

**July Meeting at the Observatory  
Friday July 21<sup>st</sup>, 2017 @ 7:30pm**



**M27-Dumbell Nebulae**

June 26<sup>th</sup>, 2017

Photo by Dave Kube

20 of 25 stacked 5 minute images plus 5 darks w/ ATIK 460c camera  
11" Celestron HD Cassegrain on a guided Celestron CGEMdx Mount

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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](mailto: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 2017 Officers and Contacts**

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Ken Harris  
Mitch Luman

Webmaster – Michael Borman

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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](http://www.evansvilleastro.org)



## Local Events and Information

### **EAS Schedule Update:**

Please Note we have a Regular scheduled meeting on Friday, July 21<sup>st</sup>, 2017 @ 7:30 pm.

### **EAS Update:**

Please Note we have a PSW scheduled on Saturday, August 12<sup>th</sup>, 2017 @ 7:30pm.

### **EAS Update:**

Please Note we have a Regular scheduled meeting on Friday, August 18<sup>th</sup>, 2017 @ 7:30pm.

### **EAS Update:**

Please Note there is Solar Total Eclipse on Monday August 21<sup>st</sup>, 2017. The path of Totality is near South and/or West.

### **EAS Update:**

Please Note we have a Regular scheduled meeting on Friday, September 15<sup>th</sup>, 2017 @ 7:30pm.

### **EAS Update:**

Please Note that the Ferdinand Folk Festival is scheduled for Saturday, September 16<sup>th</sup>, 2017 beginning @ 10am EDT in Ferdinand, Indiana.

### **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>

***New Hubble Find Challenges Our Ideas About Galaxies.***

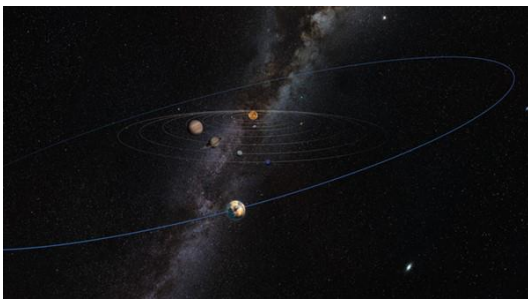


NASA, ESA, and Z. Levy (STScI)

Objects in the distant universe appear small and difficult to see – unless they’re sitting behind a cosmic magnifying glass. That’s exactly the case for MACS 2129-1, a galaxy lensed by a massive foreground galaxy cluster.

Using the Hubble Space Telescope, astronomers have managed to catch a glimpse of this unusual object, which appears to be an old, “dead” galaxy that’s already stopped making new stars just a few billion years after the Big Bang. Not only is this galaxy finished with its star formation earlier than expected, it’s also shaped like a disk, rather than the fuzzy ball of stars that astronomers assumed they’d see.

***Is There Another Planet Nine Altogether?***



Heather Roper/LPL

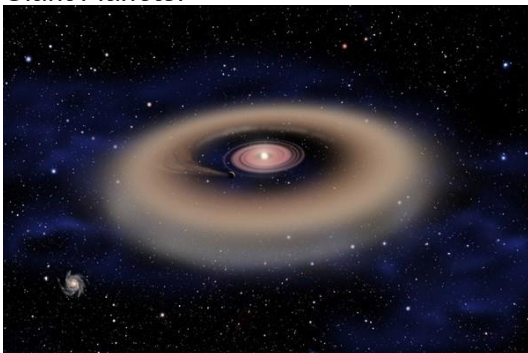
Planet Nine, meet ... also Planet Nine. Maybe.

An Earth or Mars-sized world — or even two — may exist on the outskirts of the Kuiper Belt at an eight degree inclined orbit, shifting a number of Kuiper Belt orbits up to a similar inclination.

The planet-mass object would be about 60 AU from the Sun. One AU is the distance between the Sun and Earth, with Pluto at about 30 AU at closest approach.

The proposed planet, hypothesized by Kat Volk and Renu Malhotra of the University of Arizona, is different than the one proposed by Caltech’s Mike Brown and Konstantin Batygin. Brown and Batygin propose a much more distant ice giant a bit smaller than Neptune, whereas Volk and Malhorta’s planet is smaller and much closer in.

