WESTERN FIRE CHIEFS ASSOCIATION

"SERVING THOSE WHO LEAD"

Testimony of Chief Jeffrey D. Johnson, Chief Executive, Western Fire Chiefs Association

Federal Communications Commission (FCC) Field Hearing

Panel 1: "Lessons on the Ground"

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Introduction

I am Jeffrey Johnson, Executive Chief for the Western Fire Chiefs Association (WFCA). The WFCA serves fire chiefs in the 11 western states, including Oregon, Washington, California, Idaho, Nevada, Utah, Montana, Arizona, Alaska, Hawaii, as well as Guam/Saipan. I previously served as president of the International Association of Fire Chiefs (IAFC) and a chief fire officer of the Tualatin Valley Fire and Rescue Department in Beaverton, Oregon where I served as chief of the department for 15 years before retiring in 2010 after a 32-year career. I had the honor of serving as the Vice Chairman of the FirstNet Authority Board of Directors, responsible for overseeing the deployment of the world's first nationwide wireless broadband network dedicated to public safety.

I commend the Federal Communications Commission for convening this field hearing to discuss lessons learned from Hurricane Ida and improving the resilience of our communications networks. Thank you for requesting guidance and input from the WFCA regarding our communication priorities informed by our experience responding to recent disasters, including the active wildfire season in the western United States. The WFCA's membership includes the career and volunteer leaders of fire related emergency service organizations throughout the WFCA member states and the Western Pacific Islands.

Prevention, Preparedness and Response to the Growing Threat of Wildfires

The WFCA membership provides critical protection of people, critical infrastructure, and the environment from the occurrence and outcomes of fires and other natural, technological, and manmade emergencies. Our membership and their departments have answered the call to support our country's response to the COVID-19 pandemic, while simultaneously responding to an unprecedented fire season in 2020. The 2021 fire season started early with record dry conditions. After consecutive years of devastating fire seasons, it has become clear the major wildfires in the West are not one-off anomalies, but becoming a pattern and creating a new normal. Similarly, we are seeing patterns of extreme weather in other parts of the country, including active hurricane seasons in the Southeast with Hurricane Ida impacting Louisiana and numerous other states spanning from the Gulf to the Northeast.

History has taught us that planning and preparedness are key to mitigating risk and bolstering our readiness to achieve the best possible outcomes. For example, we have found in the western states that preparedness includes evacuation planning and drills, fuel management, hardening of structures against the threat of wildfire, and increasing the response resources that are available to respond to wildland fires through codified agreements. Once a fire has started, the goal is to contain the fire to the smallest area possible and minimize the amount of damage to our communities, critical infrastructure, and natural resources, which involves the notification and evacuation of all persons who are at risk, resource requests, and dispatching and coordinating with inter- and intra-state responders. Following a fire incident, the focus shifts to recovery and learning from the events that transpired during the emergency. This same approach is applicable to hurricanes and other natural disasters.

Criticality of Broadband Communications for Public Safety and Emergency Response

Modern technology and broadband have provided new tools for citizens, emergency response personnel, and state and federal forestry managers, including "smart" tools using drones and

unmanned aerial systems/vehicles for land management and to detect small fires before they become large forest fires using broadband connectivity. Advanced technology solutions are equipping public safety with new capabilities to communicate and coordinate during emergencies. For example, an incident commander has greater visibility into the incident and can better direct how resources are dispatched and deployed to emergencies. The ability to access information and situational awareness is also essential because the location, mapping, weather, terrain, and predictive analytics and intelligence can help inform the response and coordination during wildfires or any other natural disaster.

