



BACK BAY observer

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

EPHEMERALS december 2017

12/07, 7:30 pm
BBAA Monthly Meeting
TCC Campus, VA Beach
Building J, Rm JC-13

12/09, 5:00 PM
Skywatch
Northwest River Park

12/15 & 12/22
Club-only observing sessions
Cornland Park, Chesapeake, VA

12/16, 12:00 PM
BBAA Annual Anniversary Luncheon
Lynnhaven Fish House

12/16, 5:00 pm
Nightwatch
Chippokes Plantation



Looking Up!

It has been several months since my last column and I hope that everyone had a successful Eclipse 2017 event, unfortunately the band of BBAA members who trekked to Anderson SC were skunked by a group of very stubborn clouds. We had good weather up to about 45% coverage past first contact, then clouds for about 2 hours. After the clouds moved off we were at just about the same point of 50% coverage after third contact. The gaggle of members in Anderson included myself and What's Her Name (my wife Karen, yeah that's it, Karen), Jim and Lisa Tallman, Leigh Anne and Jason Lagoe with kids, HL & Jane Marks, Jeff Goldstein and family, Mel Spruil, Robyn & Larry Korn and Jeff Singer and his wife Julie, eighteen hopeful souls.

Our last Boardwalk Astronomy event was Tuesday the 5th of September and enjoyed a good flow of locals and lagging tourists. We finally had a successful Skywatch event in September after being skunked out for at least the previous FIVE months. The October and November Skywatch events were successful as well. I have my fingers crossed for December's as well.

The BBAA Annual Luncheon is on December 16th at the [Lynnhaven Fish House](#) at NOON. The Lynnhaven Fish House is located at [2350 Starfish Road, Virginia Beach, VA 23451](#), I hope to see everyone there, it is always a good time to see everyone in the daylight. Please log into Yahoo and go to the database section and indicate your headcount, it is helpful to give the Fish House a body count.

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November 2, 2017 Meeting Summary

The meeting was called to order at 7:36 PM by President Chuck Jagow. Chuck opened the meeting with a huge “thank you” to the VAAS Committee for a great success: Leigh Anne Lagoe, Chuck Jagow, Bruce Powers, Shawn Loescher, George Reynolds, Bill Rust helped, Kenny Broun helped, and Karen (A.K.A “what’s her name”) Jagow helped. We did not go into debt. The only negative comments we had was about the directions to the cookout. The Route 17 was confused with Route 17 Business road directions. Bob Beuerlein demonstrated his night vision goggles at the cookout/star party.

ALCOR (Astronomical League Coordinator) Report (Bill McLean):

- Bill gave a short synopsis of how the Astronomical League (AL) observing awards work, and provided several examples of popular observing programs. Bill recognized several club members by name who recently earned AL Observing awards, including the Herschel 400 Award that Bill presented to Ben Loyola.

Citizen Science Opportunity

- Ben Loyola discussed Dr. Kunio Sayanagi’s (Planetary Science Hampton Univ.) [NASA Grant to gather 250 hours of high speed video of the planet Jupiter](#). If any club member has a video (webcam) camera, Barlow, and telescope and wants to assist in this true scientific mission, please send your “raw video” to Dr. Sayanagi. The grant will document asteroid impacts, and the contributors will all be mentioned by name in his report. Currently, there is not a central website to submit the data; however the data will be coordinated with Project Juno. March to April 2018 is the window for capturing this raw video so he can submit the grant.

Old Business:

- The city of Chesapeake has proposed paying us for successful outreach events that we perform as part of our contract. The contract is not yet finalized, but before the new year we expect to get about \$700 for the year.

New Business:

- November Club Elections were held with terms beginning in January, 2018. Shawn Loescher was nominated for Vice President and Bruce Powers for Treasurer. Both were subsequently elected for their second term.

- The Anniversary Luncheon will be held at 12:00 pm on Saturday December 16, 2017 at The Lynnhaven Fish House. This will also go out as an email announcement

Observing Reports:

- Last Saturday in Suffolk we had a Movie Night and about 25 folks observed through our scopes.
- Chuck set his scope up on Halloween and had all the kids and parents look through his telescope. He’s done this for 13 years.
- The Orionids Meteor Shower was observed, but well below its usual number per hour.
- One member asked about the Cornland Park Permit availability. It’s available on the Night Sky Network.
- Bruce ran his new NexStar mount for his ETX -125 through its paces around the Outer Banks; and was well received by roughly 20 Canadian visitors.
- Shawn set up for Halloween with a Revolution Imaging Camera (Version 2) using the camera’s 7” display screen. He took a picture of M31 on his cell phone of this display screen with excellent resolution. .
- Leigh Anne Lagoe mentioned that the Antares Rocket Launch will be at Wallops Island next Saturday morning at 7:30 AM.

