BACK BAY observer

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

EPHEMERALS august 2009

8/5/2009
Boardwalk Astronomy
24th Street Stage
Virginia Beach
7:30 PM

8/6/2009
BBAA August Meeting
NSU Planetarium
Wood Science Building 119
Norfolk
7:30 PM

8/14/2009
Skywatch
Northwest River Park
Chesapeake
Dusk

8/21/2009
Night Hike
Northwest River Park
Chesapeake
Dusk

8/22/2009
Nightwatch
Chippokes State Park
Surry
Dusk

8/26/2009
Bayside Area Library
Virginia Beach
7 pm

8/28/2009
GardenStars
Norfolk Botanical Gardens
Norfolk
Hour before dusk

Looking Up!

While I write this the thunder is booming and the skies have opened up for a typical mid afternoon summer down pour. High humidity reigns and what appears clear before noon has a habit of clouding over by supper time. We have however been lucky thus far with three successful Boardwalk Astronomy sessions and a fourth on July 30th, just passed. Let's hope the streak holds so Kent doesn't have to do an anti rain dance! (Something he may have learned in China?)

Ted had a great Night Hike session last month at NWRP with 60 attendees – wow! And the skies got clearer after everyone left he reports. The back portion of the park is well protected from ambient light and quite dark. I wonder if we could beg for a few extra sessions for the club next year. Dark and close, that's my style.

This is a month of family vacations and travel. Good old Dale made a pilgrimage to Star Quest at Green Bank, WV in early July where the weather report was predicted to be poor.....NOT! So Dale go ahead and say "I told you so", you earned it. He reports a great time and our own Michelle Shinn impressed the crowd yet again with one of her great lectures. (To a packed house, I hear.)

Continued on page 3

CONTENTS

Ephemerals 1
Looking Up 1
Planetary Nebula Club 2
NASA Space Place 4
BBAA Picnic 6
Observer's Corner 7
Monthly Calendar 8

The Planetary Nebula Club

by Ted Forte

New members may not be aware that the Astronomical League's Planetary Nebula Club was created by the Back Bay Amateur Astronomers. The history of this program reads like a BBAA roster. Many club members worked on this project and the club should be proud to be among the select list of clubs that sponsor AL observing programs.

I first brought the concept for a planetary nebula club to the attention of the then A.L. president Bob Gent at a MERAL meeting during the Mason Dixon Star Party in 2004 and he encouraged me to pursue it. I presented the idea for the observing club to the BBAA at the August 04 meeting and proposed that it be created as a club project. The proposal was accepted and I was designated chairman of the committee to create the program. We formed two subcommittees; former BBAA president Ron Robisch headed the object selection committee and Georgie June, chaired the rules committee.

Ron's subcommittee included Bruce Bodner, Larry Channel, Richard Dickson, Brian Murphy and Richard Smith. They finessed the original list of proposed objects that included suggestions by Kent Blackwell, Bill Dickinson and Richard Dickson, creating the list of 110 planetary nebulae and four "proto"- planetary nebulae. Ron tried to keep the list achievable with an 8-inch telescope, while still presenting a challenge to larger scopes.

Georgie's subcommittee included Lelane Arneson, Rick Bish, Cliff Hedgepeth, Chuck Jagow and Brian Murphy. They proposed a two-level observing program modeled after the Messier club and an imaging award modeled after the galaxy groups program . A first-ever innovation introduced was the allowance of negative observations, a provision that has since been taken up by other A.L. clubs.

My major contribution was the authorship of the observing guide. Joe Piotrowski, George Reynolds and Ron Robisch contributed sections to that guide and Richard Dickson and (non member) Carl Burton contributed many of the images. Stu Beaber's image of the Ring Nebula was selected for the guide's cover.

The award pin is adorned by Richard Dickson's image of the Dumbbell Nebula. This decision was made by popular acclaim of the BBAA membership. First an on-line election was held to select the subject of the pin image – the Dumbbell beat out the Ring, the Helix and the Saturn Nebula for the honor. Next, excellent images of the Dumbbell by Richard, Steve Hamilton and Stu Beaber were offered up and Richard's image won the club's approval. My son Adam Forte, then designed the pin using Richard's image.

