

Written Testimony
Mr. Allen Kniphfer
Coordinator
Jefferson County Emergency Management Agency
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Mr. Chairman and members of the subcommittee: Good morning. On behalf of the 665,000 residents of Jefferson County, Alabama, thank you for this opportunity to testify today.

On April 27, 2011, our county, which is the most populous in Alabama, was struck by four tornadoes in a single day, destroying or heavily damaging nearly 5,000 homes and businesses and displacing thousands of residents. The cost of cleaning up the rubble alone will approach \$260 million, while total property damage is estimated at \$1 billion.

Our response to and recovery from this natural disaster has reinforced a lesson we already had learned from hard experience: That every emergency occurs at the local level. With this in mind, local officials must be prepared to respond quickly and effectively---especially in the initial phase of a disaster---before our state and federal governments provide supplemental assistance.

My office, the Jefferson County Emergency Management Agency, is responsible for ensuring that the citizens of our county are prepared to respond to, and quickly recover from, any emergency or disaster that confronts us. As a result of our preparations, we were ready to fulfill that mission when the April tornadoes hit.

The single most important aspect of any disaster recovery effort is the ability to communicate. Communication is not simply the ability to speak to others, but also the ability to transfer data. By way of example, our neighbors in Tuscaloosa County had their Emergency Operations Center completely destroyed by an EF5 tornado on April 27, less than an hour before the same storm struck Jefferson County. All of the assets they owned for use in a disaster were destroyed. Cell phone towers were damaged, Internet access was minimal, many roads were impassable, and communication was virtually non-existent. Tuscaloosa County's emergency responders found it difficult to communicate with each other, and with the outside world.

We were more fortunate in Jefferson County. Our Emergency Operations Center survived the storm intact. What we were not prepared for was the enormous amount of inbound phone traffic that overwhelmed our telephone system and made outbound calling difficult. But we had a unique asset: a Mobile Communications Unit that gave our emergency management team immediate, full-time phone and Internet service.

This Mobile Communications Unit—developed and built, Mr. Chairman, by a small business called F4W, Inc. in your home state of Florida—was a lifesaver for the people of Jefferson County. It was up and running even before the tornadoes struck, providing fixed and mobile communications to our emergency responders throughout the entire recovery process.

Because we had the ability to communicate, we could execute our emergency operations plan immediately. Our first responders knew quickly what to do and where to go, and we were able to help our citizens to begin recovering from this terrible disaster quickly and efficiently.

In addition, we were able to increase our communication capabilities throughout the recovery process, to meet needs we had not previously anticipated. Because county residents had no access to cell phones or the Internet for a considerable period of time, we established Telecommunication Registration Centers throughout the county, giving residents the means and opportunity to make phone calls and report damage to the Federal Emergency Management Agency via the Internet. To fulfill this need, we rented additional Mobile Communications Units from F4W.

In our Emergency Operation Center, we further expanded our abilities by installing, “on-the-fly,” a private branch exchange system that mirrored our fixed wire telephone system—enabling our responders to speak to each other by dialing a four-digit extension code, no matter what unit supported their communications. They were also able to text-message, electronically chat, and e-mail each other seamlessly. Today, this provides us with a redundant system in the event our primary system is off line for any reason. The back-up system kicks on and we never miss a step. Once again, this was provided for us by F4W.

When we learned that Tuscaloosa County’s emergency response team assets were destroyed along with their primary headquarters, we dispatched our Mobile Emergency Management Trailers there. With that support, their emergency management infrastructure was back online less than 36 hours after the storm hit. Again, the communication equipment we used to support Tuscaloosa were products we have purchased from F4W over the past several years.

Now that the emergency phase of the April 27 disaster has mostly passed, I am focused on continuing to enhance our ability to respond with optimal efficiency and speed, regardless of the situation. My organization embraces the standards established and administered by various Federal Agencies, including SAFECOM, the National Emergency Communication Plan, the National Emergency Response Interoperability Framework and the Resilient Communication System of Systems published under the DHS SECURE Program. We also support CAP, HIPAA, IPAWS, OASIS and Sarbanes–Oxley.

As emergency responders, we embrace the new standards and technology developed from those protocols. But regardless of these standards and new discoveries, I must, above all,

perform the requirements of my position to serve the citizens of my County to the best of my ability. Our organization realizes that we cannot wait for decisions to be made in Washington when our people need protection of their lives and property in the immediate term.

The Emergency Broadcast Network, which has existed for decades, did save lives during our recent emergency. But I believe, in my county, that I require a more effective approach to alerting the general public, one that is meets **OUR** requirements---and one that we can afford. In that effort, budget cuts to federal programs make no difference in our organization, because, whatever happens, we will find a way to acquire and implement the tools necessary to support our citizens---and, when we can, our neighbors as well.

Another way of putting it is that although budgets have shrunk, our responsibilities to our citizens have not. Disasters are going to continue to occur regardless of how much or how little resources are available to us. To the extent that adequate funding continues to be a challenge, we will continue to substitute innovation, longer work hours and complete dedication to our life-saving jobs.

Having said that, I would add that yes, cutting federal grant funds to supplement the infrastructure of alert warning systems could impact many communities. But in considering that, we should also take the opportunity to ask how effectively those funds have been spent to date. In my view, it might make more sense, practically and financially, to target grant funds for regional projects that take into consideration the specific needs of affected communities, as opposed to using grant funding as leverage for imposing uniform standards that leave some critical needs on the local level unmet. This approach would allow committees such as this one to see firsthand how taxpayer dollars are spent and the results of successful implementations---as well as learning from failures.

