

Caloris Basin on Mercury



Mercury's Caloris Basin appears on the upper right of the planet in this false-color image assembled using images taken by NASA's MESSENGER mission.

Photo Courtesy: NASA/Johns Hopkins University Applied Physics Laboratory/Carnegie Institution of Washington

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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 2022 Officers and Contacts

President – Tony Bryan
812.827.3234

evansvilleastro@gmail.com

Vice President – Scott Conner

Secretary – Dave Kube
740.223.6854

Treasurer – Mitch Luman

Counselors
Mitch Luman (2020)
Michael Borman (2021)
Ken Harris (2022)

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 7:30pm CDT on Friday, August 19th, 2022. This meeting is scheduled to be at the EAS observatory in Lynnville. Please see our Facebook Group and Webpages for Updates.

EAS Update

Please Note: We have our Annual Stars on the Beach at Potaka Lake Rain date is scheduled for 6:30pm EDT on Saturday, August 27th, 2022. Daytime activities still have not been confirmed.

EAS Update

Please Note: We have a Moon Watch scheduled for 7:30pm CDT on Saturday, September 3rd, 2022 at the Evansville Museum. Please see our Facebook Group and Webpages for Updates.

EAS Update

Please Note: We have a Regular Meeting scheduled for 7:30pm CDT on Friday, September 16th, 2022. This meeting is scheduled to be at the EAS observatory in Lynnville. Please see our Facebook Group and Webpages for Updates.

EAS Update

Please Note: We have a PSW scheduled for 7:30pm CDT on Saturday September 24th, 2022. This meeting is scheduled to be at the EAS observatory in Lynnville. Please see our Facebook Group and Webpages for Updates.

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.mborman.org/forsale.htm>

***The Landsat Program: 50 Years
Observing Earth's Surface.***



As the longest-running land-observing satellite program, Landsat's unique view has transformed the way we see Earth.

This artist's concept shows Landsat 9, the most recent addition to the long-running Landsat Program, which launched in 2021.

Photo Courtesy: NASA's Goddard Space Flight Center/Conceptual Image Lab

Landsat is the longest continuously running land-observing satellite program in the world. Originally called the Earth Resources Technology Satellite, the first Landsat satellite launched 50 years ago, on July 23, 1972. Since then, eight more satellites have continued its legacy without any gap in coverage — the new ones rotated into orbit as the old ones are decommissioned to safely burn up in Earth's atmosphere. The most recent satellite, Landsat 9, launched just last year.

In fact, Landsat has become such a part of our world, as NASA imaging expert Joshua Stevens points out, that it even gets a cameo of sorts in the blockbuster film Kong: Skull Island. Not many actual satellites make it into Hollywood scripts.

Landsat is an Earth resources monitoring satellite program designed to compile a complete picture of the globe every 16 days (or every 8 days when two satellites are active). To get such frequent coverage, its scanners only resolve areas down to about 100 feet (30 meters). That may not be fine enough to study, say, an individual tree, but you can still measure how much hotter a city gets than the forest around it — or even “see that your new garden is cooler than your driveway,” Stevens says. Every day, the data are used by thousands of people around the world for everything from anticipating wildfires to measuring oil spills to tracking receding glaciers. It is hard to imagine climate science without Landsat.

***Machine Learning has become an
Essential piece of Astronomers'
Toolkits.***



Photo Courtesy: Breakthrough Listen

When most people picture an astronomer, they think of a lone person sitting on top of a mountain, peering into a massive telescope. Of course, that image is out of date: Digital cameras have long since done away with the need to actually look through a telescope.

But now the face of astronomy is changing again. With the advent of more powerful computers and sky surveys that generate unimaginable quantities of data, artificial intelligence is the go-to tool for the keen researcher of space. But where is all of this data coming from? And how can computers help us learn about the universe?

Chances are you've heard the terms “artificial intelligence” and “machine learning” thrown around recently, and while they are often used together, they actually refer to different things. Artificial intelligence (AI) is a term used to describe any kind of computational behavior that mimics the way humans think and perform tasks. Machine learning (ML) is a little more specific: It's a family of technologies that learn to make predictions and decisions based on vast quantities of historical data. Crucially, ML creates models which exhibit behavior that is not pre-programmed, but learned from the data used to train it.

September 2022

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

Generated by FreeHTMLCalendar.com Copyright © 2011 John Dalbey.

Up and Coming Events 2021

Please Note we have a Regular Meeting scheduled for 7:30pm on Friday August 19th, 2022.

Please Note we have our Patoka Lake event Rain Date scheduled for 6:30pm EDT on Saturday August 27th, 2022.

