

Because of the very small sample size in each category, *extreme caution* must be exercised in interpretation of the data⁵⁰

The FCC Receiver Study evaluated the performance of 21 receivers: 5 portable, 9 component, and 7 automobile.⁵¹ This sample represents fairly well the relative percentage of portable and automobile receivers in the total FM receiver universe, but it grossly exaggerates the relative percentage of component receivers, and it ignores completely the existence of table/clock radios and personal, Walkman-type radios which together comprise 37% of all FM receivers in use. There is, therefore, a considerable bias towards more expensive receivers that ought to perform well and no data on those least expensive receivers that millions of people own that are likely to perform poorest.

To the extent the data is comparable at all, it shows that the performance of the portable receivers, the least expensive tested, was the worst of the lot. The results for two of the five (40%) are below the second adjacent channel interference protection standard, and the average U/D ratio for these five receivers was 42 dB, which demonstrates that the current standard cannot be reduced or eliminated.

When the results of the four studies are considered together, the only conclusion that can be drawn is that lower priced receivers—the majority of receivers extant—already perform poorly when subjected to second and third adjacent channel interference. Clearly the current interference protection standards cannot be reduced or eliminated without rendering the signals of many stations

⁵⁰ *Id.* at 5 (emphasis added).

⁵¹ The FCC Receiver Study actually categorized the test receivers differently. Its 5 Category II receivers were characterized as “small, moderate-cost receivers with antenna connection.” FCC Receiver Study at 4. For the purposes of the categorization in the text, it is assumed that these Category II receivers were equivalent to the portable, boombox-type receivers tested in the other studies. However, it is possible that some of these receivers may actually be more similar to the component receivers tested in the other studies.

virtually unlistenable. In fact, the NAB and CEMA studies show that, because of inadequate co-channel separation, if *any* LPFM stations are introduced they will necessarily cause new, objectionable interference to existing service.

NCAB and VAB submit that some 400 million receivers will be negatively affected by any implementation of LPFM—some so severely there will be no signal at all. Because the poorest performing, lowest cost receivers are disproportionately owned by the poorest Americans, any implementation of LPFM will, perforce, effectively result in a regressive cost to the poor. Because Americans are already expected to purchase new digital television receivers and, at some point in the future, will be expected to purchase new digital radio receivers, does the Commission really expect them also to purchase new, more expensive analog radio receivers so that may merely continue to enjoy listening to their currently existing favorite stations?

Four hundred million receivers are a lot of radios. Surely the “Rule of Nonreversibility” would mandate that LPFM not be implemented.

4. The Blind and Print-Handicapped Will Lose Radio Reading Services

Elimination of second and third adjacent channel interference protections, rather than increasing spectrum efficiency by adding a vast number of new stations, would actually decrease spectrum efficiency by possibly destroying existing FM subcarrier services. Many broadcasters make their subcarrier channels available for important broadcast-related secondary services such as radio reading services for the blind and print-handicapped.

As NCAB and VAB demonstrated in their opening comments, elimination of second adjacent channel interference protection will devastate this important service as it now operates and offer

nothing in return.⁵² Subcarrier transmissions are at least 13 dB (20 times) more sensitive than even stereo operation is, making the subcarrier transmissions very fragile.⁵³ Even were it possible to tighten the selectivity of the special receivers that tune to the desired subcarrier frequency used by radio reading services, the trade-off would be such a substantial amount of crosstalk that programming on the subchannel would become effectively unlistenable.⁵⁴ Furthermore, were even that obstacle overcome, the necessary, added expense of the receivers would be cost-prohibitive. Subcarrier services, such as radio reading services, simply cannot withstand any further degradation.

As a number of radio reading services and other commenters observed, the public interest will not be served if the conservatively estimated 3 million Americans who are blind or print-handicapped lose existing service because of LPFM stations.⁵⁵ The Detroit Radio Information Service described the effect of LPFM on radio reading services as “analogous to stealing the newspapers from our listeners’ doorsteps, restricting their use of timely consumer information and barring the door to them at public forums.”⁵⁶ The Public Radio Regional Organizations declared that

⁵² See Comments of the NCAB and VAB at 29-34.

⁵³ In addition, subcarrier transmissions suffer from a six to ten times sensitivity loss compared to the main channel because the subcarrier modulates the main carrier at a maximum of 10%. See Jon GrosJean, *Radio Receivers*, in NAB ENGINEERING HANDBOOK 1139, 1145 (8th ed. 1992).

⁵⁴ See Comments of the NCAB and VAB at 31; Supplemental Comments of International Association of Audio Information Services at 9.

⁵⁵ See Supplemental Comments of International Association of Audio Information Services at 9; Comments of Detroit Radio Information Service at 3; Comments of Harrisburg Area Radio Reading Service at 1; Comments of Virginia Voice for the Print Handicapped at 2; Comments of Sun Sounds Radio Reading Service; Comments of the Public Radio Regional Organizations at 10-12; Comments of the NAB at 58; Comments of Hispanic Broadcasting Corporation at 2-3.

⁵⁶ Comments of Detroit Radio Information Service at 3.

