



BACK BAY observer

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

EPHEMERALS July 2015

7/11, 8:30 PM
Skywatch
Northwest River Park

7/18, 11:00 AM
BBAA Picnic
Redwing Park

7/18, 7:30 PM
Nightwatch
Chippokes Plantation
Surry, VA

7/28, 6:00 PM
Boardwalk Astronomy
VA Beach Boardwalk at 24th St.

7/31, 5:00 PM
Blue Moon Fest
Hunt Club Farms



Looking Up!

This month I'd like to talk about one of the toughest jobs in the BBAA. Some may think it is the Vice President, Treasurer, or the Secretary, and with the great team of officers we have backing me up in the BBAA, the job of President is really pretty easy. Yes, they have tough jobs at times, but the real tough job holder is that of the Newsletter Editor. This person is an appointed officer and, like most offices within the BBAA, it is sometimes looked upon like it was the plague when we need a new editor to fill the roll.

Some time ago Paul Tartabini, then a new BBAA member, sat at one of our meetings and for some strange reason raised his hand to take the job of Newsletter Editor. No one will ever know why he had this moment of insanity, but he did, and he has never looked back, and we are glad for that moment of insanity.

Paul spends a lot of time chasing down deadbeats, like yours truly, because I owe him this article, and reaching out to others to simply submit articles about what they have seen, done, or even built. Then, once he gets the materials, he has to put it all together to create the newsletter. His task is a thankless one, and I, for one, cannot thank him enough for what he does.

Last year, Bill McLean and I submitted the BBAA Newsletter to the Astronomical League for consideration in the [Mabel Stearns Newsletter Award](#). Paul did well and walked away with third

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Monthly Meeting Reports

May 7, 2015 Meeting

- The May meeting was held at TCC in Virginia Beach and was called to order by President Jim Tallman at 7:33 PM.
- Jim Tallman awarded four club members the 2015 [International Year of Light Pin](#) supplied by the NASA Night Sky Network for outstanding outreach efforts. The awardees were **Chuck Jagow, Leigh Anne Lagoe, George Reynolds** and **Bird Taylor**. Congratulations!!
- Scholarship Report: Ben Loyola stated that applications have been received and will be reviewed.
- Observing Reports:
 - Bruce Powers recommends the Dark Sky Meter app for iPhone.
 - Garden Stars in April had 28 guests and 10 telescopes. Guests were able to view Jupiter, Venus, the Moon, and the passing ISS.
 - Skywatch in April had a large turnout of 19 telescopes.
 - The How-To-Fest at the Joint Use Library went very well.
 - Wayne Lowe attended the Northeast Astronomy Forum and is interested in getting involved with astronomy.
- New Business: Bill McLean discussed the importance of talking about light pollution with

June 4, 2015 Meeting

- The June BBA Meeting was hosted by Planetarium Director Chuck Dibbs in the Virginia Beach City Public Schools Planetarium at [Plaza Middle School](#).
- Chuck Jagow was our master of ceremonies. The usual business details were presented for treasury, observing, outreach, RRRT update, and the Mt. Trashmore Star Party VII. Of note was Bill McLean's report on Sedona and the [Lowell Observatory](#) (see article on page 6).
- The highlight of the evening was Dr. William "Bill" Moore's talk on [The Living, Breathing Planet](#) and the processes and indicators of atmospheric-biological interactions. Wonderful, well presented, and interactive talk with many new perspectives in the search for life on other planets, and particularly those exoplanets in other solar systems than our own.

the public and suggested passing out the International Dark Sky Association's informational brochures.

- Featured Program: *Target of Opportunity: Observation of an Episodic Storm on Uranus*
 - Dr. Kunio Sayanagi, Assistant Professor at Hampton University, was the guest speaker.
 - Dr. Sayanagi discussed the outbreaks of [massive storms on Uranus in 2014](#). Using images from the Keck Observatory, Herschel Telescope, approved time on the Hubble Space Telescope, and even help from amateur astronomers, Dr. Sayanagi reported his research on the brightest feature ever to be observed on Uranus.

May Minutes taken by Leigh Anne Lagoe.



Dr. Kunio Sayanagi discusses his research on Uranus at the May BBA Meeting.

Awesome! Loved it. Very special thanks to Hampton University and their [Atmospheric and Planetary Sciences \(APS\) Graduate Program](#) for continuing to inspire and share their unique knowledge with the their local community. Very, very, kind and generous.

