



## **NASB NEWSLETTER**

[www.shortwave.org](http://www.shortwave.org)

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### **NASB BEGINS JOINT BROADCASTS IN DIGITAL AND ANALOG MODES**

On October 26, 2003, the NASB began a six-month series of special joint broadcasts produced by the organization's member and associate member stations. This is the first time in the NASB's history that it has produced joint broadcasts by its members. And equally important, this series of broadcasts is being transmitted in the DRM (Digital Radio Mondiale) mode, as well as in traditional analog form.

The broadcasts, titled "Voice of the NASB," are transmitted in the DRM mode each Sunday at 1330-1400 UTC on 9785 kHz, beamed primarily to Europe from the facilities of VT Merlin Communications in Rampisham, England. Each program is also broadcast on UTC Sunday at 0330-0400 on 7385 kHz, primarily to North America via WRMI in Miami, Florida. (That's 10:30 p.m. Eastern Time on Saturday nights in North America.) The broadcasts will run through at least April 25, 2004. A special NASB QSL card is being issued for reception reports on these transmissions, both digital and analog. Reports should be sent to the Voice of the NASB, P.O. Box 526852, Miami, Florida 33152 USA.

NASB, founded in 1990, has been a member of DRM since 1999 -- one year after the DRM Consortium was launched. DRM officially inaugurated regular digital shortwave broadcasts on June 16, 2003. Since then, some 49 stations in various countries have broadcast programs in

DRM. NASB has helped promote DRM to its members and around the world, helping coordinate DRM demonstrations at trade shows, shortwave exhibitions and at the World Radiocommunication Conference 2003 in Geneva.

NASB stations operate shortwave transmitters throughout the contiguous United States, Alaska, Hawaii, Guam and Saipan. NASB broadcasters cover every continent with more than 5000 program hours per week, according to a BBC study.

Jeff White, NASB President, commented: "We are very pleased to be a member of DRM, and very pleased to be in the forefront of digital shortwave broadcasting. While we believe that it is important to continue broadcasting in analog form -- especially to certain parts of the world -- it is impossible not to see the tremendous advantages that DRM offers shortwave broadcasters and listeners. DRM-capable receivers are already on the marketplace, and the number of models is rapidly increasing, while the prices are rapidly decreasing. And with dozens of organizations already broadcasting in DRM, listeners will have more and more variety of programming to tune into."

There are 25 privately-owned shortwave stations licensed by the Federal Communications Commission (FCC) in the United States and its territories. Nineteen of the 25 stations are members of NASB. Each week, a different station produces the Voice of the NASB program. The series began with a special edition of the "Wavescan" DX program from Adventist World Radio on Oct. 26. Some of the NASB's associate members, such as the U.S. International Broadcasting Bureau, HCJB, TDP Radio and Merlin Communications itself will also be featured on the series of broadcasts. The tentative schedule through Feb. 22, 2004 is as follows:

October 26 - Adventist World Radio  
November 2 - WMLK (Assemblies of Yahweh) - Bethel, PA  
November 9 - WEWN (EWTN Worldwide Catholic Radio)  
November 16 - WYFR Family Radio  
November 23 - Far East Broadcasting Company  
November 30 - WTJC/WBOH - Newport, North Carolina  
December 7 - WSHB/Herald Broadcasting - Cypress Creek, South Carolina  
December 14 - Word Broadcasting (WJIE/KVOH)  
December 21 - WRMI Radio Miami International  
December 28 - Trans World Radio  
January 4 - KNLS (Anchor Point, Alaska)  
January 11 - KAIJ (Dallas, Texas)  
January 18 - WINB  
January 25 - HCJB  
February 1 - International Broadcasting Bureau (IBB)  
February 8 - TDP Radio  
February 15 - LeSea Broadcasting (WHRI, WHRA, KWHR)  
February 22 - VT Merlin Communications

The series is shaping up to be an exciting mixture of programs. AWR's contribution dealt with historical and technical aspects of digital broadcasting. WMLK's program explored the history of the Assemblies of Yahweh, with information about their station and a brief section at the end in a German dialect especially for listeners in Europe. WEWN's program featured a segment by their founder Mother Angelica. WYFR's program is a compilation of short features and music typical of those heard on the station. Far East Broadcasting has contributed a radio drama with

the true story of some listeners in China. WRMI's program will be about the Mexican National DX Meeting this past August, where NASB participated with an exhibit and DRM demonstration.

