

the Milliwatt



The award-winning monthly publication of
The Baltimore Radio Amateur Television Society
P.O.Box 5915 Baltimore, MD 21282-5915

December, 2005

BARC VE Exams for 2006 Scheduled ... See Page 10

White House Nominates New FCC Commissioner, Cops Tapped for New Term

President George W. Bush has nominated Deborah T. Tate of Tennessee, a Republican, to serve out the remainder of the term of former FCC Chairman Michael K. Powell, which expires June 30, 2007. Powell announced his resignation one day into President Bush's second term, and he departed the FCC last March. Under FCC Chairman Kevin J. Martin, a Republican who succeeded Powell, the FCC has been operating with four members ever since. The White House this week also reappointed Commissioner Michael J. Copps, a Democrat, for a new five-year term, starting last July 1. Both appointments are subject to US Senate confirmation.

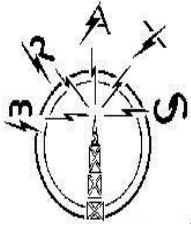
Vanity Processing Could Be on Hiatus Until Late December

Thanks to Hurricane Wilma, the FCC likely will not be processing any vanity call sign applications until late December. The Wireless Telecommunications Bureau (WTB) halted vanity processing on or about September 23 after realizing that filing and regulatory deadline extensions for licensees in certain states affected by hurricanes Katrina and Rita could affect the vanity program. This week, the FCC announced an additional extension--until December 22--for licensees adversely affected by Hurricane Wilma. Because all three extensions apply to Amateur Radio's two-year "grace period," they could have an impact on vanity call sign processing. A WTB spokesperson said that the Wilma deadline extension probably would have the same effect on vanity processing as the previous two.

ARRL invites Amateur Radio disaster volunteers to log their service

The ARRL is asking Amateur Radio volunteers who helped to provide or support communication during one of the recent hurricanes or other incident. An Amateur Radio Service Volunteer Form now is available on the ARRL Web site. The League is asking radio amateurs to complete the form each time they complete volunteer service. "Your commitment and dedication to using ham radio in community service send a strong message that volunteer radio operators are essential to a successful response to any disaster," said ARRL COO Harold Kramer, WJ1B. "The details of your service strengthen Amateur Radio and its voice in official Washington, to the public and to the press. When we can document the thousands of hours you serve, we can use the information to build a strong case for radio spectrum protection at home and abroad." The on-line form includes a "Your Comments" box to ask questions or to supply additional information. The ARRL will use the information provided for internal purposes only and will not share any individual's information with any other organization.

Happy Holiday Season!



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The award-winning monthly publication of The BRATS.

Items herein may be reprinted with credit.

Mayer D. Zimmerman, W3GXX, Editor

Some Thoughts

Make sure you read The Katrina Chronicles 1 in the November issue of QST. Share it with friends and family. Let everyone know what hams are doing and have done to help everyone in need of help! Check the ARRL Web Extra each day and find out if and where more help is needed and volunteer to help. We are also proud of our own speakers and presenters, Jeremy, K2ORX, for his talk on and demonstration of IRLP and Les, W3GXT for his demonstration of PSK 31. Our program committee chaired by Jeremy, K2ORX has some good stuff in the planning. Make sure to attend meetings!
73, Mayer, W3GXX

The Baltimore Radio Amateur TV Society, Inc. P.O. Box 5915 Baltimore, MD 21282-5915

a non-profit organization under section 501(c)(3) of the Internal Revenue Code and a non-profit corporation in the State of Maryland. We belong to and support the Foundation for Amateur Radio (FAR) and the American Radio Relay League (ARRL).

home page: <http://www.bratsatv.org>

e-mail: mail@bratsatv.org

InfoLine: 410- 461-0086

Meetings: 2nd Tuesday, 7:30 PM, Pikesville Library, 1301 Reisterstown Rd., Pikesville, MD.

President: Ed Rosen, N3GXH

Vice Pres: Edward Koritzer, N3DGY

Secretary: Mayer D. Zimmerman, W3GXX

Treasurer: Les McClure, W3GXT

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Vice Chairman, Technical: Mike Dees, N3Ezd

Vice Chairman, Operations: Ian Millet, N3CVA

BRATS Repeaters

BRATS Linked Repeater System:

WB3DZO: 147.03+, 224.96-, 448.325-

BRATS Stand-alone repeaters:

443.350+

BRATS Packet Network Nodes

W3GXT-5 145.05

W3GXT-10 224.52

BRATS ATV Repeater System:

W3WCQ: inputs: 426.25, 1253.25

outputs: 439.25, 911.25

BRATS Weekly Nets

Mon 9 pm Traffic and Info Net, W3GXX

Tues 9 pm BRATS Horsetraders Net, Grant, KA3CEA

Wed 9 pm BRATS ATV Net

Thurs 9 pm BRATS ATV Net

Fri 11:45 Informal ATV Net, W3WVV (Note change from Monday to Friday)

Sat 1 pm Weekly News Bulletin, W3WGXX

Sat 1:20 The BRATS Answer Men:
W3WVV and N3GXH

As needed Weather/Emergency Net, Skywarn

BRATS Board of Directors

Through 12/05:

KA3IDB, W3ZQI, K3RGG, KD7OQT, KB3FIF

Through 12/06:

N3WJH, N3YI, KB3KYM, KB3LJM, KC3FI

REGULAR BRATS MEETINGS

Second Tuesday of each month,
7:30 pm, at the Pikesville Library
1301 Reisterstown Rd, Pikesville

Next BRATS Meeting

Tuesday, December 13

Annual Elections and Holiday Party

DUES :

Regular Membership: \$15

Retired/Disabled/Student: \$10

Entire Family of hams: \$20

Foundation for Amateur Radio announces scholarships

The Foundation for Amateur Radio (FAR) plans to administer 54 scholarships for the 2006-2007 academic year to assist Amateur Radio licensees attending institutions of higher education full-time. A non-profit organization headquartered in Washington, DC, FAR is composed of more than 75 area Amateur Radio clubs. FAR fully funds three of these scholarships, 10 are funded with income from grants and FAR administers the remaining 41 without cost to the donors. Radio amateurs may compete for these awards if they plan to pursue a full-time course of studies beyond high school and are enrolled in or have been accepted for enrollment at an accredited university, college or technical school. The awards range from \$500 to \$2500 with preference given in some cases to residents of specified geographical areas or to those who are pursuing certain courses of study. Clubs, especially those in Delaware, Florida, Maryland, Ohio, Pennsylvania, Texas, Virginia and Wisconsin, are encouraged to announce these opportunities. For additional information and an application form, send a letter or QSL card postmarked prior to April 30, 2006, to: FAR Scholarships, PO Box 831, Riverdale, MD 20738. FAR is an exempt organization under Section 501(c)(3) of the Internal Revenue Code of 1954. It is devoted exclusively to promoting the interests of Amateur Radio and those scientific, literary and educational pursuits that advance the purposes of the Amateur Radio Service.

ARRL Foundation approves more new scholarships

The ARRL Foundation has announced the addition of two new scholarships for the 2006-2007 academic year, thanks to a generous endowment from the Dayton Amateur Radio Association. The ARRL Foundation Board recently approved addition of the \$1000 scholarships to the 43 awards it now offers. "The recent success of the Dayton Hamvention prompted DARA to revitalize its scholarship program," commented ARRL Chief Development Officer Mary Hobart, K1MMH. "These scholarships represent DARA's commitment to plow some of that success back into Amateur Radio and offer a brighter future to talented Amateur Radio operators." To be eligible, an applicant must be an Amateur Radio licensee attending or accepted at an accredited two or four-year college or university. Information on all ARRL Foundation-administered scholarships is available on the ARRL Foundation Web site. The application period for ARRL Foundation scholarships closes February 1, 2006.

SSETI Express is now OSCAR 53

AMSAT-NA has designated the now-problematic SSETI Express satellite as OSCAR 53--XO-53 for short. Launched October 27, the satellite, which carries an Amateur Radio package and deployed three ham radio cubesats, went silent after about five orbits. Based on telemetry received during its short period of operation, SSETI Express Project Manager Neil Melville has cited an apparent onboard power system anomaly. The spacecraft went into a "safe mode" due to an undervoltage caused by battery charging problems, Melville has said, adding that ground-based hardware tests confirm the possibility of a further failure mode of the specific component that would allow the batteries to charge and the spacecraft to resume operation. In thanking AMSAT's Bill Tynan, W3XO, and the AMSAT Board for notifying the project of the designation, Melville remained upbeat. "As you are no doubt aware XO-53, to use its new designation, has some significant problems right now," he said. "However, we remain vigilant and hopeful, perhaps it can be recovered." Graham Shirville, G3VZV, says analysis of the actual cause of SSETI Express's problems continues, and a full review will take place later this month. Shirville says a number of automated ground stations have been set up in Europe to listen for SSETI Express on 437.250 MHz. He also invites valid reception reports via e-mail from the Amateur Radio community, "and if you do hear it first we can promise you a bigger prize than just a special T-shirt!" he added. "We believe that there is a small but finite chance of recovery, so your efforts could be very worthwhile."

Attention All Amateurs...**ARRL Files Regulation-by-Bandwidth Petition with FCC**

The ARRL has formally asked the FCC to adopt the League's plan to segment the Amateur Radio bands solely by emission bandwidth rather than by mode. The Petition for Rule Making, filed November 14, recommends what the ARRL called "a shift in regulatory philosophy" that would encourage and facilitate the development and refinement of digital techniques and advanced technologies. At the same time, the League said, accommodating new technologies would not come at the expense of current operating modes, including double-sideband AM phone. [Full Story on ARRL web site].

Improved search capability debuts on ARRL Web site

A new search engine now is active on the ARRL Web site, Webmaster Jon Bloom, KE3Z, has announced. "The ARRL Web site's search capability has long been a weak spot of the site," he allowed. "To address that problem, we've replaced the site's search engine with an entirely new search page that uses a Google search appliance--a separate computer running Google's search system--that indexes and searches the ARRL Web site." Bloom says the change means that those using the "Search" box atop any page on the site not only will obtain more comprehensive and accurate results but will get them much faster than previously. "We hope our site users enjoy the new search capability, which was instituted largely at the request of numerous ARRL members," Bloom added.

