

## **EPHEMERALS DECEMBER 2008**

DATE	WHEN	WHAT & WHERE	
6	NOON	ANNUAL LUNCHEON @ Lynnhaven Fish House	
19	Dusk	Skywatch @ NWRP Equestrian Area	
27	Dusk	Nightwatch @ Chippokes Plantation	

## Looking Vp!

OK, troops! Here we are on the cusp of a new year. And a very special new year at that. The International Year of Astronomy to henceforth be known as *IYA2009*. Looks like many activities local, regional, and national are being planned. Although we were only just informed that we did not receive the hoped for NASA grant together with NSU (great effort and thanks to Ted!), I suspect that the support within our great club together with help from the communities we serve will see us through a busy year.

IYA2009 plans thus far include one or two all day Astronomy Festivals at NWRP and two Astronomy Day library appearances in the spring. Also an expanded Boardwalk Astronomy schedule is a good possibility especially after our successful startup last summer with the aid of C. Dibbs from the VB Planetarium. In addition, Chuck Dibbs is seeking our aid at a huge AstroFest at Mount Trashmore this coming year. Stay tuned in and come to the meetings and join in with the fun filled activities for IYA2009.

As for yours truly, Chiefland, Florida's new Star Party was a great success and was blessed with six straight nights of clear skies though temps varied from mild to burrrrrrr...! Not bad

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for a 9 day stay. Sorry to hear about the rain and wine festival at the ECSP. Jeff from Camera Concepts filled me in when he made it to Chiefland on Tuesday. I really liked those red LED badges he was selling. I got one for myself. What fun!

BBAA's Annual Holiday Banquet is just around the corner on Saturday, December 6<sup>th</sup> at Noon at the Lynnhaven Fish House in VB. Remember this annual meal replaces our December regular meeting. Your attendance is looked for and appreciated as the holidays seem to keep us so busy and away with family. Please sign up on line at the Yahoo group site under Databases courtesy of Georgie.

I do hope everyone gets their special astro surprise for the Holiday. And while I suspect that material rewards may be scaled down this year by finances, we can always look up at the magnificent stars that are provided for free!

All the best for your Holidays, See you at the Banquet!

Bruce 'Doc" Bodner

## NOVEMBER'S Meeting Minutes

### **Members in Attendance:**

There were 24 members and 4 guests in attendance at the November meeting of the Back Bay Amateur Astronomers held at TCC planetarium in Virginia Beach.

Neill Alford, Rick Bish, Kent Blackwell, Bruce Bodner, Jordan Bramble, Kenny Broun, Gerry Carver, Hannah & Lisa Chacon, Courtney & Tony Flonta, Ted & Hali Forte, Mark Gerlach, Hunter Hughes, Don Ives, Chuck Jagow, Ben Loyola, Matt McLaughlin, Mark Ost, Bill Powers, George Reynolds, Kevin Swann, Bird Taylor

Guests: Neill Philliber, Chuck Dibbs, Paul Carmody, Ian Taylor.

## Treasurer's Report:

The Club treasurer reported the following club fund balances.

\$4,282.21 Total

\$2,866.80 Scholarship Fund.

\$1,415.41 Available For Club Ops

### Secretary's Report:

Meeting minutes are posted on the club website and club newsletter.

### **Old Business:**

None

### New Business, announcements and observing reports:

Bayside Library in Va. Beach wants to schedule more astronomy events at the library. Stay Tuned.

GardenStars at Norfolk Botanical Gardens, Friday, November 7th.

Granby H.S. physics teacher has asked for BBAA support for an astronomy club that will be starting in January. Requested a telescope viewing event at the school or another venue.

Mid Atlantic Horticulture club has asked for a BBAA presentation. Possible date, Sunday, January 25th.

Thursday, November 13th at 10AM. Nobel Laureate John Mather will give a talk at Old Dominion University.

Chuck Dibbs of the Va. Beach schools is organizing an event in

conjunction with the Va. Beach Dept of Parks and Rec. to celebrate the 2009 International Year Of Astronomy (IYA). The event is planned to be held at Mount Trashmore Park. The date is scheduled for Friday, April 3rd.

