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FCC COMMENCES RULEMAKING TO CONSIDER TERRESTRIAL DIGITAL AUDIO BROADCASTING

Washington D.C. – November 1: The FCC today began a rulemaking proceeding to consider methods for introducing digital audio broadcasting (DAB) to the public.

In a Notice of Proposed Rulemaking issued today, the Commission (1) reaffirmed its commitment to provide radio broadcasters with the opportunity to take advantage of DAB technology, (2) identified Commission public policy objectives for the introduction of DAB service, (3) proposed criteria for the evaluation of DAB models and systems, (4) stated its intention to evaluate models for providing DAB; (5) inquired as to whether or not there is a need for a mandatory DAB transmission standard, and (6) asked for comments on certain DAB system testing, evaluation and standard selection issues.

The Commission said that digital audio broadcasting has the potential to provide enhanced sound quality, greater robustness against interference and other impairments to the transmitted signal, and an array of new auxiliary services. DAB technology utilizes new and efficient audio compression techniques that reduce the amount of bandwidth required to transmit a high-quality audio signal.

In this Notice, the Commission proposed several goals for the proceeding: realizing the superior technical performance capabilities of DAB technology; creating DAB opportunities for existing radio broadcasters; ensuring that introduction of DAB does not weaken the vitality of free over-the-air broadcast service; approving DAB systems that are spectrally efficient; and fostering a rapid and non-disruptive transition to DAB for broadcasters and listeners.

The Commission described two alternative DAB system models that it wanted to evaluate in the proceeding: (1) the In-Band On Channel (IBOC) systems, currently under development by 3 companies, that would be designed to simultaneously broadcast both analog and digital radio signals on broadcasters' existing AM and FM frequencies without disrupting existing analog service, and (2) models based on allocating new radio spectrum on different frequency bands for terrestrial DAB.

According to the system proponents, IBOC technology would provide near CD-quality sound on FM channels and FM-quality on AM channels. Proponents envision a "hybrid" mode of operation during which radio stations could transmit analog and digital signals on their assigned frequencies, eventually followed by an all-digital mode of operations.

Regarding the new spectrum model, the Commission specifically requested comment on a proposal to reallocate TV channel 6 (82-88 MHz) to DAB service at the close of the transition to digital TV. It noted that because of existing analog television stations on Channel 6, all of which are scheduled to cease operation after 2006 or at the end of the Digital Television (DTV) transition period, if later, DAB service on this spectrum would be delayed. The FCC invited comment on suggestions for alternative DAB channel plans.

In the DAB NPRM, the Commission asked for comments on utilizing 10 specific "tentative selection criteria:" (1) enhanced audio fidelity; (2) robustness to interference and other signal impairments; (3) compatibility with existing analog service; (4) spectrum efficiency; (5) flexibility; (6) auxiliary capability; (7) extensibility to future technological advances; (8) accommodation for existing AM and FM broadcasters; (9) coverage; and (10) implementation costs and affordability of equipment, including costs to consumers of digital receivers and trade-offs between receiver performance and cost.

The Commission noted that both the IBOC model and new-spectrum model have specific benefits and drawbacks with regard to these criteria, and that some of the criteria would conflict in certain respects. The FCC said that it is seeking to identify the DAB model or models that best serve the public interest, and that it would be required to balance competing interests in makings its judgments and evaluations.

The Notice also seeks comment on the compatibility of IBOC systems and the proposed low power FM service.

The FCC began considering the authorization of terrestrial and satellite digital radio services in 1990. When it established rules for a satellite digital audio radio service (DARS), it stated that it would consider a terrestrial DAB service once it was apparent that a viable system had been developed. In issuing today's NPRM, the Commission said that industry proponents of DAB systems assert that their development of IBOC DAB systems are nearing final development. The Commission said that it is initiating this new proceeding at this time to determine whether an IBOC model and/or a model utilizing new radio spectrum would be the best means of promptly introducing DAB service in the United States, and to help foster the further development of DAB systems.

Action by the Commission November 1, 1999, Notice of Proposed Rulemaking (FCC 99-327) Chairman Kennard, Commissioners Ness, Furchtgott-Roth, Powell and Tristani.

MM Docket No. 99-325

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