

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of

MOBILE RELAY ASSOCIATES)	WT Docket No. 13-212
)	
To Operate on Frequency Pairs 462/467.5375 MHz and)	Public Notice, DA 13-1838
462/467.7375 MHz at Multiple Locations in the)	
Los Angeles, Denver, Las Vegas, and Miami)	
Metropolitan Areas)	

To: Chief, Wireless Telecommunications Bureau

**REPLY COMMENTS FROM
MOBILE RELAY ASSOCIATES**

Mobile Relay Associates (“MRA”), by its attorneys and pursuant to the Public Notice, DA 13-1838, released August 29, 2013 (“*Request for Comments Notice*”), hereby submits its Reply Comments herein.¹ In this proceeding, the Commission has sought public comment on the merits of four roughly identical waiver requests submitted by MRA as part of four pending ULS applications filed by MRA (collectively, “MRA Waiver Request”).² According to the Commission’s ECFS site, in response to the *Request for Comments Notice*, the Commission received six sets of comments – five sets of comments in support of the MRA Waiver Request, from MRA, the Enterprise Wireless Association (“EWA”), Forest Industries Telecommunications (“FIT”), Rebel Communications, LLC (“Rebel”) and Kenwood USA Corp. (“Kenwood”); and one in opposition, from Mr. P. Randall Knowles (“Knowles”). The

¹ The *Request for Comments Notice* established October 15, 2013 as the deadline for reply comments in this docket. Subsequently, by Public Notice, DA 13-2025, *Revised Filing Deadlines Following Resumption of Normal Commission Operations*, released October 17, 2013, the Commission changed the due date for all filings that otherwise would have come due between October 7 and October 16, by extending the deadline for sixteen days (in this case, to October 31). Therefore, these Reply Comments are timely filed.

² File Nos. 0005877470, 0005895551, 0005895553 and 0005898064. See also *Request for Comments Notice*, n.5.

Commission also received a late-filed request for extension of time from the Personal Radio Steering Group (“PRSG”).

The Commission staff has afforded PRSG and Mr. Knowles an extension to November 4, 2013, within which to file additional comments. Accordingly, this filing responds to the comments already submitted. If Mr. Knowles or PRSG file additional comments between now and November 4, MRA will promptly review same and file a reply thereto as soon as feasible.

SUMMARY OF THE INITIAL KNOWLES COMMENTS

In his initial comments, Mr. Knowles states that he is an individual and a GMRS operator, and that he has not read or seen the MRA Waiver Request which he is nonetheless opposing. Mr. Knowles says he could not find the MRA Waiver Request in ECFS, which is not surprising, since the *Request for Comments Notice*, at nn.1-4, specifically said the MRA Waiver Request was located in each of the four MRA applications in ULS, and directed potential commenters to go to any one those specifically-identified ULS file numbers to locate a copy. (Indeed, *id.*, at n.5, advised potential commenters that the filings were essentially fungible and it wouldn’t matter which of the four ULS applications one chose.)

Mr. Knowles bases his opposition first on his assumption that MRA’s technical showing (which Mr. Knowles admittedly has never seen) is deficient, and that therefore there will be spectral overlap and “substantial” interference to incumbent users. He bases this assumption on the fact (true) that GMRS has not been narrowbanded, and upon his further assumption that the MRA Waiver Request failed to account for the continued wideband allocation for GMRS (false).

Mr. Knowles then says even if there were no spectral overlap, GMRS has already ceded too much of its former spectrum allocation to Part 90 over the years, and the public interest is much better off if the spectrum were turned over to GMRS, as opposed to Part 90 usage.

RESPONSE TO THE INITIAL KNOWLES COMMENTS

First, to the extent that Mr. Knowles blames anyone except himself for his failure to have found and read the MRA Waiver Request, he is mistaken. Multiple other commenters had no trouble whatsoever finding the MRA Waiver Request in ULS, based upon the advice in the *Request for Comments Notice*.

