APCO International

Leaders in Public Safety Communications®

January 23, 2026

Noah Jackson
Clerk
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

Dear Mr. Jackson,

Thank you for the additional Questions for the Record in connection with the December 16, 2025 hearing, "Legislative Improvements to Public Safety Communications in the United States." My responses are provided below.

Thank you for the opportunity to testify. I appreciate the Committee's time and consideration.

Sincerely,

Capt. Jack Varnado
President
APCO International

9-1-1 Director
Livingston Parish Sheriff's Office

Additional Questions for the Record

The Honorable Robert E. Latta

1. Based on your experience answering and responding to all sorts of emergencies, how important is it to give the American people direct dialing to 9-1-1 and has industry fully complied with the requirements of Kari's Law?

Answer: It is critically important that the American people be able to dial 9-1-1 directly. When callers are required to dial an extra digit to reach 9-1-1, it can cause confusion, delay emergency response, or even prevent a 9-1-1 call from being completed. In an emergency, seconds matter, and no one should lose valuable time navigating an unnecessary step when trying to reach life-saving assistance. The public expects to simply dial 9-1-1 and be immediately connected to help.

A 2024 study conducted by Intrado found that only 69.1 percent of surveyed organizations reported compliance with Kari's Law.[1] A comprehensive FCC review would help determine whether these compliance gaps stem from failures to comply with existing requirements or from ambiguities in the statute or Commission's rules that may warrant further legislative action.

   a. Do you believe all states and counties in the United States would benefit from full implementation of Kari's Law?

Answer: Yes. All states and counties in the United States would benefit from full implementation of Kari's Law. All Americans must be able to directly dial 9-1-1 without delay, regardless of where they are calling from. Haphazard, varying implementation that depends on the state or county will only increase confusion and lead to greater risk of delay in reaching 9-1-1. Uniform implementation ensures that all members of the public benefit from the same access to emergency services whether they are in a rural county or a multi-story facility in a major city. Full implementation of Kari's Law will strengthen public safety by reducing confusion, improving response times, and helping to prevent avoidable injuries or loss of life.

The Honorable Russ Fulcher

1. Captain Varnado, what has been the progress with entities like the Implementation Coordination Office (ICO) to facilitate coordination between federal, state, and local entities to help 911 centers upgrade to IP-based technology and to be able to interconnect with other 911 centers to provide redundancy in sharing information?

Answer: While there has been initial progress toward NG9-1-1, partially due to the prior federal grant program administered by the Implementation Coordination Office (ICO), there is still substantial work to be done in all states before 9-1-1 centers can fully transition to IP-based technology and seamlessly share information across jurisdictions.

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[1] Irwin Lazar, *Why Duty of Care Requires a Proactive 911 Strategy*, METRIGY (2024), *available at* https://hs-22621859.f.hubspotemail.net/hubfs/22621859/Whitepapers/Metrigy_IssuePaper_2024Q2_DutyofCare911-Intrado-1.pdf?utm_campaign=Resource%20Download&utm_medium=email&_hsenc=p2ANqtz-_7h5XCGTuOscNTFlqo1A0eTXtFi37eUCM3pNroIhxa27qHNmZC8-NgBIhXZVsyfwi2GeU6evGh93Lsxr3qvREOtS5EBw&_hsmi=310129365&utm_content=310129365&utm_source=hs_automation.

The ICO was originally established in 2004 as a joint effort between NHTSA and NTIA to administer grant-related activities related to E-9-1-1 and NG9-1-1. That initial role has been fulfilled with the closure of the prior federal grant program.[2] At this point, maintaining a separate ICO is no longer necessary, and consolidating grant administration and program oversight within NTIA's Office of Public Safety Communications, as outlined in Reps. Hudson and Carter's Next Generation 9-1-1 Act (H.R. 6505), would be more efficient and effective.

The Next Generation 9-1-1 Act includes provisions to further ensure coordination between federal, state, and local entities in deploying NG9-1-1. Under the legislation, NTIA would be responsible for coordinating with state points of contact to develop, collect, and disseminate information on the practices, procedures, and technology used in NG9-1-1 implementation. NTIA would also be responsible for advising eligible entities on preparing state plans for NG9-1-1 deployment and providing technical assistance to support efficient implementation. In overseeing the grant program, NTIA would further ensure coordination between state and local entities by requiring that each entity requesting NG9-1-1 grant funding has coordinated its state NG9-1-1 deployment plan with the 9-1-1 centers in its jurisdiction, including documenting how input was received and accounted for from relevant urban and rural 9-1-1 centers, as well as regional, local, and tribal authorities.

