

**Written Statement
Of**

**James Arden Barnett, Jr., Rear Admiral (Ret.)
Chief, Public Safety and Homeland Security Bureau
Federal Communications Commission**

**Communicating with the Public During Emergencies: An Update of Federal Alert and Warning
Efforts**

**Before the
Subcommittee on Emergency Preparedness, Response, and Communications
Committee on Homeland Security
U.S. House of Representatives**

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Good Morning Chairman Bilirakis, Ranking Member Richardson and other Members of the House Subcommittee on Emergency Preparedness, Response, and Communications. Thank you for the opportunity to appear before you on behalf of the Federal Communications Commission (FCC) to discuss the FCC's recent work in alerting and warning the American public and our partnership with the Federal Emergency Management Agency (FEMA) and other federal partners in this vitally important area.

Introduction

National Weather Service preliminary reports show that over 1,400 tornados have occurred in the United States already this year. We have seen many disasters in 2011, and too much loss of life and property. In some of the news reports, though, there is a hopeful note. We occasionally hear a disaster victim report, "I got the warning, and I got to safety." This is the crucial premise of all alerts and warnings. We may not be able to protect every single person from every disaster, but if we can get timely, accurate information about imminent danger to people in harm's way, they can take cover, they can move to safety, they can save themselves, they can save their families. This is truly a situation in which seconds count and can make the difference between life and death.

One of the FCC's primary statutory obligations is to promote the safety of life and property through the use of wire and radio communications, and the FCC has a singular commitment to the protection of the American public through constantly evolving alert and warning systems. We recognize that this should be a team effort, and I am pleased to be here with my friend and colleague Damon Penn of FEMA. The FCC works closely with FEMA, the National Weather Service and other federal partners to bring the future of alert and warning systems to consumers now.

An essential element of that FCC obligation is the ability to alert the American public in times of emergency. Through various initiatives, the FCC continues to take significant steps toward implementing one of its highest priorities – ensuring that all Americans can receive timely and accurate emergency alerts and warnings over each communications platform they use.

Today, I will discuss the FCC's efforts to date regarding the Personal Localized Alerting Network, or PLAN, (also known as the Commercial Mobile Alerting System, or CMAS) and the Emergency Alert System (EAS). I will also discuss briefly our next steps in ensuring that the public can receive alerts over multiple communications technologies. Finally, I will update you on our efforts to ensure that the public has access to more advanced 911 systems. Like emergency alerting, these initiatives are all part of our comprehensive commitment to promoting public safety through communications.

The Personal Localized Alerting Network (PLAN)

Wireless devices have become ubiquitous across our nation and, as such, provide a particularly effective means to reach the American public quickly and efficiently in an emergency. Accordingly, in 2006 Congress passed the Warning, Alert and Response Network (WARN) Act. The WARN Act sets forth a process for the creation of a warning system whereby commercial wireless carriers may elect to transmit emergency alerts to their subscribers. This legislation required the FCC to undertake a series of actions to accomplish that goal. I am happy to report that the FCC has met all of its WARN Act deadlines, and in conjunction with FEMA and the wireless industry, has taken significant steps to develop PLAN.

On December 12, 2006, the FCC established and convened an advisory committee to recommend technical requirements by which commercial wireless carriers could voluntarily transmit emergency alerts - the Commercial Mobile Service Alert Advisory Committee (CMSAAC). The CMSAAC consisted of 44 members representing state, local, and tribal governments; wireless providers; manufacturers; commercial and noncommercial broadcasters; the disabilities community; FEMA; and other organizations. By the time it had concluded its work, this unique government/industry partnership had overwhelmingly approved a set of recommendations for technical requirements for what would become the PLAN. On October 12, 2007, the FCC received these recommendations. On April 9, 2008, the FCC adopted requirements that would govern the voluntary transmission of emergency alerts by commercial wireless carriers.

Under these rules, participating wireless carriers must begin PLAN deployment by April 7, 2012. In May of this year, Chairman Genachowski, FEMA Administrator Craig Fugate, New York City Mayor Michael Bloomberg, and top executives of the four major nationwide carriers – AT&T, Sprint, T-Mobile and Verizon Wireless announced that PLAN would be available in New York City by the end of this year, months ahead of schedule.

PLAN is a new technology and service that will turn mobile devices into emergency alert devices with transmission of potentially life-saving messages when there are threats to public safety. It will serve as an important complement to other alert and warning systems like the EAS. PLAN will allow government officials to send text-like emergency alerts to everyone in a targeted geographic area who has an enabled mobile device. Since the alerts will be geographically targeted, they will reach the right people, at the right time, with the right messages. A PLAN alert will be accompanied by a unique attention signal and vibration, which is particularly helpful to people with hearing or vision-related disabilities, and there is no charge to the consumer for receiving alerts.