“it would be a travesty to deprive the blind and print disabled of an *existing* service, given the illusory benefits of LPFM.”⁵⁷

Is it worth trading off radio reading services for the blind to appease radio pirates? The “Rule of Nonreversibility” would demand that the answer be an emphatic “No!” Stated less starkly, do churches, schools, and community groups really wish to take away existing service from the blind so that they may (perhaps) get their own service? Surely the Civil Rights Organizations, if they thought about it, would readily agree that they do not.

5. Existing Service Provided by Minority Broadcasters Will Be Lost

LPFM cannot but hurt existing minority broadcasters. As Radio One, Inc., the largest minority-owned radio broadcasting company targeting African-Americans, with 21 stations, states: “[C]rowding the FM band even further with the new low power stations will simply threaten existing minority-owned licensees with harmful interference without furthering the Commission’s objectives.”⁵⁸ Not only will existing minority broadcasters lose existing listeners, due to the increased interference caused by LPFM, but this loss of listeners will translate into a loss of advertising revenues or listener contributions, thereby crippling minority broadcasters and their community radio stations economically. In fact, minority-owned stations already face entrenched obstacles in garnering essential advertising support. If minority-owned stations lose large portions of their audience, they will never be able to overcome those obstacles and will necessarily fail as a consequence.

From this vantage point, the Minority Members of the North Carolina Association of

⁵⁷ Comments of the Public Radio Regional Organizations at 12 (emphasis in original).

⁵⁸ Comments of Radio One, Inc. at 2-3.

Broadcasters characterized themselves as at

a loss to understand the Commission's calculus that appears to prize so-called "new" opportunities for minority *would-be* broadcasters over the sweat and equity already invested by *existing* minority broadcasters. The threat LPFM poses to existing minority and women broadcasters is palpable.⁵⁹

Mega Communications, L.L.C., a Spanish language radio operator that directly or indirectly owns 16 stations, observes that, "[t]o the extent that minority voices and smaller broadcasters are concentrated in the AM band, or hold less powerful FM stations, they will be more vulnerable to the economic instability created by new low power broadcast outlets."⁶⁰ Indeed, LPFM will devastate even AM minority broadcasters, for the advertising pie in small markets simply cannot be sliced into any more pieces. As a general matter, the Commission's LPFM proposals either will force small broadcasters off the air or will force them to go to satellite-delivered automatic programming. Either result means a loss of existing locally-produced programming. The proposals will, therefore, actually increase homogeneity instead of foster diversity, as Z-Spanish Media Corporation, the largest Hispanic-controlled licensee, with 34 stations, concluded.⁶¹ The Minority Members of the North Carolina Association of Broadcasters understandably characterized such a result as being anathema to them.⁶²

Inexplicably, many LPFM proponents, and especially those such as the Civil Rights

⁵⁹ Comments of Minority Members of the North Carolina Association of Broadcasters at 2 (emphases in original).

⁶⁰ Comments of Mega Communications, L.L.C. at 11. *See also* Comments of Hispanic Broadcasting Company at 4.

⁶¹ *See* Comments of Z-Spanish Media Corporation at 2.

⁶² *See* Comments of Minority Members of the North Carolina Association of Broadcasters at 3.

Organizations who believe in a Panglossian fashion that LPFM will actually benefit minorities, have perversely inverted the old saying so that “Two birds in the bush is better than one in the hand.” But the “Rule of Nonreversibility” does not permit one—willy-nilly—to reverse such common sense. The actual gains made by minority broadcasters in the last 20 years should not be tossed aside for the uncertain, illusory benefits of LPFM. Does the Commission really want to direct minorities, or *appear* to direct minorities, to what, by definition, will be a second-class service?⁶³ NCAB and VAB submit that the creation of a second-class service in which minority broadcasters may become “ghettoized” is, by itself, too high a price to pay for a superficial increase in diversity, notwithstanding the *additional* cost of LPFM occasioned by the loss of *existing* service already provided by minority broadcasters.

⁶³ See Comments of the NCAB and VAB at 64-66. As Media Access Project, on behalf of the United Church of Christ, Office of Communication, Inc. and others, observed:

Unfortunately, smaller commercial radio stations, such as the proposed LP1000 stations may be less able to attain profitability than larger stations. If this were the case, the new entrepreneurs who purchase these stations, such as people of color and women, may face greater hurdles than full power broadcasters. *Saddling entrants with a less successful service will not promote the goals of diversifying radio ownership* that UCC, *et al.* seeks to promote. Further, because the Commission must auction commercial stations, it may be difficult to ensure that targeted groups receive stations.

In addition, creating a commercial low power radio service that might increase the numbers of station owners who are women and people of color could jeopardize the Commission’s more important efforts to ensure that women and people of color are fully represented among the nation’s full power station owners.

Comments of United Church of Christ, Office of Communication, Inc. *et al.* at 23-24 (emphasis added).

