



ASTROFILES

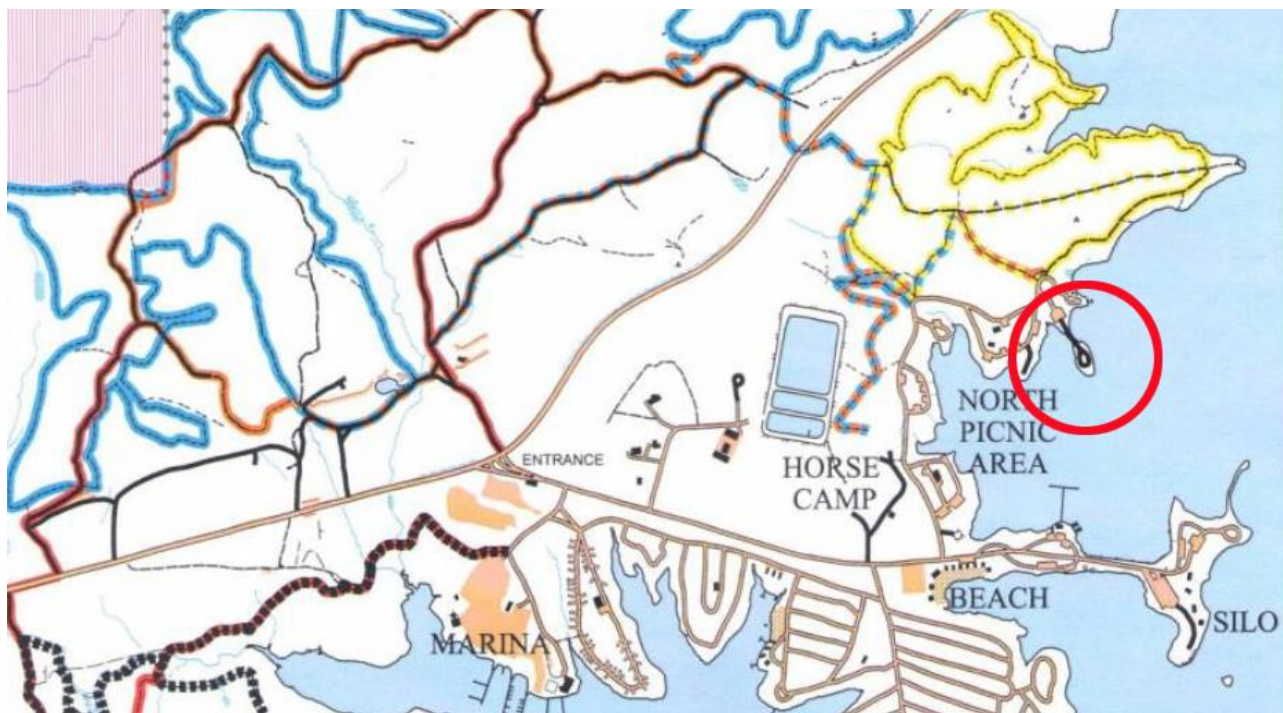
Auburn Astronomical Society Newsletter

August 2018

John Wingard - Secretary/Treasurer - Auburn Astronomical Society - jwin1048@gmail.com

Upcoming Events

The next meeting/star gaze of the AAS will be Saturday, September 15, 2018 at Wind Creek State Park near Alexander City, AL. This will be our last scheduled star gaze at the park for this year. The location will be the same as the previous star gazes, the island peninsula near the North picnic area. Here's a map of the park with the area circled in red. As usual, members plan to arrive before dark to set up scopes. If you tell someone at the entrance that you are with the astronomy club, they can direct you to the site. We haven't had very good luck with the weather for these events this summer but hopefully conditions will be better for this one.



