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NRSC Recognizes 35th Anniversary at 2014 Radio Show

The radio industry was quite different 35 years ago than it is today. Back then, AM and FM radio had nearly the same number of listeners, and digital radio and mobile broadband streaming audio were not even on the horizon. It was in that environment that the National Radio Systems Committee (NRSC), a technical standards-setting organization co-sponsored by NAB and the Consumer Electronics Association (then known as the Electronics Industries Association), held its first meeting.

Here is an excerpt from the [press release](#), dated October 16, 1979, announcing that first meeting:

The first organizational meeting to form a new Committee to study and recommend improvements to the radio broadcasting system will be held Friday, November 2, in New York City.

Membership on this new Committee is open to technically qualified individuals and organizations holding a business or professional interest in radio broadcasting transmission and reception. The mission of the Committee is to investigate and recommend improvements in AM and FM transmission and reception.

Included in the scope of the Committee is a review of the performance and compatibility of all components of the radio transmission system, from program sources to the receiving environment, to develop and publish appropriate recommended practices, to consider radio signal specifications and total system matters.

Since that time, the NRSC has become a focal point for the U.S. radio industry's development of technical standards and the advancement of broadcast radio technology. NRSC Standards have been incorporated into the rules of the Federal Communications Commission (FCC) and have guided the manufacture of radio receivers and broadcast transmission equipment. More recently, NRSC Guidelines documents have helped the broadcast industry manage the transition to digital radio and support new data broadcasting features. A listing of the current NRSC Standards and Guidelines is provided below, these are all available for downloading free-of-charge from the [NRSC web page](#).

Document	Title	Release date
NRSC-1-B	NRSC AM Preemphasis/deemphasis and Broadcast Audio Transmission Bandwidth Specifications	9/2012
NRSC-2-B	Emission Limitation for AM Broadcast Transmission	9/2012
NRSC-4-B	United States RBDS Standard	4/2011
NRSC-5-C	IBOC Digital Radio Broadcasting Standard	9/2011
NRSC-G100-A	Bandwidth Options for Analog AM Broadcasters	9/2012
NRSC-G101	AM Modulation-dependent Carrier Level (MDCL) Usage Guideline	4/2013
NRSC-G200-A	Bandwidth Harmonization of RDS and IBOC Program Service Data (PSD) Guideline	3/2010
NRSC-G201-A	NRSC-5 RF Mask Compliance: Measurement Methods and Practice	4/2010
NRSC-G202	FM IBOC Total Digital Sideband Power for Various Configurations	9/2010
NRSC-G300-A	RDS Usage Guideline	4/2014
NRSC-G301	Creation and Distribution Practices for Audio Program Metadata Guideline	4/2013

Currently active NRSC Subcommittees include the AM and FM Analog Broadcasting (AFAB) Subcommittee, co-chaired by Gary Kline, SVP and Corporate Director of Engineering and IT, Cumulus Media, and Stan Salek, Senior Engineer, Hammett & Edison, Inc.; the Digital Radio Broadcasting (DRB) Subcommittee, chaired by Andy Laird, VP and CTO, Journal Broadcast Group; and the Radio Broadcast Data System (RBDS) Subcommittee, chaired by Dan Mansergh, Director of Engineering, KQED Public Radio.

A number of working groups and task groups are also currently active: the FM Multiplex Task Group (FMTG), chaired by Bert Goldman, President, Goldman Engineering Management; the Modulation-dependent Carrier Level Working Group (MDCLWG), chaired by Tim Hardy, Head of Engineering, Nautel; the Location-based Services Working Group (LBSWG), chaired by David Maxson, CEO, Isotrope, LLC; and, the RDS Usage Working Group (RUWG), chaired by Alan Jurison, Senior Operations Engineer, Engineering and Systems Integration, Clear Channel Media and Entertainment.

A breakfast reception to recognize the 35th anniversary of the formation of the NRSC will take place on Thursday, September 11, 2014 at the [2014 Radio Show](#) in Indianapolis, IN. This reception will begin at 8AM in room 110 of the Indianapolis Convention Center, and is open to all Radio Show attendees. A brief ceremony will be held during which remarks on the history, and the future, of the NRSC will be offered by Sam Matheny, EVP and CTO, NAB, Mike Bergman, Director Technology and Standards, CEA, and the current NRSC chairman, Milford Smith, VP of Engineering with Greater Media.

For more information about the NRSC including a request for membership, contact [David Layer](#) at NAB.



Face-to-face meetings of the NRSC are usually held at annual industry events including the International Consumer Electronics Show (CES) in January, the NAB Show in April, and the Radio Show in September. Shown here is the meeting held at the 2006 International CES in Las Vegas, NV.



