



# the Milliwatt



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

## January, 2010

### **FCC Dismisses Two Amateur Radio-Related Petitions**

On Wednesday, December 9, the Federal Communications Commission dismissed two separate Petitions for Rulemaking: One filed by Murray Green, K3BEQ, concerning the operation of repeater stations in the Amateur Service, and one filed by Glen Zook, K9STH, requesting amending Section 97.119(a) to change how often stations must identify themselves.

### **Amateur Radio Bill Passes Senate, Moves to the House**

On Monday, December 14, S 1755 -- *The Amateur Radio Emergency Communications Enhancement Act of 2009* -- passed the Senate by unanimous consent; the bill now goes to the House of Representatives for consideration. Sponsored by Senator Joe Lieberman (ID-CT), and Senator Susan Collins (R-ME), S 1755, if passed, would direct the Department of Homeland Security (DHS) to undertake a study on emergency communications. S 1755 points out that "There is a strong Federal interest in the effective performance of Amateur Radio Service stations, and that performance must be given -- (A) support at all levels of government; and (B) protection against unreasonable regulation and impediments to the provision of the valuable communications provided by such stations."

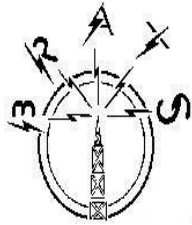
### **White House Names Ham as New Cybersecurity Coordinator**

On Tuesday, December 22, President Barack Obama named Howard A. Schmidt, W7HAS, as the new White House Cybersecurity Coordinator. According to the White House, Schmidt -- an ARRL member -- is one of the world's leading authorities on computer security, with some 40 years of experience in government, business and law enforcement and "will have regular access to the President and serve as a key member of his National Security Staff. He will also work closely with his economic team to ensure that our cybersecurity efforts keep the Nation secure and prosperous."

### **500kHz NoVs exented to 2012**

On Wednesday 16 December, Ofcom announced that following representations made by the RSGB, the period of validity for all 501 to 504kHz Notices of Validity is to be extended. Having negotiated with the Maritime and Coastguard Agency, Ofcom is extending the validity period to 29 February 2012. The NoVs were originally planned to expire at the end of February 2010. Welcoming the announcement, RSGB General Manager Peter Kirby, G0TWW, said that this is another fine example of the RSGB working closely with Ofcom to the benefit of all UK radio amateurs. The full text of the announcement can be found via the RSGB web site at [www.rsgb.org/news/article.php?id=0010](http://www.rsgb.org/news/article.php?id=0010), or at [www.ofcom.org.uk](http://www.ofcom.org.uk) where you can search for update special research permit. [RSGB]

For email notifications of BRATS meetings and new issues of The Milliwatt, [join theMilliwatt Yahoo! group](#)



# the Milliwatt

The award-winning monthly publication of The BRATS.

Items herein may be reprinted with credit.

Mayer D. Zimmerman, W3GXX, Editor

## Happy New Year!

from the officers and directors of The BRATS

For email notifications of BRATS meetings and new issues of The Milliwatt, [join the Milliwatt Yahoo! group](#)

**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:** [brats@bratsatv.org](mailto:brats@bratsatv.org)

**InfoLine:** 410- 461-1212

**Meetings:** Irregular dates, 7:15 PM, Pikesville Library, 1301 Reisterstown Rd., Pikesville, MD.

*(Please see list of meeting dates on this page)*

**President:** Ed Rosen, N3GXH

**Vice Pres:** Edward Koritzer, N3DGY

**Secretary:** Mayer D. Zimmerman, W3GXX

**Treasurer:** Les McClure, W3GXT

**Webmaster:** Laura F, KB3LJM

**Chairman of the Board:** Heru Walmsley, W3WVV

**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+, 224.8-

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 11:45 Informal ATV Net, W3WVV

Tues 9 pm BRATS Horsetraders Net

Wed 9 pm CATS ATV Net

Thurs 9 pm BRATS ATV Net

Sat 1 pm Weekly News Bulletin, W3GXX

Sat 1:20 The BRATS Answer Men:

