare the living daylights out of us.

Maybe this explains our curious behavior, or maybe it doesn't, but there's no denying we'd be better off applying our mental energies and other resources to thinking about and dealing with real perils rather than imagined ones. That, of course, is a no-brainer, but how to make that happen – well, that's something else again. And while my college degrees still don't give me the satisfying answers I'd like, they helped me learn to think critically and inoculated me from the gullibility and magical thinking that afflict so many of our fellow sojourners on planet Earth.

Late bulletin: Comet Elenin may be disintegrating after being blasted by a solar flare and coronal mass ejection from the Sun in late August.

IAS 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. 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. (Contact Greg via the webpage iasindy.org under the contact us section)

IAS Membership Status

The following changes in membership took place in August:

Total Membership: 151

Renewals: 8

New student members: 0

New Members:

Krista Hefner – Indianapolis

Inactive status: 0

Do you have a question or need?

We have established 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 (Contact Jeff via the webpage iasindy.org under the contact us section) –
Observatory design and construction

Eric Allen (ericandroberta@sbcglobal.net) - Telescope making and mirror grinding

Brian Murphy (bmurphy@monumentcompanies.com) - "telescope construction and collimation".

Public Outreach Programs – If you want to schedule a program at the Link Observatory or at you 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 (Contact Gerald via the webpage iasindy.org under the contact us section).

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 Goethe Link Observatory, please contact

John Shepherd. Contact John via the webpage iasindy.org under the contact us section)

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

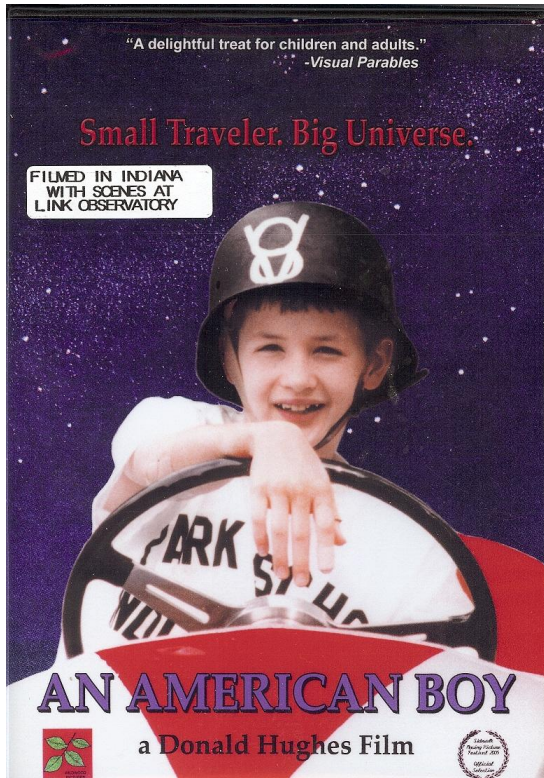
Losmandy GM-8 mount with tripod, several weights. Works great just have too many mounts. \$1000 Call Jeff Patterson at 317 506-0325 or KB9SRB@Comcast.net

For Sale

DVD OF "AN AMERICAN BOY" AVAILABLE FOR
SALE AT GOETHE LINK OBSERVATORY

For the those of you new to the Society or perhaps were unaware of this story, "*An American Boy*", produced by Wildwood Pictures & directed by Donald Hughes, retells the story of his childhood days and looks at Indianapolis in the late 1940's and includes a recreated visit to the Goethe Link Observatory, where Donald (a schoolmate of Goethe Link, Jr.) "**Meets the Universe!**" This happened in 1947 – the year before the observatory was given to Indiana University.

These DVDs are available for \$10 each and were donated to the IAS by Mr. Hughes. All the proceeds from their sale will be used to fund the "36-inch Telescope Rebuilding Project". See Tom Borlik or any IAS Officer to purchase one.



For Sale: MEADE 8" F/4.5 NEWTONIAN

Includes German Equatorial Mount with three counterweights, felt-lined mounting rings, RA and Dec slow motion controls, accessory tray and 6x30 finder scope. Eyepieces include 25mm MA and 9mm Ortho. All instruction manuals are included.