2. I appreciate Mr. Hudson of North Carolina and Mr. Carter of Louisiana including a "Next Generation 911 Cybersecurity Center" in their legislation. As we connect different 911 centers in sharing personal, location, and other sensitive information over IP-based systems, it is important to counter threats from cyberattacks to intercept sensitive information. This could include "location spoofing" that misdirects where emergency responders should go through false locations, phishing emails, or pretexting and other deceptive techniques to gain unauthorized access to NG911 systems. Any particular challenges with the need to share information across 911 centers, and ensuring adequate protection from vulnerabilities as data crosses networks to provide adequate privacy for people who call in to request help?

Answer: As the central point of emergency response, 9-1-1 is a prime target for cyberattacks from both domestic and foreign bad actors. The increased sharing of information across 9-1-1 centers in NG9-1-1 environments presents further cybersecurity concerns. Unlike legacy 9-1-1 systems that relied on closed networks, NG9-1-1 depends on interconnected, data-rich, IP-based – and often cloud-enabled – systems. While this connectivity increases exposure to cyber risks as data crosses networks, the nascent state of NG9-1-1 deployment creates an important opportunity to build 9-1-1 systems with strong cybersecurity protections from the start.

It is critical that cybersecurity measures are baked into NG9-1-1 networks at the time they are deployed, rather than added on later as a patchwork response. Building cybersecurity protections into NG9-1-1 from the outset will help ensure more robust and resilient systems, protect the privacy of individuals seeking emergency assistance, and better secure sensitive data as it is shared across networks. Robust

[2] In 2009 the Implementation Coordination Office (ICO) established a grant program to assist 9-1-1 centers in upgrading to Enhanced 9-1-1 (E-9-1-1) pursuant to the *Ensuring Needed Help Arrives Near Callers Employing 9-1-1 Act of 2004* (ENHANCE 9-1-1 Act). Pursuant to NHTSA and NTIA rules, this grant program concluded in 2012. In 2019, the ICO subsequently opened a new grant program as designated by the *Next Generation 9-1-1 Advancement Act of 2012*, which was enacted as part of the *Middle Class Tax Relief and Job Creation Act of 2012*. Pursuant to the legislation, the NG9-1-1 grant program terminated on October 1, 2022.

cybersecurity standards, continuous monitoring, and dedicated security resources are essential to protecting both 9-1-1 infrastructure and the sensitive data it handles.

The Cybersecurity Resource Center outlined in the NG9-1-1 legislation is therefore an important tool, as it will drive the creation of resources that can be used by all emergency communications centers when planning and implementing NG9-1-1. In addition, deployment of NG9-1-1 will enable the integration of advanced capabilities such as artificial intelligence to strengthen system resilience. AI-enabled security tools can support continuous network monitoring, detect anomalous activity, and assist in identifying and responding to cyber threats.

3. When it comes to Public Safety Answering Points (PSAPs) helping counties transition from traditional analog emergency communications to IP-based Next Generation 911 technology, I want to understand the robustness and reliability of this approach when it comes to getting data transferred to officers in rural territories they can share on fugitives evading the law. In particular, we have tried to tie county, city, tribal law enforcement to deal with higher volumes of more robust data. But I also want to know how things are progressing on the data side for the sharing of critical information? Can you provide a progress report?

Answer: The transition from traditional analog emergency communications to IP-based NG9-1-1 will fundamentally change how critical information is shared with law enforcement and improve the robustness and reliability of data delivery. By transitioning to IP-based networks, NG9-1-1 enables the transmission of richer, real-time data, such as text, images, and video, that can be shared more quickly and effectively with responding agencies.

As NG9-1-1 is deployed, these systems will significantly enhance how emergency communications centers receive and share critical information during incidents involving fugitives evading the law. For example, in an NG9-1-1 environment, a caller could transmit photos or video of a fleeing suspect, license plate information, or live location data, all of which can be associated with the incident in real time. Further, because NG9-1-1 will enable greater interoperability, this information can then be securely and seamlessly shared with responding officers in the field, supporting more coordinated, multi-jurisdictional responses.

