WESTMINSTER ASTRONOMICAL SOCIETY, INC. (WASI)

Membership News

Volume 1 – Number 3 *(formerly the Mason Dixon)* Spring 2023

Message from our Society's President, Cindy Ward

Welcome to galaxy season! While some of our favorites, like M101, are circumpolar and viewable all year, the Spring sees Virgo and it's profusion of galaxies rising in the early evening. Some treats in Virgo include the Leo Triplet, the Sombrero Galaxy, and Markarian's Chain. Check your favorite planetarium software for what's up each night.

We're up to nearly 90 members now. Do check out our monthly meetings and other activities at https://www.westminsterastro.org/. You can join us in person on the second Wednesday of each month at Bear Branch, or tune in electronically via Zoom.

Clear Skies,
Cindy

WASI News

We had a Messier Marathon last month at BBNC. That event is now history, but Curt Roelle sent a link to an amazing tool that can plan either a marathon… or just a fun Messier observing session. Check it out here: https://calgary.rasc.ca/darksky/messierplanner.htm .

Shannon Markward, a Towson Physics undergrad, and Lauri Ansorge are NASA Partner Eclipse Ambassadors. We've been trail blazing as the first pair to hold and report a program and have three completed thus far with several more scheduled in the coming months. Shannon and Laurie are scheduled to be the July speakers at the WASI monthly meeting. In the United States, the annular eclipse is on October 14, 2023, and total eclipse is on April 8, 2024.

WASI's own Vanessa Thomas wrote the feature article for the new NASA eclipse map: https://solarsystem.nasa.gov/news/2332/new-nasa-map-details-2023-and-2024-solar-eclipses-in-the-us/

Because of our connection with WASI, these programs and events are also strengthening and building our club's community relationships as well as with other clubs. For example, TriState Astronomers from Hagerstown has a volunteer entering the program and we're already in communication, sharing experiences.

Skip Bird our Outreach Director, is also a Solar System Ambassador (also a NASA Partner).

For more information about these programs:

https://science.nasa.gov/science-news/learners/eclipse-ambassadors

https://science.nasa.gov/science-activation-team/solar-system-ambassadors

Picture of WASI members receiving the Night Sky Network pin for 2022 attached (credit: Jackie Donaldson). Front row L-R: Foster Stolte, Jeff Silver, Shannon Markward, Jack Ganssle. Back row L-R: Jackie Donaldson, Skip Bird, Jeff Burns, Laurie Ansorge, Alf Shupe, Cindy Ward, Eric Smallwood, Al Ansorge,

New membership dues structure:

If you did not get your new membership card with this information, please contact Laurie Ansorge at lvhager@comcast.net.

At renewal time, these new options are available:

- 1-year membership remains $25 for individuals or families
- 2-year membership for individuals or families @ $45
- 4-year membership for individuals or families @ $80

Individual youth (under 18) remains $5/year

The new structure offers cost breaks and fewer payments for more observing time!

Notes on Outreach

It's that time of year when we recognize our illustrious group of outreach super stars with the NSN 2022 outreach pin. If your name is listed below and you have not received your pin, please show up at the nearest WASI meeting and pick it up.
We would like to thank ALL who have helped over the last year by spreading your love of Astronomy to the rest of the world.
A BIG HEARTFELT THANKS TO ALL!

In advance I apologize if I msipell your name, I'm trying to read my own writing, and as you can see this message box does not have spellllllll check!

Al Ansorge
Laurie Ansorge
Jeff Silver
James Reynolds
Jeff Burns
Jackie Donaldson
Gerry Stephens
Thomas Milley
Steve Conard
Christopher Bennett
Matt Orsie
Eric Smallwood
Erich Bender
Grace Coventry
Curtis Roelle
Alfred Shupe
Daniel Packy
Douglas Thomas
Jonathan Morrow
Ian Slepian
Cynthia Ward
Larry Lau
Narayan Nair
Shannon Markward
Pankaj Desai
Michael Newman
Foster Stolte
Paul Burkhardt
Marisa Galitz
Skip Bird

UPCOMING OUTREACH EVENTS

If you are looking to help out, just looking to attend, or someone asks you when the next program is, just send them to our dub calendar. (https://nightsky.jpl.nasa.gov/club/event-list.cfm?Club_ID=152).