"Silent Key" submission guidelines

The ARRL accepts notifications regarding the deaths of radio amateurs or former radio amateurs (if the reporting individual can provide proof of past licensure, including call sign) for possible inclusion in the QST "Silent Keys" listing. Actual published obituaries or copies of death certificates are the preferred means of notification but are not absolutely necessary. The League also will accept notifications from family members or friends of the deceased or from other amateurs. The following information is required: name, call sign (or formerly held call sign) and last known address of the deceased radio amateur. Current or past ARRL membership is not a requirement for inclusion in QST "Silent Keys." Individuals reporting the Silent Key should provide name, address and call sign (if any). Mail, fax (860-594-0303) or e-mail information to Silent Key Administrator Kathy Capodicasa, N1GZO, kcapodicasa@arrl.org. Allow up to two weeks for acknowledgement via e-mail.

Dayton Hamvention Past Chairman Honored

Dayton Hamvention 2004-2005 General Chairman Gary Des Combes, N8EMO, is among 10 individuals The Dayton/Montgomery County Convention & Visitors Bureau will honor this month as community ambassadors. The bureau will recognize Des Combes and the other award winners at its 14th annual Community Ambassador Awards breakfast November 10 in Dayton. Each winner will receive a leather flight jacket from Dayton, the birthplace of aviation, "as a token of appreciation for the positive economic impact their events have on the Dayton/Montgomery County community," a bureau news release said. The 55th Dayton Hamvention will take place at Hara Arena in Trotwood, Ohio, on May 19-21, 2006. Jim Nies, WX8F, will be the general chairman. The Amateur Radio exposition -- considered the world's largest -- annually attracts upward of 25,000 visitors. The bureau has estimated Hamvention's annual economic impact at close to \$4 million for Montgomery County and nearly \$10 million regionally.

Emergency Preparedness in Israel

The recent Saturday morning 40 meter roundtable had a lively discussion with Danny Wax 4X1DM, a well-known geologist, who is concerned about the possibility of a major earthquake hitting us in the maybe not-too-far-off future. Danny suggests that we build "Warblers" -- cheap 2 watt PSK-31 transceivers (coupled with laptop computers or possibly "Palm-Pilots") for 80 meters that can provide country-wide night-time reliable emergency communications with low-battery-power consumption. In the eventuality of such a disaster, telephone, cellular, and internet service will be down, as well as the electrical power grid. The sorry events in the USA with the Hurricane Katrina disaster have served as a wake-up call. Should we adopt this technology, it could very much enhance our emergency network. More deliberations will doubtlessly follow.

Baltimore seeks image makeover

The city wants a makeover, or what's known in the tourism industry as "destination repositioning." The Baltimore Area Convention and Visitors Association is paying Landor Associates \$500,000 to revamp the city's image. The company already has built brands for such locations as Madrid, Spain; Florida and Hong Kong. Baltimore has tried slogans before, including "Charm City," "The City that Reads," and "The Greatest City in America." None of them caught on. There have been other unflattering nicknames, though: The Heroin Capital and The Murder Capital. Three critically acclaimed television crime and drug dramas shows are partly to blame, according to a recent report by the image consultants. "The perception of Baltimore is The Wire, The Corner, Homicide (Life on the Street) ... a hopeless, depressed, unemployed, crack-addicted city," the report states. The company is expected to come up with a half dozen concepts for Baltimore by next month, and a decision on the brand is expected by April.

Airlines Continue to Upgrade Web Sites

Squeezed by high fuel costs, airlines continue to turn to their Web sites and other technology to save money and make customers happy by speeding up the check-in process. Many airline travelers, of course, still buy their tickets at reservation counters or over the phone from call centers. But the airlines are pushing customers to book travel online, which saves the carriers on labor costs. The Web site of American Airlines, the largest U.S. carrier, draws upward of a million visitors a day, and its revenue has increased 60 percent from a year ago, accounting for 35 percent of American's total ticket sales, said an airline vice president, Bella Goren. Fort Worth-based American won't provide precise dollar figures for online ticket sales, but Goren said it had 10 days in September with more than \$22 million in bookings apiece. American, a unit of AMR Corp., also is trying to boost sales of hotel rooms and rental cars on its site. This summer, it began working with a seller of last-minute vacation packages. Still, those side businesses remain a tiny fraction of the site's revenue. American is also adding capabilities to its airport self-service kiosks, such as confirming standby status and paying for extra baggage. Airport kiosks have been growing in popularity. Consulting firm Accenture Ltd. said a recent survey showed that nearly nine in 10 business travelers check in and get boarding passes at kiosks. The most successful airline Web site, in terms of percentage of an airline's tickets sold online, probably belongs to Southwest Airlines Co. The Dallas-based carrier sells more than half its tickets on its Web site, which has allowed the company to close some of its ticket-selling call centers. The airline has also looked to technology to reduce the need for labor at the airports. Over the past three years, it has paid Dell Inc. \$12 million to install technology that, among other things, lets Southwest issue paper boarding passes instead of the reusable, color-coded plastic ones that the airline used for many years. The paper passes contain a barcode for each passenger, including those who print their boarding pass at home. Southwest uses about 350 touch screen ticket readers at airport gates to track each customer who gets on the plane, said Don Harris, Southwest's senior director of airport technology. Southwest is working on using information from the boarding passes, along with factors such as cargo and fuel, to calculate the weight and balance of each plane load, Harris said.

