



# BACK BAY observer

The Official Newsletter of the Back Bay Amateur Astronomers  
P.O. Box 9877, Virginia Beach, VA 23450-9877

## EPHEMERALS august 2016

08/04, 7:30 PM  
BBAA Monthly Meeting  
Plaza Middle School  
Kiva Room

08/05 & 8/12, 8:00 PM  
Cornwatch  
Cornland Park

08/06, 8:00 PM  
Nightwatch  
Chippokes Plantation

08/09, 8:30 PM  
Garden Stars  
Norfolk Botanical Gardens

08/16, 6:00 PM  
Boardwalk Astronomy  
24th Street  
Virginia Beach Boardwalk

08/27, 6:30 PM  
Skywatch  
Northwest River Park



## Looking Up!

AAAARRRRGGGGGHHHHHH!!!!!! Will these darn weather patterns cease? It seems we have been looking at cloud bottoms for over two months with only minor breaks. Kent Blackwell's bi-annual East Coast Star Party was nearly an epic cloud fest, all is not lost as we still enjoyed friendship and camaraderie with fellow astronomers both near and far. Some of my best memories from ECSP actually happened when we were shooing away the clouds through sacrament of the boxed drink.

July has been a busy month. The second week of July brought the annual trek to Green Bank West Virginia for Starquest. Starquest is hosted by the Central Appalachian Astronomy Club and the Kanawha Valley Astronomical Society of West Virginia <http://www.greenbankstarquest.org/index.html> and is located at the National Radio Astronomy Observatory. This is a spectacular event under spectacular skies with spectacular speakers, vendors, classes and tours. If you have never been, it is well worth the six/seven hour drive into WV.

And let's not forget Juno, which arrived on schedule at Jupiter! For more on the Juno mission try the link: <http://www.space.com/33326-nasa-juno-jupiter-probe-autopilot.html>

We had a very successful first Movie Night event at the Chesapeake City park in Chesapeake, we had great weather, skies and people. I hope we get an opportunity to return.

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Our SUNDAY on Saturday event at Bells Mill park in Chesapeake has seen minimal attendance. Usually you can count the number of attendees on one hand. We are not giving up on SUNDAY on Saturday though. It looks like the event will physically change locations to another park in Chesapeake over by the Jordan Bridge. Jim Tallman is coordinating so keep an eye out for details on where the park actually is.

Our June Skywatch was HUGE success! We had tons of visitors and TONS of BBAA participation! We had a blast!

And we are seeing emails back from the

Astronomical League that once again, the BBAA outshone everyone else in participation in the Mercury Transit program! WHOOOOO HOOOOOO! And Jim T. and Jeff G. each received a special shout-out for their spreadsheet! Another WHOOOOO HOOOO is in order!

I hope we eventually are rewarded with some good clear skies after all of this rain. More than likely, we will just get to fight more bugs and dew than we think we should. I hope everyone can come enjoy one of the many events planned and remember to keep looking up, even if you have to dodge a raindrop or two...

*Chuck Jagow*

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## May 5, 2016 Meeting Summary

Meeting called to order at the TCC Science Building (Rm JC-10) at 7:30 PM by President Chuck Jagow.

### Award Presentation:

Outreach pins were presented. Curt Lambert, Chris Jarvis, Bird Taylor, Bill McLean, & Jim Tallman all received awards. Three additional awards were not given out to those not present: Mel Spruill, Bruce Powers, and Kent Blackwell.

### RRRT Report (Lawrence "Bird" Taylor):

- Road Trip with Dr. Salgado, Bird, and 3 Astronomy Students attended. Drove up Friday afternoon. Operated last week until 2 AM. UVA has been using it on site for their astronomy class. Money to replace the motors, belts, and controller is available and will be available this fall to capture data. Dr. Salgado would like folks to submit proposals, but historically, Bird mentioned that he wouldn't do any proposals until the first day RRRT comes in.

### Old Business:

- Solar Filter / Dew Heater Workshop was a success, but next time the workshops will be separated to do more. It was a bit crowded on the porch. Soldering skills were advanced. Jim made burgers and hot dogs. We have more material to do another workshop (probably in the Fall). Must buy more tubing and poster board, first. We actually have

additional resistors due to shipping error on the vendor's part.

