Testimony of Diane Kniowski
Vice President & General Manager, WOOD TV, WOTV and WXSP

Hearing before the U.S. House Committee on Energy and Commerce
Subcommittee on Communications and Technology

Oversight of the First Responder Network Authority (FirstNet)
and Emergency Communications

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Good morning, Chairman Walden, Ranking Member Eshoo, Members of the Subcommittee. My name is Diane Kniowski. I am Vice President and General Manager of three television stations owned by LIN Media in Western Michigan, WOOD TV, WOTV and WXSP-CD. I have been with LIN since 1993, where I started as a national sales manager and rose through the ranks. Thank you for the opportunity to speak with you today about the valuable, often life-saving services that local radio and television stations provide during natural disasters and other emergencies.

Broadcasters' commitment to public service is never more apparent than during times of crises. During an emergency, particularly one that arises with little notice, no other industry can match the ability of broadcasting to deliver timely warnings as well as on-going, comprehensive information as the situation unfolds to millions of people simultaneously. Local television broadcasters reach 97.1% of the approximately 118.5 million households in the U.S., while local radio reaches more than 242.8 million Americans, or 92% of the population, on a weekly basis. The wide signal coverage of broadcasters ensures that anyone in a car, at home or even walking around with a mobile device with a broadcast tuner can receive up-to-the-minute alerts when disaster strikes. As a ubiquitous medium, broadcasters understand and appreciate their unique

role in disseminating emergency alerts and information. Radio and television broadcasters take pride in their indispensable role during an emergency, and Americans know they can turn to their local broadcasters first for in-depth coverage.

I am pleased that you have called for this hearing and grateful for the opportunity to share the views of local broadcasters on EAS and our role as “first informers” during times of crisis.

I. Local Broadcast Stations Are the Backbone of the Nation’s Emergency Alert System

Local broadcasters are the backbone of the Emergency Alert System (EAS). EAS is a largely wireless network that allows the prompt dissemination of alerts to the widest possible audience, or target alerts to specific areas, as appropriate. EAS is intended for use during sudden, unpredictable, or unforeseen events that pose an immediate threat to public health or safety.

EAS was put into place on January 1, 1997, when it superseded the Emergency Broadcast System, which itself superseded the Control of Electromagnetic Radiation System (CONELRAD). In addition to alerting the public of local weather emergencies such as tornadoes and flash floods, EAS is designed to allow the President to speak to the United States within 10 minutes, although the nationwide federal EAS has never been intentionally activated. The EAS regulations are governed by the Federal Communications Commission (FCC), and EAS is jointly coordinated by the FCC, the

Federal Emergency Management Agency (FEMA), and the National Weather Service (NOAA/NWS).

EAS is used on radio, television, and cable television. Sirius XM has been required to participate in EAS since 2006, and satellite television providers have been required to participate since 2007.

Messages in EAS are composed of four parts: a digitally encoded Specific Area Messaging Encoding (SAME) header, an attention signal, an audio announcement, and an end-of-message signal. The SAME header contains information such as who originated the alert, a brief description of the event, the areas affected, the expected duration of the event, and the date and time it was issued.

FEMA has designated and hardened certain radio stations as Primary Entry Point (PEP) stations, which are responsible for distributing presidential messages to other broadcast stations and cable systems. FEMA is in the process of modernizing and expanding the PEP system to include 77 stations.

All EAS Participants, including broadcasters, are required to maintain FCC-certified encoder/decoder EAS equipment points that continuously monitor the signals of at least two nearby broadcast stations for EAS messages, one of which must be designated a local primary station, which is the first link to EAS message originators. Broadcasters typically work in partnership with state, county and local emergency managers and public safety officials on how best to deploy EAS in each state.

Although EAS can be triggered by the President, and state or local authorities under certain conditions, the majority of alerts are originated by local emergency managers and the NWS.

