

Written Statement of

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Before the
UNITED STATES SENATE
COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION
September 29, 2005

Thank you Chairman Stevens, Co-Chairman Inouye, and members of the Committee for the opportunity to appear before you today, and for your long-standing interest in the communications issues facing our nation's first responders.

My name is Willis Carter and I am the First Vice President of APCO International, the Association of Public-Safety Communications Officials. I am also Chief of Communications for the Shreveport, Louisiana Fire Department. I have served a total of 34 years with the department, the last 20 of which have been in my current position. In addition to appearing on behalf of APCO International, I note that the following national organizations have indicated their support for my testimony here today and have requested that their support be noted in the record: International Association of Chiefs of Police, International Association of Fire Chiefs, National Association of Counties, National Leagues of Cities, and the Congressional Fire Services Institute.

APCO International is the nation's oldest and largest public safety communications organization, with over 14,000 individual members who manage and operate communications systems and facilities for police, fire, emergency medical and other state and local government public safety agencies.

APCO International has been very active in helping to respond to Hurricane Katrina and its aftermath. We have been working closely with the public safety agencies in the affected areas, first to provide whatever assistance we can to the individuals and agencies involved, and second to gather information so that we may learn from this disaster and be better prepared in the future. Through a variety of mechanisms, our members from across the nation have also been coming to the aid of their colleagues in the hardest hit areas, providing both professional and personal assistance whenever possible.

Through its role as a FCC-certified frequency coordinator, APCO International has helped to secure radio communications frequencies for emergency response agencies in the affected areas, and to assist agencies that must repair or replace damaged facilities. I note that APCO International has done so while waiving its normal frequency coordination fees.

Fortunately, my home town of Shreveport, which is in northwest Louisiana, escaped the wrath of Katrina. We were not so lucky with Hurricane Rita, which did cause some damage and significant power outages in the Shreveport area. I am pleased to report that our public safety communications system in Shreveport worked very well after both of the recent hurricanes. However, as we all know, there were serious

communications problems in many of the areas that were more directly affected by Hurricane Katrina.

Shortly after Katrina struck, I had the opportunity to go on a fact-finding mission to many of the affected areas. I have also had extensive communication with my colleagues from other public safety agencies throughout Louisiana. My statement today will summarize some of my observations, offer other information that APCO International has gathered, and present some general concerns that APCO International has as we move forward to improve public safety communications capabilities. I want to emphasize that our solutions need to focus not just on major disasters, such as Hurricane Katrina and 9/11, but also on the day-to-day communications requirements of public safety agencies. We must also work to identify the real problems and develop carefully planned approaches to solve those problems. This is no time to throw money at ill-conceived “band-aid” solutions. I also caution that solutions not be thrust upon state and local governments without consideration of cost.

On Monday September 5, I traveled to St. Tammany Parish, which is located on the north side of Lake Pontchartrain. There I toured seven dispatch centers. The devastation that I witnessed was unimaginable. Public safety call takers and dispatchers operating at Public Safety Answering Points, or PSAPs, were working and living in their communications centers. Some had lost their homes, and most had suffered significant damage, but all were on the job and still attempting to provide help and assistance to the thousands of citizens in need. Communications capabilities were at best very limited. The primary tower site which supports the parish radio system had been damaged, but was still affording limited service. The entire area of Slidell, Louisiana was without

power and relying on emergency backup power sources. The Covington area had some power restored. 9-1-1 was totally out of service.

I departed St. Tammany Parish on Tuesday, and traveled to St. Charles Parish, which is adjacent to Jefferson Parish and on the west side of New Orleans proper. This area did not endure the direct blunt of the storm, and although sustaining somewhat less damage than what I had seen the day before, they were nonetheless facing significant challenges with limited radio communications, and a total outage of 9-1-1. I was to find that the worst was yet to come. The Jefferson Parish Communications Center was in much more dire circumstances. Communication to field units was very limited, access to 9-1-1 was completely out, and the call takers and dispatchers were experiencing the impact of the stress of working, sleeping, and eating in their dispatch center since the storm hit five days earlier. The Fire Dispatch Commander told me that he had lost five dispatch personnel since the storm due to the fact that the stress associated with this tragic event had prompted them to simply walk out. My attempts to reach the New Orleans Police dispatch center and the New Orleans Fire dispatch center were unsuccessful. Flooding prevented access to either of these centers which had both been evacuated. There was no 9-1-1 service, and the majority of public safety radio communications were not functioning.