Sun 8 pm MATS ATV Net

As needed Weather/Emergency Net, Skywarn

### BRATS Board of Directors

Through 12/11:

KA3IDB, KB3FIF, K0RYX

Through 12/10:

W3ZQI, KB3LJM, K2GZL

### Regular BRATS Meetings

7:15 PM at the Pikesville Library, 1301 Reisterstown Rd, Pikesville

On irregular dates as follows:

January 14, February 18, March 15, April 15, May 13, June 17

**NEXT MEETING: Thursday, January 14, 7:15 PM**

**CALIFORNIA BANS HIGH ENERGY USE TV RECEIVERS**

TV sets that use excessive levels of mains power will be banned from store shelves in California. This, after state regulators voted on Wednesday, November 18th to adopt a mandate to reduce electricity demand. On a unanimous vote, the California Energy Commission required all new televisions up to 58 inches to be more energy efficient, beginning in 2011. The requirement will be tougher in 2013, with only a quarter of all TVs currently on the market meeting that standard. TV sets larger than 58 inches, which account for no more than 3 percent of the market, would not be covered by the rule. This is viewed as a concession to independent retailers that sell high-end home-theater TV systems. However, the commission is expected to regulate them in the future. The commission estimates that TV receivers account for about 10 percent of a home's electricity use. The concern is that the energy draw will rise by as much as 8 percent a year as consumers buy larger televisions, add more to their homes and watch them longer. Commissioners say energy efficiency standards are the cheapest and easiest way to save electricity. More than 1,050 models sold today comply with the 2011 California standards, and more than 300 comply with the 2013 standard, according to the Energy Commission. (Published reports, via AR Newswire)

**CUBA TO PROVIDE PARTS TO HAMS AND WILL MANUFACTURE 160 METER RADIO**

According to the Cuban news service CAN, that nation's Ministry of Informatics and Communications will soon start providing ham radio operators with the components and parts for their equipment. This, from stock that had been left idle for some time. Pedro Rodriguez, president of the Cuban Amateur Radio Federation told the press that the first 600 units are ready for delivery. He says that by using them his nation's ham radio community will be able to assemble new stations or update those they already have. But that's not all. During the recently concluded 8th Cuban Ham Radio Federation Congress, a prototype of a domestically designed transceiver was shown. With the brand name "Caiguaran," the gear was designed by several specialists and will be manufactured at one of the Ministry of Informatics factories. Jos Tanquero is one of the hams that worked on the creation of the radio. He told the news service that it runs 20 watts out on 160 meters which is the legal power for Cuban Third Category ham radio license holders. By adding modules both 80 and 40 meters can be covered as well. The Cuban Amateur Radio Federation has over 5500 members many of whom are involved in both severe weather watch and emergency communications operations. (CAN, via AR Newswire)

**Couple stranded 3 days after GPS leads them astray**

A Nevada couple letting their SUV's navigation system guide them through the high desert of Eastern Oregon got stuck in snow for three days when the GPS unit sent them down a remote forest road. On Sunday, atmospheric conditions apparently changed enough for their GPS-enabled cellphone to get a weak signal and relay coordinates to a dispatcher, Klamath County Sheriff Tim Evinger said. "GPS almost did 'em in and GPS saved 'em," Evinger said. "It will give you options to pick the shortest route. You certainly get the shortest route. But it may not be a safe route." Evinger said a Lake County deputy found the couple in the Winema-Fremont National Forest outside the small town of Silver Lake on Sunday afternoon and pulled their four-wheel-drive Toyota Sequoia out of the snow with a winch. John Rhoads, 65, and his wife, Starry Bush-Rhoads, 67, made it home safely to Reno, Evinger said. The couple was well-equipped for winter travel, carrying food, water and warm clothes, the sheriff said. "Their statement was, being prepared saved their life," he said. The couple had been in Portland and followed their GPS as it directed them south on U.S. Highway 97 to Oregon Highway 31, which goes through Silver Lake and Lakeview before connecting with U.S. Highway 395 to Reno, Evinger said. In the town of Silver Lake, the unit told them to turn right on Forest Service Road 28, and they followed that and some spur roads nearly 35 miles before getting stuck in about 1 1/2 feet of snow near Thompson Reservoir, the sheriff said. "For some reason they finally got a weak signal after 2 1/2 days," Evinger said. "They called in. They alternated between two different cellphone numbers." A GPS-enabled phone is able to send its coordinates to 911, and eventually one of the couple's phones sent its location to the dispatcher's console, the sheriff said.

