



ASTROFILES

Auburn Astronomical Society Newsletter

August 2019

Newsletter Editor — John Wingard — jwin1048@gmail.com

Moon Phases

August 15 — Full Moon

August 23 — Last Quarter

August 30 — New Moon

September 6 — First Quarter

September 14 — Full Moon

September 22 — Last Quarter

September 28 — New Moon

October 5 — 1st Quarter

Upcoming Events

Our monthly dark-sky viewing opportunity will be Saturday, August 31, 2019, at the Pamperin farm south of Auburn.

The next scheduled star gaze at Wind Creek State Park near Alexander City, AL will be Saturday, September 21, 2019, weather permitting. The final star gaze at Wind Creek is planned for Saturday, October 26, 2019.

The next formal meeting of the Auburn Astronomical Society is set for Friday, November 8, 2019 in our usual meeting location on the AU campus. Meeting time is 7:45 PM CT in Room 215 of Davis Hall (Aerospace Engineering) on the AU campus. This was the only open weekend in the month of November due to home AU football games the rest of the month.

Stay in touch with us



<http://www.auburnastro.org>



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

Recap of Star Gaze at Wind Creek on July 27, 2019

The weather finally cooperated for the scheduled star gaze at Wind Creek State Park on Saturday, July 27, 2019. Several AAS members brought their scopes and set up at the Snake Island peninsula for viewing. Thanks to AAS member Mike Lewis for coordinating these sessions with the park and at his urging, the park increased their promotion of the event for park guests. As a result, the turnout was much better than at some previous events. The following pages feature Mike Lewis's report on the activities that evening and also some photos that he took during the event before dark. It looks like everyone had a good time.

The second 2019 AAS public observing session at Wind Creek State Park south of Alexander City was actually the first such program of the year because the June program was cancelled due to weather. The month delay did not dampen the enthusiasm of the public with a strong turnout beginning before nightfall and carrying on until 10PM. The park estimated approximately 40 people – many of whom were campers and children – turned out for the program. Club president Allen Screws, who brought his 10" Dobsonian reflector, noted there were five telescopes – three of which were manned by club members. Through his scope, Allen showed park visitors Jupiter, Saturn, the Ring Nebula in Lyra (M57), Alcor-Mizar in the Big Dipper's handle, and a M28, globular in Sagittarius. My son, David, and I brought our two refractors (3.5" and 4.5") to show the gas giants of Jupiter and Saturn and their moons. Much of the public discovered both planets for the first time and it was refreshing to see so many kids taken by the telescopes (in an age of smart devices and video games it is incumbent on anyone with a telescope to share them with young eyes). I noted several followers of the AAS Facebook page also traveled from Montgomery and Columbus, Georgia to join us and ask questions about our observing equipment. Thanks for coming! We noticed two other scopes from non-AAS members – an 8-inch Dobsonian and a 6-to 8-inch Schmidt-Cassegrain – also in attendance. Skies cleared by night fall and the observing site was busy until well after 10PM when David and I packed it up. Can't wait for the





Report on Dark Sky Star Gaze on Friday, July 26, 2019

AAS President Allen Screws sends this report on the recent observing session at the Pamperin farm south of Auburn on Friday, July 26, 2019:

David Blake, Steve Bragg, the Pamperin's and myself were at Anna's on Friday(7/26) for the monthly club dark sky stargaze. Clouds looked threatening around sunset, but it cleared up and was a great night. We mostly viewed the 'stars' - M13, M57, M51, M28, Jupiter/Saturn. The guy that gave us the 8-in Newtonian on an equatorial found and sent David a laser collimator. It works great and so we have that available for club use.

