



ASTROFILES

Auburn Astronomical Society Newsletter

March 2017

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

Apologies for not getting out an Astrofiles newsletter for February. In the early part of that month I had a major hard drive failure on my PC and lost all of the files since my last backup. Since then, I've upgraded the computer to a new one and I think that I'm pretty much back in business, so I'm trying to get caught up and back on schedule. I have also set up a more frequent back-up routine so that if it ever happens again, it won't be so difficult to recover everything. I would encourage everyone to please back up your important data, whether it be to "the cloud" or to a local external drive. You may have heard the old question...what percentage of hard drives fail? Well, the answer is 100%, it's just a matter of "when!"

April Meeting Notice – Moved to Friday, April 14th

As you know, the AAS normally meets on the first Friday of each month on the AU campus unless there are activities at the University that make it difficult to meet there. The annual Auburn University football "A-Day" game is Saturday, April 8th this year and there will likely be a lot of football fans in town the Friday night before the game and on-campus parking will be problematic. So, we have moved the April meeting to Friday, April 14th. As usual, the meeting will start at 7:45 PM CT and we will meet in Room 215 of Davis Hall (Aerospace Engineering) on the AU campus. More details about the specific location of the meeting space can be found on our web page: <http://www.auburnastro.org> Also, a complete 2017 meeting schedule can be found at the end of this newsletter.

Recent AAS Activities

The stargazing season is beginning to get cranked up again and the AAS was asked to assist with three recent events, so let's get to it and get some details about each one.

Loachapoka Stargaze – We were asked to put on a stargaze for a group of 4-H'ers at the Lee County Historical Society Museum in Loachapoka, AL on Saturday, February 25, 2017. The following report and photo series was submitted by AAS member Russell Whigham:

4-H Stargaze at [The Lee County Historical Society](#) Museum, in Loachapoka.
February 25, 2017

Representing AAS for this stargaze were: Allen (10-inch Dob), Rhon & Joyce (program for the evening), Frank (12-inch Dob), Ray (10-inch SCT), and Russell (11-inch SCT). Renewed members Nancy & Roland Coburn were also there to get an overview from Allen on the use of the AAS loaner 20x80 binoculars.

We arrived at the field behind the museum about an hour before sunset to set up the telescopes. Our hosts couldn't have picked a better evening: 1-day before new moon, a light breeze and temperatures in the low 50s, dry and transparent skies, a nice open field with no cow-pies, and a group of folks who seemed excited to see celestial objects and appreciative of our visit. We did have to contend with a few local light sources, but the enthusiasm of the 4-H folks more than compensated.

As we waited for dark, our 4-H hosts conducted their business meeting that was followed by Rhon's program. He explained the different types of telescope designs and how data from low-earth orbiting satellites were used to help farmers be more efficient with their resources. At the end of the program we adjourned outside where we enjoyed homemade camp stew that had been cooking all day in a black cast iron kettle. That alone was worth the trip.

Venus was in rare form on its way to conjunction at magnitude -4.6 and showing its 20% large illuminated crescent. One of the young observers could see the crescent naked-eye! Nearby were the planets Mars and Uranus -- a rare treat for those at the eyepieces. As the sky darkened, we shared views of deep-sky objects that included the Orion Nebula, open clusters M-41, M-35, and the Pleiades, the Andromeda galaxy, and the Crab Nebula, supernova remnant. For those waiting in line, we pointed out constellations and asterisms.

Thanks to our hosts for inviting us and for the gifts of jellies and syrup made by the 4-H members. We're looking forward to a return visit there.

Russell





Kiesel Park Stargaze – We were asked to assist with a star gaze during Astronomy Night at Kiesel Park in Auburn, AL on Saturday, March 4, 2017. This event was sponsored by the Louise Kerher Forest Ecology Preserve that is headed up by Jennifer Lolley at Auburn University. Once again, a nice report with photos was provided by AAS member Russell Whigham:

March 04, 2017

Jennifer Lolley knows how to turn out a crowd. She estimated that 170 members of her [Louise Kreher Forest Ecology Preserve](#) were present for their night of astronomy under the stars at [Kiesel Park](#), in Auburn. We've tried this location for several years in the past only to be stymied by clouds or worse. This evening was near perfect and worth the wait.

