



ASTROFILES

Auburn Astronomical Society Newsletter

March 2019

Newsletter Editor — John Wingard — jwin1048@gmail.com

Moon Phases

March 14 — First Quarter

March 21 — Full Moon

March 28 — Last Quarter

April 5 — New Moon

April 12 — First Quarter

April 19 — Full Moon

April 26 — Last Quarter

May 4 — New Moon

Next AAS Meeting—Friday April 5, 2019

Do you have an interest in taking photos with your telescope? This fascinating area of our hobby is known as *astrophotography*. We are excited to announce that AAS member Jay Hall will be doing a presentation on his experiences in this area. Getting started in astrophotography can be a little intimidating to a novice, but hopefully he can give you some pointers and advice that will make it easier for you to get started. Thanks to the advances in technology, there are tools and techniques available that allow we amateurs to produce results that are equal to or even rival those obtained by professional astronomers not too many years ago. The meeting will be in our usual location—**Room 215 of Davis Hall** (Aerospace Engineering) on the AU campus. **Meeting time is 7:45 PM CDT.** Make plans to attend, bring a friend and of course, you do not have to be a member of the AAS to attend any of our meetings or other events.

Stay in touch with us



<http://www.auburnastro.org>



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

It's Not Too Late to Renew your 2019 AAS Dues!

If you have not already done so it's not too late to renew your 2019 dues to the AAS, or better yet, join us and become a member. Dues are only \$20.00 for the year. Please refer to the application at the end of this newsletter for details and the address for mailing your dues or you can renew at the next meeting,.

National Astronomy Day—Saturday, May 11,

Mark your calendars for Saturday, May 11th, which is National Astronomy Day. The AAS is planning to assist with this event at the W.A. Gayle Planetarium in Montgomery. More details will be available as we get closer to the event.

AAS Star Gaze Scheduled for 3/30/19

Weather permitting, our next star gaze is scheduled for Saturday, March 30, 2019. It will be at the Pamperin family farm location just inside Russell County, AL. This site is relatively dark with fairly good views to the West and South. Please note that this is on private property. Members are cautioned to be careful to not stray too far from the gravel roadway on the property, especially after recent rains or your vehicle might get stuck in the mud. Below are directions to the site. As always, try to arrive in daylight to allow plenty of time to find a spot and set up your scopes.

Directions to AAS Observing Site for AAS Members

The new observing site for the Auburn Astronomical Society is located a little over three miles south of the Marvyn community on Highway 80. It can be accessed a number of ways, depending on where you live in relation to the site. For those in the Auburn/Opelika area, you can take Hwy. 51 S (also known as Marvyn Parkway) at Exit 60 off of I-85N. You will go through Beauregard, AL and after a distance of approximately 10 miles you will intersect with Hwy. 80 at Marvyn. You should see a Dollar General store at this intersection. Continue on straight through this intersection Hwy. 51 S for approximately 1.75 miles and you will come to a "Y" intersection. Hwy. 51 will curve to the right and there will be a smaller road that continues straight ahead. This is Huguley Road. This is a narrow two-lane road that is not very well maintained. There are a number of rather large potholes in it, so drive slowly and watch for them. After getting on Huguley Road, continue for approximately another 1.75 miles until you reach the observing site. When you first get on Huguley Road you will pass a small church and later you will cross a bridge over a creek. Shortly after the bridge you should start seeing some large cleared areas to your right. This is the property of the site owners. Look for a gated drive (fresh gravel) on the right with a mailbox that has 713 on it. Their address is 713 Huguley Road. Their full address is **713 Huguley Road, Opelika, AL** but if you put this in your GPS, it will probably direct you to a location that is not quite far enough on the road (at least my GPS did). Just look for the gated drive and the mailbox and you should not have any problem. Technically, they are just inside the Russell County line even though they have an Opelika, AL address.

For those coming from the Montgomery area, Hwy. 80 may be the best route, as well as those coming from the Columbus/Phenix City area. In either case, once you come to the intersection of Hwy. 80 and Hwy. 51, you will turn south on Hwy. 51 and follow the above instructions from that point.

The contact at the site is Anna Pamperin: **334-707-0354**

AAS President Allen Screws Cell: **334-707-8945**





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.org to find local clubs, events, and more!

Mars the Wanderer

By David Prosper

April's skies find Mars traveling between star clusters after sunset, and a great gathering of planets just before sunrise.

