



EPHEMERALS MAY 2008

DATE	WHEN	WHAT & WHERE
1	7:30p	BBAA Meeting @ TCC in Virginia Beach
2 - 3	2:00p	East Coast Star Party @ Coinjock NC
3	Dusk	Nightwatch @ Chippokes Plantation
9	7:00p	Night Hike @ NWRP
10	10:00a	Astronomy Day @ Central Library, Virginia Beach
17	7:00p	Garden Stars @ Norfolk Botanical Gardens ??????????
30	Dusk	Skywatch @ NWRP Equestrian Area
31	Dusk	Cloverwatch @ Franklin Fairgrounds MAYBE?????

Looking Up!

Looks like spring and daylight saving time is definitely upon us. And its East Coast Star Party time once more – tell Mel’s Diner to prepare for the invasion! Don’t forget your memorial tee shirt and the raffle prizes, too.

I just returned from “Disney World” for amateur astronomers at the North East Astronomy Forum or NEAF as we have come to know it. And yes it is big! Over 120 vendors and 4000 attendees in two days! Literally everything you have seen in the magazines and in the catalogues was there for the touching and for lucky people the buying or even winning. Door prizes were hourly on both days and Dale wasn’t there so we all had a chance. <G>

Everything from eyepieces to observatories were present together with the leaders in our obsession. Tons of lectures, book signings, and take a ways, both free and available for purchase. Almost all discounted and tax free – hard to pass up. Yes, I did imbibe. I even got to man the Takahashi booth for a while – wow! Yes, Virginia, there is a Santa Claus. I hope

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to have a presentation for the monthly meeting in June/July. Sorry, I did not bring any prizes home with me.....this time! I would recommend everyone think of an excuse some time in the future to attend.

Preceding NEAF was NEAIC, the North East Astronomy Imaging Conference. The facilities were state of the art AV and lecture halls were comfortable. Some of the great names in astronomical imaging as seen on the APOD website were either in attendance or part of the faculty.

So add 2 + 2 days of astronomy together and call me saturated. Thank heavens fellow BBAA’er Stephen Hamilton was there to give a talk for Meade. Always helps to have a friend while away.

Well, times short. Got to prepare for Coinjock! Hope to see many of you there in both daylight and under pristine skies.

Bruce "Doc" Bodner

The Back Bay Amateur Astronomer's Observer

April's Meeting Minutes

There were 24 members and several visitors in attendance at the April 3rd meeting held in the planetarium at TCC's science building. Matt McLaughlin, club secretary, presided since the president and vice president were absent.

Bruce Bodner and Chuck Jagow, along with several other members, were gazing at rain at the Stargaze star party at Tuckahoe State Park, Md.

Regular members in attendance were:

Gerry Carver, Rob Schonk, George Reynolds, Don Ives, Cecil Nichols, Barb Weiner, Kevin Weiner, James Kresky, Shelton Williams, ***Kent Blackwell***, Dr. Robert Hitt, Kenny Broun, Kevin Swann, Benito Loyola, Courtney Flonta, Brenda Butler, Austin Bryant, Mike Pryztula, Jeff, Linda and Jennifer Goldstein, Jordan Bramble, Neill and Pattie Alford, Matt McLaughlin, Kelly Creger, Tony Flonta, Robert Harris, and potential member Hunter Hughes.

Treasurers Report:

\$5,150.03 Club Balance

Secretary's Report:

Reading of the March meeting minutes waived due to availability on the internet.

Astronomical League Coordinators Report:

No report since our ALCOR, Georgie June, was absent.

RRRT:

Kevin Weiner reported on the current status. Despite hardware setbacks, progress is being made again thanks to a lot of hard work. The telescope is operating smoothly but occasionally stalls if slewing at full speed. RA pointing is still an issue.

Old Business: None

New Business:

The club welcomed new associate member Courtney Flonta.

Schedule:

Nightwatch at Chippokes is April 5.

Science Fair at Arrowhead Elementary is April 10.

Camp Darden is April 18.

Skywatch is April 25.

Next BBAA meeting is May 1.

ECSP is May 2&3. For some members who will go down early, this will conflict with the next BBAA meeting.

Astronomy Day is May 10.

Cloverwatch is on hold until further notice.

GardenStars is still on hold.

Club Meeting Presentation:

Kenny Broun demonstrated some of the extensive capabilities of the TCC planetarium and then presented one of his exciting new planetarium shows, "Stars of the Pharaohs."

In Conclusion:

The meeting was adjourned around 9:00 PM. After the meeting, members adjourned to the TCC observatory, where Kenny showed off the new 6" Takahashi refractor and described its capabilities - all he could do due to the misty rain.

