

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

In the Matter of )  
 )  
Requests of Mobile Relay Associates for ) WT Docket No. 13-212  
Waivers to Permit Part 90 Use of Channels )  
On the Band Edges Between Part 90 and )  
Part 95 Spectrum )

**SUPPLEMENT TO COMMENTS BY P. RANDALL KNOWLES**

1. Procedural Matter. Pursuant to an e-mail notice from the Commission, I am filing a Supplement to my previous Comments. This is possible due to the fact that the original Request for Waiver has now been made available in the FCC’s Electronic Comment Filing System in this proceeding. I am filing this Supplement on a timely basis, given the additional time extended me by the FCC.

2. Flawed Analysis. MRA addresses impact on GMRS operations in its Point # II., Current Allocations. However its analysis fails to take into account interference by its proposal to GMRS receivers. By focusing only on GMRS transmitter specifications, MRA misses the real point, interference from their proposed transmissions to GMRS receivers on the immediately adjacent GMRS channels.

A. The nature of GMRS equipment and users has been discussed in some detail recently in another FCC proceeding. As I pointed out in my initial Comments here, GMRS licensees are (except for a limited number of grandfathered entities) individual members of the public. They have vastly fewer funds to buy equipment. By contrast Part 90 “Commercial” users have a flow of business sales/service revenue or public tax funds, etc. to underwrite their purchases.

B. This means that the vast majority of GMRS users utilize much older equipment than their counterparts in Part 90. Much of the GMRS equipment base was purchased as used equipment, most particularly expensive repeaters. And, once obtained, GMRS users tend to keep their gear for much longer lifetimes while they budget for eventual replacement (I am on only my third repeater since 1971).

C. This is especially significant here because GMRS receivers “look” at a much wider bandwidth than the current generation of typical new equipment in Part 90. For example, my current repeater was purchased used more than 20 years ago. For many years I operated it in carrier access mode, with tone lockout of other nearby systems in my area. This was done to provide for as much traveler assistance as possible to visiting users from other areas and to keep an accurate picture of interference on the input frequency. But, when the FCC authorized the Family Radio Service (FRS) interference skyrocketed – even though these interstitial operations are limited to very low power and integral antennas only. The problem became so bad that I was forced by the rampant

interference to convert to tone access. And make no mistake about it, tone access masks receiver interference from user perception. Most users employing tone have no idea what their receiver interference problem really is. From what I have heard from other GMRS operators, my experience is typical throughout the country.

D. Therefore, the MRA analysis, as it applies to GMRS, does not take into account the actual in service equipment base in the General Mobile Radio Service. MRA may not be aware of these facts; I presume its operational experience is confined to Part 90. The fact is that the 25% of the GMRS channels that will be impeded are the most desirable GMRS frequencies precisely because of the protection of the guard bands on one side.

3. Some Notes About "Narrowbanding". Originally the Class A Citizens' Radiocommunication Service (original name of GMRS) was allocated the entire band from 460-470 mc/s. Equipment was not limited to any particular bandwidth – so long as emissions were contained within the band 460-470 mc/s. When virtually the entire band was reallocated to other radio services, the first channel assignments and bandwidth regulations were implemented for Class A. The last "narrowbanding" in what is now GMRS took effect in 1968, when channels went from 50 kHz to 25 kHz. As I previously pointed out, the current "narrowbanding" in Part 90 does not prevail in GMRS, however. Therefore, the statement by MRA in their Point III.A., that "With Narrowbanding, There Is No Longer Any Spectral Overlap" is incorrect with respect to the General Mobile Radio Service.

4. "Frequency Wars" II. I made reference to GMRS "frequency wars" in my original comments in this proceeding. I can certainly sympathize with MRA customers' dilemma of being "blasted" off of their legitimate channels. But MRA, in essence, is proposing to do the same thing to GMRS users on their legitimate channels. From all that I have heard from other GMRS users, the Los Angeles Area is the most heavily utilized area of the country for GMRS, too.

5. Technical Details Missing. MRA's Request For Waiver provides very little hint as to the parameters of operation they propose other than 4 kHz emission and Station Class FB8. No data is given for output power, antenna height, type or directivity, or effective radiated power, for example. I searched the CFR website under Title 47 but was unable to find any definition for Station Class FB8. A search on the FCC website did reveal several references to either "temporary" or "Centralized Trunk Relay". I finally found a definite answer searching through FCC Form 601, Schedule H – Instructions at Page 5, which reveals that Station Class FB8 is indeed "Centralized Trunked Relay". These are apparently repeaters for trunked two-way radio systems.

A. I therefore assume that the antenna height and power parameters will **not** be limited to 0.500 watts or an attached antenna on a hand carried portable only, as is the case with FRS equipment on the other side of the main 467 MHz GMRS channels at issue here. Antenna height and power appear to be subject only to whatever general limitations exist in Part 90.

B. While I am not familiar with Part 90 I presume that base antenna height, for example, would be limited only by such considerations such as aircraft hazard markings. A more draconian type of impact would be hard to imagine. Permissible power will surely be vastly greater than even GMRS repeater or mobile stations, which are limited to 50 watts. It's my understanding that Part 90 mobiles are allowed at least DOUBLE this power and base (repeater) stations possibly more than that.

C. Trunked "community repeater" type stations are very likely to be extremely heavily loaded. Firstly, they are likely to be erected by "commercial" radio shops as an investment, thus maximum loading for greatest return on investment will be the norm. Secondly, one of the touted advantages of trunked systems is that they can be much more "efficiently" (read heavily) loaded than conventional systems. Thirdly, MRA has proposed each of their locations (LA, Denver, Miami-Fort Lauderdale-West Palm Beach, and Las Vegas) because of claimed spectral shortage. This is only natural because these are major metroplexes, with large populations and densities. GMRS demand will naturally be highest in these same areas for the same reasons.

C. This would be a terrible precedent to permit. If allowed, the Commission full knows there will soon be scores of other such requests. With a proliferation of high power, high antenna, high loaded repeaters, MRA will accomplish the usurpation of fully one quarter of the GMRS main channels. And it asserts as a basis to do this, that its own customers are the victims of the same kind of usurpation! It's difficult indeed to imagine a scenario less in the public interest. Because one party has been victimized, now promote more interference and victimize others.

Respectfully submitted,

P. Randall Knowles, KAA 8142  
710 Cummings Avenue  
Kenilworth, Illinois 60043-1013  
(847) 533 – 9449 [Randy\\_Test@HotMail.com](mailto:Randy_Test@HotMail.com)