

Before the

Federal Communications Commission  
Washington, D.C. 20554

In the Matter of  
Proposal for Creation of the Low Power FM  
(LPFM) Broadcast Service  
Docket No. MM 99-25

To: Federal Communications Commission

Comments of V. Kreutz

1. LPFM must allow for "commercial" (commercially supported) as well as "non-commercial" stations.

2. Both the 2nd and 3rd adjacent channel restrictions must be dropped for LPFM stations. Improvements in receiver design since the rules were written decades ago will allow these restrictions to be dropped without causing interference to existing stations or planned digital I.B.O.C. signals. FACT: Hundreds of full-power (grandfathered short-spaced) FM stations have been operating on 2nd and 3rd adjacent channels for several years with no interference complaints. If these stations do not cause interference neither will lower power LPFM stations.

3. Preferably the FCC will use a "prohibited contour overlap" method of predicting interference, as is now easily done in the Low Power television service with the appropriate computer program. The LPTV service uses a computer program "LP-ONE" to show if a proposed station would cause interference. It would be a one time cost to have a similar program written for LPFM processing. This would allow for many more LPFM stations to be created nationwide and would make the use of standard "directional patterns" feasible. This type of processing would allow use of directional antennas, as is done in the LPTV service, allowing many more LPFM stations to be created by putting the signal where needed while limiting the signal in the direction of stations that need to be protected. The directional antenna patterns would be included in the FCC "directional antenna database" and thus using their patterns would be a simple matter. If the FCC sticks with their strict "mileage separation tables" as put forth in their NPRM, many major markets will not receive any LPFM stations. Many small markets still have availabilities for full-power channels to be assigned, but the larger cities are packed full with full-power stations and the only way to get a new FM station on the air there is to buy an existing one for many millions of dollars, in most cases. By simply using the "prohibited contour overlap" method, many of these major markets will be able to be served by one or more LPFM stations. If a channel does not meet the strict mileage separations in the FCC's currently proposed "mileage separation table" then the channel cannot be used; however, in many cases you could use the channel simply by using a directional antenna to restrict the power in the direction of the station that would otherwise be interfered with. The signal protection ratios remain the same as with the "mileage separation tables" but applicants can then have channels available where none were before under the strict "mileage separation tables".

This method is also called the "desired to undesired signal ratio" method. After studying the computer program that the FCC used to calculate the number of LPFM channels that might be available, it is quite apparent that the currently proposed system of "mileage separation tables" will severely limit the number of LPFM stations that might be created, especially in major markets where no full-power FM channels are available. Thus, it is IMPERATIVE that the FCC adopt this "prohibited contour overlap" method of processing and predicting interference, if the LPFM service is to flourish nationwide. PLEASE HIT THIS POINT HARD IN YOUR COMMENTS TO THE FCC. If you have any questions on this method, please email me. This method by far makes the most efficient use of the spectrum and with a simple computer program could be accomplished using minimum Commission resources. The benefits of making many more stations available easily outweigh any arguments against this approach, especially when computer processing is available at the FCC.

4. The 60 meter (197 feet) limitation on Class LP-1000 stations in the FCC NPRM should be increased to 100 meters (328 feet), which is the same as for Class-A full-power FM stations. This would provide for an additional 2-3/4 miles of coverage without requiring any additional power. Distance to 60 dBu contour would increase from 8.8 miles to 11.76 miles, which could help LPFM stations reach significantly more people and thus enhance their ability to survive. While I can understand keeping LP-100 antenna heights under 200 feet so as to not require FAA clearance, there is no reason to limit "primary status" LP-1000 stations to such an arbitrary height, since they will have to abide by the majority of FCC rules that apply to full-power stations. LP-1000 stations must have a 100 meter limit, not 60 meters as proposed. This is very important!

5. LPFM must not be subjected to a narrower bandwidth than full-power FM stations since audio quality could suffer. We do support dropping sub-carriers other than stereo however to prevent interference.

6. Some form of ownership restrictions must be in place to keep this service for "local owners" so as to not be snapped up by the large corporate broadcasters. The "50-mile rule", proposed in RM-9242, that requires an owner to live within 50-miles of his/her proposed antenna site would work nicely and would be easy to enforce by requiring applicants to list the coordinates (latitude & longitude) of their residence as well as their antenna site on the LPFM application along with a certification that they meet this requirement. If this rule cannot be established then some other method of assuring local ownership for LPFM must be worked out.

7. The FCC should try some form of "first-come first-served" application process. If this system proves unworkable, then and only then should the FCC consider using auctions to select between mutually exclusive (MX) applicants. If auctions are considered, there must be some form of substantial "bidding credits" available to small business applicants that would allow them to compete with applicants with large financial resources at their disposal. This is imperative since we are trying to lower the barrier to entry for new applicants of lesser financial status. The present scheme of bidding credits of 35% or 25% would not provide

sufficient leverage for financially challenged individuals. I would suggest something more in the range of 50% to 75% for a more even playing field, if auctions are mandated.

8. AM station owners with night-time power of less than 250 watts should be allowed to apply for LPFM but should certify that they will divest of the AM station within 180 days if awarded the LPFM license. I understand the plight of some AM station owners who have struggled with insufficient nighttime power on a AM daytimer. They must agree to divest of the AM if awarded a LPFM, which will also help clean up the AM band of interference. Otherwise, those who own any part of a full-power (full-service) radio station, full-power TV station or newspaper should be barred from applying for a LPFM license or buying such a station once constructed by another party.

9. Class LP-1000 stations should include stations from 1,000 watts down to 200 watts, as long as an engineering showing proves no interference using the "prohibited contour overlap" method as mentioned above. These stations should be "primary status" and protected to their 1 mV/m (60 dBu) contour.

10. Class LP-100 stations should be designed to fit in where LP-1000 stations will not fit, even using directional antenna patterns kept in the FCC database. These stations should be "secondary status" with a minimum of FCC rules to adhere to, mainly technical rules to prevent interference.

11. Ten watt and below stations should be authorized by the FCC since they provide effective learning and training opportunities and they would be able to serve the language and/or cultural needs of "Micro-communities" in urban areas where minorities concentrate. FCC lacks the resources to deal with the large number of such inefficient stations that would crop up. Many of those folks promoting the creation of 1-watt to 10-watt stations are pirates with no practical knowledge of the radio business and what it takes to survive economically. They seem only interested in having their "hobby station" to suit their whims. Radio spectrum is too scarce and valuable to be put to this limited use.

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