
**April Meeting at the Observatory
Friday April 20th, 2018 @ 7:30pm**



This artist's concept depicts 'Oumuamua, which recently swung by the Sun during a quick pass through our solar system. Though initially believed to be a comet from another star system, further study revealed the object was actually an interstellar asteroid. Last October, astronomers spotted the first known visitor from another star system as it zoomed through the inner solar system at breakneck speeds. The interstellar interloper, since named 'Oumuamua (Hawaiian for "scout"), is a cigar-shaped asteroid roughly 1,300 feet long that reached a maximum speed of 196,000 miles per hour during its closest approach to the Sun.

ESO/M. Kommesser

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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 2018 Officers and Contacts

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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 Update:

Please Note we have a Moon Watch scheduled @ the **Museum** on Thursday, April 19th from 7-9:00 pm.

EAS Update:

Please Note we have a Regular scheduled meeting for Friday, April 20th, 2018 @ the Observatory @ 7:30 pm. Our presenter will be Dr. Gerard Williger and topic will be "The 1869 Eclipse and the Wabash College Expedition to New Albany".

EAS Update:

Please Note we have a Members only Observing session scheduled for Saturday, April 21st, 2018 @ New Harmonie Park @ 7:30 pm. This is the rain date as the original date was cancelled due to weather.

See Insert Page 5

EAS Update:

Please Note we have a Observing Session with the LAS at their **Curby** location on Saturday, May 12th @ 7:30 pm.

EAS Update:

Please Note we have a Regular scheduled meeting for Friday, May 18th, 2018 @ the Observatory @ 7:30 pm.

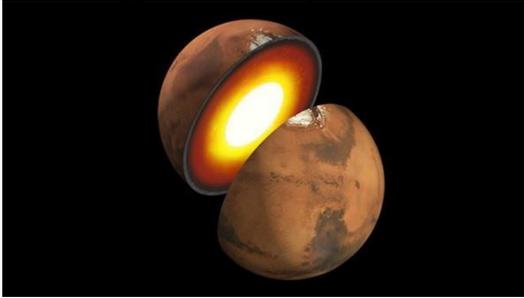
EAS Update:

Please Note we have a Jupiter Watch scheduled @ the **Museum** on Friday, June 1st, from 8-10:00 pm.

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>

NASA's InSight Mission will use Seismology to Peer Deep below Mars.



NASA's InSight mission will use a highly sensitive seismometer to track seismic waves given off during marsquakes, helping researchers determine its geologic record.

NASA/JPL-Caltech

When researchers analyze a planet's subsurface, knowing what's on the inside helps them study the planet's current composition and also glimpse into its past. By studying an object's internal makeup and activity, we can start to decode both how and why it formed the way that it did. To do this, NASA designed a first-of-its-kind lander called the Interior Exploration using Seismic Investigations (InSight), which will carry out a stationary Mars mission meant to study what lies beneath the Martian surface.

"In some ways, InSight is like a scientific time machine that will bring back information about the earliest stages of Mars' formation four-and-a-half billion years ago," said InSight's principle investigator, Bruce Banerdt of NASA's Jet Propulsion Laboratory, in news release. "It will help us learn how rocky bodies form, including Earth, its moon, and even planets in other solar systems."

Dead Star Circled by Light.



An isolated neutron star in the Small Magellanic Cloud.

ESO/NASA, ESA and the Hubble Heritage Team (STScI/AURA)/F. Vogt et al.

New images from ESO's Very Large Telescope in Chile and other telescopes reveal a rich landscape of stars and glowing clouds of gas in one of our closest neighbouring galaxies, the Small Magellanic Cloud. The pictures have allowed astronomers to identify an elusive stellar corpse buried among filaments of gas left behind by a 2000-year-old supernova explosion. The MUSE instrument was used to establish where this elusive object is hiding, and existing Chandra X-ray Observatory data confirmed its identity as an isolated neutron star.

Spectacular new pictures, created from images from both ground- and space-based telescopes, tell the story of the hunt for an elusive missing object hidden amid a complex tangle of gaseous filaments in the Small Magellanic Cloud, about 200 000 light-years from Earth.

