

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

In the Matter of	)	
	)	
Revisions of the Commission's Rules to	)	CC Docket No. 94-102
Ensure Compatibility with Enhanced 911	)	
Emergency Calling Systems	)	
	)	
Amendment of Parts 2 and 25 to Implement the	)	IB Docket No. 99-67
Global Mobile Personal Communications	)	
By Satellite (GMPCS) Memorandum of	)	
Understanding and Arrangements; Petition of the	)	
National Telecommunications and Information	)	
Administration to Amend Part 25 of the	)	
Commission's Rules to Establish Emissions	)	
Limits for Mobile and Portable Earth Stations	)	
Operating in the 1610-1660.5 MHz Band	)	

**COMMENTS OF MOTOROLA**

Motorola Inc. submits these comments in response to the *Further Notice of Proposed Rulemaking* released by the Commission on December 20, 2002, seeking comment on the scope of communications services that should provide access to emergency services.<sup>1</sup>

As an initial matter, Motorola is concerned that the FCC appears to be considering new E911 requirements for additional services at a time when uncertainty and confusion still prevail with deploying the current set of requirements. While there has been major progress in the face of numerous difficulties, many unanticipated at the time the mandates

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<sup>1</sup> See Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems, Amendment of Parts 2 and 25 to Implement the Global Mobile Personal Communications by Satellite (GMPCS) Memorandum of Understanding and Arrangements; Petition of the National Telecommunications and Information Administration to Amend Part 25 of the Commission's Rules to Establish Emissions Limits for Mobile and Portable Earth Stations Operating in the 1610-1660.5 MHz Band, CC Docket No. 94-102, IB Docket No. 99-67, *Further Notice of Proposed Rulemaking*, FCC 02-326 (rel. Dec. 20, 2002) ("*FNPRM*").

were created, there is still much to be done. As Verizon Wireless noted recently in a related proceeding, “The Achilles heel of E911, as currently formulated and ordered by the Commission, is its reliance on the ability of thousands of locally based PSAPs, LECs, wireless carriers, and multiple vendors to deploy the technology one PSAP and one wireless carrier at a time.”<sup>2</sup> It is also essential that the FCC heed the counsel provided to the agency by its own independent investigator in the recent *Hatfield Report*.<sup>3</sup> One of the key recommendations of the *Hatfield Report* was that the Commission should proceed cautiously in the accommodation of specialized services and extension of new 911 requirements to other wireless technologies. Specifically, the *Hatfield Report* recommends that the FCC “avoid the addition of new requirements during this critical phase of the rollout”<sup>4</sup> and “work with the industry ... to prioritize the future evolution of wireline and wireless E911 in such a way that short term and long term priorities are properly balanced.”<sup>5</sup> Imposing additional E911 requirements poses “a danger that constantly changing requirements will lead to scheduling delays.”<sup>6</sup> The Commission should heed this warning and refrain from imposing new E911 requirements on the wireless industry until the Phase I and Phase II processes are substantially completed. Further, as Mr. Hatfield pointed out, any attempt to regulate nascent technologies could have unintended consequences on their adoption and implementation. Motorola therefore

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<sup>2</sup> See Reply Comments of Verizon Wireless to the OnStar Petition, CC Docket No. 94-102, filed February 7, 2003.

<sup>3</sup> See Dale N. Hatfield, *A Report on Technical and Operational Issues Impacting The Provision of Wireless Enhanced 911 Services*, Public Notice, DA 02-2666 (2002) (“*Hatfield Report*”).

<sup>4</sup> See *Hatfield Report* at 40.

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

strongly encourages the Commission to focus on the outstanding issues facing immediate deployment of E911 services and to deploy its scarce resources to other services at a later time.

Further, the instant rulemaking raises many questions for a variety of current and future services but gives scant guidance as to the specific intended requirements. It is hard to comment on some areas because it is not clear enough what type of E911 requirements might be considered, in what time frame, for what purpose. Considering the tremendous difficulties that have arisen in the development of the current E911 requirements to date, any premature imposition of new, generalized or vague mandates promises a future of further confusion in expectations and requirements for E911 services in the United States. Sometimes, slowing down is the faster course to the goal.

***Telematics.*** Motorola is a supplier of embedded devices, enabling technologies and distributed applications for the telematics market. Motorola works closely with the automotive original equipment manufacturers (“OEMs”) to meet the design and functionality requirements of the OEMs, and also works with wireless carriers, telematics service providers (“TSPs”) and other technology partners of the OEMs to create products that enable telematics services to be delivered reliably over wireless networks. Motorola also participates in standards bodies that create the common practices that allow the telematics industry to operate effectively.

