

ORIGINAL

**Before the
Federal Communications Commission
Washington, D.C. 20554**

RECEIVED

DEC 23 1998

**FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY**

In the Matter of)
)
Amendment of Part 73 of the)
Commission's Rules to Permit) **RM-9395**
the Introduction of Digital Audio)
Broadcasting in the AM and FM)
Broadcast Services)

**COMMENTS OF THE
NATIONAL ASSOCIATION OF BROADCASTERS**

**NATIONAL ASSOCIATION
OF BROADCASTERS**
1771 N Street N.W.
Washington, D.C. 20036
(202) 429-5430

Mark Fratrick
Vice President
NAB Research and Planning

Henry L. Baumann
Executive Vice President for Legal and
Regulatory Affairs

Lynn Claudy
Senior Vice President
NAB Science and Technology

Jack N. Goodman
Senior Vice President and
General Counsel

John Marino
Vice President
NAB Science and Technology

Barry D. Umansky
Deputy General Counsel

David Wilson
Manager, Technical Regulatory
Affairs
NAB Science and Technology

Lori J. Holy
Staff Attorney

David Layer
Senior Engineer
NAB Science and Technology

No. of Copies rec'd. 0711
List ABCDE

December 23, 1998

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
I. INTRODUCTION	1
II. THE NAB IBOC DAB POLICY FRAMEWORK SHOULD GOVERN THE GOVERNMENT-SANCTIONED SELECTION AND INDUSTRY DEPLOYMENT OF SINGLE IBOC DAB SYSTEMS	2
A. Development of a Single AM IBOC DAB Standard and a Single FM IBOC DAB Standard is a Government-Industry Priority	2
1. NAB Interest and Pursuit of IBOC DAB Has Been Longstanding and Thorough.....	2
2. All AM and FM Broadcasters Must Be Given an IBOC Opportunity.....	6
3. All Stakeholders Will Benefit from IBOC DAB.....	6
B. The FCC Must Adopt Single Transmission Standards for AM and FM IBOC DAB	8
1. NAB Believes That the FCC Ultimately Must Amend its Rules to Include IBOC Transmission Standards for AM and FM Broadcasts.....	8
2. The Timetable for Industry and Commission Action.....	9
C. Avoiding Interference Is Critical to the DAB Transition	10
1. Interference to Analog Service Should Be Minimized During the Transition of AM and FM to IBOC DAB.....	10
2. The Commission Must Ensure a Hospitable Interference Environment for the Development and Introduction of IBOC DAB.....	11
D. System Testing and System Evaluation Should Lead to Industry Consensus	12
III. CONCLUSION	15

EXECUTIVE SUMMARY

NAB commends USADR and the FCC for taking steps to bring IBOC DAB dialogue to the forefront so all interested parties (including other IBOC proponents) have the opportunity to convey their opinions. NAB supports the initiation of further proceedings in this area.

For nearly a decade, NAB has engaged in activities that advance the development and practical implementation of IBOC DAB. NAB has also established a DAB Task Force and is a co-sponsor of the National Radio Systems Committee (“NRSC”) which has been addressing IBOC DAB issues and system testing. In 1993, the NAB Radio Board of Directors adopted a digital audio broadcasting policy plan. As recently as June 1998, the NAB Radio Board has reaffirmed its commitment to rapid development and implementation of IBOC DAB. NAB’s policy plan appears to be congruent with many of the aspects in the USADR Petition.

NAB believes that all AM and FM broadcasters must be given the opportunity to transition to IBOC DAB. Additionally, NAB believes that the FCC must adopt single transmission standards for AM IBOC DAB and for FM IBOC DAB systems. Also, the Commission must ensure that interference to analog AM and FM service is minimized during the transition to AM and FM IBOC DAB. Furthermore, the transition to digital service must not be threatened by any proposals that would degrade the already congested interference climate in the radio bands.

NAB believes that the NRSC can and should play a central role in evaluating IBOC technologies and systems in the interim before a final rulemaking action by the FCC. With the advent of other competing digital mass communication services, the Commission should begin the process to make IBOC DAB a reality for the free, over-the-air radio services.