Next BRATS Meeting: Thursday, January 14 at  
7:15 PM, Pikesville Library,

### **Chinese Satellite XW-1 Receives OSCAR Designation**

Less than one week after China's first Amateur Radio satellite -- XW-1 -- was successfully launched, AMSAT has designated it Hope-OSCAR 68, or HO-68. Amateur Radio Operators around the world have received beacon signals from XW-1, said AMSAT-NA OSCAR Number Coordinator Bill Tynan, W3XO. XW-1 has been coordinated through IARU Amateur Satellite Frequency Coordination Panel. As XW in Chinese means hope, it had been requested that this word be used as the prefix for the new OSCAR number. Therefore, with the above information and the authority vested in me by the AMSAT-NA President, I hereby designate this latest Amateur Radio satellite as Hope OSCAR 68 or HO-68. HO-68's communications payload includes a beacon and three crossband transponders operating in FM, SSB/CW and digital modes. Uplink and downlink frequencies can be found on the CAMSAT Web site. For the latest Keplerian elements for XW-1 and other satellites, check out the W1AW Keplerian Bulletins.

### **Hubble telescope looks into deepest space yet**

A peek into the past, the Hubble space telescope's deepest view yet, released Tuesday by NASA scientists, reveals galaxies born only 600 million years after the Big Bang. Using a newly-installed camera, Hubble scientists repeated a view of the 2004 "Ultra-Deep" look into space made by the storied space telescope. The look reveals a wide variety of galaxies already in existence about 13 billion years ago. In 2014, NASA hopes to launch the James Webb space telescope, which is able to look at even-more-distant galaxies. The goal: to view the first stars in the universe.

### **ARRL Licensing Study Guides Coming to an eBook Reader Near You**

ARRL is pleased to announce that owners of Kindle -- an electronic book reader sold by Amazon.com -- can now download ARRL's Tech Q&A directly from the online bookseller for use on their Kindle. Kindle is shaped much like a book with a paper-like screen that displays text and pictures. Those who have the Kindle application installed on their Apple iPhone or iPod touch can also download the book to be used on these devices. When you download the *Tech Q&A*, you can gain access quickly and easily, smoothing the path to your first ham radio license within minutes. This ideal study tool -- whether you're at home, in the office, traveling or just on the go -- lets you review the questions and answers from the entire Technician question pool so you can pass the 35-question exam. Kindle versions of the General Q&A and the *Amateur Extra Q&A* will be available sometime in January. All three can be purchased from Amazon.com for \$9.99 each.

### **ARRL CEO, General Counsel Present ARRL's Stance on BPL to FCC Commissioners**

ARRL Chief Executive Officer David Sumner, K1ZZ, and General Counsel Chris Imlay, W3KD, made the rounds of the five FCC Commissioners' offices during November to acquaint them with the ARRL's position on the regulation of interference from Broadband over Power Lines (BPL) systems. The meetings were conducted in accordance with the rules governing ex parte communications in pending rulemaking proceedings, in this case the *Further Notice of Proposed Rule Making (FNPRM)* in ET Docket No. 04-37.

### **ARRL's Logbook of The World Reaches New Milestones**

Since its inception on September 15, 2003, more than 30,000 hams have signed on to Logbook of The World (LoTW), ARRL's online logging program -- an increase of more than 7000 hams since 2008. These 30,000 hams have made upwards of 250 million QSOs -- more than 58 million QSOs in 2009 alone. In 2009, there was an increase of more than 24 percent for both the number of registered users and the number of QSOs over 2008.

