

the Milliwatt



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

February, 2013

FCC PROPOSES 3.5 GHZ CITIZENS BROADBAND SERVICE

First there was the old Class A and Class B Citizens radio of the 1940's. Then came 11 Meter Class D+ Citizens Radio Service in 1958. Next was the Family Radio Service authorized in the United States since 1996. That was followed in 2000 by MURS or the Multi Use Radio Service. Now in 2013, the FCC is proposing to create a new Citizens Broadband Service and it's like nothing else the regulatory agency has ever attempted before

Just before years end on Wednesday December 26th the FCC announced a proposal to make available 100 MHz of shared spectrum in the 3.5 GHz band using small cell and database technologies. The FCC calls the new service in the 3550 to 3650 MHz band the "Citizens Broadband Service" or C-B-S and proposes three tiers of service. These will be known as Incumbent Access; Priority Access and General Authorized Access. Incumbent Access would consist solely of authorized federal and grandfathered licensed Fixed Satellite Service 3.5 GHz band users. They would be protected from the other tiers by regulation and technical means. This would include the use of exclusion zones where other C-B-S uses would not be permitted. Priority Access level would be given to small cell use by certain critical quality-of-service dependent users at specific target locations. This might include hospitals, utilities, state and local governments. It might also include users with a distinct need for reliable, prioritized access to broadband spectrum at specific, localized facilities.

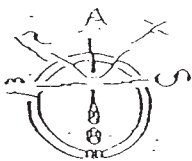
Lastly, the General Authorized Access or G-A-A level would allow opportunistic use of the spectrum for a variety of residential, business and enterprise purposes. These users would have to protect Level 1 Incumbent Access and Level 2 Priority Access users through technologies including geolocation. Also as the lowest level users they would not have any expectation of protection from harmful interference to this user base.

The Notice of Proposed Rulemaking is known as FCC 12-148. It also seeks comment on including spectrum at 3650 to 3700 MHz, immediately adjacent to C-band downlink spectrum. If the FCC does include the 3650 to 3700 MHz band in the proposed new service, wireless Internet service providers using this band for links would have to be licensed under the tier 3 General Authorized Access rules.

The NPRM proposes a "Spectrum Access System" which would govern interactions between all devices in the 3.5 GHz band. It would be modeled after the TV White Space database concept and all devices would be limited to 1 watt Effective Radiated Power as compared to an Isotropic radiator. (ARNewsline)

Comment Deadline Set in WRC-07 Implementation Proceeding:

As previously reported, the FCC has proposed to amend its rules to implement the allocation decisions of the 2007 World Radiocommunication Conference (WRC-07) and to make certain other changes. Notice appeared in the December 27, 2012 issue of the Federal Register, which started the clock on a 60-day window for the submission of comments. Thus, comments are due no later than February 25, 2013, with reply comments due no later than March 27, 2013.



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The award-winning monthly publication of The BRATS. Items herein may be reprinted with appropriate credit.

Mayer D. Zimmerman, W3GXX, Editor

Some Thoughts

We are slowly making the transition to Ted, WA3AER as the new Secretary. It will take a while. Few realize how many things the secretary is responsible for. Meanwhile, we are embarking on a massive campaign to replace all the repeater equipment, much of which is over 20 years old. So good things are happening. Hang in there with us.

73, Mayer, W3GXX

The Baltimore Radio Amateur TV Society, Inc.

.O. Box 5915 Baltimore, MD 21282-5915

non-profit organization under section 501(c)(3) of the internal revenue Code and a non-profit corporation in the state of Maryland.

Member of and support: The ARRL and The Foundation for Amateur Radio.