UK radio amateurs don't want lifetime licenses, poll indicates

The majority of the United Kingdom's radio amateurs want to keep the existing Amateur Radio licensing structure or have longer license terms rather than switch to a license that's good for life. That's one conclusion of a MORI poll commissioned by the Office of Communications (Ofcom), which regulates Amateur Radio in the UK. The survey of 1572 hams also revealed that two-thirds of the respondents believe the current licensing structure to be "about right." The Radio Society of Great Britain (RSGB) points out that the poll does not represent the conclusions of Ofcom's still-pending consultation into the future of Amateur Radio but "just one small part" of the overall process. "Ofcom is keen to issue Amateur Radio licenses for life," the RSGB said. "But 52 percent of respondents to the survey said they prefer either the existing arrangement or an extended renewal period." The RSGB said the lifetime license proposal was even less popular among its members, with around two-thirds favoring the current arrangement or longer terms. Of those who wanted longer license terms, 60 percent preferred a five-year renewal period, the Society reported. Only 1 percent of the those surveyed said they wanted to abolish the licensing arrangement altogether. The full survey report is on the Ofcom Web site.

Ford to debut pickup with mobile office

DETROIT -- Ford Motor says it will soon offer wireless mobile offices in its F-series pickups, an option aimed at building contractors and others who do business on the road. Pricing isn't finalized, but it would cost around \$3,000 for a wireless-equipped computer, printer and global positioning system, Ford spokesman Alan Hall said. Add-ons like a digital camera and credit card scanner also would be available. A Ford F-250 Super Duty truck equipped with a mobile office was being shown Tuesday at the Specialty Equipment Market Association show in Las Vegas. The annual show isn't open to the public, but it dazzles an estimated 100,000 automotive insiders with souped-up vehicles and the latest aftermarket trends and components. Ford expects to offer the mobile office as a dealer-installed accessory in 2006. The system uses a flat Stargate Mobile computer, powered by the truck's battery and mounted on a stand between the driver's seat and passenger seat. The computer has a touch-screen option -- eliminating the need for a keyboard or mouse -- and is designed to be removed from the stand and taken to a work site. It stays connected to the Internet via a broadband wireless cellular card. "It's super rugged. You can drop it in the dirt, pick it up, brush it off and you're good to go," said Patty Dilger, director of North American automotive and industrial equipment for Microsoft Corp., which worked with Ford to develop the mobile office and provides the Windows XP Professional operating system. Dilger said this is the first time that operating system has been available as a dealer-installed option in a vehicle. Microsoft has an operating system called Windows Automotive 5.0 in about 18 vehicle models, but it's mainly used for vehicle communication systems such as real-time traffic updates. The computer in the Ford pickups will be equipped with office software, including Excel spreadsheets and PowerPoint, and also can play music or be used for navigation. Around 60% of F-series buyers use their trucks for business, Hall said.

LF Experimentation by Radio Amateurs Continues Quietly

Experimentation by radio amateurs on the nether regions of the radio spectrum continues quietly and largely unnoticed outside of the LF community. Since the FCC turned down the ARRL's 1998 petition to create an Amateur Radio "sliver band" in the vicinity of 136 kHz, some US amateur licensees have obtained FCC Part 5 Experimental licenses to research the possibilities of LF, including transatlantic and transpacific propagation. A few hams in Canada have obtained special permission from Industry Canada to operate on LF using Amateur Radio call signs. The latest noteworthy accomplishment was a QSO between US Experimental licensees. LF enthusiast Laurence Howell, KL1X -- operating as WD2XDW -- and John Andrews, W1TAG -- operating as WD2XES -- completed their LF contact October 29 on 137 kHz.

Meaningful Entry-Level License Privileges are Top Priority, ARRL Says

The ARRL again has urged the FCC to provide meaningful operating privileges to entry-level Amateur Radio licensees, including access to HF, even if it doesn't want to create a new license class. Commenting in response to the FCC's July 9 Notice of Proposed Rule Making and Order (NPRM&O) in WT Docket 05-235, the League also stood by its stance that the Commission retain the 5 WPM Morse code requirement for Amateur Extra applicants, but do away with it for General applicants.

Wireless digital TV launched in Albuquerque

A company that has been testing digital, wireless television since the spring of 2004 in three cities -- including Albuquerque -- began offering the service in those areas on a commercial basis Tuesday. USDTV, a Salt Lake City-based company that has several broadcasting companies as its investors, will offer subscribers in Albuquerque, Santa Fe and Rio Rancho a "low-cost alternative" to cable and satellite service, says Steve Lindsley, the company's CEO. For a monthly fee of \$19.95, and with a one-time purchase of a conversion, set-top box that costs \$24.95, viewers with a conventional antenna are able to receive a "DVD-quality" picture and programs from local stations along with limited cable offerings, the company says. Lindsley says the USDTV target markets are households that have conventional reception and want more channels, but don't want to pay higher cable-connection charges. The company also hopes to capture current cable viewers who are "over-served by cable," he says. To send its signals to customers, USDTV buys a portion of a local television station's digital signal allocation, which has been designated by the Federal Communications Commission for eventual development of high-definition broadcasting. Lindsley says the company won't disclose which stations in Albuquerque might have sold a share of their digital signal for the venture. The company has done extensive research and concludes that "there's a tremendous hole in the market" for its service, he says. "Our goal would be to be the Southwest Airlines of the cable business." During the testing of the service, "several hundred" customers signed up in Albuquerque, Lindsley says. The company has partnered with Wal-Mart to sell the conversion kits, which, when installed, will bring local subscribers 12 local stations and 11 cable channels. In addition to Las Vegas and Salt Lake City, where the company also conducted tests, USDTV this week also launched its service in Dallas.