The annual BBAA Christmas luncheon will be held at the Lynnhaven Fish House at Noon on Saturday, December 6th. A sign up sheet will be posted on BackBayAstro or let Georgie June know if you plan on attending.

Neill Philliber, Hannah Chacon's grandfather gave a short presentation on the GeoEye commercial satellite system.

George Reynolds is accepting orders for the 2009 RASC handbook. At least 10 copies are needed to get the \$18.50 discount.

The RRRT users meeting will be held at NSU on Saturday, November 22nd at 9AM. Contact Ted Forte or Carlos Salgado for details. Any members interested in the RRRT are free to attend the meeting.

#### **Main Presentation:**

Kenny Broun treated the club to another fine planetarium show that lasted about 1 hour. The main show was about Black Holes.

Once the presentation was completed; the meeting was adjourned at 9:20 PM, Thursday, November 6, 2008.

Matt McLaughlin

## THE BBAA HOLIDAY LUNCHEON!

This year's annual BBAA Holiday Luncheon will once again be held at the Lynnhaven Fish House at 2350 Starfish Road in Virginia Beach. We have booked the big room and have estimated 40 people, so please come and enjoy yourself. Please sign up in the YAHOO database or send Georgie June an email at doublestarjune@msn.com to let her know. The Luncheon begins at Noon on Saturday December 6th.

The LFH is just off of Shore Drive East of the Lesner Bridge.

You turn Left onto Starfish Road about .7 miles after you come off of the Lesner bridge headed East.

If you came down Shore Drive from the East you would turn right onto Starfish Road about .5 miles after passing North Great Neck Road.

Once on Starfish Road follow it down and turn right onto Ocean Shore Ave. The Lynnhaven Fish House will be immediately on your left.

## NASA's Space Place

# What Happened to Comet Holmes?

by Dr. Tony Phillips

One year after Comet 17P/Holmes shocked onlookers by exploding in the night sky, researchers are beginning to understand what happened.

"We believe that a cavern full of ice, located as much as 100 meters beneath the crust of the comet's nucleus, underwent a change of phase," says Bill Reach of NASA's Spitzer Science Center at the California Institute of Technology. "Amorphous ice turned into crystalline ice" and, in the transition, released enough heat to cause Holmes to blow its top.

Anyone watching the sky in October 2007 will remember how the comet brightened a million-fold to naked-eye visi-

bility. It looked more like a planet than a comet—strangely spherical and utterly lacking a tail. By November 2007, the expanding dust cloud was larger than Jupiter itself, and people were noticing it from brightly-lit cities.

Knowing that infrared telescopes are particularly sensitive to the warm glow of comet dust, Reach and colleague Jeremie Vaubaillon, also of Caltech, applied for observing time on the Spitzer Space Telescope—and they got it. "We used Spitzer to observe Comet Holmes in November and again in February and March 2008," says Reach.

The infrared glow of the expanding dust cloud told the investigators how much mass was involved and how fast the material was moving. "The energy of the blast was about 10<sup>14</sup> joules and the total mass was of order 10<sup>10</sup> kg." In other words, Holmes exploded like 24 kilotons of TNT

and ejected 10 million metric tons of dust and gas into space.

These astonishing numbers are best explained by a subterranean cavern of phase-changing ice, Reach believes. "The mass and energy are in the right ballpark," he says, and it also explains why Comet Holmes is a "repeat exploder."

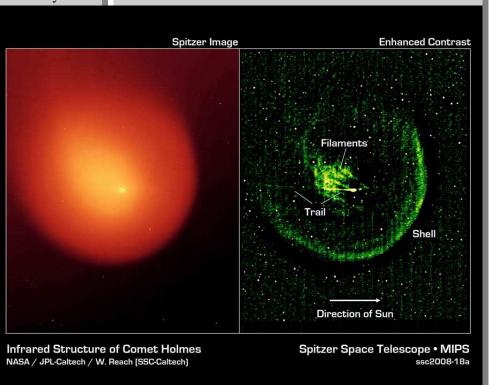
Another explosion was observed in 1892. It was a lesser blast than the 2007 event, but enough to attract the attention of American astronomer Edwin Holmes, who discovered the comet when it suddenly brightened. Two explosions (1892, 2007) would require two caverns. That's no problem because comets are notoriously porous and lumpy. In fact, there are probably more than two caverns, which would mean Comet Holmes is poised to explode again.