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Amendment of Part 73 of the)	
Commission's Rules to Permit)	RM-9395
the Introduction of Digital Audio)	
Broadcasting in the AM and FM)	
Broadcast Services)	

**COMMENTS OF THE
NATIONAL ASSOCIATION OF BROADCASTERS**

I. INTRODUCTION

In its November 6, 1998 Public Notice (DA 98-2244), the Commission assigned file number RM-9395 to, and sought public comment on, the Petition for Rule Making filed October 7, 1998, by USA Digital Radio Partners, L.P. ("USADR"). The USADR petition asks the Commission to take rulemaking and standard-setting action that will permit the introduction of IBOC DAB¹ in the United States via stations operating in the existing radio broadcast service.

The National Association of Broadcasters ("NAB")² commend USADR and the FCC for taking steps that now bring the IBOC DAB dialogue to the forefront and provide a forum for all interested parties (including other system proponents) to convey their opinions, substantive arguments and relevant technical observations and data. These steps provide the ideal

¹ The National Radio Systems Committee ("NRSC") defines IBOC DAB as a method of digital audio broadcasting in which a digital audio signal is combined, in a mutually-compatible fashion, with an existing analog audio signal (either AM or FM), in such a manner as to be consistent with the FCC rules (present or future) for AM and FM sound broadcasting.

² NAB is a nonprofit, incorporated association of television and radio stations and networks which serves and represents the American broadcast industry.

opportunity for the Commission to initiate an IBOC DAB proceeding -- another step that NAB fully supports particularly in light of the near-term inauguration of direct audio service from satellites and the evolution of other electronic mass media and non-mass media communications services to digital technology.

Through the further development and testing of the proponents' IBOC systems, we believe the stage will be set for industry and government consensus on single systems (one for AM; one for FM) for in-band/on-channel DAB. Deployment of these single systems will work to the advancement of the terrestrial broadcast radio service made available free to the public.

Below we offer our perspectives on several aspects of the USADR petition -- aspects that largely appear to be congruent with the positions already taken by NAB's Radio Board of Directors. Furthermore, NAB is mindful of the other IBOC DAB proponents that also are seeking the opportunity to introduce digital broadcasting to the radio industry and to radio listeners. In the context of the petition before us, NAB outlines the course it would like to see industry and government pursue in order to achieve an orderly and comprehensive introduction of IBOC DAB.

II. THE NAB IBOC DAB POLICY FRAMEWORK SHOULD GOVERN THE GOVERNMENT-SANCTIONED SELECTION AND INDUSTRY DEPLOYMENT OF SINGLE IBOC DAB SYSTEMS.

A. Development of a Single AM IBOC DAB Standard and a Single FM IBOC DAB Standard is a Government-Industry Priority.

1. NAB Interest and Pursuit of IBOC DAB Has Been Longstanding and Thorough.

For nearly a decade, NAB has engaged in a variety of activities designed to advance the concept and practical implementation of IBOC DAB. Established in 1990, the NAB Digital Audio Broadcasting Task Force has been the locus of NAB activity on DAB. Through its

numerous meetings over this time span the Task Force has examined and discussed IBOC DAB technology and guided the NAB Board of Directors and staff.

On June 23, 1993, the NAB Radio Board of Directors adopted a digital audio broadcasting ("DAB") policy plan focused on establishing, developing and promoting AM and FM in-band/on-channel ("IBOC") DAB. The IBOC-related objectives set forth in that document are as follows:

Objective 1: Promote the Simultaneous Development and Implementation of In-Band/On-Channel AM and In-Band/On-Channel FM DAB Systems.

The development of in-band/on-channel DAB technology presents the best possible option for broadcasters to introduce and evolve to DAB. The progress of groups working to develop in-band, on-channel DAB solutions has given encouragement that a system can be developed that will meet the needs of broadcasters without requiring any additional spectrum. DAB should be viewed by the FCC and the industry as an enhancement to existing AM and FM service.

Objective 2: Establish Technical Standards for In-Band/On-Channel DAB through the National Radio Systems Committee ("NRSC").

For DAB to be successfully introduced in the marketplace, it is necessary to have a single technical standard. Technical standards are necessary to generate investment in manufacturing and confidence that the products designed will, in fact, perform as designed once they are marketed.

The NRSC is an open standards-setting body, jointly sponsored by the NAB and EIA. NRSC has set many standards for broadcast radio systems. Through participation in the NRSC, broadcasters can insure that any DAB standards, which are recommended, will meet the needs of broadcasters.

Objective 3: Develop Industry Consensus.

