



EPHEMERALS JANUARY 2009

DATE	WHEN	WHAT & WHERE
8	7:30p	Monthly Meeting @ Cox in Chesapeake
16	Dusk	Skywatch @ NWRP Equestrian Area
24	Dusk	Nightwatch @ Chippokes Plantation
25	8:00p	Mid-Atlantic Horticulturists @ Founder's Inn

Looking Up!

JANUARY 2009 "It's here!" - **The International Year of Astronomy, IYA2009.**

As noted by BBAA's IYA Event Chair, Ted Forte in his editorial piece inside this month's issue, we are indeed calling for an enhanced commitment by club members to public outreach activities in this special New Year. Ted presents an outline of all that has been done to date and various planning towards a greater BBAA presence in the community. Our need for member participation is increasing as we assume this larger role for IYA2009. Your participation is the key element to our success. Even if you feel you cannot answer every question or attend every event, you will and can do a great deal to help. And helping will increase both your enjoyment in club membership and all that extra knowledge you will acquire and pass on to other members and the public. It's always a "feel good" moment when a youngster or their parent gives you a special thanks for your efforts to reveal the wonder of astronomy to them.

CONTENTS

Ephemerals	1
Looking Up	1
December's Meeting Minutes	2
365 Days of Astronomy Daily Podcasts	2
NASA Space Place	3
BBAA INFO	4
The International Year of Astronomy	5
Observer's Corner	6
Mini-Book Review	6
Laser Safety	7
Monthly Calendar	8

GardenStars at the Norfolk Botanical Gardens will resume in February. This is always a crowd pleaser and seems to draw a very interested group. Also, it seems that public turnout for our NWRP Sky-Watch activity is increasing, especially when skies even hint of clarity. I am guilty of hiding at home on colder nights, but I plan to make amends this coming year. With or without a crowd, we always have fun times! And Kent, thanks for the coffee!

This year, I am especially looking forward to an expanded Boardwalk Astronomy effort. A special thanks to Chuck Dibbs of the VB Planetarium both for the concept and the help in organizing what should continue to attract hundreds of people to each event. The drop in the cost of gasoline together with the resort area attractions will probably bring even more locals to the waterfront area. With advanced advertising and recognition in the local media a large turnout can be expected.

On a different tack, it appears that 2008 in passing was a year of clouds and rain, excepting of course member Mark Ost's backyard! Mark and I will make a pact not to add to our telescope collections

(Continued on page 2)

The Back Bay Amateur Astronomer's Observer

DECEMBER'S Meeting Minutes

Members in Attendance:

There were 26 members and 8 guests in attendance at the brief December meeting of the Back Bay Amateur Astronomers held at the Lynnhaven Fish House in Virginia Beach.

Members and guests attending the gala event:

Neill & Pattie Alford, Gerry & Joy Carver, Bill & Annette McLean, George & Linda Reynolds, Don Ives, Bird Taylor, Georgie June, Carol & Christopher Bryan, Larry & Sue Channel, Mark Gerlach, Dale Carey, Kenny Broun, Charles Allewelt, Kent Blackwell, Jordan Bramble, Chuck & Karen Jagow, Ben Loyola, Bruce & Joanne Bodner, Kevin & Barb Weiner, Mike Galvas, Ted & Hali Forte, Bernie Rusnock, Matt McLaughlin and Greg Nottingham.

Treasurer's Report:

None.

Secretary's Report:

Previous meeting minutes are posted on the club website and club newsletter.

Old Business:

None.

New Business, announcements and observing reports:

None.

Main Presentation:

FOOD & FRIENDS!

The December meeting was quickly called to order then adjourned, allowing everyone to return to the food and fellowship of our BBAA annual anniversary luncheon!!!

Matt McLaughlin

365 Days of Astronomy Daily Podcasts

Do you know how to do podcasts? Would you like to contribute to the International Year of Astronomy with a personal podcast about astronomy or space?