As has been reported elsewhere, a major communications problem occurred when the New Orleans 800 MHz radio system went down, and repairs were delayed for several days. My understanding is that the system would normally have provided a mutual aid backbone for surrounding jurisdictions and linkage to the Louisiana state radio system (which also suffered some damage in the area). Aside from the impact of the New

Orleans radio system, the relief efforts were plagued in many areas by a lack of interoperability between radio equipment used by various first responders.

My department in Shreveport operates on an 800 MHz system that services all police, fire, EMS and other agencies in Caddo Parish, and provides good interoperability on a daily basis within the region. However, when members of my department were detailed to the New Orleans area, they were unable to operate our radios on the Louisiana state 800 MHz network due to software incompatibility. This problem can be fixed, for about \$800 per radio, but requires funding from state or federal sources.

Another problem that I was told about involved a local agency in the New Orleans area that actually disconnected equipment designed to patch its system with another in the area, as they were fearful of system overloads.

In all, I visited four parishes and had the opportunity to visit a total of nine communications centers. I saw devastation and despair in every direction, and I also saw the same basic problems in all areas. Lack of coordinated incident command and control, lack of direct support for communications centers and their personnel, and the inability to communicate were obvious problems in every area that I visited.

There were several factors that contributed to the public safety communications outages in all of these areas. The damage caused by the hurricane winds either destroyed or seriously damaged many primary tower and transmitter sites. The ensuing power outage which engulfed the area required the use of emergency power generators, many of which had been damaged or destroyed by flying debris and rising water. Many of those that remained in operation were faced with exhausted fuel supply either by disruption of natural gas supply lines, or the fact that there was no way to get diesel fuel into them as

the result of flooding. Some communications sites were simply swallowed up by the flood waters. Bell South central offices, which served as 9-1-1 tandems, were flooded, which created outages of 9-1-1 service in as many as 13 parishes.

My experiences in the affected areas reflect just some of the communications problems that became evident in the wake of Katrina. Based upon what we know of those problems, and of our knowledge of emergency communications needs in general, we would like to offer the following recommendations:

- Significant improvements in local, regional, and national interoperability are essential.

As noted above, interoperability was a major issue in the response to Katrina, just as it was in responses to other major emergencies, and as it is on a daily basis across the nation. Note, however, that for Katrina, interoperability problems were masked to some degree by the larger and in many ways more serious breakdown of “operability” that occurred due to the destruction of facilities or power outages. First responders could not communicate in many cases within their own agencies, let alone with personnel from other jurisdictions.

It is also important to understand that achieving interoperability is complex, without simple solutions. Sometimes the need is for better planning and training; sometimes the need is for compatible radio equipment; sometimes the need is for “patches” to tie together radio networks; sometimes the need is for radio systems to operate in the same radio frequency band; sometimes the need is for more spectrum for interoperability channels; and sometimes it is all of the above.

There also needs to be a recognition that there are different types of interoperability: for day-to-day local and “regional” incidents that require multi-agency responses, and for major emergencies (such as Katrina) where emergency responders may be from far and wide. The specific solutions vary, and must be carefully planned and tailored to each situation. As discussed below, one key element of the “solution” is the nationwide clearing of the 700 MHz band.

In his testimony last week, FCC Chairman Martin mentioned the potential for “smart” radios that can operate on different frequency bands. We agree that such technology should be encouraged as part of the long-term solution for interoperability. However, we caution that such technology, at least for portable units, is still in development, and probably a long way from being available at affordable costs. For the foreseeable future, we need interoperability solutions that take into consideration the enormous imbedded base of public safety equipment, currently available technologies, and the limited budgets of state and local governments.

Finally, on the interoperability issue, I want to note our strong support for the DHS SAFECOM Program. SAFECOM is doing very important and useful work to address interoperability, and it deserves the continued support of Congress. Importantly, SAFECOM has incorporated state and local government organizations and public safety practitioners into the process, rather than relying on a top-down approach that ignores the real-life needs and concerns of first responders.

- Planning and training for disasters are essential, and plans need to be properly executed when disasters strike.

Katrina and its aftermath showed us once again that disaster response efforts, including communications capabilities, must be planned well in advance. Equally important, relevant personnel need to be trained and prepared to implement disaster plans. Funding needs to be made available specifically for such planning and training.

- There must be common incident command structures at all levels of the emergency response effort.

I saw first hand the widely-reported breakdowns in emergency response command structures. Tragically, far too many personnel who were ready and equipped to lend assistance were left without adequate direction, communication, or information.

- Funding must be available to ensure that public safety communications networks are built and maintained to withstand worse-case scenarios. Plans and funds must also be in place to restore facilities that, despite best efforts, are disrupted.