Long-serving NRSC chairman Charles Morgan, Senior VP of Radio Engineering with Susquehanna Radio (retired), is seen here at right with NAB VP John Marino (at left) at an NRSC meeting in 2007, during which Mr. Morgan retired as NRSC chair and was honored with a plaque commemorating his many years of service.



At the 2002 Radio Show in Seattle, the NRSC had a booth on the exhibit floor to publicize the work of the NRSC and seek new members. Shown in that booth here are long-time NRSC staffers Dave Wilson (at left, formerly with NAB, now with CEA) and David Layer of NAB.



NRSC leadership together at the 2007 NAB Show (from left to right): Milford Smith, VP of Radio Engineering with Greater Media, past co-chair of the NRSC's DAB Subcommittee and current NRSC Full Committee chair; Mike Bergman, formerly with Kenwood, now Director, Technology and Standards with CEA, past co-chair of the DAB Subcommittee; Charles Morgan, retired Senior VP engineering with Susquehanna, past chair of the NRSC Full Committee; and, Andy Laird, VP and CTO with Journal Broadcasting, current chair of the DRB (formerly DAB) Subcommittee.

2015 NAB Broadcast Engineering Conference Topics

The NAB Broadcast Engineering Conference Planning Committee met on September 4 to discuss industry trends and to develop topics for the 2015 conference. The Broadcast Engineering Conference takes place at the NAB Show April 11-16, 2015 in Las Vegas, Nev.



2015 NAB BROADCAST ENGINEERING CONFERENCE COMMITTEE Shown I-r: Front row: Kim Sacks, CBT, Engineer, CBS Radio; Milford Smith, VP, Radio Engineering, Greater Media; Larry Oaks (Committee Chairman), VP Technology, Meredith Corporation; Robert Russell, Director of Engineering, Journal Broadcast Group; Alan Jurison, Sr. Operations Engineer, Engineering and Systems Integration, Clear Channel Media and Entertainment; Sam Matheny, EVP and CTO, NAB. Back row: James Liefer, Director of Engineering & IT, Clear Channel; Clyde Smith, Sr. VP, New Technology, FOX Network Engineering; John Poray, Executive Director, SBE.

Conference attendees include broadcast engineers and technicians, engineering consultants, contract engineers, broadcast equipment manufacturers, distributors, R&D engineers plus anyone specifically interested in the latest broadcast technologies.

The following topics are considered by the committee to be key areas that are currently of interest to broadcast engineers:

For Radio:

- AM Radio Boot Camp
- Hybrid Radio and Streaming Technology
- Creating the Radio Artist Experience
- IT Issues for Radio
- Radio Connectivity Inside and Outside the Plant
- Software Tutorial for Broadcast Engineers
- Digital Radio Best Practices
- Measuring and Maintaining Audio in the Radio Facility
- Advanced Test Equipment for Radio
- Disaster Preparedness and Recovery
- Technical Regulatory Update

For Television:

- ATSC 3.0 Tutorial
- Next Generation Video Encoding and Compression
- UHD 4K and 8K
- LTE and Broadcast
- Big Data Tools for Broadcasting
- The New Newsroom
- Multiplatform for Television
- IT Infrastructure Essentials
- Disaster Preparedness and Recovery
- Technical Regulatory Update

Additional topics will also be considered for the 2015 conference. Technical papers on advanced technology applications and solutions along with real-world case studies are welcome. Technical paper proposals may be submitted [here](#) and are being accepted until October 17, 2014.

NABEF Hosts Engineering Webcast Delivered by Technology Apprenticeship Program Participants

Wondering what the future holds for broadcasting? Are you prepared to seize opportunities that new technologies will present? On Monday, September 15, join participants from the National Association of Broadcasters Education Foundation's (NABEF) Technology Apprenticeship Program (TAP) for a free webcast on how technology advancements are impacting the future of broadcast engineering. These webcasts will complete the final assignment of the TAP participants' six-month apprenticeship.

Topics covered will be:

- **Radio:** The Evolution of Car Radio: From Now and to the Future...
- **TV:** The Integration of the Cloud, Entertainment & Advertising with Connected Car Technology

Time: 9:30 – 10 a.m. ET (Radio) and 10:30 – 11 a.m. ET (TV). [Click here to register for free!](#)

To learn more about TAP, [click here](#).

Important Dates and Upcoming Events

[2014 Radio Show](#)

September 10 - September 12, 2014

Indianapolis, IN

[137th International AES Convention](#)

October 9 – October 12, 2014

Los Angeles, CA

[2014 IEEE Broadcast Symposium](#)

October 15 - October 17, 2014

San Antonio, TX