

August Meeting at the Observatory Friday August 18th, 2017 @ 7:30pm



Path of the 2017 Solar Eclipse

August 21st, 2017

Photo by the GreatAmericanEclipse.com

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

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 2017 Officers and Contacts

President – Tony Bryan
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Vice President – Scott Conner

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Treasurer – Ted Ubelhor

Counselors
Michael Borman
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Mitch Luman

Webmaster – Michael Borman

Program Director
Tony Bryan

Newsletter editor – Dave Kube
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For more information about the EAS or directions to the Observatory, please visit the club's web page:

www.evansvilleastro.org



Local Events and Information

EAS Schedule Update:

Please Note we have a Regular scheduled meeting on Friday, August 18th, 2017 @ 7:30pm.

EAS Update:

Please Note there is Solar Total Eclipse on Monday August 21st, 2017. The path of Totality is near South and/ or West.

EAS Update:

Please Note we have a Regular scheduled meeting on Friday, September 15th, 2017 @ 7:30pm.

EAS Update:

Please Note that the Ferdinand Folk Festival is scheduled for Saturday, September 16th, 2017 beginning @ 10am EDT in Ferdinand, Indiana. Contact me Dave Kube as I will again lead this event. See Contact info to the left for Secretary and Newsletter Editor.

EAS Update:

Please Note we have a PSW scheduled on Saturday, September 23rd, 2017 @ 7:30pm.

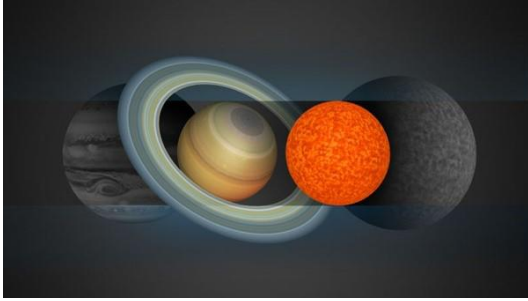
EAS Update:

Please Note we have Fall Cleanup scheduled for Friday, October 7th, 2017 @ 10:00am.

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>

Astronomers Just Discovered the Smallest Star.



This artist's rendering compares EBLM J0555-57Ab to both Jupiter and TRAPPIST-1.

A Boetticher et al., 2017

A team of astronomers at the University of Cambridge was on the lookout for new exoplanets when they came across an exciting accidental discovery: They found the smallest star measured to this day.

This tiny new star, which is being called EBLM J0555-57Ab, is about 600 light-years from Earth, and has a comparable mass (85 Jupiter masses) to the estimated mass of TRAPPIST-1. The new star, though, has a radius about 30 percent smaller. Like TRAPPIST-1, EBLM J0555-57Ab is likely an ultracool M-dwarf star.

The team used data from an experiment called WASP (the Wide Angle Search for Planets), which is typically used in the search for planets rather than stars, to look for new exoplanets. During their studies, they noticed a consistent dimming of EBLM J0555-57Ab's parent star, which signified an object in orbit. Through further research to measure the mass of any orbiting companions, they discovered the object they'd detected was too massive to be a planet — it was instead a tiny star.

New Horizons Next Target: Spotted.



What will New Horizons see when it reaches the Kuiper Belt object 2014 MU69? This artist's concept imagines one possible scenario.

Johns Hopkins University Applied Physics Laboratory/Southwest Research Institute (JHUAPL/SwRI)

NASA's New Horizons spacecraft changed our view of the outer solar system forever when it flew by Pluto in 2015. Now, it's on its way to the next destination: a Kuiper Belt object (KBO) known only as 2014 MU69. Although the spacecraft won't reach its target until New Year's Day in 2019, NASA is already looking ahead to learn as much about 2014 MU69 as possible, thanks to a convenient temporary alignment that recently allowed the object to pass in front of a background star.

The passage, called an occultation, occurs when objects "line up" in the sky as viewed from Earth. When an object, such as an asteroid, planet, dwarf planet, or KBO, passes in front of a distant star, astronomers can watch the way the starlight dims and returns to gain information about the object passing in front of it. This information can include size, shape, and even whether the object possesses rings, moons, or an atmosphere.

Juno Gets Up Close and Personal with Jupiter's Great Red Spot.



Jupiter's Great Red Spot pops in this enhanced-color image, taken by the Juno spacecraft during its seventh close Jupiter flyby July 10, 2017.

NASA/JPL-Caltech/SwRI/MSSS/Gerald Eichstadt

Jupiter's Great Red Spot is one of its most iconic features. The giant storm, which has been raging in the atmosphere of the gas giant for at least hundreds of years, is larger than Earth and can be seen easily even with an amateur telescope. But despite its size and prominence, the Great Red Spot is a mystery that continues to intrigue planetary scientists. Now, NASA's Juno probe has returned the best ever images of the Great Red Spot, following its most recent close flyby of our solar system's largest planet July 10.

The pictures the probe returned are stunning. As it passed over the Great Red Spot at a height of 5,600 miles (9,000 kilometers), Juno's imaging camera, JunoCam, snapped several apple core-shaped photos of the feature in optical light.

September 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15 Reg.Mtg 7:30pm	16 Folk Festival 11am EDT
17	18	19	20	21	22	23 PSW 7:30pm
24	25	26	27	28	29	30

Generated by FreeHTMLCalendar.com Copyright © 2011 John Dalbey.