Unlike other wireless-based alerting systems that require subscribers to sign up for the service, subscribers will automatically receive PLAN alerts as long as they have a PLAN-capable mobile device and their carrier participates in PLAN. Alert originators can send three types of alerts using PLAN – alerts from the President regarding national emergencies, alerts about other emergencies involving imminent threats to life or safety, and Amber alerts. Pursuant to the WARN Act, subscribers may opt out of receiving all but the national emergency alerts.

PLAN creates a fast lane for emergency alerts, so vital information is guaranteed to get through even if there's congestion in the network. As we have learned from past large-scale emergencies, a spike in customer calls and text messages during emergencies can overload communications networks. PLAN effectively addresses this problem by using a technology that is separate and different from that used for voice calls and traditional text messages, allowing PLAN alerts to get through as long as the network is operating.

It is also important to note that with PLAN, neither the alert initiator nor anyone administering the system will know who receives a particular alert. Accordingly, PLAN cannot be used to monitor wireless devices or a consumer's location or track where someone is. The technology is similar to a portable radio -- someone receives the radio station's broadcast, but the radio station doesn't know where that person is or even if she is listening.

The FCC's partnership with FEMA has been essential to the rollout of PLAN and will help ensure a successful nationwide launch of PLAN. As reflected in the diagram attached as Appendix A, the PLAN architecture consists of two major components – the Alert Aggregator/Gateway and the Carrier Gateway and Infrastructure. The Alert Aggregator/Gateway is administered by FEMA as part

of its Integrated Public Alert and Warning System (IPAWS). This component will receive and authenticate alerts from Federal, state, tribal and local governments; verify the originator of the alert; and send the alert over a secure pathway to gateways and infrastructure administered by participating wireless carriers. These gateways and infrastructure will receive alerts and push them out to any PLAN-capable handsets and other mobile devices within the alerts' targeted geographic area.

Over 100 commercial wireless carriers have elected to participate in PLAN, so by next April, PLAN will be deployed in cities across the country not only by the four major nationwide carriers, but also by many small and regional carriers. I want to note that, pursuant to the WARN Act, participation in PLAN by wireless carriers is completely voluntary. Thus, some carriers will offer PLAN over all of their service areas, others over parts of their services areas, and others over all or only some of their wireless devices. Ultimately, we expect that market forces will encourage carriers to make PLAN available in most of the country. In the meantime, and starting right now, the FCC recommends that consumers ask their carriers whether and where they will offer PLAN alerts to PLAN-capable handsets. For more information, we encourage the public to visit our website at www.fcc.gov/pshs.

The Emergency Alert System

I also want to report about steps the FCC is taking to better evaluate and enhance the reliability of the Emergency Alert System (EAS). For over 50 years, what we now call the EAS has provided emergency alerts to the American people, including the ability for the President of the United States to deliver a message to the public in the event of a national emergency. The EAS requires broadcast and satellite radio and television service providers, cable systems, and wireline video systems ("EAS Participants") to install and operate equipment capable of delivering emergency alerts to their viewers and listeners. The current EAS has been in existence for over 15 years and is used successfully and extensively by state and local authorities for weather-related and other emergency warnings. The FCC, FEMA, and the National Weather Service are charged with maintaining the EAS.

State and local components of the EAS are tested, respectively, on a monthly and weekly basis. However, to date, the EAS has never been tested on a nationwide basis. EAS is a significant national asset, yet we do not know how well the system will work on a national scale. Only a top-down, simultaneous test of all components of the EAS can provide an appropriate assessment of system performance.

To remedy this situation, FEMA and the FCC, in conjunction with other stakeholders, are now planning to conduct a truly nationwide test of the EAS. This past February, the FCC issued a rule mandating nationwide testing, and on June 9, 2011, FEMA and the FCC announced that this first test will take place on November 9 of this year.

In addition to ensuring that the EAS works as intended, the FCC continues to make improvements to the EAS. These include expanding the traditional analog EAS to digital technologies, including digital radio and television, digital cable, satellite radio and television, and wireline video systems. The FCC has also required all EAS Participants to be able to receive EAS alerts in the Common Alerting Protocol ("CAP") standard adopted by FEMA. CAP is a standard alert messaging protocol that allows alert originators to, among other things, send a single emergency alert over multiple communications technologies, thereby increasing the efficiency of sending alerts and expanding the ways in which consumers can receive them.

Next Steps for Emergency Alerting

Looking to the future, the FCC will continue to explore whether other communications technologies can provide ways for Americans to receive alerts and warnings about imminent threats to safety of life. For example, as recommended in the National Broadband Plan, the FCC will examine the role that broadband technologies, social networks and other Internet-based tools can play in emergency alerting. We will continue to learn from experiences at home and abroad. For example, earlier this year, Japan experienced a devastating earthquake and tsunami that resulted in significant loss of life and damage to property. Although these losses were severe, they may have been greater if not for Japan's earthquake detection and warning system, which relied on elements of broadband technologies to alert the public. These experiences can inform our own thinking about how to leverage communications technologies to warn the public about impending disasters.