Emergency response is inherently collaborative and often requires multiple agencies and jurisdictions to work together seamlessly, particularly in incidents involving fugitives evading law enforcement or situations that cross county, city, or state boundaries. Today, many emergency communications centers still operate in isolation, using different equipment, software, and networks, which can delay the sharing of critical information or require costly, after-the-fact solutions. NG9-1-1 seeks to eliminate these boundaries by enabling systems to communicate across jurisdictions and service providers without proprietary interfaces or constraints.

Progress toward implementing NG9-1-1 in this manner remains uneven across the country. While some states and localities have begun initial NG9-1-1 deployments, no state has yet implemented comprehensive, end-to-end NG9-1-1 as envisioned by the public safety community and defined in the Next Generation 9-1-1 Act. This vision of NG9-1-1 means enabling emergency communications centers to receive, process, and analyze all forms of data and seamlessly share this information with responders in the field and other emergency communications centers. Many states have deployed emergency services IP networks, or ESInets, which replace the more than 50-year-old technology used to deliver 9-1-1 calls to emergency communications centers and for connecting emergency communications centers together.

Deploying an ESInet may be an initial step toward achieving NG9-1-1, but because ESInets only address getting the calls to the emergency communications centers and not sharing information with responders in the field, having an ESInet does not mean that NG9-1-1 has been deployed.

Achieving the full public safety benefits of NG9-1-1 will require sustained funding and a continued focus on interoperability to ensure that mission critical data can be quickly and effectively shared across jurisdictions and with responders in the field. This is why passage of Reps. Hudson and Carter's Next Generation 9-1-1 Act (H.R. 6505) is so important, as the legislation establishes a comprehensive framework to facilitate nationwide NG9-1-1 deployment in a secure, innovative, interoperable, and reliable manner.

The Honorable August Pfluger

1. Captain Varnado, in the hearing we discussed my draft legislation, the Mystic Alerts Act which would incorporate satellite technology into the wireless emergency alert system? In your experience, how might having satellite alerts change an outcome during an emergency situation?

Answer: Emergency alerts are vital public safety tools that enable public safety agencies to provide the public with timely information that can save lives during an emergency. Emergency alerts give people the information they need to take immediate, life-saving action, such as evacuating, seeking shelter, or avoiding dangerous areas. Satellite connectivity can enhance this essential system by providing an additional layer of resiliency for emergency alert dissemination, particularly during natural disasters, like hurricanes, wildfires, or flooding that can disrupt land-based communications networks. Unlike terrestrial networks, which can be damaged or overloaded during large-scale events, satellite networks often remain operational, ensuring that emergency alerts continue to reach affected populations.

Additionally, satellite services can extend the reach of alerts to areas where traditional terrestrial networks are limited or nonexistent, including rural and remote communities. By providing broader coverage and redundancy, satellite-enabled alerts can help ensure that all members of the public receive timely warnings, including those who might otherwise be left without critical information, enabling faster and more informed action during emergencies.

2. Captain Varnado, you highlighted in your testimony the incorporation of analog technologies such as amateur radio broadcasters who have been longstanding and critical public safety partners in times of need. I agree with your assessment, and my bipartisan, bicameral legislation, *the Amateur Radio Emergency Preparedness Act*, would ensure that Amateur Radio operators can continue to play a vital role in public safety by extending the same private land-use restrictions that apply to other telecommunications equipment to amateur radio antennas.

   Can you discuss a time when amateur radio operators assisted you in disaster response, and why ensuring access to this resilient public safety tool will aid in disaster response and recovery?

Answer: Amateur radio operators play a vital role in disaster response and recovery, and their contributions have repeatedly proven to be essential when traditional communications systems fail. While I have not personally worked alongside amateur radio operators during a disaster response, I am familiar with their operational role and the ways they are regularly integrated into emergency response efforts.

Amateur radio operators provide crucial support to public safety agencies, particularly during disasters when traditional communications infrastructure, including cell towers and broadcast networks, is damaged or overloaded. Their ability to deploy quickly and operate independently makes amateur radio operators a valuable redundant communications resource, strengthening overall resiliency during emergencies.

Many public safety agencies across the country maintain strong collaborative relationships with amateur radio operators. The Amateur Radio Emergency Service (ARES), a nationwide organization of licensed radio operators who voluntarily register to support emergency management and public safety agencies during disasters, often leads these collaborative efforts. ARES members routinely train alongside state and local public safety officials so that they can be activated quickly and efficiently as needed.

