

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Amendment of Parts 2 and 95 of the)	ET Docket No. 09-36
Commission’s Rules to Provide Additional)	
Spectrum for the Medical Device)	
Radiocommunication Service)	RM No. 11404
In the 413-457 MHz Band)	

To: The Commission

**REPLY COMMENTS
OF THE
ENTERPRISE WIRELESS ALLIANCE**

The Enterprise Wireless Alliance (“EWA” or the “Alliance”), in accordance with Section 1.415 of the Federal Communications Commission (“FCC” or “Commission”) rules and regulations, respectfully submits its reply comments in the above-entitled proceeding.¹ The Notice sought comment on allowing broadband wireless medical devices access on a secondary basis to four 6 MHz blocks of spectrum, as requested by the Alfred Mann Foundation (“AMF”), to accommodate multiple network implanted devices that use wideband functional electrical stimulation techniques, referred to in the Notice as micro-power networks (“MMNs”).

EWA is a national trade association representing many business enterprises, wireless sales and service providers, hardware and software system vendors and technology manufacturers. A number of the firms represented by the Alliance either operate on or provide

¹ *Amendment of Parts 2 and 95 of the Commission’s Rules to Provide Additional Spectrum for the Medical Device Radiocommunication Service in the 413-457 MHz Band*, Notice of Proposed Rulemaking, 74 FR 22,491 (rel. Mar. 20, 2009) (“Notice”).

equipment to entities that utilize the Part 90 spectrum between 451-457 MHz, one of the frequency bands to which access is sought by the AMF.

Like all parties to this proceeding, the Alliance applauds the work of the AMF in fostering the advancement of implantable neuromuscular microstimulation devices that hold great promise for individuals, including those injured in defense of this nation, that have suffered spinal cord, brain, stroke and other injuries that compromise neuromusculoskeletal capabilities. Their work is vital and should be encouraged. However, the results of the AMF's efforts need to be implemented in spectrum bands that are capable of enabling these MMNs to operate without causing interference to or receiving interference from other users.

The Comments filed in this proceeding by, among others, the Land Mobile Communications Council ("LMCC") of which the Alliance is a member, Motorola, Inc. ("Motorola"), the Association of Public-Safety Communications Officials-International, Inc. ("APCO"), the Society of Broadcast Engineers, Incorporated ("SBE"), and AARL, the national association for Amateur Radio ("AARL") suggest that insufficient work has been done to determine whether the 451-457 MHz band satisfies that non-interference criterion and contain substantial evidence to suggest that the band does not.

For example, Motorola's comments included a detailed technical analysis of the interference potential to MMNs from Part 90 systems and from those devices to Part 90 operations. Motorola reached the following conclusions:

Absent any analysis or other concrete assurances regarding interference immunity, it is impossible for the Commission to move forward on the proposal, even on a secondary basis. Licensing these devices on a secondary basis does not preclude the necessity of demonstrating that the proposed MMN equipment will be able to operate reliably when in proximity to incumbent high-power systems. The received interference could result in abnormal operation of the devices resulting in an unknown impact to the individual in which they are implanted.²

² Motorola Comments at 4-5.

Motorola stated further:

In short, the interference considerations to incumbent services from MMNs are not trivial but are, in fact, much higher than typically permitted by low power secondary services. Based on the analysis provided by the AMF Petition – even before Motorola’s corrections – MMNs are not compatible with incumbent land mobile services. Motorola’s analysis shows an even greater risk of incompatibility.³

APCO also expressed concern that the AMF had not adequately assessed either the impact of

Part 90 high-power systems on implanted MMNs or the reverse situation:

APCO’s concern is that the proponents of the medical device spectrum allocation have not given adequate consideration to the potential interference to those devices from land mobile radios. Further study would also be required to ensure that the proposed medical devices do not interfere with portable or mobile radios used by public safety agencies.⁴

The SBE stated succinctly: “A sufficiently high degree of interference rejection capability of MMNs has not been demonstrated to date.”⁵

EWA is confident that all parties to this proceeding share a common goal: the identification of an appropriate spectrum home for devices that may provide extraordinary relief to many of our injured citizens. In fact, the FCC has taken steps in recent years to designate spectrum that could be used by these types of medical devices. The Commission created the Wireless Medical Telemetry Service (“WMTS”) and allocated spectrum in the 608-614 MHz, 1395-1400 MHz, and 1429-1432 MHz bands for these types of applications.⁶ It is incumbent on the AMF, as the proponent of this proposal, to demonstrate with far greater specificity than has been provided to date why these already allocated bands cannot be used for this particular purpose based on technical requirements, rather than cost of devices or convenience in development. Even if it is able to do so, however, and particularly in light of Motorola’s

³ *Id.* at 9.

⁴ APCO Comments at 2.

⁵ SBE Comments at 3.

⁶ 95 C.F.R. § 95.1100 et seq.

comments, the FCC must assure itself that there is a technical basis for concluding that MMNs will be able to reject interference from primary Part 90 systems and not cause interference to those systems before a secondary allocation of this band for this purpose can be considered. Simply labeling MMNs as secondary and relying on the FCC's hierarchy of interference protection standards is not adequate when an interference problem could cause further injury to those in whom the medical devices are implanted or jeopardize the operation of primary Part 90 users, including those providing public safety and other vital services.

Respectfully submitted,

ENTERPRISE WIRELESS ALLIANCE

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