

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

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

**Reply Comments of  
iBiquity Digital Corporation**

iBiquity Digital Corporation (“iBiquity”), by counsel, respectfully submits these reply comments in the above-referenced proceeding. This response concerns the Media Bureau’s Public Notice<sup>1</sup> seeking input on a proposal by various broadcasters and transmitter manufacturers (“Joint Parties”) to increase the authorized power for FM HD Radio™ broadcasts. In these reply comments and as is described in greater detail below, iBiquity again urges the Commission to grant the Joint Parties’ request and immediately authorize broadcasters to increase the power for FM HD Radio service.

There is a virtual consensus in the Comments that the proposed increase in authorized FM power will improve the coverage and building penetration of the HD Radio digital signal. Concomitantly, the Comments make it clear that the power increase will promote the commercial rollout of HD Radio technology. The vast majority of commercial radio stations are in full support of an immediate power increase as proposed by the Joint Parties.<sup>2</sup> Non-commercial

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<sup>1</sup> *Comment Sought on Joint Parties Request For FM Digital Power Increase And Associated Technical Studies*, DA 08-2340, *Public Notice*, MM Docket No. 99-325 (Oct. 23, 2008)(“Notice”).

<sup>2</sup> The Joint Parties by themselves represent a significant portion of the commercial and noncommercial FM broadcast industry. The Joint Parties own and operate more than 1,150 commercial FM stations across the country. See Letter from Steven A. Lerman and John W. Bagwell to Ms. Marlene Dortch dated June 10, 2008 (“Joint Parties Request”). This represents almost 20% of the approximately 6,300 commercial FM stations in operation. See *Broadcast Station Totals as of June 30, 2008*, News Release dated Sept. 19, 2008.

stations also express strong support for the power increase but voice some concern about the impact of the power increase on a first adjacent station's analog signal toward or beyond the protected contour. Nevertheless, iBiquity believes the Commission should move expeditiously to grant the Joint Parties Request in order to ensure that the benefits of the power increase can be brought to listeners throughout the United States as quickly as possible.

**I. There is a Consensus that the Digital Power Increase Will Ensure that HD Radio Technology Fulfills the FCC's Policy Goal of Replicating Analog Coverage within a Station's Protected Contour.**

The Comments all recognize that the power increase will provide the listening public with a more robust digital radio service that is better able to meet the needs of listeners. As National Public Radio ("NPR") recognizes, "the power currently authorized for HD Radio transmissions is insufficient to serve listeners in their homes and in mobile environments."<sup>3</sup> NPR further acknowledges, "clearly, HD Radio coverage must be improved and an IBOC transmission power increase is one of the leading methods to increase coverage."<sup>4</sup> The Consumer Electronics Association ("CEA"), in its comments, reinforces this theme when it, "encourages the FCC to maximize the benefits of the HD Radio system by allowing broadcasters to increase their FM digital power so that they may replicate their analog coverage patterns."<sup>5</sup> The National Association of Broadcasters ("NAB") concurs that the power increase "will improve coverage shortfalls (as compared to analog service) for some FM stations within their protected contours, bolster reception reliability for gaps and fade situations (with moving

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<sup>3</sup> See Comments of NPR at 4.

<sup>4</sup> *Id.*

<sup>5</sup> See Comments of CEA at 3.

vehicles) and strengthen signals for building penetration and reception by hand-held, portable devices and HD Radio-equipped cell phones.”<sup>6</sup>

A review of the comments shows that all the major commercial radio station groups, the non-commercial stations, the transmitter manufacturers, and the co-sponsors of the National Radio Systems Committee (CEA and the NAB) all believe the proposed power increase will enhance the viability and utility of digital radio. Furthermore, this docket contains a vast record detailing the importance to the radio listening public as well as to the radio industry of the introduction and development of HD Radio technology. As recently as this past weekend, NPR received an award for its efforts to bring new accessible radio services to the sight and hearing impaired using the HD Radio platform.<sup>7</sup> This docket also contains voluminous details of the numerous new outlets for news and entertainment radio programming or the various data services including emergency alerts and real-time traffic information HD Radio broadcasting is able to provide the listening public. The proposed power increase will enhance the ability of radio licensees to bring these and other benefits to listeners throughout the United States and should be implemented as quickly as possible.

## **II. The Commission Should Promote the Development of HD Radio Broadcasting Consistent with the Need to Protect Existing Analog Radio**

Since the Commission established this docket in 1999, the Commission repeatedly has had to balance the desire to promote the digital rollout against the need to protect existing analog service. In both 2002 and 2006 when the Commission authorized interim and permanent IBOC broadcasts, respectively, the Commission was confronted with concerns that the digital signal

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<sup>6</sup> See Comments of the NAB at 3.