- Mark G. won the raffle which will be a scale model Orion space capsule printed on a NASA Langley 3D printer, which I still have to print...
- Ben Loyola and the Scholarship Committee presented the annual \$1500 check to student Daniel Labrum. Ben read Daniel's teacher's heart-warming recommendation letter and Daniel read his essay. Daniel has even started an astronomy club at high school.
- Bird is a crappy Secretary and should never be asked to take meeting minutes again...

June Minutes taken by Lawrence "Bird" Taylor.

The Back Bay Amateur Astronomer's
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:
bbaa.newsletter@gmail.com or BBAA Observer, P.O. Box 9877, Virginia Beach, VA

BBAA Meetings

The BBAA meet the first Thursday of every month except for July (when we have a picnic instead). The Picnic will be held at [Redwing Park](#) on Sat. July 18 from 11am to 3 pm. Sign up via the [Night Sky Network](#) Calendar or through the Picnic database on our [Yahoo Group Page](#). The next meeting will be held on Aug. 6 at TCC, Bldg J, Rm JC13.

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

Looking Up, continued from [page 1](#)

prize. Bill and I repeated this submission, though this time with a little more confusion on our part. This year the Astronomical League awarded first prize to the Paul for his outstanding efforts with the BBAA Newsletter!

I know that I am super proud of what Paul has accomplished, and the awards he has won with the newsletter over the years, and it just gets better. I for one will at least try to help him make his deadline by getting my article in ahead of time (I can hear Paul laughing now). Maybe more club member will offer up short articles one whatever they would like to share.

Paul, from myself and on behalf of the

entire BBAA, I want to say congratulations and well done, and thank you for what you do!

Jim Tallman



A Trip to Historic

LOWELL OBSERVATORY

By Bill McLean

Lowell Observatory is one of the oldest observatories in the U.S. and has been the source of numerous astronomical breakthroughs including the first detection of the expanding nature of the universe and the discovery of Pluto. Located in Flagstaff, Arizona, the observatory hosts over 85,000 visitors each year. Fortunately, one of those recent visitors was club AL Coordinator (ALCOR) Bill McLean.

I visited Lowell Observatory and saw the 13" [Pluto Discoverer](#) and Lowell's 24" [Clark refractor](#). The observatory is on a Ponderosa Pine mountain top overlooking Flagstaff. Warm and breezy.

I have read a lot about these scopes, mostly the Clark in which the glass was allegedly figured by none other than Alvan Clark. I am guessing the mount was built by Clark, also. I was totally geeked and excited to see this marvel of engineering, especially the multi-ton GEM. This thing was state of the art, cutting edge engineering and craftsmanship circa 1894. It is at the end of an overhaul, and boy is she looking good. Fresh paint

smell, shiny brass, beautiful dark wood dome. I was in heaven!

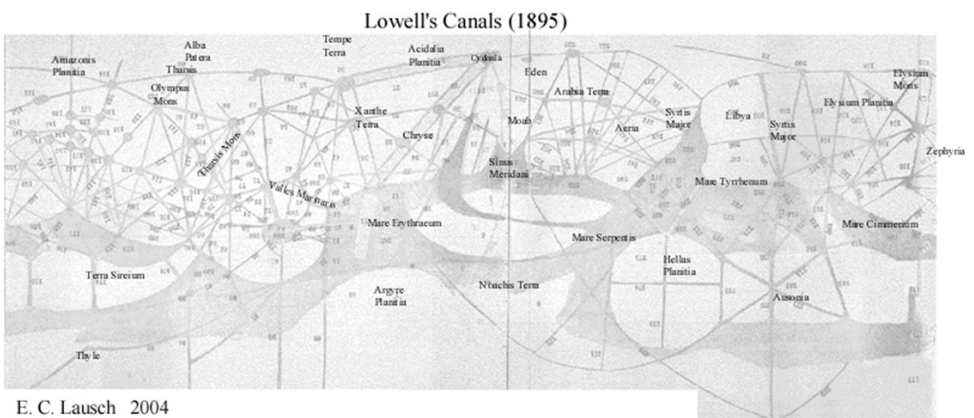
I found it interesting that nearly nothing was mentioned about Lowell's [Mars Canals](#), which was the reason he wanted to build the observatory in the first place.

