



NASB NEWSLETTER

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

July 2004

***IN THIS ISSUE:***

NASB DRM Transmissions to North America

Russian DRM News Release

George Jacobs Celebrates 80<sup>th</sup> Birthday

NASB Comments to the FCC on WRC03 and DRM NPRM

## **NASB DRM TRANSMISSIONS TO NORTH AMERICA**

### **Voice of the NASB now in DRM to North America**

After a very successful nine months of DRM transmissions to Europe via VT Merlin's Rampisham, U.K. transmitter, the Voice of the NASB is set to begin approximately six months of DRM transmissions to North America from Radio Canada International in Sackville, New Brunswick on July 24.

The Voice of the NASB began as a weekly 30-minute program on October 28, 2003. It has since been broadcast each Sunday at 1230 UTC on 9565 kHz in DRM mode to Europe. The final transmission to Europe is July 18, 2004.

"We want to thank NASB associate member VT Merlin for giving us the opportunity to do these DRM broadcasts to Europe over the past nine months," said Jeff White, producer of the Voice of the NASB. "These broadcasts have proven to us beyond any doubt the tremendous capabilities of DRM to transmit programs with FM mono quality and with no fading, static or interference. James Briggs, Andy Rook and all the folks at Merlin have been extremely helpful to us in this process."

The NASB has received reception reports from DRM listeners in various European countries, but especially in Germany, where the largest concentration of DRM-capable receivers is at this time. Many listeners have sent audio files enabling us to hear the crystal clear quality of the signal from Merlin-Rampisham.

At the same time, the Voice of the NASB has been broadcast each week in analog form to North America via WRMI at 0230 UTC Sunday on 7385 kHz. "This is the first time all of the NASB member stations -- and some associate members too -- have jointly produced a radio program series," said White. "Each week, we have a contribution from a different NASB station showcasing the varied types of programs they broadcast -- everything from station profiles to

documentaries about Alaska, travel reports, mailbag programs, religious dramas and a wide variety of musical programs. This series has really raised the profile of NASB in North America and Europe, and it has given us a chance to support the introduction of digital shortwave programming through DRM. In order for radio manufacturers to get enthused about producing DRM-capable receivers, they need to see that a lot of international broadcasters are already transmitting in DRM."

At the NASB's annual meeting in May, the members unanimously voted to repeat the DRM series to North America. The Board decided to air these new DRM transmissions from Radio Canada International's facility in Sackville, New Brunswick each Saturday at 1700-1730 UTC on 11900 kHz beginning July 24. The program will immediately follow a one-hour musical broadcast in DRM from NASB associate member TDP Radio from 1600-1700 UTC on the same frequency. Most of the programs to North America will be repeats of the DRM programs aired to Europe over the past nine months, although there will be some new productions. NASB members who would like to submit new 25-minute programs for the North American series may send their contributions to Jeff White at WRMI (175 Fontainebleau Blvd., Suite 1N4, Miami, FL 33172) for final editing and distribution to RCI.

### **New Analog Edition of the Voice of the NASB via HCJB**

Since most of the NASB programs being broadcast in DRM to North America have already been broadcast in analog to this continent via WRMI, the new series will be broadcast only in DRM mode this time -- although WRMI may air some special new editions of the program in analog form.

However, analog shortwave listeners will have a new opportunity to hear a short version of the Voice of the NASB once each month on the "DX Party Line," the popular DX program from NASB associate member HCJB which has been on the air for 43 years. Allen Graham, producer of the DX Party Line, has graciously offered to include a monthly segment of news from the NASB and its members and associate members beginning in August. The DX Party Line is broadcast to the Americas from HCJB in Ecuador each Saturday at 1230-1300 UTC on 12005 kHz. It is also broadcast from HCJB-Australia Saturdays at 0730 UTC on 11750 kHz to the South Pacific, at 1100 UTC on 15425 kHz to Southeast Asia and at 1230 UTC on 15435 kHz to East Asia. These transmissions will give the NASB exposure to a totally new audience in Asia and the Pacific.

In addition, NASB member WRMI in Miami will begin rebroadcasting HCJB's DX Party Line to North America each Saturday night as of July 24. The tentative airtime is 11:00 p.m. Eastern time (0300 UTC Sunday) on 7385 kHz. WRMI also broadcasts the DX program "Wavescan" from NASB member Adventist World Radio to North America at 0300 UTC Monday on 7385 kHz.

