

# the Milliwatt



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

**May, 2006**

## **CONGRATS, DAN!**

Dan, N3WJH is now  
EXTRA CLASS!

## **Help with the Hamfest!**

Sunday, July 23, 2006

Call now to sign up:  
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## **Expedition 12 Crew Plus One Return Safely to Earth**

After orbiting Earth more than 3000 times during their six months aboard the International Space Station, Expedition 12 Commander Bill McArthur, KC5ACR, and Flight Engineer Valery Tokarev returned to the planet on April 8 (UTC). With them was Marcos Pontes, Brazil's first astronaut, who had been the third passenger onboard the Soyuz "taxi flight" that carried Expedition 13 Commander Pavel Vinogradov, RV3BS, and Flight Engineer and NASA Science Officer Jeff Williams, KD5TVQ, to the ISS April 1.

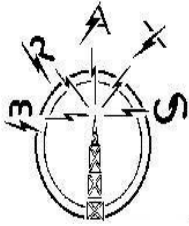
## **Injured miner Randy McCloy, KC8VKZ, goes home**

Randy McCloy, KC8VKZ, the sole survivor of the January 2 Sago Mine disaster in West Virginia, left a rehabilitation center and headed home March 30. "I'd just like to thank everybody for their thoughts and prayers," McCloy remarked on his departure. Neurologist Julian Bailes told reporters that he believes McCloy, 26, has a great potential for "a possibly complete" recovery. On March 2, McCloy's wife Anna told CBS The Early Show co-anchor Hannah Storm that her husband has told her he remembers "bits and pieces" of the mining disaster that left 12 of his co-workers dead of carbon monoxide poisoning. Earlier this month McCloy visited his home in Simpson for the first time since the mine tragedy. Well-wishers have been sending cards and QSLs to McCloy at PO Box 223, Philippi, WV 26435.

## **Manassas BPL System Still Interfering Despite Claims to the Contrary**

Interference persists on Amateur Radio frequencies from the Manassas, Virginia, BPL system, radio amateurs there say. Their reports fly in the face of an April 7 news release from system operator COMTek that a recent engineering survey found "no interference unique to BPL" in the amateur bands. On April 6, COMTek filed a report with the FCC in response to an earlier interference complaint from Dwight Agnew, AI4II. COMTek said it does not believe the Manassas BPL system caused the interference Agnew and other Manassas ham radio operators have heard. Agnew told the ARRL this week that the BPL interference continues.

**BRATS HAMFEST COMING, Sunday, July 23, 2006,  
Howard County Fairgrounds! SAVE THE DATE!**



# the Milliwatt

The award-winning monthly publication of The BRATS.

Items herein may be reprinted with credit.

Mayer D. Zimmerman, W3GXX, Editor

## Some Thoughts

This month we have a lot of FCC news. Not earth-shattering in itself, but significant in that the FCC issued a request for comments based on an ARRL request for rulemaking in the spread spectrum arena. There are other items of interest to us: The vanity call sign fee may drop later this year; K1MAN is issued an NoF of \$21,000, based on a prior NAL. It certainly took long enough. We are happy to see the matter being brought to a conclusion; Finally, amateur radio will remain within the WTB -- again, not earth-shattering news, but another indication that the FCC is paying attention to amateurs and amateur radio. Yippee! Thanks! 73 Mayer, W3GXX

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### 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](mailto: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

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**Vice Chairman, Technical:** Mike Dees, N3EZD

**Vice Chairman, Operations:** Ian Millet, N3CVA

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## 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 12/06:

N3WJH, N3YI, KB3KYM, KB3LJM, KC3FI, K2GZL\*

### Through 12/07:

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\*Appointed by the President

## REGULAR BRATS MEETINGS

Second Tuesday of each month,  
7:15 pm, at the Pikesville Library  
1301 Reisterstown Rd, Pikesville

## Next BRATS Meeting

**Note new TIME! 7:15 PM**

Tuesday, May 9, Pikesville Library

## NEXT BRATS HAMFEST

**Sunday, July 23, 2006**

**Howard County Fairgrounds**

**Attention All Amateurs ...****League Views BPL Manufacturer's Interference Abatement Efforts with Interest**

A demonstration at ARRL Headquarters of DS2 BPL equipment suggests the manufacturer is working to minimize--if not altogether eliminate--interference from its products on amateur bands, ARRL Laboratory Manager Ed Hare, W1RFI, says. Hare met with two DS2 officials earlier this month to discuss the company's improved approach to Amateur Radio band notching techniques. Based upon his observations during a demonstration of DS2's latest generation G2 technology, Hare says he's cautiously optimistic. A spectrum analyzer check of the modem's output showed the G2 modem could attain a notch depth of up to 40 dB.