Several recent natural disaster responses highlight the importance of amateur radio operators in emergency response. During the Texas floods on July 4, 2025, amateur radio operators were activated to support local public safety agencies. In that response, amateur radio operators assisted the American Red Cross with establishing and operating a reunification shelter, were embedded with search-and-rescue teams, and relayed critical health and welfare information when other communications systems were unavailable.[3]

Similarly, during Hurricanes Helene and Milton in 2024, amateur radio operators provided communications support in affected areas where internet and cell service had been disrupted. In addition to radio communications, amateur radio operators used Winlink, a system that allows email to be transmitted over amateur radio frequencies, to send weather updates, lists of supplies, and requests for aid when internet was unavailable.[4] In some communities, amateur radio operators even established high-frequency mesh networks, allowing multiple amateur radio operator's equipment to create localized, internet-like communication systems to enable real-time information sharing between neighborhoods and emergency shelters.[5]

Amateur radio operators also play a key role in weather monitoring and information sharing at the national level. The National Hurricane Center and local National Weather Service Weather Forecast Offices regularly collaborate with amateur radio operators to gather real-time storm reports and disseminate critical weather information to the public. A notable example is WX4NHC, the amateur radio station at the National Hurricane Center, which activates during hurricane events to collect on-the-ground reports from affected areas. This type of information helps the National Weather Service refine the emergency alerts it sends out and confirm where damage or weather events may have occurred.

In addition, the value of amateur radio operators is not limited to large-scale natural disasters. In 2024, amateur radio operators assisted in locating a family trapped in Death Valley National Park.[6] One family

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[3] National Association for Amateur Radio, *Amateur Radio Volunteers Serving During Texas Floods*, ARRL.ORG (Jul. 9, 2025), *available at* https://www.arrl.org/news/view/amateur-radio-volunteers-serving-during-texas-floods.
[4] National Association for Amateur Radio, *HAM Radio Serving Southeast US Recovery Efforts*, ARRL.ORG (Oct. 4, 2024), *available at* https://www.arrl.org/news/view/ham-radio-serving-southeast-us-recovery-efforts; Virtual IT Group, LLC, *How Amateur Radio Operators Are Revolutionizing Hurricane Communications: Insights From Hurricane Helene and Milton*, VIRTUALITGROUP.COM (Oct. 18, 2024) ("Virtual IT Group"), *available at* https://virtualitgroup.com/how-amateur-radio-operators-are-revolutionizing-hurricane-communication/.
[5] Virtual IT Group.
[6] National Association of Amateur Radio, *Amateur Radio Saves Family in Death Valley National Park*, ARRL.ORG (Apr. 12, 2024), *available at* https://www.arrl.org/news/amateur-radio-saves-family-in-death-valley-national-park.

member, a licensed amateur radio operator, transmitted a distress call from their vehicle. The signal was received by another operator in Ohio, who identified the call sign and approximate location and coordinated with additional operators to search for and monitor the distress signals. Those amateur radio operators then relayed the information to park authorities, enabling a successful rescue of the family.

These examples demonstrate how amateur radio can be a resilient public safety tool. Amateur radio operators provide a flexible, redundant, and localized communications resource that can enhance situational awareness, support first responders, and help ensure that critical information can be shared in all circumstances.

The Honorable Doris Matsui

1. My bill, the *Kari's Law Reporting Act*, directs the FCC to report on compliance with Kari's Law to ensure the public can directly access 9-1-1 from multi-line telephone systems, such as those used in schools, hotels, and offices. My bill also calls for recommendations to Congress on whether additional legislation is needed.

   As a follow-up to your response during the hearing, what gaps or enforcement challenges might require additional Congressional action?

Answer: Multi-line telephone systems that cannot directly dial 9-1-1 without first dialing a prefix to access an outside line present a significant public safety concern, as individuals may be unaware of the need to dial an additional digit in an emergency, potentially resulting in delayed or failed attempts to reach emergency services. It is unclear whether these gaps in compliance reflect intentional noncompliance or confusion within the industry regarding the scope of Kari's Law. Notably, Kari's Law applies only to multi-line telephone systems that are manufactured or installed after February 16, 2020 (the effective date of the FCC's rules implementing Kari's Law). As a result, systems manufactured or installed prior to that date may remain noncompliant indefinitely, even though they continue to be in use in hotels, schools, and businesses across the country. Further, a multi-line telephone system manufactured before February 16, 2020, but installed after that date is subject to Kari's Law, yet this distinction may not be clear to manufacturers, installers, or end-users. Similarly, certain upgrades to multi-line telephone systems that were installed prior to February 16, 2020, but upgraded after this date, can trigger compliance obligations, while other upgrades do not, creating further ambiguity around when a multi-line telephone system must be brought into compliance. Additional legislation may be warranted to clarify what systems fall within the scope of Kari's Law and to bring in additional systems that are currently exempt.