Until Next Month, Keep Looking Up!!!

Neill Alford

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



Stellar Compass for Space Explorers

by Patrick L. Barry

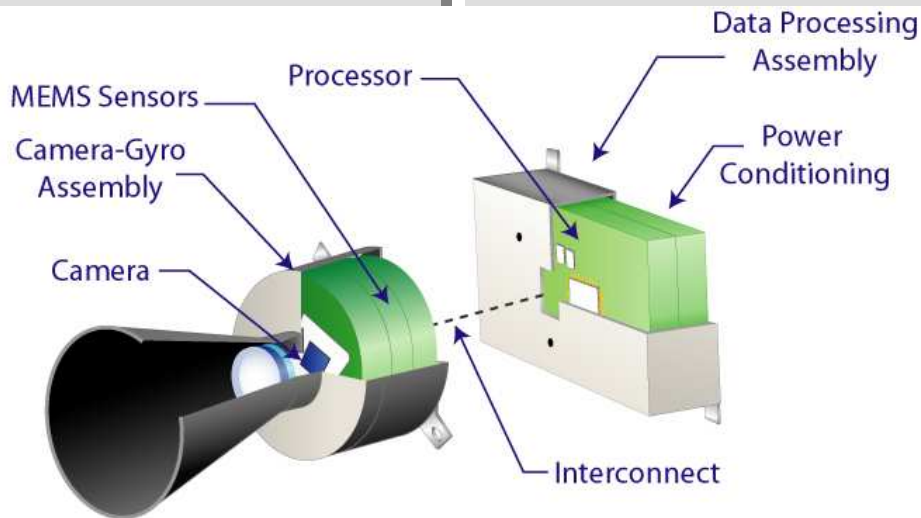
In space, there's no up or down, north or south, east or west. So how can robotic spacecraft know which way they're facing when they fire their thrusters, or when they try to beam scientific data back to Earth? Without the familiar compass points of Earth's magnetic poles, spacecraft use stars and gyros to know their orientation. Thanks to a recently completed test flight, future spacecraft will

be able to do so using only an ultra-low-power camera and three silicon wafers as small as your pinky fingernail. "The wafers are actually very tiny gyros," explains Artur Chmielewski, project manager at JPL for Space Technology 6

(ST6), a part of NASA's New Millennium Program. Traditional gyros use spinning wheels to detect changes in pitch, yaw, and roll—the three axes of rotation. For ST6's Inertial Stellar Compass, the three gyros instead consist of silicon wafers that resemble microchips. Rotating the wafers distorts microscopic structures on the surfaces of these wafers in a way that generates electric signals. The compass uses these signals—along with images of star positions taken by the camera—to measure rotation. Because the Inertial Stellar Compass (ISC) is based on this new, radically different technology, NASA needed to flight-test it before using it in important missions. That test flight reached completion in December 2007 after about a year in orbit aboard the Air Force's TacSat-2 satellite. "It

just performed beautifully," Chmielewski says. "The data checked out really well." The engineers had hoped that ISC would measure the spacecraft's rotation with an accuracy of 0.1 degrees. In the flight tests, ISC surpassed this goal, measuring rotation to within about 0.05 degrees. That success paves the way for using ISC to reduce the cost of future science missions. When launching probes into space, weight equals money. "If you're paying a million dollars per kilogram to send your spacecraft to Mars, you care a lot about weight," Chmielewski says. At less than 3 kilograms, ISC weighs about one-fifth as much as traditional stellar compasses. It also uses about one-tenth as much power, so a spacecraft would be able to use

smaller, lighter solar panels. Engineers at Draper Laboratory, the Cambridge, Massachusetts, company that built the ISC, are already at work on a next-generation design that will improve the compass's accuracy



ten-fold, Chmielewski says. So ISC and its successors could soon help costs—and spacecraft—stay on target. Find out more about the ISC at nmp.nasa.gov/st6. Kids can do a fun project and get an introduction to navigating by the stars at spaceplace.nasa.gov/en/kids/st6starfinder/st6starfinder.shtml.

Image Caption:

Compass is built as two separate assemblies, the camera-gyro assembly and the data processor assembly, connected by a wiring harness. The technology uses an active pixel sensor in a wide-field-of-view miniature star camera and micro-electromechanical system (MEMS) gyros. Together, they provide extremely accurate information for navigation and control.

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 May meeting will be on Thursday May 1st at 7:30 PM at the new Science building of the Advanced Technology Center on the Virginia Beach TCC campus in Virginia Beach. The meetings are usually held in classroom JC12 or the Planetarium.

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 May for the June 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

BBAA's Role: Are We Doing All We Can?

I've been thinking about BBAA's role, and wondering, are we doing all we can to fulfill our motto of "bringing astronomy to the people"?

