

# The Mason-Dixon Astronomer



## President's Message

December 2014 – Tony Falletta

### December Meeting:

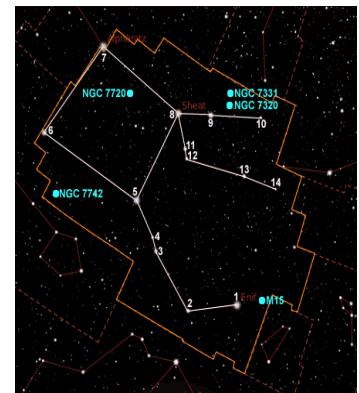
- Wed., December 10th – 7:00 pm  
Bear Branch Nature Center
- **Holiday Pot-Luck**

"Bring your favorite dish to share with your favorite people!"

Greetings My Fellow Astronomers!

December welcomes us here with some very cold temperatures and a few snowflakes flying letting us know that we are on the cusp of winter. I find myself saying, "No, not yet!" As I stand outside and look at cold clear skies I'm torn between getting in some excellent stargazing while futilely trying my best to stay warm or staying indoors enjoying a warm fire and sipping some hot apple cider. The deciding factor has been the wind chill factor. The windier it is the less I'm likely to outdoors for very long. I've been finding that binoculars have been my instrument of choice to satisfy my astronomical yearnings.

For our December meeting, we will be having our annual holiday pot-luck dinner. There is no formal speaker. I invite all WASI members and their families and friends to come and enjoy a pleasant evening of comradery with good food and conversation. Much of the year when we have a formal speaker, we don't have the opportunity to talk and exchange ideas (I blame those darn cloudy nights on our meeting nights!). Our yearly dinner gives all of us a chance just sit, eat, talk and laugh a little so come on out with a dish and/or a dessert and have some fun.



### MDA December Issue Woes...

- Due to outside commitments for the author, Star Points was not available this month. It should return next month.

I want to mention that in this season of giving, you can find some really cool stuff at WASI's online CafePress store. There are items like hats, shirts, sweatshirts, mugs and other things all with our WASI logo on them. A portion of the sales proceeds go to the club which helps a lot. The link is [http://www.cafepress.com/wasi\\_store](http://www.cafepress.com/wasi_store).

Here at Bear Branch Nature Center, we are in the final stages of the Blaine Roelke Observatory. It won't be long before the observatory is fully operational. It has been quite an exciting endeavor this past year. The club's long term vision is finally happening. WASI at BBNC will be Carroll County's astronomical center complete with a planetarium and an observatory. Wow!

In Taneytown, we are still looking to get a roll-off roof observatory in place at Bollinger Park. Member Erich Bender has been trying to coordinate with the City of Taneytown a plan to get the project started. We were hoping to get a concrete pad poured before the ground freezes this year but at this point, thanks to our early start to very cold temps, it looks like we might be waiting until the spring thaw. Maybe by then, Wasi and the City of Taneytown will have a good game plan in place.

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## November Meeting – Pot-Luck Dinner

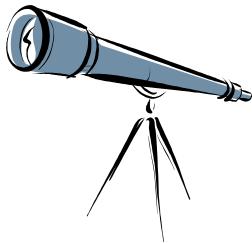


Open to club members and family

We will start our meeting a little early (7pm) this month as WASI hosts its annual Pot-Luck Holiday Dinner. The club will provide drinks, ice, plates, cups, and utensils. Please bring a main dish, side dish, or dessert to share. There are a limited number of outlets available if you need to plug in a crock-pot or warmer. Please label all your items (including serving utensils) with your name so we can make sure they make their way home if forgotten.

We hope everyone can join us for this yearly event. It is always nice spending time with club members, family, and friends in a casual environment.

