

service.” In light of this, the public interest in efficient utilization of spectrum is best served by letting small new stations fill into previously unused spectrum spaces without creating interference inside the protected contours of existing stations. Limiting power of LPFMs to 100 watts does little to create availability for other LPFM stations, especially at this juncture in the history of the FM band. We agree with REC that not all LPFMs should be eligible for upgrade due to contour overlaps.

We have always believed that the “buffer zone” for LPFM that was added to the minimum spacing distances (which does not exist in any other radio service) was not truly necessary for interference protection, and unduly limited availability of LPFM construction permits. It has been claimed that the buffer zone was introduced in the initial rules primarily to grant flexibility for LPFMs. We believe that expansion to 250 watts is an appropriate use of this otherwise underutilized area where current protections preclude service that could be viable. We affirm REC's analysis that with 100 watts at 30 meters, signal strength is inadequate for the viability of many stations due to various topographic issues.

Height and Power Tradeoffs

We would also like to note that many LPFMs find it impossible to locate their antennas at a full 30-meter height due to zoning restrictions and the high cost of tower construction or rental. As a result, many end up building at a lower height with no accompanying raise in power. Thus, the contour of the facilities as built in the real world reach considerably less than the predicted 5.6 km. ***We urge the Commission to reconsider the policy of not allowing power to be raised beyond 100 watts for stations that for reasons beyond their control cannot locate at 30 meters of height.***

While, from a technical perspective, we urge stations to locate at the maximum permissible height, as a practical matter in the field, the tower height issue is the single largest barrier to construction. We believe that many stations will never be built because this barrier is, ***literally***, too high. We think that many stations may have a better chance if they were allowed to construct at a lower height, but with appropriately higher power, and prove their viability and service to the community. Then, they will be in a better financial position to move their antenna location to a higher location.

Stop Zoning Out!

This brings up another concern with low-power FM implementation. Frequently, when LPFMs seek to erect a tower at 30 meters in height, local zoning boards are unfamiliar with how these facilities should be considered. Their point of reference often derives from traditional broadcast towers, which are typically 400-500 feet in height, or cell towers that can reach 200 feet or more. In recent years, most tower requests have come from cell phone companies. Cell service is a massively profitable industry, with multiple competitors seeking to set up towers every few miles, so they spring up like dandelions across the horizon.

Zoning boards have adopted a sensibly jaundiced eye with regards to many commercial tower proposals. As a result, tower rental rates have skyrocketed in the past two decades to the point where ten or twenty feet of vertical rental space on some towers can cost more than some New York or San Francisco apartments. It is often cost prohibitive for a non-profit LPFM to locate on a commercial tower.

In 1985, and with follow-up rulings over the years, the FCC established a federal pre-emption of local zoning authority regarding amateur radio towers. This pre-emption did not preclude zoning regulations, but did give guidance to local authorities that they must write their codes in such a manner as to avoid unreasonable preclusion of amateur radio. Towers still must be safe, engineered for structural integrity, appropriately constructed, and inspected and grounded. However, a tower request for amateur radio at a reasonable height could not be denied on purely aesthetic grounds or as a result of capricious decision-making by zoning boards or building officials. This was eventually codified in 97.15(b) of the Commission's rules. (A background on this rulemaking is available at <http://wireless.fcc.gov/services/index.htm?job=prb-1&id=amateur&page=1>).

The FCC pre-emption of local zoning for reasonable local amateur radio tower policy should extend to low-power FM facilities.

Here is the relevant excerpt from the current Code of Federal Regulations:

§ 97.15 Station antenna structures.

(a) Owners of certain antenna structures more than 60.96 meters (200 feet) above ground level at the site or located near or at a public use airport must notify the Federal Aviation Administration and register with the Commission as required by part [17 of this chapter](#).

(b) Except as otherwise provided herein, a station antenna structure may be erected at heights and dimensions sufficient to accommodate amateur service communications. (State and local regulation of a station antenna structure must not preclude amateur service communications. Rather, it must reasonably accommodate such communications and must constitute the minimum practicable regulation to accomplish the state or local authority's legitimate purpose. See PRB-1, 101 FCC 2d 952 (1985) for details.)