That site lists upcoming programs such as our monthly programs (BBNC Planetarium shows), Member events (picnics and such), and special programs for other groups, (CC4H fair, ShoreLeave, etc.). As you can see, we are coming up on our busy season, the summer.

We can always use more volunteers for all events. Just contact the person in charge if you have any questions. If you have an event you want to run just check the calendar for conflicts and then enter the event under "My Club" "Add Event" in the Night Sky Network.

Right NOW, we have a special need for One additional volunteer to help run the Soldiers Delight monthly program (3rd Saturday of the month, April-October). It's FUN and EASY to do and comes with free food occasionally. A little bribery to help out.

If you have any questions, please feel free to contact Laurie or Skip.

Observatory Update

Jeff Burns reports: There has been a lot of activity up at the observatory over the past year. Here is a quick recap just to bring everyone up to speed.

- Our esteemed former Observatory Director, Steve Conard, announced that he was going to retire and live in the woods of north central PA to enjoy dark skies and really cool people.
- Our illustrious board of directors elected me to replace Steve, and then let me know of their decision!
- We worked with the county to establish connectivity between the observatory and planetarium. This is a terrific new capability that we have started using to share telescope images during planetarium shows.
- Steve did a great job preparing for the turnover and training me to take over the leadership of the observatory.
- We were finally able to open the observatory to the club and public in March of 2022 after a long hiatus due to COVID restrictions
- In March, April, and May we trained a dozen or so club members to operate the observatory and restarted our monthly star parties
- Our Celestron CGE Pro started misbehaving in late spring of 2022 but we were able to manage through the summer
- In September a number of club volunteers stepped forward to help perform needed observatory maintenance including:
    - Dis-assembly and safe store of the telescope and sensitive items
    - Replacement of seals on the shutter door
    - Replacement of water damaged wood on the interior
    - Scraping, cleaning and painting of the inside of the dome
    - Scraping cleaning and sealing of seams on the exterior of the dome
    - Re-assembly of the telescope

Laurie & Al work to seal the observatory dome

Chris troubleshoots the Celestron CGE Pro

Unfortunately, we ran into an issue with the Celestron CGE Pro mount when restarting the telescope. We spent October and November troubleshooting the issue with little success.

In late November we worked with the board to research current market offerings and decided to purchase a new AP 1100GT mount. You can read all about it here: https://www.astro-physics.com/1100gto.

The 1100GTO is a mid-sized observatory-class mount that will provide reliable operation in the observatory. This is an extremely solid, rugged, high payload mount that is designed to last years.

We placed our mount order in early December and learned that there was quite an undetermined and long lead time.

In January of 2023 we asked Jack Ganssle to evaluate the Celestron CGE Pro and attempt a repair. Jack worked his magic on the CGE Pro and discovered that the circuit board connectors had corroded and needed to be cleaned. He was able to repair the mount and we re-assembled the telescope and re-opened the observatory in mid-February.

And as one would predict, as soon as we got things up and running again we learned that our new AP 1100 GT mount was finished and ready to be shipped. We paused, consulted with the board of directors, and determined to proceed with purchasing the new mount. What surprised me about this turn of events is that when we asked the board, should we buy the new mount or continue operating with the existing mount, the decision to proceed with the new AP 1100 GT mount was unanimous. Astro Physics did not let us down and we received the new mount within 8 days of placing our order.

We now are in the process of installing our new mount which requires some modifications to the mounting plate and the counter weights. We will be putting the Celestron CGE Pro up for sale so if there are any members interested please let me know and we will work to get you a good price relative to current market conditions.

A special shout out to all the folks who have helped us maintain and improve the observatory over the past year. Thank you for your time and support!

