



Editor's Note

Well, Fall seems to finally be here. The month of September was exciting for astronomers and science geeks, but also so very tragic for so many. The same month that LIGO announced new findings and the Nobel Prize for Physics was awarded to Three Americans for their work at LIGO (see News Notes below), two devastating hurricanes smashed through the Caribbean and Florida. And then we have the ridiculously senseless slaughter in Las Vegas. We don't yet know the shooter's motives, but we see clearly the carnage that he caused.

But as always, we look to the skies! In this month's issue, we look back at our club convention—with as many pics as I could publish, and we look forward to hopefully clear skies through October and November! In September, Jay Reynolds told us about the end of the Cassini Mission—another notable event that occurred this past month—and at our upcoming October meeting, club member Kai Getrost is going to share with us details of his fascination trip to Argentina as part of a multiple-team observation project!

We also have in this issue a great article from the Canton Repository featuring our very own Suzie Dills! If you have been at all active in the club during the past six years or so, then you know Suzie and you know her dedication to the hobby as well as to the profession of astronomy!

Be sure to check out Dave Watkins's photos in our Club Member Photo Gallery. We have a number of terrific astro photographers in the club, but Dave is one of the best!

Keep looking up!

Tim Campbell, Editor

News Notes for October

Our president, Bill Murmann is on vacation and so just a couple of notes this month from me! Enjoy the time off, Bill!

From Science Magazine 10/6/2017 Volume 358 Issue 6359

Rainer Weiss, 85, of the Massachusetts Institute of Technology in Cambridge and Kip Thorne, 77, and Barry Barish, 81, of the California Institute of Technology in Pasadena share the \$1.1 million Nobel Prize in Physics for the discovery of gravitational waves. The three played key roles in developing the Laser Interferometer Gravitational-Wave Observatory (LIGO), two enormous optical instruments in Hanford, Washington, and Livingston, Louisiana, that act like rulers to measure the stretching of space. Since September 2015, LIGO has on four occasions spotted gravitational waves from two black holes spiraling into each other. The detections validate a century-old prediction by Albert Einstein and open a new window on the heavens. The award, on the other hand, opens a window on the sometimes unseemly politics that can surround a Nobel Prize. No more than three people can share a Nobel Prize, and many gravitational physicists thought Ronald Drever would share it with Weiss and Thorne. Particle physicists campaigned for their colleague Barish instead. Drever's death on 7 March at age 85 spared the Nobel committee a difficult choice.

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CONVENTION REPORT

From Bill Murmann, Club President:

Hi Everyone,

I'd like to thank members who joined us and brought food to share and who helped with our Annual Convention and potluck picnic Saturday (Sept. 16) at Letha House. And thanks to our officers and board members-at-large who brought supplies and helped with the picnic--especially Treasurer Ron Palcic who handled ticket sales for our raffle.

We had nice weather and a pretty decent night skies for observing--although we had some haze around the horizon and dewy conditions later in the evening.

Special thanks goes to Rich Whisler who did all the grilling for our meal, and to Marianne Wadsworth and Gail Korylak who organized the food line on three tables. Thanks also to Marianne and Nancy Whisler who helped clean up. Thanks to FIVE STAR MEATS, a local company that provided the brats and wieners at a substantial discount. Club VP Tim Campbell handled the meat arrangements.

And thanks to Observatory Director Jay Reynolds who held observatory training and who brought a slide show about our Solar Eclipse program that helped draw an estimated 10,000 guests to Edgewater Park.

I think everyone--including a few visitors from the Black River and Mahoning Valley astronomy clubs--enjoyed the food and socializing.

Jay Reynolds, Bruce Lane, Dave Watkins, and I were the last to leave at 12:45 a.m. after listening to groups of coyotes howling in the distance off to the east and the west.

Next year's Annual Convention and picnic will be on Saturday, September 8, 2018. Best wishes.

--Bill
CAA President





All photos by Carol Lee!

CAA CALENDAR OF EVENTS

LETHA HOUSE PROGRAMS FOR 2017

We have one Public Star Party remaining for this year.
--Saturday, October 7, public star party starting at 8 p.m.