6. Community-Oriented, Small Market Radio May See Its Demise

The enormous costs of LPFM include not only the loss of existing service to millions of individuals, as demonstrated above, but also a tremendous cost to existing broadcasters, especially small market broadcasters, who may be critically harmed by implementation of LPFM. In fulfilling its statutory mandate “to provide a fair, efficient, and equitable distribution of radio service,”⁶⁴ the Commission must consider the economic effects of LPFM. Indeed, in response to the economic disaster that Docket 80-90 turned out to be, the Commission recognized that the radio “industry’s ability to function in the ‘public interest, convenience and necessity’ is *fundamentally premised on its economic viability*.”⁶⁵ While it is well and good for the Commission and its staff to advocate policies that encourage competition, the Commission cannot, at the same time, simply bury its head in the sand and suggest that economic analysis is somehow irrelevant to the resolution of such public policy questions as LPFM. In fact, for the Commission to do so in the instant context would be irresponsible.⁶⁶ The technical rule changes in Docket 80-90 begat new stations, which begat economic losses, which begat LMAs, which begat the industry consolidation of which some Commissioners and others now complain.

The deleterious economic effects that would flow from implementation of the Commission’s

⁶⁴ 47 U.S.C. § 307(b).

⁶⁵ *Revision of Radio Rules and Policies*, Report and Order, FCC 92-97, 70 Rad. Reg. 2d (P & F) 903 (1992), at ¶ 10 (emphasis added).

⁶⁶ Notwithstanding the elimination of the *Carroll* doctrine, analyses of the economic viability of the radio industry and the economic impact of the Commission’s regulatory policies are necessary and integral parts of any public interest determination. See, e.g., *Overview of the Radio Industry*, Memorandum from Chief, Mass Media Bureau to Chairman and Commissioners (Jan. 29, 1992), at 1 (recognizing critical link between the public interest and then-existing economic problems in the radio industry) (attached hereto as Exhibit B).

LPFM proposal have been analyzed by John Haring and Harry Shooshan of Strategic Policy Research.⁶⁷ Their cogent economic analysis shows that the economic effects of LPFM will be felt by *consumers* who will ultimately receive lower quality or less local programming:

The operation of new stations will have adverse economic as well as adverse technical consequences for existing stations and will thus affect the *quality* of the programming undertaken by existing stations, including, relevantly, the amount of *local service* programming produced. This effect is likely to be particularly pronounced in small markets where opportunities for economizing through consolidation are limited. Thus, even consumers whose ability to receive existing stations is only modestly impaired by signal interference will, nevertheless, suffer adverse consequences as a result of declines in the quality of programming they are still able to receive.⁶⁸

* * *

Declines in anticipated audience size will reduce the magnitude of program investments that can be economically rationalized and thus the quality of the programming supplied. This would be true regardless of whether audience losses stemmed from interference or diversion or, as seems likely, both. *Far from presenting greater local service, the likely effect of the Commission's proposal will be to undermine the economic ability of existing full-service stations to meet the needs of local audiences.*⁶⁹

* * *

Any increase in the number of competing stations will necessarily compel additional efforts to economize on programming costs as audiences are further divided. Lacking adequate alternatives, communities will inevitably suffer some degradation in the local

⁶⁷ See John Haring and Harry M. Shooshan III, *LPFM: The Threat to Consumer Welfare*, appearing in Comments of the NAB, Attachment C (hereinafter "LPFM Economic Study").

⁶⁸ *Id.* at 4 (emphasis in original).

⁶⁹ *Id.* at 8 (emphasis added).

community services they currently receive to the detriment of the local community's ability to thrive and cohere as a special place.⁷⁰

These conclusions are echoed by numerous other commenters. For example, as Greater Media, Inc. observes, because there are only so many advertising dollars to go around, ultimately the addition of numerous LPFM stations to a market will require existing broadcasters to “cut back news, public affairs and local programming and other activities which are the key to ‘localism.’”⁷¹ Too many stations coupled with too little revenue will translate into “fewer employees, additional out-of-market syndicated programming and less localism.”⁷² This same concern is expressed by the New Mexico Broadcasters Association which further points out that AM stations will be as affected by the economic ramifications of LPFM as will be existing FM stations and that a perverse effect of LPFM will be to “force already-struggling full-power stations in smaller markets to sell out to group owners or even go off the air, both of which would diminish ownership diversity.”⁷³ Mega Communications fears that the proliferation of LPFM stations, like Docket 80-90 stations but worse, will increase only opportunities to go broke.⁷⁴

In short, the *economic* effects of LPFM will be twofold, for both consumers and broadcasters

⁷⁰ *Id.* at 11.

⁷¹ Comments of Greater Media, Inc. at 14-15.

⁷² *Id.* at 15.

⁷³ Comments of the New Mexico Broadcasters Association at 9. *See also* Comments of Bott Broadcasting Company *et al.* at 9-10; Comments of Mega Communications, L.L.C. at 11 (“To the extent that minority voices and smaller broadcasters are concentrated in the AM band, or hold less powerful FM stations, they will be more vulnerable to the economic instability created by new low power broadcast outlets.”)

⁷⁴ *See* Comments of Mega Communications, L.L.C. at 7 (quoting Remarks of Commissioner James H. Quello, National Association of Broadcasters Convention (Apr. 19, 1993)). *See also* Comments of the National Association of Media Brokers at 2-3.

will be harmed by implementation of the Commission's LPFM proposals. Obviously, the legitimate expectations of broadcasters, especially small market broadcasters, who have invested, in good faith, considerable money, time, and effort to serve their local communities with community-oriented programming will be upset. The "Rule of Nonreversibility" would mandate that LPFM not be implemented.