In order for first responders to actually utilize these advanced solutions, they need to be able to count on the technology and underlying network performing in operationally critical situations. It is essential for emergency response personnel to have reliable access to broadband and the correspondingly essential resilient commercial power grid and backup power sources. Additionally, mobile wireless applications serving public safety should be built in accordance with commonly accepted standards, such as the 3GPP international wireless industry standards, to enhance their quality performance, interoperability, and reliable operation. Unlike the interoperability challenges that have persisted across the disparate land mobile radio systems operating across the country, the wireless industry has effectively addressed the interoperability issue through its use of common international standards to ensure voice and data traffic can be exchanged across carriers. FirstNet – as a network built to these international standards – supports interoperable communications, as well as brings the dedicated network capabilities that are needed to meet the critical needs of first responders. This is a distinction that separates FirstNet from commercial offerings.

The Nationwide Public Safety Broadband Network has been a gamechanger for public safety, with more than 2.5 million connections and 17,000 public safety agencies and organizations on the FirstNet network. This growth is remarkable, especially given FirstNet has only been available nationwide since 2018. The rapid adoption shows the previous gap in the commercial marketplace has been closed, due to the Federal Communications Commission and Congress taking action to create a dedicated network for first responders. The commercial wireless industry was not meeting the unique needs of public safety. But fortunately, first responders now have a dedicated network built to their requirements and specifications.

As envisioned by the first responder community, the FirstNet network will continue to grow and evolve, based upon: (1) lessons learned after every major event and (2) the ever-evolving needs of public safety. FirstNet is addressing the communications challenges that have long hindered more effective and robust emergency response. Before FirstNet, field-based first responders, such as wildland firefighters, law enforcement officers, and search and rescue teams, were hesitant to adopt new technology because they couldn't count on the advanced tools working when they needed them most. Now that we have FirstNet, first responders have priority, preemption, and unthrottled connectivity on the network; dedicated 700 MHz public safety spectrum that has been built out across the country (with aggressive rural coverage build benchmarks – an important priority for the WFCA); a secure and physically separate network core; and the ability to request portable cell towers (Colts and Cows) to make sure first responders have connectivity whenever and wherever they need it.

Hurricane Ida

With sustained winds of 150 mph, Hurricane Ida is one of the strongest hurricanes to make landfall in Louisiana. The storm led to a significant loss of commercial power for more than 1 million customers in Louisiana alone, including most of New Orleans. According to local utility company Entergy, it has been reported the storm damaged or destroyed 31,000 utility poles carrying lower-voltage distribution lines, nearly twice as many as Hurricane Katrina. This prolonged commercial power disruption meant public safety entities (PSEs) and critical infrastructure operators needed to rely on thousands of permanent and temporary generators to sustain operations, along with regular refueling and performing required maintenance to support the generators in the field.

Communications infrastructure was not immune to the storm's impact, with wireless and wireline broadband providers and land mobile radio networks reporting service disruptions in multiple Louisiana parishes. Hurricane Ida underscores the importance of building networks in accordance with best practices for resiliency, redundancy, and hardening. Even when these best practices are followed, however, a natural disaster (at the scale of Hurricane Ida or a massive conflagration) will unavoidably cause damage to infrastructure that may lead to service disruptions. It is therefore essential for communications operators, including FirstNet, to prepare, train, and be ready to swiftly restore damaged infrastructure, so normal operation can be achieved as quickly as possible. The speed of communications infrastructure restoration is one of the success stories from Hurricane Ida, showcasing there have been lessons learned since Hurricane Katrina in 2005.

Public safety informed the development of the NPSBN, through direction and oversight from FirstNet Board of Directors, input from the FirstNet Public Safety Advisory Committee (PSAC), and extensive consultation performed by the FirstNet Authority with public safety agencies and state and local governments. Recognizing there would inevitably be disruptions to network infrastructure during a natural or manmade disaster, public safety called for a dedicated fleet of FirstNet deployables to provide connectivity wherever public safety needed it. The FirstNet deployables serve as a form of network redundancy for the NPSBN by providing deployable network assets free of charge, upon request for FirstNet subscribed public safety agencies.