"365 Days of Astronomy" is a daily podcast about space, recorded and produced by people around the world. There will be one podcast for each day of 2009. It is being organized by the New Media Working Group of the International Year of Astronomy. And they are looking for help from amateur astronomers, teachers, students, scientists, and anyone who has an interest in astronomy and a story to tell. 365 Days of Astronomy is looking for individuals, schools, companies and clubs to provide around eight minutes of audio for the daily podcast. You can do as few as one episode or up to 12 episodes (one per month, subject, of course, to the project's editorial discretion).

The podcasts can be about virtually any astronomical topic, from simple concepts or how-tos to more in-depth discussions of complex concepts. The 365 Days of Astronomy project will do post-production on all submissions, so knowledge of audio editing may not be necessary. If you can't record your own audio, you may also just provide a script, and they will take it from there.

To join in, send an email to (signup at 365daysofastronomy.org) indicating your interest and your preferred broadcast date (or a range of dates).

To learn more: <http://365daysofastronomy.org>

George Reynolds

(Looking Up, Continued from page 1)

this year in order to assure clear skies for all to share! Kent, are you listening?

The member turnout for the annual banquet was terrific this year and all appeared to enjoy the great food and the company. The two minute meeting appeared to be just right so we can waive reading the minutes at January's meeting! For those that missed the event, we shall plan another gathering next year to make up for it!

Happy New Year, see you in January!

Bruce "Doc" Bodner

The Back Bay Amateur Astronomer's Observer



Superstar Hide and Seek

by Dr. Tony Phillips

It sounds like an impossible task: Take a star a hundred times larger in diameter and millions of times more luminous than the Sun and hide it in our own galaxy where the most powerful optical telescopes on Earth cannot find it.

But it is not impossible. In fact, there could be dozens to hundreds of such stars hiding in the Milky Way right now. Furiously burning their inner stores of hydrogen, these hidden superstars are like ticking bombs poised to 'go supernova' at any moment, possibly unleashing powerful gamma-ray bursts. No wonder astronomers are hunting for them.

Earlier this year, they found one.

"It's called the Peony nebula star," says Lidia Oskinova of Potsdam University in Germany. "It shines like 3.2 million suns and weighs in at about 90 solar masses."

The star lies behind a dense veil of dust near the center of the Milky Way galaxy. Starlight traveling through the dust is attenuated so much that the Peony star, at first glance, looks rather dim and ordinary. Oskinova's team set the record straight using NASA's Spitzer Space Telescope. Clouds of dust can hide a star from visible-light telescopes, but Spitzer is an infrared telescope able to penetrate the dusty gloom.

"Using data from Spitzer, along with infrared observations from the ESO's New Technology Telescope in Chile, we calculated the Peony star's true luminosity," she explains. "In the Milky Way galaxy, it is second only to another known superstar, Eta Carina, which shines like 4.7 million suns."

Oskinova believes this is just the tip of the iceberg. Theoretical models of star formation suggest that one Peony-type star is born in our galaxy every 10,000 years. Given that the lifetime of such a star is about one million years, there should be 100 of them in the Milky Way at any given moment.

Could that be a hundred deadly gamma-ray bursts waiting to happen? Oskinova is not worried.

"There's no threat to Earth," she believes. "Gamma-ray bursts produce tightly focused jets of radiation and we would be extremely unlucky to be in the way of one. Furthermore, there don't appear to be any supermassive stars within a thousand light years of our planet."

Nevertheless, the hunt continues. Mapping and studying supermassive stars will help researchers understand the inner workings of extreme star formation and, moreover, identify stars on the brink of supernova. One day, astronomers monitoring a Peony-type star could witness with their own eyes one of the biggest explosions since the Big Bang itself.

Now *that* might be hard to hide.