Report on Make-up Star Gaze for Wind Creek State Park – August 25, 2018

Due to bad weather our scheduled star gaze at Wind Creek State Park for Saturday, August 18, 2018 was cancelled. This event was also supposed to be a planned club meeting/cookout. Hopefully we can try the cookout again at a future event. However, AAS member Mike Lewis and his son David decided on their own to offer a make-up event the following Saturday, August 25, 2018. Mike lives just a few miles from the park. Here is Mike's great report:

David and I brought our two refractors to Wind Creek State Park on August 25 to present a make-up stargazing program due to the cancelled session the week before. Given the unique planetary line up in the evening sky I felt it worthwhile to offer the public another opportunity to view our solar system neighbors before they move out of sight. This time we were successful.

Skies were completely clear as predicted by the Clear Sky Chart website for Alexander City. We set up at the Snake Island observing location by 7PM awaiting nightfall. Locally, conditions on the ground were great. A constant light breeze over the water from the east kept temperatures fall-like and the mosquitoes at bay. The Park had also scheduled a moonlit hike for visitors beginning at 7:30PM, and I asked the ranger to mention our astronomy program to the hikers so they could drop by after the conclusion of their hike around 8:15PM. As it turned out, many did just that.

By 8:15PM, campers began walking up for nighttime viewing. David took his position on the far tip of Snake Island point facing the rising full Moon and Mars in the east and southeast. Meanwhile, I was set up on the southwest and westward facing side of the point to observe Venus, Jupiter and Saturn. Venus, although rather low, was sporting a fairly sharp small crescent shape. Not much false color from the atmosphere like I usually notice with Venus. Jupiter was much higher perhaps at the 45 degree level that often separates fair from good seeing. However, it was not as crisp at medium to high power as I expected. That part of the sky was right above the main body of the campground and it had me wondering if rising heat from camp fires and all the many camping vehicles might have been the reason for Jove's somewhat intermittent fuzzy appearance at above 100X. The southern and northern equatorial belts were easily visible with some more color in the clouds but that's about all. The four Galilean moons were nicely lined up and most observers still found the sight more than pleasing. The star of the night (from my scope anyway) was Saturn. It was much higher in the southwest than Jupiter and even though significantly dimmer, the disc and rings were nicely resolved using an old style 7mm (162x) Televue Nagler in my 127mm f/9 ED refractor. My personal favorite planetary eyepieces are Televue Radians. I know conditions are good when images hold up in my 4mm Radian (285x). Saturn was sharp and displaying color on the disc and Cassini's division was pronounced to even the first time observer.

Lots of "wow's" and even a shout uttered so loudly that I thought the utterer had been injured. I warned her I had no insurance if she should suffer a stroke or some other physical breakdown from the shock of seeing Saturn for the first time.

Turnout was quite good for the stargazing program this time. One of the first stargazers to arrive was a 4-year-old boy from Tallassee (see photo of him looking through a scope) who exclaimed that the biggest thrills of his visit to Wind Creek that weekend were (in order) catching his first ever fish (a catfish) and seeing the Moon and the planets. He had his priorities in order! An unofficial count of guests passing by our two scopes was over 40. This included a half dozen or so cub scouts from Pack 66 in Rockford. Other visitors said they were from Eclectic and Birmingham as well as Coosa County.



According to Mike, they closed down operations at about 9:30 PM. We certainly appreciate the willingness of Mike and his son David to offer this make-up star gaze for the park guests and it looks like it was a big success.

The Planets on Parade

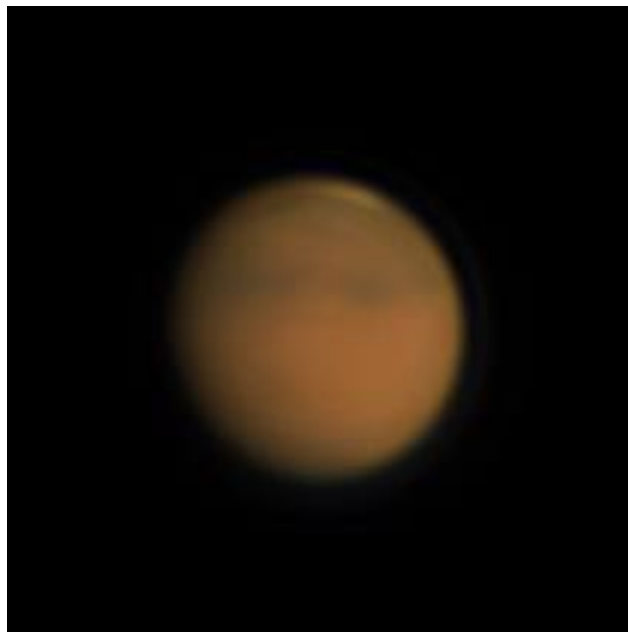
As Mike mentioned in his above report, now is an ideal time to view several planets, all of which can be seen in a single evening assuming good sky conditions and unobstructed views to the western horizon. In the early evening the very bright planet Venus is low in the western sky. Venus is permanently shrouded in clouds so there are no details to be seen and it typically appears as a crescent as viewed from here on Earth.

