

Observer

EVANSVILLE ASTRONOMICAL SOCIETY, INC.

January

2024



Cassiopeia A: A Festive Supernova Remnant. New near-infrared image from NASA's James Webb Space Telescope's NIRCarn of the supernova remnant Cassiopeia A. In the bottom right corner is a light echo , created by light from the star's long-ago explosion off surrounding dust..

Photo Courtesy NASA / ESA / CSA / STScI / Danny Milisavljevic (Purdue University) / Ilse De Looze (UGent) / Tea Temim (Princeton University)

Inside this Issue...

- 2 – Local Events and information
- 3 – News Around the Globe
- 4 – Calendar
- 5 – EAS Business

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 2024 Officers and Contacts

President – Tony Bryan
812.827.3234

evansvilleastro@gmail.com

Vice President – Scott Conner

Secretary – Dave Kube
740.223.6854

Treasurer – Ben Cruce

Counselors
Ken Harris (2022)
Kent Bretton (2023)
Michael Borman (2024)

Webmaster – Michael Borman

Program Director
Chuck Allen

Newsletter editor – Dave Kube
dasiceman@yahoo.com

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 Regular meeting scheduled for Friday, January 19th, 2024 at 7:30pm. This meeting will be held at the Museum. Please see our Facebook Group and Webpages for Updates .

EAS Update

Please Note. : We have a Regular meeting scheduled for Friday, February 16th, 2024 at 7:30pm. This meeting will be held at the Museum. Please see our Facebook Group and Webpages for Updates .

EAS Update

Please Note. : We have a Board meeting scheduled for Sunday, January 21st, 2024. The board members will be setting next years schedule. Please see our Facebook Group and Webpages for Updates.

EAS Update

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EAS Update:

Please visit our website <http://www.evansvilleastro.org> and our Facebook Group page to keep yourself up to date for any changes.

Telescopes and accessories for sale...

Orion AstroView120ST, Equatorial Refracting Telescope and accessories. 120mm (4.7") aperture and 600mm focal length, includes sturdy adjustable-height tripod, equatorial mount, finder scope and an internal polar alignment scope. Includes two Plossl 1.25" eyepieces (25mm and 10mm), 6x30 finder scope, star diagonal. \$600.

Contact: Karen Caruso 812-629-8089 (cell)

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.mlborman.org/forsale.htm>

Unexplained Auroras Found on a Lonely Brown Dwarf.



Photo Credit: NASA, ESA, CSA, and L. Hustak (STScI)

This artist concept portrays the brown dwarf W1935, which is located 47 light-years from Earth. Astronomers using NASA's James Webb Space Telescope found infrared emission from methane coming from W1935. This is an unexpected discovery because the brown dwarf is cold and lacks a host star; therefore, there is no obvious source of energy to heat its upper atmosphere and make the methane glow. The team speculates that the methane emission may be due to processes generating aurorae, shown here in red.

This finding in itself isn't so unusual, as charged particles coming from the Sun, as well as from Jupiter's volcanic moon Io, create auroras for many solar system planets. So it might come as no surprise that this world, called W1935, might exhibit the same phenomenon. Only, in this case, the world is far from any star.

Jackie Faherty (American Museum of Natural History) came across this world when she and her team received time on the James Webb Space Telescope to examine the atmospheres of 12 of the coldest brown dwarfs. Brown dwarfs are worlds more massive than Jupiter but not quite massive enough to sustain nuclear fusion in their cores. So as they age, they cool. The coldest of the brown dwarfs are thus the oldest. But the coolest brown dwarfs are also the most difficult to see, out of reach of ground-based telescopes and only just within JWST's grasp. (For context, these brown dwarfs are still fairly warm at 400°F, about the right temperature to bake cookies.)

Peregrine Mission Launches Successfully, But Misses the Moon.



The first launch of the United Launch Alliance Vulcan-Centaur rocket attempted to send Peregrine Mission One moonward, but a propulsion problem has likely stymied that goal..