Program: (George Reynolds Presented “Who Are the BBAA” and “Animal Constellations”) :

- George gave the same presentations that he gives at the outreach, “Who Are the BBAA?” The presentation is a very complete slide show complete with Star Wars audio. It shows many aspects of what the BBAA does. He did a manual version of this for the VAAS Conference. This automated version was six minutes long.
- George then showed the “Animal Constellation” presentation that personified each constellation as animals and objects. He pointed out that Leo actually does look like a lion, as does Delphinus resembling a Dolphin. Our ancestors had great imaginations when they formulated these constellations as animals. He ended the presentation with Captain James T. Kirk’s famous line: “... to boldly go where no man has gone before!” .

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. While school is in session, we meet at the VA Beach TCC Campus. The December 7, 2017 meeting will be held at TCC in Virginia Beach, Building J, Rm JC-13 (or nearby room) at 7:30 PM. Directions are on our [Night Sky Network page](#).

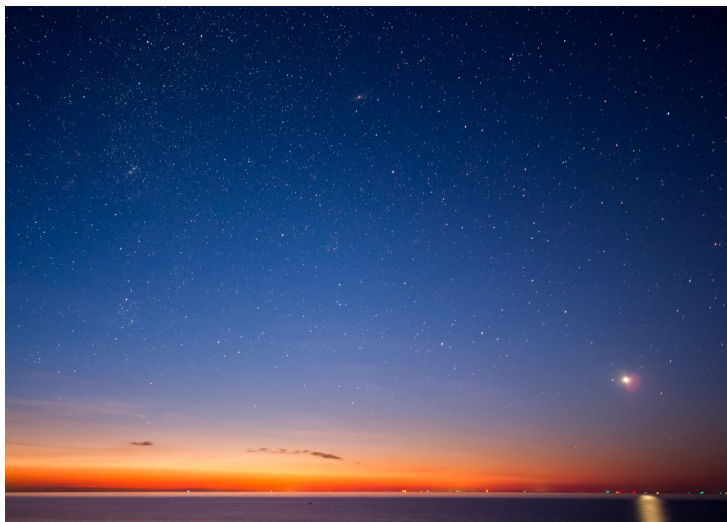
BBAA Internet Links

BBAA Website
www.backbayastro.org

Yahoo! Groups
<https://groups.yahoo.com/neo/groups/backbayastro>

BBAA Observer Newsletter
www.backbayastro.org/observer/newsletter.shtml

Observer's Corner



Jason's image, taken on June 3, 2017, shows the first hint of twilight, Venus, the Andromeda Galaxy, a whole mess of stars...everything but a rocket!

CONSOLATION PRIZE

Last June numerous club members tried to catch a glimpse of a NASA [sounding rocket launch](#) from Wallops Island, VA. After numerous scrubbed attempts, the launch finally took place on June 29, 2017.

For one of the scrubbed attempts, Jason Tackett went to Bethel [Beach Natural Area Preserve](#) on the Chesapeake Bay to photograph the event. "I sat on the beach for the entire launch window, finger hovering over the shutter release, eyes darting back and forth along the horizon. By 4:48 AM, I figured something was up. Ah, well. It was a lovely morning on the beach and I got a nice photo of astronomical twilight over the bay."

Studying Storms from the Sky

By Teagan Wall



The United States had a rough hurricane season this year. Scientists collect information before and during hurricanes to understand the storms and help people stay safe. However, collecting information during a violent storm is very difficult.

Hurricanes are constantly changing. This means that we need a lot of really precise data about the storm. It's pretty hard to learn about hurricanes while inside the storm, and instruments on the ground can be broken by high winds and flooding. One solution is to study hurricanes from above. NASA and NOAA can use satellites to keep an eye on storms that are difficult to study on the ground.

