

Comet **Pan-STARRS** proved to be elusive for many of us in early March. As is typical this time of year, there were many clouds to block our view each evening. The position of the comet, low on the horizon, made matters worse.

I spent several evenings scanning the western sky from east of Evansville, only to see clouds covering the view for 10 - 15 degrees from horizon while overhead the stars shined

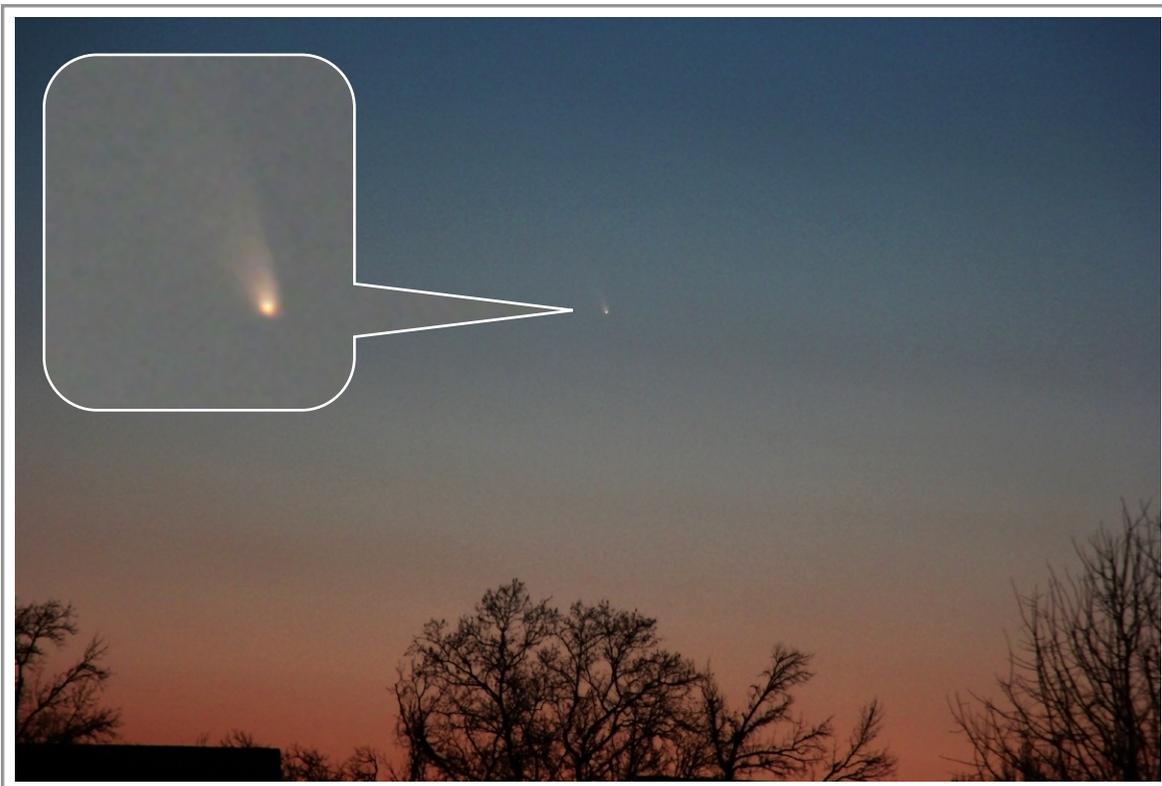
brightly. The only objects with tails were the many jets passing to and fro.

Scott Conner and Victor Lopez were able to spot the comet from the USI area on a couple of nights.

Mike Borman, located on the north side of Evansville managed to capture a few images on March 13 through the hazy skies. He noted it was pretty small and hard to pick out in the twilight. See below.

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Comet Pan-STARRS L4 03/13/2013

By Mike Borman

Canon 60Da DSLR camera, Sigma 28-300mm zoom lens, ISO 1000, Vixen Polaris star tracker on a tripod. [Click here for more pictures of the comet.](#)

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: gneireiter@wowway.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 for 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 2013 Officers and Contacts

President - Scott Conner 812.604.7164
ssconner24@gmail.com

Vice President - Tony Bryan

Secretary - Charleen Kaelin 812.303.1711

Treasurer - Scott Bishop

Counselors - Michael Borman, Kent Brenton, and Ken Harris

Webmaster - Michael Borman

Program Director - open

Newsletter Editor - George Neireiter
812.629.7822 gneireiter@wowway.com

For more information about EAS or directions to the Observatory, visit the club's web page:
<http://www.evansvilleastro.org/>



Local Events and Information

Telescope mount upgrade status... At the last meeting, it was noted that we are very close to reaching our financial goal for purchasing the [Paramount ME II](#). Combining contributions, pledges, and anticipated grants, we have reached about 90% of the cost. In such a short time since the project was proposed, that is fantastic!