Speakers Scheduled through the end of 2017

October 9, 2017

Kai Getrost, Club member

“New Horizon’s Next Target: The Kuiper Belt”

Club member Kai Getrost will discuss and show pics of his trip to Argentina as

part of a 50-team effort to observe and photograph a rare event, a Kuiper Belt Object occultation—passing in front of stars. This gives a wealth of data for astronomers to study to prepare for the New Horizons future visit to study this object!

November 13, 2017

Stanley K. Borowski, Assistant Engineer in Propulsion Systems and Technologies at NASA Glenn Research Center

"The Use of Nuclear Rocket Engines for Future Human Missions to the Moon and Mars".

Dr. Borowski will discuss propulsion research here at Cleveland's Glenn Research Center and how the development and use of nuclear rocket engines may change the future of manned space exploration!

December 18, 2017

There will be no meeting in December. Please plan to join us at Mahle's Restaurant in Westlake for a social dinner on Monday December 18, 2017!

SPEAKERS SCHEDULED FOR 2018

January 8, 2017

"Journey to Another Solar System!"

Research Astronomer & Host of WKYC's "In The Sky": Jay Reynolds will discuss, how scientists are working now on a project to send high speed probes to our nearest star, with data results in less than 40 years of launch!

February 12, 2017

"Parallax: How we managed to measure the distance from us to the stars!"

Club member and self-professed astronomy nerd Tim Campbell will follow Jay Reynolds by showing how through history, humans used cleverness, a basic principle of vision, and a succession of instruments to go from throwing spears at our food to calculating just how far away those little dots in the nighttime sky really are!

Reminder: our observatory is located in the Medina County Park District's Letha House Park, 5800 Richman Rd., Chatham Twp. OH 44256.

CAA IN THE NEWS**Suzie Dills tries to foster interest in space year round, an effort bolstered by the recent solar eclipse!**

by Kelly Byer

Printed originally in Canton Repository

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Editor's Note: Suzie is a long-time member of CAA, a former club officer, and active in many of our outreach and public programs.

CANTON The theme of "Star Wars" welcomed visitors to the Hoover-Price Planetarium minutes before show time.

Children talked in excited whispers, and adult faces were illuminated as they quieted cell phones. On a Thursday afternoon, presenter Suzie Dills greeted roughly 25 people at the 65-seat planetarium in the Wm. McKinley Presidential Library & Museum.

She discussed the Perseid meteor shower. A boy in the front row said he's a fan of meteors, adding "I've seen them on TV." When Dills asked who wanted to be an astronaut, he spoke up again with an enthusiastic "me!"

Educating people about astronomy is more than Dills' job. She tries to foster interest in space year round, an effort bolstered by the recent solar eclipse.

Where to find a dark sky

The following locations suggested by Suzie Dills have nights for public star gazing at least once a month:

- **Wilderness Center in Wilmot**
- **Warren Rupp Observatory in Mansfield**
- **Akron Astronomy Club in Portage Lakes**

"I love sharing the night sky with folks and teaching them what's out there and just hearing the excitement when they get to see Saturn or Jupiter or take a look at the moon through a telescope," she said.

Starry Trails

Dills grew up in Niles — President McKinley's birthplace and a connection she made to her current workplace.

She became interested in meteorology in high school and regularly watched Dick Goddard's evening forecast on television.

"I used to go out, and I used to look for the meteor shower or the planets that he would talk about," Dills said.

Astronomy was one of the first classes she registered for as a Youngstown State University student. She bought a telescope and taught herself to read star maps, which show where planets, stars and galaxies are in the sky.

About 15 years ago, Dills got her start in astronomy education at the Lake Erie Nature & Science Center. She presented planetarium programs for community, school and scout groups. Visitors would tell her they loved planetarium shows but couldn't navigate space on their own.

"And that's when I started writing Starry Trails," she said.

Dills and her daughter, a graphic designer, stripped a typical star map to the basics like Polaris (or the North Star) and constellations such as the Big Dipper. They produce a custom star map each month because the earth's rotation and its orbit around the sun makes star and planet positions change.