### When?

"The astronomer who can answer that question will be famous!" laughs Vaubaillon.

"No one knows what triggered the phase change," says Reach. He speculates that maybe a comet-quake sent seismic waves echoing through the comet's caverns, compressing the ice and changing its form. Or a meteoroid might have penetrated the comet's crust and set events in motion that way. "It's still a mystery."

But not as much as it used to be.



## **Image Caption:**

Comet Holmes as imaged by the multiband imaging photometer (MIPS) on the Spitzer Space Telescope. The enhanced contrast image at the right shows the comet's outer shell and mysterious filaments of dust.

## BBAA INFO

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

The December meeting will be combined with the Annual Holiday Luncheon being held at the Lynnhaven Fish House at 2350 Starfish Rd in Virginia Beach.

## 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

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

ObserverBBAA@cox.net / chuck@jagowds.com

#### ΛR

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

## STS-126 LAUNCH

What a beautiful trip. Seeing the Space Shuttle launch is the experience of a lifetime. I'm not ranking it up there with finding your soul mate or having kids, but for the cost of only a couple of days of leave at work, definitely worth it. Watching a night launch was at least an order of magnitude more exciting than a typical day launch. Thank you, Ian, Scott, Patty, and NASA for one of the best memories in my life.

We planned to meet our cousin, Patty, at the Wal-mart en route to the launch. On the way we filled Ian's car with gas per the online suggestions. One of the other guys getting gas suggested that we take something to fight the mosquitoes. Patty got to Wal-mart about the same time Scott and Ian got out of the store with bags of snacks and bug spray. The four of us made sure that we had our IDs and car pass before heading on out toward Gate 3 on the NASA Kennedy Space Center.

Traffic was very light. I had expected heavy Friday afternoon rush hour congestion. I didn't think about there not being a big city at the entrance to Kennedy. We got there at L-4, or four hours before Launch, the earliest allowed we were allowed in. Ian drove us on out to the West Causeway through the two ID stops. We parked in a roped- off field. Then we unloaded all the gear and snacks. Scott had video camera and tripod. I had my magic carpets, the Scarr Giant Binoculars (SGB), and my favorite go-to scope, my Little Two and a Half Incher (LTHI). Patty used a great pair of 7 x 50s.

On the drive down from Daytona Beach, the skies continued to clear. By the time we had set up the equipment, the skies were severe clear. There was a constant breeze that precluded the need to apply bug spray. It was so warm that Ian and Scott were in short pants. I was barefoot on the carpets. The weather couldn't have been any better. In the four hours that we had before the launch we got to meet the community of fellow Shuttle Buddies. We meet people from all over the country. It is a small world. Scott thinks it was my volume and laughing that drew visitors, but I'm guessing that it was the fact that Ian and I were some of the very few that had observing equipment. There were hundreds of cameras. Ian had a line throughout the evening looking at the Moon and the Shuttle on the Pad 39A. It was especially fun to see the guys that I knew from work and even some that I was connected through the six-degrees-of-separation type of thing.

There was Mission Control audio playing through the loudspeakers across the street. It was hard to hear most of the stuff, but hey, it's nice that we could easily talk to each other, too. The NASA Causeway is about six miles away. The Shuttle and launch structures were hard to find when we initially set up before dark, but after nightfall the complex across the water was totally lit by huge spotlights. Their rays illuminated the night like majestic beacons emanating from the Space Shuttle. The panorama was surreal.

It was great seeing all the families sitting around waiting for the big event. I loved hearing all the laughter with the kids playing. About ten minutes before the launch all eyes were on Pad 39A. I started my MacBook's QuickTime recording. Scott was ready with

his video camera. Ian had the SGB, and I the LTHI focused on the Shuttle. Due to some trees between us and the pad, the Shuttle was partially eclipsed. It was easy to see detail on the External Tank (ET), the orbiter Endeavor, and the Solid Rocket Boosters (SRB). The trees covered the lower half of the Shuttle. You could feel the excitement when the astronaut walkway was retracted. Moments later when the beanie was lifted and swung out of the way, the place was buzzing. We could hear the countdown over the loudspeakers from 20 seconds, 15 seconds, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1... and finally Liftoff.