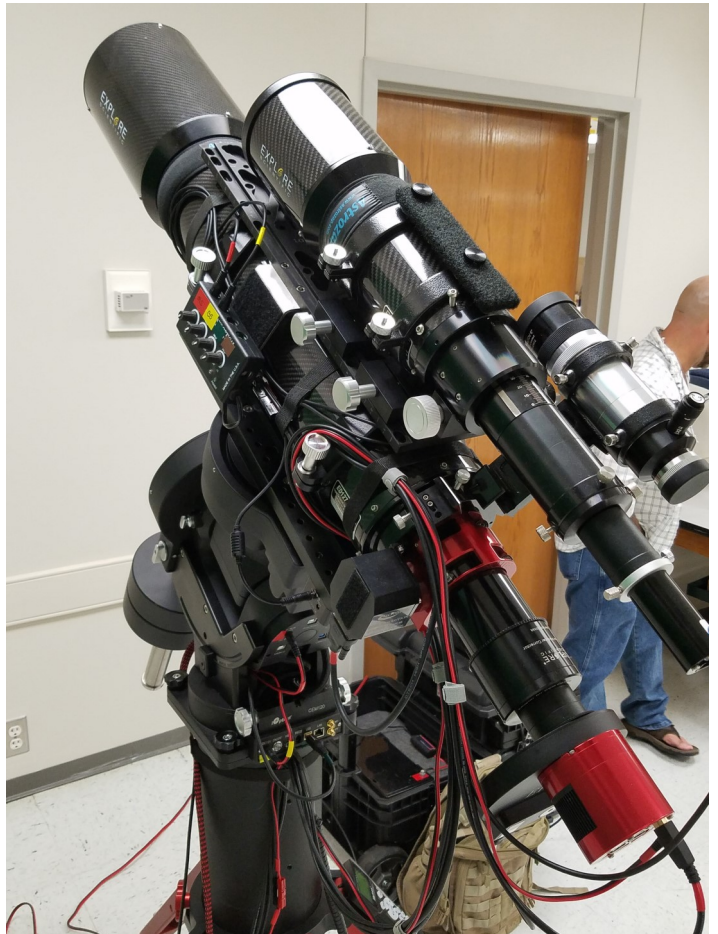
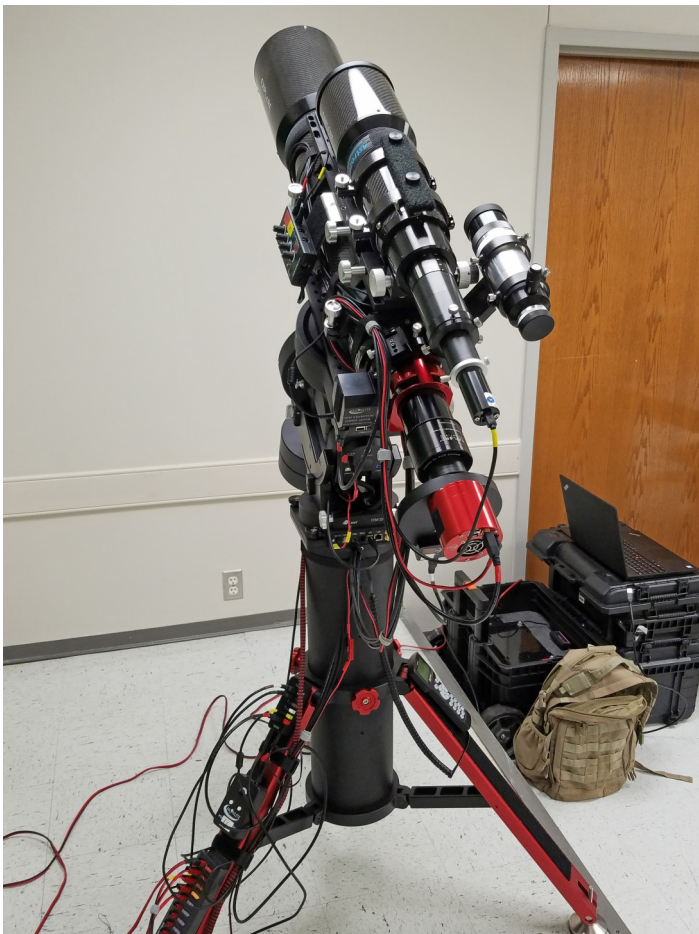
Report on AAS Club Meeting—Friday, August 9, 2019

We had another good turnout for our formal AAS club meeting in Auburn on the evening of Friday, August 9, 2019. We met at our usual location—Room 215 of Davis Hall (Aerospace Engineering) on the AU campus. Although classes at Auburn were not yet in session for the fall semester, on-campus parking was somewhat difficult due to the fact that most students were already in town getting ready for classes to begin the following week.

We had another great presentation by AAS member Jay Hall on his astrophotography activities. There is so much to cover in this particular niche of astronomy, but we are slowly chipping away at it. Hopefully, it will inspire others to try their hand at it. In fact, several other AAS members have already done so, and we look forward to some of their results in the future.