**WA7BNM Contest Calendar**

- Jan. 1  
SARTG New Year RTTY Cont.
- Jan. 2-3  
AARRL RTTY Roundup  
EUCW 160m Contest
- Jan 9-10  
Hunting Lions in the Air  
NA QSO Party, CW
- Jan 10  
Midwinter Contest, Phone  
NARU Baltic Contest, CW  
DARC 10 meter Contest
- Jan 16  
LZ Open Contest
- Jan 16-17  
Hungarian DX Contest  
NA QSO Party, SSB
- Jan 23-24  
BARTG RTTY Sprint
- Jan 29-31  
CQ 160-Meter Contest, CW
- Jan 30-31  
UBA DX Contest, SSB
- Feb. 6-7  
Vermont QSO Party  
10-10 Int'l Winter Cont. SSB  
Mexico RTTY Int'l Contest
- Feb. 6  
Minnesota QSO Party  
AGCW Straight Key Party
- Feb. 7  
NA Sprint, CW

(Thanks, Bruce, WA7BNM)

**ARRL DX Bulletin****SOUTH SHETLAND ISLANDS.**

Lee, DS4NMJ will be QRV as DT8A from the Antarctic King Sejong Station on King George Island, IOTA AN-010, from December 5 to January 31, 2011. Activity will be on 160 to 10 meters using mostly CW with some SSB and RTTY as well. QSL via HL2FDW.

**ANTARCTICA.**

Karel, ON5TN is QRV as OR4TN from the Belgian Princess Elisabeth Station until the end of January 2010. Activity is generally on 80, 40 and 30 meters using CW and SSB around 2100 to 2300z. QSL to home call.

**ARRL DX Bulletin****PAPUA NEW GUINEA, P2.**

Annas, MM0GQA is QRV as P29VAA from Port Moresby for the next three to six months while working for a humanitarian aid organization. Activity is in his spare time. QSL via operator's instructions.

**SUDAN, ST.**

Robert is QRV as ST2AR and is generally active on 20 to 10 meters mostly during the weekends. QSL via S53R.

**EGYPT, SU.**

Mohammed, SU1KM has been active on 30 meters using RTTY around 1740z and then using CW around 1800 to 1900z. QSL direct.

**DJIBOUTI, J2.**

Olivier, J28KO has been QRV on 20 meters using RTTY around 1500z. QSL via F6DKI.

**WILLIS ISLAND, VK9W.**

Dave, VK4ABD will be QRV as VK9WBM while on work assignment at the Bureau of Meteorology in the Australian CoralSea territories until July 2010. Activity will be on 40 meters and above during his spare time. QSL to home call.

**ANTARCTICA.**

Bhagwati, VU3BPZ is QRV as AT10BP from the Indian Maitri Base and can be found active on 20 meters SSB around 0000 to 0130z. QSL via operator's instructions.

**NIGERIA, 5N.**

Ivan, OM3CGN is now QRV as 5N7M. He is active on 40 to 10 meters. QSL to home call.

**ANTARCTICA.**

Felix is QRV as DP1POL from the German Neumayer Station III and has been active on 20 meters using SSB between 0000 and 0100z. QSL via DL1ZBO.

**WAKE ISLAND, KH9.**

Colin, WA2YUN is QRV as KH9/home call for about one year while on work assignment. He is active in his spare time. QSL via K2PF.

**GREENLAND, OX.**

Fred, KB4DMQ is QRV as OX3QM from Thule for one year. He is currently active on 40 meters. QSL to home call.

**ANTARCTICA.**

Mike, RW1AI is QRV from club station R1ANP from Progress station and is here for about a year while on work assignment. QSL this operation via RW1AI.