The steam from the water used to suppress the rocket heat and sound was billowing as the Shuttle emerged from the huge cloud. The exhaust plume was the brightest thing I've ever seen. All of the photos and videos that I've ever seen don't even give a hint at how colorful and awesome it is. There were two severely bright and different plumes. The Orbiter exhaust was a pure blue-white. Deep, deep, blue, blending into blinding white. The SRBs were a much larger orange-white. The orange was just as saturated as the blue but with both SRBs it was huge. All three exhaust plumes merged into one giant white glowing torch being chased by a dark grey contrail.

As soon as I saw the steam, I lost all track of time. I had my eye buried into my LTHI with my zoom eyepiece set at maximum - 50x. Time slowed down to a crawl as the Shuttle lifted off and cleared the tower before rotating and soaring up into the sky. It seemed to take minutes for the sound to hit us. I know that it was only a handful of seconds, but it really felt like forever. We could see the shock waves coming off of the SRBs and ET as it accelerated. Time then seemed to flash by. I know that the SRBs separate after a couple of minutes, but it sure seamed like a couple of seconds after the Shuttle had rotated. The sky was so clear that we could easily see the SRBs eject and fall away from the ET and Orbiter. Orange flame/sparks were still coming out of 'em. They appeared to tumble some because we could see the exhaust go out and the see the light from them a little later when I assume their nozzles faced us again.

The Orbiter with ET continued its bright torch and contrail as it reached it's apogee from our viewing positing. It continued to arc back down toward the horizon. I thought that there were far away clouds that it was flying through because we could see the exhaust go out and the see what I took to be random flashes due to the clouds. Then I couldn't see anything. I asked Ian what time he had. I thought it was 8:05 pm, but there was no way that we could have seen the Shuttle go all the way to orbit. I must have been misreading my watch in the dark. Ian said he had five after, too. Well I'll be darned. Before the trip I had looked at a half dozen or so videos of the launches. All of them had a short launch before the Shuttle flew into clouds. My expectations would have been exceeded if we not only got to see a launch, but if there was any way to see the SRB separations, my life would be perfect. Wow. We not only got to see that, but we got to see the Shuttle go from zero to orbit. SRB and ET separation and orbital velocity in the quickest ten minutes

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## **OBSERVER'S CORNER**

November 2008 - Having the day off, part of my normal rotation of every other Friday off after working nine hour days vice 8 hour days, I arrived at the Equestrian center of the NWRP a little before sunset. I really dislike setting up the 16" scope in the dark. I found much to my surprise, horses! DUH! Anyway it seems the park had given special permission for several breeders who were having an event that started on Friday and ran through the weekend to camp there at the Equestrian center complete with their horses and big rigs. Noise and LIGHTS.

Soon after arriving I began setting up the 16" light bucket which was now turning into a wind sail in my hands. The NWRP staff came over and gave me the "skinny" on the horse-folk and I made mention about trying to keep bright lights to a minimum and things like that. She also added that in the wind they were not going to allow them to have a fire-ring that night and we were going to be the excuse. I thought, Hmmm, don't even know these people at all and here we are spreading joy already. About thirty minutes later the "Alpha-Male" horse-folk showed up with his big diesel dual wheeled truck loaded with firewood and began tossing it on the ground in front of the big trailer where they were cohabiting when the NWRP lady informed that there would be no fire that night. It was then I logically came to the conclusion that he must have been a sailor at some time due to the stream of profanities that erupted from his mouth.

By now it is 5:30 PM, quite visibly dark, still cloudy and windy, but not another soul from BBAA has shown up yet. There is however one carload of TCC students waiting with me for the skies to open.