To implement terrestrial DAB most efficiently, it is desirable that a substantial industry consensus exist. A fragmented broadcast industry would delay FCC proceedings and industry decision-making, and would prevent NAB from exercising leadership in Washington and effectively representing the interests of radio broadcasters.

Objective 4: Obtain FCC Approval.

NAB should demonstrate to the FCC that in-band/on-channel DAB technology is an appropriate and efficient use of valuable spectrum and that implementing DAB through the existing terrestrial radio broadcast services offers the surest and most effective means of introducing DAB technology.

Objective 5: Encourage Timely Implementation.

The time frame is critical to implementation of DAB. Choice of time frame affects such issues as choice of technical standards, satellite vs. terrestrial implementation formats, presence or absence of industry consensus and FCC/Congressional approvals. Factors affecting the time frame include the length of FCC rulemaking proceedings, technical standards proceedings and committee/industry policy development processes.

Objective 6: Accommodate Existing AM/FM Service.

An important issue in DAB policy development is the impact on existing AM and FM radio service. NAB's objective is to promote development and implementation of in-band/on-channel DAB in both the AM and FM bands in such a way that existing AM and FM service can continue indefinitely without impairment.

Objective 7: Identify and Minimize Implementation Costs.

Implementation costs are clearly an important factor in the consideration of DAB. Lower implementation costs will speed implementation. High implementation costs will delay and prolong DAB implementation.³

In comments filed earlier this decade -- some before and some after the date of that resolution of the NAB Radio Board of Directors -- NAB has taken an active role in the process of guiding federal policy on digital audio broadcasting. These comments have addressed terrestrial as well as satellite delivery of broadcast audio to consumers. NAB steadfastly has opposed the latter and has urged the Commission to adopt rules and policies that will foster the

³ Resolution of the NAB Radio Board of Directors, June 23, 1993, Pentagon City, VA.

introduction of digital audio terrestrially -- and by the existing radio licensees.⁴ This past June, following presentations made to it by several IBOC DAB proponents, the NAB Radio Board adopted a similar resolution which re-confirms this NAB policy and urges rapid development and implementation of IBOC DAB technology. This resolution states:

Whereas the NAB Radio Board recognized that In-Band/On-Channel (IBOC) Digital Audio Broadcasting (DAB) may lead to significant enhancement of the AM and FM broadcasting services in the United States, and

Whereas no new radio spectrum will be needed to implement IBOC DAB and

Whereas IBOC DAB will provide for a smooth transition from analog to all-digital services:

THEREFORE, BE IT RESOLVED that the NAB supports the rapid development of IBOC DAB technologies and furthermore supports the efforts of the National Radio Systems Committee to evaluate such technologies in an unbiased and fair manner.⁵

NAB's Radio and Spring Conventions have been the sites for IBOC DAB system demonstrations and industry review of IBOC DAB developments. These major conventions and other industry meetings have provided broadcasters, receiver manufacturers and system proponents with opportunities to review the progress being made in these technologies.

Thus, NAB continues to urge action -- by government and industry -- that will foster the development and introduction of IBOC DAB as quickly as is practicable. Moreover, this implementation of IBOC DAB must be for AM as well as for FM stations.

⁴ See e.g. Comments of NAB in Gen. Docket No. 90-357, filed September 14, 1995; Comments of NAB in Gen. Docket No. 90-357, filed January 29, 1993.

⁵ Resolution of the NAB Radio Board of Directors, June 28, 1998, Pentagon City, VA.

2. All AM and FM Broadcasters Must Be Given an IBOC Opportunity.

From the beginning of NAB's discussions about IBOC DAB -- and as reflected in the NAB Radio Board pronouncements described above -- NAB has stated strongly that IBOC opportunities *must* be afforded to licensees and listeners of both the AM and FM radio services. Indeed, NAB's support for IBOC DAB is founded on the *assumption* that both services will be able to implement digital services during the same time frame, using similar technologies and under the same set of government and industry policies and expectations.

