Observer

June

EVANSVILLE ASTRONOMICAL SOCIETY, INC. 2020

Abell 31 (also known as Sharpless 2-290) is a planetary nebula some 2,000 lightyears away in the constellation Cancer the Crab.

Photo Courtesy by Astronomy Magazine: Douglas J. Struble from Taylor, Michigan
With a diameter of one-quarter degree, it's large for this type of object. That makes it faint, however. The photographer captured 45.4 hours of exposures to create this image.

Inside this Issue..

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

Dear Members of the EAS – Regarding COVID-19

As the State of Indiana implements "Indiana Back on Track", the officers and board of the EAS are reviewing the guidelines and monitoring state health data. We will determine when it is prudent to resume EAS operations, where we may need to make changes, and what our new normal will look like.

As soon as a date and plans are established, a notification will be sent via email and posted to our website and Facebook page. Meanwhile, our facilities remain closed. The officers and board of the EAS are committed to this society, and the health and wellbeing of the membership and the visiting public is a high concern.

In the meantime, to help satisfy your astronomy appetite we have identified a rich and interesting resource. NASA has recently launched the "NASA at Home" project, a growing collection of resources and opportunities that parents, teachers, and kids can use outside the classroom. The project contains free E-Books, Visual Tours, Podcasts, Stuff for Kids and Families, Be a Scientist, and Videos. New content is being added regularly. We encourage you to visit the site and explore what might interest you or other members of your family.

The URL is: https://www.nasa.gov/nasaathome

Stay safe and stay healthy.

Clear skies,
Tony Bryan

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 2020 Officers and Contacts

President – Tony Bryan
812.827.3234
evansvilleastro@gmail.com

Vice President – Scott Conner

Secretary – David M Kube
740.223.6854

Treasurer – Amy Barrett

Counselors
Michael Borman (2018)
Ken Harris (2019)
Mitch Luman (2020)

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 that currently all EAS events are either cancelled or on hold. Please refer to the letter from our EAS president on page 2 of this newsletter.

EAS Update

EAS Update

EAS Update

EAS Update

EAS Update:

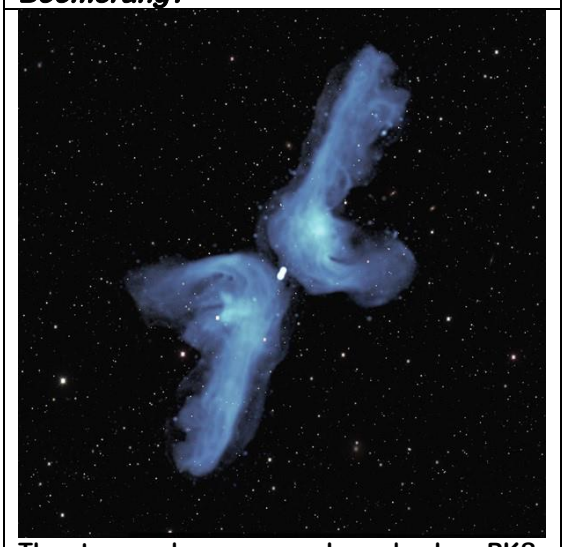
Please visit our website www.evansvilleastro.org and our Facebook page to keep yourself up to date for any changes.

FOR SALE:

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

Why is this Galaxy Shaped Like a Boomerang?



The strange, boomerang-shaped galaxy PKS 2014-55 has radio jets (blue) spewing from its black hole that appear curved, rather than straight.

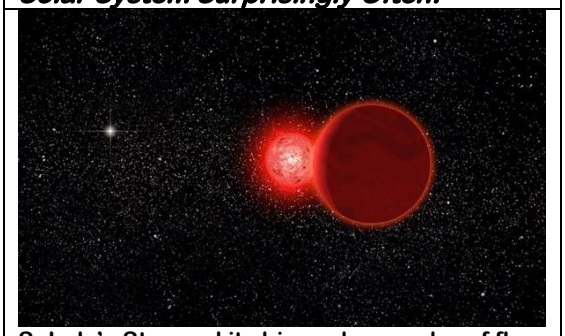
Credit: NRAO/AUI/NSF; SARAO; DES

Like a pirate attempting to find treasure, astronomers from South Africa and the United States followed the "X" to reach the answer to a mysterious phenomenon happening in deep space.

In galaxies with an active supermassive black hole, astronomers often see twin jets erupting from their center. These jets typically spew outward into space in opposite directions. But in the galaxy PKS 2014-55, about 800 million light-years from Earth, the jets coming from its central supermassive black hole don't act like this. Instead, this galaxy — and other "X-galaxies" like it — appears to have four jets forming the shape of an "X."

The reason why X-galaxies have such strange shapes was previously unknown. But thanks to new detailed MeerKAT observations, astronomers have found the explanation. PKS 2014-55's X-shaped jets of radio waves, which extend 2.5 million light-years into space, are being turned back onto the galaxy as they encounter the pressure of intergalactic gas. But as the material falls back toward the center of the galaxy, it's deflected by higher gas pressure near the center and instead curves outward, creating the horizontal arms of the X.

Wandering Stars Pass Through our Solar System Surprisingly Often.



Scholz's Star and its binary brown dwarf fly by our solar system some 70,000 years ago in this artist's illustration. Our sun shines bright in the background.

Credit: Michael Osadciw/University of Rochester

Every 50,000 years or so, a nomadic star passes near our solar system. Most brush by without incident. But, every once in a while, one comes so close that it gains a prominent place in Earth's night sky, as well as knocks distant comets loose from their orbits.

The most famous of these stellar interlopers is called Scholz's Star. This small binary star system was discovered in 2013. Its orbital path indicated that, about 70,000 years ago, it passed through the Oort Cloud, the extended sphere of icy bodies that surrounds the fringes of our solar system. Some astronomers even think Scholz's Star could have sent some of these objects tumbling into the inner solar system when it passed.

However, Scholz's Star is relatively small and rapidly moving, which should have minimized its effect on the solar system. But in recent years, scientists have been finding that these kinds of encounters happen far more often than once expected. Scholz's Star wasn't the first flyby, and it won't be the last. In fact, we're on track for a much more dramatic close encounter in the not-too-distant future.

"[Scholz's Star] probably didn't have a huge impact, but there should be many more stars that have passed through that are more massive," astronomer Eric Mamajek of NASA's Jet Propulsion Laboratory, whose 2015 paper in Astrophysical Journal Letters put Scholz's Star on the map, tell Astronomy.

July 2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Up and Coming Events 2020

EAS Meetings and Event are currently on hold or cancelled due to the current COVID-19 situation.

Please read the letter from out EAS President on page 2 of this newsletter.

Please visit our Web Page http://www.evansvilleastro.org for updates

Please visit our Facebook Group Page for updates

Moon Phases

New Moon	First Quarter	Full Moon	Third Quarter
July 20th, 2020	July 27th, 2020	July 5th, 2020	July 12th, 2020

Moon Phases courtesy of Time and Date.com

EAS Meeting Minutes for May – 2020

The May, 15th, 2020 meeting was canceled due to the COVID -19 virus situations and therefore there are no minutes to report .

Respectfully Submitted – Dave Kube – Secretary