A narrative and audio guide produced by Dills correspond with a trail of arrows on the map. It's a virtual hike through the sky.

"I want people to go out," she said. "I want them to enjoy the night sky, and I want them to be able to figure out, 'This is what I'm looking at.'"

Astronomy outreach

Dills, like most presenters at the Hoover-Price Planetarium, participates in educational outreach programs throughout Northeast Ohio.

She previously coordinated science, technology, engineering and mathematics (STEM) programs for the Girl Scouts of Northeast Ohio, for which she still volunteers. Dills also is a member of the Cuyahoga Astronomical Association, Cleveland Astronomical Society, and Cleveland Regional Association of Planetariums.

"I'm always involved in different events throughout Northeast Ohio," she said.

Among them: A telescope family night at the Lorain County Regional Airport, Cosmic Kids for the Avon Lake Parks & Recreation Department, and special telescope viewing events such as the solstice and the eclipse.

Roughly 10,000 people gathered for the summer solstice in Lakewood, Dills said. There was a line to use her telescope for at least five hours.

"It's just so cool to see people that excited about science and astronomy," she said.

Dills also recently purchased a Starlab portable planetarium, allowing her to take presentations to area libraries and community centers.

At home in the dome

Dills has worked at the Hoover-Price Planetarium about three of the nearly 20 years David Richards has been director. The planetarium itself has been there since 1963.

It has the original projector customized by the first director, Richard Emmons. He drilled 1,500 holes into the Spitz A-3-P for a total projection of more than 3,000 stars.

"It's running perfectly well, still," Richards said.

The planetarium and Richards, who prefers paper star maps to phone apps, are old-school. But Richards credits technology for spurring interest in astronomy the past decade or two.

“I think with the advent of new technology for guiding telescopes, cheaper telescopes, better telescopes, more information on the web, there’s a lot of interest in the night sky and astronomy,” he said.

The best planetarium presenters, often amateurs who’ve taught themselves, can communicate and encourage that enthusiasm. Richards said Dills is a great example of a “wonderful presenter and a wonderful person.”

She prefers the interaction afforded by live presentations, instead of what Dills called a recorded “canned program.” She’s seen the inside of several, larger planetariums but isn’t envious.

“I like this dome, the size of this dome, because it’s more intimate,” she said.

Finding the console’s knobs and buttons in the dark is the easy part, Dills said. The difficult part is knowing the current night sky.

Constellation outlines are aligned and projected onto the stars, as are other images. The console’s second knob from the outside triggers Dills’ favorite effect. The one she saves for the end of her presentations.

“You never know when you’re going to see a shooting star,” she said, as gold beams of light shot across the artificial night sky.

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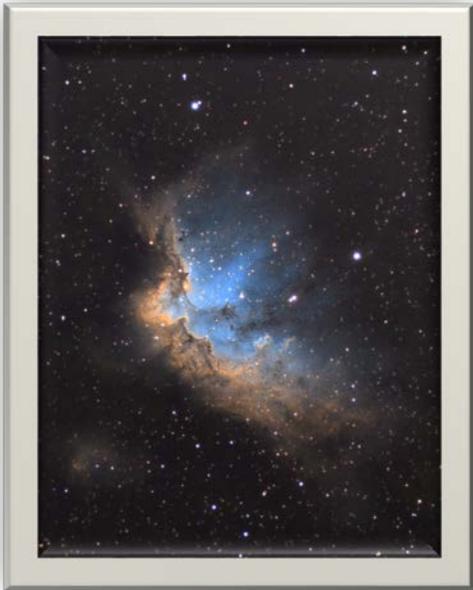
Highlights of our October Skies

Bill Murmann is on vacation. This feature will return next month!