7. A Decade of Research and Investment in IBOC Digital Radio Will Be Put at Risk

The Commission is well aware of the extensive research that has been conducted and the substantial investment that has been made in developing IBOC DAB so that radio may make the transition to digital broadcasting without the need for additional spectrum. Two of the three principal developers of IBOC DAB have filed comments in this proceeding, and, while neither has an ax to grind with respect to the ultimate social merits of the Commission's LPFM proposals, both agree that the LPFM proposals are premature and need to await the promulgation of IBOC DAB standards from the Commission.

Both developers have made their investments and engineered their systems under the settled expectations of the current interference environment. USA Digital Radio, Inc. ("USADR") states that its "system has been engineered based on the interference environment currently existing in the AM and FM bands and seeks to maximize the benefits that can be achieved with the limitations imposed by existing analog broadcasting in these bands."⁷⁵ Lucent Digital Radio ("Lucent") states that its "digital IBOC system relies on the existing basic protections against signal interference."⁷⁶

⁷⁵ Comments of USADR at 2.

⁷⁶ Comments of Lucent Technologies Inc. at 5.

Both also urge the Commission not to adopt LPFM until more information about IBOC DAB has become available. USADR implores the Commission to

wait until it has detailed information about the performance of IBOC DAB in field tests and the final design of the IBOC DAB system before it makes any changes in the FM interference environment. Adopting final LPFM rules before that information is available would be premature and an inefficient allocation of Commission resources.⁷⁷

This entreaty not “to put the LPFM cart before the IBOC DAB horse”⁷⁸ has been sounded by numerous other commenters.⁷⁹

Significantly, both USADR and Lucent make it clear that elimination of third and second adjacent channel interference protection standards could jeopardize the implementation of IBOC DAB. Lucent’s analysis causes it “to be pessimistic about the effects of permitting low power FM stations on adjacent channels.”⁸⁰ In particular, elimination of these interference protection standards “either will constrain the technical capability of an IBOC system to replicate each station’s analog service area with a digital audio signal during a transition period, or the digital signal will cause

⁷⁷ Comments of USADR at 4-5; *see also* Comments of Lucent at 11 (stating that “consumers will best be served by having assured access to digital audio and associated new data services in the FM band”).

⁷⁸ Comments of the NCAB and VAB at 5.

⁷⁹ *See, e.g.*, Comments of Radio One, Inc. at 6; Comments of Hispanic Broadcasting Company at 3; Comments of the State of Oregon at 17; Comments of National Public Radio, Inc. at 21-23; Comments of the Public Radio Regional Organizations at 13-14; Comments of the NAB at 47; Comments of the New Mexico Broadcasters Association at 37-38; Joint Comments of the Named State Broadcasters Associations at 8-9; Comments of Clear Channel Communications, Inc. at 16-24; Comments of Greater Media, Inc. at 11-13; Comments of Bonneville International Corporation at 5-7; Comments of Cox Radio, Inc. at 17-18; Comments of Educational Information Corporation at 5; Comments of Bott Broadcasting Company *et al.* at 32-33.

⁸⁰ Comments of Lucent at 5.

interference to the analog LPFM signal in a portion of that station's service area."⁸¹ Thus, Lucent concludes that "it will be difficult for additional low power analog and new digital IBOC signals to co-exist and serve their intended service areas."⁸²

USADR's studies on the possible elimination of second adjacent channel interference protection show that "new and more significant instances of interference for DAB" will result.⁸³ USADR states flat out that "the digital signal will be harmed by the LPFM signal" in these circumstances.⁸⁴ USADR's analysis also demonstrates that the Swiss-cheese effect of dropping in as many as 14 LPFM stations outside a Class B station's protected contour but still within its secondary service area, or as many as 16 LPFM stations within a Class B station's 44 dBu contour if second adjacent channel interference protection is eliminated and LPFM stations are located within an existing station's protected contour, exacerbates the interference problems because of the pronounced signal-to-noise or signal-to-interference threshold in digital systems.⁸⁵ Unquestionably there would be a substantial loss of digital service.

NCAB and VAB cannot see the benefits of potentially jeopardizing the IBOC conversion to digital radio by needlessly rushing to create new LPFM services for which the possibly debilitating effects on full-service radio broadcasting remain unknown. Indeed, the potential cost of this heedless rush in terms of the development and timely implementation of IBOC DAB is enormous.

⁸¹ *Id.*

⁸² *Id.* at i, 10.

⁸³ Comments of USADR at 6.

⁸⁴ *Id.*

⁸⁵ *See id.* at 7; *id.*, Engineering Statement of Moffet, Larson & Johnson, Inc. at 5 and Figures 2 & 3.

The “Rule of Nonreversibility” would mandate that LPFM not be implemented, least of all prematurely.

8. The Commission Will Face Tremendous Budgetary, Staffing, and Administrative Difficulties, and It Will Be Impossible to Police LPFM Efficiently or Effectively

One LPFM proponent, REC Networks, has calculated that, were the Commission’s LPFM proposals to be implemented and tweaked somewhat, 23,826 LPFM stations would be available nationwide!⁸⁶ Nearly 24,000 new licensed LPFM facilities. Let that figure sink in. By this “calculation,” the Commission’s foray into LPFM could result in a more than 200% increase in the number of licensed FM stations (excluding boosters and translators).