Next up in the southwestern sky in the evening is the bright planet Jupiter with its amazing moon system. Jupiter has well over 60 moons, but the four brightest can be easily seen in a small telescope, or even with a pair of binoculars. They move so fast in their orbits that they will change positions from night to night.

To the east of Jupiter in the evening sky is the planet Saturn with its beautiful ring system. Of all the major planets, Saturn is the one that usually elicits gasps from those who have the opportunity to see it for the first time in a telescope.

Finally, there is the red planet Mars, rising later in the evening in the southeastern sky. This is an excellent time to view Mars since it is the closest to the Earth in quite a few years. As the weeks go by, it will slowly shrink in apparent size as it moves farther away from us. Unfortunately for many astronomers, a major planet-wide dust storm erupted on Mars at same time of its closest approach so many of the surface details were obscured. The dust storm is subsiding enough that some of these details are becoming visible once again.

On the evening of Sunday, August 26, 2018, I ventured outside on my patio at home to try go get a few shots of Mars, Saturn and Jupiter. As usual for my planetary photography, I used my Quester 3.5" scope and ASI 174MC camera. Air transparency was not very good due to the high humidity, but I was fairly pleased considering the rather hurried set up. The shot of Mars actually turned out better than I had hoped, while the Saturn and Jupiter shots were not as good.



For additional information about the club and our activities, check out the following links:

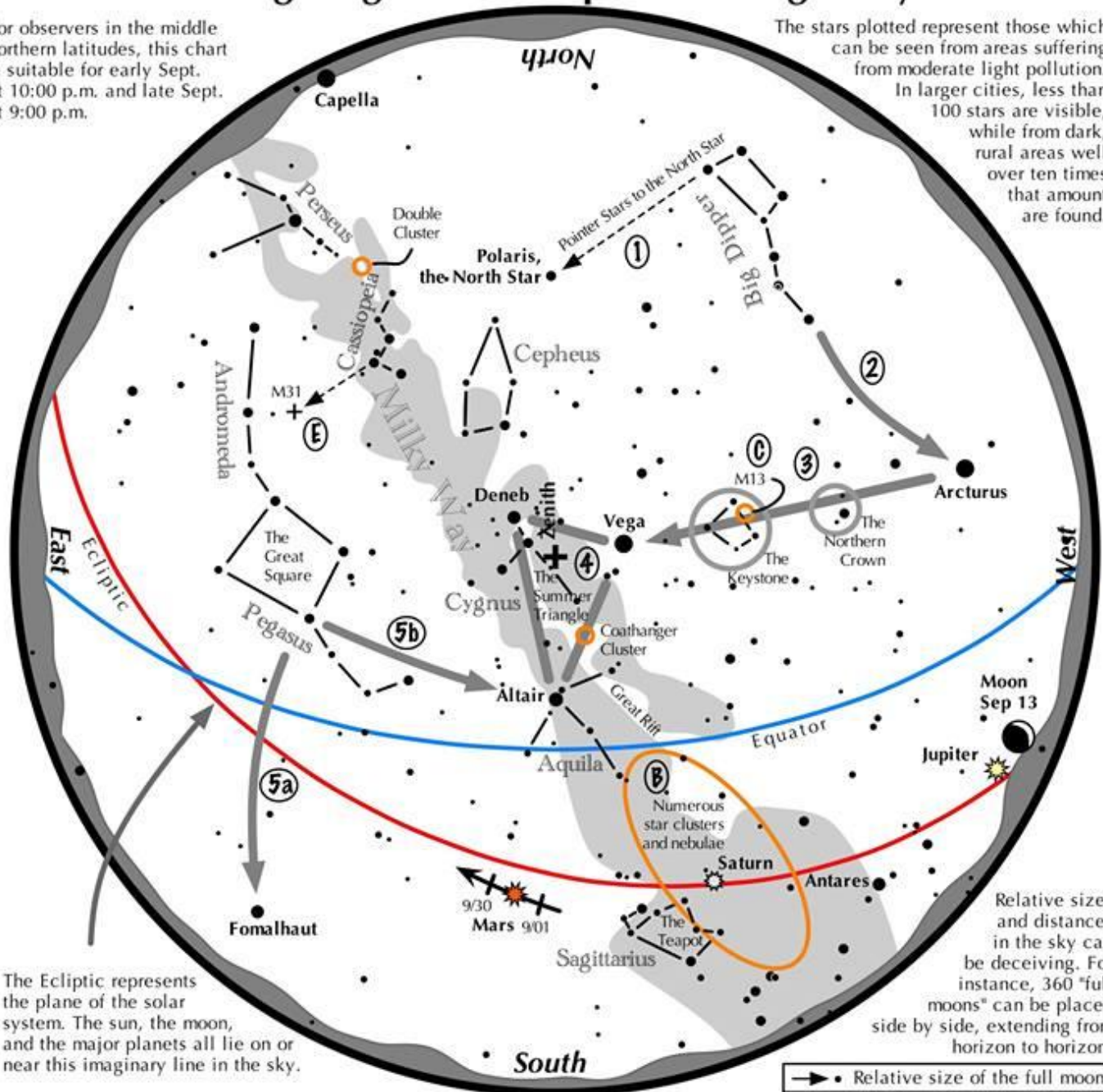
The Auburn Astronomical Society web page: <http://www.auburnastro.org>

The AAS Facebook page: <http://www.facebook.com/groups/79864233515/>

Navigating the mid September Night Sky

For observers in the middle northern latitudes, this chart is suitable for early Sept. at 10:00 p.m. and late Sept. at 9:00 p.m.

The stars plotted represent those which can be seen from areas suffering from moderate light pollution. In larger cities, less than 100 stars are visible, while from dark, rural areas well over ten times that amount are found.



The Ecliptic represents the plane of the solar system. The sun, the moon, and the major planets all lie on or near this imaginary line in the sky.

Relative sizes and distances in the sky can be deceiving. For instance, 360 "full moons" can be placed side by side, extending from horizon to horizon.

→ • Relative size of the full moon.

Navigating the mid September night sky: Simply start with what you know or with what you can easily find.

- 1 Extend a line north from the two stars at the tip of the Big Dipper's bowl. It passes by Polaris, the North Star.
- 2 Follow the arc of the Dipper's handle. It intersects Arcturus, the brightest star in the September evening sky.
- 3 Nearly overhead shines a star of similar brightness as Arcturus, Vega. Draw a line from Arcturus to Vega. It first meets "The Northern Crown," then the "Keystone of Hercules." A dark sky is needed to see these two dim stellar configurations.
- 4 The stars of the summer triangle, Vega, Altair, and Deneb, shine overhead.
- 5 The westernmost two stars of the Great Square, which lies high in the east, point south to Fomalhaut. The southernmost two stars point west to Altair.

Binocular Highlights

- A: On the western side of the Keystone glows the Great Hercules Cluster.
- B: Between the bright stars Antares and Altair, hides an area containing many star clusters and nebulae.
- C: 40% of the way between Altair and Vega, twinkles the "Coathanger," a group of stars outlining a coathanger.
- D: Sweep along the Milky Way for an astounding number of faint glows and dark bays, including the Great Rift.
- E: The three westernmost stars of Cassiopeia's "W" point south to M31, the Andromeda Galaxy, a "fuzzy" oval.





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!