



EPHEMERALS - SEPTEMBER 2007

DATE	WHEN	WHAT & WHERE
6	7:30p	BBAA Meeting @ TCC in Virginia Beach
7	7:00p	Nighthike @ NWRP Ranger's Station
8	Dusk	Nightwatch @ Chippokes Plantation
14	Dusk	Skywatch @ NWRP Equestrian Area
15	7:30p	Cloverwatch @ Franklin Fairgrounds
22	7:30p	Garden Stars @ Norfolk Botanical Gardens

LOOKING UP

Fellow Astronomers,

Wow, can you believe summer is over? No more hot nights, high humidity or bugs. Oh, sorry, forgot where I lived, but I can dream, can't I? Hazy days will soon be over and we can all start getting out. Of course daylight savings will be 2 weeks longer this year, anybody know the "official" date when it will end?

School is back in, so we are back to TCC for our meetings, so make plans to show up and we will discuss what is happening in the up coming months, things like Kent's East Coast Star Party, the Seneca Star Party in W.Va., along with our usual Sky/Nightwatch.

I've put together one of my 8 min. videos of moon shots. At the next meeting I will be showing this quick video. It is titled,

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what else, "Shooting the moon with a digital camera". Not what you think, these pictures I've taken over the years on vacations around the country. Most pics were taken with a lens from 58 mm to 500 mm. Kind of how to make better pictures using the moon. I know everyone in the club will want to show up to see this one of a kind video!!!! Yeah – right.

Well, hopefully you will want to show up to see everyone and say "Howdy".

See everyone there!

Dale Carey

NOTICE!

Skywatch & Nightwatch are **REVERSED** this month!

YUP! Nightwatch at Chippokes is actually **BEFORE** Skywatch at the NWRP.

It is not a mistake, it is due to scheduling issues at Chippokes.

THE BACK BAY AMATEUR ASTRONOMER'S OBSERVER

AUGUST'S MEETING MINUTES

The August meeting of the Back Bay Amateur Astronomers was called to order by President Dale Carey on Thursday August 2nd, 2007 at 7:30 PM at the Cox Communication campus in Chesapeake.

Members in Attendance: There were 17 members in attendance at the August meeting. Those members in attendance were: Neill Alford, Rick Bish, Dale Carey, Larry Channel, Ted Forte, Jay Garrard, Mark Gerlach, Steve Hamilton, David Hedrick, Chuck Jagow, Georgie June, Matt McLaughlin, Mike Pereira, Al Ruiz, Michelle Shinn, Barbara Weiner and Kevin Weiner.

Treasurer's Report: Treasurer Barbara Weiner reported that we have \$4,538.01 total of which \$1,479.30 exists in the BBAA Scholarship fund, leaving \$3,058.71 for club operations.

Secretary's Report: Chuck Jagow reported that the club membership is at 91 members of which there were about 6 delinquent members needing to pay their dues. The reading of the July minutes were waived, as they generally are, because they are posted on the Internet.

Astronomical League Correspondent's Report: Georgie June had no report.

Ted Forte mentioned that to date the Planetary Nebulae Club which was the direct result of Ted Forte & a few members of the BBAA to enact, has awarded 7 basic awards and 8 advanced awards and no imaging awards. He also indicated that John Raymond had completed the Basic and that he had accomplished the Advanced and that there was a marked lack of BBAA'ers on the award list.

Old Business: The amendment to the BBAA constitution to allow for expanding the BBAA membership types to allow for Honorary and Student/Minor memberships was voted upon and passed. There were no votes tallied in opposition

to the amendment.

New Business: Dale Carey asked for volunteers for subcommittees, but did not elaborate on duties or purposes.

Ted Forte said that Atlantic Shores retirement community had contacted him about someone providing a presentation. Kevin Weiner said he would take it for action.

