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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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FEDERAL COMMUNICATIONS COMMISSION
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In the Matter of:

Revision of the Commission's Rules To Ensure Compatibility With The Enhanced 911 Emergency Calling Systems

CC Docket No. 94-102

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REPLY OF MOTOROLA SATELLITE COMMUNICATIONS, INC.

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Dated: October 18, 1996

SUMMARY

Motorola supports the comments and opposition of AMSC and Globalstar to the extent they oppose the Coast Guard's call for an immediate requirement that Mobile Satellite Service (MSS) systems provide E911 capabilities. The Commission was correct in concluding that it is premature to impose such a specific requirement on MSS providers who are still developing their technologies, services and customer base.

Motorola fully supports the Commission's determination that all providers of "CMRS real-time two-way voice communications services provide reasonable and effective access to emergency services."[1] Motorola's IRIDIUM® System and other MSS licensees are developing these emergency access techniques today.

However, until the international community has reached a consensus as to a specific emergency access mechanism, it would be premature to impose an E911 requirement -- or any specific requirement -- on Big LEO Systems that must operate around the world. This would subject Big LEO operators to conflicting requirements that may prove impossible to reconcile.

To date, the Coast Guard has focused only on the ability of a domestic geostationary MSS system to provide E911 capabilities. Until the distinct capabilities and requirements of global non-geostationary MSS systems can be assessed, it would be premature to impose a specific emergency communications obligation.

Nevertheless, Motorola is committed to working with the Commission, the Coast Guard, other public safety agencies, other governments and other MSS licensees in developing a mutually agreeable method of providing worldwide emergency communications.

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[1] E911 Report and Order at ¶ 83 (emphasis added).

Before the
FEDERAL COMMUNICATIONS COMMISSION
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In the Matter of: **Revision of the Commission's Rules To Ensure Compatibility With The Enhanced 911 Emergency Calling Systems**	**CC Docket No. 94-102**

To: The Commission

REPLY OF MOTOROLA SATELLITE COMMUNICATIONS, INC.

I. INTRODUCTION

Motorola Satellite Communications, Inc. ("Motorola") respectfully submits this Reply in response to the Comments of AMSC Subsidiary Corporation and the Opposition to the Petition for Partial Reconsideration of L/Q Licensee in the above-captioned proceeding.[1]

In its E911 Report and Order, the Commission correctly decided that mandating an E911 capability for Mobile Satellite Service (MSS) systems is

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[1] Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 94-102 (rel. July 26, 1996) ("E911 Report and Order")

premature.[2] The Commission reached a reasonable conclusion that wireless services in their early stage of development should not have a specific E911 standard imposed upon them. Such a specific obligation would inhibit innovative approaches to developing public safety communications mechanisms and significantly increase costs to a nascent industry with no countervailing public interest.

Motorola supports AMSC and L/Q Licensee[3] in opposition to the Coast Guard's petition for reconsideration to the extent they oppose the immediate imposition of E911 requirements. Motorola agrees with these MSS licensees that the entire MSS community should continue to work with the Commission and the public safety community in developing E911 standards or their operational equivalent to allow MSS customers to reach public safety authorities on a worldwide basis. Motorola's IRIDIUM® System has developed just such a first generation emergency communication capability for subscriber handsets that will work with its soon to-be-launched satellite system. However, the Coast Guard's petition, which calls for an immediate mandated E911 capability for all MSS systems, ignores these private sector initiatives, and would

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[2] Motorola is an interested party to this proceeding as Motorola has been licensed to use 5.15 MHz of spectrum at 1621.35-1626.5 MHz to provide Big LEO MSS services in the United States and throughout the world via the IRIDIUM® System. See In re Application of Motorola Satellite Communications, Inc. for Authority to Construct, Launch and Operate a Low Earth Orbit Satellite System in the 1616-1626.5 MHz Band, Order and Authorization, 10 FCC Rcd 2268 (Int'l Bureau, 1995); recon. denied, Memorandum Opinion and Order, FCC 96-279 (rel. June 27, 1996). Motorola, Inc., Motorola Satellite Communications' corporate parent, has been an active participant in this proceeding, having filed comments regarding all aspects of the E911 requirement for wireless services. See Comments of Motorola, Inc. of January 9, 1995) ("Motorola, Inc. Comments").

[3] Comments of AMSC Subsidiary Corporation, October 8, 1996 ("AMSC Comments"); Opposition of L/Q Licensee, October 8, 1996 ("Globalstar Opposition").

impose a new requirement on systems that are quite far along in their development. Moreover, the Coast Guard's arguments demonstrate the very uncertainty as to the appropriate method of providing MSS emergency communications that justifies the Commission's decision not to mandate a specific MSS E911 requirement at this time.