During the response to Hurricane Ida, FirstNet agencies made more than 70 requests for deployable assets to augment coverage to support their response and recovery. In the first round of FirstNet reinvestment decisions, the FirstNet Board of Directors approved an expansion of the FirstNet deployable fleet in June 2020.[1] It was necessary to expand the fleet to meet growing demand and to pre-stage these assets across the country and in advance of an approaching hurricane, enabling these FirstNet Cows and Colts to be swiftly deployed. The expansion of the FirstNet deployable fleet directly benefited the response and support for FirstNet users in Louisiana. For example, one of the new FirstNet Rapid Command Vehicles[2] (RCVs) was on-site at the State Emergency Operations Center (EOC) on Monday morning, August 30 to provide FirstNet connectivity for the EOC.

[1] https://firstnet.gov/newsroom/press-releases/firstnet-authority-board-approves-network-investments-5g-demand-coverage

[2] A command vehicle that broadcasts FirstNet Band 14 cellular, provides Wi-Fi, and operates on satellite backhaul and independent of commercial power.

Unlike a commercial wireless network, the NPSBN – as public safety's dedicated network – is subject to enhanced oversight and accountability from the First Responder Network Authority and the FirstNet Board of Directors. Anytime there is a significant event, the FirstNet Authority can initiate an after-action review to identify lessons learned to strengthen the future operation and evolution of the network. As a result, the findings from the FirstNet Authority's review of Hurricane Ida will likely lead to further improvements for the network and its ongoing operations, as well as informing future reinvestment decisions. I'm confident the NPSBN will be an even stronger network for first responders in Louisiana and across the country because of the FirstNet Authority's oversight and the continuous cycle of improvement that public safety expects and demands from their network.

Commercial Power Grid

It is important to recognize the need for improved power resiliency. Access to reliable commercial power isn't only important for the communications industry, but also for health care, first responders, citizens, and virtually every other facet of our economy. The recent and significant power failure events in California and Texas call into question the resiliency of the commercial power grid. As a result of the COVID-19 pandemic, society has transitioned to "remote-everything," which further reinforces the critical need for a robust and resilient commercial power grid.

Temporary and Fixed Backup Power

The placement of backup power generators at communications facilities can help enhance resiliency and power redundancy. The need for backup power has been evident during the public safety power shutdown (PSPS) in California. The WFCA has collaborated with local lawmakers and other stakeholders in California to streamline the process for siting backup power facilities. Local and state siting rules, environmental, and other regulations governing the placement of backup power generators can make it exceedingly difficult to get this equipment installed at communication towers. This is not unique to California and is an issue that hinders backup generator placement at sites in jurisdictions across the country. The Federal Communications Commission should consider preemptive siting and environmental streamlining rules to make it easier for these backup power facilities to be installed.

Next Generation 9-1-1: An Important National Priority

When discussing resiliency, reliability, and redundancy for the communications sector, we must not overlook the critical need to reform and invest in Next Generation (NG) 9-1-1. Federal funding for NG 9-1-1 implementation will equip public safety answering points (PSAPs) and emergency communications centers (ECCs) with the ability to modernize their operations. This will bolster redundancy by allowing a 911 center to load-share with other PSAPs/ECCs. In the event of a natural disaster or interruption in fiber transport or commercial power, the incoming 9-1-1 traffic to a PSAP can be rerouted and received by an operational PSAP in another part of the state or in a neighboring state. NG 9-1-1 will also allow PSAPs/ECCs to receive rich internet protocol (IP)-based data and information in the form of video, photos, and multimedia from the public, and then send this critical and life-saving information directly to field-based first responders, including those using FirstNet. Transitioning our country's existing patchwork of 9-

1-1 jurisdictions (many still using legacy systems) to NG 9-1-1 is critical for our nation's communications resiliency.

As bipartisan infrastructure legislation and a broader reconciliation package is considered by Congress, it is critically important for the NG 9-1-1 reform and funding bill to be included in the legislation. We must ensure 9-1-1 centers – regardless of state or jurisdiction – can receive IP-based data and information, which will better inform emergency response, reduce response times, and improve outcomes.