Rapid Response Robotic Telescope Project Report: Ted Forte spoke of how Kevin Weiner and he had made the trek to Fan Mountain to work on weatherproofing the dome and preparing the dome for eventual telescope installation. Ted mentioned that there were still some electrical/mechanical issues such as why the dome opened by itself during a thunderstorm. Ted continued to detail that once the telescope is installed it will take approximately three days to align and about sixty days to test. Another year will be consumed performing more star testing before it is ready for fully remote operation. Ted also opened an invitation for volunteers for a watch bill to "man the box" during this year long testing period.

Observer's Corner: Mike Pereira & Michelle Shinn spoke of the Star Quest star party at National Radio Observatory in Greenbank WV. They both raved about the sky and the entire party where Michelle was a guest speaker.

Presentation: The evening's presentation was provided by Dr. Michelle Shinn on dark matter and dark energy. The presentation was excellent and very informative. Michelle did a very good job and did not bury us with "PHDism" she is exceptional at speaking to a group at their level.

In Conclusion: The meeting was adjourned at 9:10 PM. Many folks stayed and spoke with Michelle asking more in depth questions.

Chuck Jagow



Cosmic Cockroaches!

by Tony Phillips

Cockroaches are supposed to be tough, able to survive anything from a good stomping to a nuclear blast. But roaches are wimps compared to a little molecule that has recently caught the eye of biologists and astronomers—the polycyclic aromatic hydrocarbon.

Polycyclic aromatic hydrocarbons (PAHs for short) are ring-shaped molecules made of carbon and hydrogen. "They're all around us," says Achim Tappe of the Harvard Center for Astrophysics. "PAHs are present in mineral oils, coal, tar, tobacco smoke and automobile exhaust." Aromatic, ring-shaped molecules structurally akin to PAHs are found in DNA itself!

That's why Tappe's recent discovery may be so important. "PAHs are so tough, they can survive a supernova."

The story begins a few thousand years ago when a massive star in the Large Magellanic Cloud exploded, blasting nearby star systems and interstellar clouds with hot gas and deadly radiation. The expanding shell, still visible from Earth after all these years and catalogued by astronomers as "N132D," spans 80 light years and has swept up some 600 Suns worth of mass.

Last year "we observed N132D using NASA's Spitzer Space Telescope," says Tappe. Spitzer is an infrared (IR) telescope, and it has a spectrometer onboard sensitive to the IR emissions of PAHs. One look at N132D revealed "PAHs all around the supernova's expanding shell. They appear to be swept up by a shock wave of 8 million degree gas. This is causing some damage to the molecules, but many of the PAHs are surviving."

Astronomers have long known that PAHs are abundant not only on Earth but throughout the cosmos—they've been found in comet dust, meteorites and many cold interstellar clouds—but who knew they were so tough? "This is our first evidence that PAHs can withstand a supernova blast," he says.

Their ability to survive may be key to life on Earth. Many astronomers are convinced that a supernova exploded in our corner of the galaxy 4-to-5 billion years ago just as the solar system was coalescing from primitive interstellar gas. In one scenario of life's origins, PAHs survived and made their way to our planet. It turns out that stacks of PAHs can form in water-think, primordial seas—and provide a scaffold for nucleic acids with architectural properties akin to RNA and DNA. PAHs may be just tough enough for genesis.

Cockroaches, eat your hearts out.

Image Caption:

Using the IR spectrometer on the Spitzer Space Telescope, scientists found organic molecules in supernova remnant N132D.



THE BACK BAY AMATEUR ASTRONOMER'S OBSERVER

BBAA INFO

The BBAA meet the first Thursday of every month. While school is in session we meet at the VA Beach TCC campus in the Pungo building. The September meeting will be on Thursday September 6th at 7:30 PM at the VA Beach TCC campus in the Pungo building in the Astronomy classroom.

WHERE IS THE MEETING?

TIDEWATER COMMUNITY COLLEGE CAMPUS

The TCC Campus is located in Virginia Beach off of Princess Anne road. The following should help you locate the campus.

