



## EPHEMERALS MARCH 2008

DATE	WHEN	WHAT & WHERE
2/29	Dusk	Skywatch @ NWRP Equestrian Area
6	7:30p	BBAA Meeting @ TCC in Virginia Beach
8	Dusk	Nightwatch @ Chippokes Plantation
13	6:30p	Science Night @ Nannesmond Academy in Suffolk
28	Dusk	Skywatch @ NWRP Equestrian Area
<b>NO GARDENSTARS</b>		

## Looking Up!

Well I sincerely hope all of you enjoyed the lunar eclipse in Tidewater, VA this year as much as the Jupiter triple moon transit several years ago - NOT!

It seems that as always in the Mid-Atlantic region location and timing are everything. Word from Roy Diffrient in Maryland was of light snow followed by clearing sky with a bright amber eclipse! Now that's a picture. "Best I've ever seen", to quote the Bard (Kent). Kent however being the hardy and hyperactive soul that he is managed to catch a glimpse of the eclipse at totality between clouds and using his trusty new 'refractor', snap an image good enough to make the Sky & Telescope website - congratulations Kent! Most of us waited patiently for glimpses between the clouds but time was not our friend, and intermittent became overcast throughout the entire time. But as they say, "wait twenty minutes" or till 2010.

March should keep our planet watchers busy with Mars in

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Gemini and Saturn in Leo. By mid month both will be high and I can see them from Ghent - wow. I'll be road tripping down to Chiefland Astronomy Village again this month. With the official Chiefland Star Party now history, the site has become a new moon haven for imagers and big Dobs as it retains its dark skies and comfortable temps at this time of year. The new editor of the Amateur Astronomer magazine (now available as a 56-60 page digital download) has moved to the village. Expect a surprise announcement of a possible restart to the star party in the next few years. It was a great experience.

Upcoming topics for meeting discussions will be on furthering our community outreach this spring and summer so if you don't attend you can't be heard. Besides if you're absent, your newsletter editor and I get all the cookies. Hope to see all of you soon.

*Bruce "Doc" Bodner*

# The Back Bay Amateur Astronomer's Observer

## February's Meeting Minutes

### Members in Attendance:

There were 30 members in attendance at the February meeting held in the new planetarium at TCC.

### Regular members in attendance were:

Neill Alford, Charles Allewelt, Bruce Bodner, Jordan Bramble, Kenny Broun, Ron Burgess, Larry Channel, Jeff Dunn, Ted Forte, Jay Garrard, Jeff Goldstein Steve Hamilton, Stan Hubbard, Chuck Jagow, Karen Jagow, Nancy Kelly, James Kresky, Matt McLaughlin, Cecil Nichols, Mike Pereira, Bill Powers, Mike Przytula, George Reynolds, Rob Schonk, Ronald Shaneyfelt, John Ten Eyck, Barbara Weiner, Kevin Weiner, Larry Wade, Shelton Williams.

### Treasurers Report:

None

### Secretary's Report:

The reading of the January minutes was waived because they are posted on the internet.

### Astronomical League Coordinators Report:

None

### RRRT:

Waiting on new Bisque card.

### Old Business:

None

### New Business:

Lunar Eclipse at the Chesapeake Planetarium February 20th.

Bruce mentioned a discount on SkyTools if anyone wants to get a group discount. Need two or more orders to get a discount. Talk to Bruce at the next meeting.

Outreach -- Bay Shore Girl Scouts, April 18, 19

Nansemond Suffolk Academy requests our participation in their Math/Science night. We set up scopes and gave a presentation a couple of years ago, and they want us back. Stay tuned for more details.

GardenStars -- 16th of February. Need Kevin to give us latest status.

Charles Allewelt mentioned that the chief ranger at Petti-grew State park may be interested in getting the park designated as a "Dark Sky Preserve". The club may be interested in assisting with this effort.

Solar System Ambassador George Reynolds read a couple of thank you letters from the teachers and students of Great Bridge Middle School in Chesapeake. The club recently set up scopes and info table at their recent science night. Club members George Reynolds, James Kresky, Bruce Bodner and Matt McLaughlin participated.