## Upcoming Events From Our Calendars



- ❖ **Planetarium Show** December 6<sup>th</sup>, 7:30 p.m., at Bear Branch Nature Center (BBNC)
- ❖ **Monthly Meeting** December 10<sup>th</sup>, 7:00 p.m., at Bear Branch Nature Center (BBNC)
- ❖ **Soldiers Delight Public Stargazing** December 13<sup>th</sup>, 8 p.m., at Soldiers Delight Natural Environment Area in Owings Mills

## Join The Westminster Astronomical Society...

Joining WASI gives you a great opportunity to meet fellow astronomers and provides group memberships to the [Astronomical League](#) and the [International Dark-Sky Association](#). Additionally, benefits include access to our [Library](#) (over 500 astronomy-related books), the ability to borrow [club scopes](#), a subscription to the Astronomical League's *Reflector*, access to members-only observing sessions and sites, and club discounts on astronomical magazine subscriptions.

**Adult Membership is still only \$25 per year.**

### NEW THIS YEAR – JUNIOR MEMBERSHIP



Yearly Membership For Anyone Under 18 Is Now Just \$5!  
(YES...JUST FIVE DOLLARS!)

<http://www.westminsterastro.org>



## President's Message

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For December, "Tony's Astronomy Target" is Pegasus. This Pegasus, the Winged Horse of Perseus is on Meridian December 25th. Pegasus lies right next to Andromeda in the night sky. Its body is known as the Great Square of Pegasus. The first three stars of the Square are Markab (the saddle), Scheat (the Leg) and Algenib (the Flank). The fourth star, Alpheratz is actually part of the Andromeda Constellation and is the brightest star in this square shaped asterism. The nose of Pegasus is the star Enif, the brightest star in Pegasus. It is an orange supergiant of magnitude of 2.4 and is about 12 times more massive than our Sun. Follow Enif towards Delphinus and you will run into M15. M15 is a globular cluster with a magnitude of 6 is about 32,000 light years from Earth. Through binoculars, M15 is a gaseous looking patch but looking through a telescope reveals a bright compact cluster that is actually made of about 100,000 stars! Astronomers believe that M15 is about 12 billion years old making it one of the oldest globular clusters known.

As 2014 draws to a close, I want wish everyone a safe and happy holiday season, I also would like to thank you all for being a part of Wasi. We are wonderfully diverse group of people that share the common thread of astronomy. It's been both an honor and a privilege to be your president this past year and I hope 2015 finds us all enjoying a beautiful observatory under a blanket of stars.

Clear Skies,

Tony Falletta

## WASI Café Press Store...

Ever wonder where all that great, WASI logo, gear comes from? Well...wonder no more!

Visit our CafePress store [http://www.cafepress.com/wasi\\_store](http://www.cafepress.com/wasi_store) and find dozens of items with our logo. Items such as hats, shirts, mugs, baby clothes, dog clothes, clocks, cell phone cases, license plate frames, and much, much more.

A portion of each sale comes back to the club. So help the club and get some really cool things for yourself or your loved ones!



## It Must Be Broke...

Wayne (Skip) Bird

# IT MUST BE BROKE, I CAN'T SEE ANYTHING! WHO YOU GOING TO CALL? SCOPE BUSTERS.

Well it's that time of year when all those "I got a good deal on the internet/Big box store (under \$200, 400X's power, with pretty pictures of Jupiter, galaxies and the Horsehead nebula on the box)" telescopes finally get out of their boxes. They are put together by dads and uncles whose mantra is "We don't need no instructions".

So is it any wonder that it was put together wrong?

Now what?

Oh I'll call the place I got it from. Wait...it was on the web and under "contact us" there is not a phone number. Oh I'll email them.

Now what?

If you're lucky enough to get an answer it will probably look something like this:

"Dear Sir/Madam,

The return policy for this item is .....

I don't want to **return** it; I just want some help with it. All the while your impressionable child is drifting further and further from a science and engineering future into a life of CRIME, VIDEO GAMES, and DRUGS.

There is an easy solution for this problem! "What?" you say.

**Buy your telescope from your local telescope store** (online, by phone, or in person).

They have already "Fixed" lots of these scopes. Actually they would have sold you the scope you "needed" in first place. They also have lots of good information on what you can and cannot see from where you live, what is the best scope for your future astrophysicist, and contact info for the local astronomy club. They offer in home training, in store classes, and a whole lot of "Hands on" related help that you won't get from a Big box store or internet only site.