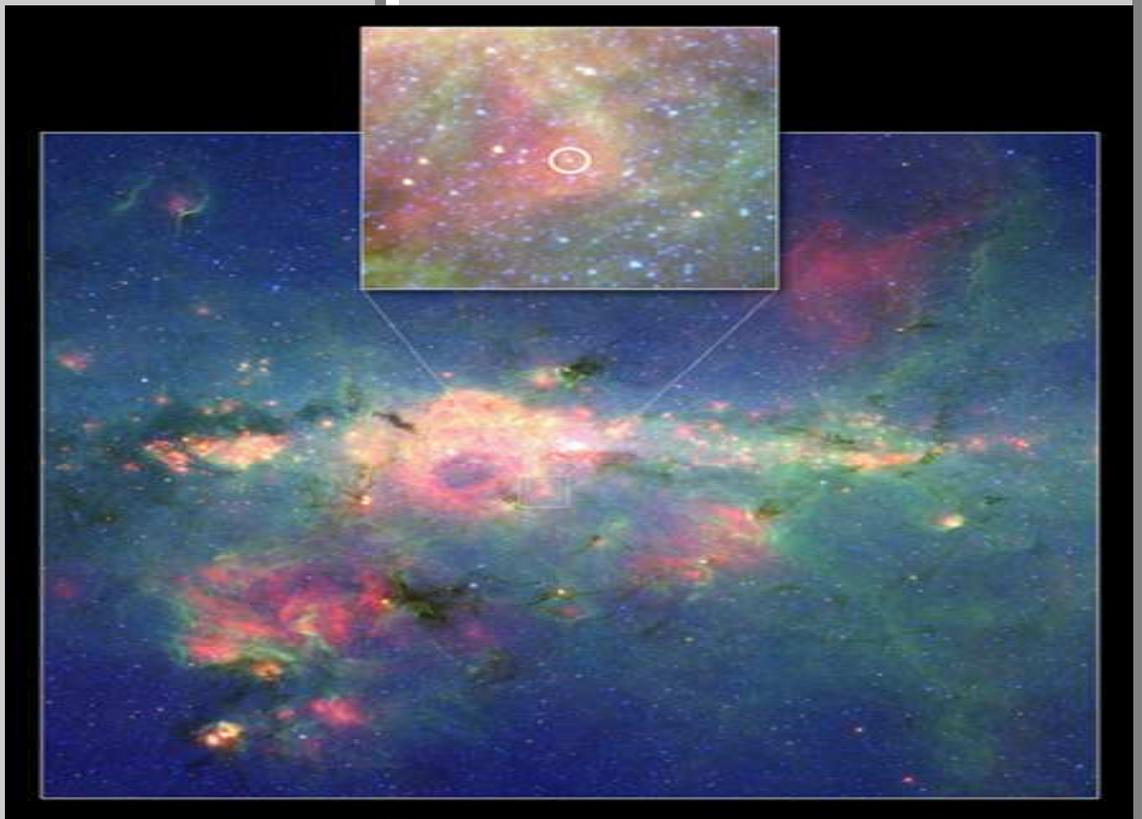


Image Caption:

The "Peony Nebula" star is the second-brightest found in the Milky Way Galaxy, after Eta Carina. The Peony star blazes

The Back Bay Amateur Astronomer's Observer

B B A A I N F O

The BBAA meet the first Thursday of every month. While school is in session we meet at the VA Beach TCC campus.

The January meeting will be on Thursday January 8th at 7:30 PM at the Cox Communications Campus in Chesapeake.

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 and proceed (.000000040879639 AU) (3.8 mi).

Turn LEFT onto Princess Anne road and proceed (.000000011833579 AU) (1.1 mi).

Turn LEFT onto Concert Drive and proceed (.000000001426233 AU) (700').

Turn LEFT and then turn RIGHT on University Drive go (.000000002151559 AU) (0.2mi).

Proceed to College Crescent and then park in one of the lots in front of the Advanced Technology Center.

The Science Building is immediately south of the ATC building. Walk toward the ATC entrance, but bear left, the Science building is straight ahead. Find the rounded part, this is the Planetarium. Locate the stairs nearest the planetarium and upstairs you will find classroom JC12 on the next floor.