3. All Stakeholders Will Benefit from IBOC DAB.

Under the IBOC DAB development and implementation scenario espoused by NAB, all stakeholders would benefit. That is, each group with a legitimate interest in broadcast radio service would find that its "stake" in these matters would be advanced under our preferred scenario.

a. Radio Broadcasters

For broadcasters, the advantages of IBOC DAB seem obvious. Each station would be able to enhance its audio quality and reduce or eliminate the effects of transmission impairments that plague the analog service, and thus deliver vastly improved service to its local audience. Additionally, the IBOC DAB technologies now being developed each possess capacity for carrying additional ancillary data whereby radio stations would be able to offer a wide variety of data services, expanding upon the ancillary applications currently made possible through FM subcarriers and AM residual carrier power.

b. The Listening and Consuming Public

For listeners, the benefits would be similar. With IBOC DAB signals residing adjacent in frequency to analog signals, listeners will continue to be able to employ their existing radios to receive analog FM and AM broadcasts. As listeners to IBOC DAB, they will be able to hear

their local stations with heightened satisfaction due to the increased fidelity and consistent reception quality of digital broadcasting.

As consumers, the local citizenry also would experience, directly or indirectly, the benefits of the data capabilities of IBOC DAB -- capabilities that may be manifested in myriad ways during the decades to come.

c. Government Policymakers

For government policymakers, the introduction of IBOC DAB envisioned by NAB will advance their interests as well. First, this transition need not involve the reallocation of any other bands of spectrum. Instead, only existing radio broadcast spectrum will be employed. Neither, we believe, would independent FCC authorization of IBOC DAB broadcasts be required. Rather, we urge the Commission ultimately to adopt an approach similar to that used for FM subcarriers. Broadcasters simply are able to begin or modify subcarrier use within FCC-specified technical parameters, but without the need to seek specific FCC authorization.⁶

Also, the government's existing allocation and assignment of frequencies among the several states and communities, developed under Section 307(b) of the Communications Act,⁷ will be relied upon to assure equitable distribution of digital broadcast facilities. This is a critically important factor. By ushering in terrestrial digital audio broadcasting over the broadcasts of existing radio facilities, the FCC and the public will be able to take cost-free benefit of decades of Commission spectrum allocation and assignment decisionmaking. This body of FCC actions has led to the efficient, locally based rollout and modification of radio broadcasting -- the most universally available mass communications medium on the planet.

⁶ See 47 C.F.R. § 73.293 (1997).

⁷ 47 U.S.C. § 307(b) (1996).

B. The FCC Must Adopt Single Transmission Standards for AM and FM IBOC DAB.

1. NAB Believes That the FCC Ultimately Must Amend its Rules to Include IBOC Transmission Standards for AM and FM Broadcasts.

As an appendix to its petition, USADR submitted a paper authored by Stanley M. Besen and John M. Gale. This economic analysis paper, titled *Standard Setting for Digital Radio*, outlines the need for the Commission to set a standard for digital audio transmissions. While at this time it is not necessary for the Commission or individual parties to determine precisely how this standard is to be established, we are in complete agreement with Besen & Gale on the need for a government “blessed” standard. We urge the Commission, in initiating a proceeding, to state specifically that it concurs with the view that the conclusion of this proceeding should be marked by FCC adoption of such single standards (one for AM IBOC; one for FM IBOC) in its rules.

Besen & Gale correctly point out the incredibly difficult task of coordinating the many interested parties in the successful introduction of terrestrial digital audio services. “Without some form of coordination among these economic actors [broadcasters, consumer electronic manufacturers and retailers, and consumers], there is no incentive for any of the others to adopt digital radio.”⁸

Besen & Gale state that, given the potential interference problems with different digital audio systems operating simultaneously, as well as interference problems with the existing analog system, it is essential for the successful introduction of this service to minimize, if not eliminate these potential problems. They argue that consumers and broadcasters would *not* make substantial investments in this new technology without assurances that these problems will not

⁸ Besen & Gale at 4.

be present. And certainly consumers would be leery of any new digital service that has any aspect of uncertainty or unreliability to it.

Furthermore, Besen & Gale point out that many characteristics of the radio industry argue strongly for government involvement in the standard setting process.⁹ One general area is the consumer expectation that no matter where one goes in the country, a radio receiver will work, both at fixed locations and when the listener is on the move. That universality assurance is a needed guarantee for consumers to purchase new receivers.

Thus, NAB is in general agreement with the Besen & Gale conclusion that "it is likely that government involvement will be necessary in the standard-setting process in order to bring the benefits of digital radio to consumers."¹⁰ Only time may tell how that involvement will manifest itself; but given the likely negative outcome if the government does nothing, we strongly agree that to bring this new technology successfully to consumers, we need government action on standard setting.

