

**Before the
Federal Communications Commission
Washington, DC 20554**

In the matter of) **MM Docket 99-25**
Creation of a Low Power Radio Service)

Comments of Harold Hallikainen

1. These comments are filed in response to the NPRM in this proceeding. The comments raised several interesting issues. I believe they can be categorized as follows:

- [Need for service.](#)
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Need For Service

2 I agree with the ideas presented in paragraph 12 of the NPRM. The current consolidation of broadcast ownership has reduced the number of voices (though, as NAB points out, not necessarily the number of music formats [NPRM paragraph 9]) in many communities. A Low Power FM service could

increase the number of voices. While many interests are indeed shared among the residents of a large geographic area, there are many political subdivisions whose areas are substantially less than the area covered by the current minimum coverage areas of broadcast stations. The "excess circulation" of existing broadcast stations makes it inefficient for them to cover very local issues. A station that covers an entire county is unlikely to carry the city council meetings of cities within that county. A station whose coverage more closely matches the political boundaries is more likely to serve the distinct needs of that community. For example, the full-power broadcast station licensed to Grover Beach, California covers the most of San Luis Obispo county and the northern portion of Santa Barbara county. Residents of this larger area would not have use for the broadcast of the Grover Beach city council meetings. The residents of Grover Beach itself, however, would find such broadcasts useful. An unlicensed broadcast station in Grover Beach was providing this service. A similar LPFM station could continue to meet these very local needs while not having the "wasted coverage" of a full power station.

3. While text based internet web sites are valuable methods for the public to receive public information (especially public documents such as meeting agendas, minutes, etc.), text is often not the appropriate medium for discussion of issues. A live broadcast of a meeting brings much to the discussion. Further, a live *radio* broadcast (as opposed to television, whether CATV or over the air) is a very low cost method of providing public information. Again, using the city council example, the Morro Bay (California) city council meetings are broadcast on CATV. Besides the extensive equipment involved, there is a staff of at least three at the meeting (two camera operators and a switcher). A radio broadcast of such a meeting can be done with *no* on-site staff. Instead, an audio feed from the meeting public address system can be sent to the station. The economic advantages of radio, as compared to television, are tremendous. The loss of "talking heads" of the meeting is well worth the cost.

4. Internet webcasting (especially streaming audio) is a very valuable service. However, it appears most suited to small audiences spread over a wide area (such as those audiences served by the Commission's own webcast of its meetings). Serving larger audiences places greater demands and costs on the server. Typical internet users must also tie up a telephone line during the time they are listening to the audio webcast (though CATV modem and DSL services will reduce this requirement in the future). People typically have radios throughout the home, allowing listening from any room. Most people do not have their computer audio distributed throughout the home. Finally, for a point to multipoint audio service covering a very local area, use of low power FM broadcast appears to be the most economical method of distributing the programming. Transmitters are likely to cost less than web servers. Receivers cost less than computers. No phone lines are required for either the transmitter or receiver while they *are* required for the server and client computers.

5. A low power FM service will increase the number of voices, adding diversity to the political discourse. A low power FM service is the most economical method of reaching a local audience. A low power FM service avoids the "excess coverage" of full power stations carrying extremely local programming.

Spectrum Considerations

6. It is indeed unfortunate that the Commission does not intend to create a low power radio service beyond that currently allotted to FM broadcast. It is interesting to compare use of the electromagnetic spectrum to land use. If we assume that the spectrum is a public resource, it can be compared to publicly owned property. Some people may gain exclusive use to portions of the public property by leasing that portion from the people, through their government. However, other portions of the public property are available to the public on a non-exclusive basis. One such example is a public park. Getting back to the electromagnetic spectrum, we might consider licensed broadcasters as leasing that portion of the

spectrum for their exclusive use. We could also set aside a "public park" portion of the spectrum for broadcasting that would be on a license-free basis. It does not appear possible to do this in the existing FM broadcast band. However, the Commission is in the midst of a massive spectrum shuffle in the transition to digital television. I would propose that as part of this spectrum shuffle, the existing TV channel 6 be cleared nationwide. This spectrum would then be available for license-free broadcasting (using FCC certified equipment) on a nonexclusive basis. Such a license-free service would be permissible under the Communications Act as a "Citizens' Radio Service." This license-free service would also serve to satisfy the demand for "event" or temporary broadcast stations. This spectrum would be the "public park" of the airwaves.