Home Page: <http://www.bratsatv.org>

email: brats@bratsatv.org

Meeting; 2nd Monday at 7:15 PM at the Pikesville Library; 1301 Reisterstown Road

President: Kevin Sherwood, KB3PLX

Vice Pres. Ed Rosen, N3GXH

Secretary: Mayer D. Zimmerman, W3GXX

Co-Secy: Ted Bauer, WA3AER

Treasurer: Jim Sherwood, KB3SKN

Chairman of the Board:

Mayer D. Zimmerman, W3GXX

BRATS REPEATERS

Linked Repeaters WB3DZO

147.03+, 224.96-, 448.325-

Stand-Alone repeaters:

443.350+, 224.8-

Packet Nodes:

W3GXT-5: 145.05

W3GXT-10: 224.52

ATV Repeater W3WCQ

Inputs: 426.25, 1253.25

Outputs: 439.25, 911.25

BRATS Weekly Nets

Monday, 9 PM – Traffic and Info

Tues. 11:45 AM- Informal ATV

Wednes. 9 PM – CATS ATV Net

Thurs. 9 PM – BRATS ATV Net

Sat., 1 PM* Weekly News Bulletin

Sun. 8 PM BRATS ATV Net

As Needed: Skywam

BRATS BOARD OF DIRECTORS

Through December, 2013:

WA3SWA, K2GZL, W3ZQI

Through December, 2014:

Chris, K9FXV; Steve, KA3ZMN,

MONTHLY MEETINGS:

Second Monday of each month, 7:15 PM
Pikesville Library 1301 Reisterstown Rd.

NEXT BRATS MEETINGS

7:15 PM, Pikesville Library
1301 Reisterstown Road

Monday February 11, 7:15 PM

Monday, March 11, 7:15 PM

Monday, April 8, 7:15 PM

LED LIGHTS JAM CITY BUSES

The Swedish national amateur radio society the S-S-A reports on a case of LED lights in a shop jamming the VHF radio used by buses. The lighting in shop windows at a business called Punkt House jammed the city bus system which uses 167.0375 MHz for communications and dispatch. The lights causing the problem were LED spotlight lamps. It was found they did not conform to the regulations on Electromagnetic Compatibility and they are now being replaced. The full story in Google English is on-line at tinyurl.com/LED-VHF-Interference (Southate via arnewsline.org, via Wireless Inst. of Australia news))

ADELAIDE AUSTRALIA SAYS YES TO PUBLIC WI-FI

The first Australian city with free Wi-Fi outdoors will be Adelaide. The South Australian Government and Adelaide City Council will foot \$1.5 million bill to provide it at all public areas, by the end of 2013. Already a trial of free Wi-Fi is on all Adelaide Metro trams and 20 buses. Similar public Wi-Fi initiatives are in progress in Singapore, Prague, Wellington, Auckland, and Luxembourg. (VK3PC, via ARNewsline)

ILLW 2013 ATTRACTS MORE THAN 110 ENTRIES SO FAR

Jim Linton, VK3PC, reports that the leading countries pre-registered for the next International Lighthouse and Lightship Weekend are Germany with, Australia with 27, followed by the USA and England. In fact a total of 110 pre-registrations have been received from 26 countries even though the next International Lighthouse and Lightship Weekend does not take place until the August the 17th and 18th. More about this fun event is on-line at www.illw.net (VK3PC via ARNewsline)

Sun Heating Up As Solar Cycle 24 Peaks:

The Sun is waking up as it approaches the peak of its roughly 11 year cycle. The past month (and really much of last year) was dominated by relative quiet despite the peak of solar maximum approaching. Most experts predict that solar maximum is peaking in the early to middle part of this year. While this is expected to be an unusually quiet solar max, that doesn't mean we won't see activity, and the Sun is making that clear now with the presence of three interesting sunspots. One of these is active region (AR) 1640, located in the Sun's northern hemisphere and rotating towards the west limb. A few days ago while it was near the center of the Sun AR1640 was a small, simple spot. However, it has grown rapidly for several days, and also developed into a magnetically complex spot that harbors energy for powerful flares. Surprisingly, however, this giant spot has produced only a smattering of relatively weak low-level C class flares. There certainly remains potential for this area to launch a stronger flare, but since it is nearing the western limb eruptions are unlikely to be Earth directed.

Open-Hardware Licensed Handheld Software-Defined Radio In the Works:

"Chris Testa recently presented at TAPR Digital Communications Conference and announced his development work on a hand-held software defined radio. Running uClinux on an ARM Corex-M3 coupled to a Flash-based FPGA, it will be capable of receiving and transmitting from 100MHz to 1GHz. Designed to be low power, Chris has designed the radio primarily with the Amateur 2m and 70cm bands in mind. Currently in early prototyping stage, Chris intends to release the design under the TAPR Open Hardware License."