**Maryland utility ends limited BPL pilot**

The Southern Maryland Electric Cooperative (SMECO) has ended a limited broadband over power line (BPL) pilot project, concluding that the technology is not yet ready for prime time in its service area. "At this time, SMECO believes that BPL technology needs to advance further before it can meet the needs of our customers," the utility said in its March customer newsletter, Cooperative Review. "BPL signal speeds and bandwidth are not competitive with other technologies currently available." The ARRL is unaware of any radio frequency interference complaints related to the SMECO BPL test, which ran from April through December 2005. The pilot program used Current Technologies equipment, which has shown to be among the BPL systems having less potential to interfere with Amateur Radio than others. The utility also cited safety concerns, the impact of BPL on the co-op's current construction practices and "the lack of a proven method for delivering BPL signals via underground power lines," which make up 60 percent of SMECO's power grid. The utility further noted that currently available BPL hardware is not remotely programmable, something it would need to offer such services as pay-per-view programming, and that should the power grid get knocked out, BPL service would go down with it. A member-owned electric co-op, SMECO serves more than 130,000 customers in four Southern Maryland counties.

**Attention All Amateurs ...****Arizona BPL Field Trial Ends**

A BPL field trial in Cottonwood, Arizona, that drew complaints from Amateur Radio operators from 2004 until earlier this year apparently has shut down for good. The small system, which Mountain Telecommunications Inc (MTI) operated under FCC Part 5 Experimental license WD2XMB, went silent this month. The Part 5 license, renewed last November, stipulates that the company "establish and maintain" a relationship with the Verde Valley Amateur Radio Association (VVARA), which called for the system's shutdown as recently as last December. According to VVARA BPL Committee Chair Bob Shipton, K8EQC, MTI initially took the system down for a firmware upgrade but subsequently told him that it was discontinuing the experimental operation in Cottonwood and moving it.

**FCC statistics suggest minuscule market share for BPL**

The latest FCC statistics on the status of high-speed Internet services indicate a minuscule market share for broadband over power line (BPL). The FCC Wireline Bureau report, "High-Speed Services for Internet Access: Status as of June 30, 2005," puts at 4872 the number of business and residential "Power Line and Other" connections that deliver at speeds greater than 200 kbps in at least one direction. The total number of high-speed lines for all technologies is 42,866,469--the vast majority DSL, cable and traditional wireline connections. This puts the share for "Power Line and Other" at a bit more than 0.01 percent of the total. The number of residential BPL "advanced services" lines--greater than 200 kbps in both directions--is 3916 out of 34,259,411, the FCC report indicates. Although some data have been withheld as proprietary, the FCC report indicates there are 18 "Power Line and Other" high-speed providers nationwide. Facilities-based broadband providers must report the number of high-speed connections in service to the FCC twice a year.

**Plane passengers shocked by their x-ray scans**

AN X-RAY machine that sees through air passengers' clothes has been deployed by security staff at London's Heathrow airport for the first time. The device at Terminal 4 produces a 'naked' image of passengers by bouncing X-rays off their skin, enabling staff instantly to spot any hidden weapons or explosives. But the graphic nature of the black and white images it generates – including revealing outlines of men and women – has raised concerns about privacy both among travellers and aviation authorities. In America, transport officials are refusing to deploy the device until it can be further refined to mask passengers' modesty. The Terminal 4 trial – being conducted jointly by the British Airports Authority and the Department for Transport – became fully operational last month and is intended to run until the end of the year. Its deployment has not been reported until now since new security measures at airports are not normally publicised. If the new body scanner is able to cope with large volumes of passengers, improves detection rates and, crucially, receives public acceptance, it is likely to be rolled out across all Britain's airports. At Heathrow, passengers are picked to go through the body scanner on a random and voluntary basis. Those who refuse are subjected to an automatic hand search. The scanner, which resembles a tall, grey filing cabinet, operates in a curtained area and passengers are asked to stand in front of it, adopting several poses, for their 'naked' image to be registered. Once checked, the images are immediately erased. Security officials claim it is a far more effective way of countering potential terrorists because it detects the outline of any solid object – such as plastic explosives or ceramic knives – which conventional metal detectors would miss. Managers at Heathrow also say the new technology does away with the need to subject passengers to potentially intrusive hand searches. However, travellers who have been screened – and have asked to see the images – have been surprised by their clarity. 'I was quite shocked by what I saw,' said Gary Cook, 40, a graphic designer from Shaftesbury, Dorset. 'I felt a bit embarrassed looking at the image. A female passenger, who did not want to be named, said: 'It was really horrible. It doesn't leave much to the imagination because you're virtually naked, but I guess it's less intrusive than being hand searched. In a similar trial at Orlando international airport in Florida in 2002, passengers were shown a dummy image before going through, and at least a quarter of them refused to volunteer. In America last year, Susan Hollowell, director of the US Transportation Security Administration's (TSA) security laboratory, showed off her own x-ray image to demonstrate the technology to reporters. 'It basically makes you look fat and naked, but you see all this stuff,' said Hollowell, who had deliberately hidden a gun and a bomb under her clothes. The TSA has decided not to deploy the device at American airports until manufacturers can develop an electronic means of masking sensitive body parts.

