

Astrofiles

Auburn Astronomical Society E-Newsletter May, 2014

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In this Issue

[Events Calendar](#)

[Member News](#)

[Public Stargazes](#)

[Web Links](#)

[Astronomy Day](#)

Events Calendar

The Auburn Astronomical Society in partnership with the [W. A. Gayle Planetarium](#), will celebrate [National Astronomy Day](#), at the planetarium in Oak Park in Montgomery on Saturday, May 10. The event will also serve as our May AAS meeting, so there will **be NO Friday meeting in Auburn this May**.

Our next dark-sky **star party** is scheduled for **April 26**, at our [new dark sky site](#).

April 26, dark-sky **star party** at our [new dark sky site](#)

April 30, New Moon

May 04, The waxing crescent moon passes 5.4 degrees south of Jupiter

May 06, Eta Aquarid meteor shower, debris from Halley's Comet

May 07, First quarter Moon

May 10, [Astronomy Day](#) at the [W. A. Gayle Planetarium](#)

May 11, 3 degrees south of bright red Mars

May 14, Full Moon with waxing gibbous moon passing just south of Saturn

May 21, Third quarter Moon

Member News

Dr. Jim McLaughlin is our latest member to renew his AAS membership. We also have two new members: **Binil Josy** and **Selvaganesan Muthusamy**, both from Montgomery, bringing our total for 2014, to twenty-nine. Welcome all!

Public Stargazes

Yet again, our Forest Preserve stargaze was clouded out last month. We'll try again for a date that works for us and **Jennifer Lolley**. We also need to pick a date for the Wind Creek State Park event.

Web Links

Mars reached opposition on April 8 and made its closest approach to Earth (on April 14), in more than 6 years. To help you see Mars for yourself, *One-Minute Astronomer* has published a guide on how to understand and observe the planet Mars during its opposition in 2014. In this 26-page guide to the planet Mars, you will discover...

- Where and when to see Mars this month (Hint: Look east at 10 p.m.)
- Mars basics: the size, geography, and surface features of this captivating world
- A history of observing Mars, including the well-meaning but dead-wrong observation of the evidence of life on Mars by a wealthy 19th-century amateur astronomer
- What the "opposition of Mars" means and why this is the best time in more than 6 years to see the Red Planet
- The ideal eyepieces and telescopes for observing Mars
- The one essential color filter for detecting detail on the Martian surface with a small telescope
- The major features to look for on the Martian surface, as well as smaller features just at the limit of perception in a small telescope in good sky
- And a fair bit more...

Here's the link to the page where you can download the guide...

<http://goo.gl/OdhZBI>

LOOK: Giant 'Diamond Ring' Spotted In Deep Space - <http://huff.to/1i1Jau7>

Fly Me To The Mini-Moon? - <http://huff.to/1ibcnmw>

Exotic Space Particles Slam Into Icy Observatory - <http://huff.to/1i4HU9M>

Dwarf Star Confirms Prediction Made Decades Ago - <http://huff.to/1izjVzL>

Astronauts To Reveal Troubling Findings About Asteroids Hitting Earth -

<http://huff.to/1jk8Pwd>

Just a Dot - Planet and Star Size comparisons

https://www.youtube.com/embed/XE0aAZE0kp4?feature=player_embedded

Replicating a Mars Rock - <http://marsrover.nasa.gov/newsroom/pressreleases/20140407a.html>

The Amazing Story Of How This Astronaut Went To Space, Went Blind And Returned To Earth Will Leave You In Awe - <http://huff.to/1i8I93A>

This is related to the discussion we had at the meeting last week about determining stellar distances. [Hubble Stretches tape measure 19 times farther.](#)

Earth-like planet found

<http://www.skyandtelescope.com/astronomy-news/earth-like-planet-found-yet/>

Astronomy Day

The [W. A. Gayle Planetarium](#) in partnership with the [Auburn Astronomical Society](#) will celebrate [National Astronomy Day](#) at the Planetarium [in Oak Park](#) in Montgomery, on **Saturday, May 10th** from 3:00 – 10:00PM CDST.

Rick Evans writes:

I would anticipate (barring weather issues) probably one of the larger crowds we have seen in recent years. The more scopes the better. We will have press coverage, and do what we can to publicize it ahead of time. That being said, I think we should be forward thinking, and even if the weather does not cooperate, do this as a **rain or shine event, and if need be, set scopes up inside for demonstration/exhibit.**

Please [let me know](#) if you can come and help with your telescope.

