



# ASTROFILES

## Auburn Astronomical Society Newsletter

May 2020

Newsletter Editor — John Wingard — [jwin1048@gmail.com](mailto:jwin1048@gmail.com)

### Moon Phases

- May 29 — First Quarter
- June 5 — Full Moon
- June 13 — Last Quarter
- June 21 — New Moon
- June 28 — First Quarter
- July 5 — Full Moon
- July 12 — Last Quarter
- July 20 — New Moon

### Stay in touch with us



<http://www.auburnastro.org>

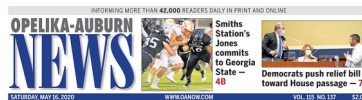


<https://www.facebook.com/groups/79864233515/>

### Latest News and Events

As the end of May approaches we still find ourselves in the middle of the COVID-19 pandemic. Some areas of the country are slowly improving while others are not. Many restrictions are still in place that prevent large gatherings of people. Of course, our club meetings are on hold, as are most of our organized star gazes and will likely remain so for the immediate future. But that doesn't mean that we cannot still enjoy the wonders of the night sky on our own or with our families. There are some good observing opportunities coming up in the next few months, particularly with the planets, so make sure you take advantage of them.

### The AAS makes the news!



**Auburn to reopen public buildings, spaces by June 1**

**BY WENDY GARDNER**  
The Auburn Astronomical Society has announced that it plans to reopen its facilities to the public starting on June 1, 2020. The society's board of directors has approved a plan to gradually reopen the club's facilities, including the observatory, planetarium, and meeting room, to the public. The plan includes strict safety protocols to ensure the health and safety of all members and visitors.

**AU alum, local manager named president of Lee newspapers**  
Lee University has named a former Auburn University student as its new president. The new president is a local manager and has a long history of leadership in the community.



**STARRY SKIES**  
The Auburn Astronomical Society has equipped and outfitted what it allows the opportunity to see for the first time in the area.

**BY WENDY GARDNER**  
The Auburn Astronomical Society has equipped and outfitted what it allows the opportunity to see for the first time in the area. The society has provided astronomical equipment to look at stars.

### Beaugard majorette taking her skills to AU

**BY WENDY GARDNER**  
Auburn University has welcomed a new majorette to its team. The new member is a former Beaugard majorette and is taking her skills to AU.

We were recently contacted by Hannah Lester, who writes for the Opelika-Auburn News, with the idea for an article about the club. Several club members were interviewed for the article which ran on the front page of the newspaper on Saturday, May 16th. It spotlighted our outreach activities and some of our history that goes back to the creation of the club in 1980. The article also generated a lot of local interest in our club Facebook page. The full text of the article appears on the following pages. Thanks to the members for taking the time to be interviewed for the article.

<b>Act Fact!</b>	During the month of May only enjoy 30% off all tile & ceramic, 40% off interior paint, 35% off exterior paint.	<b>Weather</b>	More online weather info.
<b>HOME</b>	Offer ends May 31st, so call now to take a free quote and measurement!	<b>334-440-7807</b>	



# STARRY SKIES



PHOTOS CONTRIBUTED BY ALLEN SCREWS

The Auburn Astronomical Society has equipment and telescopes that it allows the community to use to learn more about astronomy.

## Auburn Astronomical Society provides sites, equipment to look at stars

BY HANNAH LESTER

hlester@oanow.com

People across Alabama get together regularly to share their love for astronomy, look at the stars and teach others about the sky.

“It’s a community of like-minded astronomy enthusiasts who share their knowledge of the stars and telescopes with each other,” said Russell

See **STARS**, Page 3A



The Auburn Astronomical Society has several dark-sky sites where it meets to stargaze, including Heaven Hill, with special permission from Russell Lands.



# Stars

From Page 1A

Whigham, former vice president and former president of the Auburn Astronomical Society.

The Auburn Astronomical Society was formed in 1980. At one time, the society had its own observatory, said Allen Screws, club president.

## Wide-range interest

The Auburn-based society has members throughout the state and in nearby Columbus, Georgia. It's one of five clubs in Alabama.

Screws has been a member of the club since 1983. He has seen a lot of changes and astronomical events in that time.