The choice is yours. A future of CRIME, VIDEO GAMES, and DRUGS for your child or a budding Astrophysicist making zillions of dollars.



## Where the Heavenliest of Showers Come From

By Dr. Ethan Siegel

You might think that, so long as Earth can successfully dodge the paths of rogue asteroids and comets that hurtle our way, it's going to be smooth, unimpeded sailing in our annual orbit around the sun. But the meteor showers that illuminate the night sky periodically throughout the year not only put on spectacular shows for us, they're direct evidence that interplanetary space isn't so empty after all!

When comets (or even asteroids) enter the inner solar system, they heat up, develop tails, and experience much larger tidal forces than they usually experience. Small pieces of the original object—often multiple kilometers in diameter—break off with each pass near the sun, continuing in an almost identical orbit, either slightly ahead-or-behind the object's main nucleus. While both the dust and ion tails are blown well off of the main orbit, the small pieces that break off are stretched, over time, into a diffuse ellipse following the same orbit as the comet or asteroid it arose from. And each time the Earth crosses the path of that orbit, the potential for a meteor shower is there, even after the parent comet or asteroid is completely gone!

This relationship was first uncovered by the British astronomer John Couch Adams, who found that the Leonid dust trail must have an orbital period of 33.25 years, and that the contemporaneously discovered comet Tempel-Tuttle shared its orbit. The most famous meteor showers in the night sky all have parent bodies identified with them, including the Lyrids (comet Thatcher), the Perseids (comet Swift-Tuttle), and what promises to be the best meteor shower of 2014: the Geminids (asteroid 3200 Phaethon). With an orbit of only 1.4 years, the Geminids have increased in strength since they first appeared in the mid-1800s, from only 10-to-20 meteors per hour up to more than 100 per hour at their peak today! Your best bet to catch the most is the night of December 13th, when they ought to be at maximum, before the Moon rises at about midnight.

The cometary (or asteroidal) dust density is always greatest around the parent body itself, so whenever it enters the inner solar system and the Earth passes near to it, there's a chance for a meteor storm, where observers at dark sky sites might see thousands of meteors an hour! The Leonids are well known for this, having presented spectacular shows in 1833, 1866, 1966 and a longer-period storm in the years 1998–2002. No meteor storms are anticipated for the immediate future, but the heavenliest of showers will continue to delight skywatchers for all the foreseeable years to come!

**What's the best way to see a meteor shower?**

Check out this article to find out: <http://www.nasa.gov/jpl/asteroids/best-meteor-showers>

Kids can learn all about meteor showers at NASA's Space Place: <http://spaceplace.nasa.gov/meteor-shower>.