Here's how we are investing in our future in Jefferson County: Our current system requires us to use specially designated and configured phones to communicate with each other. We are now working with F4W on software that will allow any "smart" cell phone to make encrypted calls and send and receive text messages and data over the Internet if the phone has the right application installed. We can do this with or without cellular infrastructure.

We also are working on the issue of persistent identity. Within a few months, F4W expects to deliver a software package that will allow people, not equipment, to determine access to their emergency communications system. In other words, an authorized emergency responder will be able to go to any terminal or use any smartphone device and---using their preset password or a device that identifies them---log in to any network and conduct safe, fully-encrypted, voice communications and data-sharing with others in their group.

In addition to improving our internal communications capabilities and processes, we are working to expand and enhance our ability to communicate with volunteer and non-governmental organizations---particularly as it relates to credentialing of representatives of such organizations who have critical interaction with our emergency response and recovery efforts. At present, these organizations issue their own ID cards, and our agency has no way of verifying those credentials. There is a clear need to link their systems with ours---for us to have some input into how their credentials are created and the information that is provided on those credentials.

Prior to the April 27 storms, I had been working on development of such a system, utilizing a universal information format that would allow us, along with appropriate state and federal agencies, to read and obtain information from cards issued by NGOs. Moreover, this system can be implemented at relatively low cost, utilizing existing bar-code technology.

By way of further explanation, let me provide a little background: After September 11, 2001, the Bush Administration issued Homeland Security Presidential Directive 12 (HSPD-12), the purpose of which was to develop a common identification standard while still ensuring that government facilities and sensitive information remain optimally protected. The directive required agencies to issue “smart” cards to federal employees and contractors---a goal that was good in concept, but which proved difficult to implement beyond the federal level, largely due to the cost involved.

The cost of issuing the ID cards mandated by HSPD-12 proved to be in excess of \$140 per card. The federal government was footing the bill for these, so few people complained, other than some contractors who had to buy their own cards in order to do their jobs. In response, in May 2009, the Federal Chief Information Officers Council issued a supplement to HSPD-12, titled “Personal Identity Verification Interoperability for Non-Federal Issuers.” This put the states into the federally-compatible ID card business, with responsibility for providing first-responder authentication credentials (FRACs) that federal agencies can read and honor.

But still, the cost issue remains a substantial hurdle to implementation. To have true interoperability as specified in the 2009 directive, the non-federal cards were still required to incorporate a microchip with a format and security features approved by the federal government. This chip was only approved for use in February 2011, with the cost per card remaining roughly the same---in other words, prohibitively expensive for state governments, like ours in Alabama, operating under tight budgetary constraints. As coordinator of a county EMA, I have to struggle to find enough money for necessities, let alone funding the additional expense of federally-interoperable ID cards.

So what did we do?

Working with ID card experts, I and others who work on the front lines of public safety and emergency management began developing an affordable FRAC system for state use. This system not only meets, but exceeds the standards set forth in the May 2009

directive. The card I wear each day contains my biometric data, my training certifications, and my medical information. It works with or without a network in place. It does not have a microchip---the single most expensive element in the federally-issued cards---yet it is FIPS-201 compliant in every important way. It can even communicate with federal systems for identity verification with a network system that links all emergency management agencies in every state of the Union. We call it NERVS, which stands for National Emergency Responder Verification System.

Perhaps most notably, NERVS does not cost so much that it is unaffordable to cash-strapped state and county governments. And it was developed without a dime of federal money. This show what can be accomplished through innovation and dedication to task. It has already been deployed in the State of Florida, and we are using it now in Alabama. It is worth noting that the use of this system in Florida began under Craig Fugate, before he became the head of the Federal Emergency Management Agency. In my opinion, his openness to and embrace of such innovative approaches to critical issues is a big reason he was appointed to his current position.

In working to develop and implement such approaches, F4W, others and we are mindful of the standards established in Federal Information Processing Standard Publication 201 on Personal Identity Verification Standards for federal employees and contractors. All of the work we do together will meet those standards.

As stated previously we incorporate FEMA's Integrated Public Alert Warning System, or IPAWS, efforts. The mission of IPAWS is to provide integrated services and capabilities to local, state, and federal authorities that enable them to alert and warn their respective communities via multiple communications methods. To help extend this technology to achieve the ultimate end solution meeting our needs not defined in the standard published, F4W's engineers and ID software engineers are working on creating a "System of Systems," whereby Voice Over Internet Protocols will enable any emergency responder, using any commercially-available emergency communication system—not only F4W's--to speak and exchange data with those using all other communications systems. If they succeed, it will be a remarkable accomplishment for a small business with very limited research and development capabilities.

Each of these potential advances will help the Jefferson County Emergency Management Agency better meet our responsibilities to our citizens. We are also increasing disaster awareness among our residents; continuing to train our emergency responders to meet any possible contingency; educating our residents, including our children on, what to do if disaster strikes—our next "Community Awareness Day" is scheduled for October 6 of this year—and offering even more resources to our population and our first responders through the Internet and elsewhere.

Through these activities and others, we hope to make Jefferson County a model for the entire nation in preparing for emergencies and disasters, mitigating them, responding to them, and recovering from them. Thank you again for this opportunity to testify. I look forward to your questions.