CHIME begins its Cosmic Search.



A prototype for the CHIME instrument sits against a backdrop of starry skies. CHIME is a new type of radio telescope that will help to unravel many of the most pressing mysteries about our universe.

Keith Vanderlinde; Dunlap Institute

CHIME, the Canadian Hydrogen Intensity Mapping Experiment, is up and running in the mountains of southern British Columbia. A ceremony on September 7, 2017, inaugurated the telescope and its pioneering approach to studying the universe.

"This telescope is radically different from other telescopes," says Matt Dobbs, Associate Professor of Physics at McGill University and a CHIME investigator. "CHIME is really a stepping stone to a new way of doing radio astronomy."

The radio telescope – Canada's biggest – is a joint venture co-led by the University of British Columbia, the University of Toronto, McGill University and the Dominion Radio Astrophysical Observatory (DRAO). Participating institutions come from across North America.

CHIME is a digital telescope, which means all of its "imaging" is done digitally by software. It accomplishes this with commercial components: Amplifiers developed for cell phones and graphics cards developed for video games.

May 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12 Mem.Observ LAS@Curby
13	14	15	16	17	18 Reg.Mtg 7:30pm	19
20	21	22	23	24	25	26
27	28	29	30	31		

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Up and Coming Events 2017/2018

Moon Watch – Thursday April 19th – Museum – 7-9:00 pm

Regular Meeting – Friday April 20th – Observatory @ 7:30 pm

Members Only Observing – April 21st – New Harmony Park @ 7:30 pm

Members Only Observing – Saturday May 12th – LAS Curby Location

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

Jupiter Watch – Friday June 1st – Museum – 8-10:00 pm

Moon Phases

New Moon	First Quarter	Full Moon	Third Quarter
May 15 th , 2018	May 21 st ., 2018	May 29 th , 2018	May 7 th , 2018

Moon Phases courtesy of Time and Date.com



The Evansville Astronomical Society Members Observing Session

Date: March 24th (weather permitting, rainout date April 21st)

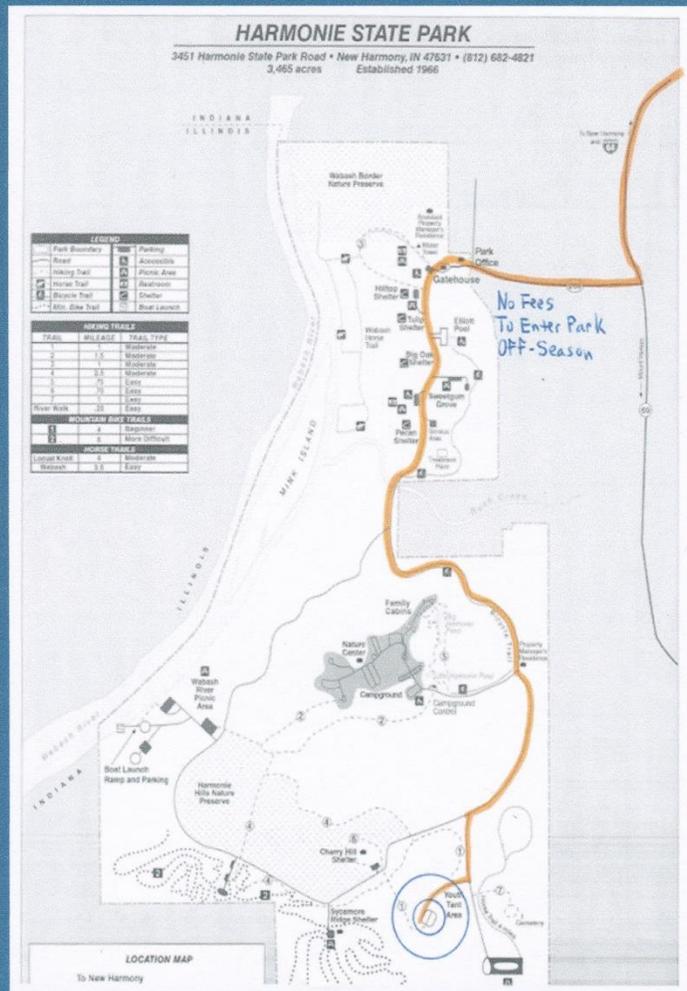
Location: Harmonie State Park

Located four miles south of New Harmony, IN
We meet at the Youth Tent Area

Time: Observing begins after twilight (~ 8:30 PM CDT)