In The News

There's a new exhibit at the Natural History museum (downtown D.C. on the National Mall), open March 23 through December 2025. "*Through extraordinary photographs, objects from the museum's collections and interactive displays, "Lights Out: Recovering Our Night Sky" offers ways to discover and regain people's connection with the night sky.*"
"*...astronomers were among the first people to draw attention to the problem of light pollution due to the challenges it poses to observing space from Earth.* " See https://www.si.edu/newsdesk/releases/smithsonian-exhibition-invites-visitors-help-recover-their-fading-night-sky. This looks like a great exhibit for the whole family.

Light Pollution From… Space?

A recent NY Times article (https://www.nytimes.com/2023/03/02/science/hubble-spacex-starlink.html?searchResultPosition=1 - alas, registration is required) laments the private satellite business.

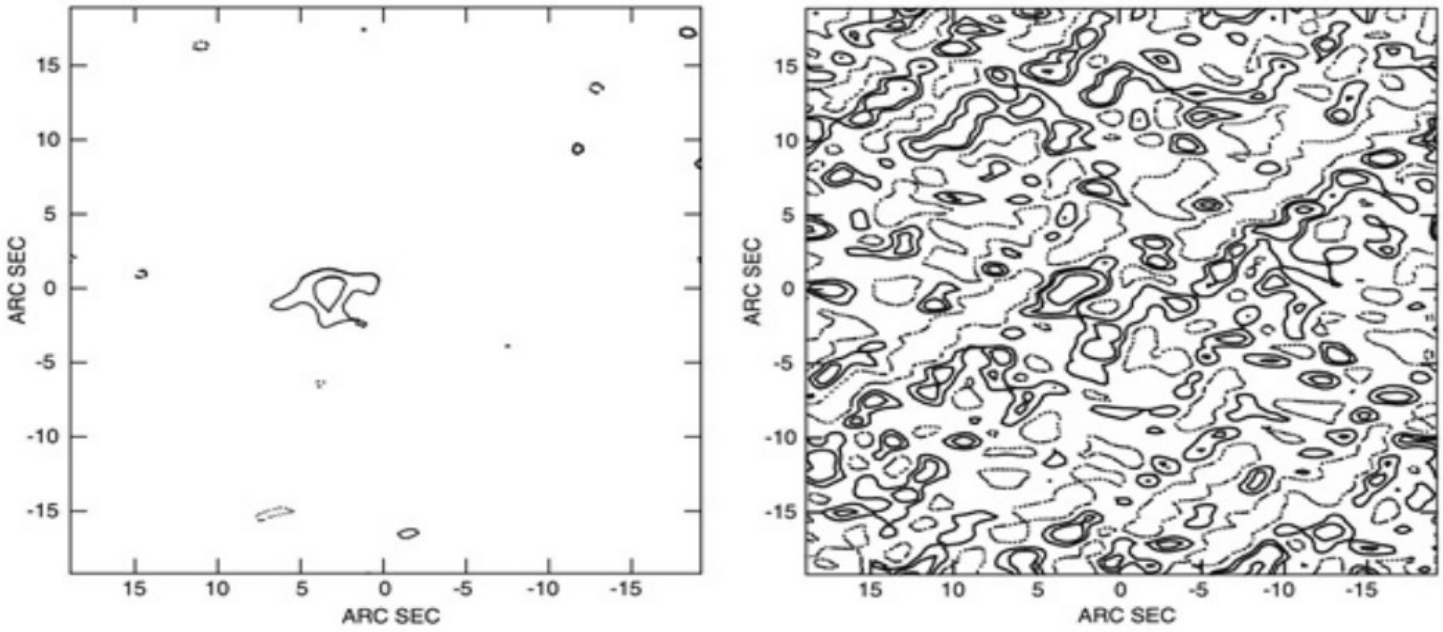
Professional astronomers, not to mention we amateurs, worry that the constellation of spacecraft like those launched by SpaceX and others will ruin asto photos. Hubble resides in an orbit lower than Starlink so those images are already being contaminated by the bright trails of these satellites. Today there are a few thousand of these, but plans by Amazon, OneWeb, and others will place over 400,000 in orbit in coming years. When a few satellites photobomb an image smart software can compensate. Astronomers worry, though, that with this upcoming spacecraft storm those techniques will no longer work, and "deep" images like Hubble's Ultra-Deep Field may no longer be possible.

