

## EAS Picnic June 11<sup>th</sup>, 2016



Photo Taken by Dave Kube 1.5sec Handheld w/ Image Stablization @3200 iso  
Members Ken Harris and Tony Bryan working in the dark.

### Inside this Issue.....

2 – Local Events and information

3 – News around the Globe

4 – Calendar

5 – EAS Business – Minutes

---

The EAS newsletter, Observer, is published monthly. Anyone wishing to contribute articles or photos may mail them to the club's PO Box: EAS, PO Box 3474, Evansville, IN 47733, or e-mail them to the editor at:

[dasiceman@yahoo.com](mailto:dasiceman@yahoo.com)

The **Evansville Astronomical Society (EAS)** is a non-profit organization fully incorporated in the state of Indiana. It has, as its primary goal, the advancement of amateur astronomy. Founded in 1952, the society seeks to:

- 1... maintain adequate facilities for its members and the public in order to extensively study the skies and
- 2... promote an educational program for those who wish to learn more about the science of Astronomy.

Meetings are held the third Friday of each month, except June, when the annual EAS picnic is held. The society also sponsors monthly Open House events during the warmer seasons that afford the public an opportunity to tour the observatory.

**EAS 2016 Officers and Contacts**

President – Scott Conner  
812.604.7164  
[ssconner24@gmail.com](mailto:ssconner24@gmail.com)

Vice President – Tony Bryan

Secretary – David M Kube  
740.223.6854

Treasurer – Ted Ubelhor

Counselors  
Michael Borman  
Kent Brenton  
Ken Harris

Webmaster – Michael Borman

Program Director  
Tony Bryan

News editor – David Kube  
[dasiceman@yahoo.com](mailto:dasiceman@yahoo.com)

For more information about the EAS or directions to the Observatory, please visit the club's web page:

[www.evansvilleastro.org](http://www.evansvilleastro.org)



## Local Events and Information

### EAS Schedule Update:

Please Note that we have a PSW scheduled for Saturday, June 25<sup>th</sup>, 2016 at the Observatory beginning at 8:00pm.

### EAS Update:

Please Note that our Patoka Lake event is scheduled for Saturday, July 9<sup>th</sup>, 2016 11:00am to 11:00pm EDT. Rain Date is schedule for July 30<sup>th</sup> 2016.

### EAS Update:

Please Note that we have a Regular Meeting scheduled for Friday, July 15<sup>th</sup>, 2016 at the Observatory beginning at 7:30pm.

### EAS Update:

Please Note that we have a Moon Festival event scheduled for July 22<sup>nd</sup> and 23<sup>rd</sup>. More details to follow.

### EAS Update:

Please Note that we have a PSW scheduled for Saturday, August 6<sup>th</sup>, 2016 at the Observatory beginning at 8:00pm.

### EAS Update:

Please Note that we have a Regular Meeting scheduled for Friday, August 19<sup>th</sup>, 2016 at the Observatory beginning at 7:30pm.

### Telescopes and accessories for sale...

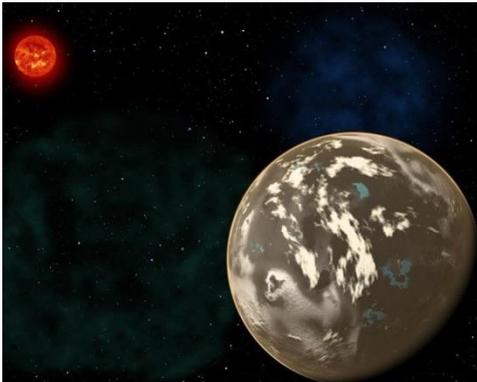
As mentioned in last month's issue, Mike Borman still has some excellent telescope equipment and imaging accessories for sale. Some of the gear has already been sold. If interested, go to Mike's web page. Here is the link: <http://www.mborman.org/forsale.htm>

***Measuring the Milky Way: One Massive Problem, One New Solution.***



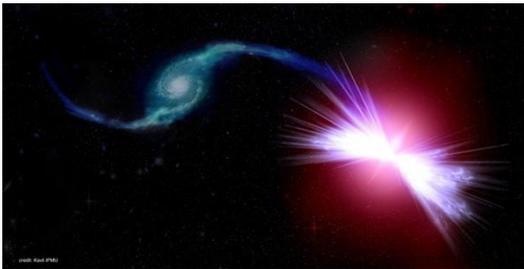
NASA

***Universe's First Life Might Have Been Born on Carbon Planets.***



Christine Pulliam (CfA)/Sun image: NASA/SDO

***Supermassive Black Holes Cause Galactic-Scale Warming.***



Kavli IPMU

It is a galactic challenge, to be sure, but Gwendolyn Eadie is getting closer to an accurate answer to a question that has defined her early career in astrophysics: What is the mass of the Milky Way?

The short answer, so far, is  $7 \times 10$  solar masses. In terms that are easier to comprehend, that's about the mass of our Sun, multiplied by 700 billion. The Sun, for the record, has a mass of two nonillion (that's 2 followed by 30 zeroes) kilograms, or 330,000 times the mass of Earth.

"And our galaxy isn't even the biggest galaxy," Eadie said.

In this artist's conception, a carbon planet orbits a sun like star in the early universe. Young planetary systems lacking heavy chemical elements but relatively rich in carbon could form worlds made of graphite, carbides and diamond rather than Earth-like silicate rocks. Blue patches show where water has pooled on the planet's surface, forming potential habitats for alien life.