The Auburn group tries to make it to many of the regional stargazes such as those in Georgia (The Peach State Stargaze) or in Mississippi (The Mid-South Stargaze). Many of these events have speakers, and people get to meet others that share their interests, Screws said.

Mike Lewis joined the club in 2015 with his son, though this was not his first astronomical club. Lewis was a member of a much larger club in Washington, D.C., for years.

The Auburn Astronomical Society is a great opportunity for anyone, Lewis said. Children and teenagers come with their parents. Members fill all kinds of professions — business owners, government employees and Auburn University professors.

"We have a wide variety of people," he said. "We have people with no telescopes; we have people with some very fantastic, elaborate gear. We have people who have a passive, sort of a part-time interest; we have people who are very devoted to it, who are passionate about it."

## Public viewings

Once a month, the society meets to allow the public to view the sky and stars around them.

"A lot of folks don't have access to a good observing site at their house, so that's been one of our main things we try to do, is to provide a dark-sky site for folks," Screws said.

These star parties are held throughout the area at sites where the sky will be most visible without light interference.

"The last one we had was up at Kiesel Park in February and there were a lot of folks that came out," Screws said.

The society also tries to reach out to other groups like schools or scouting societies.

"I think a lot of people don't realize what there is to see in the night sky," Screws said. "I think one of the most amazing things you can see, even though there's lots of things to be seen in the telescope, is just a truly dark night sky."

"Because most people live in the suburbs, live around a lot of lights and they don't see the Milky Way overhead, they don't see the region down in Sagittarius where it's so bright, where the center of the galaxy is and everything. People just don't realize that."

Lewis' experience with

a much larger club in D.C. instilled in him a desire for outreach to people in Alabama.

"All we did was public outreach up there. We would have hundreds of people show up for our events up there," he said. "We don't have those kinds of followings down here, but you have to start somewhere."

## Why we do this

When Lewis joined, he began working to develop a partnership with Wind Creek State Park at Lake Martin for a dark-sky site for observing.

"Our mission is to get out and share the heavens with others," Lewis said. "The park readily agreed and since 2016, the last four years, we've had monthly programs from June through October, one Saturday a month."

Additionally, the group once had an outreach program with the Lee County Chapter of the Autism Society of Alabama.

"Sharing our knowledge of the night sky with the community may be the most rewarding," Whigham said. "Seeing someone's reaction after having seen Saturn for the first time or telling how far away a galaxy they've just seen is, is why we do this."



**This article is distributed by NASA Night Sky Network**

The Night Sky Network program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit [nightsky.jpl.nasa.gov](https://nightsky.jpl.nasa.gov) to find local clubs, events, and more!