**Come out to enjoy
the night sky and
spend some time
with your fellow EAS
members!**



The Evansville Astronomical Society is a non-profit organization. Donations to help with operating expenses and upkeep of our facility are always appreciated.

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EAS MEETING Minutes for March 16th, 2018

The meeting was called to order at 7:37 pm by President Tony Bryan. There were 18 members present, including 3 New Members. The reading of the minutes was motioned to be accepted as published in the newsletter and seconded. The motion passed by majority vote.

UPCOMING EAS EVENTS – V. President Scott Conner announced the below list of up-coming events.

Members Observing Session	Saturday, March 24	7:30pm @ New Harmony
Public Star Watch	Saturday, April 14	7:30pm @ Observatory
Moon Watch	Thursday, April 19	7-9 @ Museum
Regular Meeting	Friday, April 20	7:30pm @ Observatory

TREASURER’S REPORT – Treasurer Ted Ubelhor was absent but had emailed his report to the officers. Reported that we now have 50 paid members. Report also noted Duke Energy was again @ \$200 and we have paid the Insurance bill which is now @ \$1500 for the year. Amazon Smile donation are still coming in and a great addition to our income.

SPECIAL PROJECTS

Tony Bryan reports that the remodeling of the Women’s Restroom is about 99% complete. Most items have been purchase for both the Men’s and Women’s restrooms. Scott Conner reports that he is redirecting his efforts on the Mount additions to working on the dome issues at this time.

OLD BUSINESS

Winter Work Day – Our Winter Work Day was on Saturday, February 24th. It was raining so the concentration was on inside tasks. We also were able to put in several hours on the ladies “Venus” bathroom remodel and got a jump start on the drywall in the “Mars” bathroom. Those that were not present missed doughnut baked treats, a great lunch, and a spectacular water show. Thanks to Scott for getting all the food together. Big thanks go out to Scott, Dave, Ted, Matt, Don, Bob and Mitch.

PSW #1 – Our first PSW of 2018 was held on March 3rd. Dave Kube reported that we had over 30 guests and we had a great member turnout for the large crowd. Further reported that we had 3 New memberships join.

NEW BUSINESS

Public Star Watch – Our second PSW of 2018 will be on April 14th. Bob, Ken and Dave said they could be there.

Members Observing Session – Scott Conner is coordinating our Members Observing Session on March 24th. Tony sent a flyer with a map through email to everyone. Dave Kube reported that a map was also included in the Newsletter.

Scout Groups – We currently working with three scout groups to visit the observatory in the near future.

- Confirmed - Cub Pack 383 from Evansville (Keith Penny) on May 5th at Scales Lake near Booneville.
- Confirmed - Navigator Group (Gena Garrett) visit at the observatory on May 5th. Host: Scott Conner
- TBD - Junior Girl Scout troop from Evansville with 12 girls (plus 6-8 adults) that are one of the 10 troops across the US chosen to pilot a brand new badge (Nancy Bach). Host and date: TBD

For several years we have been doing great work with this type of community outreach. Let’s continue our work in making the EAS a place to inspire young minds.

Repeat Announcement About Capital Campaign – For those you not at the February meeting, we had a lengthy discussion at our planning session about how to house the Questar Telescope in a way to secure it, protect it from the elements, and allow easy access during PSWs and other special events. It was unanimously agreed that a capital campaign to fund an ancillary observatory was a good idea. We are looking to bring in about \$5000. Over the next couple months you will see and hear more. If anyone knows of potential corporate or individual donors, please contact any officer.

Tonights Presentation – Gravity Waves, presented by Matt Merlo

Meeting was adjourned at 8:00pm