The FCC will continue to take steps to ensure that the public has access to emergency alerts and warnings over multiple communications technologies. We will continue to work closely with FEMA, the National Weather Service, industry and state and local governments to ensure that the benefits of PLAN are available to consumers in all parts of the country and to ensure that the EAS continues to provide a reliable and effective method to transmit timely and accurate emergency alerts to the public. We will aggressively pursue technologies that convey information about imminent danger to Americans in harm's way so they can take action to save themselves and their families.

9-1-1 Developments

Another key element of public safety communications is the ability of someone to alert first responders of a need for assistance. It is critical that we take steps to ensure that today's 911 system supports the communications tools of tomorrow. The communications world has changed in so many dramatic ways in recent years, with the dramatic growth in the use of mobile phones and broadband. In 2005, not that many Americans sent text messages, and the average cell phone subscriber typically sent less than two texts a day. Today, it's about 20 texts a day, and the average teenager sends over 100 a day, which tells you something about the direction that this is going.

In 2005, only eighteen percent of U.S. cell phones had cameras. Now almost all of them do, and a growing number can also shoot video. Five years ago, if I had told people you can't text 911 or send pictures to 911, they would have said, so what? Today, they think I can't be serious. But that's the sad truth. There is a gap between what ordinary people do every day with communications technology and the capabilities of our emergency response network. That gap is unacceptable and cost lives. Right now, if your child winds up in an emergency situation and texts 911 for help, that call for help will go unanswered, even though it may never occur to your child that emergency responders cannot receive text messages. When texting is the primary way that many people use their mobile devices that doesn't make any sense. Fixing this will require a sustained team effort, and we're actively working with our federal, state, and local partners to make this a reality.

The FCC is doing everything it can to promote next generation 911. As recommended in the National Broadband Plan, the FCC has initiated a proceeding to ensure that the public has access to broadband technologies to communicate with 911 dispatchers and to accelerate the deployment of next generation 911, which could allow the public to send text messages, video and photos to 911. The FCC has also taken actions to improve 911 by enhancing location accuracy requirements for wireless service providers, to be sure first responders can find those who call 911 from their mobile phones.

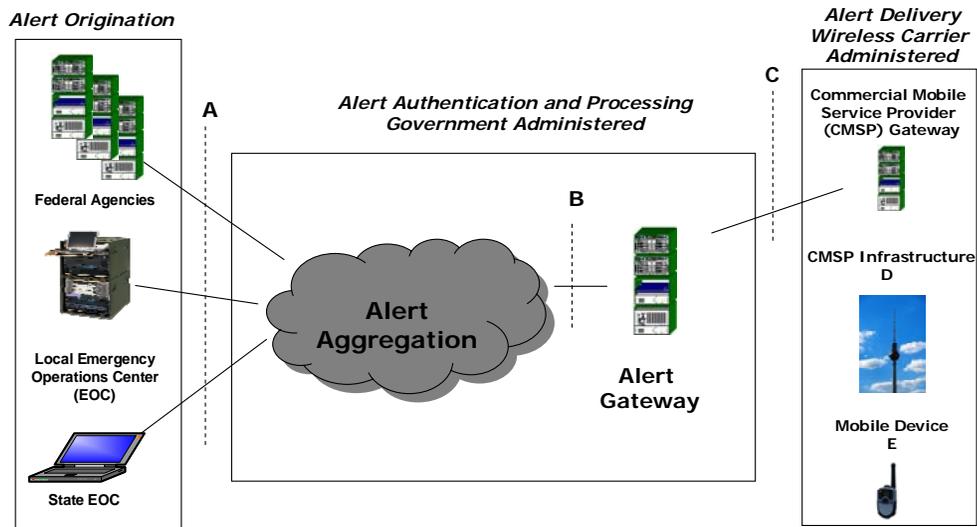
These efforts, like our emergency alerting initiatives, serve to ensure that the public has access to an effective and reliable public safety communications system and, ultimately, to provide for a safer America.

Conclusion

Public safety and homeland security depend on reliable public safety communications, which in turn depend on three key elements. First, is the ability of public safety officials and first responders to communicate with each other. Second, is the ability to provide timely, accurate warnings to the public of imminent danger. Third is the ability for the public to call for assistance when it is needed. The FCC is committed to ensuring the availability of all three elements. Thank you for the opportunity to appear before you today. This concludes my testimony, and I am pleased to answer any questions you may have.

APPENDIX A

PLAN Architecture



To send a PLAN alert, an authorized local alert initiator enters descriptive data about an emergency into the PLAN-compliant alerting system (“A”). The information is sent to a FEMA Alert Aggregator, where it is authenticated and directed to a FEMA-operated Gateway (“B”), which reformats the data so it is useable by each wireless carrier, and sends it over a secure pathway (“C”) to a wireless carrier’s Gateway (“D”). The carrier then distributes the alert to all customers in the area affected by the emergency by sending it to the towers in that area (“E”). PLAN-compatible handsets in the area will receive the transmission, deliver the unique PLAN attention signal and vibration, and begin to scroll the 90 characters of text across the screen.