7. Since the DTV transition still has several years until completion, it would be quite possible to have radios that cover the "new" band available by then. Further, this frequency band is used for FM broadcasting in other countries, so the radios already exist. It would be merely a matter of making them available in this country. Finally, many existing FM radios already tune to the top portion of television channel 6, so stations operating in that spectrum range could have listeners with existing radios.

8. Thus, I propose the Commission establish a license-free "Citizens' Radio Broadcast Service" on the spectrum currently used by television channel 6. Equipment to transmit on this band could be sold once the DTV transition is complete.

9. I agree with the Commission's assertion in paragraph 17 that a low power broadcast service should not be established on the AM band. The propagation characteristics of that frequency band make it less suitable than the FM band for a local service.

Noncommercial Service

10. I do not believe a licensed or unlicensed (as proposed above) low power FM broadcast service should be restricted to noncommercial. There is a need for both types of services. Since there *is* greater revenue production capability with a commercial operation, such operations may force all the noncommercial stations off the air through acquiring their channels unless certain channels are reserved as noncommercial. The Commission has a well established system to balance the number of commercial and noncommercial stations, protecting the noncommercial stations from losing their spectrum to commercial stations with more funding. This is simply done by reserving some of the channels for noncommercial use. I believe this system has worked well. Thus, licensed LPFM stations operating on one of the existing noncommercial channels should be noncommercial. Stations operating on one of the commercial channels should be allowed to operate as commercial stations. Stations operating in the above proposed license-free broadcast band should be free of content restrictions, allowing them to operate commercial or noncommercial, as the operator chooses.

Use of Auxiliary Broadcast Frequencies

11. Licensed LPFM stations should be able to use auxiliary broadcast frequencies on the same basis as higher power stations.

Spectrum Priority

12. There is concern that a licensed LPFM station could prevent a full-power FM station from improving its facilities, since the improvement of the full-power station would cause interference to the LPFM. One solution to this problem is to put LPFM stations in a "secondary status" where they would have to adjust their operation (including going off the air) to allow for changes at full power stations. Unless there were some mass channel shuffle (like that of the DTV transition), it appears that a limited number of these situations would occur. When such a situation occurs currently, the Commission allows

one station to buy out another or to pay that station to change its operation such that the first station can improve its facilities. It would appear that the same approach could work with LPFM stations. Thus, I would grant LPFM stations "primary" status and allow them to negotiate with other stations to modify their operations as required.

LPFM Power and HAAT

13. The Commission has proposed several classes of LPFM stations. The highest proposed class (LP1000) would provide a protected contour radius of about half that of the existing class A station. Further, very few of these stations could be licensed in many areas due to the required distances to co- and adjacent-channel stations. It appears to me that the public would be better served by a class of stations similar to the old class D NCE station. Many more of these stations would "fit." These stations would be much less expensive to build and operate. They would serve the truly local needs of a community. The LP1000 and LP100 class stations appear to be "more of the same" in that they are not that much different from a class A station.

14. An approach to establishing an LPFM service that (surprisingly) was apparently not considered by the Commission is the approach that was used to establish the Low Power TV service several years ago. That service was established very simply by merely authorizing local origination on television translator stations. A similar approach could be used here. Licensees of FM translator stations could choose whether to continue to import programming or to provide local programming. Existing power, HAAT and interference criteria for translator stations would remain unchanged. As mentioned above, I would suggest that these stations be given primary status. Further, I would suggest modification of the rather vague interference requirement of [74.1203\(a\)\(3\)](#), which provides interference protection far beyond the protected contour of stations. This section should be modified to use predicted interference and protection contours, just as used for all other broadcast services.

Transmitter Certification

15. Due to the complexity of the test procedures involved to insure that operation of transmitters does not create interference for other users of the spectrum, all transmitters for use in the broadcast band should be subject to some sort of FCC authorization, such as certification by the manufacturer that the equipment meets FCC requirements.