### **Summer Triangle Corner: Vega**

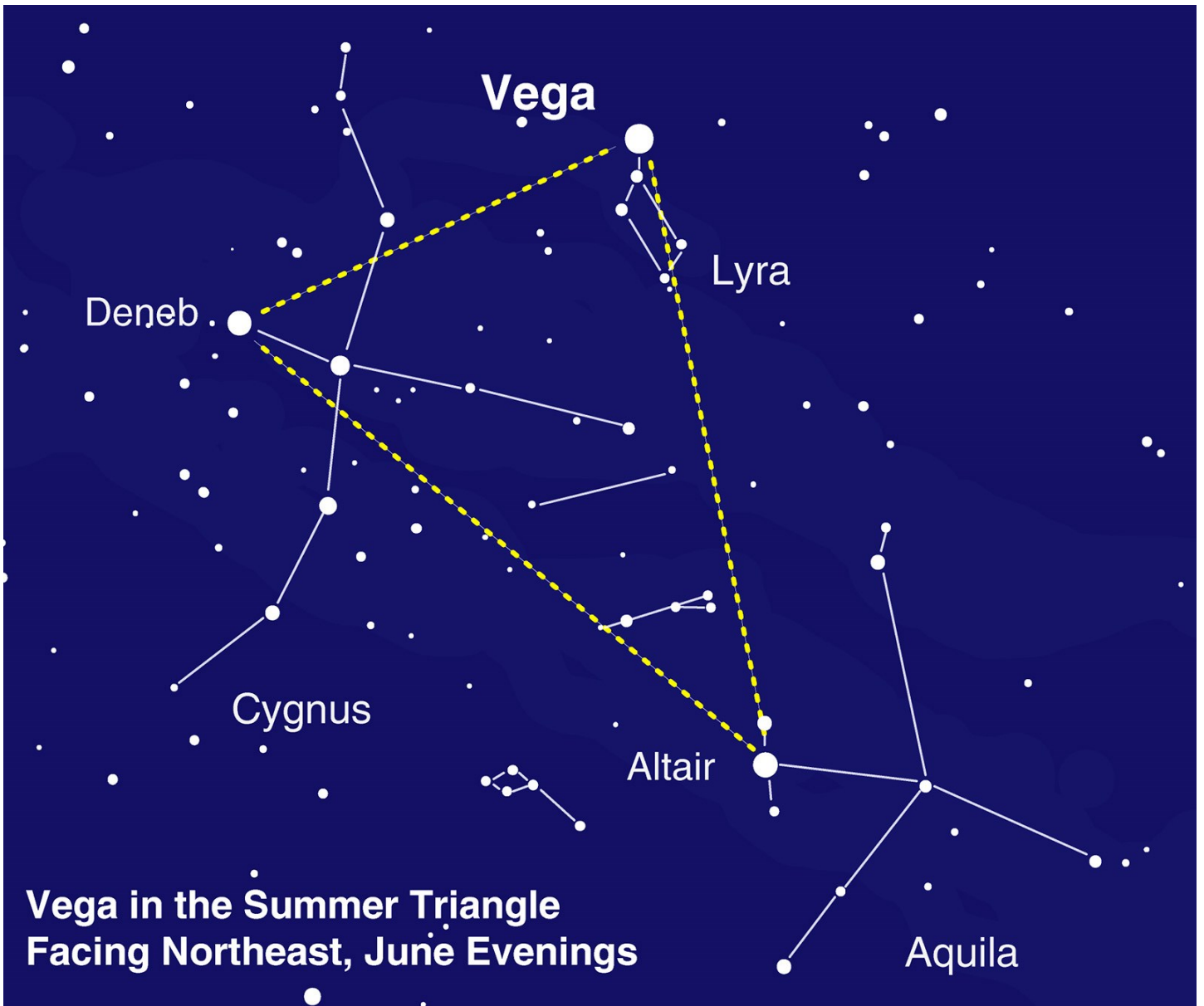
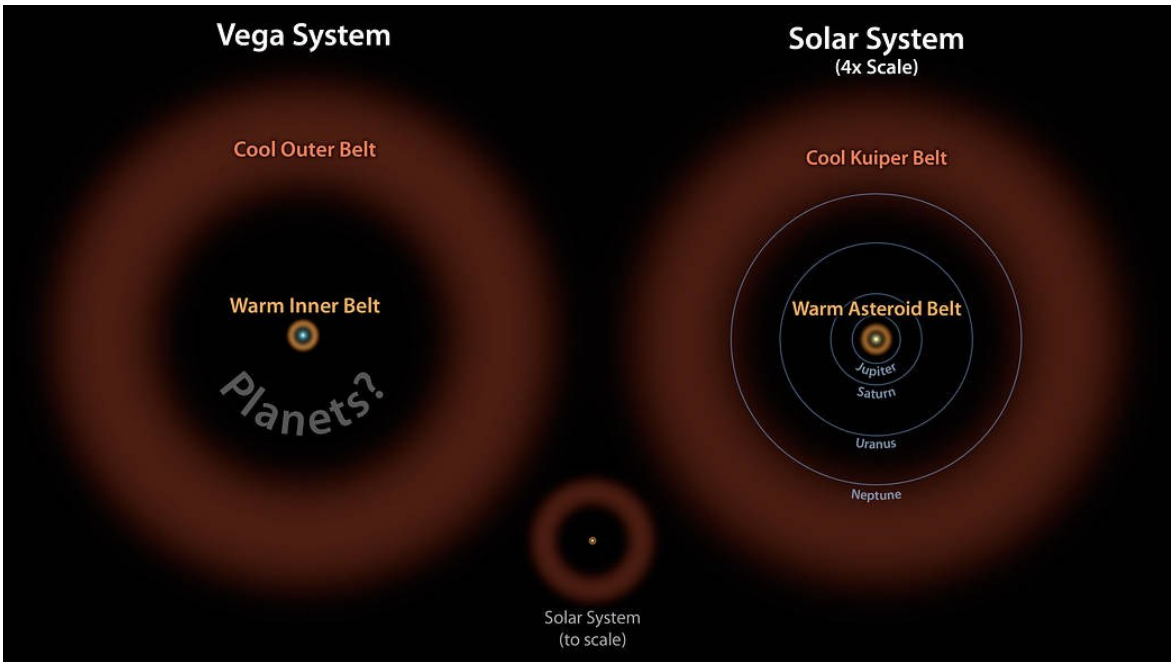
David Prosper and Vivian White

