

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
)
Improvements to the Low Power FM) **RM-11749**
(LPFM) Radio Service)
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To the Commission:

Additional Comments of Nikolaus E. Leggett, Certified Electronics Technician, Amateur Radio Operator (N3NL), GROL Licensee, Inventor, and Analyst

I am a certified electronics technician (iNARTE and ISCET) and Extra Class amateur radio operator (call sign N3NL). I also hold an FCC General Radiotelephone Operator License with a Ship Radar Endorsement. I am an inventor holding three U.S. Patents. My latest patent is a wireless bus for digital devices and computers (U.S. Patent # 6,771,935). I have a Master of Arts degree in Political Science from the Johns Hopkins University.

I am one of the original petitioners for the establishment of the Low Power FM (LPFM) radio broadcasting service (RM-9208 July 7, 1997 subsequently included in MM Docket 99-25). I am also one of the petitioners in the docket to establish a low power radio service on the AM broadcast band (RM-11287). I have filed a total of well over 200 formal comments with the FCC over the years since the 1970s. I have filed comments with other Federal agencies as well including the USPTO, NASA, FAA, FERC, EPA, and the TSA.

LP10 LPFM Radio Broadcasting and Its Alternatives

The Commission needs to evaluate the options of very low power broadcasting along with the 250 Watt LPFM stations.

The current rules for LPFM radio broadcasting provide for very low power 10-Watt LPFM stations. Despite this, the Commission has not licensed any 10-Watt LPFM stations.

I am personally in favor of these 10-Watt stations because they can be established as broadcast stations for individual neighborhoods. These 10-Watt stations can be accommodated in some areas with numerous existing broadcast stations due to the small coverage area of each 10-Watt station.

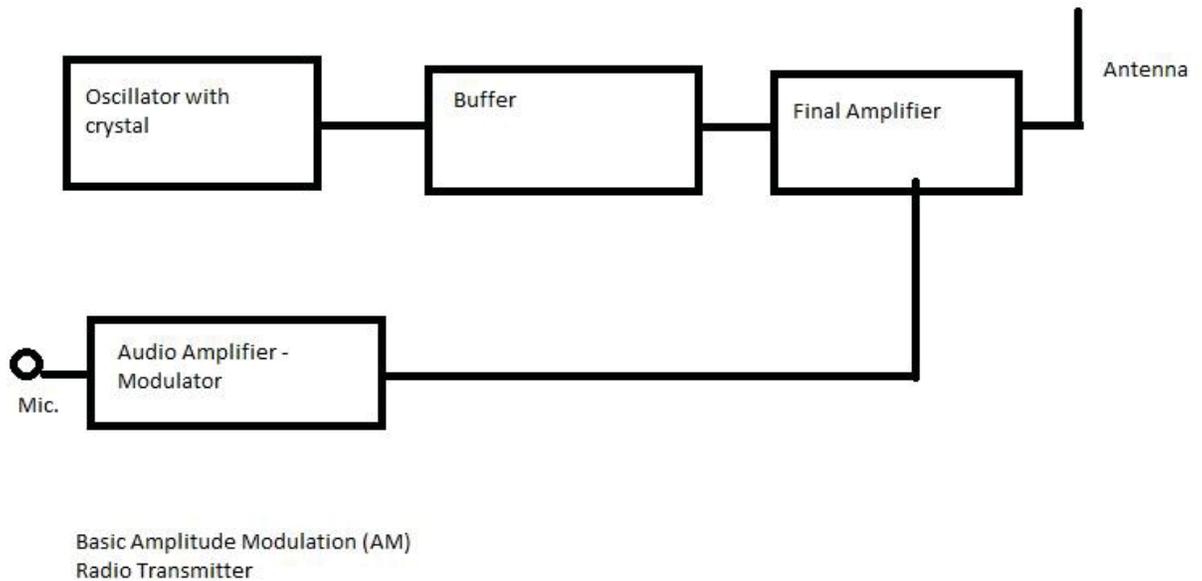
Clearly, the Commission does not want to deal with these LP10 stations despite their legality under the regulations. This may be due to the existing orientation of broadcasting culture towards large stations operated by organizational elites. Or it may be due to the perceived heavy bureaucratic work anticipated for numerous LP10 stations.

There is a physically practical alternative of off-peak shortwave operation that could be established if the Commission decides to not issue LP10 licenses.

Off-Peak Shortwave Broadcasting

If the Commission decides that it cannot accommodate 10-Watt (LP10) LPFM broadcast stations, it still can provide such a neighborhood service using the following aspect of the ionosphere. There are several of the international short-wave broadcast bands that provide world-wide shortwave propagation during the day time. At night, these bands do not provide this long distance broadcasting. The Commission could allocate specific frequencies in these daytime short wave bands for nighttime local broadcasting by inner city residents. Thus while these short wave bands were inactive at night, the local communities and neighborhoods could

broadcast locally using very simple low-power short wave AM transmitters. (Refer to the figure below.)



Neighborhood residents would operate and maintain the basic broadcast stations. Each shortwave -broadcast station would be a manufactured 10-Watt AM desk-top broadcast unit that would presumably be Commission certified. Each unit would use a modest-sized outdoor vertical antenna specified by the Commission. It is possible for citizens to make such broadcast stations as well, and this option could be allowed for local residents who were suitably certified for the task. This would have some similarities to the amateur-built manned aircraft licensed by the FAA.

Residents would organize church groups and scouts to build basic short-wave radio receivers for community use. Building such simple AM radio receivers is a very simple task that the young scouts could easily accomplish. The receivers could be simple sets with one or two transistors. Even unpowered crystal radio sets with just a diode would work for this neighborhood service. The big advantage here is that the residents themselves could do the work of building and maintaining this local broadcasting infrastructure of AM receivers.

Others would purchase cheap short-wave radios from retail vendors. This off-peak shortwave service would allow urban minority groups to build their communities and the talents of the community residents. The residents could do virtually everything to establish and maintain their own nighttime local shortwave -broadcasting service. The bureaucratic complexity of such a radio service would be reduced by having an automated application and evaluation system for licensing these simple radio broadcast stations.

Respectfully Submitted,

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