Good morning, Chairperson and distinguished members of the subcommittee. On behalf of Colonel Patrick J. Callahan of the New Jersey State Police, who also serves as the State Director of Emergency Management, I thank you for the opportunity to testify here today regarding this important issue. I am Lieutenant Colonel Christopher DeMaise, Commander of the Homeland Security Branch of the New Jersey State Police. I also serve as the Deputy State Director of Emergency Management and oversee the New Jersey Office of Emergency Management (NJOEM), under the guidance of Colonel Callahan.

SUMMARY

As set forth in the following testimony, NJOEM strongly supports the proposed AM Radio for Every Vehicle Act (H.R. 3413 / S. 1669). The life-saving value of AM radio clearly outweighs the incremental costs to improve AM reception in electric vehicles. NJOEM stands with our partners at the National Emergency Management Association (NEMA) who are submitting a letter in support of this bill.

- During the last few years, the uptick in severe weather events and forest fires has been concerning – not just in New Jersey, but across the country. At the same time, we are also seeing an increase in cyber-crimes, active shooter incidents and terrorist threats. In the face of this increasing threat surface, “alert and warning” is the best tool that we have to
ensure the safety of our residents and to provide critical instructions before, during, and after a disaster. This can include information needed while individuals are driving during large scale evacuations or during a power outage when individuals will sit in their cars to listen to essential communications.

- AM radio is a primary element of the Nation’s Emergency Alert System (EAS). The emergency management community at all levels – in tandem with the private sector and broadcasting companies – has collectively devoted countless funds and personnel hours in ensuring all members of the public can receive critical public safety messages in a timely fashion. AM radio is embedded into Alert & Warning and Public Information protocols. NJOEM and our colleagues across the Nation have developed – and continue to develop – plans that rely, in part, on the continued access to AM radio.

- As a free resource, AM radio provides essential connectivity for many vulnerable and traditionally underserved populations, who may not have the financial or other means to access internet-based or wireless communications. The Nielsen Company reports that one third of its users are age 65 and older – the same age group that may be less likely to demonstrate proficiency with other forms of internet and smartphone applications. AM radio has reach into rural areas not easily serviced by wireless communications. Due to their lower operating costs, AM radio stations may serve specific cultural and ethnic groups. The emergency management community is under a mandate to reassess and ensure that services are being provided to traditionally underserved communities – this is not the time to restrict access to AM radio.

- In addition to serving as a primary communication mode, AM radio fills the need for redundancy as a back-up for other primary communication methods when there is a failure
of technology or an underlying power or internet outage caused by severe weather or human-caused conditions. This requirement for redundancy is a basic tenet of emergency management that has well-served this Nation for decades. We are reminded of this with every hurricane, every tornado and every snow storm.

**DISCUSSION**

While we, as emergency managers, strive to mitigate potential impacts of human and natural-caused disasters, much time and effort are devoted to public information and education, preparedness, and alert & warning systems to ensure the population is prepared for and can recover from all hazards. We cannot stop the storms, but we can minimize the loss of life through appropriate, well-timed and precise communications. When disaster strikes, having every tool available is imperative – because that is when most technologies are likely to malfunction. In this regard, the Emergency Alert System, which has been in effect since 1997, is used throughout the Nation. It delivers on a federal mandate to provide the President with the capability to address the American people within 10 minutes during a national emergency.

EAS messaging to AM radio is extremely effective and gives emergency managers more opportunities to get more information to the public than what Wireless Emergency Alerts can handle at this point:

- It can interrupt radio and tv broadcast to deliver lifesaving information.
- EAS character counts for messaging are much greater than that of Wireless Emergency Alerts (WEA). WEA supports a maximum of 360 characters, while EAS has a maximum character count of 1800.
- EAS supports audio messaging that can be up to 2 minutes long.
• The EAS system is reliable. Tests are conducted locally on weekly and monthly bases.

EAS messages can be launched by FEMA’s IPAWS-OPEN lab within seconds of being received from local emergency managers.

The American public is familiar with EAS. They have repeatedly seen and heard EAS tests on television and radio. Preparedness training offered by major stakeholders such as FEMA and the American Red Cross recommend that people tune into their local radio stations to obtain emergency information before, during and after an incident. AM radio fills this need. AM Radio is free, and those who cannot afford cellular service can still tune in to the radio for alerts during emergencies and for other relevant public information for preparedness and response. According to the National Association of Broadcasters blog entitled *Preserving AM Radio Cars Keeps American Safe*:

• More than 47 million Americans listen to AM radio.

• There are approximately 4500 AM radio stations across the country.