If you live in the Northern Hemisphere and look up during June evenings, you'll see the brilliant star **Vega** shining overhead. Did you know that Vega is one of the most studied stars in our skies? As one of the brightest summer stars, Vega has fascinated astronomers for thousands of years.

Vega is the brightest star in the small Greek constellation of Lyra, the harp. It's also one of the three points of the large "Summer Triangle" asterism, making Vega one of the easiest stars to find for novice stargazers. Ancient humans from 14,000 years ago likely knew Vega for another reason: it was the Earth's northern pole star! Compare Vega's current position with that of the current north star, Polaris, and you can see how much the Earth's tilt changes over thousands of years. This slow movement is called **precession**, and in 12,000 years Vega will return to the northern pole star position. Bright Vega has been observed closely since the beginning of modern astronomy and even helped to set the standard for the current magnitude scale used to categorize the brightness of stars. Polaris and Vega have something else in common, besides being once and future pole stars: their brightness varies over time, making them **variable stars**. Variable stars' light can change for many different reasons. Dust, smaller stars, or even planets may block the light we see from the star. Or the star itself might be unstable with active sunspots, expansions, or eruptions changing its brightness. Most stars are so far away that we only record the change in light, and can't see their surface.

NASA's TESS satellite has ultra-sensitive light sensors primed to look for the tiny dimming of starlight caused by transits of extrasolar planets. Their sensitivity also allowed TESS to observe much smaller pulsations in a certain type of variable star's light than previously observed. These observations of **Delta Scuti** variable stars will help astronomers model their complex interiors and make sense of their distinct, seemingly chaotic, pulsations. This is a major contribution towards the field of astroseismology: the study of stellar interiors via observations of how sound waves "sing" as they travel through stars. The findings may help settle the debate over what kind of variable star Vega is. Find more details on this research, including a sonification demo that lets you "hear" the heartbeat of one of these stars, at: [bit.ly/DeltaScutiTESS](https://bit.ly/DeltaScutiTESS)

Interested in learning more about variable stars? Want to observe their changing brightness? Check out the website for the American Association of Variable Star Observers (AAVSO) at [aavso.org](https://aavso.org). You can also find the latest news about Vega and other fascinating stars at [nasa.gov](https://nasa.gov).





## Brief updates on observing sites and viewing events

### Summer star gazes at Wind Creek State Park

Due to the ongoing restrictions due to the COVID-19 pandemic, we are currently evaluating the feasibility of resuming the monthly star gazes at the park. At the very least, it will be difficult to abide by all of the guidelines to insure the safety of not only the public but the amateur volunteers as well. A final decision has not been made at this time.

### Observing opportunities at the Heaven Hill site

AAS member Mike Lewis reports that we have been granted access to the Heaven Hill site for the monthly weekends closest to the new moon. However, these events will still need to be coordinated with the Russell Lands personnel in advance and also to make sure that there are no other events scheduled for that site that would prevent us from going.