<sup>7</sup> NPR Leads Industry in Bringing Innovative, Accessible Radio Services to Market; NPR to Receive Stevie Wonder "Vision Free Award" at CES, Press Release dated Jan. 6, 2009 available at <http://www.npr.org/about/press/2009/010609.CES.html>.

would create harmful interference to analog broadcasting. Based on iBiquity's real world field tests and strong, although not unanimous, support from the broadcast community, the Commission became comfortable that digital broadcasts would not cause widespread harmful interference and that any interference could be addressed on a case-by-case basis. The Commission should draw a similar conclusion concerning the Joint Parties Request to increase the authorized FM power level.

Any transition to a new technology presents policy makers with complicated decisions as to how long and to what extent the incumbent technology must be protected and, at the same time, how to encourage the implementation of the new technology. If the policies are too protective of the incumbent technology, they could choke off the emerging technology. However, if the policies do not protect the incumbent technology, existing users could be adversely impacted. Because the HD Radio signal is inserted into the existing FM band, it is extremely efficient, but care must be taken to insure that the digital and analog signals can cohabitate in the FM band. iBiquity believes the Joint Parties Request and the supporting field test data demonstrate the Commission can promote the transition to digital with a power increase while maintaining the viability of analog service.

iBiquity encourages the Commission to consider the Joint Parties Request in the context of the overall rollout of terrestrial digital radio. Unlike the digital television transition, there is no mandatory analog sunset for radio. Thus, the Commission should use its rules to promote the digital transition by affording the digital service the best possible operating flexibility. In this case, any impact on analog service can be addressed on a case-by-case basis. Therefore, the Commission should not let that potential impact impair the development of the new digital service through an increase in power.

Also, as iBiquity commented in the current NOI proceeding concerning satellite and terrestrial radio receivers,<sup>8</sup> the recent merger of the two SDARS licensees forming Sirius XM Radio created a new dynamic in the marketplace that has the potential to impede terrestrial radio's transition from analog to digital. In the aftermath of the satellite merger, it has become imperative that the Commission develop policies that enhance the viability and rollout of terrestrial digital radio to ensure a competitive digital platform. As the comments in this proceeding demonstrate, there is little doubt that the power increase will provide a more robust and ubiquitous digital signal allowing listeners within a station's protected contour to reap all the benefits that HD Radio technology has to offer.

### **III. Different Broadcasters have Different Needs**

The Comments in this proceeding aggregated around two distinct interests. Although both commercial and noncommercial broadcasters strongly support the digital rollout and support the need for an FM power increase, there is a divergence in views about the potential impact of a power increase at the edge of coverage. iBiquity believes this divergence in views is attributable to the fact that there are different allocation methodologies used in the reserved band and the non-reserved band as well as the dependence of public radio stations on member contributions from individuals outside the station's protected contour. Commercial stations do not derive significant revenue from sources outside the protected contour.

iBiquity has reviewed the proposal in the Joint Parties' Reply Comments encouraging the Commission to authorize stations in the non-reserved band to increase power but to continue to limit the FM power in the reserved band. iBiquity believes this is a reasonable compromise that will serve the interests of both communities. iBiquity is working with NPR and the public radio

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<sup>8</sup> See Comments of iBiquity Digital Corporation in MB Docket No. 08-172.

community to conduct further testing in the reserved band, and iBiquity is confident that public radio will become comfortable with the power increase after there is more experience with higher power levels. At the same time, iBiquity believes the concerns of public radio should not be used to preclude commercial broadcasters from moving forward with expanded use of HD Radio technology. The commercial broadcasters have expressed strong support for a power increase and are willing to address any interference problems on a case-by-case basis.

iBiquity notes any potential impact from the power increase is going to be limited in scope. The NPR testing and analysis was based on the worst case scenario of all stations converting to digital at higher power at the same time. Currently, only a limited percentage of stations have commenced digital broadcasting at existing power levels. Cost, equipment and labor constraints will limit the number of stations that convert to digital and increase power for many years, thereby constraining the potential impact on analog operations. iBiquity anticipates implementation of higher power broadcasts will be accompanied by greater proliferation of digital receivers, thus limiting the significance of any future impact on analog broadcasts. By the time broadcasters convert all stations to digital and increase power to the  $-10$  dBc level, most consumers should have digital receivers and much lower dependence on analog broadcasts.

Several other technical issues were raised in the comments including the impact of the power increase on low power FM service, short-spaced stations, analog subcarriers and the analog host station. None of these issues was supported by any detailed technical analysis or field studies. iBiquity does not believe that any of these sharing situations presents a large enough problem to foreclose the proposed power increase. To the extent that further technical

analysis is warranted, iBiquity will work with the Commission, NPR and the commercial broadcasters to develop a technical record on these issues.

**CONCLUSION**

For the foregoing reasons, iBiquity Digital Corporation urges the Commission to grant the Joint Parties Request and increase the authorized power for FM HD Radio broadcasts.

Respectfully submitted,

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