ITU Radio Regulations 2012 edition

The 2012 edition of the ITU Radio Regulations, which includes the results of WRC-12, is now available at www.itu.int/pub/R-REG-RR-2012/en. The electronic version is free of charge, at least until mid-2014 as per ITU Council 2012's decision. You have to pay for the paper or DVD versions.

The New 630 Meter Band is Now a Reality

ACMA Makes Amendments to the Amateur Licence Conditions Determination (LCD) – The new 630 meter band is now a reality. Effective from the 1st January 2013, Australian Advanced amateur licensees can now operate in the new band (630 meters) on a secondary basis. This new world wide allocation from 472 kHz to 479 kHz is an outcome of the ITU World Radio Conference in 2012 (WRC-12). The ACMA has amended the conditions in the LCD that gives effect to the WRC outcomes authorising a radiated power of not more than 5 watts pX EIRP, with a maximum emission bandwidth of 2.1 kHz. There is however two exclusion zones where amateur operation is not permitted so as to protect aeronautical non-directional beacons (NDB) operating in the Exmouth and Timor regions. Also included in the amendments is the withdrawal for general use by advanced licensees to the amateur secondary allocation, 420 to 430 MHz to allow for greater harmonisation of government services in the 400 MHz band, following the ACMA's review of this band. The use of this segment by amateurs was mainly for fixed links associated with repeater interlinking and a number of ATV channels where alternative channel assignment have been achieved in the 430 to 450 MHz 70cm band.

FIRST 24 GHZ CONTACT BETWEEN USA AND JAPAN

Some names in the news. First up are W5LUA and JA6CZD reportedly made the first 24 GHz EME contact between the USA and Japan on January 2nd. Their QSO took place at 1430 UTC when both stations had about an hour of common time where each had 15 to 20 degrees of elevation to the Moon. JA6CZD used a 2.4 meter offset fed dish with a 22 watt transmitter. W5LUA also used a 2.4 meter offset fed dish and a Traveling Wave Tube mounted on the feed support providing 100 watts out. W5LUA's station was GPS locked and JA6CZD uses a Rubidium standard to control frequency. The mutual Doppler Shift placed both at about 24048.108 MHz based on a center frequency of 24048.100 MHz. This shifted down in frequency as the schedule took place. (ANS, W5LUA)

IRISH RADIO AMATEURS GET NEW 472-479 KHZ ALLOCATIONS

Some good news for hams in Ireland. This with word that the Irish Radio Transmitters Society have been informed by telecommunications regulator ComReg that the band segment 472 to 479 kHz becomes available to all licensed radio amateurs in Ireland. This, on a secondary basis, with effect from 1 January 2013. The maximum power is 5 watts and available for use with CW, QRSS, and narrow band digital modes. There are some restrictions that ComReg has put in place. As ham radio is a secondary user of this spectrum ComReg says that stations in the Amateur service shall not cause harmful interference to, or claim protection from, stations of the aeronautical radionavigation service or stations of the maritime service. Also that the amateur service shall ensure that no harmful interference is caused to the frequency 490 kHz which is used exclusively for the transmission by coast stations of navigational and meteorological and urgent information to ships.

Also, a Test License held from ComReg by the Irish Radio Transmitters Society under which a number of licensed amateurs were given permission to operate in the band segment 501 to 504 kHz expired on January 2nd. As such, amateurs in Ireland who had received special permission to use that spectrum were required to cease operation on 501 to 504 kHz on that same date. (IRTS via ARNewslines)

Notice of Licence Variations for the 472Khz and 5 MHz Bands

Holders of Full Amateur Radio Licences can now apply for NoVs for the above bands online at www.rsgb.org/nov. (for British amateurs only, effective 1/1/13)

ARRL DX BULLETIN

PHILIPPINES, DU. Bob, WT3A is QRV as DU7TET and is usually active on 160 meters between 0945 and 1300z. QSL to home call.