***Astronomers Find Two Classes of Gas Giant Planets.***



David A. Aguilar, CfA

According to the NASA Exoplanet Archive, astronomers have found 3,498 confirmed exoplanets as of June 29, 2017. Of those planets, 679 have measured masses, and 281 have masses greater than 300 times that of Earth (Jupiter’s mass is nearly 318 times that of Earth).

As more planets circling other stars are discovered, astronomers are now hoping to use the increased statistics to understand how those planets form in the first place. And recent work has now found evidence for at least two formation mechanisms behind the growth of giant planets in extrasolar systems.

August 2017

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

Generated by [FreeHTMLCalendar.com](http://FreeHTMLCalendar.com) Copyright © 2011 John Dalbey.

**Up and Coming Events 2016**

Regular Meeting – Friday July 21<sup>st</sup> – Observatory @ 7:30 pm

Public Star Watch – Saturday August 12<sup>th</sup> – Observatory @ 7:30 pm

Regular Meeting – Friday August 18<sup>th</sup> – Observatory @ 7:30 pm

**Solar Eclipse – Monday August 21<sup>st</sup> @ Hopkinsville, KY and points all across the country.**

Regular Meeting – Friday September 15<sup>th</sup> – Observatory @ 7:30 pm

**Moon Phases**

New Moon	First Quarter	Full Moon	Third Quarter
August 21 <sup>st</sup> , 2017	August 29 <sup>th</sup> , 2017	August 7 <sup>th</sup> , 2017	August 14 <sup>th</sup> , 2017

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

## ***EAS MEETING for May 19<sup>th</sup>, 2017***

### **No Regular Meeting for June so have reposted the minutes from our May meeting**

The meeting was called to order at 7:40 pm by President Tony Bryan. There were 5 members present. The reading of the minutes was called to be accepted as published in the newsletter by Bob Flater-(?)-- and seconded by Dave Stephens. The motion passed.

#### **UPCOMING EAS EVENTS**

The acting secretary Ken Harris read the upcoming events.

<b>EAS Picnic &amp; Observing</b>	<b>Saturday, June 17</b>	<b>6pm @ Wayne City, IL @ Ken Harris's House</b>
<b>Patoka Lake Stars on the Beach</b>	<b>Saturday, June 24</b>	<b>11 am – 11 pm @Patoka Lake Eastern Time</b>
<b>Saturn Watch</b>	<b>Friday, July 7<sup>th</sup></b>	<b>8:30 pm – 10 pm @ Museum</b>

#### **VISITOR INTRODUCTION**

There were no visitors.

#### **TREASURER'S REPORT**

Tony went through the Treasurer's report which had been given to him by Ted. Dave Stephens asked about the \$120 fee the park now charges us a year. There was a question about the 99 year lease and whether or not that was looked at when they started charging the club for use of the ground. Tony will look at it and report back.

#### **SPECIAL PROJECTS**

Tony mentioned that the new telescope mount had no change.

The Storage room remodel was still under way with new shelving put in place. No work will be done on the walls until the water issue is resolved.

#### **OLD BUSINESS**

Tony went through the list and talked about the PSW, Sciencepalooza and the May 4th scouting session.

#### **NEW BUSINESS**

Tony discussed moving our speaker from tonight to the fall sometime. He also went over a public outreach in June, EAS picnic, Stars on the Beach, solar eclipse programs, the upcoming Saturn watch, the Okie-Tex Star Party, and a possible trip to Texas to the McDonald Observatory during the summer of 2018.

Ken also brought up the suggestion that members who come to the observatory might voluntarily start throwing in a buck into the box on the door each time you would go up to the observatory. This would help offset the cost of running the place and help with our dwindling budget. We actually had several members do this after the suggestion was made so Ted check the box on the wall next time you are there.

#### **ANNOUNCEMENTS**

We adjourned the meeting at 8:05 and then Tony gave his presentation on the upcoming August 2017 eclipse.

Respectfully Submitted;

Ken Harris  
Acting Secretary