**FAA On Trail of Pirate Radio Station**

Airline pilots taking off from Miami International Airport are getting an earful of hip-hop tunes from a pirate radio station that sometimes interfere with their communications with the control tower. The music comes on a pair of frequencies from a station that calls itself Da Streetz. "It's intermittent. Not all day, everyday," said Kathleen Bergen, a Federal Aviation Administration spokeswoman. "But clear communication between air control and the pilots is a critical part of flying." Authorities traced the signals to an antenna at a nearby warehouse but did not find the disc jockey, although they did confiscate equipment including three computers and a CD player. Despite that discovery and the seizures, the broadcasts have continued, authorities said. A call seeking comment Sunday at an FAA weekend contact number in Atlanta was answered by a man who said he was too busy to talk. The FAA said it has conducted about 30 similar investigations of pirate broadcasts interfering with airport transmissions in the past decade. The Florida Department of Law Enforcement is helping with the investigation under a state law that went into effect a year ago. The law makes it a felony to interfere with signals from licensed public or commercial stations, or to broadcast without a license. Authorities said the owner of the warehouse had no idea the building was being used by an illegal radio station.

**Cellphone opponents find ammunition in study**

Good news for those hoping that cellphones remain banned from in-flight usage. The Philadelphia Inquirer cites a study by Carnegie Mellon University engineers published this month that finds cellphones, laptops, and other personal electronic devices may interfere with airplane electronics more than was previously thought. In an article in the technology magazine IEEE Spectrum, the report's authors write, "our research has found that these items can interrupt the normal operation of key cockpit instruments, especially Global Positioning System (GPS) receivers, which are increasingly vital to safe landings. Two different studies by NASA further support the idea that passengers' electronic devices dangerously produce interference in a way that reduces the safety margins for critical avionics systems." The study comes as the Federal Communications Commission is considering a proposal to allow in-flight cellphone usage. However, a spokesman for the Federal Aviation Administration tells the Inquirer that even if the FCC changes its policy, the FAA ban will stay in place until any airline that wants to allow cellphones can prove they will not interfere with aircraft instruments.

**Cellphone blocking paint**

A new development in RF shielding could spell regulatory problems for the FCC. This, after a Rochester, New York, company called Natural Nano announces that it has developed paint that can switch between blocking cell phone signals and allowing them through. Amateur Radio Newline's Bruce Tennant, K6PZW, told us that according to the Chicago Tribune, the new cellphone blocking paint works this way. Using nano-technology, particles of copper are inserted into nanotubes. The painted surface is then connected to radio filtering gear that permits certain frequencies to pass while blocking others. One example where the product could be beneficial. He says that a concert hall could use the paint to allow cell phones to work before an event and during breaks, but block their use during the performance. Science Online says proponents of the blocking paint claim that it does not jam cellphones. Rather it uses its natural properties of clay to block specific signals. Therefore it would be exempt from any FCC rules governing cellphone jamming devices. They also say that nobody can force the owner of private property to let commercial radio signals intrude. The bottom line: If the cellphone blocking paint catches on, this one could be headed straight to the US federal courts. While this product could pose some serious regulatory issues for the FCC, some hams discussing it on the air hope the company will realise that there may be a market in Amateur Radio for painting away TVI.