2. The Timetable for Industry and Commission Action

In the near-term the American public may well have placed before it one or more competitors in the Satellite Digital Audio Radio Service ("SDARS"). It is our understanding that one such entrepreneur, Satellite CD Radio, Inc., plans to launch its satellite radio service in the first quarter of 2000.¹¹ Another, XM Satellite Radio, also is expected to inaugurate its service in

⁹ Even Besen & Gale note that in many cases "the distinction between private voluntary and government standard setting may be too strong. In most cases, government standard setting has involved the participation of both private standard-setting bodies and industry members." Besen & Gale at 17.

¹⁰ *Id.* at.22.

¹¹ See Satellite CD Radio, <www.cdradio.com/transcript.html>.

the year 2000.¹² Moreover, virtually every other mass media communications service is -- or is becoming -- digital, as is the case with other non-mass media electronic communications technologies.

In order to compete effectively and to maximize service to the public, free, over-the-air radio broadcasting must be given IBOC DAB opportunities. To ensure that digital future, the Commission must begin a proceeding now -- a proceeding that will signal to all interested parties that the time for introducing IBOC DAB is drawing very near.

C. Avoiding Interference Is Critical to the DAB Transition.

1. Interference to Analog Service Should Be Minimized During the Transition of AM and FM to IBOC DAB.

As was addressed by the NAB Radio Board's DAB resolutions, the implementation of IBOC DAB should be one marked by an orderly transition that will enhance existing radio broadcast service and thus work to the benefit of broadcasters and listeners. One component of this orderly transition is the guarantee that the radios employed today by listeners will continue to provide quality audio reception. Surely, the implementation of an IBOC DAB service that causes significant impairment to existing analog service would raise serious questions as to the suitability of the system.

It is NAB's desire that broadcasters, system proponents, receiver manufacturers and government regulators keep this criterion high on their priority lists as this country's terrestrial radio broadcast service transitions to IBOC DAB. Surely none of these groups would like to disenfranchise listeners who currently rely upon the analog radio service and expect to be able to use this service and their analog receivers for some time to come.

¹² See XM Satellite Radio, <www.xmradio.com/company/frcompany.html>.

2. The Commission Must Ensure a Hospitable Interference Environment for the Development and Introduction of IBOC DAB.

From the reports made by various IBOC proponents, and as outlined in the recent filing of the petitioner, we have a crystallizing picture of how IBOC DAB would be added to the radio broadcasting mechanisms already in place. These IBOC DAB systems may well be robust systems with state-of-the-art characteristics that are aimed at providing reliable service among the wealth of interfering signals already part of the spectral environment. But, it is essential that this environment not become so inhospitable that it cannot provide a nurturing environment for the development and successful deployment of IBOC DAB.

In comments filed by NAB in the Commission's "technical streamlining" proceeding,¹³ and also in response to the Commission's placing various "low power FM" petitions for rule making on public notice,¹⁴ we have cautioned the FCC concerning any rule or policy changes that might result in increased, ambient interference in the radio broadcast bands. It is our view that the Commission must live up to its fundamental, core statutory responsibility to ensure as much of an interference-free radio environment as possible. Such an environment is essential to the prompt, effective and reliable implementation of IBOC DAB.

In its petition, USADR provides a compelling analysis of the spectrum-congested state of AM and FM broadcasting.¹⁵ It is within this setting that IBOC DAB will have to make its first foothold and then grow. Surely the FCC must ensure that co-channel and adjacent channel

¹³ See Comments of NAB in MM Docket No. 98-93, filed October 20, 1998; *see also* Reply Comments of NAB in MM Docket No. 98-93, filed December 4, 1998.

¹⁴ See Comments of NAB in RM-9208, RM-9242 and RM-9246, filed April 27, 1998; *see also* Reply Comments of NAB in RM-9208, RM-9242 and RM-9246, filed July 24, 1998.

¹⁵ USADR Petition for Rule Making at 23-25, and appendices D and G.

interference do not make that first foothold so slippery as to jeopardize the service in its embryonic stages.

Moreover, and as we explained in our filings in the technical streamlining proceeding, the state of interference within the radio bands will determine the system designs of receiver manufacturers. These designs traditionally have been developed so as to impose sacrifices in audio quality in order to avoid interference being picked up by the listener. We believe it is critical that the state of interference within the radio bands not be increased -- through rampant "interference negotiation," reduced adjacent channel interference protections, pirate radio broadcasts or the introduction of new, interfering low power FM services.