Notwithstanding the host of attendant costs to the public in implementing any LPFM service, does the Commission seriously believe that it currently possesses the budgetary, staffing, and administrative resources to implement LPFM, manage the spectrum, and enforce its regulations under these circumstances? Even if the number of potential LPFM stations is only a tenth of REC Networks’ estimate, the Commission will be faced with an administrative nightmare that dwarfs the difficulties it experienced with Docket 80-90 and probably LPTV as well. These direct costs to the Commission must be considered, especially since they will indirectly affect full power broadcasters and the listening public.⁸⁷

⁸⁶ See “Errata” of REC Networks (dated July 22, 1999), at Appendix A, Corrected Washington State and Nationwide LPFM Availability Statistics.

⁸⁷ See Joint Comments of the Named State Broadcasters Associations at 17 (stating that the “staggering number of new stations would completely overwhelm the Commission’s current licensing process. The resulting burden on the Commission’s resources would prove detrimental to the efficient administration of existing broadcast licenses, and thus detrimental to the public as a whole.”).

Numerous commenters expressed their astonishment at the *Notice* utterly failing to appreciate the administrative and enforcement difficulties that LPFM will necessarily cause the Commission.⁸⁸ Essentially in one long breath the Commission first notes the 37,000 LPTV application backlog it experienced in the early 1980s and the painfully slow build-out process for that service,⁸⁹ then acknowledges that “[w]ithout electronic filing, the Commission lacks the resources to promptly accomplish the necessary data entry for hundreds or thousands of LPFM (and, possibly, microradio) applications,”⁹⁰ and finally hopes—in the best manner of Don Quixote, Dr. Pangloss, and Mr. Micawber—that “[w]e may be able to develop [an electronic filing] system whereby the application[s] could . . . be analyzed”⁹¹ Of course, this electronic filing system does not yet exist, and, with no successful precedent to the contrary, it is doubtful that such a hoped-for system would, in fact, be able to withstand the expected avalanche of LPFM applications. Moreover, the Commission’s experience in making just the comments filed in this proceeding available on its Electronic Comment Filing System has not been favorable.⁹² Finally, many LPFM proponents

⁸⁸ See, e.g., Comments of the NAB at 64-69; Comments of the Public Radio Regional Organizations at 25-28; Comments of Radio One, Inc. at 10-11; Comments of the New Mexico Broadcasters Association at 15-20; Comments of The Walt Disney Company at 6-7; Comments of Bonneville International Corporation at 10-11; Joint Comments of the Named State Broadcasters Associations at 16-20.

⁸⁹ See *Notice* at ¶ 93.

⁹⁰ *Id.* at ¶ 94.

⁹¹ *Id.* at ¶ 95 (emphasis added).

⁹² See, e.g., Comment of the NAB in Support of Petition for Extension of Reply Comment Deadline (filed Aug. 13, 1999) (noting difficulties in the Commission being able to timely place filed comments on its Electronic Comment Filing System, including complaints by LPFM proponents).

object to a wholly electronic filing system, some because of their fear that the system will fail.⁹³

With only 16 field offices nationwide, it will be virtually impossible to efficiently or effectively inspect thousands of new LPFM stations (in addition to the thousands of existing full power stations) and to investigate complaints. The difficulties of these tasks are magnified by the fact that most LPFM operators will be broadcasting neophytes with little or no experience in dealing with the Commission's regulations and requirements. And these difficulties are further compounded by the fact that legal and engineering counsel to help assure compliance costs money, and most LPFM broadcasters are unlikely to have the money necessary to retain experienced counsel. In these circumstances, as the NAB points out, "[t]here is a high risk of unauthorized changes in power, service rule violations or other violations regarding LPFM stations with little or no guarantee that the Commission's resources will be able to handle the increase in activity."⁹⁴

How will the Commission police out-of-band emissions or excessive power or the use of non-certified transmission equipment? There is a huge difference between policing LPFM stations, with the administrative protections afforded licensed broadcasters, and shutting down illegal pirates. Apparently few special Engineering Measurement Unit ("EMU") vehicles exist or are utilized.⁹⁵ The Walt Disney Company is rightly concerned that, if an LPFM station is actually inspected,

how will an inspector know what the actual ERP of the station is? It is easy to tell the difference between a 10,000 watt and a 20,000 watt transmitter. It is not so easy to determine the ERP of a 100 watt

⁹³ See, e.g., Comments of United Church of Christ, Office of Communication, Inc. *et al.* at 31-33; Comments of Claudio Lisman at 25.

⁹⁴ Comments of the NAB at 65.

⁹⁵ See *id.* at 66 (citing Dane E. Ericksen, *Thoughts on LPFM*, THE SIGNAL (May/June 1999), at 8).

transmitter with a 1000 watt linear amplifier hidden in the attic.⁹⁶

In addition, because antenna gain can easily be hidden, The Walt Disney Company believes that there would need to be a type certification for antennas.⁹⁷ But, as with type-certified transmitters, the mere requirement of allowing only the use of certified equipment will not guarantee that LPFM broadcasters would actually comply with the requirement, especially since the risk of being caught will be so low.