**Solar cycle forecast breakthrough**

The next sunspot cycle will be 30-50 per cent stronger than its predecessor and will begin as much as a year later than previous forecasts, according to scientists from the US-based National Centre for Atmospheric Research. If the prediction is correct, the next solar maximum could be the most intense since the historic solar maximum of 1958. The National Centre for Atmospheric Research scientists believe they have mastered the art of accurately forecasting solar cycles. They have developed a computer model that they claim has simulated the strength of the past eight solar cycles with an accuracy of more than 98%. This amazing precision is achieved by using the subsurface movements of sunspot remnants of the previous two solar cycles to calculate the strength of the next cycle. Mausumi Dikpati, the leader of the research team, said: "Our model has demonstrated the necessary skill to be used as a forecasting tool." The Sun undergoes 11-year cycles of activity, from peak storm activity to quiet and back again. But until now there was no precise method of predicting their timing and strength. Being able to accurately predict the sun's cycles years ahead could help society prepare for periods of intense solar storms, which can disrupt communications, slow down satellite orbits and crash power systems. Solar storms are thought to be caused by twisted magnetic fields in the Sun that suddenly snap, releasing huge amounts of energy. They usually occur near dark regions of concentrated magnetic fields known as sunspots. [GB2RS]

**Great Britain to institute lifetime Amateur Radio licenses**

Telecommunications regulator Ofcom has unveiled plans to reform Amateur Radio licensing in Great Britain. The main change is that Amateur Radio licenses will be issued for life, although licensees will have to confirm their license details every five years. Paper licenses are going away too, for all intents and purposes, and Ofcom instead will provide an on-line service to issue electronic licenses. Hard-copy licenses will remain available for those lacking Internet access, but there will be an administrative charge. Starting October 1, Ofcom will take over from the Royal Mail the role of issuing, renewing and amending Amateur Radio licenses. The Radio Society of Great Britain (RSGB) says it welcomes Amateur Radio licensing reforms. "The policy Ofcom has adopted is good news for Amateur Radio and justifies the stand the RSGB made last year when Ofcom launched its consultation into Amateur Radio, RSGB General Manager Peter Kirby, G0TWW, said. "All the other safeguards the Society asked for are also in the license." Kirby notes that while Ofcom announced it was deregulating the Amateur Radio license, the RSGB is quick to point out that the changes to the licensing system "do not add up to deregulation" of ham radio. "Please be reassured that the hobby has not been deregulated and that all the safeguards the RSGB fought to retain are still in place and will remain so," Kirby said. The RSGB last year went on record as being "strongly opposed" to any steps by Ofcom to deregulate Amateur Radio in Great Britain, fearing that it could lead to the elimination of amateur licensing altogether. Ofcom said its new approach to Amateur Radio licensing will "reduce unnecessary bureaucracy." -- RSGB [via ARRL web Extra]

**RAC committee eyeing new entry-level license**

A seven-member Radio Amateurs of Canada (RAC) advisory committee is looking into whether to ask Industry Canada to institute a new entry-level Amateur Radio license north of the border. Under the leadership of RAC Midwest Director Bj Madsen, VE5FX, the committee is studying the success of the Foundation License implemented in the UK, Australia and Gibraltar to encourage youth to take an interest in science and radio and to promote growth in Amateur Radio. "Amateur Radio is not dying--it is changing, and we must be sure to change with it," Madsen says. The RAC panel is seeking the opinions of Canadian radio amateurs on the topic and will make a recommendation to the RAC Board of Directors on what course to pursue. For the scope and details of the advisory committee's work, and how to contribute, read "The Foundation License Concept" on the RAC Web site. The ARRL and other petitioners have so far been unsuccessful in convincing the FCC to establish a new entry-level Amateur Radio license in the US.

**ARRL VEC Announces Vanity Call Sign License Renewal Program**

The ARRL VEC has announced that it now can process license renewals for vanity call sign holders for a modest fee (see "Processing Fee Schedule"). The service is available to ARRL members and nonmembers, although League members will pay less. Routine, non-*vanity* renewals continue to be free for ARRL members. In addition, ARRL VEC Manager Maria Somma, AB1FM, points out that trustees of club stations with vanity call signs may renew either via the Universal Licensing System (ULS) or through a Club Station Call Sign Administrator, such as ARRL VEC.

**Update**

In 2003, News of the Weird reported that the Pentagon's Defense Threat Reduction Agency had been Internet-monitoring a facility on Scotland's Isle of Islay whose webcam was showing images suggesting a chemical weapons lab but that, after lengthy surveillance, the agency had found it to be a whiskey distillery. In February 2006, that distillery (Bruichladdich, one of the U.K.'s most adventurous) announced it is preparing to make a 92 percent-alcohol whiskey whose recommended dose is two spoonfuls. Said the managing director, "To be honest, I'm just hoping the distillery doesn't explode."