Photo Credit: Hap Griffin

Tuesday, January 9th, 1:22 p.m. EST: Shortly after launch, the mission experienced an anomaly that prevented the spacecraft from pointing at the Sun to charge its solar-powered batteries. While mission controllers have re-oriented the spacecraft, allowing it to recharge its batteries and reestablish communications, the team determined that the cause of the anomaly was a propulsion problem that caused a "critical loss of propellant." The team is determining what mission objectives can still be accomplished, but it's unlikely the mission will accomplish the lunar landing that was planned for next month. Unfortunately, the team now reports on Tuesday that due to a loss of propellant during the anomaly, the spacecraft will run out of fuel under two days time, and will no longer be able to maintain orientation to charge its batteries.

February 2024

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

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Up and Coming Events 2023

Please Note we have a Reg. Mtg. scheduled for 7:30pm on Friday January 19th, 2024 @ Museum.

Please Note we have a Reg. Mtg. scheduled for 7:30pm on Friday February 16th, 2024 @ Museum.

Please Note we will have a board meeting on Jan 21st, 2024 to set next years schedule.

Please visit our Web Page <http://www.evansvilleastro.org> or our Facebook Group Page for updates.
Events may be cancelled due to Covid and/or Weather at time of event.

Moon Phases

New Moon	First Quarter	Full Moon	Third Quarter
February 9 th , 2024	February 16 th , 2024	February 24 th , 2024	February 2 nd , 2024
Moon Phases courtesy of Time and Date.com			

EAS Meeting for December – 2023

The meeting was called to order by President Tony Bryan @ 7:30pm. There were 15 members present. We had 1 visitor. Board members Tony Bryan, Scott Conner, Mitch Luman and Dave Kube were present. A motion to wave the reading of the minutes and accept the minutes from the December 2023 Newsletter was passed.

Vice President Scott Conner read the following upcoming events.

Regular Meeting **Friday, January 19** **7:30 PM @ Museum**

Regular Meeting **Friday, February 16** **7:30 PM @ Museum**

Treasurer Report – Treasurer Mitch Luman reports that we have moved \$5k of our Savings into a 15 month CD.

Old Business

Election of Officers – At the November EAS Meeting we held election of officers to serve in 2024. Elected officers are as follows: President-Tony Bryan, Vice President – Scott Conner, Treasurer – Ben Cruce, Secretary – Dave Kube. Mike Borman was reelected for the counselor position.

New Business

Telescope Donation – Mike Borman recently donated a Daystar Solar Telescope and Celestron Nexstar+ mount to the EAS. Thanks Mike!

Eclipse Presentations – We are receiving request for presentations ahead of the upcoming April 8th Total Solar Eclipse. Currently we have nine presentations arranged by Tony and two more in discussion. Ken Harris has three presentations arranged. If anyone hears of a request, or would like to give or assist with a talk, please let us know.

Presentation Next Month – Carlisle Wishard will be our speaker for the January Meeting. Tentatively for February, we have Ron McNaughton of the RASC who will be speaking about how ancients predicted eclipses.

Program Director – Chuck Allen has served as Program Director for several years He is stepping away (but will assist a new PD) so he can focus more on astronomy at a national level with the AL. We thank him for providing us with top-notch speakers that are the envy of every other society. The Program Director is an appointed position. If anyone is interested, please let a board member know.

2024 Planning Session - Each year, Officers and Councilors of the EAS meet early in the year to establish our calendar of events, and take care of other planning and business functions. The meeting normally takes about two hours. This year the meeting will take place sometime during the third or fourth week in January.

Other New Business – No other new business was presented by attending members.

ANNOUNCEMENTS

Next Monthly Meeting - Our next regular meeting is scheduled for 7:30 PM on January 19th at the Evansville Museum. Please consider supporting this fine venue by becoming a member at the Student, Basic, Patron or Donor Level Membership.

ADJOURN MEETING

Meeting was adjourned @7:38pm by president Tony Bryan and handed over to our volunteer quiz master Scott Conner. Scott provide a constellation quiz with 2 categories. Open for the beginners and Expert for the rest.

Open Winners were

1st – Bob Flater

2nd – Lorraine Luman

3rd – Randy Chapmen

Expert Winners were

1st – Chuck Allen

2nd – Mitch Luman

3rd – Mike Borman

Chuck Allen will be next year's quiz master.

Respectfully Submitted – Dave Kube – Secretary