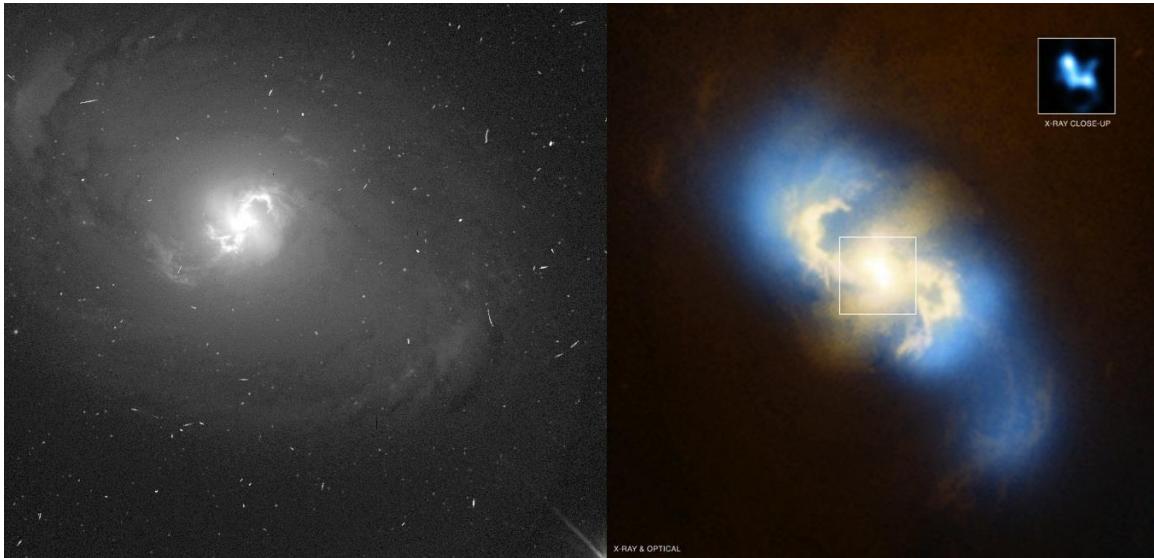
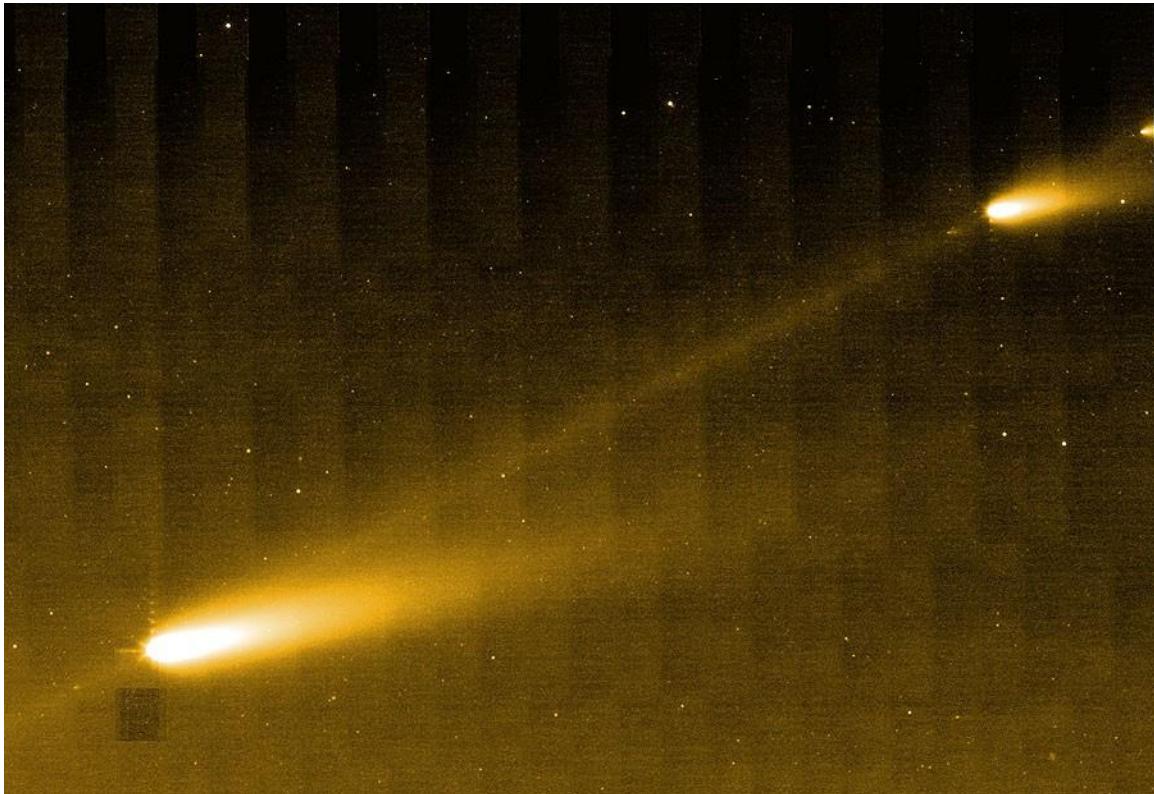


Image credit: NASA / JPL-Caltech / W. Reach (SSC/Caltech), of Comet 73P/Schwassmann-Wachmann 3, via NASA's Spitzer Space Telescope, 2006.