### Club Meeting Presentation:

Our February club meeting, held for the first time in our new venue, the planetarium in TCC's new science building; was a great success. Kenny Broun gave us an introduction to the capabilities of the new planetarium system.

The facility consists of an Evans & Sutherland Planetarium System: 20 computers, a 3 Laser System (Water Cooled) with grating light valves.

There are currently only three of these systems in the world at the present time.

Kenny showed us a program called "Wonders Of The Universe".

It's a wonderful new facility, and the club is very lucky to have such a place to call home. Thanks Kenny Broun!!!

### In Conclusion:

The meeting was adjourned around 9:30 PM.

Until Next Month, Keep Looking Up!!!

**Matt McLaughlin**

## MAP TO THE NEW BBAA MEETING LOCATION

Don't confuse the Adult Learning Center with the Advanced Technology Center, they are **NOT** the same buildings. The Adult Learning Center is the building that will be in front of you when you first turn off of Concert Drive, ignore it and turn right on University Drive and proceed to College Crescent where the parking lots begin. Then just walk South of the ATC and go in the Science Building and find the stairs closest to the planetarium and go upstairs to classroom JC12.





# The Back Bay Amateur Astronomer's Observer

NASA's Space Place

## Invisible Spiral Arms

by Patrick L. Barry

At one time or another, we've all stared at beautiful images of spiral galaxies, daydreaming about the billions of stars and countless worlds they contain. What mysteries-and even life forms-must lurk within those vast disks?

Now consider this: many of the galaxies you've seen are actually much larger than they appear. NASA's Galaxy Evolution Explorer, a space telescope that "sees" invisible, ultraviolet light, has revealed that roughly 20 percent of nearby galaxies have spiral arms that extend far beyond the galaxies' apparent edges. Some of these galaxies are more than three times larger than they appear in images taken by ordinary visible-light telescopes.

"Astronomers have been observing some of these galaxies for many, many years, and all that time, there was a whole side to these galaxies that they simply couldn't see," says Patrick Morrissey, an astronomer at Caltech in Pasadena, California, who collaborates at JPL.

The extended arms of these galaxies are too dim in visible light for most telescopes to detect, but they emit a greater amount of UV light. Also, the cosmic background is much darker at UV wavelengths than it is for visible light. "Because the sky is essentially black in the UV, far-UV enables you to see these very faint arms around the outsides of galaxies," Morrissey explains.

These "invisible arms" are made of mostly young stars shining brightly at UV wavelengths. Why UV? Because the stars are so hot. Young stars burn their nuclear fuel with impetuous speed, making them hotter and bluer than older, cooler stars such as the sun. (Think of a candle: blue flames are hotter than red ones.) Ultraviolet is a sort of "ultra-blue" that reveals the youngest, hottest stars of all.

"That's the basic idea behind the Galaxy Evolution Explorer in the first place. By observing the UV glow of young stars, we can see where star formation is active," Morrissey says.



The discovery of these extended arms provides fresh clues for scientists about how some galaxies form and evolve, a hot question right now in astronomy. For example, a burst of star formation so far from the galaxies' denser centers may have started because of the gravity of neighboring galaxies that passed too close. But in many cases, the neighboring galaxies have not themselves sprouted extended arms, an observation that remains to be

explained. The Galaxy Evolution Explorer reveals one mystery after another!

"How much else is out there that we don't know about?" Morrissey asks. "It makes you wonder."

### Image Caption:

*In this image of galaxy NGC 1512, red represents its visible light appearance, the glow coming from older stars, while the bluish-white ring and the long, blue spiral arms show the galaxy as the Galaxy Evolution Explorer sees it in ultraviolet, tracing primarily younger stars. (Credit: NASA/JPL-Caltech/DSS/GALEX).*

# 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.

The March meeting will be on Thursday March 6th at 7:30 PM at the new planetarium in the new Science building of the Advanced Technology Center on the Virginia Beach TCC campus 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://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 March for the April issue. Please submit all items to:

[ObserverBBAA@cox.net](mailto:ObserverBBAA@cox.net) / [chuck@jagowds.com](mailto:chuck@jagowds.com)

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# The Back Bay Amateur Astronomer's Observer

## LUNAR ECLIPSE 2008

The lunar eclipse of 2008 had many stories, here are a few.