Up and Coming Events 2016

Regular Meeting – Friday August 18th – Observatory @ 7:30 pm

Solar Eclipse – Monday August 21st @ Hopkinsville, KY and points all across the country

Regular Meeting – Friday September 15th – Observatory @ 7:30 pm

Ferdinand Folk Festival – Saturday September 16th @ Ferdinand City Park 11am EDT

PSW – Saturday September 23rd – Observatory @ 7:30 pm

Moon Phases

New Moon	First Quarter	Full Moon	Third Quarter
September 20 th , 2017	September 27 th , 2017	September 6 th , 2017	September 13 th , 2017

Moon Phases courtesy of Time and Date.com

EAS MEETING for July 21st, 2017

CALL TO ORDER - The meeting was called to order at 7:34 pm by acting President Ted Ubelhor.

READING OF MINUTES - The reading of the minutes was called to be accepted as published in the newsletter. The motion was seconded and carried unamously. There were 12 members present.

UPCOMING EAS EVENTS – Acting V. President Ted Ubelhor announced the below list of up-coming events. These are covered in detail in New Business

PSW #3	Saturday, August 12	7:30 pm @ Observatory
EAS Meeting	Friday, August 18	7:30 pm @ Observatory
Total Solar Eclipse	Monday, August 21	Path of Totality
EAS Meeting	Friday, September 15	7:30 pm @ Observatory
Ferdinand Folkfest	Saturday, September 16	10:00AM @ Ferdinand
PSW #4	Saturday, September 23	7:30 pm @ Observatory

VISITOR INTRODUCTION – There were no visitors.

TREASURER’S REPORT – Treasurer Ted Ubelhor reported that we now have 35 paid members and reminded that we are still very early in the new year and expects to receive more paid dues in the near future. Ted reminded us that the entry codes have been changed and will mail out the new codes to those members as he receives the payment for membership dues.

SPECIAL PROJECTS

Astro-Tech AT8RC Installation – Scott Conner was not available to provide an updated status.

Storage Room Remodel – Water intrusion created an unhealthy condition in the lounge area. The carpeting was soaked, as well as part of the drywall, and black mold was found growing on part of a wall and baseboards. Other mold and mildew was forming under the carpeting. Tony removed the carpeting and disposed of it. He removed the tack strips, sanitized the walls and floor, and will be applying epoxy floor paint in the near future. The replacing of drywall and paint in the storage room is on hold until the water intrusion problem is corrected.

OLD BUSINESS

PSW #3 - On Saturday, May 20th we had our third PSW of the year. We had two guests, which joined as a family that same evening.

EAS Picnic & Observing – On Saturday, June 17th we had our annual picnic and observing session at Ken Harris’s home in Wayne City, IL. The turnout was light, and some left prior to observing. Nonetheless, the food was delicious and the seeing was excellent. Worth mentioning was the marvelous view of Jupiter through Mitch’s Obsession. Awesome! Thanks go out to Ken for hosting us, cooking the meats, and having dark skies. Thanks also to everyone who brought food, engaged in conversation, and shared the views through their telescopes. We had 5 total scopes and 8 to 11 members between eating and observing sessions.

Stars on the Beach – Stars on the Beach took place on June 24th. We had the usual at the Nature Center during the afternoon, and set up telescopes at the beach for observing after sunset. The crowds were heavy during the first few hours of the evening and tapered off after 11:00 PM. Dave Kube reported that it was a great evening and turnout from both members and guests. We had good representation from all three clubs and a good 200 hundred guest for the nighttime viewing.

EAS OBSERVER NEWSLETTER

Saturn Watch – Took place on Friday July 7th. Dave Kube reported that both Ken Harris and himself represented the EAS. Threat of rain with many clouds only allowed to setup the dob provided by Ken. There was a good 50-75 guests. Unfortunately clouds would not cooperate and we were only able to periodically view the Moon, Jupiter and Saturn. Not all at the same time.

NEW BUSINESS

PSW #3 – Our next Public Star Watch is scheduled for Saturday, August 12 at 7:30 pm at the observatory. Of course it will not be getting dark until much later. We need a lead and some assistance for this event. Request a show of hands of those you might help that evening. Ken Harris said he was a maybe, Matt and Joe said they could possibly help. Dave Kube working that evening and would not be able to assist.

Ferdinand Folkfest – The Ferdinand Folkfest takes place on Saturday, September 16th beginning at 10:00AM in Ferdinand. Dave Kube is coordinating the event. Dave reported that he was able to head up the event. CC and her husband Tom would assist him at the event. Anyone else wishing to help please contact Dave Kube. This is a free event so the more the merrier.

August Meeting Program – Being so close to the eclipse, we will watch a video titled “Great American Total Eclipse of 2017” by Fred Espenak (Mr. Eclipse). Both during and after the meeting we will be doing some planning and talk of that upcoming adventure of which we all are growing excited.

Solar Eclipse Programs – Don’t forget that the EAS is providing four public programs directly related to the total solar eclipse. We will be at the Oakland City IN library on Saturday August 5th at 11AM, at Beall Woods State Park on Saturday August 5th at 3PM CDT and the Dubois Public Library on Saturday August 12th at 1PM EDT. Any EAS member that can help by manning telescopes for solar viewing or just come and hang out will be welcome.

ANNOUNCEMENTS

Okie-Tex Star Party – The 34th annual Okie-Tex Star Party that is being held September 16th through the 24th, 2017. The event is sponsored by the Oklahoma City Astronomy Club, and takes place at Camp Billie Joe, in Kenton, OK. Three EAS members are currently listed on the “who’s coming” page of the Okie-Tex Star Party website. There is an information sheet posted on our bulletin board in the hallway. Visit www.okie-tex.com if you want to learn more.

Next Monthly Meeting - Our next regular meeting is scheduled for 7:30 PM on August 18th at the observatory in Lynnville.

The program for tonight is **Benefits of the Astronomical League** a paid subscription with your EAS dues – Presented by Ted Ubelhor.

ADJOURN MEETING – Meeting was adjourned at 8:10pm