### Astronomical League Report:

- Bill McLean mentioned (especially for the new folks) if you're a member of BBAA, then you're also a member of the A.L. There are about 40 programs & awards: Lunar, Messier, and others to pique anyone's interest. Learn how to log and observe. It makes you a better observer. Nearly everyone in the club has at least one pin. There is a National AL meeting in DC in August.

### Presentation: "Cleaning Mirrors with Optical Cleaning Solution" by Chuck Jagow

- Chuck presented this to the group. Chuck brought in a 4.5" mirror to demonstrate cleaning. Handouts were given for the home made solution and procedures to carefully clean a mirror or lenses. Mirrors are much more susceptible to scratching since they are 1st surface, instead of glass on top. Use common sense. Chuck demonstrated the procedure to remove the mirror (taping the key screw so it could be reassembled without changing collimation !
- Surface dust was removed first with air and camel hair brush. Chuck demonstrated cleaning lightly with the solution. It was an excellent presentation and was well received .

Meeting adjourned at 8:42 PM.

The Back Bay Amateur Astronomers

# Observer

The BBAA Observer is published monthly; the monochrome version is mailed to members who do not have internet access. Members who do have Internet access can acquire the full color version on the Internet at <http://www.backbayastro.org/observer/newsletter.shtml>

Please submit articles and items of interest no later than the date of the monthly meeting in order to be in the next month's edition.

Please submit all items to:  
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## BBAA Meetings

The BBAA meet the first Thursday of every month except for July. The next meeting will be held on August 4, 2016 in the Kiva Auditorium at [Plaza Middle School](#) located at 3080 South Lynnhaven Rd in Virginia Beach at 7:30 pm.. Directions are on our [Night Sky Network page](#).

## BBAA Internet Links

BBAA Website  
[www.backbayastro.org](http://www.backbayastro.org)

Yahoo! Groups  
[tech.groups.yahoo.com/group/backbayastro](http://tech.groups.yahoo.com/group/backbayastro)

BBAA Observer Newsletter  
[www.backbayastro.org/observer/newsletter.shtml](http://www.backbayastro.org/observer/newsletter.shtml)

## Observer's Corner

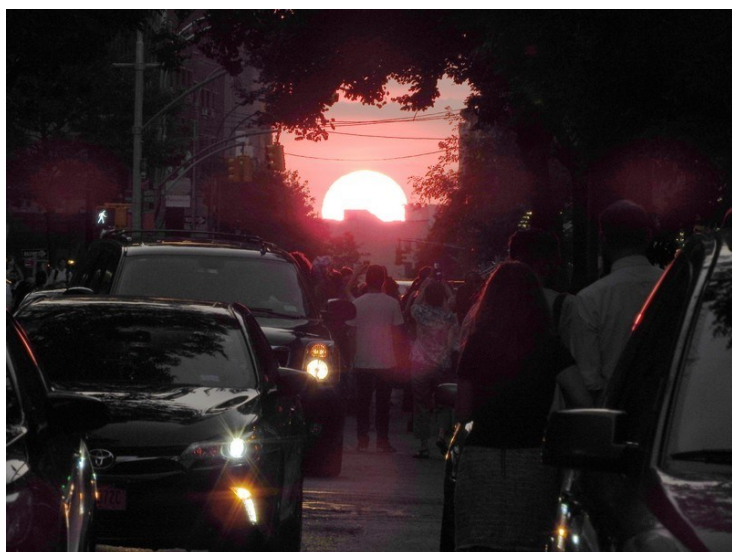


Image by Kent Blackwell

## Manhattanhenge

While in NYC this past week there was a really unique occurrence, even for New York. New York City is laid out in a perfect grid system. Twice per year, the sun rises directly in line down every street in Manhattan. I saw a couple of things odder than "[The Heel Stone](#)" down some of the streets, but that's another matter.

It's referred to as "Manhattanhenge" or "The New York City Stonehenge."

As I always say, ONLY IN NEW YORK. What a town!!

- Kent Blackwell

# A New Twist on Retirement Planning

By Grant Wylie

After reading the great article by Dan Pelzel on Astrophotography I thought, being a new member, I would take this opportunity to introduce myself and tell a little bit about my interests and why I joined the club.