In Puerto Rico, Hurricane Maria was so strong that it knocked out radar before it even hit land. Radar can be used to predict a storm's path and intensity—and without radar, it is difficult to tell how intense a storm will be. Luckily, scientists were able to use information from a weather satellite called GOES-16, short for Geostationary Operational Environmental Satellite – 16.

The “G” in GOES-16 stands for geostationary. This means that the satellite is always above the same place on the Earth, so during Hurricane Maria, it never lost sight of the storm. GOES-16's job as a weather satellite hasn't officially started yet, but it was collecting information and was able to help.

From 22,000 miles above Earth, GOES-16 watched Hurricane Maria, and kept scientists on the ground up to date. Knowing where a storm is—and what it's doing—can help keep people safe, and get help to the people that need it.

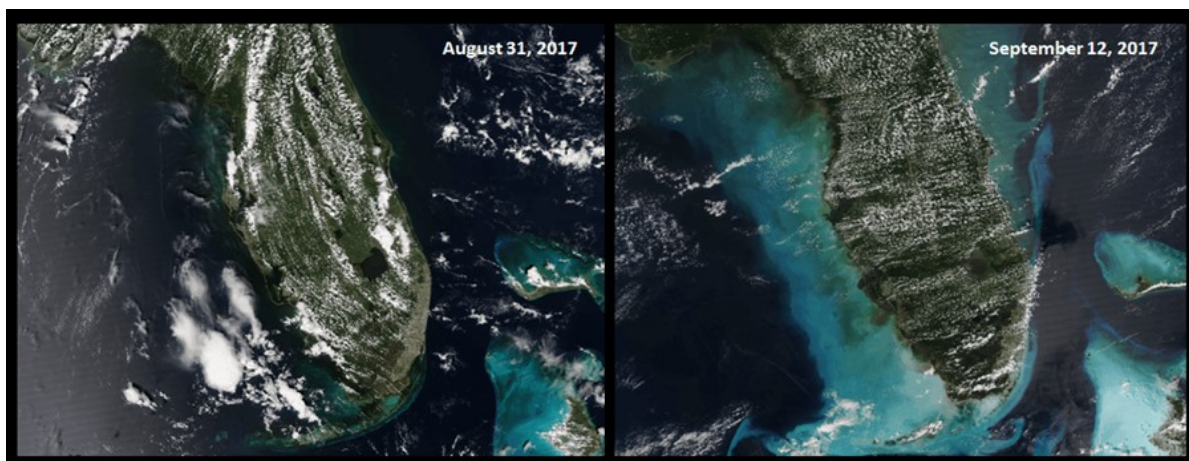
Hurricanes can also have a huge impact on the environment—even after they're gone. To learn about how Hurricane Irma affected the Florida coast, scientists used images from an environmental satellite called Suomi National Polar-orbiting Partnership, or Suomi-NPP. One of the instruments on this satellite, called VIIRS (Visible Infrared Imaging Radiometer Suite), took pictures of Florida before and after the Hurricane.

Hurricane Irma was so big and powerful, that it moved massive amounts of dirt, water and pollution. The information captured by VIIRS can tell scientists how and where these particles are moving in the water. This can help with recovery efforts, and help us design better ways to prepare for hurricanes in the future.

By using satellites like GOES-16 and Suomi-NPP to observe severe storms, researchers and experts stay up to date in a safe and fast way. The more we know about hurricanes, the more effectively we can protect people and the environment from them in the future.

To learn more about hurricanes, check out NASA Space Place:

<https://spaceplace.nasa.gov/hurricanes>



These images of Florida and the Bahamas were captured by a satellite called Suomi-NPP. The image on the left was taken before Hurricane Irma and the image on the right was taken after the hurricane. The light color along the coast is dirt, sand and garbage brought up by the storm (Image credit: NASA/NOAA).

EYE ON THE SKY, ALWAYS

By Leigh Anne Lagoe

"When I look down, I just miss all the good stuff.
And when I look up, I just trip over things." -Ani DiFranco

Astronomy has been a love of mine since childhood — long before writing. The memory of my grandfather standing in his driveway, with his neck crooked back and his hands in his pockets, is clear enough that I can see the stars of the big dipper over his head. Just as clear, is the memory of the red Tasco telescope on a picnic table in my backyard — Venus, Jupiter, and Mars in conjunction.