Additional Accessories:

- * Quartz RA motor drive incl battery pack
- * Polar alignment viewfinder
- * 12.5mm illuminated reticle eyepiece
- * Meade 60mm guidescope with mounting rings and 1.25" diagonal
- * 1.25" camera adapter
- * Piggyback camera bracket

Aluminized mirror has been cleaned and collimated. Optics are excellent, like new.

Telescope is in very good condition. A complete package for wide-field astrophotography and deep sky observation.

Asking \$450.00 – Call Bill at 892-2036 or e-mail at bwilhite@tds.net.

For Sale or Trade: CELESTRON HEAVY-DUTY TRIPOD, WEDGE, DRIVE, FORK ARMS

Heavy-duty tripod and wedge for the classic C8. Tripod has 2" legs that are extendable with step-locks and has a center post with an integral leg spreader. Wedge is cast iron with a hand-screw latitude adjustment. These components were built to last a lifetime and then some. I'm also including the drive base, fork arms, and power cord. This is the old-style base with the RA spur drive (no worm). The drive has slow-motion controls and setting circles and yes, it still works.

The C8 optical tube assembly is NOT included. \$300 takes all. I will also consider taking a good wide-field eyepiece in exchange (20mm f.l. minimum). Contact bruce.bowman@tds.net or call 317-539-2753

Equipment Loan 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. Philip Dimpelfeld 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 **Contact via the webpage iasindy.org under the contact us section**

Board Meeting –August 23, 2011

The IAS Board Meeting is being held at 75 Executive Dr. Carmel, IN. please contact Jeff Patterson via the webpage iasindy.org under the contact us section

2011 Calendar of Meetings

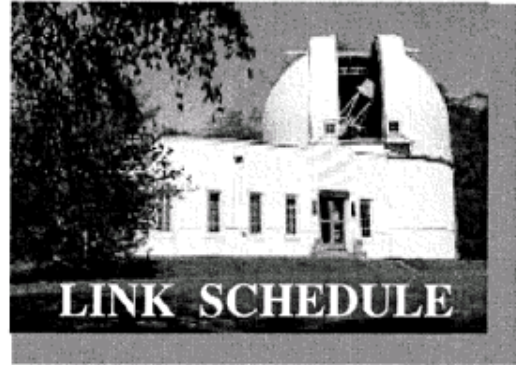
	NAG	General	Board
January		22-Jan	25-Jan
February		19-Feb	22-Feb
March		26-Mar	29-Mar
April	9-Apr	23-Apr	26-Apr
May	7-May	21-May	24-May
June	11-Jun	25-Jun	28-Jun
July	9-Jul	23-Jul	26-Jul
August	6-Aug	20-Aug	23-Aug
September	10-Sep	17-Sep	20-Sep
October	1 Oct	22-Oct	25-Oct
November		19-Nov	22-Nov
December		17-Dec	

Goethe Link Observatory

Observatory Address

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

Latitude: 39 degrees, 33 minutes north
Longitude: 86 degrees, 24 minutes west
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: John Shepherd* **Contact via the webpage iasindy.org under the contact us section.** **DON'T WAIT UNTIL THE LAST MINUTE TO MAKE YOUR REQUEST OR YOU MAY NOT GET ACCESS.**

IAS News & Views Stats

Accessing the IAS News & Views

The current bulletin can be found on the website www.iasindy.org

IAS News & Views

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) 300-0449
KB9SRB@hotmail.com

Membership information Contact via the webpage iasindy.org under the contact us section

Contact any IAS officer or the Treasurer John Shepherd or Vicki Switzer

Observatory Manager

John Shepherd **Contact via the webpage iasindy.org under the contact us section**

Public Event Coordinator

Gerald Venne **Contact via the webpage iasindy.org under the contact us section**

Equipment Loan Program Coordinator
 Philip Dimpelfeld Contact Phil at philip.dimpelfeld@comcast.net

Membership Coordinator
 Vicki Switzer Contact Vicki via the webpage iasindy.org under the contact us section

September Calendar, 2011

For a more detailed Calendar of Events see the webpage www.iasindy.org

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4 1 st QTR ☾	5	6	7	8	9	10 NAG
11	12 Full Moon	13	14 ○	15	16	17 General Meeting 8:00 PM
18	19	20 Board Meeting 3rd QTR ☾	21	22	23	24
25 New Moon ●	26	27	28	29	30	1 NAG 7:00PM