



Hearing on
**“This is Not a Drill: An Examination of Emergency
Alert Systems”**

United States Senate
**Committee on Commerce, Science, and
Transportation**

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Introduction

Good morning, Chairman Thune, Ranking Member Nelson and members of the Committee. My name is Sam Matheny and I am the chief technology officer at the National Association of Broadcasters (NAB). On behalf of the thousands of free, local television and radio broadcasters in your hometowns, thank you for inviting me to testify on the Emergency Alert System (EAS), how broadcasters fulfill their role as first informers and how innovation will allow broadcasters to do even more to keep viewers and listeners safe during emergencies. In addition to my role at NAB, I bring another perspective to these issues having spent nearly 20 years with Capitol Broadcasting Company, parent to WRAL-TV in Raleigh, North Carolina. There I worked directly with state emergency officials to help develop demonstrations of mobile alerts and warnings. Additionally, I have experience serving on committees that advise the Federal Communications Commission (FCC) and Federal Emergency Management Agency (FEMA) on a wide variety of network security, reliability and public safety issues, and specifically on how to improve our nation's Integrated Public Alert and Warning System (IPAWS).

Broadcasters' Unique Role and Experience in Emergency Alerting

As the most trusted source of news and emergency updates, Americans' first choice is to turn to local television and radio stations to get the information they need to keep safe during emergencies. Local stations are part of the communities they serve, and broadcasters do not hesitate to put themselves in harm's way to bring critical information to their neighbors. Whether it is preparing listeners and viewers for the coming storm, helping them access needed supplies and shelter during the disaster or

helping towns and cities rebuild in the aftermath, local broadcasters take seriously their commitment to protect the public.

Recent fires and mudslides on the West Coast and hurricanes in Texas, Florida and Puerto Rico have once again shined a bright light on our nation's emergency preparedness and response abilities. While this is obviously true for first responders and all levels of government, it is also true for broadcasters. FCC Chairman Ajit Pai reminded us just last week that in times of crisis first responders and first informers work hand in hand, noting that "[b]roadcasting and public safety have been lifelong companions." While this sort of cooperation received national attention during the recent hurricanes and wildfires, it was just as true two years ago when over 60 tornados ravaged parts of 11 states across the southeast and just a few months later when quick and devastating floods overtook large parts of West Virginia and Virginia in what the National Weather Service (NWS) referred to as a One Thousand Year Event. In each of these cases and in countless others, broadcasters were there, serving their listeners, viewers and communities.

Broadcasters invest heavily to ensure they remain on the air in times of disaster. Facilities often have redundant power sources, automatic fail-over processes, auxiliary transmission systems, generator back-up and substantial fuel reserves. Because of the strength of the broadcast infrastructure and the power of the airwaves, local radio and TV stations are often the only available communications medium during disasters, even when cell phone and wireless networks can be unreliable. FEMA officials have noted that in times of emergency there is no more reliable source of information than local broadcasters. To give just one example, last year after Hurricane Maria moved through

Puerto Rico and left much of the island without power and access to even basic information, not only were local television and radio stations continuing to provide lifesaving alerts and information all throughout the ordeal, but afterward NAB partnered with numerous state broadcaster associations, FEMA and local officials in Puerto Rico to deliver 10,000 battery-powered radios to island residents who had no other lifeline.

This unique combination of trust and reliability is why, in addition to our ongoing, comprehensive news coverage of emergencies, broadcasters form the backbone of the Emergency Alert System. We have all seen or heard the familiar announcement “The following is a test of the Emergency Alert System. This is only a test.” EAS connects over-the-air broadcast radio, television and cable systems, and is used during sudden, unpredictable or unforeseen events. EAS participation is technically voluntary, yet virtually all radio and television stations participate, and do so proudly, even purchasing EAS equipment at their own expense. Today, the EAS, along with Wireless Emergency Alerts (WEAs) and National Oceanic and Atmospheric Administration (NOAA) Weather Radio, is part of the IPAWS umbrella, enabling state and local emergency managers to integrate with the national alert and warning infrastructure.

Lessons Learned from Nationwide EAS Test and Recent Events

In September 2017, FEMA, in coordination with the FCC and the NWS, conducted a nationwide test of the reliability and effectiveness of the EAS. Generally, the results of the test were positive, as a majority of EAS participants received and retransmitted the message, and participation improved compared to a previous test in 2016.

However, as the residents of and visitors to Hawaii know all too well after this month's false alert of a nuclear attack, our nation's public alert and warning system and the emergency managers that originate messages are not always perfect. In an instant, one emergency manager's accidental mouse click triggered a local and national panic, compounded by a lack of information and delay in disseminating correct information via official channels. Several items arising out of this unfortunate incident are worth discussing.

First, the most important takeaway is that the EAS system worked; radio and television broadcasters were on the case. The mistaken EAS alert was immediately relayed by broadcasters, who verified the source of the message but must rely on emergency managers for validation of the emergency. Broadcasters also stood by to disseminate the All Clear message. Unfortunately, it took emergency managers 38 minutes to issue the needed follow-up EAS message. In the meantime, broadcasters used other means to confirm and report that it was a false alarm as soon as possible. The EAS system is a critical part of the trust that people place in broadcasters during an emergency, but human error in the issuance of EAS alerts can impair that trust. Going forward, NAB hopes to work with all the relevant stakeholders to minimize, if not eliminate, any vulnerabilities in the EAS process that may hinder broadcasters from carrying out their duty as first informers.

