SAN BERNARDINO COUNTY FIRE PROTECTION DISTRICT

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Testimony in Support of H.R. 4235
Wildfire Technology Demonstration, Evaluation, Modernization, and Optimization Act

Good afternoon, my name is Jim Topoleski. I am the Division Chief of the Wildland and Aviation Division for San Bernardino County Fire. I am here today in response to the Committee's invitation to testify in support of H.R. 4235. I have nearly 40 years of experience in the fire service, where I have served in almost every rank, from firefighter/paramedic to executive chief officer. As an Operations Section Chief, I have served on the State of California (CalFire) and Federal Type I Incident Management Teams for twenty-five years. I have responded nationwide to complex and dynamic wildfire incidents that would have benefited from new wildfire technologies and communication capabilities.

I am honored and proud to be here today representing the San Bernardino County Fire Protection District, where we serve a population of nearly 2.1 million over a land mass of almost 20,000 square miles. I want to thank our Congresswoman, Young Kim, for her leadership on this issue. We are the largest county in the continental United States with a land mass larger than New Jersey, Connecticut, Delaware, and Rhode Island put together. San Bernardino County is a diverse geographical region with large coastal valleys, mountainous terrain, and expansive desert areas. San Bernardino County is home to one most populated and recreated national forests and where approximately 75% of the county's land mass is made up of federal lands.

San Bernardino County has a history of profound large-scale destructive wildfires and natural disasters that pose significant challenges for our responders. For example, the York Fire this past July in the Mojave National Preserve and the eastern reaches of San Bernardino County consumed 93,000 acres of critical natural habitat, destroyed, and damaged several residences, and threatened electrical distribution networks to Southern California and Las Vegas. During the response fire crews lacked basic communication capabilities such cellular phone, data service, and even radio communication. This challenge put our firefighters, both in the air and on the ground, in jeopardy. Fire personnel had to establish work arounds to communicate during the response. In the era of modern communication technology this should not be the case. Another challenge was the coordination of unified operations between our federal and state partners that operate on different technology platforms that do not share a common operating picture.

We believe that this Act will provide the needed testbed program and a mechanism to bring about fire agency interoperability across platforms. This interoperability is critical to San Bernardino County, where most of our wildland fire response capacity is comprised of our Forest Service and Bureau of Land Management firefighting partners.

It will also provide for the safety all our firefighters and support “Dingell Act Resource Tracking,” commonly known as DART. The intent of DART is to track remotely the location of active resources and display each fire resource on real-time maps. While the technology to accomplish the objective of DART exists, it has yet to be operationally deployed in a widescale manner. Without a common operating picture incident commanders have a difficult time maintaining

accountability of resources, which puts our firefighters in danger. The use of automatic vehicle location (AVL) tracking and personal tracking technologies will provide for safe and rapid deployment of our firefighters.

As we learned from the York Fire federal and local government firefighting agencies must have access to emerging technologies to communicate with each other and coordinate resources. We must have a common operating picture to better understand the wildfire environment, conduct risk assessment, and maximize risk reduction. Understanding the fire ground (battlefield) is critical to our ability to deploy resources quickly and allow for more informed and safer decision making. Combined with the use of fire prediction spread modeling and live dynamic fire line mapping incident commanders will be able to accomplish the objective of keeping fires small. It may also be worth noting that the same technology would have also greatly assisted in the managing of resources and minimizing impacts during this past February snowstorm that crippled the mountain communities in San Bernardino County for several weeks.

Federal, state, and local government fire agencies along with private partnerships must collaboratively develop and refine these critical technologies. In the past, development was often done in a vacuum where interoperability was significantly lacking. Consequently, underdeveloped technology was placed into operation and didn't work as expected. Product developers often design their products based on what they believe is needed rather than what our firefighters require. Thus, the need for public-private partnerships that mitigate the cost and risk through pilot programs that H.R. 4235 makes possible.

It begins with private sector engagement where firefighters can evaluate and provide feedback to private sector companies through “Pilot studies” and “Beta-Testing”. My agency, for example, has been involved in envisioning and planning for the next generation of equipment and personnel tracking technology where we also consider product lifecycle refinement loops. This limited approach, however, does not maximize our local resources with investments at the state and federal level. We need to develop these technologies and implement them together (at the federal, state, and local levels) to optimize those resources.

We have taken the first step in sharing Automatic Vehicle Location (AVL) tracking systems, and communication equipment with our federal partners. San Bernardino County Fire Protection District at our own cost provided the Angeles and San Bernardino National Forests with access to our mapping and data system that displays AVL information of fire response units to create a common operating picture. This data sharing has been invaluable. For instance, a two weeks ago, during a wildland fire in an adjacent county fire managers were able to track and account for resources in real-time. Because of this, managers were able to select and deploy the closest and most appropriate resources at a critical time when the fire was rapidly approaching homes. While this example illustrates the possibilities we must do more. The ability to display information must be further developed and the federal government must look to form these public-private partnerships to increase effectiveness and reduce costs. Technology integration, UAVs, artificial intelligence will be integral in combatting all types of disasters. Federal government engagement

and investment in this type of partnership with the private sector is a smart use of tax-payer dollars.

In closing, San Bernardino County Fire envisions a forward-leaning Federal wildland fire partner that continues to develop and utilize cutting-edge technology. The proposed bill accomplishes this by:

c. Establishing programs.

d. Identifying and prioritizing emerging technologies.

e. Communicating tech needs to the private industry, and

f. Evaluating and sharing recommendations.

I encourage the Committee to act favorably on H.R. 4235. Thank you for your time and consideration.

I am available to answer any questions you may have.

Mr. Jim Topoleski

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San Bernardino County Fire Department