Public Safety Communications Priorities at the FCC

On behalf of the public safety community, I would like to thank Acting Chairwoman Jessica Rosenworcel and the other sitting Commissioners for their direct engagement with public safety both in the field and at the policy level. I commend the Federal Communications Commission for working in a bipartisan fashion to stay[3] the reallocation of 4.9 GHz spectrum, which would have taken away this vital spectrum resource from public safety. The public safety community now has the opportunity to work with the Federal Communications Commission and other stakeholders to help shape the future use of the 4.9 GHz spectrum. With changes in broadband technology, public safety's communications resilience can be strengthened by preserving the spectrum for public safety's use. The 4.9 GHz band can help facilitate the introduction of new 5G capabilities into the public safety communications ecosystem and meet the urgent need for dedicated nationwide 5G spectrum for the public safety community.

Difficulty and Delay Deploying Broadband Infrastructure on Federal Lands

The WFCA membership is regularly called upon to support fire suppression efforts on federal lands to protect people, property, and some of America's most beloved landscapes. We also respond to other emergency situations on federal lands to support and protect federal government employees, local residents, and visitors, such as when public safety leads a search and rescue for a missing person in a National Park or responds to a medical issue for an injured hiker at a U.S. National Forest. There is a critical public safety need for more robust and available broadband communications on federal lands. Especially along major roadways, areas commonly used as incident command posts or other emergency staging grounds, and in recreation areas attracting large numbers of residents and visitors, the inability to have reliable and available wireless communications on federal lands is no longer a mere inconvenience, it is a serious public safety issue. The federal government should take action to overhaul, expedite, and streamline the federal leasing, easement, appraisal, review, and approval processes for broadband projects on lands managed by the federal government.

The federal government maintains a significant presence in rural areas and across the western United States. As our country endeavors to close the digital divide and bolster network resiliency, I am concerned this mission could be hampered unless there is a fundamental change in how many federal agencies approach their responsibility to review and approve broadband infrastructure projects. Aesthetic, historical, and cultural considerations on federal lands should not wholly outweigh or supersede concerns about the life and safety of first responders and the public visiting, working, and living on or near federal lands.

[3] https://www.fcc.gov/document/fcc-adopts-49-ghz-stay-order

Streamlining the Process to Deploy Broadband Infrastructure

Greater reliability can be achieved from the number of cell towers in an area – this is certainly the case when responding to a wildland fire in a rural area, but it has broader application in other emergencies and in more urban environments. Expanding the tower density can function as a form of redundancy. As such, the Federal Communications Commission should consider ways to expedite the process to deploy wireless and wireline broadband infrastructure. Streamlining the deployment of broadband will help to narrow the digital divide, boost the capacity and speeds available for broadband users, and expand available fiber backhaul-diversity.

In response to the COVID-19 pandemic, Congress approved record levels of federal stimulus that can be used to support the deployment of broadband and telecommunications infrastructure. While this is an important step forward, we should not stop there. Action should be taken to streamline the broadband infrastructure siting and deployment process to make it easier, faster, and less costly to deploy wireless and wireline broadband at the federal, state, tribal, and local levels. With the passage of the American Rescue Plan Act of 2021 and current efforts to advance bipartisan infrastructure legislation, Congress, the Federal Communications Commission, and the broader Executive Branch should consider ways to expedite state, local, tribal, and federal review and approvals for broadband projects.

I urge the Federal Communications Commission to consider a new categorical exclusion or expedited review process for broadband infrastructure projects that are deemed a public safety priority, which parallels the expedited review for public safety projects that is common at the local level. The federal government should seek to find ways to make it easier for this critical infrastructure to be deployed.

Thank you

Thank you for inviting me to testify. I appreciate your efforts to bolster our nation's communications resiliency. On behalf of the WFCA, thank you for allowing us to share public safety's views on these topics. I am available to respond to any questions you may have.