Our Earth consists of silicate rocks and an iron core with a thin veneer of water and life. But the first potentially Habitable worlds to form might have been very different. New research suggests that planet formation in the early universe might have created carbon planets consisting of graphite, carbides, and diamond. Astronomers might find these diamond worlds by searching a rare class of stars.

An artist's rendition of the galaxies Akira (right) and Tetsuo (left) in action. Akira's gravity pulls Tetsuo's gas into its central supermassive black hole, fueling winds that have the power to heat Akira's gas. Because of the action of the black hole winds, Tetsuo's donated gas is rendered inert, preventing a new cycle of star formation in Akira. For most of their lives, galaxies are lush environments for turning gas into stars. Until they aren't.

Over the last few billion years, a mysterious kind of "galactic warming" has turned huge numbers of galaxies into deserts devoid of fresh young stars. The puzzle for astronomers has been identifying the unknown process that keeps the gas in these dormant galaxies too hot and energetic to form stars. Today, astronomers from the Sloan Digital Sky Survey (SDSS) are announcing the discovery of a new class of galaxies called "red geysers" that harbor supermassive black holes with winds that have the power to keep dormant galaxies quiet.

July 2016

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9 Patoka Lake 11am EDT
10	11	12	13	14	15 Reg.Meeting 7:30pm	16
17	18	19	20	21	22 Moon Fest @Museum	23 Moon Fest @Museum
24	25	26	27	28	29	30
31						

Generated by [FreeHTMLCalendar.com](http://FreeHTMLCalendar.com) Copyright © 2011 John Dalbey.

**Up and Coming Events 2015/ 2016**

**PSW – Saturday, June 25th @ 8:00pm @ Observatory**

**Patoka Lake – Saturday, July 9<sup>th</sup> beginning @ 11:00am – This is Eastern Daylight Time**

**Regular Meeting – Friday, July 15<sup>th</sup> @ 7:30pm @ Observatory**

**Moon Festival – July 22<sup>nd</sup> and July 23<sup>rd</sup> @ Museum – More Details Later**

**PSW – Saturday, August 6th @ 8:00pm @ Observatory**

**Moon Phases**

New Moon	First Quarter	Full Moon	Third Quarter
July 4 <sup>th</sup> , 2016	July 11 <sup>th</sup> , 2016	June 19 <sup>th</sup> , 2016	June 26 <sup>th</sup> , 2016

[Moon Phases courtesy of Time and Date.com](http://Time and Date.com)

## ***EAS MEETING for May 20<sup>th</sup>, 2016***

The meeting was **CALLED TO ORDER** by Vice President Tony Bryan @ 7:35 PM 2 guests and 8 members in attendance.

It was moved & seconded to approve the MARCH MINUTES as seen on the EAS Internet page.

Tony Bryan announced the **UPCOMING EVENTS:**

EAS Picnic Saturday June 4<sup>th</sup> @ 6pm – Location to be at Ken Harris' near Wayne City, IL.

PSW Saturday June 25<sup>th</sup> @ 8pm

Patoka Lake Saturday July 9<sup>th</sup> (Rain Date July 30) 11am-11pm EDT

Ted Ubelhor our Treasure was not present but reported via email we have sufficient funds and reminded us that dues will be coming up beginning July 1<sup>st</sup>. Dave Kube added that the board was visiting the need to raise dues for the upcoming year.

### **Special Projects**

Dave Kube, Tony Bryan Glenn Bye and Scott Conner have been working on the dome. There has been work done on the drive wheel and the dome rollers. The dome has been raised 3/8" so that it no longer sticks or rubs on the roof. It should make it easier to repair and recoat the roof and hopefully prevent it from freezing up in Winter. Scott is looking at doing more upgrades to make the drive motor secure to the wall and to help keep the roof from bowing.

### **OLD BUSINESS**

We helped out with Astronomy Day at the Evansville Museum last Saturday. The weather started out cool and cloudy, but the Sun finally made an appearance in the afternoon. The Sun put on a good show, so we were pleased to have it for solar observing. There were Comet demonstrations, Lectures and Telescope displays. The museum also had several planetarium shows. The event was well attended by EAS members. The public did show up in the afternoon, but Mitch thought it was a low turnout. We adjourned at 5pm for a nice dinner at Cracker Barrel, then Dave, Mitch and Scott setup telescopes at Audubon State Park to do a Public Observation. The skies were clear and the seeing was pretty good. We had 62 guests in attendance.

### **NEW BUSINESS**

Scott has a program here at the Observatory tomorrow night for a Navigator Troop. They will get started around 8pm weather permitting.

The EAS picnic is coming up on June 4<sup>th</sup>. We will be having it at Ken Harris's house in Wayne City, Illinois this year. He and his wife have volunteered to host us this year. He has dark skies and plenty of room for us to setup our telescopes. There will be a map to Ken's in the

newsletter. We plan to eat at 6pm. If you have a telescope, bring it along for some good observing.

We have a PSW at the observatory on Saturday June 25<sup>th</sup> at 8pm.

This year's Patoka Lake "Stars on the Beach" will be an all-day event again. We will be having daytime programs at the Newton Street Nature Center, as well as solar observing. If you are interested in doing a lecture, let us know. We will be setting up at the beach around 6pm. Ken Alderson will be doing a what's up tonight program in the tent and we will be doing observing on the beach. This is one of our prime public events and is a great time. If you can come you should. If you have a scope bring that too.

The Moon Festival is coming up on July 22 and July 23. More news about this in next month's newsletter.

Meeting was adjourned @ 8:10pm

Tony Bryan presented a video about the various Nebulae.