Since Jay had given his last presentation earlier in the year, he has totally upgraded his scope and mount and they both have gotten BIGGER. For some of our less experienced members, please understand that you can get into and enjoy astrophotography with much simpler and less expensive equipment and as your knowledge and skills increase, you will be better equipped to move to more advanced options. There are many resources that are available to you that cover astrophotography, whether it be books or literally thousands of online videos. I see plenty of amazing results from individuals using nothing more than their cell phone cameras attached to a telescope, primarily solar, lunar and planetary images. It is truly amazing that amateur astronomers today are fully capable of producing images that are equal to or better than those made at professional observatories not too many years ago. Please enjoy some of the following photos of Jay's beautiful instrument.





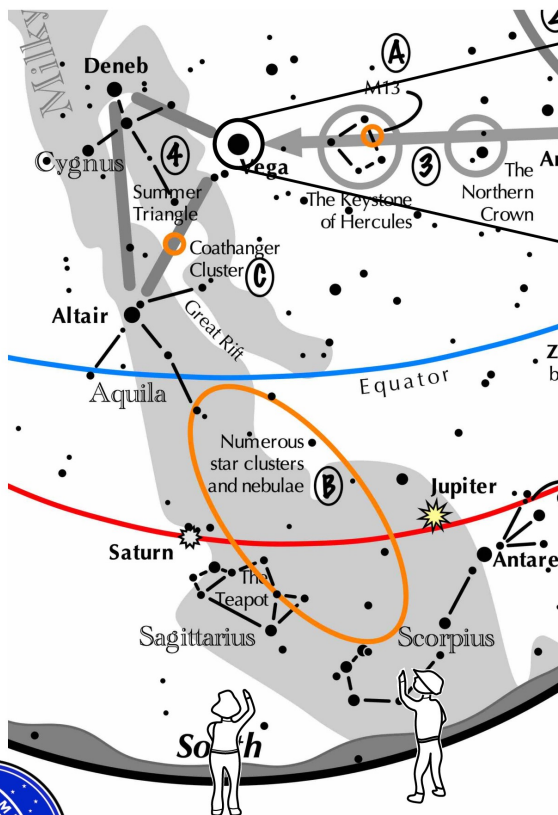
Brief Report on 2019 Annual ALPO Conference—July 12-13, 2019

Yours truly was able to attend the annual 2019 conference of the ALPO organization (Association of Lunar & Planetary Observers.) I've been a member for several years but normally their annual meetings are somewhere far away from where I live. However, this year they met at Gordon College in Barnsville, GA which is only about a 90 mile drive away, so I made my reservations and attended. I was somewhat surprised that the turnout was not better. At the opening session on Friday morning I estimated that there were only about 50 or so attendees. The presentations were interesting, but the majority seemed to be devoted to solar observing. I certainly don't regret going, but I left a little disappointed.

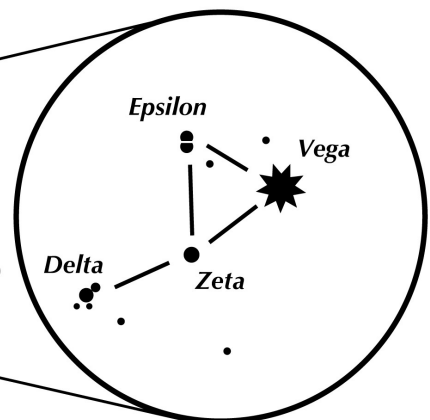


The AAS would like to welcome back Tom McGowan as a returning member. Tom is a very experienced telescope maker and we look forward to his contributions to the club.

If you can observe only one celestial event this month, consider this one:



View through
10x50 binoculars



Admire the famous Double-Double

Look directly overhead 90 minutes after sunset.

- Vega will be the bright star at the zenith. It is the major star of the small constellation, Lyra.
- Aim binoculars at Vega on any night in August when there is no moon in the sky.
- Forming a nice equilateral triangle with it are Epsilon and Zeta Lyrae, with Delta Lyrae lying on the opposite side of Zeta as Vega.
- Look closely at Epsilon. 10x binoculars will reveal two stars of equal brightness. Through a small telescope at high power, both of those stars will be seen as two, giving a total of four stars!
- Look closely at Delta. At least two stars will be seen, more if the sky is dark, and if the binoculars are held steadily.