Cruise ship attacked by pirates used sonic weapon

The crew of a luxury cruise ship used a sonic weapon that blasts earsplitting noise in a directed beam while being attacked by a gang of pirates off Africa this weekend, the cruise line said Monday. The Seabourn Spirit had a Long Range Acoustic Device, or LRAD, installed as a part of its defense systems, said Bruce Good, a spokesman for Miami-based Seabourn Cruise Line. The Spirit was about 100 miles off Somalia when pirates fired rocket-propelled grenades and machine guns as they tried to get onboard. The subsidiary of Carnival Corp. was investigating whether the weapon was successful in warding off the pirates, he said. The ship's captain also changed its course, shifted into high speed and headed out into the open sea to elude the pirates, who were in two small boats, he said. He had no further details. Device maker American Technology Corp. said earsplitting "bangs" were directed by trained security personnel toward the pirates. That, combined with ship maneuvers, caused the attackers to leave the area, the company said. The LRAD is a so-called "non-lethal weapon" developed for the U.S. military after the 2000 attack on the USS Cole off Yemen as a way to keep operators of small boats from approaching U.S. warships. The military version is a 45-pound, dish-shaped device that can direct a high-pitched, piercing tone with a tight beam. Neither the LRAD's operators or others in the immediate area are affected. American Technology, based in San Diego, compares its shrill tone to that of smoke detectors, only much louder. It can be as loud as about 150 decibels, while smoke alarms are about 80 to 90 decibels. The devices have been deployed on commercial and naval vessels worldwide since summer 2003, the company said.

New Foundation License, Amateur Regulatory Changes Introduced in Australia

Australia has introduced an entry-level Foundation Amateur Radio license and established a new overall licensing and certification structure. The Australian Communications and Media Authority (ACMA) put the new regulations into effect October 19. Other rule changes combined Novice and Novice Limited licensees into a new Standard license class, and all Limited, Intermediate and Unrestricted licensees are now Advanced licensees with full amateur privileges. Wireless Institute of Australia (WIA) President Michael Owen, VK3KI, welcomed the "long-awaited" changes--in particular the new Foundation license--and expressed the hope that they would encourage newcomers.

Brigades On The Air

Workshop Amateur Radio Society is planning a new 'On The Air' initiative. Following on from Museums On The Air, Islands On The Air and Jamboree On The Air, the club wants to launch Brigades On The Air under which radio amateurs would set up special event stations at local fire stations. The idea was first put forward by ex-fireman Ken and has gained the support of the Workshop club. The Nottinghamshire Fire Brigade has also agreed in principle to have an annual event staged at its headquarters. Ken said: "We have checked to make sure that our radio equipment does not cause any interference to their equipment." The club is planning special Brigades On The Air QSL cards and also a certificate for those who contact the most number of stations. All profits from the initiative will go to the Fire Service Brigade Benevolent Society. The Workshop Amateur Radio Society is keen to hear from any other clubs interested in participating in the Brigades On The Air initiative. Contact Clive, MOHHF, at email address: clivem0hhf@aol.com (GB2RS)

Science snapshot: London's bridge is swinging 'round

Over hill and over dale, soldiers march everywhere. Except bridges. There, synchronized steps might set a bridge to swinging up and down and then apart, so instead soldiers break step. The flip side of this phenomena seems to have afflicted London's Millennium Bridge, which tourists' steps somehow set to swinging sideways in wild fashion, only a few days into its 2000 opening. The force of feet on a bridge isn't the worry, rather it is their rhythm, says Cornell University's Steve Strogatz. If the frequency of the marchers matches the bridge's own structural frequency, this "resonance" may begin to shake the whole works up and down. This seems to have happened to cavalry troops who famously collapsed a bridge near Manchester England in 1831. But on the Millennium Bridge, the situation was a little trickier, Strogatz writes in the current Nature. For one thing, the bridge started oscillating wildly sideways instead of up-and-down. The engineering firm that designed the bridge determined that it took about 160 walkers to set the structure swaying, and that its sideways resonance frequency, unfortunately, seemed to match two footsteps a second -- a natural stride. But all those tourists were walking across randomly, so how did they fall into rhythm and set the bridge to swaying? "That's what makes it interesting," says Strogatz, an expert in natural synchronization, an area of study that encompasses the coordinated flashes of fireflies and fatal heartbeats. His analysis shows that the bridge, "does not move until the walkers cross a certain threshold and then it really takes off." What happens at that threshold -- about 160 walkers -- is that just by chance enough will randomly step down simultaneously to give a very small sideways motion to the bridge, via resonance. That tiny initial sway sets more people to alter their step to match it, says Strogatz. The neat part is they do this unconsciously, he adds, with the resultantly larger swing setting the bridge to swaying even more, making more people join, until, "people are actually changing their stance, looking like novice ice skaters," he says. The bridge designers damped down the swing by bulwarking the bridge. While some blamed its novel suspension design for the sway, its sideways resonance swing could have happened to any relatively loose bridge if enough people walked over it, Strogatz says. "Anywhere you have crowds, you can have some interesting things happen."