The specific content of EAS messages can vary depending on the nature of the emergency, but may include information on the timing and path of storms, evacuation plans and routes, shelter-in-place instructions, and America's Missing: Broadcasting Emergency Response Alerts, or Child Abduction AMBER Alerts, which help expand the eyes and ears of local law enforcement when a child is abducted. Nationwide, since the inception of AMBER in 1996, AMBER alerts have helped safely recover more than 602 abducted children.[1] In fact, the Amber Plan was originally created by broadcasters with the assistance of law enforcement agencies in the Dallas/Fort Worth area.

EAS participation is an important component of broadcasters' public service. Although participation in EAS on a local level is technically voluntary, virtually all radio and television stations participate, and do so proudly. All EAS equipment is purchased by broadcasters at their own expense. All stations must test their EAS systems on both a weekly and monthly basis. We have all seen or heard the familiar announcement: "The following is a test of the Emergency Alert System. This is only a test."

The FCC and FEMA conducted the first nationwide test of the EAS system on November 9, 2011. The broadcast industry fully supported this endeavor and lent our resources to the project. We worked closely with our federal and local partners to

[1] *See* *http://www.ncmec.org/amber* (last visited March 8, 2013).

ensure that the national test was useful and informative. Broadcasters prepared for the national exercise by reviewing their internal EAS equipment and processes, and if appropriate, upgrading software or hardware in advance of the national test. Broadcasters also conducted an extensive nationwide awareness campaign in the days leading up to the test, to ensure that Americans understood that it was "only a test." The test was discussed on numerous high-profile newscasts and morning shows and repeatedly covered on radio talk shows. The broadcasting industry also created and distributed a variety of English and foreign language Public Service Announcements (PSAs) that were aired thousands of times as the test approached.

The goal of the test was to diagnose the efficiency and reliability of a nationwide EAS alert, and identify areas in need of potential improvement, and in my view, the test was a success. It was the first time an official "live-code" national alert message was purposely deployed end-to-end throughout the system, under conditions simulating an actual emergency situation. Almost all broadcasters, including my stations, were able to successfully rebroadcast the EAS test message they monitored and received, despite certain technical problems with the origination of the message which have now been addressed.[2]

Specifically, while most PEP stations successfully received and transmitted the test message, two such stations did not receive the message. The PEP station in Oregon,

[2] These problems included: (1) a "loop-back" of the digital message header codes emanating from one of the PEP stations that caused the test message initiating codes to repeat about every six seconds, which led some EAS equipment to seize upon receiving the second set of header tones; (2) FEMA's originating equipment had a clock error which caused some equipment to delay pass-through of the message by three minutes; and (3) a few scattered problems with reception of the test message through the PEP network of radio stations.

however, received the message, but experienced technical difficulties which prevented the message from being disseminated. It is my understanding that FEMA has worked diligently to identify and correct this problem. Overall, the nationwide EAS test was designed as a diagnostic event, which enabled officials to successfully pinpoint and repair potential vulnerabilities before a real event may occur.

To further ensure the reliability of EAS, broadcasters support the continued nationwide testing of EAS. EAS is tested weekly by each radio and TV station and monthly within each state. Such tests allow message disseminators to confirm that their equipment is working properly, or to diagnose and fix any problems. We believe that there should be regular testing of the federal government's ability to send an alert message throughout the nation.

Although a success, the nationwide test highlighted the need for a redundant transmission architecture that does not rely solely on the PEP network. To some degree, this will be addressed with the recent transition to the new digital-based Common Alerting Protocol (CAP) and FEMA's use of the internet as the backbone of its Integrated Public Alert and Warning System (IPAWS).

In June 2006, President Bush issued Executive Order 13407, entitled *Public Alert and Warning System*, which states:

> It is the policy of the United States to have an effective, reliable, integrated, flexible, and comprehensive system to alert and warn the American people…establish or adopt, as appropriate, common alerting and warning protocols, standards, terminology, and operating procedures for the public alert and warning system to enable interoperability and the

> secure delivery of coordinated messages to the American people through as many communication pathways as practicable…administer the Emergency Alert System (EAS) as a critical component…ensure that under all conditions the President of the United States can alert and warn the American people.