The proposed program was approved by the Astronomical League's Executive Committee at the 2005 ALCON and the program was officially announced in the December 05 Reflector. I was designated the program coordinator, with Georgie June as the alternate . John Raymond (BBAA)became the first person to complete the basic program in March of 2006, the first pin (the advanced award) was presented that July. The observing guide underwent its third printing in 2008, and in July of 2008, Cliff Hedgepeth (BBAA) became the first person to complete the imaging award. As I write this, we have awarded 15 basic certificates and 19 advanced observing awards.

The rules for the Planetary Nebula club are found on the AL website. The observing manual is on sale at the A.L. store for $14. So who will be the next BBAA member to complete OUR program?

The Back Bay Amateur Astronomer's
Observer

The BBAA Observer is published monthy; 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 the month for the next month's edition. Please submit all items to: BBAAErica@yahoo.com
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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 August meeting will be held on August 6 at 7:30 PM at the Norfolk State Planetarium. It is located in the Woods Science Building, Room 119.**

BBAA Internet Links

BBAA Web Site
www.backbayastro.org

Yahoo! Group
groups.yahoo.com/group/backbayastro

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

Looking Up! Continued from page 1

This month's club meeting is to be at the NSU Planetarium on August 6th courtesy of Dr Salgado. In September, we will return to TCC for our fall/winter meeting cycle. Ken says he has yet another new show, too. Can you believe it? BBAA is a club with access to not one or two planetariums, but four, including Virginia Beach (ala. Chuck Dibbs) and Chesapeake. We are really lucky.

For my part, I am certainly happy that my new Lunt HA solar scope came in after waiting 11 months! And right at the prolonged end of the slowest recovery of the solar cycle in decades! How lucky can an amateur astronomer get? Sigh...

I hope to see all of you doing your astro thing this month.