FROM Interstate I-64:

Proceed to the I64 / I264 junction and take I264 East .
Take the S. Independence Exit, 17A, right hand lane
(.000000048134 AU).

Turn LEFT onto Princess Anne road
(.000000010322 AU).

Turn LEFT onto Community College Place
(.000000002131 AU).

At the Stop Sign turn right and follow the road around to the left and park in one of the parking lots.

The meeting is held in the Pungo Building which is on the right hand side of the pathway that splits the two major parking lots. The Astronomy classroom is in the far back right hand corner of the building.

COX COMMUNICATIONS CAMPUS

The COX Communications Campus is located in Chesapeake's Greenbrier section. The following should help you locate the facility.

FROM Interstate I-64:

Take exit 289B (between the Indian River & Battlefield exits).
South on Greenbrier Parkway (.7382 miles).
Turn RIGHT onto Eden Way West (.9231 miles).
Turn RIGHT on Crossways Blvd (.88901 miles).
Turn Right into the Cox Campus

The meeting is usually held in the Silver room located on the North side of the facility. Enter and tell the guard that you are with the BBAA and they will issue a badge and direct you to the room.

BBAA INTERNET LINKS

BBAA WEB SITE

<http://groups.hamptonroads.com/bbaa/>

YAHOO GROUP

<http://groups.yahoo.com/group/backbayastro>

BBAA OBSERVER NEWSLETTER

<http://www.backbayastro.org/newsletters/newsletter.shtml>

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What do you want to do?

OBSERVER INFO

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/newsletters/newsletter.shtml>

Please submit articles and items of interest no later than the 15th of September for the October issue. Please submit all items to:

ObserverBBAA@cox.net / chuck@jagowds.com

OR

BBAA Observer
P.O. Box 9877
Virginia Beach, VA 23450-9877

THE BACK BAY AMATEUR ASTRONOMER'S OBSERVER

Almost Heaven Star Party

I attended the Almost Heaven Star Party or AHSP in West Virginia near Spruce Knob at a place called the Mountain Institute. The Mountain Institute, or TMI, as best I can tell is a place that is funded by many different venues, perhaps some governmental, some private and probably some corporate as well. Their charter



is to conserve mountain environments and promote mountain cultures by providing a center for enhanced mountain education, applied research, demonstration, and training initiatives. Quite a bit of fancy speak for a bunch of young adults living up on a mountain close to nature. Back in Colorado when I was in high school, we simply referred to them as hippies living in a commune, but this is a bit fancier as they have some income along with some facilities and official responsibilities. TMI is located on one of the tallest mountains (HAHAHAHAHAHAHA!) Ok, hills, in West Virginia at 3884 feet by my Honda's GPS unit. The skies, when the clouds did finally lift, were very dark and spectacular, the sight is as dark as it is back in Colorado up on our horse ranch.

The AHSP ran from August 9th through the morning of the 12th but I chose to drive up to Harrisonburg on the 8th and spend the night in a cheap motel so I could get an early start up the "mountain". The trip to Harrisonburg was an uneventful three and a half hour drive. Once in Harrisonburg I located the Motel-6, which I had made reservations for a couple of months prior and pulled in, bad move. I soon found out there was nowhere to park with a trailer and no outlet. There were two trucks with trailers lined up behind me so I had nowhere to go. I went inside and spent several min-



utes negotiating with the motel about where to park a vehicle with a trailer. They had one place for such vehicles and it was already taken. I spent twenty minutes haggling with the kid behind the desk to get a refund on my credit card because I was not going to illegally park my vehicles and then possibly incur a "who knows how much" parking ticket. Finally the night manager shows up and I acquired my refund. Now it is off to find a new place to stay, can't stay in the trailer as it is packed with telescope stuff! As it worked out, the local college, JMU was having their Open House this weekend as well and you can guess what the state of most of the motels and hotels were, full. The ones that had rooms were \$150 a night. After two hours of searching, the kid at a 7-11 where I stopped for a breather suggested a new place about two miles outside of the main drag going the opposite way. I thought OK, off on a wild goose chase, but it ended up panning out. It was a brand new hotel and it was only \$10 more than the Motel-6. So I unloaded and drug my two marine batteries to my room so they could charge overnight. A fine steak dinner was had followed by nice restful sleep.