2. What factors should the FCC report examine to determine whether additional legislation is needed?

Answer: The FCC's report should examine several key factors to determine whether additional legislation is needed to ensure compliance with Kari's law, such as:

- The extent and prevalence of noncompliance with Kari's Law;
- Whether noncompliant multi-line telephone systems fall outside the scope of Kari's Law due to their manufacturing or installation date (prior to February 16, 2020); and
- Whether ambiguities in Kari's Law or the Commission's rules, such as whether a system upgrade would trigger a compliance requirement, could be contributing to compliance gaps.

These factors are not intended to be exhaustive, and there may be additional technical or operational considerations relevant to determining whether further legislative action is necessary. We would encourage the FCC to work closely with public safety organizations, industry stakeholders, and other experts to help identify additional issues and to inform the appropriate scope of the report.

3. Can you describe the risks of continuing to rely on outdated, decades-old technologies for our 9-1-1 systems?

Answer: 9-1-1 is the most critical of critical infrastructure, and relying on decades-old systems risks our first responders not being able to respond to emergencies to the best of their abilities. Modern cell phones can instantly record and transmit information to friends and family. Yet when a call is placed to 9-1-1, much of this valuable data is unable to be transmitted to the emergency communications center, leaving first responders with only a voice connection and limited information about an incident. This limits situational awareness, slows response times, and can put both the public and first responders at risk.

Outdated systems are also more vulnerable to outages, cyberattacks, and other disruptions, creating threats not only to public safety but also to national security. 9-1-1 is our nation's first line of defense in an emergency, and it is imperative that these systems are advanced, reliable, and resilient enough to protect the public from all types of emergencies.

In an NG9-1-1 environment, public safety telecommunicators will be able to receive text messages, photos, videos, and other data directly from the public, giving them a clearer understanding of what is happening as an incident unfolds. That information can be analyzed and shared immediately with first responders and neighboring jurisdictions, helping responders arrive better informed, make faster decisions, and coordinate more effectively, especially during complex or rapidly evolving incidents.

4. What would be the impact of dedicated federal funding for Next Gen 9-1-1 deployment, and how would it help states accelerate progress?

Answer: Dedicated federal funding for NG9-1-1 would ensure that all emergency communications centers, regardless of size or location, have the resources needed to implement end-to-end NG9-1-1 capabilities. For the public, that means that no matter where you live in the country, from rural towns to major cities, you have access to the most advanced emergency response services available.

Sustainable funding remains one of the largest barriers to nationwide NG9-1-1 implementation. Many states rely on inconsistent fee structures or annual appropriations that cannot support large-scale, multi-year technology deployments. Emergency communications centers, most of which are already operating under tight budgets, struggle to upgrade aging equipment, maintain cybersecurity protections, or adopt emerging technologies without federal support.

Emergencies don't stop at the border. We need federal support to ensure we do not end up with a nation of haves and have nots, where some areas of the country have advanced capabilities and others lag behind.

5. My bill, the Emergency Reporting Act, aims to improve the information 9-1-1 centers receive during a service outage, which can affect the public's ability to reach 9-1-1.

My bill would require the FCC to hold public hearings on significant outages. How can this greater transparency about service performance during disasters improve network reliability and public safety?

Answer: FCC field hearings can yield invaluable insights into the root cause of an outage, how restoration efforts were carried out, and how relevant stakeholders coordinated their response. Field hearings can provide a forum for identifying and sharing measures that might prevent or mitigate similar outages in the future. That information helps drive accountability, promote collaboration, and improve network resiliency and reliability in the future.

It is critical that public safety stakeholders, including 9-1-1 professionals, are included in these discussions so the real-world impacts on emergency response are fully understood and reflected in the solutions. I experienced this firsthand when I participated in an FCC field hearing on network resiliency after Hurricane Ida in 2021, which provided an opportunity to share on-the-ground insights into system performance, coordination with service providers, and ways to strengthen communications and improve outcomes in future disasters.