It is our strongly-held view that the introduction of digital capability for the free, over-the-air radio service is of such paramount importance that it should not be threatened by any proposals -- current or future -- to degrade the already congested interference climate in the radio broadcast bands. For the FCC to do otherwise would be a serious communications policy error. Moreover, this error likely could not be corrected in the future.

D. System Testing and System Evaluation Should Lead to Industry Consensus.

During the mid-1990s, IBOC DAB systems, as they existed at that time, were included in a laboratory testing program undertaken jointly by the Electronic Industries Association ("EIA") Digital Audio Radio Subcommittee and by the DAB Subcommittee of the NRSC. NAB and the Consumer Electronics Manufacturers Association ("CEMA"), the latter a sector of the EIA, are the co-sponsors of the NRSC, the objective of which is to serve as the definitive technical standards-setting body for free, over-the-air radio broadcasting systems in the United States. In years past, the NRSC has been successful in developing voluntary standards that have been recognized and adopted by the FCC. Examples include the NRSC development of the "NRSC-

1" and "NRSC-2" pre-emphasis/de-emphasis and bandwidth occupancy standards for AM radio as part of the government-industry "AM Improvement" process in the 1980s. These NRSC standards were incorporated into FCC rules.¹⁶

The NRSC DAB Subcommittee engaged in tests of various IBOC DAB systems from 1993 to 1996. Following an analysis of the laboratory test results developed during this process,¹⁷ the NRSC came to the conclusion that the IBOC DAB systems then being tested were not sufficiently developed to be considered for a successful introduction of terrestrial digital radio service.

As a consequence of this conclusion, the DAB Subcommittee temporarily suspended its activities in September 1996. However, in December 1997, based on new, announced developments by IBOC DAB proponents, the DAB Subcommittee was re-activated. The DAB Subcommittee's first meeting following reactivation was held on February 10, 1998. In addition to featuring the participation by representatives of the broadcasting and receiver manufacturing industries, *all* of the then known and currently active IBOC proponents took part, and continue to take part, in the renewed activities of the Subcommittee.

Currently, the DAB Subcommittee is working to establish whether or not IBOC DAB systems are a significant improvement over existing AM and FM analog radio services. It has developed laboratory system test guidelines that spell out in detail the information and test results the NRSC would need to evaluate IBOC systems and compare them against existing

¹⁶ See *Report and Order* in MM Docket No. 88-376, 4 FCC Rcd 3835 (1989).

¹⁷ Thomas B. Keller, David M. Londa, Robert W. McCutcheon & Stanley S. Toncich, *Digital Audio Radio Laboratory Tests: Transmission Quality, Failure Characterization and Analog Compatibility*, Electronic Industries Association, Consumer Electronics Group (1995).

analog services.¹⁸ These guidelines are designed to be used by the system proponents to help them structure the testing of their systems and the presentation of their test results in a way that will be most meaningful for NRSC evaluation. The DAB Subcommittee is now working on field test guidelines that will serve a similar purpose.

On December 14, 1998, NAB and CEMA submitted for the record, a copy of the adopted laboratory test guidelines, including the Subcommittee's "goals and objectives" statement plus a brief review of the NRSC's ongoing work on DAB. It was the stated hope of NAB and CEMA that the information submitted jointly into the RM-9395 record would be of value to parties filing comments on the USADR petition.

The formulation of the NRSC test guidelines now takes on increased importance, given that the current IBOC proponents intend to conduct their own system tests. That is, neither the NRSC DAB Subcommittee members nor the individual proponents envision a regime of simultaneous testing of multiple IBOC systems, run by a single, neutral entity in a common laboratory setup, such as was done previously by the NRSC.

Once the proponent of a particular IBOC DAB system has performed laboratory and field tests, the results may be submitted to the DAB Subcommittee for review and evaluation. The principles that the Subcommittee would use in evaluating such systems are based upon the Subcommittee's goals and objectives statement. The Subcommittee plans to produce a document that describes specifically how it would evaluate any test results that it might receive after it completes development of its field test guidelines.

¹⁸ National Radio Systems Committee, DAB Subcommittee, *In-Band/On-Channel (IBOC) Digital Audio Broadcasting (DAB) System Test Guidelines, Part I – Laboratory Tests*, December 3, 1998.

