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

In the Matter of

Amendment of Section 74.1231(i) of the Commission's Rules on FM Broadcast Booster and fill-in FM Translator Stations	)))))	**RM-11854**

COMMENTS - Petition for Rulemaking

By Edward A. Schober, PE, Radiotechniques Engineering, LLC, Zip2, LLC, Winchester Radio Broadcasters, LLC, and Bravura, LLC

1. The engineering consulting firm of Radiotechniques Engineering, LLC, Winchester Radio Broadcasters, LLC and Zip-2, LLC and Bravura, LLC hereby submit these comments in response to the assignment of an invitation to comment that was issued in the above-captioned proceeding

2. Edward A. Schober, is a licensed professional engineer employed by Radiotechniques Engineering LLC, a New Jersey limited liability company that provides engineering services to broadcasting stations. He has engineered hundreds of AM station upgrades, modifications and applications for new stations. He is also a member in Winchester Radio Broadcasters, LLC, owner of WXVA(AM), Winchester, VA, City Commons, LLC Licensee of W275BV Winchester, VA and is a member of Zip2, LLC, Licensee of WKGE, and W263CM Johnstown, PA and holder of a construction permit holder for WXPA, a new AM station in Enola, PA and W283DN Harrisburg, PA. He is also a member and principal scientist of Bravura, LLC a company that designs and licenses technologies related to geo and preference based search, broadcasting and distribution. He is also the licensee and permittee of several FM Translators. Mr. Schober has over forty years experience in advising thousands of broadcast radio station and technology clients in areas of RF, software and broadcast design and engineering, FCC technical representation and propagation studies. Mr Schober is a full member of the AFCCE, and a senior life member of the IEEE and senior member of the SBE. Mr Schober's contact information is:

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3. The commenters wish to support t GeoBroadcast Solutions, LLC's petition for FM Booster licensees to permissively separate programming between a Primary station and its FM booster station(s), and require that the programming be "substantially similar" as opposed to identical on each of the stations in a synchronized network. The ability to divide the service area of a station utilizing a single frequency network (SFN) or other outlets is important for free-over-the-air radio to remain competitive with other means of program distribution. The commenters also propose that this geo-targeted part time program and advertisement separation be permitted in additional cases as detailed below.

4. The commenters agree with the comments of Michael E. Worrall that GeoBroadcast Solutions, LLC has no exclusivity to any required technology or methodology for geo-targeted broadcasting in single frequency networks. The FCC should not author rules that "lock in" any proprietary system and standard for achieving a goal unless there is an overriding necessity for doing so. It does not appear that the proposed rules do so in any way.

5. The commenters believe that revisions to the EAS Alerting regulations should be made to assure that all alerts pertinent to the service area of each transmitter in an SFN are accurately delivered. Initially, the alerts could simply be provided by the EAS source of the primary station, and require that they must be automatically forwarded to all members of the network. Providing geo-targeted alerts to each area would be more desirable to avoid desensitizing the listeners from inapplicable alerts. For example, tornado warnings ideally should only be delivered to the coverage area of the stations covering the warning area. Specifically § 11.11(b) of the FCC Rules could be modified to read as add "Those FM Booster stations and FM translator stations that do not broadcast 100% of the programming of their primary station must either automatically broadcast all alerts of the primary station or install an encoder that complies with § 11.33

6. The FCC should also consider the greater issue raised by the clear benefits available to geo-targeted broadcasting using other delivery methods. Although the GeoBroadcast Solutions, LLC proposal is narrow, and is relatively noncontroversial, the FCC should provide the same benefit to "Fill In" FM Translators for AM and FM stations. From a public benefit point of view there is an identical advantage for FM translators to geo-target audiences. Fill In FM translators are used for precisely the same purpose as FM boosters Fill In FM Translators have no technical issues in separating advertisements and some programming . FM Boosters suffer a 'minimal' area of mutual interference between the primary station and an FM booster, whereas there can be no mutual interference created between a primary station and its FM translator(s) when differing programming is presented.

7. Extension of this amendment can be achieved by revision of the proposed wording of appendix

A in the GeoBroadcast Solutions, LLC petition by simply replacing “FM booster station(s)” with the phrase “FM booster station(s) and fill-in FM translator station(s)”. “Fill-in FM translator station” is well defined in the FCC rules.

8. This petition for rulemaking brings up another issue when single frequency networks or FM translators separate programming. The commenters note that the technology used by GeoBroadcast Solutions, LLC and others for FM broadcasting can lead to a new role for FM boosters and single frequency networks. Similarly, digital Medium Wave Broadcasting as proposed in MB Dockets 19-311 and 13-249 are technologies designed to operate within single frequency networks. In other countries DRM digital broadcast is used by multiple full power medium wave and VHF stations to provide reliable wide area coverage. Use of single frequency networks within in a single radio market benefit from the use of multiple smaller transmitters and the ability to assure uniform coverage of the entire market. This is much more efficient use of power, and cost. Instead of one giant tower with a 50 or 100 kW of power, it would be much more efficient to deploy a number of 1 kW transmitters on modest towers and a number of 100 Watt transmitters on telephone poles or existing buildings. This would provide greatly improved coverage of the same area with substantially reduced potential for interference to other stations. Each would have identical branding and most programming, but the ability to serve even the smallest advertiser and smallest geographic constituency. For example, it might allow a broadcaster to present of several area high school football games instead of one. It would require only 10% of the power, and potentially give each community its own voice.

9. Primary station licensing may not be the ideal model in the environment of single frequency networks. The commenters propose that the FCC open a Notice of Inquiry with respect to single frequency networks in aural broadcasting, and also review the concept of market broadcast licensing in lieu of station licensing. Technological and market developments make this extremely timely.

10. The Commenters request that the FCC approve the rule changes proposed in **RM-11854** and extend its applicability to fill-in FM Translators as detailed herein.

11. The Commenters also propose that the FCC institute a Notice of Inquiry into the expansion of single frequency networks and possible market licensing for Aural Broadcasting.

Respectfully Submitted,

Edward A. Schober, PE