NRSC Adopts Updated RBDS Standard

The Radio Data System (RDS) FM subcarrier-based data broadcasting Standard was first introduced in Europe in 1984 and its continuing, widespread usage and relevancy is a testament to its robust and forward-looking design (see the July 12, 2010 issue of *Radio TechCheck* for additional background information on RDS). Last Saturday, the National Radio Systems Committee (NRSC) adopted an update to the U.S. version of the Standard (called "RBDS," for Radio Broadcast Data System). Notably, this new version includes support for the latest "RadioText+" technology, some new Program Type ("PTY") codes which better reflect new programming choices available to listeners and a new, optional method for Program Information ("PI") code generation.

NRSC-4-B, *United States RBDS Standard – Specification of the Radio Broadcast Data System (RBDS)*, was adopted by the Radio Broadcast Data System (RBDS) Subcommittee at the April 9, 2011 meeting of the group, held in conjunction with the 2011 NAB Show. The Subcommittee is chaired by Barry Thomas, vice president of engineering, radio, Lincoln Financial Media. This latest version of the Standard was developed by the subcommittee's RDS Usage Working Group (RUWG), chaired by Steve Davis, senior vice president, engineering and capital management, Clear Channel Broadcasting, Inc. Also providing input was the RDS Forum, an industry-sponsored organization based in Europe responsible for maintaining the RDS Standard (designated IEC 62106).
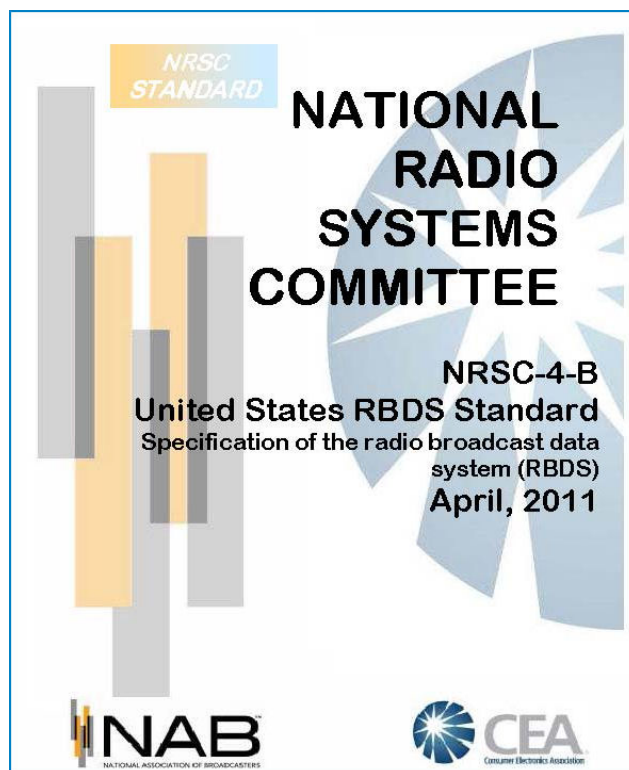
NRSC-4-B includes only those sections which differ from the European version of the Standard, IEC 62106, *Specification of the Radio Data System (RDS) for VHF/FM sound broadcasting in the frequency range from 87.5 to 108.0 MHz.* This is a departure from previous versions of the NRSC Standard (NRSC-4-B is the fourth NRSC version) which included nearly all of the text from the IEC version except for a few, important modifications specific to the U.S. version. This new approach will simplify design and development of compatible devices by transmission equipment and receiver manufacturers since it will now be much easier to see what the differences are between the U.S. and European versions. Since manufacturers of RDS-enabled devices typically serve both markets, this is expected to be a welcome change.

Some of the most important changes in the NRSC-4-B Standard include the following:

- **RadioText+** – this is an "open data application" and one of the most recent features to be added to European version of the Standard. RadioText+ makes it possible for receivers to parse and identify text information sent over RDS using the RadioText feature. The recent implementation of "RDS tagging" by such devices as the Apple iPod Nano utilizes RadioText+ features, and the RDS Forum is encouraging application developers to make use of this powerful new feature. An RDS Forum presentation prepared in January 2011 entitled "Progress on the RT+ Implementation" is available for download here.

- **Program Type ("PTY") codes** – three new codes have been added, which better reflect new programming choices available to listeners. They are "Spanish Talk" (Call-in shows, interview programs, etc., in the Spanish language), "Spanish Music" (Music programming in the Spanish language) and "Hip-Hop" (Popular music incorporating elements of rap, rhythm-and-blues, funk, and soul).

- **Optional Program Information ("PI") code modification** – a new provision has been added for broadcasters who are transmitting traffic information using the TMC open data application. The Standard now supports an optional method for PI code calculation, allowing for substitution of 0x01 for the first "nibble" of the PI code. Doing so will make the TMC transmission compatible with a greater variety of traffic information receivers because many such receivers interpret a first nibble of 0x01 as an indication that the receiver is in North America, consistent with the Location Table definition contained in the TMC specification. It was noted by the RUWG, when deliberating this change, that some receivers which use the PI code to determine the station call sign (by "back-calculation") might behave incorrectly if the 0x01 substitution is made. However, since few (if any) receivers implement call sign back-calculation, there was little concern within the group that this would be an issue.

The updated Standard will be available free-of-charge on the NRSC's website, following a final, procedural review which will take approximately two weeks. Additional information about the NRSC, including information on becoming a member, is also available on the website. With the update to the Standard completed, the RUWG is now turning attention to the development of an RDS Usage Guideline – please contact David Layer, senior director, advanced engineering with NAB Science and Technology if you would like to be involved in this important work.

FCC to Conduct Training for Consultants on Communications Towers and Environmental/Historic Preservation Compliance

The Federal Communications Commission (FCC) is conducting a session for consultants on Tuesday, June 21, 2011 at their headquarters in Washington, DC on Communications Towers and Environmental/Historic Preservation Compliance. Training will be provided by staff from the FCC, USDA Rural Utilities Service, NTIA, FEMA and the Advisory Council on Historic Preservation.

For additional information contact Steve DelSordo and to register contact James Swartz who are both at the FCC. To attend the session you must preregister.

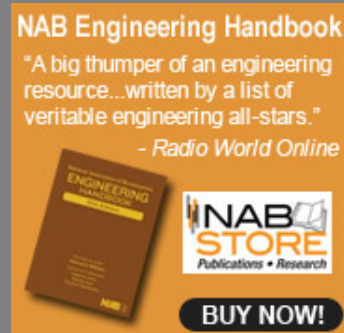Announcing the Newest
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