Dag on, That little clipper last night dropped 2" of snow on us in Maryland! It stopped snowing by 8:00 pm and cleared up great by 10 pm for the rest of the night. I was able to catch the ending of totality! Aw gosh it was so beautiful. Can't help but to love the moon for stuff like this. I ran out with my trusty ol' \$119.99 Fuji-film A500 that I now squeezed nearly 3,300 images from. Sadly, it's on its last

and turned outside. I'll I get a new

It was a night. Batter-dead and had of more dead Switch them after they much juice snap photos. used my tri-some wide field photos.



leg. Froze up off by itself miss it when camera.

struggle last ies were a pocket full batteries. around a lot died to get as as I could to First I just pod and took

Then I decided to grab my dusty ETX-70 for some imaging and visual observing. My last 2 sets of dead batteries died while transferring the pictures to my laptop. I had to use my old batteries in my Telrad to finish it off!

**CJ Wood**

Karen and I arrived at the Chesapeake planetarium about 7:00 PM and found Dr. Hitt, Kent, Georgie and Ted sipping coffee and commiserating about the state of affairs. The clouds had come in between four and seven and were threatening the entire affair. It



was so dismal that I initially chose to leave my telescope in the back of the Honda. Pretty soon Rick Bish showed up and a potential new member, Alex, stopped by and chatted for a good while. Several other folks came on by as well, disappointed I am sure.

Dr. Hitt attempted to rescue the evening by providing us a nice show in the planetarium while we waited for the clouds to do their thing. In the mean time the 14" Celestron was rolled out so we could sneak quick glimpses of moonbeams. About forty five minutes before totality began Kent made the decision to head off for Coinjock. It wasn't fifteen minutes after he left that it seemed like the skies opened up. Enough so, that I quickly set up my refractor rig. I managed a few minutes of views at the partial eclipse before the laughing clouds closed their grip for the night on us there in Chesapeake and wouldn't let go. I waited about thirty more minutes before finally throwing in the towel and packing up.

**Chuck Jagow**

Like CJ, we also had about 2" of snow yesterday, but the snow clouds were gone before 9 pm, so we saw all of the eclipse. It was one of the most beautiful I've seen. Moonlight on snow is magic, of course. Last night was not only beautiful, but a first -- A snowy landscape illuminated by an eclipsed moon. I've never seen that before. I'll remember that.

**Roy Diffrient**

The total lunar eclipse of February 20th was certainly filled with promise after an entire day of beautifully clear skies. I arrived at the Chesapeake Planetarium late in the afternoon with high hopes, despite the gloomy weather predictions. Mark Ost showed up at 4:00 pm, armed with his 4" Takahashi and other gear. We decided to take a "wait-and-see" approach before setting up all our optical gear.



Around 4:30 pm clouds started rolling in from the northwest and within an hour it was completely cloudy! By 7:00 pm there was little hope of seeing anything, although Ted Forte, Georgie June, Chuck & Karen Jagow, Rick Bish and others joined us. Planetarium director Dr. Robert Hitt made the decision to cancel the public eclipse watch, but we hung around just in case. Every now and then the moon would appear briefly but the clouds were thickening more and more as time went on.

By 8:30 pm I decided to take a road trip to Coinjock, NC, hoping to see something of the eclipse. So, I hopped in my car and headed south. Within twenty minutes Ted called my cell phone and said,

*(Continued on page 6)*

# The Back Bay Amateur Astronomer's Observer

## OBSERVERS CORNER

**January 2008** - I rolled into Cornland last night around 7:30 to find Ted Forte and Georgie June setting up Ted's 18" DOB. I set up my 16" DOB and began the night as I do many times, looking at WZ CAS in Cassiopeia. It is a nice double with a red lithium star and a blue companion. Ted and Mark brought me to this pair several years ago at a Skywatch and I have been hooked on them ever since.