Second, all of Mr. Knowles' assumptions in his comments were 100% wrong, as any reference to the MRA Waiver Request reveals. The MRA Waiver Request is based on the assumption that GMRS and other users are not narrowbanded, and that the guardband consists only of the unused spectrum beyond their incumbent wideband operations. Although originally MRA had assumed that GMRS was wideband but Part 90 Industrial/Business ("I/B") paging was narrow-band, MRA later amended its applications to correct that mistake, and showed that even with wideband Part 90 I/B paging adjacent, there is still no spectral overlap. All the other commenters, including two separate Part 90 I/B Commission-certified frequency coordinators, confirmed the accuracy of MRA's Waiver Request from a factual standpoint.

There Is No Spectral Overlap with GMRS, and No Risk of Interference

It was back in 2009 when, with the blessing of this Commission, the Land Mobile Communications Council ("LMCC") determined that the new 4 kHz-emission designator digital equipment could be successfully interweaved between pre-existing wideband (*i.e.*, 20 kHz-emission designator) channels without spectral overlap, and therefore such 4 kHz facilities could be licensed without any interference analysis (because there couldn't be any interference). *See June 24, 2009 Letter to Russell Fox* (copy attached hereto as Exhibit 1).

Pursuant to this LMCC pronouncement, multiple licensees, including MRA, have been operating in the T-Band for over three years with this same 4 kHz narrowband emission, in

between two wideband operations, without causing or receiving harmful interference. *See, e.g.*, MRA call sign WQLA446, where MRA operates using the same 4 kHz digital emission technology using Kenwood equipment, with channels centered on each of 470/473.9750 MHz and 507/510.3750 MHz. As to the first channel, MRA operates between the wideband (20 kHz emission designator) operations of the El Monte Police Dep't. on 470/473.9625 MHz (call sign KBY750), and the former license of the City of Pasadena on 470/473.9875 MHz (call sign KVF692, expired in May, 2013). As to the second channel, MRA operates between the wideband operations of the Metropolitan Transit Authority on 507/510.3625 MHz (call signs WPZN310 and WPZL253), and Fisher Wireless Services on 507/510.3875 MHz (call sign WIJ816).

These two channels on one MRA license are – to repeat – just one example among hundreds that could be listed. Thus, there is absolutely no impingement whatsoever upon 20 kHz-wide GMRS operations centered 12.5 kHz away. There is no interference, much less “substantial” interference, to GMRS.

This Spectrum Is Not Usable for GMRS

Equally flawed is Mr. Knowles' mistaken assumption that the involved guardband here is even usable for GMRS point-to-point operations. As noted by MRA, this guardband is a very narrow slice of spectrum, and until the advent of recent manufacturer technical innovations (from commenter Kenwood, among others), this guardband was too narrow to accommodate MRA's proposed use. It was only the development by Kenwood of digital transmission 4 kHz emission designator equipment that made this proposal possible.

The involved Kenwood equipment is now “off-the-shelf” for Part 90, and no new FCC equipment certification needs to occur for MRA or other Part 90 I/B licensees to construct and

operate in this guardband. Conversely, under Section 95.631 of the Commission's Rules, GMRS operators are prohibited from employing digital emission or transmitting non-voice data.

Certainly, Mr. Knowles' proposed "remote receiver linking for GMRS repeaters" (Knowles Comments, p.3), a point-to-point linking which would connect repeaters together, is contrary to the GMRS technical rules; thus there is no equipment that would even be usable for such purpose and still comply with general GMRS technical rules. Even if such point-to-point remote receiver linking comported with the GMRS rules, it is not technically feasible. There would not be sufficient spectral separation between the omnidirectional repeater and mobile transmissions and the virtually collocated remote linkup transmissions. Without spending huge amounts of money on multiple filters or other techniques to achieve receiver isolation from the collocated transmitters, the repeater/base transmissions would cause massive interference to the remote linkup transmissions, wiping them out and vice versa. Since GMRS is, by design, not a huge revenue-generating service, there is no money to pay for such multiple filter systems.

