



## LAND MOBILE COMMUNICATIONS COUNCIL

September 30, 2015

Admiral David G. Simpson, (Ret.)  
Chief  
Public Safety and Homeland Security Bureau  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

Roger Sherman  
Chief  
Wireless Telecommunications Bureau  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

Re: Ex Parte Letter  
Consensus Protocol for VRS/Data Telemetry Frequency Coordination  
PS Docket No. 13-229 - Amendment of the Commission's Rules to Facilitate  
the Use of Vehicular Repeater Units

Gentlemen:

Pursuant to the *Report and Order* adopted in the above referenced matter,<sup>1</sup> the Land Mobile Communications Council (LMCC), of which every Part 90 Federal Communication Commission (FCC)-certified frequency advisory committee is a member, is pleased to submit the attached "Consensus Protocol for Vehicular Repeater System (VRS) Coordination" as requested by the FCC.<sup>2</sup> The LMCC understands that these protocols will be evaluated by the WTB and the PSHSB. It is further understood that until the protocols are approved, as announced by FCC *Public Notice*, the FCC will not accept applications for VRS facilities on the frequencies in question.<sup>3</sup>

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<sup>1</sup> Amendment of Sections 90.20(d) and 90.265 of the Commission's Rules to Facilitate the Use of Vehicular Repeater Units, et al., *Report and Order*, PS Docket No. 13-229,, FCC 15-103 (Aug. 10, 2015).

<sup>2</sup> *Id.* at ¶¶ 27-28.

<sup>3</sup> The frequencies are 173.2375, 173.2625, 173.2875, 173.3125, 173.3375 and 173.3625 MHz.

Upon acceptance, the LMCC will post the protocols on its website ([www.lmcc.org](http://www.lmcc.org)) to enhance industry awareness of the FCC rule changes and the spectrum opportunity for both VRS and data telemetry systems. We look forward to responding to any questions the Bureaus may have regarding the proposed VRS consensus coordination protocols.

Sincerely,

*Greg Kunkle*

President

Attachment

cc: LMCC Membership  
David Furth, FCC  
Scot Stone, FCC

**Land Mobile Communications Council**  
**Consensus Protocol for VRS/Data Telemetry Frequency Coordination**

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**General Procedures**

- Data telemetry to VRS and VRS to data telemetry frequency coordination analyses shall recognize each other as exclusive systems given the incompatibility of these technologies; therefore, the frequency coordination protocols will follow the regulatory guidelines in FCC Rule Section 90.175(b)(4) that pertain to mobile repeater station operations, and FCC Rule Section 90.187 that are applicable to VHF co-channel systems seeking exclusive use operations.
- Data telemetry to data telemetry and VRS to VRS frequency coordination protocols should follow individual coordinator policies associated with shared channel certifications and the FCC expectation “that coordinators will assign [VRS] users in the same area to the same channel if the channel is not loaded to full capacity and interference would not result, even if this means that the two entities’ use would exceed the 50 unit loading capacity.”<sup>4</sup>
- Wide-area or state-wide VRS systems (those whose areas of operation are not defined by a county or an 80 km or less area around fixed coordinates) will be classified as secondary by the FCC, but it is recommended that applicants and/or incumbent licensees be notified about secondary use operations in their area.
- Special attention should be paid to the location of remote telemetry facilities as many use directional antennas, especially when near the outer limit of the base/fixed station coverage. More detailed analyses might allow closer assignment of VRS and data telemetry systems while causing no interference to telemetry operations.

**Frequency Coordination Process**

- Step 1 – If the distance between a VRS facility (proposed or incumbent) and a data telemetry facility base/fixed station (proposed or incumbent) is 160 km (100 miles) or greater as measured from the closest point of the VRS area of operation, as defined by either a County border or the edge of a maximum area of operation limited to a 80 km distance from center coordinates of normal day-to-day operations, to the telemetry base/fixed stations, the application may be certified.

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<sup>4</sup> Amendment of Sections 90.20(d) and 90.265 of the Commission's Rules to Facilitate the Use of Vehicular Repeater Units, et al., *Report and Order*, PS Docket No. 13-229, FCC 15-103 at ¶34 (Aug. 10, 2015).

- Step 2 – Should proposed and incumbent primary systems be closer than 160 km (100 miles), then an application may be certified if the 19 dbuV/m (50,10) interference contour calculated from a telemetry system's (proposed or incumbent) fixed stations do not overlap (proposed or incumbent) primary VRS areas of operation. The 19 dbuV/m (50,10) interference contour shall be performed using generally accepted engineering practices and standards.
- Step 3 – If the frequency coordination analysis fails Step 2, applications may be certified if accompanied by a letter of consent from all licensees whose systems could not be protected pursuant to the analysis required in Step 2.

