

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)
)
Digital Audio Broadcasting Systems) MM Docket No. 99-325
And Their Impact On the Terrestrial Radio)
Broadcast Service)

To: The Commission

REPLY COMMENTS OF NATIONAL PUBLIC RADIO, INC.

Introduction

Pursuant to Section 1.415 of the Commission's Rules, 47 C.F.R. § 1.415, National Public Radio, Inc. ("NPR") hereby submits its Reply Comments on the Commission's Notice of Proposed Rulemaking in the above-captioned proceeding concerning the introduction of digital audio broadcast ("DAB") service.¹

In its initial comments, NPR recounted its long-standing and significant role in the efforts to transition analog broadcasting to digital audio broadcasting ("DAB").² With specific regard to the NPRM in this proceeding, NPR generally endorsed the Commission's stated policy goals and proposed evaluative criteria, but cautioned the Commission not to lose sight of the ultimate issue: which, if either, of the proposed systems meaningfully improves the quality of over-the-air radio broadcasting. In

¹ Notice of Proposed Rulemaking, MM Docket 99-325, rel. Nov. 1, 1999 [hereinafter "NPRM"].

particular, we questioned what are likely to be unreasonable expectations regarding the spectrum efficiency and extensibility of an otherwise meritorious IBOC DAB system and we encouraged the Commission to support the NRSC standard setting process and avoid measures that might inhibit the DAB transition. We strongly supported the Commission's proposal to reallocate 82-88 MHz to radio broadcasting as clearly in the public interest.

I. The Record Supports The General Objectives and Criteria Set Forth By the Commission As Well As A Continuing Commission Role, Through the NRSC, In The Development Of An IBOC DAB Transmission Standard

Most commenters joined NPR in generally endorsing the objectives and criteria proposed by the Commission in the NPRM.³ Objectives and criteria such as improved audio quality, spectrum efficiency, and coverage represent clearly relevant and potentially significant factors for determining which of the competing systems would best serve the public interest. In deciding whether any proposed system serves the public interest, however, the development and implementation of an in-band, on-channel ("IBOC") standard is likely to require some compromises, and it is important to bear in mind that the criteria are not all of equal importance.

Thus, while spectrum efficiency and extensibility are generally important objectives for any spectrum use, they may be of somewhat diminished significance in determining whether any of the competing IBOC systems serve the public interest. After all, an IBOC approach requires the concurrent analog and digital use of the existing radio broadcast spectrum allotments to transition analog stations to eventual digital operation. For that

² See NPR Comments at 2. Unless otherwise indicated, all cites to comments are to the initial comments filed in the instant proceeding.

reason, any IBOC DAB system chosen must be compatible with the continued operation of existing broadcast stations at least until the percentage of digital receivers in the marketplace is high enough to transition to an all-digital mode IBOC DAB.

Thus, we agree with CUE Corporation that IBOC systems should not interfere with data transmissions on FM subcarriers of existing stations, including the 57kHz subcarrier, permitting radio broadcast data services ("RBDS"), and the 67kHz and 92kHz subcarriers, variously permitting stereo operation, radio reading services, and data services.⁴ In addition, an important element of any IBOC DAB standard will be its ancillary data capacity in hybrid and all-digital modes. This auxiliary data capacity will be necessary to continue radio reading services and to implement new services like traffic information, text messaging, NIST time transmissions⁵ and assisted living information services. We do not believe, therefore, that such ancillary capabilities constitute an inefficient use of spectrum or justify requiring radio stations to operate with only that portion of spectrum necessary to transmit the equivalent of their existing over-the-air audio service.⁶

³ See NPR Comments at 4-6. See also Comments of Greater Media, Inc. at 4; Infinity Broadcasting Corporation at 6, 11.

⁴ Comments of Cue Corporation at 1-2

⁵ See Comments of the National Institute of Standards and Technology.

⁶ See Comments of Greater Media at 14-15 ("If radio is going to remain a viable and valuable service to the American public it must have the flexibility and adaptability to respond dynamically to the rapidly changing needs and expectations of its listeners."); Comments of Chase Capital Partners at 6 ("If the Commission were to reclaim such spectrum, it would discourage future innovation by penalizing licensees for technological advancements that make more efficient use of their licensed spectrum."). Compare NPRM

In addition to a consensus on the relevant criteria for evaluating the competing IBOC systems, the record reflects a general consensus on the establishment of a single transmission standard derived through an industry-led process. We agree with Lucent, however, that the current NRSC process would benefit by active Commission participation to ensure fair and unbiased decision-making.⁷ In addition, the NRSC process should encourage the participation of other technical organizations, such as the Society of Broadcast Engineers ("SBE"), with the NRSC acting as the lead organization, to assure a full ventilation of all potentially relevant technical considerations.⁸

Finally, an essential next step in the process must be field testing of the two competing systems under uniform conditions to permit side-by-side comparisons. Thus, we disagree with the proposal by USA Digital Radio to transfer the evaluation process from the NRSC to the Commission and to rely on a proponent performed or commissioned test process.⁹ Such a process cannot substitute for rigorous testing in the field under a common testing regime, and such field testing is the only real means of determining which, if either, of the proponent systems will enable the implementation of DAB in the public interest.

at ¶ 28 (inquiring whether "incumbents [might be] assigned less bandwidth for all-digital operations than their current channel assignments").

⁷ Comments of Lucent Digital Radio at 41-44.

⁸ Id. at 42.