Listener reaction has already been quite positive. From Bad Salzschlirf, Germany, Simone Stoeppler wrote: "Here is my reception report on your first DRM transmission from relay station Rampisham/UK on 9785 kHz, from Adventist World Radio. Strong and stable signal about S9+10 dB. Receiver: modified FRG100. Antenna: whip antenna on car. (It was a quite interesting summary of digital broadcasting. The audio decoding was perfect, not a single dropout! It's great that you start broadcasting in DRM to Europe.) Another listener near Frankfurt, Germany wrote: "Nice that today's programme was dedicated to Germany. The last 5 minutes were in a strange kind of German. Quite interesting."

Michael Bethge of Bad Homburg, Germany said: "I have been listening to the very interesting NASB programs in DRM modulation the last two weekends. It's a great idea to broadcast this special weekly program and by this means presenting the members of NASB to a general public. And the reception in DRM modulation is similar to FM quality."

As for the analog version of the programs broadcast here in North America, John Fisher in North Chelmsford, Massachusetts commented: "It was very interesting to hear about the founding of WMLK."

Fritz Layer in Terre Haute, Indiana wrote us: I tuned into your first NASB broadcast (AWR) via WRMI. There was real good reception of the analog broadcast here in western central Indiana."

And Wade Smith wrote from Chipman, New Brunswick, Canada: "It was a great pleasure to hear this special broadcast from the NASB. I look forward to hearing future broadcasts also."

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### **HFCC August 2003 Tromso, Norway**

Dennis Dempsey  
WEWN/EWTN

The B03 seasonal meeting of the High Frequency Coordinating Committee (HFCC) was held in Tromso, Norway on August 25-29, 2003. Norwegian Post and Telecommunication Authority sponsored the conference.

Tromso is located 400 km north of the Arctic Circle---the same latitude as Siberia and northern Alaska. The gulfstream provides for a great summer climate. It is the largest city in northern Norway, with a population of 65,000.

The conference opened at 10:00AM, Monday, August 25<sup>th</sup> at the Radisson SAS. Most delegates had already begun the day. Low sunspot conditions and a lack of available new frequencies required intense frequency coordination.

There were four members in the FCC delegation: Tim Polzin and Tom Lucey represented the FCC; George Ross, KTWR of TransWorld Radio of Guam; and myself, Dennis Dempsey of WEWN/EWTN.

Coordination was made easier by the use of a wireless LAN. Delegates were encouraged to bring a PC with a wireless LAN card. Schedule updates and collection of data was shared over the network. All users also had instant internet access.

The HFCC has launched a new program called IRUS. Its purpose is to detect unused and unregistered transmissions. It has proven to be very successful. The most recent campaign was coordinated by Arto Mujunen of the IBB. A team of IBB monitors, as well as participants from the ASBU, Digita, Deutsche Welle, RaiWay, RCI, RNW, Sentech, and Teracom took part in the campaign. Numerous discrepancies were found. The affected Frequency Management Organizations (FMOs) were notified of their errors. Inaccuracies must be removed from the schedule. Global coordination of a single HFCC/ASBU/ ABU-HFC database is now a reality. After the recent WRC03 (World Radiocommunications Conference) in Geneva, there is not much hope of new frequencies in the future. There are indications that the current IRUS campaign has resulted in fewer “wooden” registrations.

James Briggs of VT Merlin gave a presentation on DRM (Digital Radio Mondiale). DRM is making rapid progress. VT Merlin recently commenced operations from Orfordness. A solid state MF Nautel transmitter operating on 1296 kHz was installed. It is using a TeleFunken exciter and a FhG content server. The first transmission took place on June 14<sup>th</sup>. As noted elsewhere in this newsletter, NASB has begun transmissions in DRM.

[www.drmtx.org](http://www.drmtx.org) is a useful website for those who wish to build their own DRM software receiver. [www.tentec.com/Amateur.htm](http://www.tentec.com/Amateur.htm) is another site for useful info.