In the above referenced June 1998 resolution, the NAB Radio Board of Directors stated its expectation that the NRSC evaluate these technologies in an unbiased and fair manner. While NAB believes that there ultimately *must* be FCC action to adopt single systems for AM IBOC DAB and FM IBOC DAB transmission, the NRSC can and should play a central role in evaluating IBOC technologies and systems in the interim and as a precursor to FCC final action.

As noted above, the NRSC laboratory test guidelines are now in the record of the instant rule making petition. Additional NRSC documents -- on field testing guidelines and test data evaluation procedures -- are expected to be completed in early 1999. Using these documents as guideposts, we believe that we will have a framework for equitable evaluation of IBOC DAB systems. Based on the proven track record of the NRSC, we believe it can play a meaningful role in the multi-step determinations of single standards (one each for AM and FM) for IBOC DAB transmission.

III. CONCLUSION

For the reasons stated herein, NAB urges the Commission to initiate a proceeding to serve as a vehicle for the development of single standards for AM and FM IBOC DAB transmission. Such a proceeding, we believe, is needed now so that interested parties may focus their attention on IBOC DAB policy and technical standards as individual proponents engage in testing along the lines recommended by the NRSC. In soliciting near-term comments from

interested parties, the FCC may wish to focus on both broad IBOC DAB policy as well as on the system options now being presented and refined for IBOC DAB.

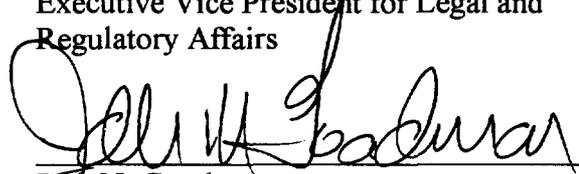
**NATIONAL ASSOCIATION
OF BROADCASTERS**

1771 N Street N.W.
Washington, D.C. 20036
(202) 429-5430



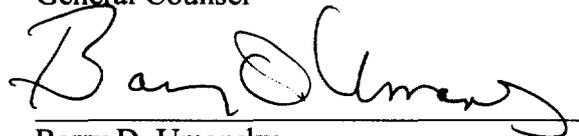
Henry L. Baumann
Executive Vice President for Legal and
Regulatory Affairs

Mark Fratrik
Vice President
NAB Research and Planning



Jack N. Goodman
Senior Vice President and
General Counsel

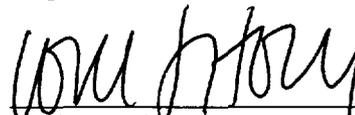
Lynn Claudy
Senior Vice President
NAB Science and Technology



Barry D. Umansky
Deputy General Counsel

John Marino
Vice President
NAB Science and Technology

David Wilson
Manager, Technical Regulatory
Affairs
NAB Science and Technology



Lori J. Holy
Staff Attorney

David Layer
Senior Engineer
NAB Science and Technology

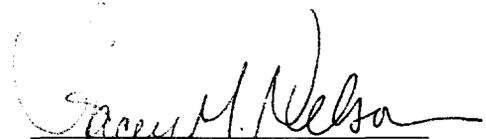
December 23, 1998

CERTIFICATE OF SERVICE

I, Stacey M. Nelson, Legal Secretary for the National Association of Broadcasters, hereby certifies that a true and correct copy of the foregoing Petition for Reconsideration of the National Association of Broadcasters was sent this 23rd day of December, 1998, by first-class mail, postage prepaid, to the following:

Robert A. Mazer
Albert Shuldiner
Greta L.H. Lichtenbaum
Megan H. Troy
Vinson & Elkins L.L.P.
1455 Pennsylvania Avenue, N.W.
Washington, DC 20004
Counsel for the USA Digital Radio Partners, L.P.

- *Chairman William E. Kennard
 - *Commissioner Susan Ness
 - *Commissioner Harold Furchtgott-Roth
 - *Commissioner Michael K. Powell
 - *Commissioner Gloria Tristani
 - *Roy Stewart, Chief, Mass Media Bureau
 - *Dale Hatfield, Chief, Office of Engineering and Technology
 - *Keith Larson, Assistant Chief, Mass Media Bureau
 - *Linda Blair, Chief, Audio Services Division
 - *Peter Doyle, Assistant Chief, Audio Services Division
- * Hand Delivered


Stacey M. Nelson