First my name is Grant Wylie. I'm a lifelong resident of Virginia Beach. I'm 49 years old. I've been a Va. Beach Police officer for 27 years and plan on retiring March 1, 2017 at the ripe old age of 50. I've had an interest in space since about age 9. Since then I've bought and sold several telescopes during that time. My favorite was my Orion 8" Dobsonian. I've never really studied astronomy but always loved the beauty of the night sky and particularly the moon.

Being born in 1967 I was too young to remember anything of the moon landings but I grew up following the shuttle program. The first time I remember paying attention to space was the Viking I lander on Mars and the images coming back.

So why did I join Back Bay Amateur Astronomers? With retirement looming at such a young age I wanted to pursue my interests, and learning about astronomy was #1 on the list. I was aware of the Back Bay Amateur Astronomer Club and after looking into it more it looked like a great group of folks who were willing to share their knowledge with a relative newbie. Boy was I right!

In November I bought myself a Celestron 4" Nexstar and immediately sent in my money to join the club. I attended my first meeting in January at the Plaza Middle School Planetarium and signed up to do my first outreach program which was the Garden Stars on January 14. George Reynolds was there and was a great help with my telescope. I absolutely loved sharing my limited knowledge with the visitors who showed up, and I learned even more listening to George explain to the visitors what they were seeing.

My next event was Skywatch on January 30. Before the event, fellow club members finally



*Like many of us, Grant is enthralled by the beauty of Earth's natural satellite. He took this alluring snapshot of the glorious first quarter Moon with his iPhone held to the eyepiece, a "souvenir" from a recent backyard trip to the heavens.*

helped me figure out how to correctly align my telescope quickly and easily. The number of guests who showed up on a chilly January evening to look through all of the scopes present was inspiring and reaffirmed to me that joining the club was the right idea.

I've been to two other meetings now and signed up for several other volunteer events (all of which have been rained out---I hope I'm not a jinx!).

The problem I have now is gaining knowledge and what to concentrate on. The universe is immense and there is so much to see it is almost overwhelming. I have a huge interest in the Mars landings and hope to be around long enough to see multiple missions to our red neighbor. The work by SpaceX and Orion, as well as Virgin Galactic have been inspiring. With that being said I've decided to concentrate on learning as much as I can about our own solar system, while still enjoying a night time view of the stars.

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## New Twist on Retirement Planning, [continued from page 4](#)

I've bought and read *Nightwatch*, books on the Apollo Missions, the astronauts, *Sky & Telescope* and anything else I can put my hands on. I've downloaded the NASA app so I can regularly track the space station and keep up with upcoming missions like the SLS and Orion capsules. I regularly check Space.com on what they update. But despite all of that nothing beats just taking the telescope out and looking at the sky. I love the Moon and it is sad to me that we haven't had a man outside of low earth orbit since 1972 when we were moving forward with our exploration so rapidly up to that point.

Now I've been warned by fellow club members already about the dangers of astrophotography and how it draws you in and drains your wallet. With my Mak-Cass I am not set up for deep space photography but I think everyone enjoys taking pictures of what they are looking at in the sky. After taking some shaky handheld cell phone pics from my eye piece I found the GOSKY UNIVERSAL CELL

PHONE ADAPTER for less than \$25 and ordered it. I downloaded the cell phone app NIGHT CAP PRO for \$2 for less than \$30 I have a relatively inexpensive setup for solar system photography so I can start mapping the moon and learning crater names using my own pictures. I am really excited about this and hope this is just the start.

Currently my assignment on the police department has me as a School Resource Officer at a Virginia Beach middle school. I am hoping next year with the support of the Back Bay Amateur Astronomy Club to possibly set up an astronomy club for the school as well as at an adjacent school.

Anyways, that's my story. I look forward to meeting more club members and participating in more outreach in the upcoming years.



*Grant captured these two photos during a recent observing session of an ISS passage through the trees (l) and Jupiter and three moons (r).*

## Got a Story or Image to Share?

The Observer welcomes submissions from ANY member. Actually, member content is what makes the newsletter unique and fun to read!

What makes a good article? Pretty much any astronomy-related topic that you are interested in. We have had member articles on topics ranging from observing, outreach events, trips, star parties, equipment reviews, do-it-yourself projects, news of achievements & honors, general interest astronomy/space articles. You name it!