The article ends with this sobering thought: "When will Hubble not be useful anymore?" Dr. McCaughrean asked. "That might be 10 or 20 years away, but it's not inconceivable that there's a point at which you say, 'Let's not bother anymore.'"

A Starlink satellite photobombed this Hubble image. You can make out some galaxies, but what celestial wonders were obscured by that wide swath of light?

Another recent article (https://astronomy.com/news/2023/03/radio-interference-from-satellites-is-threatening-astronomy) explains that radio communications from satellites is causing major headaches for radio astronomers.

There are "radio quiet zones" where radio transmissions, like from cell phones, must limit their power to not interfere with these big dishes. The USA has two: one of 13,000 square miles in WV, and another in CO. But it's hard to silence a transmitter hundreds of miles out in space that is whizzing overhead.



Two images from the Very Large Array in New Mexico show what a faint star looks like to a radio telescope without satellite interference, left, and with satellite interference, right.

A Star About to Supernova

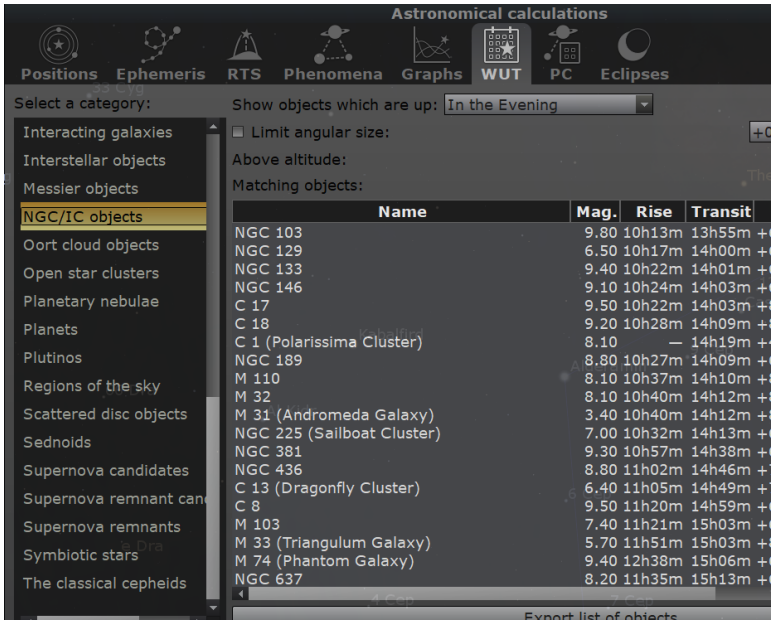
The James Webb Space Telescope has captured a star well on its way to a supernova. WR 124 in Sagitta is a Wolf-Rayet star, one of the hottest kinds around. These stars live fast and die young, with lifespans in the few millions of years or less. WR 124 has been shedding its outer layers, and so far has ejected about ten times the mass of our sun. At 44,700˚ K it is hot! And bright, some 562,000 times as luminous as Sol. There's more info here: https://www.nasa.gov/feature/goddard/2023/nasa-s-webb-telescope-captures-rarely-seen-prelude-to-supernova

Now, "about to go supernova" doesn't mean any of us will be around to see it do so, but that sure would be cool, as it is only 15,000 light years away.

