

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

In the Matter of)
Amendment of Sections 90.20(d)(34) and)
90.235 of the Commission’s Rules to facilitate) **PS Docket No. 13-229**
the use of Vehicular Repeater Units)
)

COMMENTS OF THE OHIO REGION 33 RPC’s and the Ohio APCO Local Advisor

The Region 33 700 MHz and 800 MHz Planning Committees (*RPC*) are pleased to submit the following comments in response to the Commission’s *Notice of Proposed Rulemaking*, FCC 13-121, released September 16, 2013 (“*NPRM*”) in the above captioned proceeding¹ regarding vehicular repeater systems (“*VRS*”) used by public safety licensees to expand radio coverage for portable radios in emergency systems.

RPC is responsible for the overall management, planning and coordination of the 700 MHz. and 800 MHz. Public Safety Frequencies within the geographic area of the State of Ohio. The undersigned *RPC* Chairman is also the *APCO* Local Advisor for Ohio so these comments are three-fold in overall scope.

First, as the *APCO* Local Advisor, I deal frequently with *VRS* requests from agencies operating in all bands. In the lower public safety bands (*VHF-UHF*) both manufacturers of Mobile Repeaters have told us that a separation of at least 10 MHz. is suggested for optimum operation of their equipment. With many public safety agencies operating multi-frequency systems, not infrequently frequencies in the 151, 155 and 159 MHz area are utilized. In *UHF*, both public safety bands (453 & 460 MHz) are only one (1) MHz. wide or less so finding a frequency 10 MHz. distant is impossible under the current spectrum allocations.

In-band *VRS* is the widely preferred method of operation because when the bullets start flying or the roof is falling in on you deciding which portable radio to use is NOT a viable option!

One instance particularly sticks out. One central Ohio fire department requested a *VHF* simplex frequency for *VRS*. Since they had the full range of operational frequencies

¹ The *NPRM* begins at paragraph 41 of the Commission’s “*Order and Notice of Proposed Rulemaking*”.

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licensed and used already (151-159) I suggested applying for one of the 172 MHz frequencies in the forest fire fighting block for 2 watt ERP mobile repeaters and portables and submitted a *Waiver* request for the same (see File nr 0005023518).

This application was endorsed by the Ohio Department of Natural Resources (ODNR), Division of Forestry, who does have primary responsibility for forest fire control and suppression in Ohio. However the Forestry Conservation Communications Association (FCCA) spoke in opposition, citing Rule section 90.265(c) which says “...the Frequency is primarily available for Federal government use, and only secondarily available for non-government use “to licensees directly responsible for the prevention, detection, and suppression of forest fires.” The Central Ohio Joint Fire District (the “Applicant”) is not directly responsible for the prevention, detection and suppression of forest fires, and is not eligible to use the frequencies under Section 90.265(c)”. We begged to differ in that the Applicant would be the first responder to any forest fire incident in their rather large geographic service area and, in their endorsement, The ODNR Division of Forestry agreed.

Several more pleadings and information exchanges were made and those can be viewed in the History portion of the above numbered Application in ULS. We were told verbally that The National Telecommunications and Information Administration (NTIA), the official guardian of “Federal Primary” frequencies, also opposed the application therefore it would not be granted. However; there is nothing in the ULS record to verify this.

This application was first filed on 01/10/2012 and is still “Pending” in ULS, nearly two (2) years later. Meanwhile, the applicant, the Central Ohio Joint Fire District is out in the real world fighting fires and saving lives and property without the use of readily available technology, putting the lives of their personnel at risk on a daily basis. We can see absolutely no reason for this to be allowed to occur in this day and age!

In the 700 MHz. and 800 MHz. arenas, both VRS manufacturers say at least 2 MHz. separation is needed to avoid degraded operation, again nearly impossible due to the current spectrum allocations.

In the 700 MHz Public Safety band, just six (6) MHz is allocated. Only a very small system with frequencies in the center of this six MHz wide allocation could be assured of interference-free VRS operation by the use of one or more of the nine (9) RPC

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controlled “Low Power” frequencies, located at each end of the band, which the “Plan” designates for, among other things, VRS use.

At 800 MHz. the available public safety frequencies are somewhat wider, from 851 MHz. to 860 MHz. However, in Ohio, the majority of agencies employing 800 MHz. (and 700 MHz.) technologies subscribe to the State of Ohio’s Multi-Agency Radio Communications System (MARCS). MARCS is a very large (statewide) system employing both 700 MHz. and 800 MHz. frequencies in the Project 25 format with more than 220 transmitter/receiver sites. It has more than 1,500 user agencies and more than 50,000 subscriber units. Since MARCS is designed as a “mobile radio” system, portable coverage is assured only in the four major urban areas (Columbus, Cleveland, Dayton and Cincinnati). Therefore much of Ohio does not have assured portable radio coverage. Consequently many agencies attempt to have reliable portable radio coverage by employing VRS equipment when away from their vehicles, be it a law enforcement officer, fire-fighter, medic or other emergency worker.

Ohio MARCS uses frequencies over the entire bands in 700 MHz. and 800 MHz. therefore finding an available VRS frequency two (2) MHz. separated is highly unlikely.

Many MARCS users who need VRS have been applying for 700 MHz Low Power frequency assignments through our RPC. By the use of these 700 MHz band frequencies, agency personnel only have to carry one portable radio, capable of both the VRS frequencies and accessing MARCS direct when within portable coverage (close proximity of a serving tower site).

For the most part these Low Power assignments have working satisfactorily but we can see a time, possibly in the near future, when these nine (9) *RPC* controlled frequency pairs, even with geographic coordination, will reach the point of possibly causing interference to other near-by users.

In addition, the National Interoperability Field Operations Guide, version 1.4 (Jan 2011), published by the U.S. Department of Homeland Security sets out Interoperability frequencies 770/800.89375 and 774/804.50625 for Mobile Repeater use. This RPC has neither authorized or encouraged the use of these for agencies who use the 700 MHz band as their primary system because we can see nothing but interference problems being caused.

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APCO, in their comments, state that the use of the certain 700 MHz. Guard Band frequencies would likely not cause interference to Broadband operations in the main portion of the Broadband allocation.

Being able to use the APCO cited 700 MHz Guard Band frequencies would both give us more frequencies and be further removed from the narrowband voice spectrum, thus diminishing the interference potential between the MARCS system and the agency VRS equipment.

For the reasons set forth above, RPC-33 fully supports APCO's position and hopes the Commission will seriously consider further investigation into the potential use of additional spectrum for VHF/UHF public safety agencies and the 700 MHz Guard Band spectrum for large system users in Ohio and elsewhere.

Respectfully,

A handwritten signature in blue ink that reads "Paul M. Mayer". The signature is fluid and cursive, with a long horizontal stroke at the end.

Paul M. Mayer, Chairman
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