**MOUNT ATHOS, SV/A.**

Monk Apollo, SV2ASP/A has been QRV on 20 meters around 1330z and 40 meters around 1800 to 1900z. QSL direct.

**Check Out the January/February 2010 NCJ**

The January/February issue of NCJ, The National Contest Journal, is filled with the latest news from the contesting world. Whether you are new to contesting or are a seasoned pro -- or somewhere in the middle -- you will find something in NCJ just for you.

**ATV Ham Radio News: [www.ac6rb.com](http://www.ac6rb.com)**

### **Scott Robbins, W4PA, to Purchase Vibroplex**

Scott Robbins, W4PA, of Knoxville, Tennessee, told the ARRL that he has signed an agreement to purchase The Vibroplex Company, Inc from present owner Felton "Mitch" Mitchell, W4OA, effective December 21, 2009. "Vibroplex represents the great tradition of CW operation in Amateur Radio going back many, many years," Robbins told the ARRL. "I'm tickled to be able to continue the more than 100 years of history that has gone into this company."

## **Hamfests**

**Sunday, Jan. 31, 8 AM to 12 Noon:** MMARC Post

Holiday Hamfest,

Odenton Vol. Fire Dept. Hall, 1425 Annapolis Rd (Rte. 175) Odenton. 146.805/146.205; QSL checking, VE Exams at 9AM; Preregister with WB4OGP@arrl.netz Info, tables: Frank, N3SEO, 410-647-3335; or email n3seo@aol.com

**Saturday, Feb. 6** - Richmond, VA

Richmond Frostfest, Richmond Raceway Complex, 600 E. Laburnum Ave., 146.88/R, PL 74.4; 540-872-5949

**Sunday, Feb 28**, Annandale, VA

Vienna Wireless Society Hamfest No. Va. Community College, 8333 Little River Tpke; 146.91/R 703-626-3829

### **NEXT BRATS MEETING**

Thursday, January 14, 7:15 PM  
at the Pikesville Library.

## **Local ATV Nets**

**Tuesday, 11:45 AM**

Informal Net W3WVV (audio on 147.03/R)

**Wednesday, 9 PM**

CATS Net Rotating Net Control, Audio on 147.345+

**Thursday, 9 PM**

BRATS Net Rotating Net Control, Audio on 147.03/R

**Saturday- 8 PM**

MATS Net - KB3LNN (BRATS ATV and linked FM Repeaters)

### **Free IARU Locator Maps**

Free IARU locator maps are available in PDF format for downloading. Maps are available for many nations on all continents. The US map include Hawaii and Alaska. You can find them at <http://iarumapsrussia.webs.com>

## **VE EXAMS**

### **BARC VE EXAMS for 2010**

at BARC Clubhouse 12360 Owings Mills Blvd. Owings Mills  
Register: 1 PM, Exams begin 2 PM. Free (Laurel VEC)

[n3wke@arrl.net](mailto:n3wke@arrl.net) (Thanks, N3YI)

Sunday, Jan 3; Saturday, Feb 6; Saturday, Mar 6; Sunday, Apr 12;  
Saturday, May 1; Saturday, Jun 5; Sunday, Jul 11; Saturday, Aug 7;  
Saturday, Sep 4; Sunday, Oct 3; Saturday, Nov 6; Saturday, Dec 4

### **2010 AERO VE EXAMS**

Registration at 1 PM, Exams at 1:30.

Fee \$14 ( ARRL VEC); All exams at White Marsh Library, 8133 Sandpiper Circle;

*January 30, 2010*

Pat Stone, AC3F, [ac3f@juno.com](mailto:ac3f@juno.com), 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)

### **Complimentary Wi-Fi Service**

now available at all Barnes & Noble stores. No fees. No charges. Just log on.

## 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 SB 1000 linear amplifier, \$750 + shipping; 1200 watt transmitter, 3-1000 tube requires 100 watt for 1K output, companion power supply 120V, only 744 hours use, both built by electrical power engineer and in 100% working order, \$2000 plus shipping; HyGain HDR 300A rotator, 25 sq ft wind load and control box \$ 950 + shipping. Kenwood TS-930S xcvr., \$300 + shipping. Contact Joel, W3YZI, at 410-913-9863.