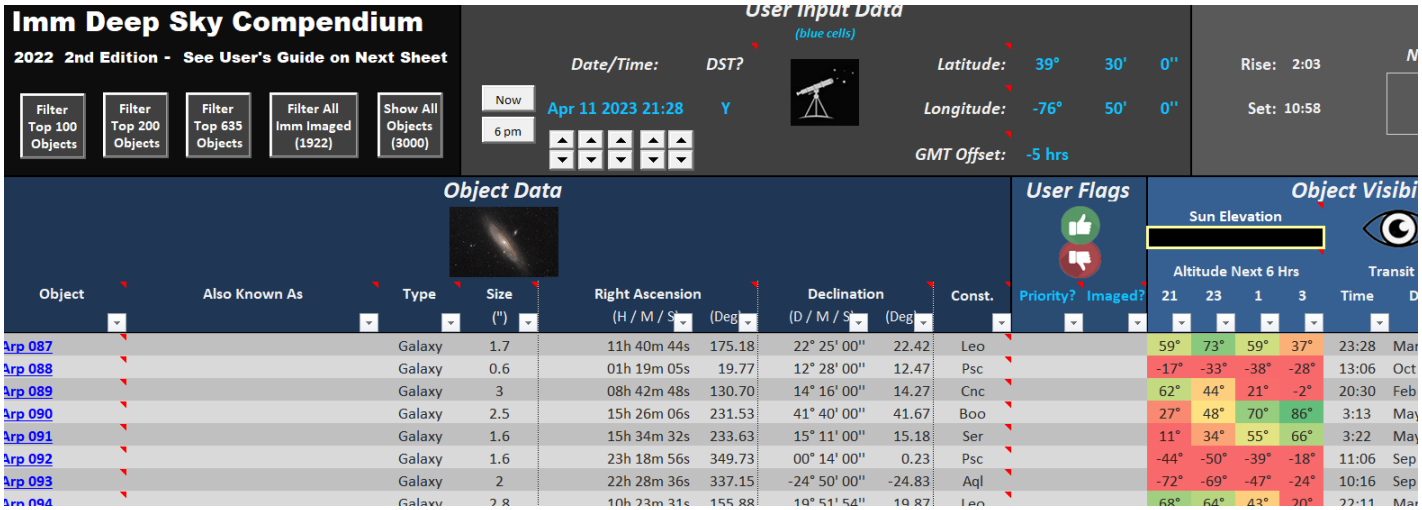
What's Up Tonight?

How do you decide what you'd like to observe?

Users of the free Stellarium (https://stellarium.org/) planetarium software can hit F10, and then click on the WUT tab (What's Up Tonight). That will bring up the following window, which lists objects in the sky for the selected date.



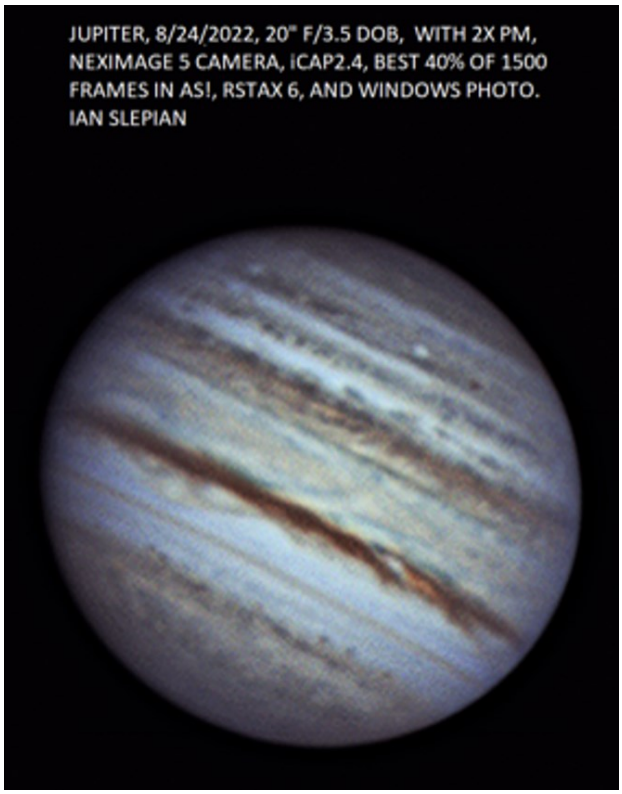
Another option is Gary Imm's Deep Sky Compendium (https://drive.google.com/uc?id=1hsPVmPXmsQjebIP0_0t6REHR_CatKhxo&export=download), a free spreadsheet that lists 3000 deep sky objects with quite a bit of data about each. If you enter your lat/long and the date/time it will give the time each body transits.