WA7BNM Contest Calendar

- Nov 19-20
All-Austrian 160-Meter Contest
RSGB 2nd 1.8 MHz Contest, CW
- Nov 19-21
ARRL Sweepstakes, SSB
NA Collegiate Championship, SSB
- Nov. 26-27
CQWW DX Contest, CW
- Dec. 2-4
ARRL 160-Meter Contest
- Dec 3
TARA RTTY Melee
Wake-up! QRP Sprint
- Dec 10-11
ARRL 10-Meter Contest
- Dec 11
CQC Great Colorado Snowshoe Run
- Dec 16
Russian 160-Meter Contest
- Dec 17
OK DX RTTY Contest
RAC Winter Contest
- Dec 17-18
Croatian CW Contest
Stew Perry Topband Challenge
- Dec 26
DARC Christmas Contest

DXCC Desk approves operations for DXCC credit

The ARRL DXCC Desk has approved these operations for DXCC credit: 6O0JT, Somalia, September 30, 2004 through April 30, 2005; 5X1W, Uganda, August 3-12, 2005. For more information, visit the DXCC Web page. "DXCC Frequently Asked Questions" can answer most questions about the DXCC program. ARRL DX bulletins are available on the W1AW DX Bulletins page.

Hawaii Beacon

The repeater KH6WO/R on 146.18/78 is the HARC Club repeater. Try it. The club beacon station is receiving SWL reports from all around the world. KH6WO (Beacon) is part of The NCDXF world wide system and you can read all about it on the internet: <http://www.ncdxf.org> and click on beacons. Want to know which bands are open to any areas, this is one way to find out. 73, John, K1ER

Australians celebrate 2006 Commonwealth Games

The Australian Communications and Media Authority has given the Wireless Institute of Australia the green light to use the AX prefix to celebrate the 2006 Commonwealth Games in Melbourne. The AX prefix can now be used by all Australian radio amateurs for the period from 1-31 March 2006.

ARRL DX BULLETIN**RODRIGUES ISLAND, 3B9.**

Robert, 3B9FR has been QRV using PSK on 12meters around 1330 to 1430z. QSL via operator's instructions.

ANTARCTICA.

Carlo, IK5DHM is QRV as II0AMZS from the Mario Zucchelli Station until the end of February 2006. He may also be active as IK5DHM/ANT. While here, he may try to activate a couple of the remote camps. QSL via I5GWO.

MARSHALL ISLANDS, V7.

Randy, N5LE is QRV as V73AX from Kwajalein Island, IOTA OC-028, and is here for two years. QSL via operator's instructions.

THAILAND, HS.

Members of the Siam DX Group are QRV as HS0AR until December 31. This includes entries in every major contest. QSL via E21YDP.

CAMBODIA, XU.

Jacques, ON4AJV and Willem, ON6TZ will be QRV as XU7TAS from Koh Tas, IOTA AS-133, from October 30 to November 10. Activity is on all HF bands using CW and SSB. QSL via ON4AJV.

WEST MALAYSIA, 9M2.

Enno is QRV as 9M2/PF5X and has been active on 30 meters around 1500z. QSL via PA0KHS.

TONGA, A3.

Alex is QRV as A35BO and has been active on 20 meters around 0700z. QSL via HB9FBO.

MINAMI TORISHIMA, JD1.

Operators JE7IZM/JD1 and JR6TYH/JD1 have been QRV on 40 meters at various times. QSL to home calls.

JAN MAYEN, JX.

Ole is QRV as JX9NOA for at least a year. Given his current antenna situation, his activity may be on a few bands using CW, SSB, RTTY and PSK. QSL via operator's instructions.

SUDAN, ST.

Fernando, ST2BF has been QRV using CW from around 2200 to 0000z. QSL via W3HMK.

COTE d'IVOIRE, TU.

Gerd, TU5JM has been QRV using RTTY on 20 meters around 0800z and then around 1100 to 1500z. QSL via bureau.

KALININGRAD, UA2.

Alex, UA2FT has been QRV on 160 meters from around 0030 to 0530z. QSL to home call.

NAMIBIA, V5.

Jack, V51KC has been QRV using PSK31 on 15 meters around 1930z. He has also been active on 17 meters using PSK31 around the same time. QSL direct via IZ8EDJ.

CHRISTMAS ISLAND, VK9X.

Charlie is QRV as VK9XG and has been active using RTTY on 20 meters starting around 2300z. QSL via W0YG.

ANTARCTICA.

Bhagwati, VU3BPZ is QRV from the WTO Indian Antarctica Maitri Base and is here until April 2006. He can usually be found on 20 meters using SSB. QSL via operator's instructions.

