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
	)	
	)	
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band	)	PS Docket No. 06-229

REPLY OF THE
SATELLITE INDUSTRY ASSOCIATION

The Satellite Industry Association ("SIA") hereby files this Reply in the above-referenced proceedings. In its Comments, SIA urged the Commission to encourage and facilitate the incorporation of satellite-based communications capability into public safety networks and, to the extent the Commission continues to link the 700 MHz D Block to the public safety spectrum block, to: 1) maintain the requirement that the D Block licensee make available to public safety users at least one handset that includes a seamlessly integrated satellite solution; and 2) grant the D Block licensee flexibility in meeting license obligations, such as build-out and hardening requirements, if the licensee integrates a satellite component, as an additional network layer, with the shared 700 MHz public/private communications infrastructure.

SIA's review of the recently filed comments indicates that there is substantial support from a broad range of parties for the use of satellites as a component of the public safety communications network.[1] For example, the National Public Safety Telecommunications

[1] SIA's proposal to grant the D Block licensee flexibility for integrating a satellite component is not intended as a replacement for a terrestrial public safety communications network, and accordingly, issues raised regarding the technological differences between terrestrial and

Council ("NPSTC") states that it "supports the notion of incorporating satellite or other non-terrestrial networks in at least one handset."[2] The New York City Police Department notes that "[i]n rural and remote areas, deployable broadband network assets can be prepositioned for use during a large scale event[, and] the inclusion of a satellite backhaul component can link these deployable networks."[3] The Public Safety Spectrum Trust Corporation argues that "[t]he goal is to construct a highly reliable and available network that is better than commercial wireless networks today, yet economically viable[, and] this can be achieved through a variety of means such as . . . backup reliance on satellite coverage."[4]

Commercial service provider Leap Wireless International, Inc. states that "[f]or areas without terrestrial network coverage, the Commission could ensure that public safety officials have adequate service by . . . permitting the carrier to use other alternatives for satisfying coverage requirements (e.g., satellite). . . . In addition to improving overall service coverage area for public safety officials, these requirements would also provide excellent backup solutions in the event the 700 MHz Public/Private network is rendered inoperable."[5] Equipment

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satellite architectures are misplaced. *See* Comments of the National Association of Telecommunications Officers and Advisors (NATOA) *et al*., at 18-19 (June 20, 2008); Comments of Interisle Consulting Group, at 7-8 (June 19, 2008). All technologies have their strengths and weaknesses. As discussed in SIA's Comments, satellites have the unique ability to provide nationwide coverage of rural and remote areas and to be unaffected by terrestrial disasters.

[2] Comments of NPSTC, at 43 (June 20, 2008).

[3] Comments of the New York City Police Department, at 10 (June 19, 2008).

[4] Comments of the Public Safety Spectrum Trust Corporation, at Att. C p. 3 (June 20, 2008); *see also* Letter, Mississippi Department of Public Safety (May 22, 2008); Letter, Washington State Emergency Management Division (May 22, 2008).

[5] Comments of Leap Wireless International, Inc., at 13 (June 20, 2008); *see also* Comments of AT&T Inc., at 3, 15 (June 20, 2008); Comments of Mobile Satellite Users Association (June

manufacturer Ericsson Inc., in supporting satellite use, further notes that satellite "functionality can be incorporated into modern handsets with minor impact to the manufacturing cost of the handset and no impact to the form factor."[6]

The comments reinforce SIA's position that satellites are unique in their ability to provide ubiquitous service coverage and withstand terrestrial disasters.[7] The Washington State Emergency Management Division notes that "[s]atellites continue to demonstrate their importance in serving hard to reach geographic areas or underserved areas in the United States for basic and emergency communications[, which] is especially true in the State of Washington, within our mountainous areas."[8] The Mississippi Department of Public Safety reminds the Commission that "[i]mmediately following the destruction of Hurricane Katrina, Satellite communications [were] the only reliable means of communicating in the State."[9]

18, 2008); Comments of Rivada Networks, at 2-3 (June 20, 2008); Comments of Software Defined Radio (SDR) Forum, at 20-21 (June 19, 2008); Comments of Wirefree Partners III, LLC, at 15 (June 20, 2008).

[6] Comments of Ericsson Inc., at 28 (June 20, 2008); *see also* Comments of Northrop Grumman Information Technology Inc., at 6 n. 9 (June 20, 2008) (supporting the use of Mobile Satellite Services to provide coverage to remote, sparsely populated areas but not to meet build-out requirements); Comments of ComCentric Inc., at 7-10 (June 20, 2008); Comments of Stagg Newman – Pisgah Comm Consulting, at 6 (June 20, 2008); Comments of Televate, LLC, at 10 (June 20, 2008).