A critical factor in the cost of LPFM to the Commission is the continuous, ongoing nature of the Commission's necessary oversight. As the Named State Broadcasters Associations accurately observe:

[O]nce the [LPFM] station licenses are actually awarded, the Commission will face an additional onslaught of filings requiring constant attention. Facility modifications, requests for Special Temporary Authority, changes in ownership, regulatory fees, etc.[—]the needs attendant to a new broadcast service are endless. Similarly, the broadcast rules regarding political advertisements, obscene and indecent programming, lottery advertising, operating hours, Emergency Alert System (EAS), etc., will have to be established and enforced for low power. The authorization of a new broadcast service will place numerous, on-going demands on Commission resources, the vast majority of which cannot be alleviated by an as-yet-undeveloped computer system.⁹⁸

NCAB and VAB are aware of no congressional appropriation to meet the increased budgetary, staffing, and administrative burdens that the Commission will necessarily face. Not only is it unlikely that regulatory fees alone could pay for all these costs of Commission administration, but it would be the height of inequity to raise the regulatory fees that existing full power broadcasters

⁹⁶ Comments of The Walt Disney Company at 7.

⁹⁷ *See id.*

⁹⁸ Joint Comments of the Named State Broadcasters Associations at 19.

pay in order to administer an LPFM service that will affirmatively interfere with existing radio service, thereby harming both the listening public and full power broadcasters.

From the Commission's own perspective, it should be clear that the "Rule of Nonreversibility" would mandate that LPFM not be implemented.

9. Pirates Will Flourish

LPFM is the perfect camouflage for pirates. In an environment in which it will be impossible to police thousands of new, inexperienced LPFM broadcasters with the Commission's limited resources, it will be easy for the unlicensed pirate to hide. In fact, one commenter mordantly observed that LPFM already exists—as "local pirate FM."⁹⁹

As NCAB and VAB stated in their opening comments:

LPFM will not be a panacea for the pirate problem. Throwing a bone to these dogs will only get the feeder's hand bitten. Pirates, by definition, operate illegally and have no respect for the rule of law. The pirate underground is well-organized, with numerous websites devoted to offering primers on how to become a radio pirate as well as advocating the abolishment of the Commission altogether.

. . . [I]t is far from clear that pirates even want a broadcasting license. Why should a pirate consent to be bound to a fixed frequency and required to comply with government-promulgated rules and regulations when the pirate rejects the Commission's authority to regulate the airwaves in the first place? [. . .] NCAB and VAB foresee radio anarchists thriving as a consequence of LPFM.¹⁰⁰

Numerous other commenters agreed.¹⁰¹ NAB stated that many pirates would not

⁹⁹ Comments of Educational Information Corporation at 3.

¹⁰⁰ Comments of the NCAB and VAB at 66-67 (footnote omitted).

¹⁰¹ See, e.g., Comments of the Association of Federal Communications Consulting Engineers at 16 ("Legal LPFM stations may actually increase the burden on the FCC by inspiring people who are unable to obtain a license to take to the airwaves. The attitude for some will be, 'If those people
(continued...)

consider even applying for a license at any time. Part of the thrill of being a “pirate” is the fact that it is illegal to operate without a license. . . . [In addition, t]he Commission may be faced with a huge backlash from individuals who may not be satisfied with the ultimate outcome of this proceeding.¹⁰²

The New Mexico Broadcasters Association documents the “no retreat/no surrender” policy of radio pirates such as Stephen Paul Dunifer. It fears both that LPFM will “serve as a veil of legitimacy for unlawful broadcast operations”¹⁰³ and that “establishing a new LPFM service would result in a substantial increase in the number of pirate broadcasters.”¹⁰⁴ It concludes, from the unequivocal evidence, that

pirate broadcasters have no intention of complying with the FCC’s regulatory authority, regardless of whether the FCC elects to establish an LPFM service. In light of the substantial number of LPFM stations that could be authorized as a result of this proceeding, the LPFM stations would effectively camouflage pirate broadcasters, making it much more difficult to detect unauthorized broadcast operations.¹⁰⁵

¹⁰¹(...continued)

across town can have an FM station, why can’t I have a station?’ As a result, the FCC Field Offices will have to spend time not only inspecting the legal LPFM stations to ensure that they are operating within the scope of their licenses, but also may have even more pirate stations to investigate.”); Comments of Bonneville International Corporation at 11 (stating that LPFM will “exacerbate rather than resolve the pirate radio problem. Pirate radio operators will continue to exist while the FCC is enforcing rules applicable to a new regime of LPFM stations. Because pirate radio operators and LPFM stations will be broadcasting at the same time, the FCC will have greater difficulties identifying the illegal operators.”); Comments of the NAB at 67-68; Comments of the New Mexico Broadcasters Association at 15-20; Comments of Radio One, Inc. at 10-11; Comments of Bott Broadcasting Company *et al.* at 11-17.

¹⁰² Comments of the NAB at 68.

¹⁰³ Comments of the New Mexico Broadcasters Association at 15.