NASB members owe a great deal of thanks to Tom Polzin and Tom Lucey. They put forth a lot of work and effort to look after FCC licensees interests. Also, thanks is owed to George Ross. He always has great advice and amazing software tools.

The conference ended on Friday with the traditional toast. Even with all the planning, some collisions aren't settled. We can only keep trying.

*Photos from the HFCC conference in Tromso can be seen on the HFCC website at:*  
[www.hfcc.org/tromso.html](http://www.hfcc.org/tromso.html)

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## **News About Upcoming Meetings**

Jeff White  
President, National Association of Shortwave Broadcasters (NASB)

NASB President Jeff White will represent our Association at the A04 seasonal frequency coordination meeting of the HFCC (High Frequency Coordinating Committee) which will take place in Dubai, United Arab Emirates February 9-13, 2004. We urge all member stations --

especially those who will not have frequency managers present at the HFCC -- to send copies of your A04 schedule requests to Jeff at radiomiami9@cs.com (as well as to Tom Polzin at the FCC) so we can look after your frequency interests in Dubai and notify you of any potential collisions.

The largest annual gathering of shortwave listeners in North America is the Winter SWL Fest in Kulpsville, Pennsylvania, sponsored by the North American Shortwave Association (NASWA). The 2004 event will be held Friday and Saturday, March 12 and 13, at the Best Western hotel in Kulpsville -- about an hour north of Philadelphia. As part of our international publicity campaign, NASB will have a large display at the SWL Fest, and personnel from NASB member stations will be on hand to tell listeners about our stations, our organization, hand out program schedules and souvenirs, answer listeners' questions, etc. More information on the event can be found at [www.swlfest.com](http://www.swlfest.com). Representatives of NASB members and associate members who would like to take part in the event along with us should contact Jeff White at radiomiami9@cs.com for more information and arrangements. The registration fee is about \$50 per person, including the Saturday lunch and evening banquet. Hotel rooms are \$75 per night, single or double occupancy. This is an excellent opportunity to meet shortwave listeners and find out about their likes and dislikes, listening habits, equipment used, etc. Around 200 persons attend this meeting each year from throughout the United States, Canada and several other countries around the world.

Put Friday, May 7, 2004 on your calendar for the NASB Annual Meeting. It will again be held at the Crystal City Crowne Plaza in Arlington, Virginia, just north of Washington's Reagan National Airport. This is a one-day meeting. The morning is devoted to seminars, followed by lunch and an afternoon business session for NASB members and associate members. Our first speaker has been confirmed for the meeting. Dr. Adrian Peterson, head of international relations for Adventist World Radio, will give a multimedia presentation about the history of AWR. For more details on the meeting as they become available, see [www.shortwave.org](http://www.shortwave.org) then click on "Annual Meeting." The registration fee of \$50.00 (\$25.00 for each additional person per organization) includes lunch.

The NASB will be submitting a proposal to the HFCC Steering Board to host the A05 HFCC/ASBU (High Frequency Coordinating Committee/Arab States Broadcasting Union) Conference in Miami, January 31-February 4, 2005. The FCC and Florida International University has agreed to co-sponsor the conference, and the IBB will also participate if the HFCC/ASBU decides to accept the proposal. The HFCC Steering Board will consider the offer at its meeting on December 12, 2003.

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## **BPL MEETING IN WASHINGTON EXPRESSES CONCERN ABOUT INTERFERENCE**

*The American Radio Relay League (ARRL) -- the association of amateur radio operators in the United States -- called for a meeting on November 7th at the headquarters of the National Association of Broadcasters in Washington. The topic to be discussed was BPL -- Broadband over Power Lines -- and its potential for interference to the HF bands. NASB Associate Member George Jacobs attended the meeting on the Association's behalf, and the following is his report:*

It was a good meeting. About 25 people attended, including representatives from the following total of 18 organizations:

ARRL, NASB, AIR Inc. (an aviation radio concern), the U.S. Army, AMSAT, the North American Shortwave Association (a shortwave listeners/DX club), the NAB, Vertex, Standard, CEA Company, AMRAD, Shaw Pittman (legal firm), the U.S. Department of Defense, MITRE (representing DOD), APCO, NPTSC, the National Science Foundation and Chwat & Co. (ARRL's P.R. company).