As the night progressed Georgie continued bagging Messier objects working toward her pin, with Ted sneaking in views now and then to look at other neat objects. Sometime between nine and ten James Kresky and Jordan Bramble found their way to the park with their scopes. James had recently acquired an 8" Intelliscope from club member Nick DePaulo.

Jordan was sporting a 10" Orion DOB. I do believe the 10" DOBs must be the most popular one they sell, I'll bet there is a dozen club members who have them. Ted helped Jordan with collimation as well as loaning him eyepieces to try. Unfortunately these two showed up just about the same time as the dew did and neither had any dew preventing equipment. About the only thing helpful I provided was a very quick display of my homemade dew removal system on my DOB.

As the night continued on I observed the Rosetta nebula, the Christmas Tree cluster, Mars and Saturn, a variable nebula NGC 2261, Thor's helmet, Mars and Saturn, M42, galaxies M51, M81 & M82 and NGC 2903 and finished the night mesmerized by Mars and Saturn. Saturn's rings are turning more edge on than they were just months ago when I was observing it in the wee hours of the morning. I am betting that they will be edge on by next season. I was barely able to see the Cassini division last night. I was able to make out features on Mars at times as well. It just takes time standing at the eyepiece waiting for those opportune moments when it all comes together.

Jordan was feeling poorly so he and James packed up and left sometime around eleven or so with Ted, Georgie and I packing up all of our stuff and heading on out about midnight after a bank of clouds started moving in from the south. All in all it was one of the better nights out at Cornland.

**Chuck Jagow**

*(Lunar Eclipse, from page 5)*

"It's clearing up, come back". Tempting, but I proceeded onward. He called back and said it clouded back up and they were calling it quits.

Arriving to Coinjock the sky was 70% cloudy, but at least I could see the partial phases now and then. I drove into the observing area nestled in a grove of cedar trees, jumped out of the car, set the 100mm scope, polar aligned, attached the camera to the scope. Within ten minutes I was prepared to image the eclipse!

Despite the clouds I managed to see about ten minutes of totality, and a beautiful eclipse it was! I've never seen a total lunar eclipse from a dark sky location since I'm usually involved with public outreach programs in the city. Wow! I can't believe how dark the sky was. In fact the Sky Quality Meter read 21.37 during mid-totality.



By 11:00 pm the sky was 100% clouded out so I packed up the scope and headed home. On the way home it began snowing! Wow, what a day, beautiful and warm all day, cloudy during the eclipse followed by snow flurries!

**Kent Blackwell**

We live about an hour west of Roy. I spent the evening with my 8-yr old son in his room with the lights out admiring the eclipse's beauty. A gorgeous sight!

**Ron Robish**

It's great to be an astronomer in Tidewater. We had a wash out at the VB planetarium also. Hey Cliff, what's next on our list of events to miss?

**Dale Carey**

# *The Back Bay Amateur Astronomer's Observer*

## *My First Encounter*

This is an edited excerpt from my journal, dated January 20, 2002. I had just begun taking a night course in Planetary Astronomy with Ken Broun. He recently had informed the class of the BBAA events at Northwest River Park.

After Mary made a delicious meal one Friday evening, I picked through the bones on my dinner plate, and told her about the Back Bay Amateur Astronomers who met at the Northwest River Park in Chesapeake. I asked her if she wanted to go to the to view the stars after dinner. She was a little hesitant at first but relented as I told her that she didn't have to go, but that I might go, anyway. She said that we could take Quincy [our dog] with us and make it a fun trip, so after we cleaned up the dinner dishes, the three of us piled into the car and headed for the park.