As a 501(c)(3) scientific and educational organization, the Back Bay Amateur Astronomers do get involved in educating the public about the stars, the planets, space, and astronomy in general. We have numerous "outreach" programs to the community, like Skywatch, Garden Stars, Night Hikes, Cloverwatch, Astronomy Day, Earth Day, Lunar Festival, Scout programs, a scholarship, and special science nights at local schools. But are we doing enough? Are there other ways we can help the people in our communities become more aware, more enlightened, more *excited* about the thrill of seeing far-off planets, stars, galaxies and nebulas?

Most organizations experience the "20-80" rule, which states that 20% of the members do 80% of the work. I think our BBAA percentages are a little better than that. But we do seem to have a "core" of folks who are involved in most of the club's activities, and a slew of members we see only on paper, who seldom or never attend meetings, stargazing events, or outreach activities.

There could be many reasons for that, since it seems our lives are so hectic and busy these days. The more "time-saving" and "labor-saving" devices we have, the less time we seem to have. But one thing is sure, people will make time for the things they feel are important to them. Many of our dedicated members are out there under the stars every chance they get, or helping at events like schools or skywatches.

What are the results of our efforts? Are they measurable? Are we truly reaching our target audience? What IS our "target audience"? Per-

haps we can discuss these and other questions in the months to come.

Over the past few years we have talked at times of establishing a long-range planning committee, or "steering committee" to come up with a long-term plan and goals for the club. More than a year ago we had a meeting in which we had a "round-table discussion" of ideas and activities the club could or should do. We have talked about some things, but have been slow to act.

That's not necessarily a bad thing. Jumping into something without sufficient planning and preparation can be disastrous. And we have seen a lot of progress in the past five to eight years. The quality of our meetings has improved, as has the quality and appearance of our newsletter from years ago. We have a working and informative Web site, and a very active Yahoo group called Backbayastro (<http://tech.groups.yahoo.com/group/backbayastro/>), by which many of us keep in touch and stay on top of what's going on in the club and in astronomy locally and internationally. We have a working scholarship program, thanks to the efforts of many of our people, present and past.

Yes, we are doing a lot of things, but are we doing enough? Are we doing too much? Are we spread too thin? Are we doing the right things? ...in the right way? I would like to hear from some of the members as to your thoughts and answers to these and other questions. It would be truly special to hear from some of our less active or inactive members, who get the newsletter, but that's about all. Please, YOU send in your comments, thoughts, ideas, answers, and new questions and get this forum going.

George Reynolds

The Back Bay Amateur Astronomer's Observer

OBSERVERS CORNER

April 2008 - Delmarva Stargaze, this was one star party where if you missed the first night, well, you might want to just stay home. The clear sky Wednesday night registered 20.8 on the meter at midnight -- Not quite the very best, but not bad at all, although the seeing was a bit rough. I flaked out about 3 AM. Thursday night we partied in the rain with Dr. Bruce and Ted at Ray and Glenda Moody's place. Friday was cloudy with periods of rain and wind. Saturday, the rain stopped long enough for us to tour St. Michaels, MD with Ray and Glenda, but still under cloudy skies. I had hoped that things would clear up for Saturday night, as that was the last guess that I heard from the weather-guessers, but instead we just got rain. And Sunday morning featured - you guessed it -- more rain. We waited until it eased up a bit to break camp, so we were the last to leave, but it rained all the way home. Looks like it has now stopped here, finally.

I felt sorry for Ron Robisch, who finally managed to get to Tuck just for the weekend, after being absent for a few years -- He got to camp in the rain, and take his telescope for a ride. Still it was good to see him, his new dog Red, and son Lincoln, who is growing up fast. Better luck next time, Ron.

This is two straight years for cold, rainy, windy, weather at the spring Stargaze. At least the Porta-Potties didn't blow over this time.

Roy Diffrient

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April 2008 - This is what we saw for almost the entire month of April



BBAA Observers

ASTRONOMY DAY

Astronomy Day for 2008 is being held on May 10th. The Back Bay Amateur Astronomers are going to support this day by rallying at the Central Library in Virginia Beach.

In past years we have spread ourselves out at three main Virginia Beach libraries. Usually Central Library, Kempsville Library and the library off of Nimmo Parkway.

The last couple of years has found us with waning support at some of the sites, almost to the point of painful for the members doing it as there were not even enough folks to provide coverage for bathroom breaks. This was becoming a chore and not fun anymore.

So at the next club meeting it was discussed that the next Astronomy day the club would support just the Central Library in an effort to regroup a little bit and try to recover the fun and excitement of previous Astronomy days. This enthusiasm will in turn spill over onto the public as we go throughout the day.