⁹ See Comments of USA Digital Radio at 25-26.

II. Notwithstanding The Objections of Some, The Record Supports the Commission's Proposal To Reallocate For Radio Use The Spectrum at 82-88 MHz

In its initial Comments, NPR commended the Commission for recognizing the need for expansion of radio services to the American people, especially noncommercial educational services.¹⁰ In so doing, we identified two important reasons justifying the reallocation of spectrum to radio broadcasting. First, demand for radio broadcast facilities has long exceeded the currently allocated spectrum, and the DAB transition represents an ideal time to address the need for additional radio broadcast spectrum. Second, the reallocation of 82-88 MHz to radio broadcasting would enable public radio stations operating on reserved FM-band frequencies to modify their facilities to better serve their communities.

There was significant support for reallocating 82-88 MHz to radio broadcasting at least as part of the transition to DAB. As Visteon Automotive Systems, one of the largest manufacturers of automobile radio and entertainment systems, noted: "[t]he TV Channel 6 solution, by providing new spectrum immediately adjacent to the current FM broadcast band, would provide a superior technical system and make for an easier transition."¹¹ Likewise, the Consumer Electronics Association endorsed a new spectrum approach to DAB, including the use of the 82-88 MHz spectrum.¹²

¹⁰ NPR Comments at 7.

¹¹ Comments of Visteon Automotive Systems at 5.

¹² Comments of Consumer Electronics Association at 11-16. See also Comments of Sony Electronics, Inc. at 7; Comments of Chase Capital Partners at 4 n.10.

Those commenters that opposed the proposed use of new spectrum, including 82-88 MHz, for DAB purposes generally fell into two categories. First, and predictably, incumbent television channel 6 stations opposed the Commission's proposal based on the Commission's decision several years ago to include television channel 6 in the final DTV core,¹³ claimed harm to incumbent television 6 licensees,¹⁴ the unavailability of the spectrum until 2007,¹⁵ and the fact that the 82-88 MHz spectrum alone would not accommodate all existing analog radio stations.¹⁶ The second category comprised those with a vested interest in the success of an IBOC approach to DAB¹⁷ or that otherwise feared that the reallocation of spectrum will undermine the adoption of IBOC.¹⁸ These commenters offered some of the same arguments cited above.¹⁹

The contentions of those that opposed the reallocation of 82-88 MHz simply do not withstand scrutiny. While the Commission ultimately chose to include the 82-88 MHz

¹³ See Comments of Hearst-Argyle Television, Inc. at 3-7.

¹⁴ See Comments of Forum Communications Company at 1-3.

¹⁵ Comments of The Association of Maximum Service Television, Inc. and Certain Channel 6 Licensees at 8.

¹⁶ Id. at 7.

¹⁷ See Comments of USA Digital Radio, Inc.; Comments of Lucent Digital Radio, Inc.

¹⁸ See Comments of Susquehanna Radio Corp. at 3-5; Comments of Greater Media, Inc. at 11-13; Comments of Infinity Broadcasting Corporation at 16-17.

¹⁹ See, e.g., Comments of Infinity Broadcasting Corporation at 17 (noting the anticipated completion of the DTV transition by 2007); Comments of Susquehanna Radio Corp. at 3-5 (delay); USA Digital Radio, Inc. at 23 (delay); Comments of Lucent Digital Radio, Inc. at 36 (delay); Comments of Greater Media, Inc. at 11 (insufficiency of 6 MHz of spectrum to accommodate existing broadcasters).

spectrum in the final DTV core, it did so only after strenuously seeking to minimize the use of the spectrum. Moreover, that decision was made in the context of the DTV transition, and it does not preclude a subsequent reconsideration based on new circumstances, namely the transition of radio broadcasters to DAB. With regard to the claimed harm to television channel 6 incumbent licensees, the reality is that such licensees are seeking to preserve the flexibility to choose between two spectrum allocations, each one of which will permit the multicasting of up to two streams of video programming or other services.²⁰ Finally, claims of delay or that 6 MHz of spectrum is inadequate to accommodate all existing broadcasters assume that the 82-88 MHz spectrum is the only spectrum available for DAB use. In fact, the Commission has correctly found that the reallocation of the 82-88 MHz spectrum is justifiable as one piece of the DAB puzzle.²¹

Thus, notwithstanding the foregoing claims to the contrary, we believe the record amply justifies the reallocation of 82-88 MHz to radio broadcasting use regardless of the success of IBOC as a means of implementing DAB.²²

²⁰ There is no merit to the suggestion that the public interest requires the Commission to elevate the interests of foreign television broadcasters over U.S. radio broadcasters. See Comments of Grupo Televisa, S.A.

²¹ See NPRM at ¶.41 (“IBOC and new-spectrum DAB options need not be mutually exclusive and, in fact, could be complementary.”).

²² As we also stated in our initial comments, it is premature to reach definitive conclusions about the most appropriate means of assigning the spectrum because the unclear whether the reallocation of 82-88 MHz should either complement IBOC or contribute to a non-IBOC, new spectrum DAB approach. Nonetheless, in establishing rules for the new channels, we believe a substantial portion of the reallocated spectrum should be reserved for noncommercial educational use. NPR Comments at 10.

Conclusion

For the reasons set forth above and in NPR's initial comments, the Commission should continue to support industry efforts to develop an IBOC transmission standard and otherwise facilitate the transition to digital radio broadcasting, including through the allocation of additional spectrum.

Respectfully submitted,

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