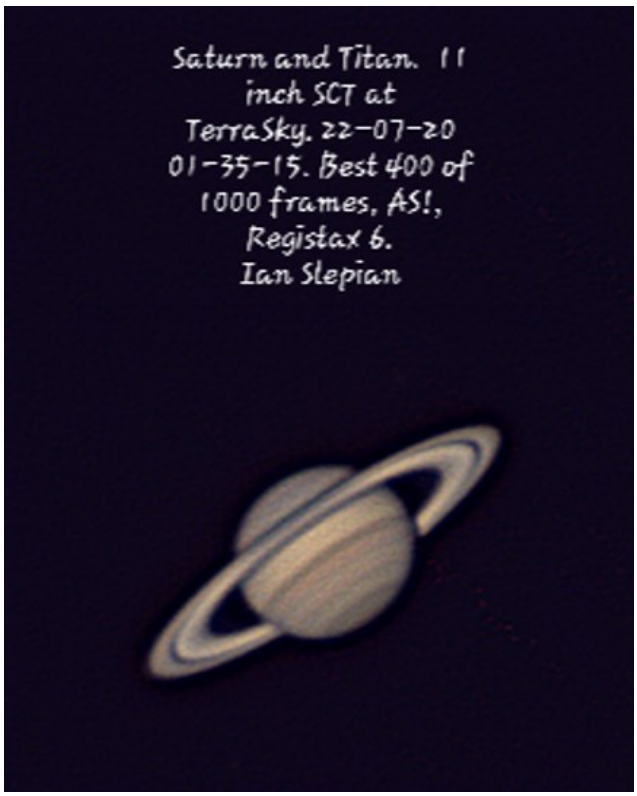


It's a bit hard to winnow the data down to what you'd like to see tonight. Jack wrote a program that will let you specify what sort of objects you'd like from the spreadsheet. Get it here: http://www.ganssle.com/jack/astro.html .

Astrophotos From Our Members

Laurie Ansorge's eVscope at work, the Sombrero Galaxy on the left and the Horsehead Nebula on the right.





Are these from a spacecraft's planetary flybys? Nope, Ian Slepian captured these with his 20" Dob and 11" SCT.

The Heart Nebula from Eric Smallwood and his Redcat 51

NGC3628, The Hamburger Galaxy, from Jack Ganssle's C8

Do you have astrophotos you'd like to see in this newsletter? If so, send them to jack@ganssle.com.

WASI FAQs

Coming in July: Shannon Markward & Laurie Ansorge presenting as NASA Partner Eclipse Ambassadors.

Help wanted: the bulletin board outside the BBNC observatory is WASI's to decorate/change. The BBNC would like to keep it more youth-focused to fit their demographic. Laurie and Skip can provide materials from WASI outreach resources, or you can do your own thing. Contact Laurie Ansorge (lvhager@comcast.net) if interested.

Newsletter - Please send pictures, articles, and ideas for the newsleter to jack@ganssle.com.

Facebook - We're active and sharing images on our Facebook page, found here:

Join/Renew membership link: https://www.westminsterastro.org/join-wasi/

If you've already entered your contact information (renewing), skip the "database" link: https://paypal.me/WAstroSInc

Dues are payable via PayPal on the link above, by check or cash (and through your bank's on-line bill payment). Membership Dues are $25/year for individuals or family, and youth under 18 is $5/year.

- On time payment means eligibility for the annual incentive .
- Keep access to the members-only groups.io pages/information
- Receive members-only access/notifications on Night Sky Network
- Keep/get discount rates for popular astronomy magazines
- Borrow from the WASI scope/literature library

Files and club member correspondence & wiki links are found here: https://westminsterastro.groups.io/g/main. Remember to set your communication preferences.

Outreach/event calendar is found on: https://nightsky.jpl.nasa.gov/index.cfm. Set your communication preferences here as well.

Changed address, email or phone? Please update your information and send a message to the webmaster and/or treasurer@westminsterastro.org.

We meet monthly on the 2nd Wednesday of the month:
Back to Basics from 7:15 PM − 7:30PM; General Meeting 7:30PM − 9:30PM
Bear Branch Nature Center Carroll County; 300 John Owings Rd.; Westminster, MD 21158
Website: https://www.westminsterastro.org/ (Zoom info for hybrid meetings)