Please Note we have a Moon Watch @ the Evansville Museum on September 3rd, 2022 @ 7:30pm.

Please Note we have a Regular Meeting scheduled for 7:30pm on Friday September 16th, 2022.

Please Note we have a PSW scheduled for 7:30pm on Saturday September 24th, 2022

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

Moon Phases

New Moon	First Quarter	Full Moon	Third Quarter
September 25 th , 2022	September 3 rd , 2022	September 10 th , 2022	September 17 th , 2022
Moon Phases courtesy of Time and Date.com			

Telescope For Sale
From our Recently Departed Member Joe Caruso

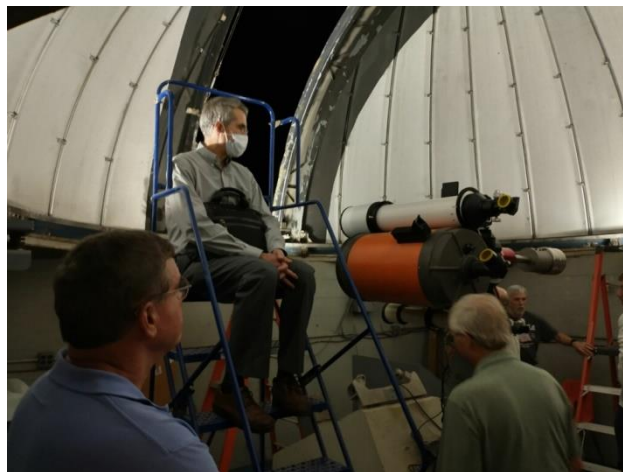


Orion AstroView120ST, Equatorial Refracting Telescope and accessories. 120mm (4.7") aperture and 600mm focal length, includes sturdy adjustable-height tripod, equatorial mount, finder scope and an internal polar alignment scope. Includes two Plossl 1.25" eyepieces (25mm and 10mm), 6x30 finder scope,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

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

Congregation in the Dome Following the July 2022 Meeting

Photos Courtesy of Bob Flater



EAS Meeting for July – 2022

Our first meeting at the EAS Observatory opened with a welcoming message from our president Tony Bryan. The meeting was officially called to order @ 7:35pm by president Tony Bryan. Officers in attendance were Tony Bryan, Dave Kube, Mitch Luman and Ken Harris substituting for Scott Conner. There were 17 members present.

Secretary Dave Kube reported that there was no meeting in June so there were no minutes to read in to the record. In lieu of the meeting the club held our annual picnic at the home of Ken Harris. Ken read the upcoming Events which included the Patoka Stars on the Beach, Our August meeting, Moon Watch at the Museum, our September meeting and our First PSW also in September. Mitch Luman gave us a report on our funds and reminded us dues are now due for the new fiscal year which began July 1st.

Tony Bryan reported that our men's bathroom project was once again under way, our electronic marque was installed in the hallway, a camera security system is currently being installed and the mount payload is being reconfigured for some additional scopes.

The EAS participated in a Moon Watch at the Museum on May 7th and our annual picnic was held on June 25th.

Thanks go out to many members for getting our observatory ready for members and public. Much needed to be done after being vacant for a couple of years. A round of applause for Ken Harris, Dave Kube, Scott Conner, Mitch Luman and Tony Bryan for the many hours that have been volunteered.

We have had another major scope donation from Dr. Richard H. Rhodes. Dr. Rhodes donated a 7" APO refractor and for his kind donation we have honored him with a lifetime membership.

Mitch Luman is in the process of setting up a Paypal account to receive online transaction for donations. This type of account will not work for processing dues, only donations.

Stars on the Beach at Patoka is scheduled for July 30th and Scott Conner is heading up the event.

EAS OBSERVER NEWSLETTER

We have a Moon Watch Event at the Museum on September 3rd.

Our first PSW is scheduled for September 24th.

The EAS has submitted a Horkheimer Library Telescope Entry from the Astronomical League and has named the Newburg Chandler Library as the home for this Telescope if awarded.

The EAS would like to thank Mitch Luman and the Museum for hosting us free of charge for some of our meetings during the COVID pandemic.

Thanks go to Dave Kube for mowing the lawn and producing the EAS newsletter, "The Observer", Mike Borman has been maintaining our EAS Website, Mike, Scott, Dave, and many others have been making our Facebook Group an interesting place to visit and keep up with the latest occurrences in the space and astronomy.

Our next regular meeting is scheduled for 7:30 PM on August 19th at the observatory.

Meeting was adjourned at 8:15pm.

Mitch Luman was our presenter for the evening. Thank you Mithch.

Respectfully Submitted – Dave Kube – Secretary