Based on this excellent progress, it was decided to go ahead with ordering the mount. We anticipate a significant lead time until delivery and believe the remaining funds will be acquired.

If you haven't contributed, please help out and make a contribution. While there have been some large donations of \$200 or more, your gift of \$25 or \$30, or even \$50, would help us achieve that last 10% of the purchase.

Please send your check to Scott Bishop, Treasurer, at: E.A.S., P.O. Box 3474, Evansville, IN, 47733. Or, even better, come to the next meeting (April 17) and personally deliver your support of E.A.S. and its mission. Thank you.

Volunteers needed for two events in May...

Thursday, May 2nd (7:20 - 9:00 pm) at West Terrace school for an Astronomy Night. Setup will be at 7pm. Need up to 2 volunteers. Expecting 50-100 people. Clear Skies only.

Saturday, May 11th at Beall Woods State Park in Mt. Carmel, Illinois. Time to be announced starting in late afternoon. Looking for volunteers with telescopes. Need perhaps 3 other people.

Please contact Scott Conner if you can help.

Astronomy Day 2013... Reminder that Astronomy Day is coming up in a few weeks on Saturday, April 20. This event is hosted by the Evansville Museum and the fun begins at 10 am.

Mitch Luman, Science Director of the Museum, can use EAS volunteers to help with various activities. There will be extra planetarium shows in Koch Planetarium, digital planetarium programs provided by Jim and Carol Havens from the Havens Foundation, views of the Sun and the Moon, make-it take-it activities, a telescope display, and meteorite display.

Please contact Mitch and let him know you are interested: (812) 425-2406, ext 227, or e-mail him at mluman@emuseum.org

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May 2013

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

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April Events (reminder)....

Regular Meeting Apr. 19 (Friday) 7:30 pm Wahnsiedler Observatory
Mid South Star Gaze April 10 - 13 French Camp, MS
 Astronomy Day Apr. 20 (Saturday) 10 am to 5 pm at Evv Museum
 ... with evening observing in the Museum parking lot near the levee.
Dome Repair Day Apr. 27 (Saturday) 9:30 am Wahnsiedler Observatory

May Events...

Texas Star Party May 5 - 12 Ft. Davis, Texas
Regular Meeting May 17 (Friday) 7:30 pm Wahnsiedler Observatory
PSW May 18 (Saturday) 8:15 pm Wahnsiedler Observatory

Moon phase times (Evansville local time)

third quarter	6:15 a	May 2	new	7:29 p	May 9
first quarter	11:35 p	May 17	full	11:25 p	May 24
third quarter	1:59 p	May 31			

courtesy of Time and Date

Your Daily Dose of Astonishment



By Diane K. Fisher

As a person vitally interested in astronomy, you probably have the Astronomy Picture of the Day website at apod.nasa.gov set as favorite link. APOD has been around since practically the beginning of the web. The first APOD appeared unannounced on June 16, 1995. It got 15 hits. The next picture appeared June 20, 1995, and the site has not taken a day off since. Now daily traffic is more like one million hits.

Obviously, someone is responsible for picking, posting, and writing the detailed descriptions for these images. Is it a whole team of people? No. Surprisingly, it is only two men, the same ones who started it and have been doing it ever since.

Robert Nemiroff and Jerry Bonnell shared an office at NASA's Goddard Space Flight Center in the early-90s, when the term "World Wide Web" was unknown, but a software program called Mosaic could connect to and display specially coded content on other computers. The office mates thought "we should do something with this."

Thus was conceived the Astronomy Picture of the Day. Now, in addition to the wildly popular English version, over 25 mirror websites in other languages are maintained independently by volunteers. (See http://apod.nasa.gov/apod/lib/about_apod.html for links). An archive of every APOD ever published is at <http://apod.nasa.gov/apod/archivepix.html>. Dr. Nemiroff also maintains a discussion website at <http://asterisk.apod.com/>.

But how does it get done? Do these guys even have day jobs?

Dr. Nemiroff has since moved to Michigan Technological University in Houghton, Michigan, where he is professor of astrophysics, both teaching and doing research. Dr. Bonnell is still with NASA, an astrophysicist with the Compton Gamma Ray Observatory Science Support Center at Goddard. APOD is only a very small part of their responsibilities. They do not collaborate, but rather divide up the calendar, and each picks the image, writes the description, and includes the links for the days on his own list. The files are queued up for posting by a "robot" each day.