We got to the site about 8:30 and being January, it had been pitch dark for about 2 hours, by then. As we drove down Indian Creek Road our headlights moved on to a square, white sign with black lettering, no bigger than a realtors sign, that said "Back Bay Amateur Astronomers." Remembering what my professor had said about headlights, we quickly switched to parking lights and coasted down a small dirt decline and around a woody corner. It was so dark, I could barely see with just my parking lights. Mary panicked when we had to pass someone who was leaving because it was so dark and the dirt road was really only made for one way traffic. We finally and safely made it to a totally dark, unpaved parking lot.

When we got out of the car, the atmosphere was like stepping into a strange party with no lights, or music. The scene consisted of about 10 - 12 people (hard to tell in all that blackness) but as I walked in I saw all those stars and quickly realized why all these people came all the way our here! The first thing I did was to show Mary (who had Quincy on the leash) the Belt of Orion. Then, I showed her Betelgeuse and Rigel. As soon as I struck up a conversation with two of the onlookers, a paper was put in front of me and another hand with a red flashlight appeared above it. "Did you

fill out one of these yet?" a voice asked me. "No," I said, and began writing. The object thrust in front of me was one of those attendance rosters from the club that I didn't mind filling out because of my genuine interest in astronomy. The people were frank and open with Mary and me. We asked a lot of questions, and a guy with an 18" telescope became our guide through the stars. Mary was very surprised how nice everyone was, especially the guy with the big telescope. There were others with their telescopes, but Ted had them all beat. I think I saw 4 or 5 others set up and another guy named Dan, who was really talkative and nice to us, had a huge set of binoculars. The binoculars actually worked well, giving us a broader perspective on some of the larger bodies that we looked at, like Andromeda.

Just as I began to strike up conversation with another one of the dark figures, she pointed to a crescent of moon nestled in wispy ice clouds. Just to one side of it, we spotted Mars. I was so satisfied with spotting this most mysterious planet with my naked eye, I felt as though I had somehow acquired an instant, useful skill. Ted then had his telescope pointing at the Orion nebula. I was surprised to see the detail and gasses that seemed to swirl in stop-action. He said that there was a galaxy we could see with our naked eye called Andromeda and he pointed his equipment in that direction. After we located it by looking through Dan's binoculars, he let Mary and me take a peek. I couldn't believe the amount of stars in this galaxy, and it was so bright. We also trained the telescope on M32, M35, got an astonishing view of Jupiter with its many bands, along with its four moons. Next viewed was a favorite of the club: Saturn. Everyone wanted to get a view of those gaseous rings and how they tilted ever so gracefully in black space. Ted began to explain about the Eskimo, a planetary nebula and how at one time it was a younger star, but is now slowly disintegrating, bulging at its middle and throwing off gasses. This star appeared to be a star surrounded by parka fur, thus acquiring the name 'Eskimo'. Three "double" stars were shown next: Castor, Rigel, and Polaris. At last, Dan asked a question as to stars in clusters of three. Ted pointed his hefty telescope toward Herschel's Wonder to top off the evening. I have never had such a good time in the dark, freezing weather and I know one thing--I'll be back.

*Rick Bish*



# The Back Bay Amateur Astronomer's Observer



## MARCH 2008

BBAA EVENTS	SPECIAL OUTREACH	ASTRONOMICAL EVENTS
29 = SKYWATCH @ NWRP, Dusk		
01 = CLOVERWATCH @ Franklin Fairgrounds, Dusk <b>CANCELLED</b>		
06 = BBAA Monthly Meeting @ TCC VB Campus, ATC New Science Building, 7:30 PM		07= NEW MOON
08 = NIGHTWATCH @ Chippokes State Park, Dusk		
	13 = Science Night @ Nannesmond Suffork Academy , 3373 Pruden Blvd, Suffolk @ 6:30 PM - POC: Chuck Jagow	14 = FIRST QUARTER
		21 = FULL MOON
28 = SKYWATCH @ NWRP, Dusk		
29 = CLOVERWATCH @ Franklin Fairgrounds, Dusk <b>CANCELLED</b>		29 = LAST QUARTER