In response, FEMA is developing the IPAWS Program that is designed to improve public safety through the rapid dissemination of emergency messages to as many people as possible over as many communications devices as possible. Among other capabilities, IPAWS is enabling the transmision of alerts via text messages to mobile phones, or Wireless Emergency Alerts (WEAs). However, such text messages are limited to only 90 characters, which limit the amount of emergency-related information that can be conveyed. Given that limitation, the advent of WEAs has underscored the importance of broadcasters during times of emergency, as virtually all WEAs instruct citizens to "tune to local media" for further information regarding an emergency.[3]

The transition to the digital CAP system has also raised the specter of cyber hacking that could disrupt EAS. For example, on February 12, a hacker was able to access the EAS equipment of a handful of stations in Montana and elsewhere, causing those stations to issue a false EAS alert concerning an attack by zombies. It is my understanding that the hacking was limited to a few isolated instances where individual stations neglected to reset the factory-set, default passwords on their new CAP-compliant EAS equipment and did not have adequate firewall protections on their

[3] Broadcasters are also rolling-out Mobile EAS (M-EAS), which is a next-generation approach to public warnings that leverages the backbone of Mobile Digital TV transmissions. M-EAS utilizes terrestrial broadcasting rather than cellular network connectivity, which allows highly reliable message dissemination, even when cellular networks are down. M-EAS also enables rich multimedia alerts (*e.g.*, video, audio, text, and graphics) to mobile DTV-equipped cellphones, tablets, laptops, netbooks, and in-car navigation systems. M-EAS is compliant with CAP and designed for full incorporation into IPAWS. *See* http://mobileeas.org/.

networks. The breach did not occur at the message origination level, so there was no danger of a widespread false message. Broadcasters take cyber security very seriously, and this hacking situation was an excellent reminder for all EAS participants to double-check the security of their EAS equipment and their IT networks.

Broadcasters are also leveraging social media and other message pathways to broaden dissemination of alert messages. When you receive an emergency alert via email, text message, or Facebook from your local radio or TV station, you know you're receiving reliable information from an authoritative source.

In my view, the continued success of EAS will largely turn on the expertise and ability of local authorities to fully deploy EAS and act as a "civil authority" with full access to the system. In the past, there have been some isolated instances where EAS could have been used more judiciously directly resulted from a lack of awareness or expertise on the part of local officials concerning EAS. To this day, some state and local emergency managers still require additional education and training on the benefits of EAS, how and when to trigger an EAS alert, and the proper crafting of alert messages. Fortunately, FEMA has taken steps to address this vacuum by creating and administering a training and certification program for users of the system. However, to cement this program as an ongoing priority, it is imperative that Congress reauthorize and fund the IPAWS program.

A properly working EAS is a fundamental and essential component of our nation's homeland security. For example, it is crucially needed in my state of Michigan to

respond to the myriad of potential terrorist threats facing our region's target rich environment, including 21 Coast Guard facilities, Selfridge Air Force Base, the Detroit Arsenal, which is a tank mass production facility, and three nuclear power plants, including the Palisades Nuclear Plan, which is located inside one of my station's Designated Market Area. Our border with Canada also presents unique concerns.

Michigan experiences frequent weather-related emergencies, such as flooding and substantial snow storms. In addition, Michigan's many major roadways are among our nation's most significant transportation corridors, potentially facilitating the transport of dangerous substances such as biological, chemical or nuclear waste material. Accordingly, it is imperative that the EAS system, both nationally and statewide in Michigan, receive the support necessary to maintain its reliability.