The next morning found me buying ice at the local Wal-Mart, six 16 lb bags to fill the coolers, nearly twenty dollars for frozen water. Then fill-up the Pilot with gas and head on out for the last 80 or so miles. I was on the road by 8:15 AM. While the "mountains" of West Virginia may not hold a candle to the Colorado mountains, their roads sure do. We are talking 9% grades for miles and miles with twisty roads that don't have a straight stretch long enough for a decent driveway. And we are not talking for just a mile or so, twenty miles of twisty roads with 7% - 9% grades. When I pulled down into



Judy Gap and started making my way to the last climb to AHSP, I was pretty sure the little Honda had no more brakes left. I managed the last 9 miles up to TMI pulling the trailer in about forty minutes, the road was pretty good, better than I expected however, the last mile was the worst, going up to TMI from the access road. As I was driving across the grass I prayed that none of the grass would spring up against my brake rotors when I parked, as I am sure a fire would have started!

The area where most of the observers set up were in lot B, where you could park your vehicle next to your observing equipment. I chose a spot that was as level as I could find. It was pretty hot up there, somewhere in the upper 80s and I was working up quite a sweat unloading and getting set up. Once I was mostly set up and able to scramble into the trailer for cover and sleep, I began wandering about and meeting folks. There was quite a mix of people who came to enjoy the skies, from a disabled Marine veteran to a pair of elderly ladies who just used binoculars. We all kept an eye on the clouds as they built all around us and we all speculated a

THE BACK BAY AMATEUR ASTRONOMER'S OBSERVER

Appointed Positions

That time again, Each year it is the privilege of the president to appoint chairpersons for the different volunteer positions for the up coming year. Anyone wanting to offer their time to be on or head up one of the committee positions should notify me before the October meeting. Listed below are the positions and duties, even if you can't take on the position, maybe you could help out the chairperson by being on the team.

The following are a synopsis of the duty descriptions for each position for a complete description of the duties & responsibilities please refer to the BBAA website at:

http://groups.hamptonroads.com/pages1.cfm?page_id=16220

ALCOR - The Astronomical League CORrespondent is the official contact person between the Astronomical League and the BBAA.

LIBRARIAN - Responsible for the care and storage of books, magazines, software and associated materials that are the property of BBAA.

NEWSLETTER EDITOR - The Newsletter editor is responsible for all aspects of publishing and disseminating the monthly newsletter "The Observer" for the Back Bay Amateur Astronomers.

SCHOLARSHIP CHAIRPERSON - The Chairperson shall be primarily responsible for implementing the overall procedures and guidelines of the BBAA Scholarship program.

WEB MASTER - The club webmaster maintains the official club website which currently resides at:

<http://groups.hamptonroads.com/bbaa>.

The purpose of the club website is to promote the Back Bay Amateur Astronomers and provide relevant information to the public and the membership.

Dale Carey

Seneca W.Va. Star Party

I had about a 1/2 dozen people ask me about going to the Seneca Campground in W.Va. this year. Any excuse to go to W.Va. sooooo, Sept. 11 - 16th. (Tues to Sun) If you have never been to this campground, you're in for a treat. This is a beautiful State Campground with all the conveniences, tile baths with in 100' of our site. We don't go in the middle of the summer anymore, hot enough to burn your camper to the ground. Several of us have been up there in Sept. and you have to see the skies to believe it. I have reserved site "E". No electric on field, but have 120 vac charging stations during day. Campers can set up in the site's parking lot (4/6), and tents set up on the tent pads (6).