They use the same tools they used at the beginning: Raw HTML code written using the vi text editor in Linux. This simple format has now become such a part of the brand that they would upset all the people and websites and mobile apps that link to their feed if they were to change anything at this point.

Where do they find the images? Candidates are volunteered from large and small observatories, space telescopes (like the Hubble and Spitzer), and independent astronomers and astro-photographers. The good doctors receive ten images for every one they publish on APOD. But, as Dr. Nemiroff emphasizes, being picked or not picked is no reflection on the value of the image. Some of the selections are picked for their quirkiness. Some are videos instead of images. Some have nothing to do with astronomy at all, like the astonishing

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August 21, 2012, video of a replicating DNA molecule.

Among the many mobile apps taking advantage of the APOD feed is Space Place Prime, a NASA magazine that updates daily

with the best of NASA. It's available free (in iOS only at this time) at the Apple Store.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.



The January 20, 2013, Astronomy Picture of the Day is one that might fall into the "quirky" category. The object was found at the bottom of the sea aboard a Greek ship that sank in 80 BCE. It is an Antikythera mechanism, a mechanical computer of an accuracy thought impossible for that era. Its wheels and gears create a portable orrery of the sky that predicts star and planet locations as well as lunar and solar eclipses.

Upcoming Programs...

April

Date: Friday the 17th, at about 8:15 pm, following the Business Meeting

Presenter: Scott Conner , President of E.A.S.

Topic: to be determined (from one of three programs)

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EAS Meeting Minutes -- March 15, 2013

The meeting was CALLED TO ORDER by President Scott Conner at 7:39 PM with fifteen people in attendance.

It was moved and seconded to approve the MINUTES of the previous month as seen on the EAS Internet page. WWW.EVANSVILLEASTRO.ORG

Tony Bryan announced the UPCOMING EVENTS:

Regular Meeting	Friday, April 19	7:30 pm
Astronomy Day	Saturday, April 20	10 am - ?? at the Museum
Dome Repair Day	Saturday, April 27	9:30 am
Regular Meeting	Friday, May 17	7:30 pm
PSW	Saturday, May 18	8:15 pm

There were no VISITORS.

Treasurer Scott Bishop reported on the assets of this club. He also mentioned that finances are healthy even after paying the insurance bill.

SPECIAL PROJECTS

The president said that the DOME REPAIR date has been set for Saturday, April 27 at 9:30 am. It will be necessary to tar the roof, finish painting, and do regular maintenance of the Observatory. Also, work on the dome rotation system is needed, because it is very difficult to move in cold weather. We need all who can to help.

OLD BUSINESS

Astronomy night at Delaware School scheduled for March 1 was cancelled due to bad weather. It will be rescheduled later.

The 1st PSW of the year was held March 9. There were 5 guests and 5 members. The sky was cloudy, but we did the multimedia presentation for them.

Next, Scott asked who was able to observe Comet PANSTARR this week. A few were able, but it was dim and hard to see since it was so close to the horizon, and there were lots of clouds on most nights.

NEW BUSINESS

The TELESCOPE MOUNT project is underway. We would like to purchase the Paramount ME II which would track for 4 hours and last a lifetime. We are in need of additional funds and

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would like the funds pledged by March 15 with payment by June 21. Remember, it's tax deductible.

As an extra incentive, there will be a PLAQUE placed at the bottom of the stairs commemorating those who donate the following amounts:

Member	\$25 - \$99	One plate with all names
Planetary Observer	\$100 - 499	One plate
Solar System	\$500 - \$999	Two plates
Galactic	\$1,000 - \$4,999	Four plates
Cosmic	\$5000 +	Six plates

Scott announced that a 3-inch refractor has been donated to the club.

It was mentioned that the June 8 picnic will start at 6:00 pm this year.

Astronomy Day is scheduled for Saturday, April 20 and will be held at the Evansville Museum from 10:00 am – 5:00 pm, with possible observing after that. Please contact Mitch Luman or Scott if you will be available to help out.

The portable observatory donated by David Walker is still available. For a small donation, it would be yours.

Mitch Luman mentioned an Astronomy Day is coming up for the Girl Scouts at the Museum around May 18.

Charleen Kaelin presented her "What's Up This Month?" for March.

The meeting adjourned at 8:15 pm.

The program for the night consisted of placing plastic caps on the bottom of the legs of the chairs to protect the floor from rust.

Respectfully submitted,

Charleen Kaelin
Secretary