II. Broadcasting Is the Most Important Source for Critical, Life-Saving Emergency Information for All Americans

In addition to our role as the backbone of EAS, radio and television stations are also our nation's most reliable network for disseminating emergency information to the public. Local broadcasters take pride in their role as "first informers" during times of emergency. Even if the electricity is out, causing the Internet and cable television to go down, and phone service is lost because networks are clogged or cell towers or phone lines are down, free, over-the-air broadcasters can still be on the air and delivered to anyone with a battery operated radio or other receiver. Americans know they can turn to local radio and television stations during an emergency for timely, detailed, and accurate information. Local radio and television stations have dedicated news and

weather personnel who use their familiarity with the people and geography of their local communities to provide the most helpful, informative news to their audiences, whether that includes information on where to shelter-in-place, which streets will serve as evacuation routes, or where local businesses may find fuel and or generators. It is also common during larger disasters for a local radio or television station to serve as an information clearinghouse for citizens in search of family and friends.

Broadcasters deliver emergency information with passion – before, during and after – a disaster. In February 2011, for example, an enormous blizzard essentially shut down all of Western Michigan. WOOD TV stayed on the air with live, on-the-scene reports for nine hours consecutively. Our news teams began forecasting the storm at least nine days in advance, allowing our viewers to prepare themselves and their property, and we stationed reporters out in the field in at least three different counties during the height of the storm. In fact, Grand Rapids Mayor George Heartwell singled out WOOD's meteorologist during a news conference in which he thanked the media for warning citizens about the storm.

Also in 2011, our station stepped up during a thankfully rare situation when an individual shot and killed seven people in the Grand Rapids area, shot two others, fired shots wildly through his car window while police chased him, sped the wrong way down the highway during rush hour, and took several hostages before ultimately killing himself. WOOD TV stayed on the air for seven continuous hours, warning people to stay away from the constantly changing danger zone. To expand the reach of our news coverage, we partnered with WOOD Radio and live-streamed coverage of the event throughout

the night. Following the incident, WOOD TV took a leadership role in the community as citizens mourned the victims.

Broadcasters' commitment to emergency information was also evident during Hurricane Sandy, which devastated the Northeastern United States in late October 2012. Overall, 147 fatalities were attributed to Sandy, with losses in the United States ranging from $50 billion to $71 billion.

Fortunately, as the storm approached, radio and television stations in the path, knowing they were likely to be the only source of information during the storm, mobilized their staff and facilities, or the damage could have been even worse. Dave Davis of New York City-based WABC-TV described his station's efforts:

> As our news department worked to gather the latest information… our engineering department made sure our own infrastructure was prepared… testing and tuning up all the generators, topping off fuel tanks, inspecting and securing rooftop and tower antenna installations, installing additional receive systems at the station, and testing backup transmission paths. We knew our life-saving information would not save lives unless we stayed on the air.[4]

These kinds of measures were typical of broadcasters, and proved extremely important as the storm knocked out other means of communication in parts of the tri-state area for almost a full week, including one-quarter of the cell phone towers in the storm zone.[5] As a result, all television stations and virtually all radio stations were able to remain on

[4] Statement of Dave Davis, President and General Manager, WABC-TV, New York, & Vice Chairman, New York State Broadcasters Association, Inc., FCC, Field Hearing on Super Storm Sandy (Feb. 3, 2013), at 1-2.
[5] Brian X. Chen, *Cellphone Users Steaming at Hit-or-Miss Service*, New York Times (Nov. 2, 2012), available at http://www.nytimes.com/2012/11/03/technology/cellphone-users-steaming-at-hit-or-miss-service.html?_r=0.

the air during the storm.[6] Even FEMA Administrator Craig Fugate recognized the critical importance of broadcasters, as he urged the 50 million people in the storm area to get a battery powered radio or a hand cranked radio before the storm to ensure reliable access to local news and weather updates in the event of power, Internet and cell tower outages.[7]

During and after the storm, local broadcasters provided round-the-clock coverage, including LIN Media-sister station WTNH in New Haven, Connecticut, which stayed on the air for over 40 hours with live, on-the-scene coverage in a 54-hour period, including one stretch of 28 ½ hours straight. WTNH reminded citizens to stock their homes with batteries and other essentials, and made sure to inform viewers that the station would also live-stream all of its coverage during the storm. Similarly, LIN Media station WPRI in Providence, Rhode Island, provided critical information regarding evacuations, Red Cross and United Way and other information both on the air and on a dedicated web page it specifically created for Hurricane Sandy. To expand access to its news, WPRI also broadcast its signal during the height of the storm over WCTK(FM).