Each year I grew and my interests changed — including my preteen interest in writing. However, my fascination with the sky did not waver. The same constellations would cycle through every year. The same planets. The same annual meteor showers. Yet the sky maintained its luster and always drew my young eyes up with each step outside my door.

New people. New schools, jobs, and towns. The stars followed me into adulthood. They were a constant in a crazy life that seemed to change with every blink of the eye. That passion for the stars pulsed through my veins and unintentionally

Be sure to check out Leigh Anne's blog where you can keep up with her writing and read some of her stories!

<https://redlagoe.com>

permeated into my writing, when I decided to give writing a chance again.

While not all of my writing has astronomy as a main facet of the story, like my short horror story, [The Astronomer's Mistress](#), a description of the sky almost always makes its way in.

My recent novel, [Fair Haven](#), may be a sci-fi/horror novel about a viral outbreak, but the main character has an interest in astronomy. *Say Something* had a scene about watching a meteor shower. *Luna's Lure* featured (guess what?) the moon. Even in my earliest story (written when I was twelve years old) a meteor crashed to Earth carrying an alien lifeform, in *The Creature from Over the Hill*.

Not all of my stories are oozing with detailed prose about the sky, but the sky is always there — a constant — waiting for me or a character to glance upward. As soon as my character steps foot outdoors, he or she — much like myself — cannot help but look up, whether it be a creamsicle-colored sunset, a black dome pierced with blinding pinpoints of light, or just a nickel-gray shroud of overcast.

What a wonderful way to combine two passions — writing and astronomy. Even when I can't physically step outdoors because I'm trapped in the glare of a computer screen, through my characters, I can keep my eyes on the sky, always!

Read more of Leigh Anne's stories online:

[The Astronomer's Mistress](#)

[The Great American Eclipse](#)



The Best Eclipse Ever!

By Kent Blackwell

To say that I was looking forward to the 2017 total solar eclipse would be putting it mildly. Some non-astronomy friends of mine asked if I was going to travel to see it total. Well, Rober Hitt and I traveled to the South Pacific to see one lasting 33 seconds, so the answer was unequivocally YES.

I prepared my equipment months ahead of time. Both Robert and I have seen 15 total eclipses but this would be the first land-based eclipse since the 1973 Canadian eclipse. Remember the Carly Simon song ["You're So Vain"](#) lyrics, "You flew your Lear Jet to Nova Scotia to see the total eclipse of the sun?" Well, we didn't fly our Lear Jet but we did drive our Volkswagon Squareback to see it.

We chose Columbia SC several weeks ahead of time because the Interstate system ran east to west, in case we had to get out of impending clouds.

Robert Hitt, Judy Winstead and I checked into a hotel near downtown Columbia the day before. Scouting around for an eclipse viewing site we stumbled on the beautiful Broad River Canal Riverfront Park only a few miles from our hotel. The site was astonishingly beautiful; a perfect setting for eclipse viewing. But would the clouds cooperate?

It turned out to be a sunny day, with only a few puffy white clouds drifting by. But it only takes one of those clouds to ruin the moment! Fortunately, only one cloud drifted by during 2nd contact. After that the remainder of totality was incredible.

There were only about 100 people in the park where we were, but I heard the other end was hosting 30,000 spectators. Our group was just the right amount. We became a family in the period between 1st contact to 4th contact.

The drive home was , well, an experience! It set a record for Interstate 95, with bumper-to-bumper traffic nearly 200 miles long. We made



Robert Hitt (L) and author Kent Blackwell (R) preparing for the total solar eclipse on Aug. 21, 2017 at the Broad River Canal Riverfront Park in Columbia, SC. Kent says this was the best total eclipse he's ever seen (have we heard that before?). Well, he ought to know as he and Robert have seen 15 total eclipses!