**FOR SALE:** Alinco 110 2-mtr. xcvr. \$100. ACI linear for 2 meters, \$20. Heath HM102 power meter w/ antenna selector \$40. Call Jerry, KB3AP, 443-618-0618

**FREE!** You remove! TV grade 30-35 foot tower in New Market, MD (off I-70). Dennis 410-842-3336.  
[dennis.kinsel@ngc.com](mailto:dennis.kinsel@ngc.com)

**FOR SALE:** ICOM T2H 2 mtr HT with charger, belt clip, rubber ducky, manual, asking \$80. K3BCD, 410-866-5441 or [ywm@comcast.net](mailto:ywm@comcast.net)

**FOR SALE:** A bunch of meters. \$10; Dipole with insulators, and nylong line, \$10; Homebrew SWR bridge 2mtrs/440, \$10; Panoramic adaptor BC 1031C, \$40; Millen antenna matching pre-amp with 27-32 MHz plug-in, \$5; Call Ted, W3OWN, 410-668-5580, leave message, I will call back.

**SPECIAL DEAL:** ICOM BC-110 battery charger, 12vDC, 200 mA, for ICOM T8A or similar misplaced it, ordered a new one, then found it. Almost new, cost \$46, make me a reasonable offer. Mayer, W3GXX [w3gzk@verizon.net](mailto:w3gzk@verizon.net)

**WANTED:** AT-930 for a TS930S. Please send condition and price. Jerry. [jerrymcf@sbcglobal.net](mailto:jerrymcf@sbcglobal.net)

**Next BRATS Meeting:** Thursday, January 14th, 7:15 PM, Pikesville Library

### JADE COMPUTERS

1009 Ingleside Ave., Baltimore, MD 21228  
443-677-4187; [joe@jadecomputers.us](mailto:joe@jadecomputers.us) webpage design, hosting, order PC on-line <http://www.jadecomputers.us>

### VTS - Videotaping Service

Video, DVD duplications, video tape transferred to DVD; standards, conversions, call VTS toll free: 1-877-891-1002. BRATS member Bob Shapiro, K2MYS. <http://www.videotapingservice.com>

### Antique Radio Repair, Restoration!

Eric, WA3TAD, audio-visual service, retro radio, 3401 Chestnut Ave. Balto. 21211. 410-467-3620; [wa3tad@comcast.net](mailto:wa3tad@comcast.net)

### Overlea Hobbies; Radio Consignments

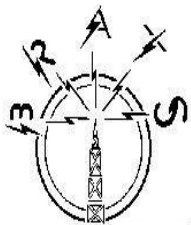
8411 Harford Rd. Parkville; 410-665-3622 fine trains, model kits, x-acto, cars, planes, ships, many radios: Yaesu FT-101ZD, Kenwood TS 820S, 930S, Heath SB-102, National NC 183, more. Dick, N3JWN, 410-488-2806

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

**WANTED to BORROW:** Shipping container for Kenwood TS-850S. Will pick up, or ship it to me. Will return it after I get my rig back from Kenwood. 410-668-5580. If not there, leave a message. Ted, W3OWN

<p><b>ATTENTION:</b> if you do NOT want your ad to run again, please send me an email and let me know. Thanks! <a href="mailto:w3gzk@verizon.net">w3gzk@verizon.net</a></p>
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**WANTED:** Your ad for this space. Send copy to [w3gzk@verizon.net](mailto:w3gzk@verizon.net)



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

## January 2010

### NEXT BRATS MEETING: Thursday, January 14, 7:15 PM, Pikesville Library

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More 2010 BRATS meetings on the following dates: Thursday, February 18; Monday, March 15; Thursday, April 15; Thursday, May 14; Thursday, June 17.

### Other Radio Club Meetings

#### 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)

#### 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)

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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

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