If you're not a writer, the newsletter is also a great way to show off your latest astrophotography masterpiece. And if you just dabble in imaging, no problem, we love simple iPhone shots and pictures from BBAA events.

Remember, you don't have to be a professional writer or photographer to submit. Part of my job is helping to make it easy. Give it a try, we would LOVE to see something from YOU!

Email submissions to [bbaa.newsletter@gmail.com](mailto:bbaa.newsletter@gmail.com)



# Venus and Jupiter Prepare for their Close Up this Month!

By Dr. Ethan Siegel

As Earth speeds along in its annual journey around the Sun, it consistently overtakes the slower-orbiting outer planets, while the inner worlds catch up to and pass Earth periodically. Sometime after an outer world—particularly a slow-moving gas giant—gets passed by Earth, it appears to migrate closer and closer to the Sun, eventually appearing to slip behind it from our perspective. If you've been watching Jupiter this year, it's been doing exactly that, moving consistently from east to west and closer to the Sun ever since May 9th.

On the other hand, the inner worlds pass by Earth. They speed away from us, then slip behind the Sun from west to east, re-emerging in evening skies to the east of the Sun. Of all the planets visible from Earth, the two brightest are Venus and Jupiter, which experience a conjunction from our perspective only about once per year. Normally, Venus and Jupiter will appear separated by approximately 0.5 deg to 3 deg at closest approach. This is due to the fact that the Solar System's planets don't all orbit in the same perfect, two-dimensional plane.

But this summer, as Venus emerges from behind the Sun and begins catching up to Earth, Jupiter falls back toward the Sun, from Earth's perspective, at the same time. On August 27th, all three planets—Earth, Venus and Jupiter—will make nearly a perfectly straight line.

As a result, Venus and Jupiter, at 9:48 PM Universal time, will appear separated by only 4 arc-minutes, the closest conjunction of naked eye planets since the Venus/Saturn conjunction in 2006. Seen right next to one another, it's startling how much brighter Venus appears than Jupiter; at magnitude -3.80, Venus appears some eight times brighter than Jupiter, which is at magnitude -1.53.

Look to the western skies immediately after sunset on August 27th, and the two brightest planets of all—brighter than all the stars—will make a dazzling duo in the twilight sky. As soon as the sun is below the horizon, the pair will be about two fists (at arm's length) to the left of the sun's disappearance and about one fist above a flat horizon. You may need binoculars to find them initially and to separate them. Through a telescope, a large, gibbous Venus will appear no more distant from Jupiter than Callisto, its farthest Galilean satellite.

As a bonus, Mercury is nearby as well. At just 5 deg below and left of the Venus/Jupiter pair, Mercury achieved a distant conjunction with Venus less than 24 hours prior. In 2065, Venus will actually occult Jupiter, passing in front of the planet's disk. Until then, the only comparably close conjunctions between these two worlds occur in 2039 and 2056, meaning this one is worth some effort to see -- including traveling to get clear skies and a good horizon!

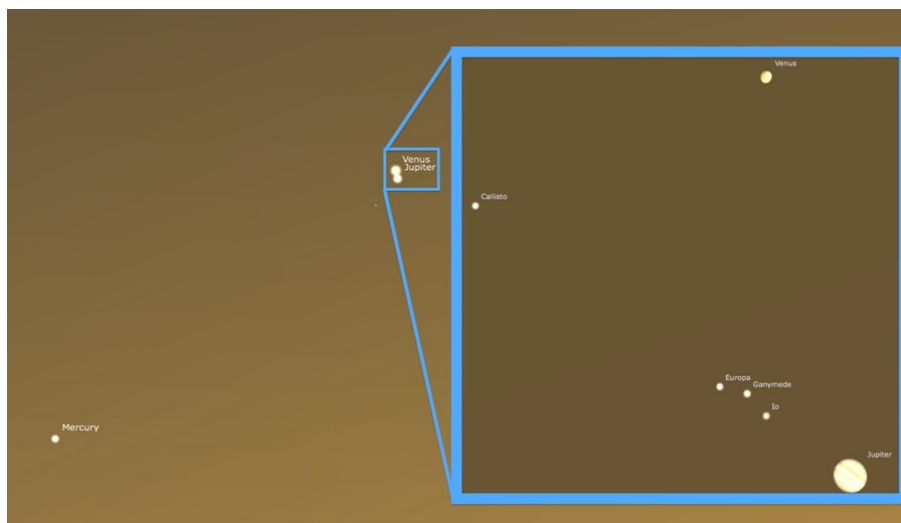


*Image credit: E. Siegel, created with Stellarium, of a small section of the western skies as they will appear this August 27th just after sunset from the United States, with Venus and Jupiter separated by less than 6 arc-minutes as shown. Inset shows Venus and Jupiter as they'll appear through a very good amateur telescope, in the same field of view.*