II. THE IMPOSITION OF AN E911 REQUIREMENT FOR GLOBAL MSS SYSTEMS IS PREMATURE AND INAPPROPRIATE

Motorola agrees with the Commission that all providers of "CMRS real-time two-way voice communications services provide reasonable and effective access to emergency services."[4] Like AMSC and Globalstar, Motorola is committed to working with the appropriate domestic and foreign public safety agencies, including the U.S. Coast Guard, in developing appropriate emergency communications standards.[5] However, Motorola does not support at this time the imposition of a specific "E911" requirement as the means of accomplishing these crucial emergency communications goals. As Motorola, Inc. noted in its comments in this proceeding, "[e]mergency communications over MSS must be flexible enough to respond to the emerging communications needs over oceans as well as a host of individual countries and political entities." There is as yet no global standard for "E911" or "911". Therefore, imposing a solely domestic emergency communication scheme on inherently global Big LEO MSS systems is inappropriate.[6]

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[4] E911 Report and Order at ¶ 83 (emphasis added).

[5] AMSC Comments at 1.

[6] Motorola, Inc. Comments at 11; See, also, Globalstar Opposition at 2-3.

The Commission's decision merely recognizes that the current technical development of evolving MSS systems does not justify mandating a particular emergency access scheme or deadline for imposing one.[7] Thus, the Commission's action reflects the fact that the commercial MSS industry is in its infancy and is in the process of developing services, technologies and a customer base. For example, AMSC, the only MSS provider operating in the U.S., has approximately 9,000 customers. The IRIDIUM System, GlobalStar, and Odyssey, the currently-licensed Big LEO MSS providers, are one or more years away from implementing their voice services. Similarly, elsewhere in its decision the Commission exempts for now the nascent 220 MHz Narrowband Service and the Location and Monitoring Service (LMS) until it determines how these services will operate.[8] The Commission also correctly recognizes that MSS licensees, while they may be partly owned by established entities, are still nascent businesses deserving of diminished regulatory burdens.[9]

Nevertheless, Motorola supports the Commission's conclusion "that CMRS voice MSS will eventually be required to provide appropriate access to emergency services. . . ."[10] As the Coast Guard petition recognizes, the MSS

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[7] E911 First Report and Order at ¶ 83.

[8] Id. at ¶ 82.

[9] Id. at Appendix B.

[10] Id. Motorola, Inc.'s initial comments reflect the Commission's view. As Motorola, Inc. suggested, the Commission should impose E911 compatibility requirements on terrestrial real-time CMRS now while excluding Big LEO MSS systems for the present. "At some point in the future, when terrestrial CMRS systems have fully defined their E911 access features, it may be appropriate to examine the interface between these

(continued ...)

community is not waiting for such a mandate. Rather, current MSS providers such as AMSC are implementing emergency mechanisms that can meet the Coast Guard's concerns for operations within the United States.[11] Motorola is likewise developing an emergency communications system for use on a global basis in each country where Iridium System handsets are authorized.[12] The IRIDIUM Emergency Call Service, which is far along towards completion and should be operational when the IRIDIUM System offers its first commercial service, will support emergency calls from all subscriber units.

However, until global MSS operators, such as the IRIDIUM System, have had the opportunity to assess their emergency communications operations and reach a global consensus with the many nations in which they will operate, the imposition of a specific domestic E911 obligation -- that may have no value on a global basis -- is premature and inappropriate. Instead of mandating E911 for these global MSS providers, Motorola supports the Commission's requirement that all MSS carriers "develop emergency access systems as soon as is feasible."[13]

The Coast Guard's arguments in favor of an immediate E911 obligation for MSS systems also suggest the very reasons for not imposing an obligation at this time. First, the Coast Guard states that MSS voice systems are "fairly new and not yet

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[10] (... continued)
systems and global MSS systems. At that time, the industry and the Commission should work together to select those features which may be appropriate to incorporate into future generations of MSS systems." Motorola, Inc. Comments at 11-12.

[11] Coast Guard Comments at 4.

[12] See, also, Globalstar Opposition at 3.

[13] E911 Report and Order at ¶ 83.

in widespread use." Thus, any lack of an E911 standard has had no appreciable impact on the public[14] and the Coast Guard's concern is then hypothetical at best. With the continuing efforts of current and future MSS systems to develop the best possible emergency and distress communications capability, mandating an E911 requirement would stifle these efforts. In the interim, the public faces little or no danger from the lack of E911 capability due to the start up nature of this service.[15]

Second, the Coast Guard acknowledges that certain MSS systems will operate globally, but suggests that without U.S. domestic standards in place, MSS systems will operate with no safety standards because the international community has yet to address MSS safety standards.[16] While the Coast Guard attempts to paint a picture of an MSS safety "Catch 22," it then sees no reason why "compatible national and international safety standards could not be developed together."[17] Until that time, Motorola agrees with Globalstar that it would be costly and inefficient to impose a U.S. national standard on Big LEO MSS providers who will operate in scores of countries.[18]

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[14] Coast Guard Comments at 2.

