

STATEMENT OF

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ON

Interoperable Communications

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Chairman Markey and Members of the committee: Thank you for this opportunity to address you today and to discuss the requirements for communications interoperability for first responders+leading disaster and crisis responses in America today.

I offer these thoughts from two perspectives which, actually, inter-relate. I retired from the United States Coast Guard in June 2006 following a most rewarding career of over thirty-four years. In my final active duty assignment, I served as the Commander of the Eighth Coast Guard District, and Maritime Defense Zone Eight, headquartered in New Orleans, Louisiana. That position gave me responsibility for the conduct of all Coast Guard operations across the Gulf of Mexico and the extensive inland rivers system; an area encompassing all or part of twenty six states. In that capacity, I led Coast Guard preparations for, and the response to and recovery from Hurricane Katrina and, about three weeks later, Hurricane Rita. The entire Service provided massive resources to that operation and the results performed by the Coast Guard were widely praised. My last appearance before the Congress was as lead witness before the Senate Committee on Homeland Security and Governmental Affairs. It was the only hearing, in the series of hearings examining the hurricane responses, that was specifically directed at commending an agency for its response and it was most gratifying to receive that praise on behalf of the terrific men and women of the entire US Coast Guard. Our approach, preparation measures and actions are addressed in the record of that hearing, and I remain in genuine awe of the dedication and accomplishments of that absolutely self-less team of consummate professionals.

As professionals, however, we recognized that a close examination would provide opportunities to improve based on lessons learned from what has been described as the largest natural disaster to hit the United States. One area which I suggested for serious improvement, was the area we are exploring today: interoperable communications. In disasters

large and small, the best of individual responders and teams of responders are faced with an absolute imperative to be able to coordinate their actions with a wide range of responding entities, from every level of government, and increasingly from NGOs and private and commercial entities as well. Many vital responders may not be known prior to the event, when response leaders discover that they will need assistance beyond their usual cast of partners or to draw upon expertise not normally resident within government responder communities. In my case, the latter category included ferry and barge operators, off-shore production platform operators, animal rescue groups, refinery engineers, marine salvors and a host of other actors who provided valuable talent and capabilities that directly facilitated my ability to accomplish Coast Guard missions. The ability to quickly evaluate the actual, versus the anticipated, impact of the disaster and to bring meaningful response to the scene, supported and sustained for the necessary duration of the relief and recovery; to acquire and maintain situational awareness and to share that among responders and top levels of leadership, at and remote from the scene; the ability to reach out of the disaster zone to acquire needed data and guidance; all are essential elements of a successful response. And all rely upon effective interoperable communications.

I was struck, during the lengthy disaster, that I and other response leaders had a wide range of communications capabilities that could trace their lineage back to the Walkie talkies that Private Ryan carried ashore. The communications devices which I provided to my children when they left home for college actually represented a more fitting capability to serve the needs that I experienced. Under ordinary circumstances, they could call home from wherever they were, call their friends, send photos and, with some commercially available enhancement to what I provided them with, connect to the world and all its data through the internet. All of this capability was at their fingertips, in a format that they readily understood, used on a daily basis and readily available today. The massive amount of investment in R&D and the very sophisticated engineering that made that happen was invisible to them but reliably available to them wherever they went. I saw that also in the younger generation of folks who were part of my team. As I traveled about the disaster zone, it was not uncommon to see a twenty-something lieutenant or petty officer rapidly typing on the small keyboard of their private PDA. When I asked what they were doing, they told me they were SMSing, text messaging, or some other activity supported by such devices, but not available to me on my government communications. And, frequently, they were able to use these to augment their communications capabilities. I supported their use of these approaches under the circumstances. It struck me that there was, in fact, a wide array of commercially available, off the shelf, technologies that we were not adequately exploiting during disasters. I recognize that a key imperative is the reliability and availability of this needed capability at a time when ordinary systems, including perhaps those which support my daughters' cell phones, are challenged by the emergency that necessitated the response. If that reliability and dependability could be addressed and guaranteed, within the acceptable risk-analysis framework that drives all such decisions in a crisis, then the first responder community should exploit this enhanced capability and incorporate it into their response plans.