**The K7RA Solar Update**

I think you'll agree the general trend is down. An average daily sunspot number of 18.1 for the first quarter of the year easily compares to the minimum between cycles 22 and 23. From the fourth quarter of 1995 to the second quarter of 1997, the average daily sunspot numbers for each quarter were 21.3, 13.1, 13, 12.4, 14.2, 11.3 and 25.4. Our recent quarterly average of 18.1 fits right in toward the bottom of the last cycle.

**FCC invites comments on ARRL spread spectrum petition**

The FCC has invited comments on the ARRL's Petition for Rule Making designated RM-11325, which seeks to modify a Part 97 rule governing spread spectrum (SS) operation on Amateur Radio frequencies. The League has asked the Commission to drop all but the first sentence of §97.311(d), which now requires the use of automatic power control (APC) for SS stations running more than 1 W. The ARRL request would retain the 100 W overall power limitation for SS. "The effect of the rule change would be to eliminate an automatic power control provision that has proven over time to be impractical" in terms of compliance, the League said in its petition, filed March 13. Comments are due Wednesday, May 3; reply comments are due Thursday, May 18.

**FCC Warns Radio Amateurs to Settle Personal Differences Off the Air**

The FCC has advised four Texas licensees to take an "ongoing dispute" off the Amateur Radio bands or face enforcement action. Special Counsel in the FCC Enforcement Bureau Riley Hollingsworth sent essentially identical warning letters February 28 to Luis A Caraballo, N7PLC, and Sharon E. Millhouse, KC5PRX--both of Floresville, and to Thomas O. Caldwell, WD5GXH, and Gary Sheets, WD5FWP both of San Antonio. Hollingsworth said the dispute has "led to allegations of slander and deliberate interference" on the ham bands.

**Vanity Call Sign Fee May Drop Slightly Later this Year**

The FCC wants to reduce the Fiscal Year 2006 regulatory fee to obtain an Amateur Radio vanity call sign by \$1.80 to \$20.10 for the 10-year license term. The current vanity call sign fee is \$21.90. The Commission proposed the new fee in a Notice of Proposed Rule Making (NPRM), "Assessment and Collection of Regulatory Fees for Fiscal Year 2006, in MD Docket 06-68, released March 27. If ordered as proposed, the new vanity fee would become effective in August or September. The FCC is obligated to collect nearly \$289 million in regulatory fees during FY 2006 to fund its operations.

**FCC Affirms \$21,000 in Fines Levied on Maine Radio Amateur**

The FCC has affirmed a total of \$21,000 in fines it proposed last year to levy on Glenn A. Baxter, K1MAN, of Belgrade Lakes, Maine. The FCC's Forfeiture Order (NoF), released March 29, comes nearly 10 months after a Notice of Apparent Liability for Forfeiture (NAL) in the case. The FCC has alleged that Baxter violated several sections of the Part 97 Amateur Service Rules.

**Amateur Radio to Remain within FCC Wireless Telecommunications Bureau**

The FCC today approved a proposal to create a new Public Safety and Homeland Security Bureau (PS&HSB) that would assume some functions now under the umbrella of the Wireless Telecommunications Bureau (WTB). But it appears that the Amateur Radio Service--now within the WTB's Public Safety and Critical Infrastructure Division, headed by Michael J. Wilhelm, WS6BR--will remain within the WTB, according to Anthony Dale, Acting Director of the FCC's Office of Managing Director (OMD).

**Cubesats get OSCAR numbers**

AMSAT-NA has issued OSCAR designations for two Japanese cubesat Amateur Radio satellites. XI-IV (pronounced "sai four"), launched in 2003, will be known as CUBESAT-OSCAR-57 or CO-57. XI-V (pronounced "sai five"), launched with SSETI Express in 2005, will be known as CUBESAT-OSCAR-58 or CO-58. "AMSAT-NA and I wish to congratulate you and your entire team for the successful construction, testing and launching of these innovative spacecraft," said AMSAT's Bill Tynan, W3XO, in announcing the designations. "Your pioneering work certainly inspires others to follow your lead." The satellites were built and launched by the University of Tokyo Cubesat Team. Both satellites have similar payloads. CO-57 has a CW beacon on 436.8475 MHz and a 1200 bps AFSK packet downlink on 437.490 MHz. CO-58 has a CW beacon on 437.4650 MHz and a 1200 bps AFSK packet downlink on 437.3450 MHz.

