

Ferdinand Folk Festival September 17, 2016



Photo by Dave Kube

It was a Rainy and Cloudy Day – Rain did clear and only a few Sucker Holes

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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 2016 Officers and Contacts

President – Scott Conner
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Vice President – Tony Bryan

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Counselors
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Ken Harris

Webmaster – Michael Borman

Program Director
Tony Bryan

News editor – David 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 that we have a Regular Meeting scheduled for Friday, October 21st, 2016 at the Observatory, beginning at 7:30pm. Program for October meeting is going to be an Astrophotography presentation by Mark Miller.

EAS Update:

Please Note we have an outdoor event scheduled at the Ferdinand State Forest on Saturday October 29th, 2016 – Strings, Wine and Stars with the ACORN project. Contact Dave Kube if want to help. Astronomy will begin at dusk and the main event late afternoon.

EAS Update:

Please Note that on Saturday November 5th, 2016 we have a PSW scheduled at the Observatory beginning at 7:30pm. This is the last scheduled PSW for the year.

EAS Update:

We have a Boy Scout Troop coming to the Observatory either Saturday, November 12th or 19th. More details to be announced later.

EAS Update:

Please Note that we have a Regular Meeting scheduled for Friday, November 18th, 2016 at the Observatory, beginning at 7:30pm.

EAS Update:

Please Note that we have our Christmas Potluck and Astronomy Quiz scheduled for Friday, December 16th, 2016 at the Downtown Museum, 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/forsale1.htm>

Researchers at the University of Michigan found a new Dwarf Planet.



An artist's interpretation of the view from the dwarf planet Sedna. NASA, ESA and Adolf Schaller

Researchers at the University of Michigan found a new dwarf planet in our solar system, about 8.5 billion miles from the Sun.

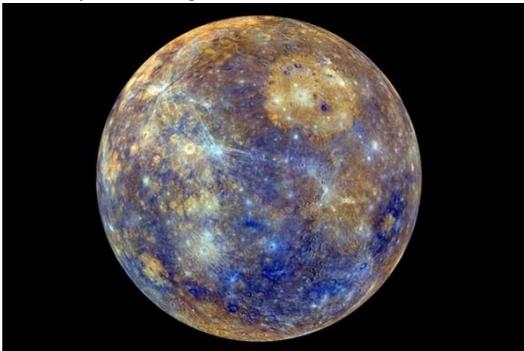
The dwarf planet, given the designation 2014 UZ224, is around 330 miles across and would take 1,100 years to make one full orbit. The object is the third farthest known object in the solar system and is in an area of the Kuiper Belt detached from the gravitational influence of Neptune.

A team of students led by David Gerdes, an Arthur F. Thurnau Professor at Michigan, found 2014 UZ224.

While stars and galaxies will usually remain in one place, a planet or asteroid will be in different places in the sky.

What makes the discovery of 2014 UZ224 interesting is that the images Gerdes had weren't taken in consecutive nights.

Deep Mysteries Lurk below (and even above) Mercury's Surface.

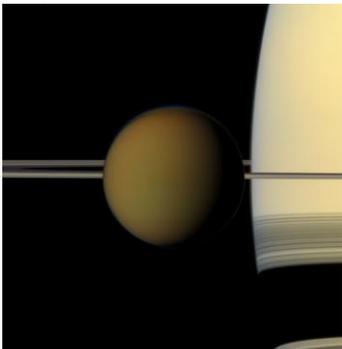


NASA / JHU Applied Physics Lab / Carnegie Inst. Washington

Mercury is the unloved planet of our Solar System, a barren rock too small and too near the Sun to be interesting. At least, that's what we thought until we took a closer look and discovered everything about this plain little planet breaks our initial models for how it formed.

Mercury is a hard planet to observe. It's so close to the Sun that Earth-based telescopes are easily blinded by the star, and locked in orbital resonance that leaves us peering at the same patch of rocks over and over. Even sending spacecraft to investigate is a problem, with probes speeding up as they fall down the gravitational well towards the Sun. It took looping around Venus for Mariner 10 to slow down and redirect into Mercury flybys in the mid-1970s, and the MERcury Surface, Space ENVIRONMENT, GEOchemistry, and Ranging (MESSENGER) probe needed to make an even more elaborate dance to slip into orbit in 2011.