Brick and tile bathrooms, a beautiful State Park Campground. There are also many fully equipped campsites if you prefer electric and water hook up. (reserve your site soon; it fills fast for week ends) Spend the days exploring the Seneca area. Look through your scopes from the campground at climbers on the Seneca Rocks that rise 1100' I have made a "database" folder on our Yahoo group called, duh, "Seneca Star Party". Sign up if you are thinking of attending. Cost for the 5 days is \$30.00 per space, not per person, or \$10.00 per night. (max \$30.00). So bring friends, family, better halves or just yourself.

Dale Carey

(Almost Heaven Star Party, continued from page 5)

great deal on the upcoming weather. One of the two vendors that made the trek, Astro Gizmos, set up a satellite Internet link and broadcast wireless for everyone to use. This proved handy in watching the impending doom, I mean weather patterns form around us on the Internet. Around 9:00 PM the first significant lightning and thunder started, but it was distant enough that several of us set our chairs up along with cameras on time-lapse to enjoy the light show. This lasted about thirty minutes before the first monsoon wave hit. Boy did we scramble for cover! It wasn't even like a few drops here and there as warning shots, it was BOOM and somebody was pouring buckets of water from above. I dove into the little trailer and hunkered down for the night. Not much sleep was found between the thunder, lightning and wind. I was pretty worried about my 16" scope out there braving the storm with nothing but a nylon Astro-Systems cover and a couple of bungee cords holding the nose down anchored to a marine battery.



Sunrise came, at least to the cloud tops, as I crawled out of the trailer and made my way a half mile to the showers. The fog was still on the mountain and looked pristine. I had to get my shower, eat some breakfast and be at the AHSP registration spot for the tour of the National Radio Telescope in Green Bank in a couple of hours. The transportation arranged for the tour consisted of a local



school bus. It has been thirty some odd years since I have been a passenger on a school bus, while there is a bit more padding on the seats now days, the seats are so close together that a grown individual cannot sit with their legs in front of them. I had to sit in the last seat in the bus so I could shove my legs in the aisle. Remember when I said the road up to TMI wasn't so bad, well that was from the perspective of sitting in a nice soft Honda Pilot, not at the tail end of a very long school bus. It was a bit BUMPY to say the least and the ride down to the blacktop road was about forty minutes, and then another forty minutes to Green Bank where the

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(Almost Heaven Star Party, Continued from page 6)

National Radio Telescope is. We were deposited at the visitor's center for about a half hour before the auditorium presentation began. Once that presentation was complete we were herded out to a much bigger NRO bus that provided us a tour of the facility including the 360' radio telescope 140' and several 85' radio telescopes as well. The big one, the 360' beast, is just breathtaking to actually see up close. It can detect if some one has a faulty microwave oven in about a 56 mile radius, that is how sensitive it is. In fact if they detect radio waves in that spectrum they send out technicians to triangulate and find the "noisy" electronic device and then repair it so it does not "leak" and interfere with their radio ob-



servations of the skies. The tour was nice and informative, but they charged us \$10 for the tour. I found out that the same tour was available to the public for \$2 so I paid \$8 for a lousy bus ride. If I had known, I would have driven my Honda and enjoyed the drive.

We arrived back from the NRO tour in time for a presentation at TMI on how the fossil record now supports that a pretty good sized meteor crashed into the Earth about 35 million years ago in what is now our Chesapeake Bay. It did not create the Chesapeake Bay, but did eliminate most life from what is present day Georgia to mid New York. The epicenter of the impact is in Charles City on the Eastern Shore which is about fifty miles from where I live in Chesapeake. They spoke of how they drilled a mile deep into the floor of the Chesapeake Bay and found all of the evidence to support the impact. Overall it was a very good presentation and I thoroughly enjoyed it. The remainder of that evening was spent watching the clouds build again and wait for another thunderstorm to engulf us. The rain and wind never came but the clouds did not leave either, so another night was spent in the trailer instead of stargazing.