In Motorola’s view, the Commission should not impose 911 obligations on TSPs. As ComCARE stated in its comments to the OnStar Petition, “Telematics is the only wireless service that is delivering – nationwide – precise location with emergency calls and, importantly, is providing this information regardless of a PSAP’s readiness for Phase

II under the E9-1-1 rules.”<sup>7</sup> Where the vehicular user has chosen a telematics service that provides a safety and security call center system, the Commission should not second-guess or overrule that individual’s decision and impose a different set of performance requirements than the individual has chosen. The telematics safety and security services systems are well established, their performance is well known, and there is no demonstrated need to disrupt or impose new regulatory burdens on their operations.

In addition, for those telematics services where a standard wireless carrier handset is fully accommodated in an automobile (i.e., the speakers of the car function for the handset, the radio is interrupted by an incoming call, etc.), the E911 regulatory requirements governing the wireless carrier already apply. Thus, adding more regulatory oversight to telematics in this context appears repetitive and may very well lead to inconsistent regulatory treatment of the service. Indeed, telematics under this scenario merely enhances the existing PCS or cellular service. Motorola therefore believes that the Commission should not adjust its E911 regulations with respect to telematics services.

***Wireless Local Area Networks.*** The *FNPRM* also seems to embrace possible regulation of wireless and IP-based systems for E911/911 purposes. Motorola is actively involved in the development of 802.11 or “Wi-Fi” devices. These devices, built to the IEEE 802.11 standard, have begun to grow in popularity for providing networking capabilities throughout office, campus and home environments without the need for cumbersome wiring.

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<sup>7</sup> See Comments of ComCare Alliance, CC Docket No. 94-102, filed January 24, 2003, at 4.

In paragraph 81 of the *FNPRM*, the Commission seeks comment on requiring call-back and location information from wireless and IP-based systems. Wireless local area networks (“WLANs”) provide IP-based data at the current time, but early efforts are underway to attempt to include voice services for future applications. Additionally, some thought has been given to regulatory requirements, such as 911/E911. However, all of these efforts are very much at the embryonic stages and any regulatory requirements or uncertainties introduced at this point would stifle these new innovations.

Because these technologies are just evolving, the way they will be used and by whom is still largely unknown. Additionally, their technological capabilities and their inter-relationships with wireless and landline carrier systems are just now developing. It is therefore premature for the Commission or anyone else to try to develop a detailed set of requirements. There is every reason to believe that such precipitate mandates would turn out to be technologically, practically, and economically incorrect for whatever ultimately evolves.

In light of this, Motorola strongly urges the Commission to forbear from applying any E911 or 911 obligations to WLAN products at this time. Efforts are beginning in the standards groups to address voice and other issues associated with more robust IP-based WLAN devices. Any introduction of regulatory uncertainty at this time would serve to suppress the growth of this service to the detriment of the American public.

**AMTS.** The Commission should not require Automated Maritime Telecommunications Systems (“AMTS”) licensees to comply with basic and enhanced 911 rules to the extent that they offer “land-based real-time two-way switched voice

service that is interconnected to the public switched network.”<sup>8</sup> In the E911 First Report and Order, the Commission applied the 911 and E911 rules to cellular, broadband PCS carriers, and “covered SMRs.” The Commission stated that local SMR licensees offering mainly dispatch services to specialized customers, as well as licensees offering data, one-way, or stored voice services on an interconnected basis, would not be governed by E911 requirements. The intent was to extend the 911 requirements that apply to cellular and broadband PCS carriers to those SMRs that compete directly and primarily with them in providing standard mobile telephone service to the general public, but not to SMRs that primarily provide traditional dispatch services.<sup>9</sup>

In establishing the qualifications of a “covered” SMR carrier, Motorola notes that it has previously described to the Commission the technical limitations of many SMR providers that provide predominantly dispatch service. In June of 1997, Motorola explained to the Commission that such dispatch service providers were incapable of complying with the Commission’s 911 and E911 requirements.<sup>10</sup> To again assist the Commission in understanding how a traditional dispatch radio system provides service interconnected with the public switched telephone network (“PSTN”) and to illustrate the technical difficulties facing these operators with respect to fulfillment of 911 and E911 obligations, Motorola provides additional information on these systems below.

