



that have significant co-channel and adjacent channel issues. The 100 watts at 30 meters maximum facility for an LPFM just simply cannot cut through the interference that exists on the marginal channels that most LPFMs will operate on.

## **II. Power and Height Increase**

We support an upgrade to 250 watts as advanced by REC as well as much of the rest of its petition, but the improvement alone is only a 4dB improvement in signal strength, which will not significantly help areas that have high incoming interference. At best it will slightly reduce noticeable incoming interference and provide a slightly stronger, less noisy signal for listeners within the coverage area.

As a comparison, the FM translator service generally allows for facilities up to 250 watts at much greater heights. Fill-in translators relaying AM or HD multicast signals now comprise a majority of the translators in large metropolitan areas and are allowed 250 watts at an unlimited height. A number of these have facilities nearly equivalent to a maximum class A facility. Likewise non-fill in translators west of the Mississippi are allowed 250 watts at 107 meters<sup>1</sup>. Only non-fill-in translators located East of the Mississippi or in Zone 1-A are authorized maximum facilities similar to that proposed by REC for the LP250 service.

Out of fairness to both services, the Commission should consider authorizing both services at the same maximum power and HAAT, preferably using the part 74 HAAT methodologies that translators currently use.<sup>2</sup> An LPFM operating at 250 watts at 107 meters maximum HAAT could provide a service area more than five times as large as an LP100 and three-and-a-half times as large as the LP250 service advanced by REC. Such an increase would make the LPFM service more viable and

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<sup>1</sup> Translators are licensed with a different HAAT methodology as explained in 74.1235(b). The authorized HAAT is the maximum radial along 12 equally-spaced radials, starting with 0 degrees.

<sup>2</sup> Using part 74 would lessen the risk of LPFM “foothill” stations causing interference to full power stations by attempting to obtain a lower HAAT by placing the transmitter part of the way up a mountain.

strengthen the Commission's mandate per Sec. 5 of the LCRA to make both translator and LPFM stations equal in status<sup>3</sup>. There is no reason to handicap LPFM stations unnecessarily..

### **III. Spacing and Contour protection**

An LP100 and LP250 service would be initially authorized using a strict spacing table as advanced by REC and required by Sec. 3(B)(1) of the LCRA. This sets the floor for a minimum facility and ensures that inviable facilities with less than a 4.7 km service radius do not flood the dial. However, once that minimum spacing is met, there is no provision of the LCRA that prohibits the use of contour protection for expansion beyond the 100 watt (or 250 watt) and 30 meter HAAT maximum.

Licenses who wish to increase beyond the 250 watt/30 meter (or equivalent) base LP250 facility should be able to file a minor change application and attach an exhibit showing lack of contour overlap provided the minimum spacings are met for the class of LPFM station. The technical rules for this showing should match that required by FM translators under Part 74. Should interference result towards a full power facility, the LPFM would again be licensed to operate at the base LP100 or LP250 parameters (100 or 250 watts for an LP100 or LP250 respectively at 30 meters HAAT) and would not be able to utilize higher powers until interference could be eliminated using already established interference procedures.

Stations that meet the minimum spacing but do not wish to operate above the base parameters should be able to file a simple minor change application without needing any exhibits (other than perhaps a second-adjacent waiver exhibit).

The Commission also should reconsider whether Intermediate Frequency spacings are even necessary for stations operating at or below 250 watts, or at least allow contour protection using the 91 dBu contours of both facilities. Comment should be sought on this aspect. The removal of IF

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<sup>3</sup> Local Community Radio Act of 2010, Sec. 5(3)

relationships would simplify licensing requirements and allow for greater power by stations who are limited due to an intermediate frequency concern.

To make it fair for translators operating East of the Mississippi or in Zone-1A, the Commission should either not allow use of contour protection to LPFM stations operating in these areas, or should raise the maximum power and height combination for all non-fill-in FM translator stations to match those allowed in 74.1235(b)(2).

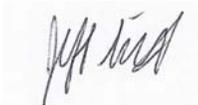
#### **IV. LPFM rule revisions should be made simultaneous with FM translator rule revisions**

With anticipation of an upcoming FM translator window, the Commission is likely to consider rule changes to this service. This provides an excellent opportunity to look into the technical rules of both services. It makes sense to consider both services together to ensure the technical rules for both FM translator and LPFM operators are as fair as possible.

#### **V. Conclusion**

The Commission should take formal comments on REC's petition and also consider an increase in height to make LPFM coverage more equivalent to FM translators.

Respectfully submitted,



Jeff Sibert  
3340 Utah Ave S  
Saint Louis Park, MN 55426