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

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

COMMENTS OF THE CONSUMER ELECTRONICS ASSOCIATION REGARDING USE OF DIGITAL AM TRANSMISSIONS DURING NIGHTTIME HOURS

The Consumer Electronics Association ("CEA") hereby submits these Comments regarding the recommendations to the Commission by the National Association of Broadcasters ("NAB") concerning nighttime operation of AM In-Band On-Channel ("IBOC") digital radio.[1]

The Consumer Electronics Association is the principal U.S. trade association of the consumer electronics and information technologies industries, including manufacturers of the television receivers, monitors, and associated electronics such as set-top boxes, personal digital recorders (PVRs) and video cassette recorders (VCRs) that bring the video marketplace to consumers. Its members design, manufacture, distribute and sell a wide range of consumer products, including digital and analog television receivers and monitors, video cassette recorders, direct broadcast satellite radio (DARS) and television (DBS) equipment, broadcast AM and FM radios, and many similar devices. Our members also design and manufacture unlicensed devices such as Wi-Fi network devices that connect personal computers, PDAs and laptops to peripheral

[1] *Public Notice*, MM Docket No. 99-325, DA 04-1007, April 14, 2004.

devices and networks, cordless phones, baby monitors, and wireless headsets. CEA's more than 1,500 member companies include all of this country's major consumer electronics manufacturers.

I. CEA STRONGLY SUPPORTS IBOC DIGITAL RADIO AND THE AUTHORIZATION OF NIGHTTIME AM IBOC TRANSMISSIONS

CEA is a strong supporter of IBOC digital radio, and believes that the ability to transmit nighttime AM IBOC signals is critical to the success of this exciting new technology. As such, CEA strongly supports the authorization of nighttime AM IBOC transmissions. CEA also urges the Commission to establish mandatory interference mitigation requirements for AM broadcasters initiating such transmissions to ensure that any possible interference to analog receivers will be corrected.

CEA believes that nighttime AM IBOC broadcasts will contribute greatly to the overall success of IBOC digital radio. Currently, nighttime AM analog broadcasting suffers from far greater interference than other forms of AM and FM analog broadcasting. When the IBOC conversion occurs, it will provide the most dramatic improvement in audio quality over existing nighttime AM analog broadcasting. This dramatic improvement will be an important feature of AM IBOC broadcasts. In addition, it will serve as a critical indicator of the IBOC technology's overall success.

A. The Commission Should Require Broadcasters to Correct Any Interference That Nighttime AM IBOC Transmissions May Cause

Nighttime AM IBOC transmissions will pose some challenges for some nighttime AM analog listeners. Thus, the Commission should require broadcasters who are implementing nighttime AM IBOC broadcasts to correct any interference that their new transmissions may cause.

According to iBiquity Digital Corporation's AM Nighttime Compatibility Study Report, twenty percent of nighttime AM analog listeners who receive programming through portable, table, or hi-fi type receivers at the 5 mV contour of a desired analog AM station *after all AM stations have converted to the IBOC hybrid signal* will receive interference.[2] Arbitron data shows that the percentage of at-home listening during the nighttime hours varies hour to hour, from a slight majority in the early evening to more than two thirds by 11 PM[3], and at-home listening typically involves portable, table or hi-fi type receivers. To ensure that these listeners continue receiving interference-free broadcasts, CEA urges the Commission to require all AM broadcast stations that convert to digital transmission immediately correct any interference caused by the new signals until at least 50 percent of the radio receivers sold annually are IBOC digital receivers, or one year after *all* AM nighttime stations have converted to digital broadcasting, whichever comes first.

II. CEA RECOMMENDS A PROCEDURE FOR RESOLVING INTERFERENCE

CEA provides the following recommendation in the event that interference to an AM analog signal should occur: The broadcaster (or broadcasters) whose signal causes the interference should be required to work with the affected listener(s) to restore acceptable analog reception. The restoration should be done by reorienting the receiver, lowering the power of the nighttime AM IBOC signal to a level sufficient to eliminate the interference, or other appropriate means.

It is critical that the Commission require broadcasters to immediately correct any interference because, if not addressed promptly, such interference may result in a negative public

[2] *See* iBiquity Digital Corporation, *AM Nighttime Compatibility Study Report*, May 23, 2003, at 9.

perception of AM IBOC, and thus, hinder the successful rollout of this important new technology. Further, uncorrected interference may negatively impact consumer perception of analog receiver reliability because consumers could incorrectly blame analog receivers for their inability to reject the nighttime AM IBOC signals, despite the fact that the receivers were not designed to co-exist with the IBOC signals.

CEA asserts that consumer frustration also could negatively impact receiver manufacturers through lost future sales of products carrying the same brand names. Consumer frustration also could have an immediate negative financial impact on receiver manufacturers in the event that a consumer returns a receiver or sends it in for warranty service -- two actions that typically cost more to the receiver manufacturer than the profit on the sale of a typical radio receiver.

[3] Arbitron, Inc., *Radio Today – How America Listens to Radio*, 2004, at 8.

III. CONCLUSION

CEA strongly supports IBOC digital radio, and believes that nighttime operation of AM IBOC signals is critical to the success of this exciting technology. For the reasons set forth herein, CEA recommends that in authorizing nighttime AM IBOC broadcasts, the Commission should require AM broadcasters to immediately correct any instances of interference to analog AM reception. This mandatory requirement would benefit broadcasters, receiver manufacturers, and consumers. In addition, it would promote the rollout of IBOC digital radio, and preserve consumers' perception of analog AM receiver performance.

Respectfully submitted,

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