### **Send us Your News**

A reminder that we encourage all of our NASB members and associate members to send us news about what's happening at their stations and organizations for inclusion in upcoming editions of the NASB Newsletter, as well as on the Voice of the NASB. Send your news to: [nasbmem@rocketmail.com](mailto:nasbmem@rocketmail.com)

-----

## **RUSSIAN DRM NEWS RELEASE**

### **At DRM Consortium Meetings in Moscow, Voice of Russia Announces its Plans for DRM Expansion**

*News Release issued by the DRM Consortium on July 1*

Moscow – At the Digital Radio Mondiale (DRM) consortium's first-ever board meetings in Russia, Voice of Russia announced the successful implementation, and planned expansion, of its DRM broadcasts on shortwave and mediumwave. Russian Prime Minister Mikhail Fradkov recently signed an order allowing for Voice of Russia's DRM progress. The consortium held its quarterly meetings at the headquarters of the Russian Television and Radio Network (RTRN) and Voice of Russia in Moscow from June 16-18. Voice of Russia has been a DRM member since 1998.

Voice of Russia currently transmits DRM broadcasts in Russian, English, German and French toward Europe, using a short-wave transmitter in Taldom, Russia, operated by RTRN's Moscow Regional Centre, and a mediumwave transmitter on 603 KHz in Zehlendorf, Germany, operated by DRM member T-Systems International Media & Broadcast. The mediumwave transmitter, made by DRM member TELEFUNKEN, has been modified to operate in Single Channel Simulcast Mode, which means that Voice of Russia's broadcasts can be sent in both analog and DRM formats. The Taldom broadcasts can be heard within parts of Russia. Further details are at the Web site <http://www.radiostation.ru/drm/start.html>.

Voice of Russia will expand its reach within and beyond Europe in the near future, using additional transmitters that have been adapted for DRM. This network includes a second short-wave transmitter operated by the Moscow Regional Centre, a shortwave transmitter in Irkutsk, a shortwave transmitter in Khabarovsk, and a T-Systems International mediumwave transmitter, built by TELEFUNKEN, in Wachenbrunn, Germany.

"Now is the right time to introduce digital broadcasting standards in Russia," said Voice of Russia Head Armen Oganisyan. "We have modified our existing transmitter network so that it has DRM capability, and we plan to expand the current broadcast schedule to serve even more listeners in the coming months. We are optimistic regarding future funding for further DRM development."

DRM Chairman Peter Senger heralded Voice of Russia's leadership in implementing digital radio broadcasts from Russia, saying, "Now that Voice of Russia has pioneered the adaptation of existing transmitter networks for DRM usage, the doors are open for internal Russian broadcasts as well. DRM is well-suited to broadcasting across large countries, providing excellent audio quality and reception even over huge distances."

BBC World Service, a DRM member, currently sends DRM pilots on shortwave into Russia on a daily basis. These Russian-language broadcasts are sent from Rampisham, England, using a transmitter operated by DRM member VT Merlin Communications.

Last year, RTRN and Voice of Russia announced they had chosen DRM for their digital shortwave transmission pilot project. The project was authorized by Russia's State Commission on Radio Frequencies on December 1, 2003.

More than 60 broadcasters worldwide have begun DRM transmissions, including international, national, local, commercial and public broadcasters. China is testing DRM for its future domestic

and international use. DRM's founding members joined forces in 1998 to create a digital system for the broadcasting bands below 30 MHz. The consortium has expanded to include 82 members from 27 countries, including the NASB. DRM's Live Broadcasts Schedule and additional information are at [www.drm.org](http://www.drm.org).

-----

## **GEORGE JACOBS CELEBRATES 80TH BIRTHDAY**

Congratulations to George Jacobs, who celebrated his 80th birthday on July 16. George's broadcast engineering consulting firm, George Jacobs and Associates, has been an NASB Associate Member for many years. His company has been involved in the design, application, construction and frequency management for many of the NASB member stations over the years. In addition, George has served as a technical consultant to the NASB on many projects.

Before going into business for himself in 1980, George served for more than three decades in engineering and frequency management at the Voice of America and Radio Free Europe/Radio Liberty, which are now part of the NASB associate member International Broadcasting Bureau (IBB). George has participated in the U.S. delegation to many major international broadcasting conferences since 1949. He was a member of the Presidential Commission on Broadcasting to Cuba, where he was very involved in the initial design of Radio Marti. He has been an amateur radio operator (W3ASK) since 1941, and has written numerous articles for both amateur and shortwave publications, including the World Radio TV Handbook.

Only recently George decided that he would "semi-retire," and moved his office into his home in Silver Spring, Maryland, which he shares with his wife Bea. They have been married for some 57 years.

With his many contributions to shortwave broadcasting in the United States, George Jacobs has left an indelible mark on international broadcasting in this country.