AAS telescope volunteers included: Camryn & Melanie, 10-inch Dobsonian; David, [AAS's CGEM-1100 SCT](#); Allen, 10-inch Dobsonian; and Russell, C-11 SCT with Jim Lauridson assisting David at the CGEM-1100.

We arrived at the park about 45-minutes before sunset. Following some missed communications, we found the observing field near the back of the park and had ample time to set up the telescopes before the group convened on the field at 7:00. With the prospects of 42.5 people queued up at each telescope, Jennifer drew off a large group out of the eyepiece lines to learn about constellation and bright star location, identification, and associated mythology, using a green laser pointer.

We began our telescopic viewing with the large slender crescent of Venus racing toward us(only three weeks before inferior conjunction) that afforded an excellent opportunity to explain the geometry of the solar system and phases of Venus to our guests. The image was amazingly steady in spite of being so close to the horizon.

The other early evening target was the near first-quarter Moon showing maximum contrast and relief of the craters and mountains along the terminator. We also saw the dark limb gobbling up stars in the Hyades open cluster on its way to the 2nd magnitude red giant, Aldebaran, which was to be occulted just before 10:00. Later we shared views of the Great Orion Nebula, open clusters M-41 and M-35 and the Pleiades, while others looked at the Andromeda galaxy, M-31.

It's always a pleasure to share the hidden treasures of the night sky with such an inquisitive and appreciative group, many of whom were first-time telescope viewers.

Russell



Horseshoe Bend Stargaze – The staff at Horseshoe Bend National Military Park near Alexander City, AL asked us to assist with an astronomy night also on Saturday, March 4, 2017. Unfortunately, we had already committed to helping the group at Kiesel Park in Auburn that same evening so we were unable to provide much help to them for this event. However, AAS member Mike Lewis just happens to live nearby and graciously agreed to stop by with his son and a scope and assist with the event. The park recently purchased a number of scopes to use for just such occasions, so there were other instruments to use for the visitors that attended. Mike also provided a report with photos:

Last weekend, my son, David, and I did make it out to Horseshoe Bend National Military Park for their public stargazing session. We arrived by 5:15PM and set up toward the middle of the field behind the park headquarters building adjacent to Highway 49. Clear skies with very good transparency made for a great evening. Park rangers estimated ~50 members of the public turned out. The park set up six Newtonian reflectors on the hill just behind the park building. David and I offered the public views of setting Mars and Venus while the park scopes were focused on Orion. We wrapped up by 8:30PM with temps in the lower 40's. No other club members attended.

After owning only either reflectors or a Mak scope since I got interested in astronomy in way back in high school, I recently purchased my very first refractor. After doing some research I decided on a 102mm triplet APO design by William Optics. I had read quite a few good reviews about the brand and this particular scope. I got it in mid January but due to other obligations and also poor weather, I didn't get around to trying it out until early February. I had every intention of trying it out first on the lunar eclipse on February 10th, but I missed the actual eclipse. However, I did hook my Canon 600D camera up to it and shot a few frames of the full moon that night. Then I turned it toward one of my favorite targets, M42, the Orion nebula. I was still fiddling with the scope and mount, the camera, and my laptop, but I did manage to shoot a few frames that I later processed in Deep Sky Stacker. Here's a shot of the full moon and M42 from that night.





I should point out that I live in a borderline orange-red light pollution zone and I also have a fairly bright streetlight just on the other side of the house from where I had the scope set up. I did use an Astronomik CLS filter on the Canon camera to help cut some of the light pollution, but it's still pretty bad here. Our local power company is also in the process of upgrading most of the streetlights to the new white LED models although they haven't made it to our street yet. This won't necessarily be good in that the LED spectrum is much more continuous than the older mercury/sodium vapor lamps. The various light pollution filters that have been available for years will not work very well with the LED lamp spectrum. The only improvement that can be made is to use the newer LED lamps in reflectors that confine the light to a more downward direction to keep it from scattering over a wide area.

2017

January

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

February

Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

March

Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

April

Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

May

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

June

Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

July

Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

August

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

September

Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

October





Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

November

Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

December

Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

-  **AU Home Football Games (includes "A Day" on April 8)**
-  **Proposed AAS Meeting Nights**
-  **Astronomy Day (April 29, 2017)**
-  **Total Solar Eclipse (August 21, 2017)**



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, effective January 1*. *Full-Time* student membership is half the Regular rate.

* If you are a *new* member joining after January, refer to the prorated dues 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