Volunteers to date include:

Rhon Jenkins, AAS 8-inch Dobsonian
Allen Screws, AAS 12.5-inch Dobsonian & AAS PST solar scope
Rodger Morrison: 10-inch Newtonian & AAS's CGEM-1100
Russell Whigham: C-11 SCT
Frank Ward, 12-inch Lightbridge
John Wingard, 3.5-inch Questar
Ray Kunert, 10" SCT and Sky 90 for the Sun
Alan Cook, 10-inch Meade SCT
Jim McLaughlin, 8-inch Meade SCT
Melanie Folds and Camryn Smith, Celestron Powerseeker 114
Gail Smitherman, Orion Starmax 127
Binil Josy
Tim Horsby
Joe Champion

If **you** see at the last minute that you'll be able to help, **just show up.**

This is traditionally our best attended event of the year. We extend a special invitation to those of you who live too far away to attend most of our events to come and spend the afternoon and evening with us. As always, AAS will offer telescopic viewing of the Sun, Moon, Jupiter, Mars, Saturn and binary stars following the auditorium presentations.

4:00PM - 5:00PM: Early visitors will be able to view the 11-day-old Moon, and the Sun in the light of hydrogen-alpha with PST Solar Scopes and members' scopes filtered white-light images. The "**Telescope Clinic**" will be open for guests to bring their sick, disassembled, or otherwise malfunctioning telescopes for repair.

6:00 PM: Presenter: Ethel Boykin: "Montgomery Botanical Gardens". (Overview of plans for the Botanical Gardens in Oak Park) Planetarium auditorium.

7:00 PM: Presenters: Rick Evans – Planetarium Director –

- Overview of Planetarium Upgrade
- Demonstration of new show content (Planetarium Program)
- "Two Pieces of Glass" (Planetarium Program)
- "Losing the Dark" (Planetarium Program)
- Sky-Walk (Tour of the night sky)

7:33 PM : Sunset

8:00 PM: Telescopic viewing with Auburn Astronomical Society: Viewing Jupiter, the mountains and craters of the 11-day-old Moon, Mars, Saturn, several binary star systems, and any satellites passing overhead.

For those who have never attended one of our Astronomy Day events, you can get a feel for what goes on, by going to the "Field Trips" link from the [Auburn Astronomical Society](#) Web page then to "W.A. Gayle Planetarium Events". And, here's your [Astronomy Day Checklist](#).

If you're bringing telescopes, [let us know](#) what type(s) and size(s). Rick needs a list of names for the name tags and a head count for refreshments.

If you feel reluctant to bring your telescope because you think it's too small, remember that most of the visitors will be more likely to consider one like yours for one of their own.

If you don't have a telescope, we always need help at the **AAS information table** where we'll have an e-mail sign-up sheet. We will also need someone to help keep an eye on the clock to point out satellite passes (times and locations will be provided) to our guests, AND some event photographers.

If you are considering the purchase of a telescope, this is a good place to **look and ask questions**.

If you have a **telescope or accessories for sale**, this will be the best place in town for your astro-yard sale.

If you have some **old telescope catalogs** or **magazines**, the visitors are happy to have them.

Be sure to bring a **step stool** or **step ladder** if you anticipate the little ones having trouble getting to your eyepiece.

It's OK to ease your vehicle up the sidewalk to **unload your gear**. It would be nice to then move your vehicle out on the park road until the event is over.

It's a good idea to have a **tarp** to put over any cables or extension cords to prevent visitors from getting tangled and tripping in the dark.

You'll probably want to bring a **lawn chair**, and don't forget your **green laser** -- always a hit with the guests.

Many visitors will ask "**What power is your telescope?**". If you can't do it in your head, it's a good idea to print out a list of your eyepieces and their magnifications.

Wear your **AAS shirt** if you have one.

Rodger has listed some of the objects and where they'll be in the sky that we'll try to share with our guests:

Target (Alt, Az)

Solar System Objects:

Gibbous Moon (50 deg, 152 deg)
Mars (48 deg, 143 deg) 6 deg from moon
Jupiter (38 deg, 274 deg)
Saturn (13 deg, 118 deg) too low this early in evening
Ceres (mag 7.14) and,
Vesta (mag 6.14) are both about 50 deg high @ about 120 deg

Binaries

Mizar/Alcor double (mag 2.20/3.95) – would make for a good binocular target.

[Gamma Virginis](#)

[Gamma Leonis](#)

And, we'll try these **Deep-Sky Objects** in the glare of the city and the Moon:

M3 Globular Cluster (55 deg, 86 deg)
M44 "Praesepe" open cluster (56 deg, 257 deg)
M81 "Bode's Galaxy" (52 deg, 350 deg)
M67 Open Cluster (53 deg, 243 deg)
M48 Open Cluster (34 deg, 234 deg)

Hope to see everyone at the Planetarium,

Russell