• AM radio stations are the most popular and most listened to radio stations.

• AM radio stations provide coverage from small rural areas to major cities such as New York, Los Angeles, Boston and Atlanta.

NJOEM is resolved to protect the public and improve and enhance emergency communications with the public and first responders. Although we have recently added enhanced WEA messaging through Everbridge to our cache of communications tools, we continue to rely extensively upon AM radio as part of our alert & warning capabilities, because everyone has or can easily have access to a radio. New Jersey is home to two nuclear power plants located in Salem County, a rural part of the State. The safety of the residents in the 10-mile Emergency Planning
Zone is paramount. NJOEM conducts regular siren tests followed by EAS messaging within 5 minutes to advise that a siren test was conducted and what to do in the event of a real emergency. NJOEM personnel have learned that the EAS messaging is very effective because the sirens had become “white noise” to the local population. Despite all the wireless technologies, NJOEM and many other emergency managers across the country continue to invest in EAS/radio communications, with the expectation that AM radio services will continue to be available wherever people are – at home, in the car, etc. When disaster strikes, no one should lose connectivity to essential information because the vehicle being driven does not have AM radio.

Unfortunately, New Jersey has been impacted by many significant disasters during the past several decades. The events of September 11, 2001 still haunt us with the devastating loss of life, chaos and communications deserts that resulted from the damage to infrastructure and loss of the cell towers. When other systems failed, responders and the public were able to get critical information and messages via local radio stations. The lessons learned from September 11th about interoperability, redundant communications, and emergency messaging underlie many policies and protocols currently used by emergency managers and first responders.

In the aftermath of the derecho of 2011 and Superstorm Sandy in 2012, many New Jerseyans relied upon AM radio for essential information and updates during sustained power outages and disruptions to internet and cellular service. Superstorm Sandy’s disruption of power, wireless and internet services has been well-documented. See, e.g. Hurricane Sandy disrupts wireless and Internet services - CNET; After Hurricane Sandy, People Flock to Radio for Information - The New York Times (nytimes.com). With over 47 million regular listeners – which only increases during a disaster – AM radio is an inexpensive, efficient and effective way to deliver emergency messages in targeted areas.
Moreover, as internet communications become more prevalent, the greater the risk of communications disruptions due to power outages and malfunctions in the cellular networks. Gone are the days when homes and offices were all serviced by traditional landlines that worked even during power outages. According to a 2022 survey by the National Center for Health Statistics and the CDC, only 34% of US households maintain a traditional landline for telephone service. The Nation has clearly shifted away from dedicated landlines in favor of internet-based services. This means that more people are now susceptible to a loss of communications when there is a disruption in cell tower service, power outages or when a cell phone is lost or damaged. AM radio – including usage in the car – helps provide this redundancy in capabilities.

The benefits and reach of AM radio and its impact to local communities cannot be overstated. Stations that are targeted for culturally and ethnically diverse audiences can also deliver important public information pre- and post-incident, as well as critical public safety messages. Per the National Association of Broadcasters, AM radio stations can broadcast emergency information in multiple languages, ensuring many members of local communities receive crucial updates, regardless of language. See, AM Radio's Role in the Emergency Alert System | National Association of Broadcasters (nab.org). NJOEM is purchasing new technology to communicate emergency messaging in a variety of languages to radio and television audiences and AM radio will be one of the platforms utilized to transmit these messages.

Moreover, New Jersey is a very diverse state – with rural farming communities, beach towns and major urban areas. The reach of AM radio signals ensures our messages can get through everywhere. EAS messaging delivered via AM radio can effectively reach individuals living in rural communities because AM radio signals can travel up to 100 miles. See AM Radio Still Alive and Well | Electronic Design. 5G cellular service has a range up to 1500 feet, without obstruction.
See How far does 5G reach? | About Verizon. AM radio very effectively services major metropolitan areas as well, providing critical locally relevant information – including millions who listen while commuting to and from work.

In light of the value of AM radio to their customers, some car manufacturers have developed means to overcome AM radio interference. A communications system engineer reports that “Electromagnetic interference could be controlled with shielding cables, filters and careful placement of the electrical components in the vehicle.” See In a Future Filled With Electric Cars, AM Radio May Be Left Behind - The New York Times (nytimes.com; see also Technical Paper Suggests Ways To Reduce Interference To AM Radio In Electric Vehicles. | Story | insideradio.com. The emergency management community has invested significant time and energy to ensure that critical emergency communications can reach our citizens through a variety of platforms. Surely the auto manufacturers can recognize these benefits and invest time and energy into ensuring AM radio always remains available to their customers.