[7] To the extent that other technologies or systems can provide the same level of ubiquitous service coverage and protection against terrestrial disasters, SIA does not object to granting the D Block licensee flexibility for integrating such technologies or systems into the shared 700 MHz public/private communications infrastructure. *See, e.g.,* Comments of Space Data Corporation (June 20, 2008); Comments of Northrop Grumman Information Technology Inc., at 6 n. 9 (June 20, 2008). Only satellite technology, however, appears able to provide both nationwide coverage that includes rural and remote areas, and availability even after a local terrestrial disaster.

[8] Letter, Washington State Emergency Management Division, at 1 (May 22, 2008).

[9] Letter, Mississippi Department of Public Safety, at 1 (May 22, 2008).

The comments highlight the fact that many public safety entities and communications service providers already look to satellite services for the provision of day-to-day and emergency communications services.[10] Mobile Satellite Ventures Subsidiary LLC ("MSV") states that "MSV currently provides two-way radio (push-to-talk) and mobile data services to federal, state, and local agencies involved in public safety and emergency response operations. . . . [including] the Federal Emergency Management Agency, the Department of Justice, the Federal Bureau of Investigation, the Louisiana Governor's Office of Homeland Security and Emergency Preparedness, the California Governor's Office of Emergency Services, and numerous other local and state fire, police, and emergency response agencies."[11] Inmarsat PLC notes that "the U.S. military and Coast Guard, the Department of Homeland Security (including the Federal Emergency Management Agency), U.S. Executive Branch and Congressional officials, the New York City Fire Department, CNN, ABC, CBS, National Public Radio, the Red Cross, and nearly every major airline and shipping line rely on Inmarsat for their critical communications needs."[12] Sprint Nextel Corporation ("Sprint Nextel") reports that "Sprint Nextel's [Emergency Response Team] maintains a fleet of proprietary Satellite Cell Sites on Wheels ('SatCOWs') and Satellite Cell Sites on Light Trucks ('SatCOLTs') that can restore wireless and IP wireline connectivity

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[10] A few comments expressed concern about the cost of satellite service. *See* Comments of Interisle Consulting Group, at 7-8 (June 19, 2008); Comments of the National Association of Telecommunications Officers and Advisors (NATOA) *et al*., at 18-19 (June 20, 2008). It is premature to reach any definitive conclusions regarding the cost of integrating a satellite component to the 700 MHz public safety network, but it is evident that many carriers and public safety users today find satellite service to be cost-effective and that the markets for both Fixed Satellite Services and Mobile Satellite Services are highly competitive. Moreover, SIA's proposal merely provides an option to the D Block licensee for flexibility and does not obligate any entity to use satellite services.

[11] Comments of Mobile Satellite Ventures Subsidiary LLC, at 2 (June 20, 2008).

[12] Comments of Inmarsat PLC, at 4-5 (June 20, 2008).

without the need for connection to local utilities, permitting first responders to access interoperable communications during emergencies."[13]

The comments also reflect widespread recognition that the flexibility proposed by SIA – to substitute satellite coverage for terrestrial coverage in rural and remote areas – should be an attractive and practical option for the D block licensee.[14] Both Sprint Nextel and MSV submitted analyses showing that it will cost billions of dollars more to construct a terrestrial network to provide service to 99.3% of the population (as required in the current rules) than to meet a 95% coverage requirement.[15]

Accordingly, in light of the broad support evidenced in the record for the use of satellites as a component of the public safety communications network and the reasons stated in SIA's Comments, the Commission should strongly encourage and facilitate the incorporation of satellite-based communications capability into public safety networks. Additionally, to the extent the Commission continues to link the D Block to the public safety spectrum block, the Commission should: 1) maintain the requirement that the D Block licensee make available to public safety users at least one handset that includes a seamlessly integrated satellite solution;

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[13] Comments of Sprint Nextel Corporation, at 4 (June 20, 2008).

[14] *See, e.g.*, Comments of Ericsson Inc., at 28 (June 20, 2008); Comments of Inmarsat PLC (June 20, 2008); Comments of Leap Wireless International, Inc., at 13 (June 20, 2008); Letter, Mississippi Department of Public Safety, at 1 (May 22, 2008); Comments of Mobile Satellite Users Association (June 18, 2008); Comments of the Public Safety Spectrum Trust Corporation, at 34 n. 72 (June 20, 2008); Comments of Televate, LLC, at 10 (June 20, 2008); Letter, Washington State Emergency Management Division, at 1 (May 22, 2008); Comments of Wirefree Partners III, LLC, at 15 (June 20, 2008).

[15] *See* Comments of Sprint Nextel Corporation, at 2 (June 20, 2008) ($6 billion); Comments of Mobile Satellite Ventures Subsidiary LLC, at ii-iii (June 20, 2008) ($5.5 billion); *see also* Comments of AT&T Inc., at 15 (June 20, 2008) (urging the Commission to consider whether the D Block license may use dual-mode satellite/cellular devices to achieve build-out coverage requirements in low population density areas.).

and 2) grant the D Block licensee flexibility in meeting license obligations, such as build-out and hardening requirements, if the licensee integrates a satellite component, as an additional network layer, with the shared 700 MHz public/private communications infrastructure.

Respectfully submitted,
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