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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of	)	
	)	
Creation of a Low Power Radio Service	)	**MM Docket No. 99-25**
	)	**RM-9208, RM-9242**

To: The Commission

COMMENTS OF CUMULUS MEDIA INC.

Cumulus Media Inc. ("Cumulus"), by its Executive Chairman, Director of Engineering, General Counsel, and undersigned attorneys, and pursuant to Section 1.415 of the Commission's Rules, hereby respectfully submits these Comments in response to the Commission's *Notice of Proposed Rule Making* in this proceeding ("*NPRM*"), 14 FCC Rcd 2471 (released February 3, 1999). [1/]

1/ These Comments are timely filed in accordance with the revised schedule for submitting comments and reply comments in this proceeding adopted in the *Order* of the Chief of the Mass Media Bureau, DA 99-542 (released March 19, 1999), and the Commission's subsequent *Order*, FCC 99-112 (released May 20, 1999).

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Cumulus, through subsidiaries, currently owns, is in the process of acquiring, or is providing certain programming, sales, and other services (pursuant to so-called "time brokerage" agreements with the licensees thereof) to, approximately 250 commercial AM and FM radio broadcasting stations clustered in various mid-sized and smaller markets in the Northeast, the Mid-Atlantic, the Southeast, and the Midwest. As the nation's third largest radio company (measured by aggregate number of stations owned), Cumulus has a keen interest in the proposals in the *NPRM.*

The Integrity of the FM Broadcast Band

The *NPRM* proposes to establish new classes of low-power ("LPFM") and microradio services in the FM broadcast band. The FM band was preferred over the AM band, in part because of ". . . interference potential and present congestion in the AM band, where many stations currently experience significant interference and degraded reception, ..." 14 FCC Rcd at 2478. The *NPRM* does not confront the fact that the degradation of the AM band was in no small degree a product of the Commission's repeated willingness, during the decades when AM radio was the dominant aural broadcast medium, to allow new and additional station assignments to be "shoehorned" into the pre-existing environment, frequently because of a perceived benefit to the public from an additional service to a community thought to be underserved. The Commission

was a participant in the process of lowering the quality of the AM service—by relaxing interference standards through rule modifications or in particular rule waiver cases—in order to make more stations possible.

Now the Commission is again facing severe pressure to compromise the technical integrity and service quality of broadcasting, this time in the FM band, in order to permit more station assignments. Even though some proponents of LPFM and microradio— including members of the Commission [2/] —protest in sincerity that they do not intend to undermine the technical quality of the FM band, the reality is otherwise. Not too deeply buried in the *NPRM* are clear indications of the Commission's willingness to make trade-offs, sacrificing freedom from interference for one additional LP1000 station here or three more LP100 stations there. For example, in discussing the proposed elimination of third-adjacent-channel interference protection criteria for the proposed new LPFM and microradio services, the *NPRM* acknowledges (as it must, since the laws of electromagnetic physics refuse to surrender) that interference will inevitably result. An effort is made to minimize the quantum of the interference:

2/ *See* Joint Statement of Chairman William E. Kennard and Commissioner Gloria Tristani in response to the *NPRM*, *id.* at 2534a (". . . we will be mindful of interference concerns. We will not undermine the technical integrity of the FM band. Our job is to be the guardian of the spectrum, not to degrade it.")

> Areas of potential interference would be very small and occur only in the immediate vicinity of the low power transmission facility. An LP1000 station operating with maximum facilities would be predicted, under the current protection ratios, to cause 3rd-adjacent-channel interference to a distance of 1.4 kilometers (0.9 miles) from its antenna, ...

Id. at 2488.

However, as Appendix D to the *NPRM* shows, a city such as Jacksonville, Florida—which could not support a single LP1000 station, were third-adjacent-channel interference standards to be retained—could sustain as many as three new LP1000 stations in the absence of such standards. With each such station hypothetically operating with maximum LP1000 facilities and therefore providing an interference radius of nearly one mile surrounding its transmitter, and with no control over the siting of these three stations, significant neighborhood populations in and around Jacksonville could lose access to radio stations that they currently receive.