-----

## **NASB COMMENTS TO THE FCC ON WRC03 AND DRM NPRM**

National Association of Shortwave Broadcasters

---

Before the  
Federal Communications Commission  
Washington, DC 20554

### **In the Matter of**

Amendment of Parts 2, 25, and 73 of the )  
Commission's Rules to Implement Decisions )  
from the World Radiocommunication Conference ) ET Docket No. 04-139  
(Geneva, 2003) (WRC-03) Concerning Frequency )  
Bands Between 5900 kHz and 27.5 GHz and to )

Otherwise Update the Rules in this Frequency     )  
Range     )

## Comments on Notice of Proposed Rule Making (NPRM)

### *Introduction*

These comments are submitted on behalf of the National Association of Shortwave Broadcasters (“NASB”), which represents nineteen FCC-licensed, privately owned shortwave broadcast stations located in the United States.<sup>1</sup>

Through its Notice of Proposed Rule Making (NPRM) in the above Docket, the Commission announces its intention to make certain rule changes and seeks comments related to those changes.

### *Discussion*

*1. Regarding the proposal to add modified footnote 5.134 to the U.S. Table similar to the requirements in all other HFBC bands which would require the use of seasonal planning for the WARC-92 HFBC bands, as codified in Article 12 of the ITU Radio Regulations, the Association states the following:*

The Association concurs with the Commission’s proposal as stated in paragraph 17 of the NPRM.

*2. Regarding the proposal to revise Section 73.751 to codify these minimum operating powers for SSB and digital systems, (See Appendix A for the proposed language for revised Section 73.751) the Association states the following:*

The NASB agrees that single sideband transmissions should be authorized with a minimum 50 kilowatts of peak envelope power (PEP), since this provides approximately the same coverage area as a 50-kilowatt carrier power for an analog double sideband HF transmission. NASB also agrees that with digital transmissions, a lower rated transmitter output power can serve the same geographic area as a higher power analog signal, so NASB agrees that the minimum power for digital DRM transmissions should be lower than 50 kilowatts. However, NASB disagrees that an average power of 20 kilowatts for DRM transmissions would provide approximately the same coverage area as a 50-kilowatt analog transmission. Numerous authorities, including the DRM Consortium, have indicated that DRM transmissions should be at least 7 dB below the equivalent analog power.<sup>2</sup> Thus, 7 dB down from 50 kilowatts would be 9.976 (nominally 10) kilowatts, so NASB believes that the minimum power for DRM transmissions should be 10 kilowatts.

---

<sup>1</sup> KSDA; WMLK; WEWN; WYFR; KFBS; WTJC; WBOH; WHRI; KWHR; WHRA; WRMI; KTWR; KAIJ; KVOH; WJIE; KNLS; WINB; WBCQ and WSHB.

<sup>2</sup> See Broadcasters' User Manual, published by Digital Radio Mondiale (DRM) Consortium, first edition, March 2004, page 47, chapter 6.4: "Under current coordination procedures, [HF] DRM transmissions may be introduced under similar principles to that in the MW bands. That is the service is first coordinated as if it were an analogue DSB service and then a DRM transmission

3. *Regarding the proposal to add to Commission rules the ITU requirements for DSB, SSB, and digital HFBC systems, which are listed in revised Appendix 11 of the ITU Radio Regulations, ( The specific language of the Commission proposal is presented in Appendix A, Section 73.756.) the Association states the following:*

NASB supports the authorization of single sideband and digital transmissions in the high frequency broadcasting service bands, and NASB supports the reallocation of 7350-7400 kHz to the HF broadcasting service.

Further, NASB agrees that U.S.-licensed international broadcast stations should have the flexibility to transmit analog double sideband (DSB) signals, single sideband (SSB) signals or digital signals in all of the frequency ranges allocated to this service. NASB believes that the Digital Radio Mondiale (DRM) standard should be the required standard for digital HFBC transmissions.

NASB agrees with the specifications for HF broadcasting as indicated in the revised Section 73.756, and emphasizes that in order for digital transmissions to co-exist along with double sideband and single sideband transmissions in the same frequency bands without undue interference, it will be necessary for the power of the DRM transmissions to be several dB lower than that which is currently used for DSB and SSB emissions, i.e., specifically a minimum of 7 dB lower.

4. *Regarding the request for comment on whether the DRM standard should be required for digital transmissions, ( NPRM observes that broadcasting, unlike many other radio communication services, is a mass media service and that for such a service, standards are often useful.) the Association states the following:*

The Association believes that the DRM standard should be the required standard for digital transmissions.

5. *Regarding the specific request for comment on whether Commission Rules should require the inclusion of the capability to offer digital modulation in all new HFBC transmitters put into service after the effective date of the Report and Order in this proceeding, the Association states the following:*

The Association believes it is unwise and unnecessary to require inclusion of the capability to offer digital in all new HFBC transmitters because the manufacturers already are building in provisions for digital modulation. Thus, the requirement is unnecessary.

### *Conclusion*

The NASB agrees with all of the FCC's proposals in this NPRM relating to HF broadcasting, with the important exception that the minimum power level for DRM transmissions should be 10 kilowatts instead of 20 kilowatts.