The Strange Chemistry that Creates 'Impossible' Clouds on Titan.



NASA/JPL-Caltech/Space Science Institute

Strange chemistry may explain a seemingly impossible cloud in Titan's upper atmosphere.

Scientists looking through Cassini's 2010 data recently noticed something strange in an infrared snapshot of Titan's stratosphere: a wide, thin, colorless cloud, about 20 km thick, high in the atmosphere above the moon's north pole. The cloud was composed of frozen crystals of a compound called dicyanoacetylene, (C₄N₂), which everything we know about Titan suggests shouldn't be there in any notable quantity.

Titan's atmosphere is rich with complex organic chemistry, but this cloud was a rare sight.

November 2016

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

Generated by FreeHTMLCalendar.com Copyright © 2011 John Dalbey.

Up and Coming Events 2016

Regular Meeting – Friday, October 21st @ 7:30pm @ Observatory

Strings, Wine and Stars – Saturday October 29th @ Dusk @ Ferdinand State Forest

PSW – Saturday, November 5th @ 7:30pm @ Observatory

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

Meeting, Potluck and Quiz – Friday, December 16th @ 7:30pm @ Museum

Moon Phases

New Moon	First Quarter	Full Moon	Third Quarter
November 29 th , 2016	November 7 th , 2016	November 17 th , 2016	November 21 st , 2016

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

2017 Calendar Specials

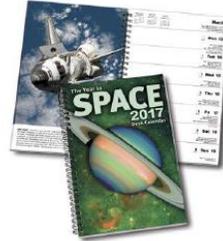


Wall Calendar

Retail Price - \$12.99

EAS Special Price - \$8.00

Wall Calendars available in October



Desk Calendar

Retail Price - \$19.95

EAS Special Price - \$15.00

Desk Calendars available in November

Scott Conner and I received this email request and have no further info regarding this request other than the email that came with this information.



WWW.URSAMAJORSTENCILS.COM - 844 - 676 - URSA

Night Sky Star Stencil™ transforms the ceiling of your darkened room into a dramatic replica of the real night sky while leaving the lighted room unchanged (no posters or noticeable markings).



I'm **Dick Shimmin** with Bridgeway of Galesburg, Illinois. Bridgeway is a not-for-profit agency that provides a variety of services to disabled persons. The sale of our American-made products helps fund those programs.

Accurate and educational! Stars and constellations are in proper positions with accurate relative brightness. You also get a hand-held Star Map and Constellation Finder that shows the names and locations of hundreds of stars—an entire hemisphere! In addition, the star map is an excellent take-along item anytime you're star-gazing outdoors.

Easy! You simply affix the stencil to the ceiling or wall and the adhesive won't stain or remove paint or wallpaper. Then paint the stencil holes with the Glow! glow-in-the-dark paint and remove the stencil. It works on both smooth and textured ceilings!

Ready for the stars to shine, expose them to normal room light. Turn out the lights, and the stars glow and keep glowing brightly and fade over the next 8 hours. They can be recharged indefinitely and are unnoticeable in lighted rooms or on light-colored surfaces. The 8-foot stencil takes one hour to apply; the 12-foot takes two hours.

It's all here! Your kit contains everything you need. The Night Sky Star Stencil (either 8- or 12-feet in diameter), adhesive, Glow! luminous paint, brush, and easy-to-follow instructions.

No projectors, no batteries, no black lights...nothing to clutter the room.

Available in winter or summer Northern Hemisphere sky, and 8- or 12-foot diameter. Choose one to fit your room. Additional Luminous Paint is available so you can re-use your Night Sky Skies.

EAS MEETING for September 16th, 2016

CALL TO ORDER - by Vice President Tony Bryan @ 7:35pm with 11 members present and 2 guest

READING OF MINUTES - Motion to accept the minutes from August 2016, as published in the September Newsletter was carried by the attending membership.