# BBAA Solar Filter & Dew Heater Workshop

On Sat. April 23, 2016, the BBAA held a Do-It-Yourself Solar Filter and Dew Heater workshop. Club President, Chuck Jagow, did a fantastic job organizing the event. He painstakingly figured out in advance exactly what everyone wanted to make; that is, how many solar filters and dew strips and what size. Then he ordered everything that was needed (even going above and beyond to find bargains to save us all money) and tallied up



*Chuck Jagow discusses the finer points of soldering during the April 23 DIY Workshop.*

Image Credit: Jim Tallman

each individual bill and made them payable with PayPal. Basically all I had to do was type in my password.

When we arrived at the workshop (hosted most graciously by Jim Tallman and family), all of our parts were delivered to us in neat little packages with ziplock bags. Chuck (with some help from Jim), gave hands-on demonstrations of each step and was there to help us with gluing, cutting, soldering and any other of the numerous tasks at hand. Chuck made sure each person successfully built their project or knew exactly how to finish at home if they ran out of time. Chuck even took home my dew strips to fix my ~~expert~~ shoddy soldering job to keep me from being a danger to anyone observing near by. With a cookout lunch courtesy of Jim, the workshop was a great way to spend a few hours on a Saturday!

- Paul Tartabini

## 2016 BBAA Summer Picnic



Images by Mel Spruill

BBAA held its annual picnic on Sat. July 20, 2016 at Redwing Park in Virginia Beach. It was a hot day, but not too bad in the shade of the shelter. Chuck Jagow expertly performed his presidential duties of grilling the hamburgers and hotdogs, and by all accounts, did a great job!

Dale Carey was kind enough to set up his wonderful 60mm Cornado H-Alpha telescope to give all attendees a glimpse of activity on our nearest, dearest star. There was a short meeting in which Mel Spruill, Bruce Powers and Kent Blackwell received Outreach Awards and George Reynolds received an Exceptional Service Award, followed by a raffle for a OneSky grab-n-go telescope, with all proceeds going to the Georgie June Scholarship fund.

It was a blast! Thanks to everyone who made the event a success!



## August 2016

| BBAA Events                                       | Special Outreach                                       | Astronomical Events                   |
|---------------------------------------------------|--------------------------------------------------------|---------------------------------------|
| 08/04 BBAA Monthly Meeting                        |                                                        | 08/10 First Quarter Moon              |
| 08/05 & 8/12 Cornwatch @<br>Cornland Park         |                                                        | 08/12 Perseids Meteor<br>shower       |
| 08/06 Nightwatch @<br>Chippokes Plantation        | 8/12 Movie Night<br>Mt. Trashmore                      | 08/18 Full Moon                       |
| 08/09 Garden Stars @ Norfolk<br>Botanical Gardens | 8/16 Boardwalk Astronomy<br>24th St VA Beach Boardwalk | 08/24 Last Quarter Moon               |
| 08/27 Skywatch @<br>Northwest River Park          |                                                        | 08/27 Venus/Jupiter Close<br>Approach |

### Sneak Peek into September

Thu 9/01/2016 Monthly Meeting, Tidewater Community College, 7:30 pm

Fri 9/02/2016 & 9/09/2016 Observing session at Cornland Park

Sat 9/03/2016 Nightwatch at Chippokes Plantation

Thu 9/08/2016 Garden Stars, Norfolk Botanical Gardens, 8:00 pm

Tue 9/13/2016 Boardwalk Astronomy, VA Beach Boardwalk @ 24th St, 6:00 pm

Sat 9/17/2016 "Sun" day at Bells Mill Park, Chesapeake, VA, 10:00 am- 2:00 pm

Sat 9/24/2016 Skywatch at Northwest River Park, 5:30 pm