Hamfests

Sunday, January 29: Odenton, MD. Mobileers Hamfest, Odenton VFD Hall, 1425 Annapolis Rd (Rte 175) Odenton. Frank, N3SEO, 410-647-3335 (146.805/R)

Wednesday, February 1: BARC MINIFEST, Timonium Fairgrounds, 5-10 PM

Sunday, February 19: Richmond, VA, RATS Frostfest, The Showplace, 3000 Mechanicsville Turnpike (Hwy 360 East), Richmond. (146.88/R) 804-201-9277

March 25-26, 2006: Greater Baltimore Hamboree and Computerfest, (BARC Hamfest) Timonium Fairgrounds, Timonium, MD, 410-HAM-FEST, (146.67/R)

Sunday, April 23, York, PA. York Spring Hamfest, York Co. 4H Grounds, 771 Stoverstown Rd, Jim, W3mYK, 717-812-0037 (146.955/R)

December BARC VE Exam

Saturday, December 3, 2 PM, register at 1 PM At the BARC Clubhouse, 12360 Owings Mills Blvd. Owings Mills
Rusty, N3WKE, 410-247-0578 or email n3wke@arrl.net

BARC VE EXAMS for 2006

BARC Clubhouse, 12360 Owings Mills Blvd, Owings Mills. Info: Rusty, N3WKE, 410-247-0578 Exams at 2 PM, walk-ins allowed.

Saturdays: February 4, March 4, May 6, June 3, August 5, September 2, November 4, December 2

Sundays: January 8, April 2, July 2, October 1

NOTICE: If you know of any hamfests or VE Exams not listed here, please let us know by sending us an email ...
Thanks!

**IF YOUR DUES ARE DUE,
DON'T FORGET TO RENEW!
DO IT NOW! Thanks!**

milliwatt swap shop

ads are free and get results!

Send ad to: BRATS, P.O. Box 5915
Baltimore, MD 21282-5915, or email
to mayerzimmerman@verizon.net

FOR SALE: The famous W3GXX low band station. ICOM 730 xcvr. , PS 15 p/s, Bencher BY2, MFJ 900 EconoTuner, MFJ 481 Grandmaster; National NC183 rcvr., HyGain 14AVQ. Make reasonable offer for everything. Do it before I donate all the equipment to JHS22. 410-786-6839; w3gxx@verizon.net

FOR SALE: Heathkit HM-102 RF Power Meter with attached antenna selector \$40; ACI AC-20 Linear for 2 meters \$20; Alinco 110 2-meter transceiver can be base or mobile \$100; Ameritorn ATR-15 Antenna tuner 1500 Watt RF, 1.8-30 MHz \$80. Tailtwister Control Box (analog) \$40. All in good working order. Call Jerry, KB3AP, 410-484-2460, kb3ap@netzero.net.

WANTED: Your ad for this space. *MILLIWATT* want ads are free and get results. Send your ad to w3gxx@verizon.net

PARTIES

Tuesday, December 13, 7:30 PM
BRATS Holiday Party, Pikesville Library
1301 Reisterstown Rd, Pikesville
Mark your calendar and plan to join us!

VE EXAMS

2005 Aero Club Exams

At White Marsh Library: Nov 19

Register at 1pm, Exams at 1:30pm

Contact Frank, AC3P 410-687-7209 or email AC3P@arrl.net
(Thanks, Neil, W3ZQI)

Other Club Exams

2nd Saturday, 1 PM, Davidsonville, by AARC. Register 12 noon.
Bob, AA3RR, 410-437-8193

3rd Saturday, 9 AM, Laurel, by LARC, 384 Main St. John Creel,
WB3GXW, 301-572-5124.

4th Tuesday, 6 PM, Linthicum. At Historical Electronics Museum.
Harold, WB4OGP, 410-757-0493(h); 410-712-6829(w)

milliwatt swap shop

ads are free and get results!

Send ad to: BRATS, P.O. Box 5915
Baltimore, MD 21282-5915, or email
to mayerzimmerman@verizon.net

FOR SALE: Heathkit Security Sentinel GD-3810, \$20. Kenwood MC520DM hand mike, back lite, numbers, \$20. Power Kraft table saw w/ base and rollers, \$75. Companion jig saw, 15" throat, \$40. New 3-ton Olympia chain hoist, \$75. WWII hi-power antenna tuner, VAC variables, roller inductor, \$120. Azden DM headphones, new in box, \$15. Telex C1320, \$15. Bush Clevite, \$15. Panasonic adapter BC1031C, \$45. P/S: 13.8VDC @20 amps \$40. Table mount rack cabinet, \$5. Complete UHF repeater system with 2 Motorola Hand-helds, 1 mobile charger, \$150. W2IHY 8-band Audio equalizer, noise gate, \$175. Call Ted, W3OWN, 410-668-5580. Please leave message if you get answering machine.

FOR SALE: ICOM 706MKIIG, ICOM IC 718, Yaesu CPU 2500-r, Kenwood 950sdx, Astron R35A, Mirage B 3016, SGC SG-500 Amp. Palstar WM 150M, Dell P III laptop. Best offer. popularc@hotmail.com or call Ball and Ball in Laurel, 301-490-1587.