[\[64 FR 53242](#), Oct. 1, 1999]

We believe that the Commission should extend these policies originating in amateur radio to LPFM stations. Like amateur radio, LPFM stations are volunteer driven and LPFMs are, by definition, not profit-making entities. Local zoning boards unfamiliar with LPFM and amateur radio often have similarly overblown concerns about interference and non-ionizing RF radiation. Guidance from the federal regulator for local authorities on these issues would be helpful in the roll out of LPFM.

We believe this could be accomplished by amending 97.15 to read as follows (Our recommendations are in bold and italics):

§ 97.15 Station antenna structures.

(a) Owners of certain antenna structures more than 60.96 meters (200 feet) above ground level at the site or located near or at a public use airport must notify the Federal Aviation Administration and register with the Commission as required by part [17 of this chapter](#).

(b) Except as otherwise provided herein, a station antenna structure may be erected at heights and dimensions sufficient to accommodate amateur service **and LPFM** communications. (State and local regulation of a station antenna structure must not preclude amateur service **and LPFM** communications. Rather, it must reasonably accommodate such communications and must constitute the minimum practicable regulation to accomplish the state or local authority's legitimate purpose. See PRB-1, 101 FCC 2d 952 (1985) for details.)

[\[64 FR 53242](#), Oct. 1, 1999]

Furtive Foothills

With regard to the limitations on "foothill stations," we believe that the REC analysis has merit, but we doubt that this interference will have much practical impact. Due to factors related to topography as well as the methods used to determine HAAT, we have heard of the occasional station that can reach further than anticipated. However, we have not heard of cases where these stations caused actual interference inside the protected contour of a full-power station.

We understand and agree with REC that no change is needed for existing 100-watt licensees, as these anomalies have not caused problems and are a result of the fundamental imprecision of long-standing techniques for FM allocations. These working approximations are universal and cut both ways. It is much more common for an LPFM to receive interference from a full-power station than for full-power stations to lose any of their licensed coverage to an LPFM. While REC's proposal is well thought out in anticipating the potential for overlap, we believe it is overly cautious and thus may fall in the category of "solutions in search of a problem."

Protection Parity With Translators... and Unicorns

On page 32 of the petition for rulemaking, REC proposes that translators should have to protect the second-adjacent channel of LPFMs. This does seem to be in harmony with the intended parity between translators and LPFMs mentioned in the Local Community Radio Act.

However, we believe that a better pathway to that parity is the elimination of second-adjacent channel protection from LPFMs for translators. We believe it is more consistent with the evidence that the second-adjacent channel protection of translators by LPFMs should be removed. The evidence on the record in the LPFM proceeding, the Grandfathered Short Space proceeding, and the Commission's practices over the past twenty years has overwhelmingly shown that second-adjacent channel interference is a mythical beast. Much like a unicorn, it is much sought after, but rarely encountered.

Second-adjacent channel interference caused by transmitters operating at low power is not a serious issue. In addition, it has occupied more of our time than any evidence or any experience of the Commission shows to be warranted. We believe that any LPFM applications or moves precluded by translator-second-adjacent channel protections should be re-evaluated. In future applications and requests to move, this protection from second-adjacent channel interference created by LPFMs should be eliminated.

We also concur with the comments of Jeff Sibert, which describes the way that some translators are able to operate at much greater HAAT and power levels than LPFMs currently can. We believe that this rule making provides the Commission with the opportunity to bring LPFMs and translators as close to parity in all respects as possible.

Minor Changes Should Not Be A Major Big Deal

We concur with the proposal to extend the distances allowed for minor changes between filing windows. Again, this is an issue of parity with translators. Over the course of a station's existence, it is frequently necessary to change their location. For various topographical, zoning, and economic reasons, it is impossible for stations to find viable transmitter sites within 5.6 km. In absence of regular filing windows, it seems unfair and unnecessary to make a station seeking to move its transmitter site by 6 or 7 kilometers wait for a major change-filing window.

I am always embarrassed to explain to LPFM stations that, even when a particular change will be clearly permissible, even the President of the United States would be not know when the next opportunity will be to submit a major change would be. We appreciate the Commission's earlier extension of the moving radius to 5.6 km, but we believe that, ultimately, parity with translators in this regard is the fairest state of affairs. We continue to believe in the maintenance of the rules regarding the proximity of board members to the transmitter site.

In conclusion, International Media Action is generally in support of the REC petition and we will monitor the reply comments for the predictable whining and wheezing of incumbent broadcasters.

Pete Tridish, CBRE
Technical Director, International Media Action

www.imarad.io

petri <at> imarad.io