Saturday was a little better weather wise, we actually were treated to patches of blue sky and the weather reports spoke of clearing come nightfall. The morning was spent at a swap table where I managed to sell my extra Moonlight CR-2 focuser and an extra Orion Short Tube 80 telescope. Almost made enough to cover my AHSP entrance fees and cover my gas money. The rest of day was spent wandering about taking pictures of folk's scopes and scenery. One fellow had a twelve inch Orion wrapped in reflective material like you put in your car windshield to block the sun, from a distance it looked like two beer kegs sitting upon each other. There were no less than three 25" scopes present and one 20 inch 4.2 scope I could just about keep both feet on the ground at zenith! One of the 25" scopes used a comet catcher for a finder

scope! I would say the most popular scope present was the Orion 10" & 12" dobs, the fields were littered with them. On one side of me a fellow had a Celestron 14" SCT on an equatorial mount, the structural part of the mount was home made, but the actual mount & motors were Losmandy I believe. All I know is that it was huge and heavy! I had to help him and another fellow lift things into place. As nightfall came and people were putting away their cooking apparatus and shifting their focus to their telescopes the clouds began parting and the skies began to open up. First Jupiter poked through the clouds on the horizon and I would say it safe to bet nearly every scope on that HILL was focused on Jupiter. Soon more stars began popping out and soon it was like the Milky Way just "popped" out! The fellow on the other side of me who had just arrived with his two small pre-school aged children had come up to watch the meteors. I don't think they had ever seen the dark skies before, as well as any big telescopes, because they were just awe struck. I think the father was taken aback as well. It took three other people to convince him that the Milky Way was not just a very long cloud. By 10:30 his two boys were zonked out in their sleeping bags and he & I explored the sky with my 16" scope. We looked at the usual clusters, nebulas and galaxies. I thought I was going to pee when I saw M13 through the beast with my 12mm Nagler! I had bought an inexpensive 42mm 2" eyepiece from one of the vendors and boy did Andromeda look good! I spent so much time with the boy's father I forgot that I had brought my LXD-75 with a new scope set up to image with! So at midnight I began working with it, I spent three hours fiddling with polar alignment, getting an Autostar alignment and finding an object to try to image when I looked up and to my horror I saw clouds coming in! Argh! Since we had to be off TMI by 10:00 AM I decided to give up on the LXD-75 and do a



little more visual on the 16" taking in some dim objects I had not seen very well before. I stayed up until nearly four AM before crawling into the trailer muttering about having only one short night of viewing...

My eyes popped wide open at 6:45 AM and I jumped up and began organizing everything. I managed to get everything packed up and loaded for the trip home in record time, considering how long it took me to pack the trailer to come up there. I left TMI at 9:40 AM and had a seven-hour drive back to Chesapeake.

Overall the skies were spectacular even though I only had about six total hours. If all three nights would have been clear, then I would have felt much better about the \$500 I spent for that weekend. Next year, I am setting my sights on the Green Bank star party at the NRO instead...

Chuck Jagow



SEPTEMBER 2007

BBAA EVENTS	SPECIAL OUTREACH	ASTRONOMICAL EVENTS
06 = BBAA Monthly Meeting @ TCC VB Campus Pungo Building, 7:30 PM		03 = LAST QUARTER
07 = NIGHT HIKE @ NWRP Ranger Station, 7:00 PM, Ted Forte POC		
08 = NIGHTWATCH @ Chippokes State Park, Dusk		11 = NEW MOON
14 = SKYWATCH @ NWRP, Dusk		
15 = CLOVERWATCH @ Franklin Fairgrounds, Dusk		
		19 = FIRST QUARTER
22 = GARDENSTARS @ The Norfolk Botanical Gardens, 7:00 PM		
		26 = FULL MOON