I read the NASB BPL comments filed with the FCC, and confirmed that NASB strongly supported the ARRL's comments.

What I consider to be very important were the Government representatives from DOD, MITRE/DOD, U.S. Army and NSF. The Government is funding several studies to determine the effects of BPL on HF communications. They stated that they were attending the meeting as observers, but did not want to discuss any studies that were in progress; they had nothing complete yet to tell us. I asked what concerns might the DOD have about BPL. They said they haven't decided yet, and probably will not until the present studies are completed. Similarly, the NTIA is in an information-gathering mode. They are sending a very sophisticated van around to take interference measurements over a wide range of spectrum. The Interdepartmental Radio Advisory Committee (IRAC), consisting of all Government agencies involved in communications, is a part of NTIA. IRAC has expressed concern about potential interference being caused by BPL, and they have requested the NTIA study.

According to ARRL, the FCC has received about 5000 responses to the BPL proposed rule-making, of which about 4,975 were from radio amateurs, and which apparently the Commission is not taking all that seriously. They are taking more seriously the comments they received from safety of life services such as AIR Inc. and others.

The ARRL rang an alarm bell because they understand the FCC is getting ready to issue a rule-making procedure (NPRM) for BPL during the first quarter of 2004, for the purpose of establishing technical standards in Part 15 of the Rules. But the League emphasized that this has not as yet been confirmed. ARRL feels very strongly that such an NPRM should not be issued until the various ongoing studies are completed, especially those being conducted by Government agencies.

The League also said that in their opinion there is a strong position within the FCC, including its chairman, to go forward with BPL as soon as possible. The fear is that an NPRM procedure may end up with less restrictive radiation and interference standards for BPL than those presently contained in Part 15. A good presentation was made by the ARRL, with samples of BPL interference on the HF bands. The ARRL P.R. consultants reported that there was no evidence yet of financial interest by venture capitalists in BPL. This lack of interest to date was also confirmed by other attendees. The hope here appears to be that if there is no real financial interest in BPL, it may not develop.

My impression of the most important result of the meeting was the attendance of the several Government representatives and the report of studies that are being undertaken by DOD and NTIA. I pointed out at the meeting that this might be the best way to convince the FCC to delay its reported NPRM since the FCC sits on the IRAC as an observer. It may well be that that the

future of BPL will be decided within the IRAC. Meanwhile it is very important that safety of life private users of HF and other bands gather convincing information that BPL represents a threat to safety in the air, at sea, and homeland security. The ARRL should continue to collect interference data in the amateur and HF broadcast bands, and give top priority to convincing the FCC not to seek an NPRM until sufficient data has been collected both by the private and governmental studies now in progress.

## **BROADBAND OVER POWER LINES: TECHNICAL ISSUES AND STUDIES**

*Summary of presentation by Paul Rinaldo, ARRL Technical Relations Manager at BPL Meeting Nov. 7*

An FCC Notice of Inquiry (ET Docket 03-104) encouraged deployment of broadband over power lines (BPL) that complies with existing Part 15 rules. It sought information and technical data to evaluate current BPL technology and determine if changes to Part 15 are necessary to facilitate BPL deployment. The Notice of Inquiry asked 34 questions; most respondents answered none of them, but just provided generalities. The BPL proponents did not provide a technical basis. The ARRL (American Radio Relay League) and a few others gave technical analyses and evidence of interference. As a result, few questions have been answered in the public record.

The FCC has granted Part 5 licenses to companies to evaluate BPL on overhead power lines from 1.7-80 MHz. They include sites close to Potomac, MD; Manassas, VA; Briarcliff Manor, NY; and Emmaus, PA.

FCC rules say that frequency assignments will be made only on the condition that harmful interference will not be caused to any station operating in accordance with the Table of Frequency Allocations. Experimental licenses carry the same condition, subject to immediate shutdown.