Overhead 90 minutes
after sunset
August





This article is distributed by the NASA Night Sky Network

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Spot the Stars of the Summer Triangle

David Prosper

September skies are a showcase for the **Summer Triangle**, its three stars gleaming directly overhead after sunset. The **equinox** ushers in the official change of seasons on September 23. **Jupiter** and **Saturn** maintain their vigil over the southern horizon, but set earlier each evening, while the terrestrial planets remain hidden.

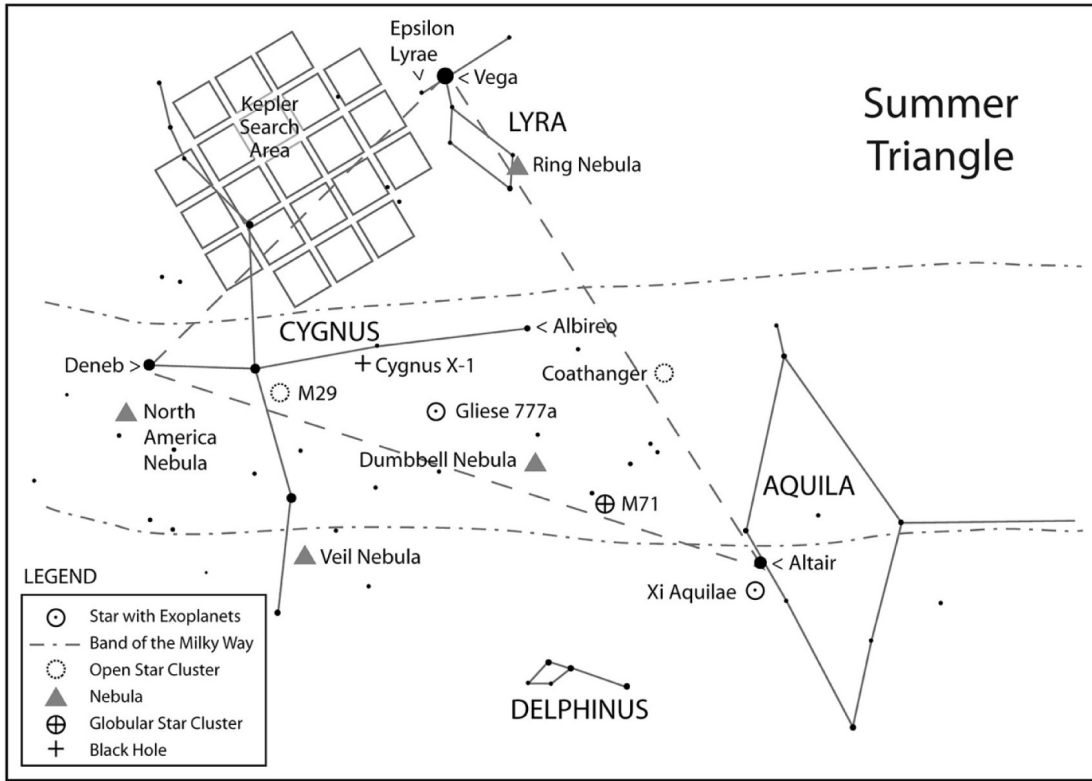
The bright three points of the **Summer Triangle** are among the first stars you can see after sunset: Deneb, Vega, and Altair. The Summer Triangle is called an **asterism**, as it's not an official constellation, but still a striking group of stars. However, the Triangle is the key to spotting multiple constellations! Its three stars are themselves the brightest in their respective constellations: Deneb, in Cygnus the Swan; Vega, in Lyra the Harp; and Altair, in Aquila the Eagle. That alone would be impressive, but the Summer Triangle also contains two small constellations inside its lines, Vulpecula the Fox and Sagitta the Arrow. There is even another small constellation just outside its borders: diminutive Delphinus the Dolphin. The Summer Triangle is huge!

The **equinox** occurs on September 23, officially ushering in autumn for folks in the Northern Hemisphere and bringing with it longer nights and shorter days, a change many stargazers appreciate. Right before sunrise on the 23rd, look for Deneb - the Summer Triangle's last visible point - flickering right above the western horizon, almost as if saying goodbye to summer.