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://www.backbayastro.org>

YAHOO GROUP

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

BBAA OBSERVER NEWSLETTER

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

President

Bruce Bodner
757-627-7980
bbodner@worldnet.att.net

Vice President

Chuck Jagow
757.547.4226
chuck@jagowds.com

Treasurer

Neill Alford
757.430.9732
ulugbek1428@yahoo.com

Secretary

Matt McLaughlin
757-495-9607
matmcl@cox.net

ALCOR

Georgie June
doublestarjune@msn.com

Librarian

Gerry Carver
popcarg@aol.com

**Web Master /
RRRT Coordinator**

Ted Forte
twforte@cox.net

Scholarship Coordinator

Ben Loyola
benito@loyola.com

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 January for the February issue. Please submit all items to:

ObserverBBAA@cox.net / chuck@jagowds.com

OR

BBAA Observer

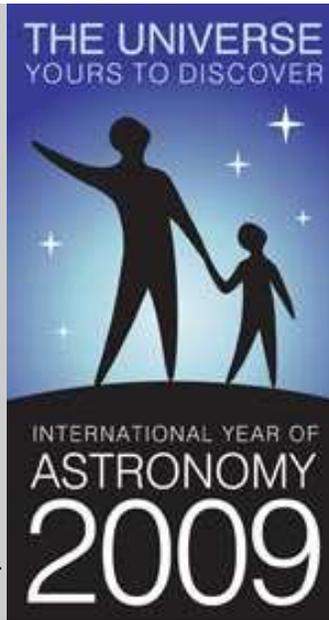
P.O. Box 9877

Virginia Beach, VA 23450-9877

The Back Bay Amateur Astronomer's Observer

2009: THE INTERNATIONAL YEAR OF ASTRONOMY

The world will celebrate astronomy in 2009. UNESCO, the IAU, NASA, AAS, The Astronomical League, IDA, Sky & Telescope and Astronomy magazines, and just about every other organization with a connection to the sciences will celebrate the quadricentennial of Galileo's first use of the telescope to study the skies, and Kepler's publication of *Astronomia Nova* in 1609. It is a once in a lifetime chance to bring astronomy to the attention of the world.



BBAA has resolved to do its part. One of the stated goals of the international effort is to get people, in fact as many people as possible, to look through an eyepiece next year. **That's right up our alley!** We need only do what we normally do to participate. However, this year will be special, and we should make a special effort to redouble our outreach efforts.

We had hoped to have some financial assistance from a NASA Public Outreach Grant that we applied for with Norfolk State University. Since our grant request was denied, we have to scale back a bit, but we already have several IYA events planned.

Our usual Skywatch, Gardenstars, Night Hike, and Astronomy Day events should take on a new IYA fervor. We have scheduled another Astronomy Day event for 2009 to be held a month early at the Chesapeake Library. This should follow the pattern of our Virginia Beach event. We hope to continue, and perhaps expand our Boardwalk Astronomy this year and we have signed up to participate in *The 100 Hours of Astronomy* event at Mount Trashmore. As I write this, we are in the planning stages for at least one *Celebrate Astronomy* event at Northwest River Park, and are discussing outreach usage of the RRRT. I expect to get at least the usual number of requests from schools and scouting groups and intend to try and schedule a *Specialty Weekend for Astronomy* event at the Pipsico Boy Scout

Camp. There will probably be more opportunities and invitations as the year unfolds.

Key to our success is **YOUR** participation. We have our usual cache of volunteers that I know we can count on, and a second tier supporting cast of occasional participants that I'm sure will step up as well. However, there are undoubtedly a few budding John Dobsons within our ranks who, for one reason or another, have just never taken that first step. We invite each and every one of you to not only just show up, but to take on some leadership roles. We need the hidden innovators, organizers, teachers, speakers, fund-raisers, entrepreneurs, illustrators and artists among us to show their stuff! Now is the time. I can promise you the possibility of a great reward ... outreach can be the most rewarding experience you can expect from our hobby.