Clear Skies,

Bruce "Doc" Bodner

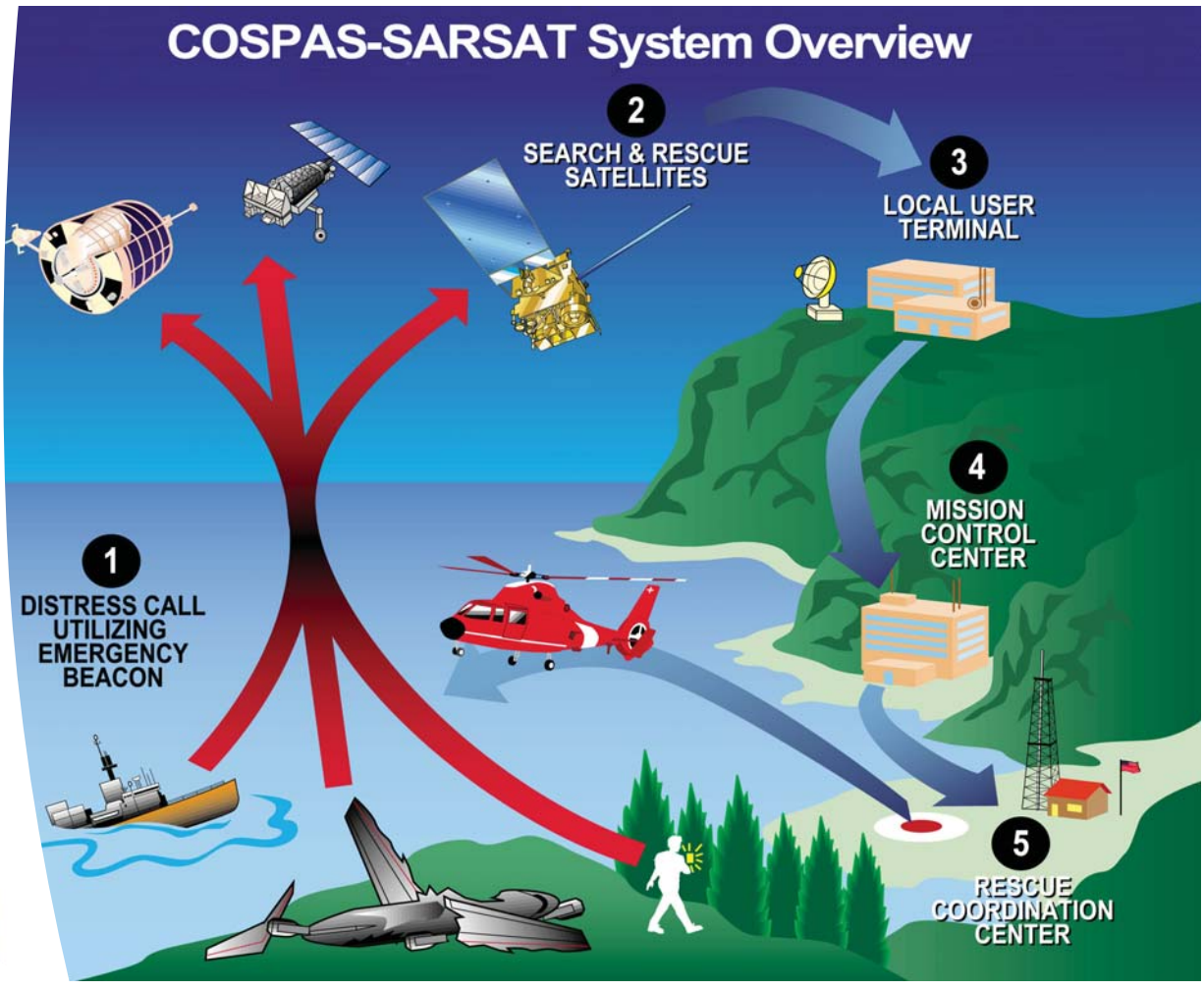
Doc Bruce

SARSAT to the Rescue

Search and Rescue Satellite-aided Tracking

If a plane crashes in the woods and nobody hears it, does it make a sound? Never mind contemplating this scenario as a philosophical riddle. This can be a real life or death question. And the answer most of the time is that, even if no people are nearby, something is indeed listening high above. That something is a network of satellites orbiting about 450 miles overhead. The "sound" they hear isn't the crash itself, but a distress signal from a radio beacon carried by many modern ships, aircraft, and even individual people venturing into remote wildernesses.

In the last 25 years, more than 25,000 lives have been saved using the satellite response system called Search and Rescue Satellite-aided Tracking (SARSAT). So what are these life-saving superhero satellites? Why they are mild-mannered weather satellites. "These satellites do double duty," says Mickey Fitzmaurice, a National Oceanic and Atmospheric Administration (NOAA) systems engineer for SARSAT. "Their primary purpose is to gather continuous weather data, of course. But while they're up there, they might as well be listening for distress



NOAA's polar-orbiting and geostationary satellites, along with Russia's Cospas spacecraft, are part of the sophisticated, international Search and Rescue Satellite-Aided Tracking System.

signals too." In February, NASA launched the newest of these Polar-orbiting Operational Environmental Satellites (or POES) into orbit. This new satellite, called N-Prime at launch and now dubbed NOAA-19, prevents a gap in this satellite network as another, aging NOAA satellite reached the end of its operational life. "The launch of N-Prime was a big deal for us," Fitzmaurice says. With N-Prime/NOAA-19 in place, there are now six satellites in this network. Amongst them, they pass over every place on Earth, on average, about once an hour. To pinpoint the location of an injured explorer, a sinking ship, or a downed plane, POES use the same Doppler effect that causes a car horn to sound higher-pitched when the car is moving toward you than it sounds after it passes by.

In a similar way, POES "hear" a higher frequency when they're moving toward the source of the distress signal, and a lower frequency when they've already passed overhead. It takes only three distress-signal bursts — each about 50 seconds apart — to determine the source's location. Complementing the POES are the Geostationary Operational Environmental Satellites (GOES), which, besides providing weather data, continuously monitor the Western Hemisphere for distress signals. Since their geostationary orbit leaves them motionless with respect to Earth below, there is no Doppler effect to pinpoint location. However, they do provide near instantaneous notification of distress signals.

In the future, the network will be expanded by putting receivers on new Global Positioning System (GPS) satellites, Fitzmaurice says. "We want to be able to locate you after just one burst." With GPS, GOES will also be able to provide the location of the transmitter.

Philosophers beware: SARSAT is making "silent crashes" a thing of the past.
Download a two-page summary of NOAA-19 at www.osd.noaa.gov/POES/NOAA-NP_Fact_Sheet.pdf. The Space Place gives kids a chance to rescue stranded skiers using their emergency rescue beacons. The Wild Weather Adventure game awaits them at spaceplace.nasa.gov/en/kids/goes/wwa.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

Congratulations to Jordan Bramble for winning First Place in the Jack Horkheimer award!

Welcome New Member!
Brenda Butler

BBAA Annual Picnic
July 11, 2009
Northwest River Park

Kevin Weiner and Kent Blackwell prepare for battle.

Chuck Jagow and Ted Forte discuss politics.