And perhaps encourage some other BBAA members to come on out and see that this outreach business is really not all that hard, and how fulfilling it can be.

I encourage each and everyone of you who have never participated in an outreach event to come on out to Central Library on Saturday May 10th between 10:00 AM and 5:00 PM and try it. I did my first one in 2004 and have been hooked on doing outreach events ever since. So come on out and give it a try!

Chuck Jagow

The Back Bay Amateur Astronomer's Observer

EAST COAST STAR PARTY & FASHION SHOW

MAY 2 & 3

Star Party Admittance \$12.00 per person

Please register and pay Kent Blackwell at the telescopes site, not at the campground store. Pay at the door, no need to pay or register in advance. Non-registered guests are welcomed, but must leave before midnight. Admittance includes camping, if you wish to do so.

Hampton Lodge Camping Resort – Coinjock, NC (252-453-2732)

Approximately 45 miles south of Norfolk/Virginia Beach, VA area Driving NORTH on US 158, take the Waterlilly exit before crossing the Joseph Palmer Knapp Bridge at Coinjock. Follow signs Driving SOUTH on US 158, cross the Joseph Palmer Knapp Bridge at Coinjock. Turn left at foot of bridge. Campground is approximately 7 miles down Waterlilly Road

NOTE: THE SKY IS 6TH- MAGNITUDE BUT CEDAR TREES OBSTRUCT THE HORIZON APPROXIMATELY 20%
OBSERVING SITE: THE CEDAR TREES AND SURROUNDING AREAS@100' TO THE LEFT AFTER CAMPGROUND ENTRANCE GATE

JUST FOLLOW THE SIGNS AND PLEASE OBEY CAMPGROUND 10 MPH SPEED LIMIT

Portable restroom conveniently located near observing area.

Showers and campground store located 1/4- mile from the observing area
You may camp near your telescope No AC is available in the observing field

NEW THIS YEAR: THE FIRST OF ITS KIND FASHION SHOW CONTEST TO BE HELD ON SATURDAY AFTER THE COOKOUT. DRESS NERDY, OUT-OF-THIS-WORLD, WEIRD, OR WHATEVER!!

\$20 CASH PRIZE FOR BEST CHILD'S OUTFIT \$50 CASH PRIZE FOR BEST ADULT AGE 16 OR OVER

ITINERARY

FRIDAY:

REGISTRATION: BEGINS AT 2:00 PM
7:00 CASUAL STARGAZING BEGINS
Coffee & snacks served all night

SATURDAY:

REGISTRATION: BEGINS AT 10:00AM
OPTIONAL: BRUNCH AT MEL'S DINER IN GRANDY, NC AT 10:30AM
4:00 PM COOKOUT AT OBSERVING SITE
KENT WILL SUPPLY HAMBURGERS, HOT DOGS, SOFT DRINKS - YOU MAY BRING A DISH IF YOU WISH
6:00 PM, THE WORLD'S FIRST STAR PARTY FASHION SHOW
7:00 PM DOOR PRIZE DRAWINGS

OBSERVING BEGINS AFTER DOOR PRIZE DRAWING

Coffee & snacks served all night

DOOR PRIZES FOR KIDS 12 AND UNDER!

MANY DOOR PRIZES!

Kent Blackwell, Organizer
Virginia Beach, VA 23464
757-495-4663 e-mail: kent@exis.net

The Back Bay Amateur Astronomer's Observer



MAY 2008

BBAA EVENTS	SPECIAL OUTREACH	ASTRONOMICAL EVENTS
01 = BBAA Monthly Meeting @ TCC VB Campus, ATC New Science Building, 7:30 PM		05= NEW MOON
03 = NIGHTWATCH @ Chippokes State Park, Dusk	02 - 03 = E C S P @ Hampton Lodge Campground, Coinjock, NC @ 2:00 PM - POC: Kent Blackwell	
09 = NIGHT HIKE @ NWRP, Chesapeake, VA @ 7:00 PM - POC: Ted Forte CONTACT TED FIRST as NWRP limits # of people.		11 = FIRST QUARTER
	10 = ASTRONOMY DAY @ Central Library, 4100 Virginia Beach Blvd, Virginia Beach, VA @ 10:00 AM—5:00 PM - POC: Chuck Jagow	
17 = GARDEN STARS @ Norfolk Botanical Gardens, Norfolk, VA @ 7:00 PM - POC: Kevin Weiner ON HOLD Scheduling issues.		21 = FULL MOON
30 = SKYWATCH @ NWRP, Dusk		27 = LAST QUARTER
31 = CLOVERWATCH @ Franklin Fairgrounds, Dusk - POC Cliff Hedgpeeth		