**First call for presenters, papers for 2006 AMSAT-UK Colloquium**

AMSAT-UK has issued a first call for speakers and papers for its 21st Colloquium, July 28-30, at Surrey University, Guildford, Surrey, UK. AMSAT-UK seeks presentations about Amateur Radio space activities and related topics. Speakers/authors also are also invited to submit papers for publication in the conference Proceedings. Submit presentation topics as soon as possible. Complete documents must be received by June 15 in order to appear in the Proceedings, which will be available to participants. Submit material to David Johnson, G4DPZ,. AMSAT-UK also invites suggestions for program topics. The 2006 AMSAT-UK Colloquium will include sessions aimed specifically at Amateur Radio satellite beginners. More information on this year's event will be available on the AMSAT-UK Web site.--AMSAT-UK

**TAPR/ARRL Digital Communications Conference issues call for papers**

The 2006 TAPR/ARRL Digital Communications Conference (DCC) has issued a call for papers. The event is slated for September 15-17 at the Clarion Airport Hotel in Tucson, Arizona. This year's conference celebrates the 25th anniversary of the founding of Tucson Amateur Packet Radio (TAPR). The deadline to submit conference papers is July 31. Authors do not need to attend the conference to have their papers included in the conference Proceedings. Submit papers and presentations via USPS or e-mail to Maty Weinberg, KB1EIB, ARRL, 225 Main St, Newington, CT 06111.

**VUCC basic operating area expanded for 50 through 1296 MHz**

The ARRL Membership Services Department has announced an increase in the size of the basic operating area for VUCC contacts made between 50 MHz and 1296 MHz. Effective immediately VUCC rules allow stations to submit confirmations for contacts made from different locations, provided no two locations are more than 200 km (124 miles) apart. The old rule stipulated that all contacts be made from within the same grid square or from locations in different grid squares that were no more than 50 miles apart. The VUCC operating area for SHF operation remains unchanged. On SHF, contacts must be made from within a single 300-meter (984.25 feet) diameter circle. The change results from a recommendation of an ad hoc VHF/UHF Study Committee, appointed by the then-Membership Services Committee, chaired by ARRL New England Division Director Tom Frenaye, K1KI. The ARRL Awards Committee recently added its approval to the change.

**HATS ATV in QST**

Nick Klos, AC6Y is pictured on the front cover of the May QST and his Portable Airborne ATV is the featured article on Page 28. Tom O'Hara, W6ORG

**Help with the Hamfest!**

Sunday, July 23, 2006  
Call now to sign up: 410-461-0086



**ARRL DX Bulletin****IRAN, EP.**

EP2ES has been QRV from club station EP3PTT on 20 meters from around 0600 to 0830z. QSL via OK1LO.

**BENIN, TY.**

TY5MR has been active using RTTY on 20, 15 and 10 meters at various times. QSL via IK1PMR.

**PAKISTAN, AP.**

AP2IA is usually QRV on 20 meters from around 1230 to 1320z and then from 0525 to 0630z. QSL to home call.

**SOUTH SHETLANDS.**

DT8A has been active on 30 meters around 2030z, 20 meters around 2230z and 40 meters around 2100z. QSL via HL2FDW.

**IRAN, EP.**

Ali, EP3AG is usually QRV on 20 meters using RTTY between 0800 and 0900z and then from 1330 to 1530z.

**REUNION ISLAND, FR.**

Jules, FR1AN can usually be found on 17 meters using SSB as early as 1100z up until 1500z. QSL via N5FTR.

**HUNGARY, HA.**

As of March 29, 2006, Hungarian amateurs now have access to 50 to 52 MHz on a secondary, non-interference basis. They also now have access to 7.1 to 7.2 MHz.

**BULGARIA, LZ.**

Members of the Bulgarian Federation of Radio Amateurs are active as LZ8OR from their HQ to commemorate the 80th anniversary of the first radio amateur club in Bulgaria. They are active until the end of the year. QSL via LZ1BJ.

**CHAGOS ISLANDS, VQ9.**

Larry, VQ9LA is QRV using RTTY on 40 meters around 0130z.

**SERBIA AND MONTENEGRO, YU.**

To commemorate the 500th anniversary of the city of Senta, amateur radio operators from here are using 500 in their call signs until December 31.

**ALBANIA, ZA.**

ZA1Z can usually be found on 40 meters using CW after 0000z.

**OPERATION APPROVED FOR DXCC.**

The following operation is approved for DXCC credit: Peter 1 Island, 3Y0X, operations from February 8 to 19, 2006.

**ANGOLA, D2.**

Janne is QRV as D2DX and has been active on 12 meters using CW and SSB around 0900 and 1045z, respectively. QSL via OH2BAD.

