

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Service Rules for the 698-746, 747-762 and 777-792 MHz Bands	)	WT Docket No. 06-150
	)	
Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems	)	CC Docket No. 94-102
	)	
Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones	)	WT Docket No. 01-309
	)	
Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services	)	WT Docket No. 03-264
	)	
Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules	)	WT Docket No. 06-169
	)	
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band	)	PS Docket No. 06-229
	)	
Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010	)	WT Docket No. 96-86
	)	

**COMMENTS OF MOBILE SATELLITE VENTURES SUBSIDIARY LLC**

Mobile Satellite Ventures Subsidiary LLC (“MSV”) hereby files these Comments in response to the *Further Notice of Proposed Rulemaking* (“*FNPRM*”) released by the Commission on April 27, 2007 in connection with the above-referenced proceedings.<sup>1</sup> MSV supports the requirement on which the Commission sought comment in the *FNPRM* that all

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<sup>1</sup> FCC 07-72 (Apr. 27, 2007) (“*FNPRM*”).

public safety user equipment in the “E Block” incorporate technology capable of accessing satellites.

### **Background**

*Mobile Satellite Ventures.* MSV is the entity authorized by the Commission in 1989 to construct, launch, and operate a United States MSS system in the L band.<sup>2</sup> MSV’s licensed satellite was launched in 1995, and MSV began offering service in 1996. MSV is also the successor to TMI Communications and Company, Limited Partnership (“TMI”) with respect to TMI’s provision of L band MSS in the United States. Today, MSV offers a full range of mobile satellite services, including voice and data, using both its own U.S.-licensed satellite and the Canadian-licensed L band satellite licensed to Mobile Satellite Ventures (Canada) Inc. (“MSV Canada”). In May 2005, the Bureau licensed MSV to launch and operate a replacement L band MSS satellite at 101°WL (called “MSV-1”).<sup>3</sup>

MSV currently provides two-way radio (PTT) and mobile data services to federal, state and local agencies involved in public safety and emergency response operations. These include, among others, the Federal Emergency Management Agency, U.S. Coast Guard, and local fire and police departments. These public safety entities and first responders depend on MSV’s system for redundant and ubiquitous wireless services during daily operations and in the case of emergencies. Specific markets served include Homeland Security, Public Safety, Emergency

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<sup>2</sup> *Order and Authorization*, 4 FCC Rcd 6041 (1989); *remanded by Aeronautical Radio, Inc. v. FCC*, 928 F.2d 428 (D.C. Cir. 1991); *Final Decision on Remand*, 7 FCC Rcd 266 (1992); *aff’d*, *Aeronautical Radio, Inc. v. FCC*, 983 F.2d 275 (D.C. Cir. 1993); *see also AMSC Subsidiary Corporation, Memorandum Opinion and Order*, 8 FCC Rcd 4040 (1993).

<sup>3</sup> *See Mobile Satellite Ventures Subsidiary LLC, Order and Authorization*, DA 05-1492 (May 23, 2005) (“*MSV-1 Order*”).

Response, Search and Rescue, Military, Coast Guard, Police, Trucking, Rail, Oil and Gas, Marine, Natural Resources, and Utilities.

*Further Notice of Proposed Rulemaking.* On April 25, 2007, the Commission adopted the *FNPRM*. Therein, the Commission seeks comment with respect to a number of issues related to the future of the 700 MHz band. Of particular note, the Commission seeks comment on Frontline’s proposal to auction a single, nationwide 10 MHz license consisting of the paired 757-762 MHz and 787-792 MHz bands (a new “E Block”).<sup>4</sup> In addition, and of particular importance to MSV, in the context of discussing the *Frontline* proposal, the Commission specifically asks whether “some or all public safety equipment operating on an ‘E Block’ built network [should] be capable of accessing satellite communications (including handsets and other mobile or fixed receivers)?” *FNPRM* at ¶ 280.

### **Discussion**

There is broad consensus among the public safety community, government leaders, and the communications industry regarding the importance of 700 MHz spectrum in providing a new platform for improved public safety communications for disaster response and homeland security. As Harlin R. McEwen of the International Association of Chiefs of Police explains:

The 700 MHz band spectrum is critical for public safety agencies to alleviate dangerous congestion on many existing radio systems, which places first responders and the public at risk. In much of the nation, there are no longer any

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<sup>4</sup> Comments of Frontline Wireless, LLC, WT Docket No. 06-150 (Mar. 6, 2007). Under Frontline’s modified proposal, the winning bidder would be required to: (i) construct a common, interoperable network infrastructure to be used by the public safety broadband network and the “E block” commercial network; (ii) provide coverage to 75 percent of the United States population within four years of the 700 MHz “auction clearing date;” provide coverage to 95 percent of the United States population within seven years of this date; and provide coverage to 98 percent of the United States population within 10 years of this date; (iii) manage and operate the public safety broadband network subject to collection of a reasonable network management fee; and (iv) provide priority access to public safety broadband operations during times of emergency. *See FNPRM* at ¶ 274.

frequencies available for new or expanded public safety radio systems. As a result, too many first responders are crowded on common channels, blocking critical communications, both on a day-to-day basis and, especially, when major emergencies occur. Once cleared of TV stations, the 700 MHz band channels will facilitate expansion of public safety systems already operating in the adjacent 800 MHz band, and the construction of many new public safety radio systems across the nation.<sup>5</sup>

MSV is primarily focused on the unique role that satellite communications can play in solving some of the thorniest communications issues facing public safety: the need for true nationwide service and for redundancy in the event of damage to terrestrial facilities. Without satellite technology, 700 MHz public safety systems will not meet their full potential as the key spectrum platform for public safety communications.<sup>6</sup>

*Nationwide service.* Satellites are uniquely capable of providing broadband coverage from the densest urban cores to the most rural areas, which may be beyond the reach of terrestrial wireline or wireless networks.<sup>7</sup> Even the most ambitious deployment plan for a 700 MHz public

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<sup>5</sup> Written Testimony of Harlin R. McEwen, Chairman, Communications & Technology Committee, International Association of Chiefs of Police Before the Senate Committee on Commerce, Science & Transportation (Jul. 12, 2005).