[6] "Batteries are drained, internet connections long-gone. For the nearly 5 million households muddling through a fourth day without power in the wake of Hurricane Sandy, there's really only one medium that matters, and that's radio." Michael Learmonth, *Sandy Brings Back Prime Time for Original Wireless Network: Radio*, Ad Age (Nov. 2, 2012), available at http://adage.com/article/media/hurricane-sandy-brings-prime-time-radio/238114/.

[7] CBS Morning News (Oct. 29, 2012).

Many other radio and television stations along the northeast coast stayed on the air continuously for several days, providing life-saving information[8] and a megaphone for public safety officials to announce evacuation, shelter-in-place, and other instructions.[9]

Local broadcasters also formed partnerships with other outlets to reach as many citizens as possible, including music and sports radio stations that simulcast storm coverage provided by news-oriented radio stations, and television stations that simulcast their news over radio. Local broadcasters are competitors, but when disaster strikes, they work together to remain on the air and expand coverage. During times of crisis, it is a routine matter for broadcast engineers to help competing stations stay on the air.

Local broadcasters also leveraged digital outlets and social media to expand their reach. Most stations transmitted storm coverage 24/7 on their websites and social platforms like Facebook and Twitter. Page views of radio and television stations' websites were up by a factor of two to three times during the storm. Moreover, unlike other communications outlets, local broadcasters invest in journalism and employ experienced reporters. Citizens know that their local radio or television station is best place to turn for reliable, accurate information during emergencies.

[8] The importance of broadcasters during the storm is also borne out by statistics. According to Arbitron, radio listening jumped 70 percent in New York City, 245 percent in Nassau/Suffolk, and 42 percent in State Island, during Hurricane Sandy.

[9] New Jersey stations WSUS and WNNJ aired an interview with New Jersey Assemblyman Gary Chiusano in which the state government announced its plan for rationing gasoline. Statement of John Hogan, Chairman and CEO, Media and Entertainment, Clear Channel Communications, Inc., FCC Hearing on Hurricane Sandy (Feb. 5, 2013) at 9.

It is also important to note that, to provide these life-saving public service, many station employees had to overcome various personal challenges as well, including dangerous driving conditions in the storm, sleeping at work, and most importantly, sacrificing time with their families for several harrowing days.

Following the storm, local broadcasters also took a leading role in helping to rebuild the impacted areas, from major telethons like the 12-12-12 (A Concert for Sandy Relief) that was carried nationwide on Clear Channel radio stations, to local stations like Univision's WXTV, which delivered relief goods directly to those in need and WTNH, which created and ran public service announcements that informed viewers how to seek emergency assistance. Radio and television stations are uniquely positioned to organize, announce and publicize fundraising relief efforts, and they take pride in their ability to do so.

Finally, I would be remiss if I did not take this opportunity to suggest one simple but important step that Congress could take that would greatly improve broadcasters' ability to provide emergency information, and without the expenditure of any funds. Broadcasters need credentialing from state and local authorities to allow them to access their facilities, such as studios and transmitter sites, during times of emergency. This will enable radio and television stations to repair or maintain their equipment and fully leverage their resources, local knowledge and training to keep the public informed during emergencies. While certain states accommodate broadcasters who need to access their facilities, such cooperation is not universal. Congressional action in this

area could greatly enhance our ability to maintain operations and deliver vital information to our audiences.

Thank you for the opportunity to present this statement. I look forward to responding to any questions you may have.