Adjacent Channel Restrictions

16. At this writing, I believe insufficient evidence exists to relax the existing adjacent channel interference protection requirements. I believe other commenters are submitting test results demonstrating receiver performance under relaxed adjacent channel considerations. Should the Commission find that adjacent channel restrictions can be relaxed, it would appear appropriate to consider these relaxed restrictions in the allocation of *both* full power *and* low power stations. Further, as pointed out in the NPRM, the Commission has before it a proposal to establish a digital audio broadcast service that would use the adjacent channels of existing FM broadcast stations. This issue should be resolved before there is any relaxation of adjacent channel requirements. However, spectrum should not be reserved for a possible digital audio service for ever. Instead, once such a service is authorized, the Commission should set a transition deadline (perhaps 10 years). If, after that deadline, a major portion of the radio receivers being sold are not capable of receiving the new digital signal (or the majority of stations are not transmitting it), the spectrum should be "reclaimed" for other possible uses (including relaxed adjacent channel requirements for full power and low power FM broadcast stations).

Ownership and Eligibility

17. In order to increase the diversity of voices and limit speculation by multi-station licensees, I propose

that an LPFM licensee be authorized to have a total attributable interest in one broadcast station. That attributable interest may be 100% of an LPFM, 10% of a full-power station and 90% of an LPFM, or whatever combination the licensee may find appropriate. This would be a national limit. I see no need to limit the residency of the licensee. A licensee is most likely to live where the station is located since it is not permitted to own other stations. Further restrictions on residency complicate matters more than any perceived (and questioned in *Bechtel v. FCC*) gain in localism.

18. Section 202(a) of the Telecommunications Act of 1996 specifically removes the ownership limits previously imposed by [73.3555](#). It states:

(a) NATIONAL RADIO STATION OWNERSHIP RULE CHANGES REQUIRED- The Commission shall modify section 73.3555 of its regulations (47 C.F.R. 73.3555) by eliminating any provisions limiting the number of AM or FM broadcast stations which may be owned or controlled by one entity nationally.

19. As mentioned above, an LPFM service is most simply implemented by permitting local origination in the FM translator rules of part 74. The Act makes no mention of part 74 of the rules.

Character Qualifications of Unlicensed Broadcasters

20. It appears unjust to punish an alleged illegal broadcaster by prohibiting its licensing without giving that alleged illegal broadcaster "his day in court." The Commission should continue its enforcement actions (including opportunity to respond to charges, ability to appeal to a hearing within the Commission, and ability to appeal to the courts) against alleged illegal broadcasters. Should that person indeed be found to have violated the Commission's rules, an appropriate punishment may be invoked. Such a punishment may involve a forfeiture or disqualification from licensing for some appropriate period of time. Punishing one before trial or issuing a "life sentence" where it is unwarranted is unjust.

Local Programming Requirements

21. The licensee of an LPFM station should be given full latitude as to programming and its origin. Just as the publisher of a newspaper may publish a mix of nonlocal "wire service" copy and local content, a broadcaster should be allowed to determine the optimum mix of programs. I fail to see the reason to prohibit LPFM stations from importing the programming of other full-power stations (operating as translators). As discussed above, an LPFM station *should* merely be an FM translator with local origination. The station should originate local programming when it indeed has something to originate. The remainder of the time the station can import programming that the licensee has determined is appropriate for the local audience. This is little different from the practice of full power stations that broadcast programming distributed by satellite and whose only local content is commercial announcements.

Auctions

22. Since LPFM applicants are seeking the exclusive use of a public resource, the public should be paid for this exclusive use. An auction appears to be an appropriate method to determine the fair market value of this exclusive spectrum use. Ideally, all exclusive spectrum users (such as broadcasters) would *lease* the spectrum from the public for a fixed term with the price of the lease determined through auction. There is some concern that auctions will price LPFM licenses too high for many applicants. Pricing this exclusive use of the spectrum below its market value unjustly rewards one applicant over others for merely being first (in first-come first-served) or lucky (in a lottery) and underpays the public for the exclusive use of a public asset by a private party. The price likely to be determined at auction will be

somewhat limited due to the low power of the stations, the ownership limits (one station per licensee), and (on some stations) the noncommercial operation of the station. The market has proved to be an efficient method of allocating scarce resources.

23. Thank you for considering these comments. I look forward to the establishment of both a licensed and unlicensed LPFM service.

Respectfully Submitted:

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