MONGOLIA, JT. Chak, JT1CO has been active on 30 meters around 2100z. QSL direct.

PAPUA NEW GUINEA, P2. Nao, JA2VQP is working as a volunteer and teaching mathematics at the Divine Word University in Wewak for the next two years. He has recently been issued the call P29NO and plans to be active in the coming months.

SLOVENIA, S5. Special event station S5300TP is QRV during all of 2013 to mark the 300 years since the Tolmin Peasant Uprising of 1713. QSL via S59DAP.

MOUNT ATHOS, SV/A. Monk Apollo, SV2ASP/A has been active on 40 meters using SSB around 0600z to 0700z. He has also been active on 17 meters using SSB around 1400z. QSL direct to home call.

LAOS, XW. Larry is now QRV as XW1A. Activity is on 160 to 2 meters using CW and SSB. This will eventually include RTTY. QSL via E21E1C.

ROMANIA, YO. Members of the Radio club QSO Bana Timisoara are QRV as YP10KQT during all of 2013 to celebrate their 10th anniversary. QSL via YO2KQT.

EGYPT, SU. Vladimir is QRV as SU9VB and has been active on 160 meters around 0240z. QSL via operator's instructions.

MOUNT ATHOS, SV/A. Monk Apollo, SV2ASP/A has been QRV on 17 meters using RTTY around 1430z. QSL direct to home call.

OPERATION APPROVED FOR DXCC CREDIT.

The following operation is approved for DXCC credit: Mauritania, 5T0SP, 2012 operation.

AR Newsline DX News

<4UUK plans to operate from **Belize** May 4th to the 18th 2013 as V31RD. He will be active on 80 through 6 meters on SSB. QSL via K4UUK.

GM3YTS, GM4FDM, GM0GAV, GM3POI will be active from **Tuvalu Island** from March 12th to the 23rd 2013 as T2GM. They will be operational on all of the High Frequency bands with an emphasis on contacts with Europe. QSL via GM4FDM

Lastly, a team of operators from Germany will be on the air from **Samoa** next April 4th to the 18th as 5W0M. They will be operational using various modes on 80 through 6 meter plus and 2m E-M-E. QSL the main operation to DL4SVA direct, via the bureau or OQRS. For EME QSO's send cards via DL9MS.

WA7BNM Contest Calendar

Feb 2	Minnesota QSO Party
Feb 3	NA Sprint, CW
Feb 2-3	Vermont SQO Party
Feb 2-4	Delaware QSO Party
Feb 9-10	CQ WW RTTY WPX YL-ISSB QSO Party, CW SARL Field Day Contest Dutch PACC Contest New Hampshire QSO Party
Feb 9	Asia-Pacific Sprint, CW FISTS Winter Sprint
Feb 11-15	ARRL School Club Roundup
Feb 15	QRP Fox Hunt
Feb 16-17	ARRL Int'l DX Contest, CW
Feb 22-24	CQ 160 Meter Contest, SSB
Feb 23-24	REF Contest, SSB UBA DX Contest, CW NA QSO Party, RTTY
Feb 24	High Speed Club CW Contest

More countries get onto 472kHz

The national association of Icelandic Radio Amateurs has announced that amateurs in that country have been granted operating privileges on 472 to 479kHz

Greenland on 5MHz

Greenland has now moved to a full band allocation of 5250 to 5450kHz from its previous channelised status, according to recent news received from Peter, OX3XR.

ARRL DX Bulletin continued on Page 7

HAMFESTS

Saturday, Feb. 2: Richmond, VA
Richmond Frostfest, at the
Richmond Raceway Complex,
All tickets \$10. 804-657-7038
www.frostfest.com (146.82/R)

Sunday, Feb. 24: Annandale, VA
Vienna Wireless Hamfest at Northern VA
Community College, 8333 Little River Tpke.
<http://www.viennawireless.org/winterfest.php>

Saturday, April 6: Timonium, MD
ONE DAY ONLY! Greater Baltimore
Hamboree Timonium Fairgrounds;
(146.67/R). Sharon, K3DUH,
443-590-1444; w3ft67@yahoo.com