MRA Rendered a Public Service in Finding This Spectrum

Finally, Mr. Knowles fails to acknowledge that MRA, at considerable time and expense to itself, is the one that identified this potentially usable spectrum, and that MRA did so precisely because Part 90 spectrum congestion has reached an absolutely critical stage, at least in the geographic areas which are the subject of MRA's four pending applications. As discussed in MRA's Comments filed herein September 30, 2013, at pp. 5-6, substantial Commission precedent supports the concept of rewarding finders and pioneers such as MRA for their valuable contributions in identifying such usable spectrum. On that basis alone, the Commission should reject Mr. Knowles' suggestion that GMRS deserves this spectrum more than MRA does in these four specific geographic areas.

CONCLUSION

In sum, the initial Knowles comments are premised upon mistaken factual assumptions and therefore without merit. Based upon the otherwise unanimous comments from a multitude of interest groups, including two licensees, two frequency coordinators, and an equipment manufacturer, the Commission should find the MRA Waiver Request to be in the public interest and should grant the Waiver Request and the associated pending ULS applications.

Respectfully submitted,
MOBILE RELAY ASSOCIATES

October 31, 2013

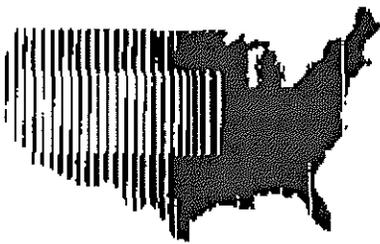
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By: _____


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EXHIBIT 1

LMCC LETTER OF
JUNE 24, 2009



LAND MOBILE COMMUNICATIONS COUNCIL

Writer's Address and Telephone Number:

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703-528-5115

MEMBER

AAA

AAR *Via E-Mail*

AASHTO

AFWA June 24, 2009

APCO

API Mr. Russell Fox, Esq.
Mintz, Levin, Cohn, Ferris, Glovsky, and Popeo, P.C.

ASRI 701 Pennsylvania Ave. N.W.

CSAA Washington, DC 20004

EWA

FCCA

Dear Mr. Fox:

FIT

IAFC

IMSA

ITSA

MRFAC

NASF

PCIA

TIA

UTC

This responds to your letter of April 21, 2009, in which you questioned LMCC's decision not to employ TSB-88 when coordinating 4 kHz bandwidth equipment that is offset from incumbent 25 kHz channel bandwidth equipment by 12.5 kHz.

Initially, we would point out that we do not agree with your assertion that licensees are authorized to use their entire channel bandwidth. A licensee can only utilize the bandwidth authorized by the emission designator on the license. For a 25 kHz channel, the maximum authorized occupied bandwidth cannot exceed 20 kHz. For the current variety of very narrowband equipment, that is 4 kHz. Thus, as shown in the attached chart, there is no overlapping occupied bandwidth.

With regard to TSB-88, it was developed on the assumption that there is some spectrum energy overlap, although for certain types of signals, the out of bandwidth emission will be very low compared to the peak levels. That is the case for the current variety of 4 kHz bandwidth equipment. Without spectrum overlap, interference can be assumed to be *de minimus*.

To confirm the assumption, LMCC asked RadioSoft to conduct a number of simulations using TSB-88C. Four kilohertz equipment was placed at various geographic locations from incumbent stations. The 4 kHz station was placed at 12.5 kHz from the incumbent 20 kHz occupied bandwidth stations. In no case was a level of five per cent interference even approached. From the tests, it can be inferred that if a TSB-88C analysis were applied in any situation, the results would be favorable.

LMCC presented these results and conclusions to the FCC. The FCC has since informally concurred with the LMCC analysis, and agrees that TSB-88 is not a requirement when 4 kHz stations are to be placed 12.5 kHz from an incumbent 20 kHz occupied bandwidth station. This concurrence is limited, however, to the current variety of 4 kHz equipment. Equipment that requires a wider bandwidth, *e.g.* 6.0 kHz, will require additional study, but that cannot be done until actual spectrum signatures are available.

On behalf of LMCC, we trust this fully responds to your concerns.

Sincerely,

A handwritten signature in cursive script, appearing to read "Al Itner".

Al Itner
President

Coordination of Narrowband Channels