Moreover, in discussing the possible elimination of second-adjacent-channel interference standards, the *NPRM* does not even attempt to quantify the extent to which LP1000 stations operating with maximum facilities could preclude persons living within specified radiuses of the transmitters of such stations from receiving the signals of

stations operating on frequencies two channels removed. To take the example of Jacksonville, where an additional eight LP1000 stations could be assigned if second-adjacent-channel (along with third-adjacent-channel) interference criteria were abandoned, the cumulative impact of such "pockets" of existing service losses should not be underestimated. [3/]

It was by such compromises—seemingly small in each individual instance, but when repeated over and over again, large in the aggregate—that the technical integrity of the AM band was sacrificed. Cumulus urges the Commission not to repeat an earlier mistake. Cumulus is aware that other parties in this proceeding intend to come forward with studies indicating that elimination of third-adjacent-channel and second-adjacent-channel interference protection standards will have a more severe impact than is reflected in the *NPRM*. So the Commission's "worst-case" analysis may not, in fact, be "worst-case." The success of FM broadcasting in this country can be traced in no small part to the fact that its technical integrity has been carefully nurtured and protected since its infancy by the Commission; indeed, FM is the envy of its AM counterpart. FM should not now be sacrificed on the altar of transient political pressure, as was AM, so

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3/ The Commission is entitled to credit for its candor in admitting that the fundamental concept of LPFM/microradio necessitates a softening of interference protection criteria. "Relaxed interference standards for low power FM stations may be the only way to "find" sufficient spectrum in medium and larger markets to create any new viable service of 100 watts or more." *Id.* at 2489.

that some future Commission would write of the FM band, as this Commission has written in the *NPRM* of the AM band, that it is a "poor choice" for a new radio service. *Id.* at 2478.

In-Band On-Channel Digital Technology

The NPRM acknowledges that the Commission's understanding of proposed in-band on-channel ("IBOC") technology for terrestrial digital radio broadcasting is "preliminary." *Id.* at 2491. There is, however, a basis for concern that elimination of third-adjacent-channel, and especially second-adjacent-channel, interference protection criteria may complicate or even preclude deployment of IBOC technology that uses the so-called "outer edges" of an analog station's specified bandwidth to transmit a digital signal. Testing of digital television ("DTV") signals suggests that there is a kind of "cliff effect" to reception, such that a DTV signal of insufficient strength or one that is subject to excessive interference simply fails to be received at all (as opposed to being received in degraded form, as is the case with analog signals that are too weak or that suffer interference). If digital FM signals similarly experience cliff-effect reception, a robust second-adjacent-channel signal emanating from a nearby, full-powered LP1000 station could prevent reception of the IBOC digital transmission of an existing primary analog station.

The Commission, again to its credit, acknowledges an information deficiency here. [4/] Cumulus merely wishes to underscore the importance to the radio broadcasting industry of the conversion from analog transmission to digital transmission. With the advent as early as a year or two from now of satellite digital audio radio service ("DARS"), the terrestrial component of domestic audio broadcasting will be challenged in the near term to match the compact-disc quality of DARS. Digital technology will be the key to enabling terrestrial radio to compete with DARS. Therefore, Cumulus urges the Commission to take no steps now that might impede or delay the deployment of as promising a terrestrial digital system as IBOC. Of course, the Commission should move as quickly as possible to educate itself with respect to the possible harm to IBOC that may result from elimination of second-adjacent-channel and third-adjacent-channel interference criteria. In the meantime, however, the development of IBOC, being critical to the future of the entire industry, must go forward with all deliberate speed as one of the Commission's highest priorities, and without the threat that it could be undermined by the abandonment of adjacent-channel interference protection.

4/ "Clearly, we need to better understand the potential impact of second-adjacent-channel LPFM protection standards on the successful development of an IBOC system." *Id.* at 2491.

Conclusion

The Chairman and other members of the Commission have stated repeatedly and in no uncertain terms that any introduction of low power radio service will not undermine the technical integrity of the FM band, and will not prevent the introduction of a viable terrestrial digital radio service. [5/] Cumulus has relied, and will continue to rely, heavily on those commitments as it continues to implement its mission to enhance radio service and bring greater media competition to mid-sized and smaller markets across the United States.

5/ *See* footnote 2 *supra*. *See also*, Remarks by Chairman Kennard to the National Association of Broadcaster's Radio Convention, Seattle, Washington, October 16, 1998: "We will not undermine the technical integrity of the FM band. Our job is to be the guardian of the spectrum, not to degrade it. And we will not do anything to prevent the conversion to digital;" Speech of Chairman Kennard to the National Association of Broadcasters Convention, Las Vegas, Nevada, April 20, 1999: "I want to be very clear about two things. *One*, this FCC is committed to preserving the technical integrity of FM radio. And *two*, this FCC is committed to a digital future for radio. Low power radio will not change that."

Respectfully submitted,

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