Around 6:00 PM Ted Forte drives up and comes on over and with one eye on the sky and one on me, asks if I am nuts? I take it as a rhetorical question, and explain that I believe it is supposed to clear about 6:30 - 7:00 PM. After a few minutes of chatter about the horse-folk and wonderful weather Georgie-June drives up and emerges in her best winter garb, minus her blanket. As we continue to explain the history of the horse-folk and continuing saga of the weather to her, I explain that I remember that there might be a few ninth graders coming out. But the cold has sapped my cognitive skills and I can't remember from where. Just about the time she is berating me that I should remember these important facts, a couple of cars show up. One is some friends of hers that she invited and the other is from Granby High School. They Granby folks are wondering where the BUSES, yes buses, where. As it was about 7:45 PM and the busses had left Granby at 5:30 PM

At just about 8:00 PM the busses arrived. Two full size school busses with Granby ninth graders. They descended upon us like bees returning to their nest. Since the clouds found this humorous that this was happening and decided to not yet cooperate, I began explaining what type of telescope I had out there and a little about how it worked. It was about at this time I think Ted and Georgie

(Continued on page 7)

(STS-126 LAUNCH, from page 5)

of my life. It only takes eight minutes for the Shuttle to reach orbital velocity - 17,300 mph.

I checked on my MacBook to see that it had shutdown the recording. But how could I be too disappointed? We had just seen the last scheduled night Shuttle launch all the way to orbit. Everyone was almost giddy talking about we had just experienced together. One of our new Shuttle Buddies came over and showed us some of his images. They were beautiful with the Waning Gibbous Moon in the frame with the glowing Shuttle and contrail arcing all the way back to us. Surf the web and you'll see a ton of other images and videos. Unfortunately, none of them can possibly capture the beauty seen by this old eyeball grabbing photons with Richard's viewfinder. I only wish that they could so that I could share or describe it better.

Ian was thinking ahead. He opened up some sparkling cider for us to celebrate after the launch. That was really fun. As everyone else quickly packed up and raced out onto the roadway, we started sharing views of Jupiter and the moons. It was great having Patty with us. It's always fun sharing a new Astro Buddies view of Jupiter and his moons. Our Moon was beautiful, too. By the time everyone else had left, we were visited by a Cadillac whose occupants said that we had to get out. The road had cleared up, so we went ahead and packed up Ian's car and headed on back toward Wal-mart. I knew about how early we could get on Kennedy, but I had totally missed how long it takes to get off of Kennedy after a launch. Soon after we left the viewing site, we ran into a continuous line of brake lights. We snail-crawled for almost an hour before Ian was about to wet his pants. He put it in park and ran out to the edge of the Causeway while Scott ran the Chinese Firedrill and assumed chauffeur duties until Ian got back to us. Wouldn't you know it, as soon as Ian left the line opened up the biggest gap that we would see for the next three hours. I was laughing so hard that I was crying while I was watching Ian run like crazy to catch up with us. You could hear people in other cars laughing and calling out, too. It was a hoot. He made it back to us just as the line stopped again. Scott inched along for about ten feet and then we stopped. Seat switch drivers for Ian and Scott. We then sat in traffic forever. Alright not forever, but it did take us three hours to cover the trip back to Wal-mart that was probably ten minutes when we arrived earlier in the day. I thought that it was ironic that while we were cruising along at one-mile-per-hour, the Shuttle had two orbits around the Earth. We got back to Daytona Beach a smidgeon before midnight.

I checked emails and VPAS. Then I thought that I'd just see how much disk space I had. I then realized that I had recorded the whole launch. Audio anyway. The video was only a huge flash. I hope that Scott was more successful. The images are seared in my brain, but I unfortunately can't share those, too well.

It was very hard forcing myself to get into bed. It was even more difficult falling asleep. I kept seeing the launch in my mind's eye. Magnificent. I'll never forget it. Thank you, Ian, Scott, and Patty for being such a huge part of such a magical night. Sharing the joy of astronomy...

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## The **Veil**

I had been reading about the Veil Nebula and the North America Nebula (NGC7000) in a past issue of "The Sky at Night". I really wanted to observe these objects and studied the charts, they seemed easy to locate. The article's author suggested spending an evening on the Veil. That was the mindset I had when I went to York River, November 1st.

I pulled into the park just at sunset, which allowed plenty of time to set up and get comfortable. There were maybe 10 astronomers set up already and before it was completely dark, I went around, refreshed acquaintances, and introduced myself to others. Daryl Douglas asked if I would put my name in a log of folks there. With the Veil in mind, I expressed my intentions to him and he told me to come by and he would show me the nebula using his scope.