The ARRL has conducted BPL field tests in moving and stationary vehicles, using a dipole antenna and four different HF receivers. It has also conducted tests from an amateur station in Potomac, Maryland with an antenna 12 meters from a power line. The ARRL observed wide-frequency BPL signals at test sites with overhead power lines; less for buried wiring. The BPL signals were detected over the entire HF band. Notches were observed when a HomePlug modem was used. Distances ranged from 12 meters to one kilometer. The BPL signal sounded like staccato "pops" or crackling, normally intermittent but nearly continuous for video streaming. Meanwhile, the NTIA is conducting field tests to measure radiation from several BPL test sites. No information is yet available, but it is assumed the report will eventually be made public.

Radio services potentially affected by BPL include:

Amateur Service - These are active users of HF and VHF, typically having close proximity to residential power lines and sensitive receivers. They use frequencies ranging from 1.8-54 MHz.

HF Broadcasting Service - These listeners are also close to residential power lines. They typically listen to frequencies from 4.75-26.1 MHz.

Aeronautical Mobile Service - These users are overhead of power lines where BPL radiation may be the highest. Frequencies used are from 2.8-23.35 MHz.

Fixed and Mobile Services - Some of these stations may be near power lines carrying BPL on frequencies from 1.7-80 MHz. There is potential sky wave return from aggregate effects of widespread BPL deployment.

In summary, we know that BPL systems radiate, but we don't know the distances and patterns. There have been few BPL tests and they have been lightly loaded; we don't know the effects of a fully-deployed system. We know that interference pulse density is proportional to data flow, but we don't know the activity factors for a full-scale system. Testing demonstrates that external wiring (overhead power lines) and house wiring couple to free space, but we don't know the upper and lower bounds of coupling. Tests indicate that radiation is distributed, not point source; we don't know distances and patterns. Therefore, our conclusion is that an unintentional radiator such as BPL should not be afforded more interference potential than another radio service -- typically an interference to noise ratio of -6 dB. To do otherwise would turn spectrum management on its head.

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## **WBCQ IS NEWEST NASB MEMBER**

Jeff White

President, National Association of Shortwave Broadcasters (NASB)

Shortwave station WBCQ in Maine is the newest member of the NASB. "WBCQ -- The Planet," as the station identifies itself, is an international commercial shortwave broadcasting station with four 50,000-watt transmitters serving North, Central and South America, the Caribbean and Western Europe on the following shortwave frequencies: 5.105 MHz, 7.415 MHz, 9.330 MHz and 17.495 MHz. The station offers a wide variety of information and entertainment programming. WBCQ is completely independent and a strong supporter of free speech and freedom of expression. The Planet's General Manager is Allen Weiner, who has many years of experience in shortwave broadcasting. For more information about WBCQ, check out their web site: [www.wbcq.us](http://www.wbcq.us). The e-mail address is [wbcq@gwi.net](mailto:wbcq@gwi.net), and the postal address is WBCQ, 97 High Street, Kennebunk, Maine 04043 USA. Telephone (207) 985-7547.

WBCQ personnel are expected to be present at the Winter Shortwave Listener's Festival in Kulpville, Pennsylvania on March 12-13, 2004, where NASB will have a large exhibit. So far, member stations WMLK and WRMI have also indicated they will take part in the meeting. With the addition of WBCQ, NASB now has 15 full member organizations, representing 19 privately-owned FCC-licensed shortwave stations in the United States.

### **NASB Members:**

Adventist World Radio  
Assemblies of Yahweh  
Family Stations Inc.  
Far East Broadcasting Co.  
Fundamental Broadcasting Network  
Herald Broadcasting Syndicate

Le Sea Broadcasting Corp.  
Radio Miami International  
Trans World Radio  
Two If By Sea Broadcasting Corp.  
WBCQ---The Planet  
Word Broadcasting  
World Christian Broadcasting  
World International Broadcasters  
World Wide Catholic Radio

**NASB Associate Members :**

Comet North America  
George Jacobs & Associates  
HCJB World Radio  
IBB  
IDT Continental Electronics Corp  
TCI/Dielectric  
TDP  
Thales Broadcast and Multimedia  
VT Merlin Communications

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