The refurbishment was paid for with [crowd sourcing](#)! How cool. They are not sure what to do with this relic -- maybe outreach which I voted yes for. It is certainly too old to do research but who knows? As an outreach tool it can raise the public's awareness and thereby, down the road, help get funds for science tools and research. [Continued on page 5](#)

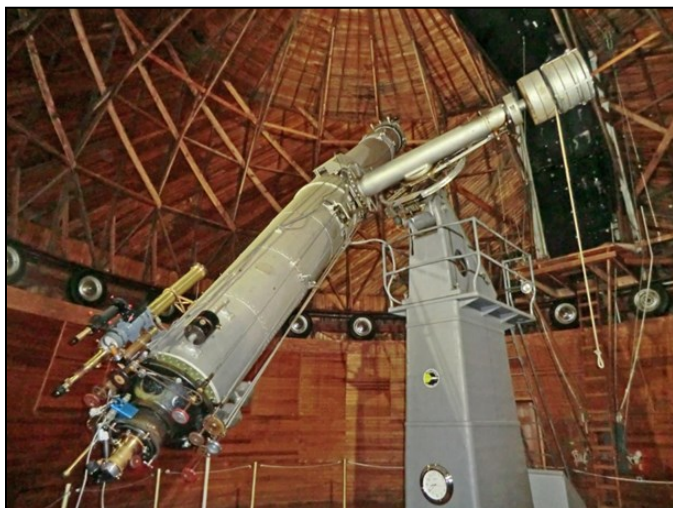


Percival Lowell (1855-1916) was a wealthy businessman from Boston who founded Lowell Observatory in 1894 with the study of the planet Mars as its initial objective.

An overlay of a modern Mars map with sketches made by Lowell. While there is some similarity in the broad light and dark features, Lowell's most famous 'discovery', canals, are no where to be found on the modern map. The general consensus is that Lowell's canals were an optical illusion.



Trip to Lowell Observatory, continued from [page 4](#)



In 1895, Lowell commissioned the Alvan Clark & Sons Firm of Cambridgeport, Mass to build a 24 inch refractor telescope for his observatory. Still in use today for public education, the refractor has been part of many historic discoveries and was used to create detailed maps of the Moon in support of the Apollo program.



Lowell died in 1916 and is buried on the observatory grounds. His observatory, however, still thrives with a staff conducting research across the full range of modern astronomy. Check out the Lowell website for more details on what is happening at Lowell Observatory today (www.lowell.edu).

The observatory docent mentioned light pollution (L.P.) several times during the tour but didn't explain it. Aside, I asked him to talk about L.P. but he only scraped the surface and didn't go into things like L.P. is the easiest pollution to solve, etc.

He let me give a one or two minute summary: the cost in dollars; electricity and thus tax dollars saved, easy to solve, lower coal plant emissions due to less electricity produced. I figured if I have one point to make it had better mainly be pocketbook. My PSA was well received -- or they were being polite.

Then it was back to beautiful Sedona where I was staying. The pseudo-science community is huge there. Here are some things I learned: the moon is hollow and aliens come out of it back to Earth every 3200 years, the Orion Nebula is a mirror of the human brain and ancient writings say there was a time when no moon could be seen in the sky.

These wonderful folks totally believe in this, yet couldn't find the Orion Nebula if it fell on their head (I was asked if it was up). And Lisa (who educated me) is running for president! Wow! They knew nothing of real science, just this stuff. Oh gosh, having worked in and hobbyized the sciences all my life, I was saddened.

I think it is highly ironic that a real science observatory was founded on pseudo science: (Martian Canals) and that it is located only 40 minutes from what seems to be the world headquarters of made up science.

CAMERA TO THE EYEPIECE

Astrophotography on a Budget

By Leigh Anne Lagoe

Not long after I purchased my first dob, I wanted to start sharing what I was seeing with my friends and family back home. While a complete astrophotography set-up would have been ideal, it was not within my budget. So I worked with what I had -- an Orion Skyquest XT8 and a Nikon Coolpix point-and-shoot camera.

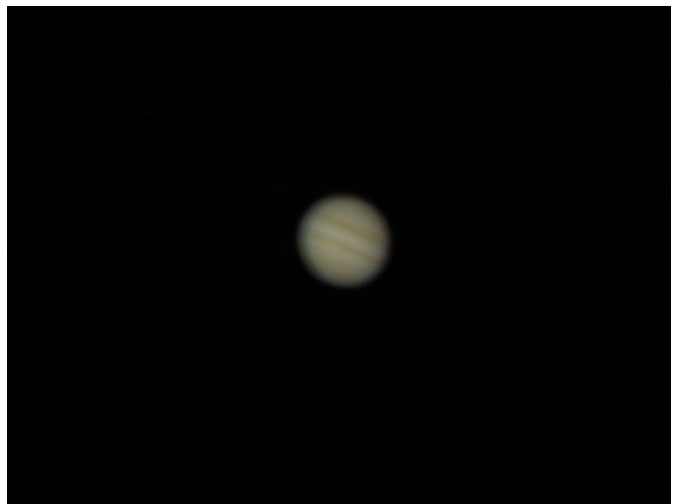
I set up in my backyard just outside of Washington DC, steadied the camera over the eyepiece and started clicking.