So let's celebrate the International Year of Astronomy by living up to our motto: ***Bringing Astronomy to the People of Hampton Roads!*** Who knows? We might inspire a new generation of astronomers, amateur and professional, and we just might have some fun doing it!

Ted Forte
BBAA's IYA Event Chair



USA IYA MAJOR PARTNERS

The Back Bay Amateur Astronomer's Observer

OBSERVER'S CORNER

December 2008 - I awoke at 3:30 AM this morning planning on checking out Saturn's 0.8 degree tilted rings. After bundling up I went out to Rott'n Paws and unlocked the observatory door and began getting ready to roll the roof back. In my haste I neglected to remove one of the wadded up hand towels used to block any unwanted bird access. As I started to roll the roof back the forgotten towel began to wrap part of itself around one of the garage door wheels. Arghh! @#%\$!@! now the darn roof is stuck, won't move forward or backward. After wrestling with cutting and stripping small pieces of cloth from the wheel, I decided I would wait until later (read that warmer) to finish unwinding the cloth from the roller. New plan, go roll the twelve inch Orion out from the garage onto the driveway to look at Saturn.

So I figured I would need to move my wife's vehicle. I locked the observatory back up, with the roof about two feet stuck open and proceeded back into the house and found the keys to What's her Name's car and moved it out into the street, man was that seat cold. After putting her keys away, back into her purse so she wouldn't know I was rummaging around in it, I entered the garage to roll the trusty 12" scope out. Just then I remembered about all of the boxes of Christmas decorations that I was supposed to have taken back to the storage unit last weekend that were sitting there FILLING nearly every square inch of space in the garage. There would be no way I could roll that scope out unless I moved ALL those darn boxes. So I did what any sane person would do, I closed the garage door - cursed myself for being lazy, then went and finished cutting the towel out from around the wheel in the observatory. In getting the wheel free, a few of the other wheels ended up jumping track. So I had to spend about an hour getting ALL the wheels back in track. Since I was doing that, I figured it would be a good time to spray some WD-40 on all of them as well. Now by the time I was able to move the observatory roof fully open, it was about 4:45 AM. I go to turn on the 10" LX200GPS telescope and wouldn't you know it, no power. I have to move the laptop and its table out of the way so I can get under the pedestal to check the 12 VDC power supply and find out that the plug has come loose coming out of the power supply. After plugging that back in and then putting everything back where it goes I power up the telescope and tell it to slew to an alignment star to get a

MINI-BOOK REVIEW

Just received my copy of the "Atlas of the Messier Objects" by Ronald Stoyen. Do we need another Messier book, the preface asks? Well after looking at my copy the answer is, it's about time.

This is the most complete treatment of the catalog and has easily far and away the best diagrams and descriptions of the objects. No star charts are provided just far more detailed illustrations of the objects themselves. Do you know all the parts of the familiar M-42? I didn't until this came. Heck I haven't thought of observing it that closely. Looks like you could spend quite a while taking this familiar object apart. Did not know that orange filters help pierce the glow of the nebula to locate difficult to see stars, blocked by the emission nebula (never knew that). Looks like quite a few more nights of detailed observation on this "easy" object!

Give yourself a gift during these tough economic times and give this guide a look. The original text was in German. Sue French contributed to the editing of this volume. There are superb collection of historical drawings of each object making this a very complete tome on the most well known of the observational catalogs.

Mark Ost

quick alignment fix. Then on to Saturn.

The topping on the whole morning? The @#&!@ tree branches are now in the damn way! And now it is time to get ready for work. So park the scope and shut everything down and close up Rott'n Paws.

Should have stayed in bed...