UPCOMING EAS EVENTS

V. Pres., are there any up-coming special functions, Open Houses, (recent or soon)

Ferdinand Folkfest	Saturday, September 17	11am
PSW (Public Star Watch)	Saturday, September 24	7:30pm
PSW (Public Star Watch)	Saturday, October 8	7:30pm
Fall Cleanup	Saturday October 15	10 am
Regular Meeting	Friday, October 21	7:30pm
PSW (Public Star Watch)	Saturday, November 5	7:30pm

VISITOR INTRODUCTION - (Introduce now) – Matt and his Instructor from the University

TREASURER'S REPORT - Treasurer, please report; (calendars, finances), We have 39 Paid memberships and 10 still from last year have not renewed – Calendars should be available by next meeting. Check for the mower has cleared so we have less than last month.

SPECIAL PROJECTS -

The board decided to move forward with the purchase of a new Gravely zero-turn mower for the club. The mower was picked up August 24th and delivered to the observatory on the 26th. Thank to Dave Kube for research and getting the super deal, and to Dave and Don for transportation.

Scott Conner is machining a plate for the attachment of the focuser for the Astro-Tech AT8RC 8" f/8 Richey-Cretien astrographic reflector. This will save us a load of money (parts are very expensive). Scott is currently waiting for a specific job to finish that leaves room for our parts to be ran at no cost.

The ME-II mount was reported down on Saturday August 20th by Dave Kube. The previous evening, the mount shut down with no LEDs on the rear panel. Cycle of the power brick did not fix the issue. On Sunday September 4th, Tony Bryan and Dave Kube trouble shot the issue. The WiSky board was found defective and it was removed, put in its original ESD bag and box,band placed on the cabinet mounted on the West wall. It need to be sent back to Bisque for repair if we want to use it in the future. There may yet be another problem with the mount as error codes and pointing issues have been experienced by users. We will log these errors and take action if the mount does not settle in to its new configuration.

OLD BUSINESS

Members only Observing Session – August 27th – Report by Dave Kube: Dave Kube, Don Schenk and Ted Ubelhor all enjoyed the night sky viewing through Daves Celestron HD1100 and CGEM-DX mount. The weather was actually pretty good. We viewed many common night object near Cynus and ended with the Andromeda Galaxy.

NEW BUSINESS

Ferdinand Folkfest – Dave Kube is coordinating. - 3 members have said they would attend with another 2 maybe's. We have confirmed with Rock Emmert to setup as last year near the playground. Event starts a 11am EDT and need to be setup prior to this.

PSW - We have our next PSW on Saturday September 24th at 7:30 pm. It is always great to see member show up for the event.

Project Acorn of Ferdinand –As stated in the last meeting Dave Kube is coordinating with Rock Emmert from the Project ACORN committee for a fun stargazing night this fall in the Ferdinand State Forest. “We're really looking forward to it--combining music while its daylight with stargazing in the dark with possibly a little homemade wine to share.” The evening will likely be called "Strings, Stars, and Spirits". Project ACORN is an acronym for Art, Community, Originality, Rhythm, and Nature. Possible dates are: 10/22, 10/29, 11/12 Details? We are still in the planning stage at this time with no confirmed date and time.

LAS Star Party - The Louisville Astronomical Society (LAS) has invited the EAS and the Stone Belt Stargazers to join us at their Curby Dark Sky Site on Saturday, October 1 for a Star Party. There will be a First Come First Serve as the Property will Max out at about 40 Scopes. This 40 acre facility is located in Curby, IN just four miles south of Marengo Cave. It features five acres of observing fields, a 20X30 foot roll-off roof observatory with three telescopes and T2, our MPB building with a kitchen, classroom, air-conditioning and his and her restrooms. EAS members are welcome to camp overnight. We will have a pitch-in dinner at 6:00 PM, EDT. We will provide the hamburgers and hot dogs for \$5.00 per person and we ask that your members bring a side dish for twelve. Star Party participants can arrive as early as 1:00 PM for solar observing. Please present this to your members and **RSVP to megacoach@aol.com no later than September 17, 2016. A MAP is in EAS August newsletter.**

Fall cleanup is coming October 15th. That will be here before you realize it. Mark your calendars! Come out and help and have some fun!

A total solar eclipse will take place in 11 months (on August 21st, 2017). Don't pass this up. Mitch Luman gave an update to the Museums plans for a reserved site in Hopkinsville, KY. Drive – Ride bus that is the current plan.

Elections are coming soon

PROGRAM

The program for Tonight: “Infrared Astronomy: What’s So Hot About It?”

ADJOURN MEETING-8:10pm