Saturday, April 13 York Hamfest
Porters Community Fire Company
1199 Porters Rd. Spring Grove, PA
<http://www.yorkhamfest.org>; 147.33+
Duane, KB3QLQ, 717-332-1385

Hamvention® Awards Nomination Deadline Extended to February 15

There is still time to nominate a radio amateur for the **2013 Dayton Hamvention® Awards**: Amateur of the Year, Club of the Year, the Special Achievement Award and the Technical Excellence Award. The deadline for nominations has been extended to Friday, February 15. Anyone may nominate a person or club for these awards, and all Amateur Radio operators are eligible to receive these awards. The winners will be recognized at the 2013 Dayton Hamvention, which runs May 17-19. Additional details on these awards and nomination forms are available [here](#). Nominations may be made electronically or via US Mail to Dayton Hamvention Awards, PO Box 964, Dayton, OH 45401. (ARRL Web Extra)

VE Exams

LARC, 364 Main St Laurel
3rd Sat. 9 AM John, WB3GXW,
301-572-5124
Historic Electronics Museum,
Linthicum
4th Tuesday 6 PM, Harold, WB4OGF
410-757-0493 (h); 410-712-6829(w)

BARC VE Exams

At BARC, 12360 Owings Mills Blvd
Registration 1:30 Exams at 2 PM

2013: Sat. Feb 2, March 2
Sunday, April 14; Sat. May 4, June 1;
Sunday, July 7; Sat. August 3; Sunday,
Sept. 8, October 6; Sat. Nov 2, Dec. 7
(Thanks, N3YI)

Aero Amateur Radio Club

2013 Testing Schedule
White Marsh Library
1 PM, walk-ins welcome
Jan. 26, March 23, May 11, Sept. 28,
Nov 23; ARRL VEC \$15 testing fee
Pat, AC3F, 410-687-7209
ac3f@juno.com

DAYTON DX DINNER - MAY 17

The SouthWest Ohio DX Association has announced that it will again sponsor the DX Dinner to be held in conjunction with the Hamvention 2013. The date for this gathering is Friday, May 17th at the Dayton Marriott Hotel. This will be the 28th annual DX dinner and planners say that it is an excellent opportunity to make new friends, renew old acquaintances, as well as learn about past DXpeditions and those in the planning stages. More information is on the Web at www.swodxaevents.org. (AJ8B)

Milliwatt Swap Shop

Ads are free and get results!

Send your ad to: BRATS, Box 5915,

Baltimore, MD 21282-5915, or

email to: w3qxxk@verizon.net

FOR SALE: Hustler G7-144\$125. You pick up- HRO discount price \$199. Took down to put up dual band antenna. N3BHE 410-299-5931.

FOR SALE: ICOM T2H 2 mtr. HT w/ charger belt dip, rubber ducky, manual, asking \$80 K3BCD: 410-866-5441; or wmm@comcast.net

FOR SALE: ICOM BC-110 battery charger 12vDC, 200 ma, for ICOM T8A or equivalent. almost new, cost \$46, make reasonable " offer. **WANTED:** Battery for ICOM T8A, Mayer, W3GXX, w3qxxk@verizon.net

FOR SALE: ICOM 745, 200 watt HF scvr, PIEXX IC-EX 243 physical electric keyer, PROM memory board, standard mike, 13v. power cord. No power supply. Will consider trade, currency or both. KB3RLD@arrl.net

FOR SALE: Yaesu FT 5200 2 mtr, 440 xcvr with mic, \$150. Kenwood TM-733 w/ mic, 2 spkrs, PAR filter and cable to battery, all cables new in the box, Larsen NMO 2/70 with NMO-K Larsen mounting kit, \$200, Kenwood MC - 52DM MTFM mic new in box \$20, satellite finder mod 10-6001, \$10. Ted, W3OWM, 410-668-5580.

JADE COMPUTERS

1009 Ingleside Ave, Baltimore 21228

443-667-4187. joe@jadecomputers.us

web page design, hosting, order PC on-line,

<http://www.jadecomptuers.us>.