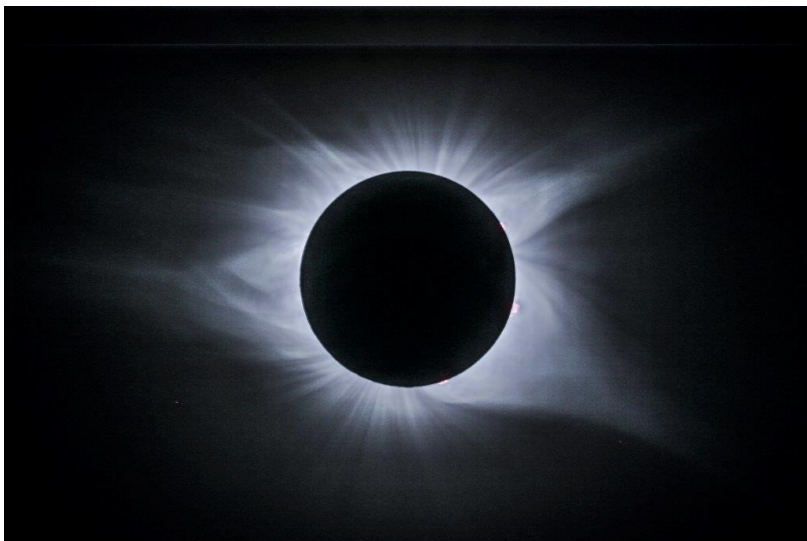
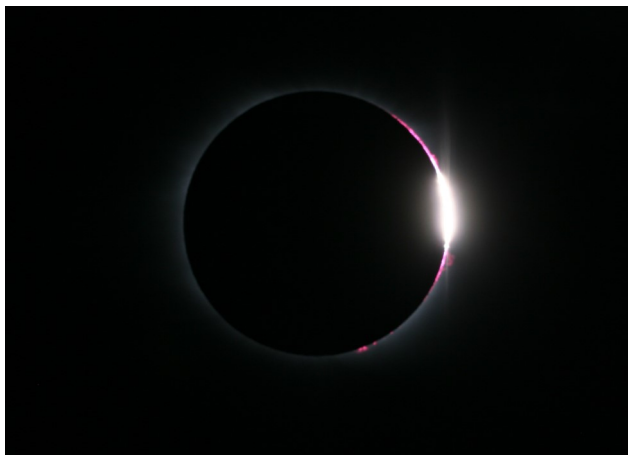
it as far as Pedro's South of the Border (please!) and checked into a \$50 hotel room. That \$50 room was worth \$500! It was so nice to relax after a stressful day, and to know the next morning we could get up, have breakfast, drive home and be far more relaxed



Here's a sign you don't see everyday!

Best Eclipse Ever continued from [page 6](#)

So, what did I think? It's the best eclipse I've ever seen. That is until 2019 rolls along and Robert Hitt and I will, hopefully be chasing the moon's shadow half way around the world. - Kent Blackwell



Kent has had lots of practice at taking pictures of eclipses, as evident by these striking images from the August 21 eclipse. Top Left: Second contact, 1/4000 sec exposure. Top Right: Third Contact, fortunately, the only time that clouds interfered with the fun. Left: Combination of 12 of Kent's eclipse pictures with exposures varying between 1/2000-1/2 second.

Editors Note: In the next couple of issues we will be featuring more member submitted eclipse stories from *The Great American Eclipse of 2017*. If you have a story or image you'd like to share, please send it to bbaa.newsletter@gmail.com

Looking Up continued from [page 1](#)

December brings us some interesting astronomical items including:

- The last Supermoon of 2017 will be on the 3rd and will nearly occult Aldebaran.
- The Geminid meteor shower peaks on a nearly moonless morning of the 14th.
- December 21st at 11:28 AM EST marks the Winter Solstice, the LONGEST night of the year.

Keep your eyes up and let's hope for CLEAR, Dark skies!

Chuck Jagow



Club President, Chuck Jagow, getting ready for the eclipse. Chuck led a contingent of 18 BBAA "hopeful souls" to Anderson, SC to experience totality.



December 2017

BBAA Events	Special Outreach	Astronomical Events
12/07 BBAA Monthly Meeting		12/03 Full Moon
12/09 Skywatch @ Northwest River Park		12/10 Last Quarter Moon
12/15 & 12/22 Cornwatch @ Cornland Park		12/13-14 Peak of Geminid Meteor Shower
12/16 Anniversary Luncheon @ Lynnhaven Fish House		12/18 New Moon
12/16 Nightwatch @ Chippokes Plantation		12/26 First Quarter Moon

Sneak Peek into January

Thu 1/04/2018 Monthly Meeting, Plaza Middle School, 7:30 pm

Sat 1/06/2018 Skywatch at Northwest River Park, 5:00 pm

Sat 1/20/2018 Saturday "Sun" Day at Elizabeth River Park, Chesapeake, 10:00 AM