[15] The Commission's decision also addresses any particular concern the Coast Guard may have over the current lack of E911 capability of the MSS handsets for use in offshore or navigable water rescues. Passengers and crews of ships rely on internationally approved Global Maritime Distress and Safety Systems (GMDSS). E911 Report and Order at ¶ 82. Motorola for one, does not expect that Big LEO handsets will substitute for GMDSS and other required maritime radios unless and until an internationally-approved Big LEO emergency communications standard is in place.

[16] Coast Guard Comments at 3.

[17] Id.

[18] Globalstar Opposition at 2.

The Coast Guard's suggestion to impose U.S. national standards on systems operating land earth stations in the U.S.,[19] while arguably plausible for a primarily U.S. domestic GSO MSS service such as AMSC, would leave global Big LEO MSS operators subject to both U.S. domestic E911 requirements and international safety obligations yet-to-be established. This approach would impose significant costs and uncertainty on MSS systems by requiring them to develop and/or retrofit handsets for future international requirements and current U.S. obligations.

The Coast Guard next states that it believes that the MSS community's difficulty in routing calls, particularly with automatic location information (ALI), is "overstated."[20] However, the Coast Guard admits that it has been holding extensive discussions only with a domestic geostationary orbit MSS operator -- AMSC -- about possible technical solutions. It provides no evidence that its proposed solutions have any value for global non-geostationary orbit MSS operators using much smaller subscriber handsets.[21] In particular, the Coast Guard's suggested use of GPS receivers with Big LEO MSS subscriber units would add appreciably to the size, cost and battery drain of these handheld units. Unlike a GSO MSS unit with a much larger

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[19] Id.

[20] Coast Guard Comments at 4.

[21] Id. at 4-5. Later, the Coast Guard justifies its call for reconsideration on changed facts resulting from its discussions with AMSC. Id. at 6. While it may be that these "changed circumstances" justify reconsideration of the Commission's decision as it relates to GSO MSS systems, the Coast Guard presents no reason why the Commission's decision should be reconsidered for the NGSO MSS ('Big LEO') systems.

transceiver on the order of a briefcase, the addition of even the smallest GPS units would significantly change the very nature of these Big LEO MSS handsets.

The Coast Guard then seems to turn away from a mandated E911 technology by supporting AMSC's "manual" emergency referral service that requires operator intervention.[22] While Motorola will, at a minimum, maintain a similar operator-assisted E911 service for the IRIDIUM System, it believes that a more sophisticated approach is preferable. However, these solutions must await international agreement to avoid the adoption of costly and inconsistent satellite distress systems.

Finally, Motorola does not believe it is necessary to hold open the instant E911 proceeding in order to resolve any outstanding issues as to how MSS systems will provide emergency and distress communications. It may well be that the ultimate solution has no similarity to the "E911" obligations imposed on terrestrial CMRS providers. The Coast Guard's call for a Further Notice of Proposed Rulemaking might, in fact, limit the options proposed and developed in this area.[23] Rather than instituting a formal rulemaking, the Commission should promote informal discussion between <u>all</u> MSS licensees and the public safety community to explore the various options for providing necessary emergency MSS communications. Motorola is committed to working with the Commission, the Coast Guard, other public safety agencies and other

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[22] Coast Guard Comments at 5.

[23] Coast Guard Comments at 6.

governments to develop a mutually agreeable means of providing emergency communications over Big LEO MSS systems.[24]

III. CONCLUSION

Motorola supports AMSC's and Globalstar's opposition to the immediate imposition of E911 obligations on MSS licensees. Motorola agrees with the Commission that all CMRS operators should provide for emergency communications. Imposing a specific E911 standard, however, is premature and inappropriate.

Respectfully submitted,

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Dated: October 18, 1996

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[24] Motorola strongly disagrees with the Coast Guard's suggestion that a regulatory "hammer" is required to give MSS providers an incentive to do anything about providing compatible emergency communications. Coast Guard Comments at 6. Apart from the fact that Motorola recognizes its public service obligation to include such a capability in the IRIDIUM System, emergency and distress capabilities make good sense from a market perspective as well. Consumers expect that their phones will assist them in times of emergency. A Big LEO MSS system that did not provide this capability would be at a competitive disadvantage to systems that do.

CERTIFICATE OF SERVICE

I, Brent H. Weingardt, hereby certify that I have on this 18th day of October, 1996, caused copies of the foregoing **Reply Of Motorola Satellite Communications, Inc.** to be delivered via hand delivery as indicated, or by first class mail, postage prepaid, to the following:

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