Mars shows stargazers exactly what the term "planet" originally meant with its rapid movement across the evening sky this month. The ancient Greeks used the term *planete*, meaning *wanderer*, to label the bright star-like objects that travelled between the constellations of the zodiac year after year.

You can watch Mars as it wanders through the sky throughout April, visible in the west for several hours after sunset. Mars travels past two of the most famous star clusters in our night sky: the **Pleiades** and **Hyades**. Look for the red planet next to the tiny but bright Pleiades on April 1st. By the second week in April, it has moved eastward in Taurus towards the larger V-shaped Hyades. Red Mars appears to the right of the slightly brighter red-orange star **Aldebaran** on April 11th. We see only the brightest stars in these clusters with our unaided eyes; how many additional stars can you observe through binoculars?

Open clusters are made up of young stars born from the same "star nursery" of gas and dust. These two open clusters are roughly similar in size. The Pleiades appears much smaller as they are 444 light years away, roughly 3 times the distance of the Hyades, at 151 light years distant. Aldebaran is in the same line of sight as the Hyades, but is actually not a member of the cluster; it actually shines just 65 light years away! By comparison, Mars is practically next door to us, this month just a mere 18 light minutes from Earth - that's about almost 200 million miles. Think of the difference between how long it takes the light to travel from these bodies: 18 minutes vs. 65 years!

The rest of the bright planets rise before dawn, in a loose lineup starting from just above the eastern horizon to high above the south: **Mercury**, **Venus**, **Saturn**, and **Jupiter**. Watch this month as the apparent gap widens considerably between the gas giants and terrestrial planets. Mercury hugs the horizon all month, with Venus racing down morning after morning to join its dimmer inner solar system companion right before sunrise. In contrast, the giants Jupiter and Saturn move away from the horizon and rise earlier all month long, with Jupiter rising before midnight by the end of April.

The **Lyrids** meteor shower peaks on April 22nd, but sadly all but the brightest meteors will be washed out by the light of a bright gibbous Moon.

You can catch up on all of NASA's current and future missions at nasa.gov

What? A Free Telescope?

I know...if it sounds too good to be true, it probably is, but not this time! The AAS was recently contacted by a retired AU professor, living in Auburn, that is offering an Orion 4.5" reflector to any of our members at no charge. He is moving and does not wish to take it with him. If you are interested, please call Phil Shelvlin at 334-750-9783 for details.

Astronomical League Observing Programs

The Astronomical League is the national organization that serves and represents amateur astronomy clubs throughout the U.S. The Auburn Astronomical Society is a member of the AL and a portion of your dues go to the AL to entitle you to also be a member. One of the many services that the Astronomical League offer are an extensive list of observing programs. Below is a brief overview of the programs. For more information on specific observing programs, please go to their website: <https://www.astroleague.org/observing.html>

The Astronomical League provides many different Observing Programs. These Observing Programs are designed to provide a direction for your observations and to provide a goal. The Observing Programs have certificates and pins to recognize the observers' accomplishments and for demonstrating their observing skills with a variety of instruments and objects.

1 Observing Programs offer a certificate based upon achieving certain observing goals and completion is recognized with a beautiful pin. You are required to observe a specific number of objects from a list or of a specific type (meteors, comets, etc.) with a specific type of instrument (eyes, binoculars, telescope). Some Observing Programs have multiple levels of accomplishment within, and some permit observations of different types (manual vs. go-to, visual vs. imaging) and note this on your certificate. There is no time limit for completing the required observing (except for the Planetary Transit Special Awards and the NASA Observing Challenges), but good record keeping is required.

2 The Observing Programs are designed to be individual effort. Each observer must perform all the requirements of each Observing Program themselves and not rely on other people to locate the objects. This is called "piggy-backing" and is not acceptable for logging objects for any of the Observing Programs. You are allowed to look through another observer's telescope to see what the object looks like, but you still need to locate and observe the object on your own.

3 When you reach the requisite number of objects, your observing logs are examined by an appropriate authority and you will receive a certificate and pin to proclaim to all that you have reached your goal. Many local astronomical societies even post lists of those who have obtained their certificates as does the Astronomical League.

4 When you complete an Observing Program by yourself, you should feel a sense of pride and great accomplishment for what you have just completed. Each Observing Program is designed not only to show you a variety of objects in the sky and to learn some science related to those objects, but to also familiarize you with your telescope and how to use it, night-sky navigation (the ability to find the objects in the vastness of space) and to learn some observing techniques that will enhance your viewing of the objects in the programs.



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!