VTS Video Taping Service

Video, DVD duplications, video tape

transferred to DVD, standards, conversions,

1-877-891-1002. BRATS member Bob Shapiro,

K2MYS. <http://www.videotaping-service.com>

Antique radio repair, Restoration

Eric, WA3TAD, audio visual service, retro

radio. 3401 Chestnut Ave. Baltimore 21211

410-467-3620. Wa3tad@comcast.net

WANTED: AT 930 for TS 930S. Jerry jerrymcf@sbcglobal.net

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

WANTED: Manual for MFJ 1452. Greg WB2LOO. gjm313@verizon.net

COME AND GET EM! Two five-foot satellite dishes. Les W3GXT 410-833-8667

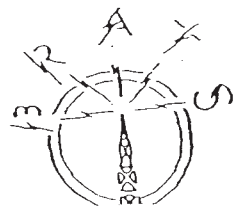
Continued from page 5

GHANA, 9G. Marcel, AI6MS is QRV as 9G5MS until May 2013 while working as a volunteer with Medicine on the Move. QSL to home call.

GUINEA-BISSAU, J5. Peter, HA3AUI is QRV as J5UAP until March 10. Activity is on 40 to 10 meters using mainly CW and digital modes. QSL direct to home call.

CHAD, TT. Sergiy, US3EZ is QRV as TT8/US3EZ until March.

QSL to home call.



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LoTW Processing Speed Increases Thanks to New Hardware

The Logbook of The World (LoTW) queue has been shrinking steadily since Monday, January 7, when the system was brought back online after the completion of previously announced maintenance involving the installation of a new database server equipped with solid state drives (SSDs). Since then, the system has been stable and, as expected, the SSDs are proving to be much faster. As of January 9, the delay between a file being uploaded and processed is about 8 days and is dropping by one day approximately every 10 hours.

Future BRATS MEETINGS

Pikesville Library, 7:15 PM

February 11, March 11, April 8,
May 6 (One week earlier than usual)
June 10.....

NEXT BRATS MEETING

Monday, February 11th
7:15 PM, Pikesville Library

OTHER CLUB MEETINGS:

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

AARC: 1st and 3rd Thursday, 7:30 PM
Davidson Family Rec. Center
Queen Anne Bridge Road

AMRAD: 2nd Thursday, 7:30 PM
Dolley Madison Library
14 Oak Ridge Ave., McLean, VA

BARC: 1st and 3rd Wednesday,
7:30 PM, 12360 Owings Mills Blvd.
Owings Mills, MD

CARA: 4th Tuesday, 7:30 PM
Gateway Center, Room 401
6751 Gateway Dr., Columbia, MD

BRATS MEMBERSHIP FORM: Regular, \$15; Retired/Disabled/Student: \$10; Family: \$20
NAME _____ CALL _____ BRATS No. _____
Street _____ City _____ State/Zip _____
e-mail _____ il to: BRATS, Box 5915, Baltimore, MD 21282-5915

BRATS

Baltimore Radio Amateur TV Society
MINUTES
of the
14 January 2013
Monthly Meeting

Kevin Sherwood, President, chaired meeting.

The January monthly meeting was combined with the first board meeting of 2013.

/BOARD

1. General: Neil, W3ZQI, tendered resignation from Board; Accepted. Neil thanked for service and requested to continue as active member.
Oryx, K3ORX, nominated to complete current Board allotment; accepted.
2. Budget: Kevin presented proposed 2013 budget. Budget reviewed.
Discussed repeater remote control (telephone). Must keep line to meet FCC control requirements.
Proposed budget accepted, approved.
3. Priorities: Kevin presented 2013 list (see Appendix 1).
NW site work gets first attention due to current instability (see Appendix 1, item 1).

/REPORTS

1. Minutes of 3 December 2012 meeting presented by Mayer. Accepted, approved.
2. Treasurer report not available. Bob is in hospital recovering from adverse prescription reaction.
3. Repeater/Equipment: 2013 budget provides initial \$10K (est.) for 3 sites' upgrades on 2M, 440MHz.
4. Events: no report

/OLD BUSINESS

/NEW BUSINESS

See /BOARD section

/PROGRAM: Introduction to Skywarn presented by Tom Horn. Club showed interest in Skywarn classes for related topics, including net control operation.