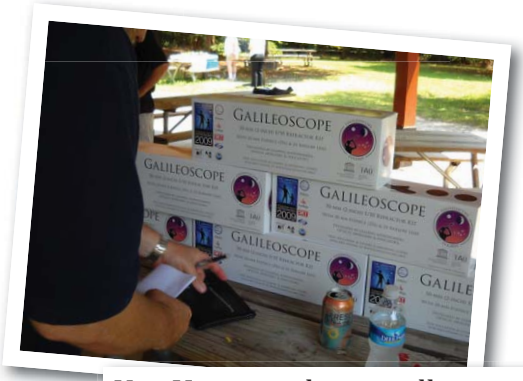
Thanks to Georgie June and Carol Bryan for organizing another great picnic!

Thanks to Chuck Jagow for hot dog procurement and Bruce Bodner for serving as chief cook and bottle washer.

Jordan Bramble takes stock.

Looks done to me.

Jordan and Kent square off.



Yes, Virginia, there really is a Galileoscope.

Kevin Weiner and Matt McLaughlin; "I ate FIVE hamburgers!"

Thanks to Ted Forte for the captions!

Night Hike Hosts 60 Hikers

Ted Forte

Wow.

Matt and I set up at the South Terminal of NWRP for the July Night-Hike and hosted SIXTY hikers! About 40 of them kids. Matt put his Starblast first on the moon and then on Saturn. I lost track of him after that, buried in a mass of munchkins and scout leaders. I had the 18 and to start, mostly clouds between me and the most likely targets. But I managed to show Epsilon Lyrae until it got dark enough to see The Ring. Dr Dean had discussed M57 in his pre-hike talk and many of the attendees were anxious to see it. So that was the target of choice. The stragglers also got to see M13.

After the throngs left, we were allowed to stay and we observed to just a bit past midnight. The sky cleared completely and we had a pretty magnificent sky. I did nothing but planetaries except when the night's security guard came to check on us. I showed him a number of the bright showpieces in the 18 and he went away awed. Matt worked on finding some of the summer globulars, hampered by a dead battery in his red-dot finder. I achieved success on two objects that have previously eluded me. I made a positive observation of Stephenson 4-1 in Lyra and a definite maybe on Abell 72 in Del. Those and about a dozen re-observations of lesser known PNe.

We could have stayed later, but I was exhausted from a long hot day at work. Even so, it's hard to abandon such a good sky at such a workable site.

Matt, thanks so much for your help!

Galileoscopes Exceed Expectations

Mark Ost

I did some serious observing with the Galileoscope and was treated to what I consider one of my best observations, or at least in the top ten.

Going to the eyepiece on the 5 inch I fell out of my chair upon looking at Jupiter. Still conditions and a wet lawn created perfect 10 for 10 seeing. Detail was astounding but the best was yet to come. Io and Ganymede were close but appeared to be offset. As time passed they closed rapidly and it became clear that one was going to occult the other. Sure enough one of the moon s started to dim as they approached and then they merged into one. A moon had disappeared right before my eyes and you could track the whole affair. These moons move fast!

This year we will get to see this type of occultation and will not get another chance until social security runs out (maybe not so long) and national health care is passed! (a long time). But I digress...

It was a really nice show that I had not planned on. I had calculated several occultations in August because Jupiter was more accessible time wise during that period but had not calculated for now due to the early morning nature of the work. If you get a chance to view these events they are worth the time and effort. Next time I plan to observe at high power so the disc of the moons are evident. Galileo would have been astounded at the sight I saw this morning but I doubt his scope would give as good a show as the Takahashi.

Send your pictures and experiences with the Galileoscope to BBAAErica@yahoo.com.

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August 2009

BBAA Events	Special Outreach	Astronomical Events
05 Boardwalk Astronomy (VB)		05 Full Moon
06 BBAA Monthly Meeting (NSU)		
14 Skywatch (NWRP)		13 Full Quarter
21 Night Hike (NWRP)		20 New Moon
22 Nightwatch (Chippokes)		
	26 Bayside Area Library (VB)	
28 Garden Stars (Norfolk)		27 Last Quarter

Sneak Peak into September:

9/1 Boardwalk Astronomy
9/3 BBAA Monthly Meeting
9/11 Skywatch at NWRP
9/19 Nightwatch at Chippokes
9/24 Bayside Area Library
9/25 Night Hike at NWRP
9/25 Garden Stars in Norfolk