Chuck Jagow



IMAGE CREDIT: STEPHAN BUDA 12/8/2008

The Back Bay Amateur Astronomer's Observer

Laser Safety

This article is more advice on picking out a great safe laser than buying a dangerous one, which I will get to in a minute. I will start with my background with lasers. I am an Avionics Technician in the US Navy I work around class 4 lasers on a daily basis. The lasers I work with are the targeting lasers in the Advanced Targeting Forward Looking Infrared Pod or ATFLIR for short. It has two lasers, one is a class IIIa, and a Class IV laser. So I have to test fire them every now and then to see how they work. So, I am certified to fire them and to work on them. With that being said, that is my experience and background on them.

Now for the first part. What to look for in a laser, first we have to pick out something that can be easily seen. Since our eyes are very sensitive to light in the wavelength of 532 nanometers, in English GREEN. So, the laser needs to be green in color. Green laser pointers have the illusion of being more powerful than the red lasers because our eyes pick up green very easy over red. A 5 mw Green laser will outshine a red 5 mw laser.

I know we all love to get the best deal we can, am I right? So we go to EBay and Amazon to look for our laser. We see lasers in power levels from 5 mw to 240 mw! For the unbelievable prices of \$5 to \$100 bucks!!! Are these a good buy? No!!!! And very dangerous to use! Why? Well, the sellers take the laser and modify it to get that power output. They even go as far as to remove the Infrared filter, a square shaped blue-green filter placed over the laser diode as part of the modification process. So, our laser we paid \$100 for works out like this. 200 mw for Infrared radiation and 40 mw for Green Laser. The power meter sees no difference between **visible** and **Infrared**. The meter

sees them both and adds them and that is how they come up with 240 mw. Since we can't see the Infrared it goes in our eyes and we will not know about it until its too late. That is why they are **dangerous**. But there is a light at the end of the Tunnel.

Where do we get the good safe Green Lasers at? Well, there are plenty of places like Dragon lasers, my favorite Wicked Lasers and Orion and Meade. They will have the Infrared filters and true power ratings.

The second part concerns what is a good power level to use? well I'd say 5 to 50 mw will do, anything else is too dangerous. A laser of 75 mw will burn skin, pop dark color balloons and even light matches. If you think you have one of these lasers get rid of it because of the inherent dangers they have. Since they have their power levels booted beyond what they were designed for they may only last for about 30 minutes to an hour before failing. You can see if they do have an Infrared filter just remove the batteries, take a bright light and look in the hole in the front to see if their is a blue green square. If one is not present get rid of the laser. I have a Laser injury to my right eye. I was hit there by a stray beam from someone playing around with a 200 mw laser down the street from my Apartment in California. As soon as it hit me I felt great pain and I could not see anything but green light. I have had a .12mm section of my retina burned away leaving me with a blind spot in my right eye. I do not notice it now but it lets me speak from experience. All I am saying is, is watch where you buy your laser from and do not get a cheap one, because it will probably hurt you in the end. Just get the best you can afford. Be safe and show off the stars, and that is what we do best right? Keep it safe so we all can enjoy the stars. Good night and Clear skies.

Garry Mitchell

The Back Bay Amateur Astronomer's Observer



JANUARY 2009

BBAA EVENTS	SPECIAL OUTREACH	ASTRONOMICAL EVENTS
		04 = FIRST QUARTER
08 = BBAA Monthly Meeting @ COX Chesapeake Campus, Chesapeake, VA , 7:30 PM		
		10 = FULL MOON
16= SKYWATCH @ NWRP, Dusk		17 = LAST QUARTER
20 = CLOVERWATCH @ Franklin Fairgrounds, Dusk - POC Cliff Hedgepeth ON HOLD!!!!		
24 = NIGHTWATCH @ Chippokes State Park, Dusk	25 = MID-ATLANTIC HORTICULTURISTS , 8:00 PM @ Founder's Inn, VB, POC: Chuck Jagow - Indoor presentation followed by evening stargazing - NEED ASSISTANCE!	26 = NEW MOON