Respectfully Submitted,

---

substituted with a power level at least 7 dB lower than the allowable analogue transmission."

## NATIONAL ASSOCIATION OF SHORTWAVE BROADCASTERS

\*\*\*\*\*

### [Excerpted material from the NPRM]

[17. *Proposal.* As indicated above, prior to WRC-03, footnote 5.134 had prohibited traditional DSB transmissions in the WARC-92 HFBC bands. WRC-03 modified footnote 5.134 to be more flexible to meet the needs of international broadcasters in that it permits the continued use of DSB transmissions as well as SSB in the WARC-92 HFBC bands as HF broadcasters transition to digital technology.

Accordingly, we propose to add modified footnote 5.134 to the U.S. Table. Similar to the requirements in all other HFBC bands, this action would require the use of seasonal planning for the WARC-92 HFBC bands, which is codified in Article 12 of the ITU *Radio Regulations*.

18. Modified footnote 5.134 urges use of the WARC-92 HFBC bands to facilitate the introduction of digitally modulated emissions in accordance with the provisions of revised Resolution 517. To ensure that HF broadcasters have sufficient flexibility, we therefore propose to update the Commission's Rules for international broadcast stations, which are codified in Part 73, Subpart F, to allow for SSB and digital transmissions in the HFBC bands.<sup>39</sup> Specifically, so that there is no ambiguity regarding the rules with which HF broadcasters must comply, we propose to add to our rules the ITU requirements for DSB, SSB, and digital HFBC systems, which are listed in revised Appendix 11 of the ITU *Radio Regulations*. The specific language of our proposal is presented in Appendix A, Section 73.756.

19. The effect of these proposals would be to grant U.S.-licensed international broadcast stations the flexibility to continue to transmit analog DSB signals or to transmit SSB or digital signals, including DRM signals (currently the only ITU-recommended digital standard for use in HFBC bands), which would allow international broadcast stations to provide FM-like sound quality to listeners in foreign countries. Nonetheless, we request comment on whether the DRM standard should be required for digital transmissions. We observe that broadcasting, unlike many other radio communication services, is a mass media service and that for such a service, standards are often useful.

20. Currently, Section 73.751 of the Commission's Rules states that no international broadcast station will be authorized to install, or be licensed for operation of, transmitter equipment with a rated carrier power of less than 50 kilowatts (kW).<sup>40</sup> The technical basis of this rule is that, given frequency congestion, an international broadcast station using DSB modulation needs to transmit with an output power of at least 50 kW in order to provide a signal that is strong enough to be received with low cost HFBC radios. We have previously waived this Rule in order to authorize licensees to operate SSB transmitters with 50 kW peak envelope power (PEP) because this power provides approximately the same <sup>38</sup> See letter from John O. Wood, BBG IRAC Representative, to Bruce A. Franca, Acting Chief, Office of Engineering and Technology, FCC, dated November 30, 2001, in ET Docket No. 02-161. <sup>39</sup> 47 C.F.R. Part 73, Subpart F (International Broadcast Stations). <sup>40</sup> 47 C.F.R. § 73.751 (Operating power). <sup>10</sup> coverage area (even though this power is equivalent to only 15-20 kW relative to a DSB transmitter). Likewise, one of the advantages of digital transmission is that a lower rated transmitter output power can serve the same geographic area as a higher power analog signal. One expert from a transmitter manufacturer has averred that an average power of 20 kW for

DRM transmissions would provide approximately the same coverage as our Rule currently requires. Accordingly, we propose to revise Section 73.751 to codify these minimum operating powers for SSB and digital systems. See Appendix A for the proposed language for revised Section 73.751.

21. We request comment on all of the above proposals. In addition, we request comment on other needed changes to our Rules for international broadcast stations that are in compliance with ITU or other international standards. In particular, we ask whether our Rules should require the inclusion of the capability to offer digital modulation in all new HFBC transmitters put into service after the effective date of the Report and Order in this proceeding.]

-----

**NASB Members:**

Adventist World Radio  
Assemblies of Yahweh  
Family Stations Inc.  
Far East Broadcasting Co.  
Fundamental Broadcasting Network  
La Voz de Restauracion Broadcasting, Inc.  
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  
DRS Continental Electronics  
George Jacobs & Associates  
Hatfield and Dawson Consulting Engineers  
HCJB World Radio  
IBB  
TCI/Dielectric  
TDP  
Thales Broadcast and Multimedia  
VT Merlin Communications

National Association of Shortwave Broadcasters  
10400 NW 240<sup>th</sup> Street, Okeechobee, Florida 34972  
Ph: (863) 763-0281 Fax: (863) 763-8867 E-mail: [nasbmem@rocketmail.com](mailto:nasbmem@rocketmail.com)