Most traditional dispatch radio providers limit the number of subscriber units enabled for interconnected calls. A subscriber unit must be enabled for interconnected

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<sup>8</sup> See *FNPRM* ¶ 13.

<sup>9</sup> See *E911 First Report and Order* at ¶¶ 80-83.

<sup>10</sup> See *Ex Parte Communication* of Motorola, Inc., CC Docket No. 94-102, filed June 12, 1997.

calls to access emergency services by dialing “911” because 911 calls are routed by local exchange carriers (“LECs”) to the PSAP. If a unit is not enabled for interconnected calls, it does not have the capability either to initiate or receive a call from the PSTN and, therefore, cannot be routed to a PSAP.

Even assuming that a dispatch subscriber unit is enabled for interconnected calls, if the dispatch system is simplex or half-duplex, the subscriber will not be able to reach emergency services simply by dialing “911.” With a simplex or half-duplex system, the subscriber must first push the interconnect button on the unit. The subscriber will then get a dial tone if there is an available PSTN line at the dispatch provider’s base station. At that point, the subscriber must dial “911” and, when the called party answers, the subscriber must push the “talk” button on the unit and begin speaking. The subscriber releases the “talk” button when listening. Thus, depending on system loading conditions, (*e.g.*, all PSTN lines may be in use) a PSTN interface may not be available when a user with a unit enabled for interconnected calls attempts to dial “911.” There is currently no means for implementing a “priority override” in a dispatch radio system to allow such access.

Furthermore, call back and automatic number identification (“ANI”) are not supportable by dispatch radio systems. To call an interconnected dispatch radio, a landline caller typically needs the 7 or 10-digit number of one of the PSTN lines connected to the dispatch system at the base station/repeater location as well as the subscriber unit’s Private Identification Number (“PIN”). The PIN is a 3 to 7-digit number, depending on the switch configuration, and, in most cases, is not a PSTN number. If the PSTN caller connects to the base station/repeater location, they will

receive an acknowledge tone. At that point, the PSTN caller must dial the PIN of the subscriber unit. The only information that a dispatch system will be able to convey to the PSAP is the PSTN line number at the dispatch system's base station/repeater location. The number of the subscriber unit cannot be conveyed because the typical interconnection arrangement between a dispatch operator and a LEC is akin to the single line or simple multi-line interconnection of other business or residential subscribers that do not have special trunking arrangements. As a result, the dispatch operator has not control over the ANI or pseudo ANI information transmitted with the call; that information is provided by the LEC. Therefore, even if a dispatch system could identify a calling subscriber unit – which they cannot – they are incapable of passing such information to the PSAP.

AMTS service providers, consistent with the description in the E911 First Report and Order, provide primarily specialized radio communications to a very select customer base. The majority of current communications in this service are system communications for navigable waterways throughout the United States to cargo ships and other types of maritime traffic. These communications are very much dispatch services and should not be construed as competitive with cellular, PCS, or “covered” SMR operations.<sup>11</sup> Further, as discussed in detail above, AMTS dispatch communications are not technically capable of providing 911 and E911 capabilities to subscribers. The FCC should not extend its rules to try to supplant these approaches.

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<sup>11</sup> Motorola notes that dispatch types of services, and AMTS, often have their own way to handle emergency situations, which may involve a different approach than what is appropriate for regular consumer phones. Given that the users of dispatch type services have ways unique to the services for handling emergencies, the FCC should not extend its rules or otherwise try to supplant these approaches, worked out by suppliers and customers who have every ability and incentive to develop whatever technologies are needed to meet the emergency requirements of dispatch services users.

Motorola therefore urges the Commission to extend the exemption for E911 requirements provided to non-covered SMRs to include AMTS. Such a result would be clearly consistent with the Commission's treatment of other similarly situated CMRS providers and would serve to recognize the characteristics of the AMTS.

### **Conclusion**

Motorola strongly encourages the Commission to refrain from considering the application of additional E911 requirements, as recommended in the *Hatfield Report*, and instead continue its focus on current E911 Phase I and Phase II rollout issues. If the Commission determines to move ahead with new E911 obligations, Motorola urges the exemption of telematics, forbearance from E911 obligations to WLAN products at this early stage in their development and exemption of AMTS as a type of non-covered SMR from any E911 requirements for the reasons set forth herein.

Respectfully submitted,

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February 19, 2003