<sup>6</sup> The Commission has specifically recognized the capabilities of satellite networks in meeting the needs of the public safety community. *See Establishing Rules and Policies for the Use of Spectrum for Mobile Satellite Service in the Upper and Lower L-band, Notice of Proposed Rulemaking*, 11 FCC Rcd 11675, 11681 ¶ 12 (1996) (noting that satellites “provide emergency communications to any area in times of emergencies and natural disasters”); *Amendment of Section 2.106 of the Commission’s Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service, Notice of Proposed Rulemaking*, 10 FCC Rcd 3230, ¶ 7 (1995) (noting that satellites “provide nationwide public safety coverage. . . . [and] could satisfy important requirements that cannot be economically satisfied by other means”); *Qualcomm Incorporated, Order*, DA 00-2438, ¶ 7 (Chief, Wireless Bureau, Oct. 30, 2000) (explaining that satellites “may provide an important additional emergency telecommunications resource, especially to callers located in remote and rural areas and callers located in underpopulated regions where neither landline nor terrestrial mobile services exists”).

<sup>7</sup> *See Extending Wireless Telecommunications Services To Tribal Lands, Report and Order and Further Notice of Proposed Rulemaking*, 15 FCC Rcd 11794, ¶ 13 (June 30, 2000) (“Satellites also provide communications opportunities for communities in geographically isolated areas, such as mountainous regions and deep valleys, where rugged and impassable terrain may make service via terrestrial wireless or wireline telephony economically impractical.”).

safety network would take years to realize and leave hundreds of thousands of square miles unserved forever. By building satellite capability into public safety broadband user equipment, the “E Block” licensee would ensure that all potential public safety users have access to the network in the near term, even in the absence of terrestrial facilities.

*Reliability.* Satellite capability would ensure that the nationwide public safety broadband network is robust, and capable of supporting critical operations in the event of natural or man-made emergency. Recent history has underscored this vulnerability of terrestrial communications infrastructure, with tragic consequences; Hurricane Katrina disabled almost three million customer telephone lines and more than 1,000 cell sites.<sup>8</sup> The resulting lack of communications infrastructure severely impeded the ability of first responders and others in their disaster relief and recovery efforts.

In contrast to terrestrial infrastructure, though, satellites are located thousands of miles above the earth, rendering satellite networks effectively immune to ground-based disasters. Thus, while terrestrial outages multiplied in the hours, days, and weeks following Hurricane Katrina, satellite networks handled a corresponding surge in demand for capacity. Satellite providers were able to meet this demand, providing critical communications capabilities to emergency personnel and a vital information link for all citizens.

MSV, for one, saw approximately a four hundred percent increase in traffic in the region, and provided reliable service to nearly two thousand satellite phones in Louisiana and Mississippi for use by federal, state, and local governments, as well as private charities. MSV mended the gaps in terrestrial coverage after the hurricane by deploying over 1300 satellite

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<sup>8</sup> *Recommendations of the Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks*, Notice of Proposed Rulemaking, EB Docket No. 06-119, FCC 06-83 at ¶ 2 (June 16, 2006).

terminals to the Gulf Coast region. MSV offered free service to federal, state, and local agencies operating in the affected areas, including existing users such as the Mississippi Emergency Management Agency, Louisiana Department of Homeland Security and Emergency Preparedness, Federal Emergency Management Agency, and American Red Cross. MSV also responded quickly to requests for new service from users such as the Mississippi State Department of Health and the Federal Aviation Administration. Building satellite capability into every unit of 700 MHz public safety user equipment would ensure an even higher level of performance by satellite providers in the future by overcoming two of the only problems experienced with respect to satellite service after Katrina: the scarcity of such equipment and the unfamiliarity of public safety users with the equipment. By mandating dual-mode phones, millions of users would be automatically equipped with a satellite back-up that they were accustomed to using (for terrestrial service) every day.

*Feasibility.* A mandate for satellite capability can be implemented without imposing any material additional cost on public safety equipment manufacturers, in terms of either price or size. Small satellite-capable chipsets can be produced in volume for a few dollars each. Newer satellites have sufficient power to provide two-way mobile service to small, handheld terminals that are no bigger than today's conventional public safety radios. MSV, for one, is committed to providing such a satellite component. Its discussions with equipment vendors confirm the feasibility of doing so. By adopting this approach, the Commission would facilitate the deployment of precisely the kind of ubiquitous, interoperable, and reliable public safety communications network that has been and otherwise will continue to be so elusive.

*Implementation.* MSV proposes that the Commission require that all terminals on the 700 MHz public safety broadband network have the capability of effectively providing mobile

service by satellite by 2010. This will ensure that new public safety communications networks are providing truly nationwide service from the start. Moreover, to qualify as effective mobile service by satellite, the underlying satellite system should be required to provide coverage of all fifty states and be capable of providing priority and preemptive access to public safety users.

### **Conclusion**

For the reasons discussed above, MSV urges the Commission to require all terminals on the 700 MHz public safety broadband network to have the capability of providing mobile service by satellite by 2010.

Respectfully submitted,

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