Club Members Photo Gallery



NGC 6946 Fireworks Galaxy



NGC7380 Wizard Nebula

Photos taken and processed by Dave Watkins

Secretary's Report

Secretary's Report

Cuyahoga Astronomical Association

Board Meeting Minutes, September 11th 2017 6:30 PM

- 1.) Discussed 2018 programs which will appear on calendar; specifically, 2018 annual convention which will occur on September 8th.
- 2.) We received congratulations on our 60th anniversary from several of the companies that donated prizes to our annual raffle.
- 3.) Treasurer Ron proposed updating the annual membership form to include, "how did you hear about us." The board agreed that this would be useful information. Ron stated that he needed to change the font on the form in order to fit this question, which was met with some opposition but eventually approved. Times New Roman is so darn boring!
- 4.) The board also debated updating the annual dues structure to one where the renewal period for all members would be November, and new members would pay a pro-rated amount equivalent to the month in which they joined. This was also approved.
- 5.) Board discussed purchasing a canopy with the CAA logo on it to be used at public events. Treasurer Ron will investigate and report back at next board meeting.
- 6.) President Bill recommended a t-shirt drive in the near future, and will investigate options. The method used last time was very time consuming and offered too many options. A simpler method will be needed this go around.
- 7.) 2017 annual convention was following weekend. Board ran through list of necessary items and signed up to bring anything that was not readily available.

General Membership Meeting Minutes, September 11th 2017 7:30 PM

Treasurer's Report: Financial information stands as published in *The Observer*. If you need a replacement nametag, please let Treasurer know and he will look into getting a replacement.

Secretary's Report: Secretary's report stands as published in *The Observer*.

President's Report:

- a. CAA recruited seventeen new members this month, bringing current total to 115!
- b. The last public event at Letha House saw 10 members with telescopes; a great turnout!
- c. The final public program of 2017 will be on October 7th, and will be a dark sky event with no moon visible.
- d. The annual CAA convention is to be held the next upcoming Saturday, and will commence around 3:00 PM. All members are welcome to come to this pot-luck event, with observing to occur afterward weather permitting.
- e. CAA has received four door prizes that will be raffled off at upcoming convention, many of which were accompanied by congratulations on CAA's 60th anniversary.

- f. CAA received a thank you from the Medina County Parks for its participation in its eclipse event, which saw over 1000 guests!
- g. Reminder: membership cards issued annual now serve as observing permits for Medina County Parks and Cleveland Metroparks. Make sure to notify the rangers!
- h. There is a citizen scientist project seeking volunteers to sort through data searching for a ninth planet in our solar system. If interested, please see Bill's write up in the month's copy of *The Observer*.
- i. Letha House event calendar for 2018 is set. Please reference calendar published in *The Observer* for details.
- j. Bill issued public thanks to Joe Golias of Astrozap for his gracious donation of solar glasses used during the eclipse.
- k. Thanks to Jay Reynolds for all the hard work he put in coordinating the Edgewater Park eclipse program.
- l. Other OTAA convention dates have been added to club calendar in *The Observer*.
- m. The NASA JPL NSN will not be having any webinars this month. Bill will notify club when the next one is scheduled.

Vice President's Report:

- a. Winter dinner for 2017 will be at Mahle's, as has been for the past two years.
- b. 2018 speakers' calendar is wide open. Contact Tim Campbell if interested in presenting.

Observatory Director's Report:

- a. Jay will conduct observatory use training at the upcoming convention
- b. Jay announced that all of the telescopes currently in the observatory are fully functioning and ready for member use.
- c. Cleveland Metroparks reported at least 10,000 guests at the eclipse program held at Edgewater Park; a very successful event by any measure!

No old business to discuss**New business**

- a. Bill is looking into t-shirt options, and will update club membership at future meeting.

Observation reports were given.**Meeting Adjourned 9:00 PM****Trevor Braun, Secretary**

Treasurer's Report

CAA Financial Report	Sep-17
Beginning Bank Bal.	7,475.99
Beginning Petty Cash	455.45
Total Beginning Cash	7,931.44
Income - Bank	
Memberships	25.00
Interest	0.07
Cash Transfer	335.00
Donations	10.00
Income - Petty Cash	
Donations	32.54
Membership	25.00
Convention	316.00
Expenses - Bank	
Convention	124.77
Expenses - Petty Cash	
Refreshments	34.73
Misc.	30.00
Cash Transfer	335.00
Postage	8.40
Net Bank	7,721.29
Net Petty Cash	420.86
Total	8,142.15

Ron Palcic, Treasurer

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