**GABON, TR.**

Alain, TR8CA has been active using RTTY on 20 meters from around 1800 to 2000z. QSL via F6CBC.

**CHAD, TT.**

Syl is QRV as TT8LN and has been active on 15 meters around 1300z. QSL via F5TLN.

**SWAZILAND, 3DA.**

Vlad, UA4WHX is QRV as 3DA0VB. He is active mainly on 80 to 15 meters using mostly CW. QSL to home call.

**ARMENIA, EK.**

Antoni, EK8WA has been active using RTTY on 20 meters around 1300z. QSL via SP9ERV.

**PAPUA NEW GUINEA, P2.**

Jerry, P29ZAD has been active using RTTY on 20 meters from around 0940 to 1330z.

**HONG KONG, VR2.**

Walter, VR2IG and Charlie, VR2XMT can usually be found active on 20 meters SSB after 1200z.

**WA7BNM Contest Calendar**

April 22-23

DX Colombia Int'l Contest  
SP DX Contest, RTTY  
Florida QSO Party  
Nebraska QSO Party

Apr 29 - May 7

Meteor Scatter Spring Rally

April 29-30

2 GHz and Up WW Contest  
Helvetia Contest  
Alabama QSO Party

May 1

AGCP QRP Party  
RSGB 80M Club Champ., SSB

May 6

Microwave Spring Sprint

May 6-7

County Hunters Contest, CW  
10-10 Int'l Spring Contest, CW  
7th Call Area QSO Party  
Indiana QSO Party  
New England QSO Party  
ARI Int'l DX Contest

May 10

RSGB 80 M Club Champ. Data

May 13

VK/Trans-Tasmanian 80m Phone

May 13-14

Mid-Atlantic QSO Party  
Volta WW RTTY Contest  
CQ-M Int'l DX Contest

May 18

RSGB 80 M. Club Champ., CW

May 20-21

US Counties QSO Party, SSB  
His Majesty King of Spain, CW  
EU PSK DX Contest  
Portuguese Navy Day Contest  
Manchester Mineira CW Contest  
Baltic Contest

May 27-28

CQ WW WPX Contest, CW

May 28-29

MI Memorial Day QRP CW Sprint

**Canadian Repeater Directory**

[http://www.ham-shack.com/can\\_repeater.html](http://www.ham-shack.com/can_repeater.html)

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**Hamfests**

**Sunday, May 7 - Hagerstown, MD** The Great Hagerstown Hamfest, at the Washington Co. Agr. Center, Route 65. <http://www.w3cwc.org>  
301-432-2358. 147.09/R

**May 19-21 - Dayton, Ohio** Dayton Hamvention, Hara Arena, 937-276-6930 (146.94/R)

**Saturday, May 27 - Georgetown, DE** STAR Hamfest at Sussex Tech HS, Route 9, Free VE Exams at Noon. Walk-ins welcome. Admission FREE. (147.05/R) Justin, N3JVT 302-934-5008

**Sunday, May 28 - West Friendship, MD** MD FM Assoc. Hamfest, Howard County Fairgrounds. <http://www.marylandfm.org> 301-641-5313 (146.76/R)

**Fri-Sun, June 2-4: Rochester New York** Rochester Hamfest, Atlantic Division Convention; Monroe Co. Fairgrounds <http://www.rochesterhamfest.org>  
585-424-7184

**Sunday, June 18 - Frederick, MD.** Fathers Day Hamfest, Frederick County Fairgrounds, E.Patrick St just off I-70. (147.06/R) Carolyn, N3VOK  
301-831-5060

**Sunday, July 23 - West Friendship, MD** The Famous BRATS Maryland Hamfest And Computer Fest. Howard County Fairgrounds. 410-461-0086 (24 hours); 147.03/R <http://www.bratsatv.org>

**Sunday, August 6 - Berryville, VA** Shenandoah Valley ARC Winchester Hamfest, Clarke Co. Ruritan Fairgrounds Bus. Rte. 7, Berryville, VA (146.82/R) Tom, AF2D, 540-869-7067, af2d@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:** May 6, June 3, August 5, September 2, November 4, December 2

**Sundays:** April 2, July 2, October 1

**AERO VE EXAMS**

\$14 Fee, (ARRL VEC)

May 20, Sept 30, Nov 18: White Marsh Library, 8133 Sandpiper Circle, White Marsh.