Typically, public safety systems are designed to withstand the worst that nature or man can offer, and it is very unusual for public safety systems to fail, even after commercial communications networks go down. Katrina was a rare exception. At present, we do not know the degree to which the system outages caused by Katrina could have been avoided. Nevertheless, Katrina is a warning that public safety systems need to take all reasonable steps to ensure survivability. That will require funding and other assistance from federal, state, and local governments.

Last week's hearing also included discussion of using satellite technology in emergency relief efforts when existing networks fail. We agree that satellites can and should be *part* of the solution, especially as alternative means of interconnecting to the national telephone network. However, we do not see satellite service as a *replacement* for terrestrial mobile radio networks. Satellite phones are limited by power issues and, more importantly, generally do not work inside of buildings.

- There must be a "hard date" for nationwide public safety access to the 700 MHz band, which is now blocked in many areas by analog television stations.

An early "hard date," as close to the end of 2006 as possible, is essential for public safety agencies to be able to plan for and fund new radio systems using the 700 MHz band. Portions of that spectrum were allocated for public safety in 1998, but remain blocked by incumbent television stations. Mr. Chairman, this Committee has already spent considerable time on this issue and the related transition to digital television. However, I would like to take this opportunity to emphasize briefly why this spectrum is so important for public safety.

The public safety spectrum in the 700 MHz band would help to alleviate serious congestion on many existing public safety radio systems, especially in major metropolitan areas. Many current public safety systems operate with too few channels and insufficient capacity. That congestion can endanger the lives of first responders and the public, and it prevents deployment of new communications tools.

The 700 MHz band will also facilitate interoperability, both on a daily basis, and for major emergencies. The band is adjacent to the existing 800 MHz public safety band, and will allow for relatively easy interoperability between the two bands (700/800 MHz equipment is already available in the marketplace). The new public safety spectrum will also allow for new and expanded multi-agency, multi-jurisdictional radio systems, which is perhaps the best long-term solution for interoperability. Finally, the FCC rules set aside 2.6 MHz of spectrum within the 700 MHz band for dedicated national interoperability channels, with a requirement that all 700 MHz radio equipment be programmed to operate on these channels pursuant to a digital interoperability standard.

Once the Congress fixes a hard date, agencies will be able to move forward to plan, fund and construct radio systems in the 700 MHz band. The FCC has already established rules for the new spectrum, state governments have already received state-wide licenses, some equipment is already available (and other equipment will be once manufactures have the certainty needed to justify R&D), and regional planning is well underway. For some existing 800 MHz systems, the 700 MHz channels will also provide opportunities for rapid expansion without the need to build new systems.

As a footnote, Louisiana is exploring whether 700 MHz channels and equipment could be a key element of a new radio system for the area. Fortunately, the 700 MHz public safety channels are not blocked by TV stations in Louisiana. The same cannot be said for most metropolitan areas of the country.

- There is a need for additional 700 MHz band spectrum for mobile broadband operations to provide high speed video and data to and among public safety personnel and agencies in the field.

Last year, Congress instructed DHS and the FCC to study this issue, and a report is due in December.

- Additional funding is needed to assist public safety agencies in their acquisition of state-of-the-art interoperable communications equipment.

Many agencies need assistance to implement both short-term and long-term interoperable solutions. One small example is the software upgrades needed for my department's radios to operate on the state-wide radio network. Funding should also include training and staffing.

- PSAPs and other emergency communications centers must be considered as core elements of the first response structure, and the staff of those facilities needs the support of all levels of government.

Much attention has properly been focused on the brave first responders on the streets of the affected areas, who have worked hard to save lives and address the turmoil and destruction created by Hurricane Katrina. Unfortunately, not enough attention has been placed on the equally brave and committed personnel who receive 9-1-1 calls,

dispatch emergency personnel, and manage communications centers under enormous pressures. They too need our support.

- Telephone central offices supporting 9-1-1 tandems must be “mirrored” in locations sufficiently remote to allow for quick restoration of 9-1-1 services.

As I noted above, as many as thirteen PSAPs may have been disrupted largely because the relevant Bell South central stations were flooded.

- Congress should provide funds to assist PSAPs in their upgrades for wireless E9-1-1 and other technologies.

We urge Congress to go beyond merely funding a program office. Significant and meaningful grant funds should also be made available. We also note that suggestions that PSAPs move towards IP-based technologies often ignore the huge cost that would be imposed upon cash-strapped state and local governments.

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Mr. Chairman, just as September 11, 2001, helped to focus the nation on the communications issues facing our first responders, Hurricane Katrina has revealed that much still needs to be accomplished to provide public safety personnel with the communications tools they need to protect the safety of life and property. We look forward to working with the Congress, the FCC, and other parties in this critical effort.

Thank you once again for the opportunity to appear before you today.