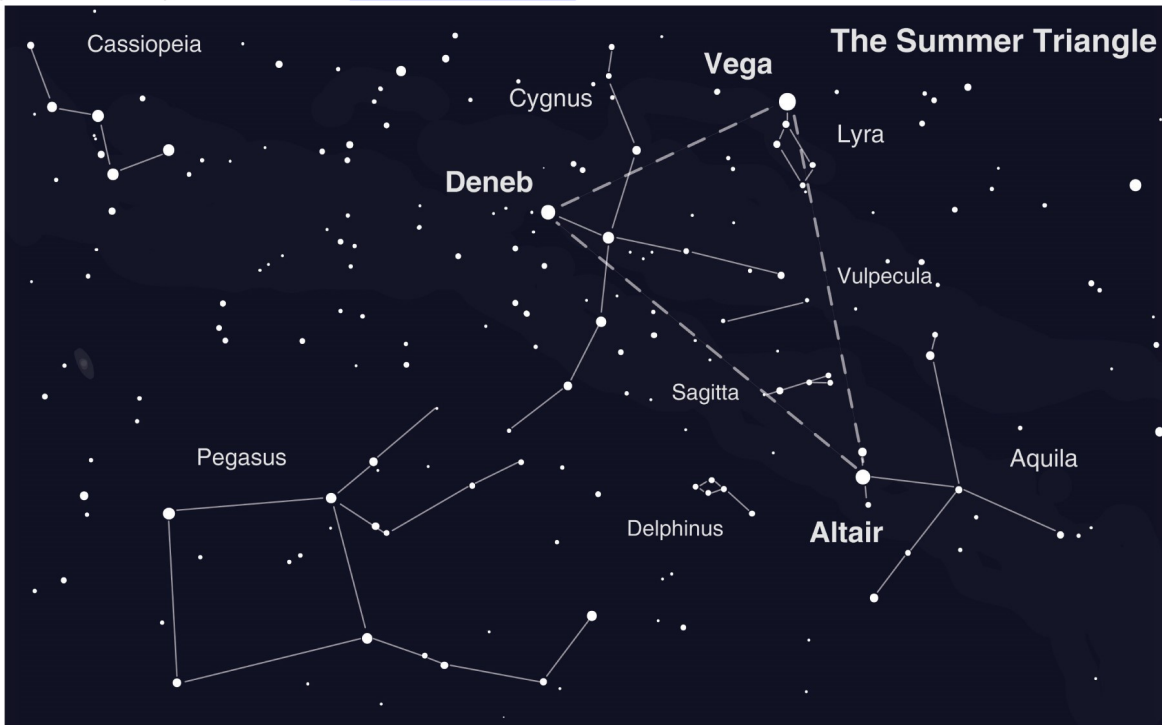
The Summer Triangle region is home to many important astronomical discoveries. Cygnus X-1, the first confirmed black hole, was initially detected here by x-ray equipment on board a sounding rocket launched in 1964. NASA's Kepler Mission, which revolutionized our understanding of exoplanets, discovered thousands of planet candidates within its initial field of view in Cygnus. The Dumbbell Nebula (M27), the first planetary nebula discovered, was spotted by Charles Messier in the diminutive constellation Vulpecula way back in 1764!

Planet watchers can easily find **Jupiter** and **Saturn** shining in the south after sunset, with Jupiter to the right and brighter than Saturn. At the beginning of September, Jupiter sets shortly after midnight, with Saturn following a couple of hours later, around 2:00am. By month's end the gas giant duo are setting noticeably earlier: Jupiter sets right before 10:30pm, with Saturn following just after midnight. Thankfully for planet watchers, earlier fall sunsets help these giant worlds remain in view for a bit longer. The terrestrial planets, Mars, Venus, and Mercury, remain hidden in the Sun's glare for the entire month.

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Caption: Once you spot the Summer Triangle, you can explore the cosmic treasures found in this busy region of the Milky Way. Make sure to “Take a Trip Around the Triangle” before it sets this fall! Find the full handout at bit.ly/TriangleTrip



Caption: This wider view of the area around the Summer Triangle includes another nearby asterism: the Great Square of Pegasus.



Auburn Astronomical Society Membership Application Form

Name:

Address:

City: _____ State: _____ Zip: _____

Phone: _____ Date of Application* ____/____/____

E-mail:

Telescope(s):

Area(s) of special interest:

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

Thank you for supporting the Auburn Astronomical Society!