Register at 1 PM, exams begin at 1:30 PM  
Frank, AC3P, Pat, AC3F, 410-687-7209

**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)

**Special Event News**

Amateur radio operators from Iceland are allowed to use the special prefix TF60 until the end of the year to celebrate the 60th anniversary of the Icelandic Radio Amateurs.

*If You Received a Renewal Letter, Send us a Check Today! DO IT NOW! Thanks!*

**BRATS MARYLAND HAMFEST and COMPUTER FEST**

**Sunday, July 23, 2006 Howard County Fairgrounds**

Save the date! Sign up to help at the Hamfest: 410-461-0086

## milliwatt swap shop

*ads are free and get results!*

Send ad to: BRATS, P.O. Box 5915  
Baltimore, MD 21282-5915, or email  
to [w3gzk@verizon.net](mailto:w3gzk@verizon.net)

**FOR SALE:** Heathkit Security Sentinel GD-3810, \$20.  
Kenwood MC520DM hand mike, back lite, numbers, \$20.  
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. W2IHY  
8-band Audio equalizer, noise gate, \$175. Call Ted,  
W3OWN, 410-668-5580. Please leave message if you get  
answering machine.

**ATTENTION:** The famous W3GXX low band station and  
accessories are sold. Thanks to the anonymous purchaser.  
MILLIWATT want ads do get results. Send your ad to:  
[w3gzk@verizon.net](mailto:w3gzk@verizon.net)

**FOR SALE:** 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 \$225. Contact Russ: [n3yi@yahoo.com](mailto:n3yi@yahoo.com)

**SPECIAL SALE:** Rohn 48 ft free standing tower, TET 4-  
el. tribander, tail twister rotor, You take down. make offer.  
Alinco 110 2-mtr. xcvr, can be used bse or mobile, \$100. AC  
20 linear for 2 meters, \$20. Heath HM 102 power meter w/  
attached antenna selector, \$40. All in good working order.  
Call Jerry, KB3AP, 443-618-0618.

**FOR SALE:** ICOM 746, HF/144 MHz full size desk top  
xcvr. w/manual; variable 5w-100 watts power out, 101  
memory channels . ICOM IC-T90A hand held dual band  
xcvr, 144/440 MHz, wide band rcvr, manual charger,  
headset and HM 54 spkr mike, 500 memory channels;  
Kenwood dual band mobile TM 431A 144/440 MHz,  
manual RC10 multi- function remote controller w/ remote  
mike, 30 memory channels, mag mounted remote speaker,  
5/50W on 2 meters, 5/35 W out on 440. Contact me for  
features on all of the above. All in current use, excellent  
condition and ready to go. Call Don, W3QYL,  
410-356-9004, or [w3qyl@arrl.net](mailto:w3qyl@arrl.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>

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](mailto:joed@jadecomputers.us)

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

### Antique Radio Repair, Restoration

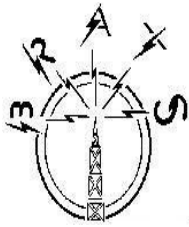
Eric, WA3TAD, Audio-Visual Service / Retro Radio,  
3401 Chestnut Avenue, Baltimore, MD 21211.  
410-467-3620; [wa3tad@comcast.net](mailto:wa3tad@comcast.net)

### 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](mailto: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, 410-786-6839 or email  
[w3gzk@verizon.net](mailto:w3gzk@verizon.net)



# the Milliwatt



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

## May 2006

**Next BRATS Meeting**  
Tuesday, May 9  
7:15 PM, Pikesville Library

**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](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, W3WVW

### BRATS Public Service

**May 13** - Myasthenia Gravis Walk, 9:00 AM,

Downs Park, Anne Arundel County

**June 10-11** -- MS 150 Bike Tour Salisbury, MD.

For more info, or to participate contact Ian, N3CVA, 410-303-1412, [N3CVA@hotmail.com](mailto:N3CVA@hotmail.com) or Ed, N3GXH at 410-965-8498

**September 16-17:** 4th Annual Chesapeake Challenge Walk, starts in Annapolis Saturday, concludes in Downtown Baltimore Sunday.

Dave, KB3CJT, [kb3cjt@arrl.net](mailto:kb3cjt@arrl.net) or [drollhauser@comcast.net](mailto:drollhauser@comcast.net)

## 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)

<b>BRATS Membership Renewal: Regular=\$15; Retired/Disabled/Student \$10; Family \$20</b>		
Name	Call Sign	BRATS No
Address	City/State/Zip	
Phone	Email	
<b>MAIL TO: BRATS, P.O.Box 5915, Baltimore, MD 21282-5915</b>		