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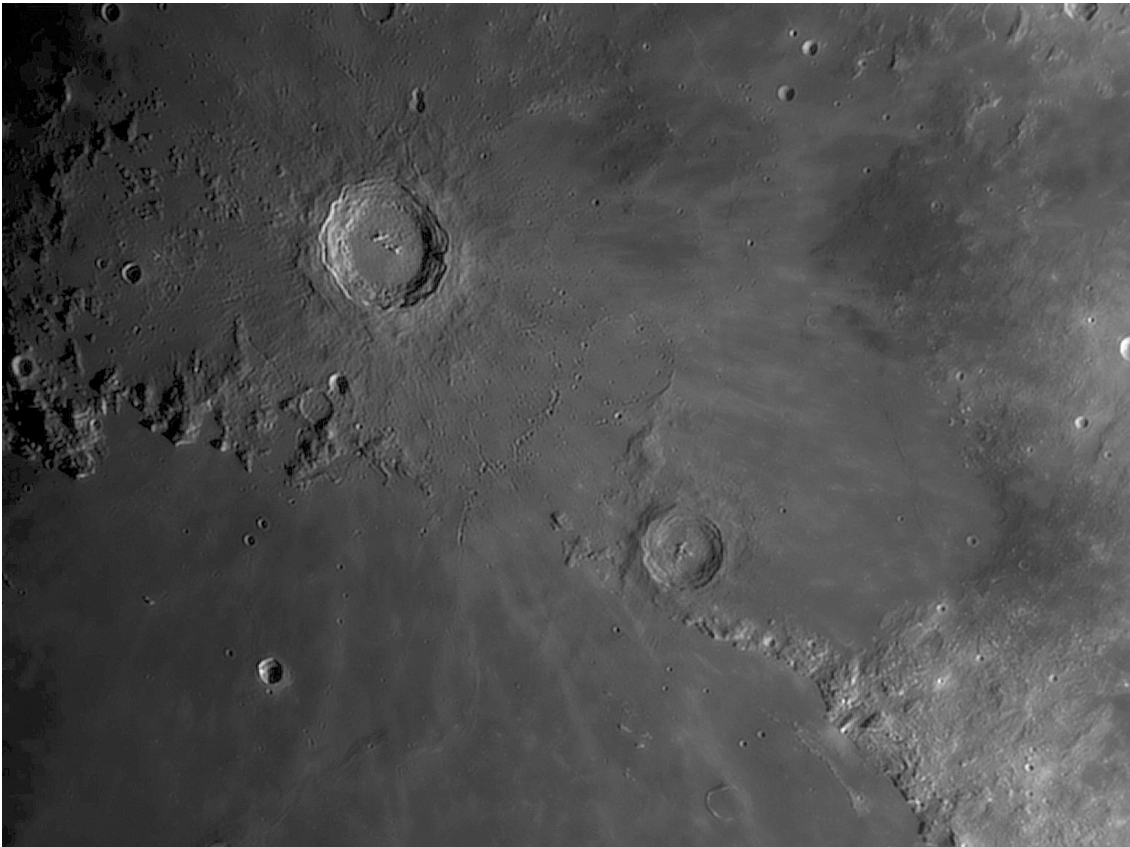
## Some recent AAS member photos



*Nice photo by AAS member Jay Hall showing a prominence as it erupts from the surface of the sun*



*Lunar photo by AAS member John Wingard featuring the crater Clavius (231 km in diameter) located in the heavily-cratered southern highlands of the moon.*



Lunar photo by AAS member John Wingard showing the prominent crater Copernicus (93 km in diameter) and the smaller crater Eratosthenes (59 km in diameter) nearby.





## Auburn Astronomical Society Membership Application Form

Name:

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Address:

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City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Date of Application\* \_\_\_\_/\_\_\_\_/\_\_\_\_

E-mail:

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Telescope(s):

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Area(s) of special interest:

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Enclose: \$20.00 for regular membership, payable in January. *Full-Time* student membership is half the Regular rate.

If you are a NEW member joining after the first of the year, refer to the prorated table below

Jan \$20.00	Feb \$18.33	Mar \$16.66	Apr \$14.99	May \$13.33	Jun \$11.66
Jul \$10.00	Aug \$8.33	Sep \$6.66	Oct \$4.99	Nov \$2.33	Dec \$1.66

Make checks payable to: Auburn Astronomical Society and return this application to:

Auburn Astronomical Society  
c/o John Wingard, Secretary/Treasurer  
#5 Wexton Court  
Columbus, GA 31907

For questions about your dues or membership status, contact: [jwin1048@gmail.com](mailto:jwin1048@gmail.com)

**Thank you for supporting the Auburn Astronomical Society!**