When it got a bit darker, I scanned the Veil area at low power but couldn't find it. I knew I needed fairly dark skies to see this nebula and after an hour or so, I went over to Daryl's scope ready for instruction. That's one of the things I like about astronomers in these clubs- they are most gracious and willing to help - there is no keeping secrets - they're happy to share. He showed me the Veil in his 15" so I'd have an idea of what to look for. There are two bright parts - the Witches Broom (NGC-6960) and the Complex (NGC-6992). He let me loose on his scope and I became familiar with that part of the sky as I slewed around. Then he let me borrow a 30mm EP (40x) and a nebula filter because I really wanted to use my own scope and wanted to spend some serious time on it without encumbering another's scope.



I excitedly installed the EP/filter in my 10" dob and quickly found the Veil Complex. I did some things O'Meara suggests - hyperventilated and later forced my eyes to see with a dark cloth over my head during what has turned out to be a budding love affair with the Veil. I spent the better part of 5 hours viewing this and later the N. America nebula.

I'd observe for a while, taking it all in, scanning all the nebulosity in that area, sit in my new folding lounge chair, relax, read about the nebula and surrounding areas, eat a donut and then go back to viewing. I slowly scanned back and forth between the two sides of the Veil finding great, clouds of nebulosity. The excitement of getting to know a new friend and finding we have much in common.

Later that night I easily found the N. America nebula and just as I did, Daryl was visiting the folks in the area of field where I was set up. He asked how I was doing and I told him I think I have the Yucatan Peninsula in the EP. He confirmed my find. After some time with that nebula, I was drawn back to the Veil nebula.

I think I could spend a lifetime with this one object, but thankfully, I don't have to. I felt this way, but not as strongly over globs. Will this feeling of discovery, connectedness, and dare I say adoration ever stop?

That night I dreamt of the Veil.

Bill McLean

(STS-126 Launch, Continued from page 6)

Saturday coming home wasn't too bad for eleven hours in the car for the second of the last three days. What a wonderful life to be able to share this with friends and family. Amazing, actually. Thank you, Judy, Sara, Sammy, Lauren, Jeff, and NASA for giving us such a memorable opportunity. Carpe Noctum - Endeavour.

Bird Taylor

(Observer's Corner, Continued from page 6)

decided to take mercy, so Ted started setting up his ten inch Orion scope that he brought and engaged some of the students in helping him collimate it. While Georgie acquired the Planeshpere from my Honda and began showing some of the students how that worked. And then the stretch Hummer limo arrived, with more students from Norfolk Collegiate (one of the parents owns the limo co. and donated the ride). So we had about fifty - sixty kids looking at cloud bottoms.

Then it happened, the skies started to open to the West. We began to showing kids the Ring Nebula, then the binary pair Albireo, M103, I am sure a few others that Ted took them to as well. And then it was over, the clouds were back and we were all packed up and gone from the park by 9:45 PM.

A hearty well-done to Ted and Georgie, I don't know what I would have done out there all alone without you two. Many thousand thanks for supporting.

I am sure the "alpha" red-neck lit that darn fire the minute we all turned onto the pavement, oops did I say red-neck, I meant to say horse-folk. Not all horse-folk are full-blown redneck, but there is a little in all of them. I KNOW, I am one of them.

Chuck Jagow



## **DECEMBER 2008**

BBAA EVENTS	SPECIAL OUTREACH	ASTRONOMICAL EVENTS
04 = NO MONTHLY MEETING THIS MONTH, COMBINED WITH LUNCHEON		
06 = BBAA ANNUAL HOLIDAY LUNCHEON @ LYNNHAVEN FISH HOUSE, 2350 STAR- FISH RD, VA. BEACH @ NOON		05 = FIRST QUARTER
		12 = FULL MOON
19= SKYWATCH @ NWRP, Dusk		19 = LAST QUARTER
20 = CLOVERWATCH @ Franklin Fairgrounds, Dusk - POC Cliff Hedgepeth ON HOLD!!!!		
27 = NIGHTWATCH @ Chippokes State Park, Dusk		27 = NEW MOON