

**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)

REPLY COMMENTS BY P. RANDALL KNOWLES

1. Procedural Matter.

A. I have found a Reply Comment filed by MRA in the ECFS. MRA's attorney initially seeks to discredit my efforts by claiming that I failed to ferret out the MRA Waiver Requests in the FCC's ULS. He states that "the *Request for Comments Notice*, at nn. 1-4, specifically said that the MRA Waiver Request was located in each of the four MRA applications" (only partially correct) "in ULS" (false). The Public Notice did not say that the MRA Requests for Waiver were located in Applications for Licenses. Rather only an FCC File No. was footnoted. Nowhere in the Notice was it stated that the footnoted File Nos. were locatable in the ULS or where else they might be found.

B. By contrast, the Notice DID explicitly state (on page 3):

"The **requests**, and comments and reply comments filed in response to this Public Notice are available for viewing via the Commission's Electronic Comment Filing System (ECFS) ..." (emphasis added).

Apparently the attorney presumed that my efforts were to target MRA or some other person to "blame" for the fact that I made my comments based solely on the content of the Public Notice. In this the attorney is completely mistaken. I mentioned the situation because it limited my ability to address what else might exist in the MRA Requests beyond the Public Notice, and I feared that some of my Comments might be impacted by what I had not seen. I have no interest in playing a "blame" game.

2. Interference to GMRS. My comments on interference to GMRS were not, as stated by MRA's counsel, based on assumption. Rather they were based on hard learned actual operating experience in GMRS.

A. As detailed in my Supplement to Comments, GMRS operators all over the country have experienced massive interference on repeater inputs from FRS operations on adjacent interstitials. This is not based on presumption or conjecture, it is cold, hard fact. These adjacent operations are limited to 0.500 watts on portable units with attached antennas only. Notwithstanding the theoretical protection from interference when FRS was authorized, massive interference has, in actual fact, resulted.

B. I have operated a repeater at my present site for over 40 years. The one and only time I have suffered on site interference was just recently when long periods of noise and blackout blocked my receiver and completely obstructed any communication whatsoever. With the assistance of a radio engineer the source was finally traced to a new “commercial” digital system that had just been placed in service. Once again, there should be no interference, but reality proved otherwise. Apparently, while digital emissions are more spectrally efficient, the down side is that they are more “dirty” than old fashioned FM. Once again, not guess work but actual operating experience of substantial interference to GMRS.

C. GMRS users have learned the hard way that once the genie is out of the bottle there is no putting it back. We have precious little spectrum and, as a result, strive to protect what little we have. While I appreciate MRA’s experience in operating in between Part 90 channels, they have the benefit of an environment with newer, more technically advanced receivers.

3. Remote Receiver Linking.

A. MRA’s lawyer correctly observes that current technical rules for GMRS do not provide for remote receiver linking. That is not the point, rather the future of GMRS is. Just as the rules were previously amended to add GMRS interstitial channels, there will be future amendments as well. As a practical matter, the opportunity for any new spectrum for the general public is limited to the guard bands for the foreseeable future. Preserving the guard bands for GMRS is in the public interest, especially for a radio service with such drastically limited spectrum and vast targeted user base.

B. MRA appears to have misapprehended my remote receiver linking comments as intended to “connect repeaters together”. While I recognize that some GMRS operators have lately been discussing the possibility of linking repeaters together, that is not my concept. In fact I would be strongly opposed to such connecting repeaters together. Rather my objective is for multiple receivers to provide “fill-in” coverage to a single repeater transmitter.

C. MRA says that remote receiver linking is not technically feasible. In that they are mistaken. Again the foundation of my comments is actual operating experience, as stated in my original Comments. Under the grant of a license in the Experimental Radio Service (KK2XHV), I implemented just exactly such a system utilizing an interstitial frequency prior to the advent of FRS. It worked very well for the entire term of the license.

D. I am not, nor have I ever been independently wealthy. The remote receiver system worked well on my GMRS repeater without the benefit of all the claimed “huge amounts of money on multiple filters or other techniques” postulated by MRA.

The most challenging aspect was isolating the link transmitter from the remote input receiver. Simple filtering and physical antenna separation easily solved this problem.

E. MRA is right that “GMRS is, by design, not a huge revenue-generating service”. “Huge amounts of money” are not available to pay for Point-to-Point Microwave, as an alternative. Remote receiver linking is undeniably in the public interest as previously detailed in my original comments.

F. As stated in my original comments, remote receiver linking is but one example of useful GMRS utilization of the Guard Bands. There are doubtless countless others, such as remote control of repeaters. What is at stake here is the future of the entire radio service. By taking the last potential new additional spectrum, MRA’s proposal would cripple that future.

4. Reply to Personal Radio Steering Group.

A. While I appreciate the Reply Comments of the Personal Radio Steering Group and their opposition to the MRA Requests, further observation is necessary. PRSG says in several places that the FCC “locked in” GMRS to “narrow band FM” technology “of the early 1980s”. I must observe that those actions (or lack of actions) of the Commission were entirely appropriate.

B. I have discussed the nature of GMRS users and equipment, both in Comments and Supplement to Comments here, as well as in another FCC proceeding. Used equipment plays a critical role in furnishing equipment for GMRS operations. GMRS is a market of last resort for used equipment, which is in the public interest both to make the service more available to individual members of the American public and provide an outlet for Part 90 users upgrading their gear to sell their old, outdated equipment that still comports with then current GMRS technical rules.

C. GMRS is NOT a service where new generation equipment should be mandated first. At some future time GMRS will be narrowbanded further. And digital may well be in the future for the public as well. The Commission has only to allow for both the old and new equipment during a transition period. BUT, GMRS users themselves should firstly begin the transition process as their budgets and individual circumstances dictate. Completion should be lastly recognized and mandated by the FCC only as an end to the process. That will never be appropriate until at least 2 generations of the new technology have become outdated and available for GMRS individuals on the used market.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I, P. Randall Knowles, hereby certify that, on the 4th day of November, 2013, I served copies of these *Reply Comments of P. Randall Knowles* upon each of the listed parties below, by First Class Mail, postage prepaid.

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