Second, broadcasters support the continued implementation by FEMA of the IPAWS Modernization Act, legislation authored by Senators Ron Johnson (WI) and Claire McCaskill (MO) and passed by Congress in 2016. This legislation recognized that the continued success of EAS will depend on the expertise and ability of local

authorities to fully and effectively deploy it. Broadcasters applaud FEMA's ongoing efforts to train state and local authorities on the proper use of the system, and support this legislative effort to incentivize state and local officials to participate in training. Especially after Hawaii, it is more important than ever that local emergency managers know exactly how and when to trigger an EAS alert.

Third, this Committee and the FCC should consider whether current WEAs provided by the wireless industry are sufficient to adequately alert and warn recipients in times of emergency. Twenty years after the pager was supplanted by the brick phone, then the flip phone and now the smartphone, a WEA delivers text only emergency information to recipients, often with fewer characters than a tweet. Often, these alerts simply direct recipients to "check local media." A multi-stakeholder FCC advisory committee that I served on recommended that WEA be improved by increasing the number of characters from 90 to 360 so the alerts would be more informative and useful. Further, this committee also recommended that WEA include embedded links and phone numbers so recipients could quickly gain access to additional information. These suggested enhancements were opposed by the wireless industry before the FCC, but were ultimately authorized in September of 2016 and are awaiting implementation. In contrast, I will detail below several ways in which radio and television broadcasters are innovating to better inform their communities when it matters most.

Policy Choices Critical to Broadcasters' Current and Future Capabilities

It is important that Congress be mindful of several policy choices that will enable broadcasters to continue and improve upon this important emergency role.

A. Next Generation TV

Broadcasters are pleased that the FCC recently approved a joint petition of the NAB, Consumer Technology Association, America's Public Television Stations and the Advanced Warning and Response Network Alliance, requesting permission for stations and television receiver manufacturers to voluntarily adopt the world's first Internet Protocol (IP)-based terrestrial television transmission standard, ATSC 3.0, also known as Next Gen TV. Not only will Next Gen TV allow broadcasters to deliver sharp ultra HD images, multichannel immersive sound, interactive features and customizable content, but more importantly it will enable an even more effective distribution of information to the public during disasters and in times of crisis.

With the advanced alerting capabilities of Next Gen TV, a television broadcaster will be able to simultaneously deliver geo-targeted, rich media alerts to an unlimited number of enabled fixed, mobile and handheld devices across their entire coverage area. For example, and at the consumer's discretion, rather than simply running an EAS alert or crawl over regularly scheduled broadcast programming for an entire market's viewing audience (and then only reaching those who are watching), a Next Gen TV signal could wake up enabled devices and reach the entire universe of devices within its television signal contour. Using the rich-media capabilities of Next Gen TV, broadcasters can provide targeted neighborhood-specific alerts that include text, graphics (such as Doppler radar animations or an evacuation route), pictures and even detailed video-on-demand descriptions. The public will have access to all of this actionable, life-saving information even if the power goes out or cellular wireless networks fail.

As broadcasters, we are simply planning to use our spectrum licenses more efficiently and to better serve our viewers. We are not asking for any additional spectrum, government funds or mandates. Unlike other communications providers, broadcasters are the only licensees that must ask the FCC for permission to innovate with regard to our transmission standard. However, by adopting Next Gen TV, broadcasters will have much greater flexibility to innovate going forward. As long as new regulatory hurdles are not placed in our way, more and more viewers across the country will benefit from these innovations and the advanced emergency alerting systems that Next Gen TV will enable.

B. Spectrum Incentive Auction Repack

While broadcasters are innovating for the future, there are also near-term obstacles that without action could prevent emergency alerts from reaching local broadcast viewers and listeners. I'm referring to relocating – or repacking – nearly 1,000 broadcast television stations in the final and most complicated phase of the broadcast spectrum incentive auction. Additionally, in the process of full-power television stations moving frequencies, this will also negatively impact more than seven hundred FM radio stations and countless low-power television and translator stations that are critical to bringing service to rural America. Quite simply, if a television or radio station is forced off the air for any period of time due to circumstances outside of their control, it will diminish the ability of the public to receive critical EAS information.

FCC Chairman Pai testified before this Committee in July that the funds Congress set aside to reimburse broadcasters for relocating are woefully inadequate. Not only does this funding shortfall violate Congress' promise to hold broadcasters

harmless but, in some cases, the shortfall is actually preventing stations from making the advanced purchases required to complete their moves in a timely fashion. In fact, according to the most recent quarterly status reports filed with the FCC, 11 percent of stations changing channels are already behind, despite their best efforts to complete their moves. Accordingly, NAB salutes Senators Jerry Moran (KS) and Brian Schatz (HI) for their bipartisan legislation, the Viewer and Listener Protection Act (S. 1632), and urge its passage to ensure that your constituents do not lose access to local television and radio stations during these mandated frequency moves due to a lack of funds or unreasonable time constraints.

C. FM Chip Activation

The radio broadcast industry has continued to take a leading role in ensuring that a life-saving technology is available to millions of Americans through their smartphones. Over the past several years, broadcasters developed marketplace partnerships with wireless phone manufacturers and providers to turn on – or at least not deactivate – FM receivers that are already installed in devices. This endeavor has grown exponentially over the past few years and, with one notable exception – Apple’s iPhone, many Americans are able to access FM radio through their smartphones during times of emergency, even when the cellular network may be down due to congestion or physical damage.

Conclusion

In conclusion, I would like to thank you again for having me here today to speak about the critical role that broadcasters play in the Emergency Alert System and

ensuring the public's safety. This is a mission our industry takes very seriously and we have a track record of fulfilling. We look forward to working with Congress, state and local governments and other industry partners to strengthen the entire system going forward. I look forward to answering any questions you may have.