¹⁰⁴ *Id.* at 20.

¹⁰⁵ *Id.* See also Comments of Bott Broadcasting Company *et al.* at 16.

FM broadcasting cannot withstand the onslaught of hundreds of pirate stations, whose chances of successfully evading Commission enforcement action will exponentially increase,¹⁰⁶ camouflaged amidst the introduction of thousands of new LPFM stations, many operating outside technical compliance parameters and perhaps without regard to current second and third adjacent channel interference protections. The costs to spectrum integrity and the ability of existing consumers to receive a listenable signal are simply too high. As is by now self-evident, the “Rule of Nonreversibility” would mandate that LPFM not be implemented.

II. The Purported “Benefits” of LPFM Are Amorphous and Indeterminable

While the costs of LPFM are manifest, the benefits are not. NCAB and VAB have identified four so-called “benefits” advanced by LPFM proponents. Even a cursory examination of these “benefits” shows they are illusory.

Obviously, the most significant purported “benefit” of LPFM is that it would bring new “voices” to the airwaves. But these “voices” are quite unquantified and indeterminate. As NCAB and VAB noted in their opening comments, the 13,000 LPFM inquiries figure the Commission cited in the *Notice* cannot stand as the proxy for these “voices,” and to suppose it to be so is intellectually

¹⁰⁶ The Commission has virtually conceded that with its limited resources it will be unable to police the pirate problem if its LPFM proposal is implemented—why else would the Commission recommend to Congress that broadcasters be granted a statutory “private right of action to seek injunctions against ‘pirate’ broadcasters, persons broadcasting without an FCC license within 100 miles of the licensee’s city of license”? *A New FCC for the 21st Century. Draft Strategic Plan* (Aug. 1999), at Appendix D, ¶ 11, <http://www.fcc.gov/21st_century/draft_strategic_plan.pdf>. The Commission’s legislative proposal, purportedly to “facilitate enforcement of any eventual low power FM rules and regulations,” *id.*, is really a not-so-subtle attempt to remove the burden of enforcement from the Commission’s own shoulders, where it properly belongs with the statutory steward of the public airwaves, and shift it onto private industry.

dishonest.¹⁰⁷

Nonetheless, any new radio station does necessarily represent another unique voice on the airwaves. Therefore, the Civil Rights Organizations frame the issue thus:

The almost *de minimis* reallocation of spectrum from incumbents to newcomers contemplated by the *NPRM* would be a very small price to pay to bring hundreds or thousands of new voices onto the airwaves. “Interference” is a relative concept, and interference standards are inherently arbitrary. Thus, the claim that LPFM would cause some interference is obviously true but misses the point. For example, is a 1% loss in audience by incumbents worth it to the public if, in return, we get a 50% increase in the number of voices nationwide yielding an average 10% increase in the number of listenable signals? These numbers may be off, but this is the question the *NPRM* has asked. It is the right question.¹⁰⁸

Actually, the numbers are way off and it is the wrong question. Applying the Civil Rights Organizations’ own “Rule of Nonreversibility,” a better question—and the question the Commission must answer—would be the following:

Should the Commission avoid instituting a new LPFM service because of the investments of money, time, and effort made, in good faith, by existing broadcasters and consumers (i) where each existing station will lose thousands of existing listeners outside its protected contour, on the order of one third of its listening audience in its secondary service area (conservatively estimated at *35 million*, aggregated nationwide); (ii) where more than *\$600 million* of taxpayer investments in public radio infrastructure could be jeopardized; (iii) where *400 million* existing receivers will experience new, objectionable interference; (iv) where at least *3 million* blind and print-handicapped individuals will lose radio reading services; and (v) where the future of digital radio may be compromised, if, in exchange, LPFM actually does bring some *indeterminate* increase in the number of “voices” nationwide, but, despite the increase in the absolute number of “voices,” the average number of listenable signals any given listener receives potentially *decreases*?

¹⁰⁷ See *Notice* at ¶ 11; Comments of the NCAB and VAB at 44 n.85.

¹⁰⁸ Comments of Civil Rights Organizations at 6.

To even ask this question is to demonstrate the absurdity of the LPFM proposal. This is the question the Commission *ought* to have asked *before* it issued the *Notice*. As laudable as is the idea, in the abstract, of bringing new voices to the airwaves, the idea founders in the real world. The Commission's role as steward of the public's airwaves should permit it to give but one answer to the question of new LPFM voices: The integrity of the FM spectrum simply cannot be compromised to accommodate LPFM.

With regard to other benefits of LPFM, the Amherst Alliance suggests, earnestly, that LPFM can help solve the problems of poverty and crime—although, it concedes, not “singlehandedly”—because LPFM “WILL open a path to upward mobility, and ultimately a decent standard of living, for SOME—WITHOUT requiring them to spend 4 years in college or earn a graduate degree.”¹⁰⁹ No doubt, LPFM can also help with the endemic problems of pollution, world hunger, and warts. In this “politically correct” world, it is awfully hard to be against ameliorating crime and poverty, but, of course, all broadcasters are “corporate vultures,” or so the National Lawyers Guild asserts.¹¹⁰ Obviously, any causal link between the “benefits” of LPFM and reductions in crime and poverty is so tenuous and pie-in-the-sky as to make Don Quixote look like General MacArthur.