WANTED: AC Gilbert erector sets; old, new, large, small, need not be complete. CASH paid. Lewis, 410-296-4874

FOR SALE: ADI AR-146 2-mtr mobile rig. Very dependable, includes mounting bracket, lighter plug adapter, magmount antenna, \$125. Yaesu FT50R dualband 2-mtr/440. Scans from 76 MHz to 999 MHz (less cell). Extra battery, CA-15 charger, ear/throat mike, over shoulder harness, regularly \$330. Sell for \$275. Contact Russ for either or both rigs: n3yi@yahoo.com

WANTED: Your ad for this space. MILLIWATT want ads are free and get results. Send your ad to w3gxxk@verizon.net **ATTENTION:** if you do NOT want your ad to run again, please send me an email to that effect. Thanks! mayerzimmerman@verizon.net

VTS - VIDEOTAPING SERVICE

Video/DVD duplications, video tape transferred to DVD. One source up to 2 hours, \$30. Standards, conversions. Call VTS toll free at 1-877-891-1002. BRATS member Bob Shapiro, K2MYS
<http://www.videotapingservice.com>

JADE COMPUTERS, LLC

1009 Ingleside Ave, Baltimore, MD 21228. Phone 419-719-1246; Fax 410-719-9494. Your answer to custom built PC, office and home networking. Reseller for Net Integrity server, cable modem, DSL, webpage design and hosting POS and networking. We do CPR to your CPU. Kid tested, mother approved. Order PC on line: <http://www.jadecomputers.net> email: joed@jadecomputers.us

Antique Radio Repair, Restoration

Eric, WA3TAD, Audio-Visual Service / Retro Radio, 3401 Chestnut Avenue, Baltimore, MD 21211. 410-467-3620; wa3tad@comcast.net

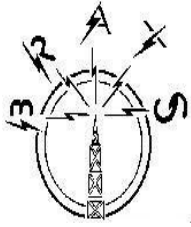
Radio Consignment Shop at Overlea Hobbies

8411 Harford Road, Parkville, 410-665-3622. Home of fine trains, model kits, x-acto, cars, planes, ships, many radios. Yaesu FT101ZD, Kenwood TS 820S, 930S, Heathkit SB-102, National NC-183, more ... Dick, N3JWN, 410-488-2806

AUDIO CONVERSIONS.

Your records and cassettes converted to CD. High quality A-D conversions of your recordings to digital form. I can also make short run duplications of your CD's for your band or office projects. Call Scott, KB3JQQ at 410-615-2434 or via email at: KB3JQQ@yahoo.com Also, I do operating system reloads and virus/spyware removal. Computer repairs since 1986. A+ certified. <http://home.comcast.net/~convertrecords/>

FOR SALE: *Special!* ICOM BC-110A battery charger, output DC 12V 200mA, for ICOM T8A or similar, used only twice. Cost \$46 new, plus shipping. Will sell for \$30. Misplaced it, ordered a new one, then found it! Call Mayer, W3GXX, 410-786 or email w3gxxk@verizon.net



the Milliwatt



The award-winning monthly publication of
The Baltimore Radio Amateur Television Society
P.O.Box 5915 Baltimore, MD 21282-5915

December 2005

NEXT BRATS MEETING

BRATS Public Service

To sign up to participate and help at the next BRATS Public Service activity, please call Ian, N3CVA at 410-303-1412 or email via N3CVA@hotmail.com

To join The BRATS or to renew, *please use the form below!* Thanks!

UTAH ATV

Lots of projects and links:
http://www.ussc.com/~uarc/utah_atv/utah_atv.html
(Thanks, Scott, KB3JQQ)

ATV NETS

Brats Nets:
Wednesday and Thursday, 9 PM:
Rotating Net Control
Friday at 11:45 AM, W3WVV

Homepages

BRATS

<http://www.bratsatv.org>

HATS (Houston ATV Society)

<http://www.hats.stevens.com>

Black Mountain AQTV Repeater

<http://www.w6yx.stanford.edu>

Kent Amateur Radio Society, K3ARS:

<http://www.k3ars.org>

Tuesday, December 13
7:30 PM, Pikesville Library
ANNUAL ELECTIONS
and HOLIDAY PARTY

Other Radio Club Meetings

QCWA

Monday at Noon, Cactus Willie 7315
Ritchie Hwy, Glen Burnie
3rd Thursday, 1 PM: Old Country Buffet,
Joppa Road at Satyr Hill
Last Wednesday, 1 PM: Denny's Bel Air
Rd at Putty Hill

AARC

1st and 3rd Thursdays, 7:30 PM
Davidsonville Family Rec. Center, Queen
Anne Bridge Rd, Wayson Rd (147.105R)

AMRAD

2nd Thursday, 7:30 PM,
Dolley Madison Library; 1244 Oak Ridge
Ave. McLean, VA (147.21/R)

BARC

1st and 3rd Wednesday, 7:30 PM
12360 Owings Mills Blvd (near
warehouse) Owings Mills, MD (146.67R)

CARA

4th Tuesday,
Gateway Center, Rm 401, 6751 Gateway
Dr. Columbia South off Rt 175
(147.135/R)

BRATS Membership Renewal: Regular=\$15; Retired/Disabled/Student \$10; Family \$20

Name _____	Call Sign _____	BRATS No _____
Address _____	City/State/Zip _____	
Phone _____	Email _____	

MAIL TO: BRATS, P.O.Box 5915, Baltimore, MD 21282-5915