At first most of the images I captured came out over-exposed and unrecognizable, but I didn't give up. I played around with the settings on my camera, experimented with ISO settings, and even used the flash to get a faster exposure time for those pesky moving planets. With the moon, I ended up using a neutral density filter to help decrease the brightness.

At first when I took these pictures, most of the images came out a blurry mess or with some glare on the lens. I

fumbled around in the dark for hours, ruining my night vision with the glow from the camera, but I was on a mission! Finally, after much trial and error, I had a few acceptable images. They were not as crisp of an image as I was seeing with my eyes, and nowhere near the quality you get with an astrophotography setup, but they were still impressive.

So when people ask if they can get a picture through the eyepiece, I like to tell them, "it's not easy, but it is possible!"



EAST COAST STAR PARTY REPORT

By Kent Blackwell

I'd like to thank everyone who attended the May 2015 ECSP. It was a resounding success with 60 people showing up to view the Coinjock, NC night sky. It was also nice meeting Rob Teeter of [Teeter's Telescopes](#) at our event.

The weather was favorable throughout the weekend, which once again proves "don't listen to forecasters" because earlier in the week they were all predicting rain



by Saturday. It was clear all weekend, although the haze each night dropped the magnitude down considerably. The sky did clear out beautifully about 1:30 am Saturday but your host was



exhausted and wasn't able to appreciate it. Roy Different said his Sky Quality Meter gave a reading of 21.34.

Despite the haze, atmospheric seeing was wonderful, especially Friday and Saturday nights. The view of Jupiter and Saturn was astonishing in some of the refractors and M-51 looked marvelous in the larger telescopes.

Thank you Roy & Dee Diffrient for supplying the usual gallons of spaghetti and thousands of meat balls for Friday night's dinner. And thanks go out to Bob Hitt and son Scott for cooking 60 hamburgers and nearly 100 hot dogs. We even fired up the grill again Saturday night at 11:00 pm for more hot dogs. I think everyone will agree no one goes hungry at ECSP. Thanks also to Ray and Glenda Moody for their help.

I would be remiss in not thanking everyone for their help in making this one of the best ECSP in recent years.

Mark your calendars for the next event scheduled for October 8-10. This time [Camera Concepts](#) of New York will join us selling telescopes and accessories.

Images by Leigh Anne Lagoe.

Club News

- Please extend a special thank you to club member and BBAA Scholarship Committee Chairman, **Ben Loyola**, who recently donated \$200 to the club (\$100 for the Scholarship Fund and \$100 for the General Fund)! The BBAA provides a \$1500 scholarship each year to graduating high school seniors with an interest in astronomy. Thanks, Ben!
- **Leigh Anne Lagoe** has a full page article in the Astronomical League's Summer 2015 newsletter, [The Reflector](#). Leigh Anne's article, "Diving into Outreach," details her adventures with joining the BBAA and beginning to do outreach. It is an excellent article and is especially appropriate for new members who may be a bit nervous about sharing their skills and knowledge with the public. A similar article appeared in our [club newsletter](#) last year.
- **Kent Blackwell's** image of the July 1 Full Moon, which appeared quite orange due to a Canadian dust storm, was featured on a recent [WAVY 10 news broadcast](#).



BBAA Scholarship Chairman Ben Loyola next to his telescope in his home observatory.



July 2015

| BBAA Events | Special Outreach | Astronomical Events |
|--|--------------------------------------|-------------------------------|
| | | 7/08 Last Quarter Moon |
| 7/11 Skywatch @ Northwest River Park | | 7/14 New Horizons Pluto Flyby |
| 7/18 BBAA Picnic @ Redwing Park | 7/31 Blue Moon Fest, Hunt Club Farms | 7/15 New Moon |
| 7/18 Nightwatch @ Chippokes | | 7/24 First Quarter Moon |
| 7/28 Boardwalk Astronomy @ VA Beach Oceanfront | | 7/31 Full Moon |



Sneak Peek into August

Thu 8/06/2015 Monthly Meeting, TCC (if available, stay tuned), 7:30 pm
 Sat 8/08/2015 Skywatch at Northwest River Park, 8:00 pm
 Sat 8/15/2015 Nightwatch at Chippokes Plantation, 7:00 pm
 Fri 8/21/2015 Garden Stars at Norfolk Botanical Gardens, 8:00 pm
 Tue 8/25/2015 Boardwalk Astronomy, VA Beach Boardwalk @ 24th St, 6:00 PM