One real benefit of LPFM will be to promote the sales of expensive radios. As demonstrated above, hundreds of millions of lower priced receivers will not perform adequately in the increased

¹⁰⁹ Additional Comments of the Amherst Alliance (dated May 28, 1999), at 9 (emphases as in original).

¹¹⁰ Comments of the NLG at “Amnesty for Microradio Pioneers.”

interference environment caused by LPFM.¹¹¹ Indeed, the National Lawyers Guild advances this as an actual benefit:

If anything, creation of an LPFM service will provide an incentive for radio receiver manufacturers to *improve* the quality of lower-end radios. Such a side-effect would be beneficial to all. The NAB and other broadcasters have expressed a deep concern over the “interference environment.” Certainly a resulting increase in the quality of radio receivers can only benefit all parties involved.¹¹²

Evidently, the NLG is not concerned with the regressive nature of the cost of purchasing new, more expensive analog radio receivers on the poor, who are also expected to buy new digital television and new digital radio receivers. Still, the economic activity generated by the purchase of new, more expensive receivers must be counted as an actual benefit, to be weighed against the costs.

Finally, the last purported benefit of LPFM is that it would create jobs. NCAB and VAB do not foresee a net increase in radio industry jobs flowing from LPFM. First, by their nature, most LPFM stations would be staffed by volunteers. However, undoubtedly some LPFM stations would actually create real jobs,¹¹³ at least initially—that is, until they found that their coverage area is insufficient to support an advertising base. More importantly, as a consequence of service losses, existing full-service broadcasters would be forced to cut back on staff or, worse, go off the air altogether, resulting in a loss of broadcast industry jobs. On the whole, a greater number of jobs in the broadcast industry are likely to be lost as a result of LPFM than gained.

LPFM might stimulate job growth in other sectors, however. Thousands of new LPFM

¹¹¹ See part I.3, *supra*.

¹¹² Comments of the NLG at part XII.B.3.d (emphasis in original).

¹¹³ In fact, this why some LPFM proponents argue that LPFM cannot be a noncommercial service, for how else are they to pay “a decent salary for themselves and their staff”? Additional Comments of the Amherst Alliance (dated May 28, 1999), at 12.

stations should increase the demand for legal and engineering services, thereby fostering job opportunities for lawyers and broadcast engineers. The need for radio receiver manufacturers to design, build, market, and sell new, more expensive receivers that can perform satisfactorily in the increased interference environment as replacements for the 400 million units that will not perform adequately should stimulate job growth in that (principally foreign) manufacturing sector, and perhaps in domestic marketing and sales as well. Furthermore, implementation of LPFM will create a *demand* for new jobs at the FCC in order to handle the increased administrative and enforcement burdens that LPFM will generate.¹¹⁴ Whether Congress will appropriate money to create actual positions to satisfy that demand remains to be seen.

In short, the purported “benefits” of LPFM amount to these:

- ▶ An unquantified and indeterminate number of new “voices.”
- ▶ Pie-in-the-sky optimism for relieving entrenched societal problems.
- ▶ An increase in consumer spending to buy new, more expensive radio receivers to replace those made unlistenable by the introduction of LPFM.
- ▶ The creation of jobs for lawyers, engineers, factory workers in China, advertisers, salesmen, and FCC staffers.

Considering just the benefits of LPFM ought to be enough to convince any rational decisionmaker that the notion of creating a new low power FM broadcast service should be abandoned.

¹¹⁴ See part I.8, *supra*.

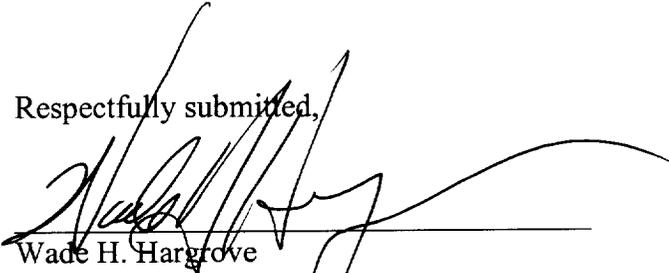
Conclusion

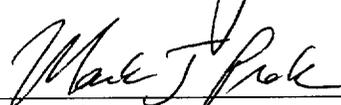
Low power FM is bad engineering policy and bad social policy. The cost/benefit analysis set forth above proves this conclusion. As laudable as is the idea, in the abstract, of bringing new LPFM voices to the airwaves, the idea necessarily founders in the real world where decades of previous decisions, and investments made to effectuate the purposes and goals underlying those decisions—investments made by the Commission, by federal and state governments, by full-service broadcasters, and by consumers—have already determined the nature of broadcasting reality. As a consequence of the laws of physics, the march of history, and the reality created by the intersection of these two, LPFM is not in the public interest. In fact, implementation of the Commission's LPFM proposals will affirmatively *harm* the public interest. The stark reality of the FM spectrum simply provides no room for LPFM.

For all of the above reasons, as well as those expressed in their opening comments, NCAB and VAB respectfully request that the Commission terminate this proceeding.

Respectfully submitted,

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