Following my retirement from the Coast Guard, I accepted directorships on two non-profit rescue first responder organizations (NIUSR & N-CORE) and regularly participate in the national and international dialog on crisis leadership and emergency response through panel appearances, writing and speaking, and active participation in national disaster exercises, and I currently serve as Senior Vice President of Rivada Networks; a leading innovator and

provider of interoperable deployable communications that provides key communications systems to such major first responders as U.S Northern Command, FEMA, the National Guard, states and major municipalities. While we are used to speaking about %asymmetrical threats+, I believe that we, as a nation, possess real %asymmetrical advantages+; especially in the area of interoperable communications. For example, when the Pennsylvania National Guard is ordered to support emergency operations on the Gulf Coast, as it was following Hurricane Katrina, we did not require that they build a government-dedicated road from Anneville to New Orleans. It was assumed, properly, that they would take advantage of the Eisenhower inter-state highway system to get there. If speed was essential, they could readily convoy under a blue light escort to get preferential passage.

There is, I believe, a direct analogy to our current national communications architecture. There is a significant amount of commercial communications infrastructure deployed across North America which is providing interoperable communication to millions of people today. When an event succeeds in disrupting a part of that structure, there are present capabilities deployed that could be used to allow first responders to connect between the disparate communications devices that they bring to the scene and to reach back and tie in to that cellular network and the internet. Over two years ago, US Northern Command and the National Guard Bureau began looking at the possibility of using commercial cellular broadband technology to assist communications capabilities for Homeland Defense and Homeland Security missions. Rivada Networks worked with their leadership to pilot the concept of standalone, self-sufficient private cellular systems which can be instantly stood-up to provide cellular voice and data capability when commercial cellular networks become unavailable. The concept was proven and the DoD certified systems, known as ICE-S systems (Interoperable Communications Extension-Systems), have been acquired and distributed nationally through the entities mentioned above and are currently available to a wide range of first responders. Today, during the time of this hearing, The Louisiana National Guard is at a heightened state of readiness, carefully monitoring the swollen Mississippi River and ready to support relief actions at several emergency spillways. Their ICE-S system is battle-rostered as part of that response. Enhancing the agility of their response, the Louisiana National Guard is converting their regular cellular devices to a configuration which permits them to use their day-to-day communications devices seamlessly on their emergency ICE-S system. This avoids reliance on special devices, with special operating instructions, and the reliance on adequate maintenance in a stand-by mode.

The use of such private systems requires commercial agreements with spectrum owners, special certification by the appropriate Department of Defense entities and, finally, the approval of the FCC.

As a first responder, I appreciated the powerful and ever-advancing capabilities that were embodied in today's commercial communications devices and the networks which support them. My concerns about their reliability and availability when most needed, the classic concern of first responders, have been satisfied by the groundbreaking work accomplished by Rivada Networks with US Northern Command, FEMA, the National Guard, and others, and specifically the FCC which appreciated the value of this novel approach at an early stage. Other commercial entities deserve credit and it is appropriate to note here that this is a time of great innovation in the communications sector. In fact, my vantage point leads me to recognize, as another %asymmetric advantageq that market forces and the free enterprise system are very aggressively moving to meet the evolving capabilities requirements identified

by our first responder community. And those forces, and those essential capabilities, like our ICE-S system, are available, and deployed, today. We need not, and can not, embrace a regulatory approach which promises unclear capabilities, at a distant time, and which require massive investment in entirely new infrastructure. Adding to the latter challenge are an uncertain and commercial outcome which in themselves council caution in going further down that path.

Thank you for this opportunity to offer testimony. I will be happy to answer any questions you may have.

