
# Exploring the Use of Unmanned Aircraft Systems Across the DHS Enterprise

**Statement of**

## Division Chief Kevin Fetterman

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INTERNATIONAL ASSOCIATION OF FIRE CHIEFS
8251 GREENSBORO DRIVE, SUITE 650 • MCLEAN, VA 22102

Good afternoon, Chairman Guest; Ranking Member Correa; Chairman Strong; and Ranking Member Kennedy. My name is Kevin Fetterman. I am the Division 4 Chief with the Orange County Fire Authority (OCFA) in Orange County, California. I oversee the delivery of Fire and Emergency Services in the communities of Tustin, Villa Park, and Yorba Linda. I appreciate the opportunity today to discuss Unmanned Aircraft Systems (UAS) and the role they play across the Department of Homeland Security (DHS) enterprise.

Today I am testifying on behalf of the International Association of Fire Chiefs (IAFC). The IAFC represents the leadership of over 1.1 million firefighters and emergency responders. IAFC members are the world's leading experts in firefighting, emergency medical services, terrorism response, hazardous materials (hazmat) incidents, wildland fire suppression, natural disasters, search and rescue, and public-safety policy. Since 1873, the IAFC has provided a forum for its members to exchange ideas, develop best practices, participate in executive training, and discover diverse products and services available to first responders.

America's fire and emergency service is an all-hazards response force that is locally situated, staffed, trained, and equipped to respond to all types of emergencies. There are approximately 1.1 million men and women in the fire and emergency service – consisting of approximately 300,000 career firefighters and 800,000 volunteer firefighters – serving in over 30,000 fire departments around the nation. They are trained to respond to all hazards ranging from earthquakes, hurricanes, tornadoes, and floods to acts of terrorism, hazardous materials incidents, technical rescues, fires, and medical emergencies. We usually are the first at the scene of a disaster and the last to leave.

I also would like to extend my gratitude to Orange County Fire Chief Brian Fennessy, Deputy Chief TJ McGovern, and Assistant Chief Baryic Hunter for supporting my testimony here today. As you may know, Orange County is the third-most populous county in California and the sixth-most populous in the United States. The population is larger than 21 states, and the county is the second-most-densely populated in California. The OCFA is an all-hazard regional fire service organization. Over 1,500 career firefighters and staff serve 23 cities in the county and all unincorporated areas in a 586-square-mile coverage area. The OCFA protects nearly 2 million residents from its 78 fire stations, covers over 188,817 acres of wildland, and 658,659 dwellings. The OCFA responded to nearly 183,900 incidents in 2024.

## Situational Awareness

From the perspective of an incident commander, it is key to establish and maintain situational awareness at the beginning – and through the duration – of an incident. Situational awareness can be defined as the understanding of an environment, its elements, and how it changes over time or in response to other factors. As local fire departments purchase UAS and incorporate them into their operations, the UAS are becoming a significant asset in improving situational awareness on the incident scene.

For example, UAS can provide real-time data of the incident scene by providing high-resolution aerial images and videos to the incident management team to better coordinate operations. Thermal imaging by UAS can determine the spread of a fire and potential hot spots in a wildland

fire. The use of LIDAR (light detection and ranging) capabilities on UAS can be used to assess landslides and mud and debris flows. UAS also can be used in search and rescue incidents to both identify victims and provide overwatch during operations. By using a commercial common platform, incident commanders can analyze the data from UAS and make critical time-sensitive decisions to keep their personnel safe.

The UAS also can take response roles during incidents. They can be used to provide medical resources and food to responders or civilians in the field. They also can be used as Plastic Sphere Dispensers to assist with firing operations during active fire areas. In many cases, UAS can be used in dangerous or technically challenging situations instead of endangering fire service personnel.

## Fire Traffic Areas

In order to successfully utilize UAS on incident scenes, they must be integrated with Fire Traffic Areas (FTA). The FTAs were established as interagency airspace management tools for standard communication protocols. In California, it is the interagency standard for aerial firefighting. The FTA can be further defined as airspace with a five nautical mile radius from an incident during suppression operations.

FTAs are a layered approach to aeronautical management. Within FTAs, coordination takes place with helicopters, fixed-wing tanker aircraft, command and control aircraft, intelligence-gathering aircraft, as well as UAS used by public safety. When recreational or non-public safety UAS encroach upon FTAs or areas covered by the Federal Aviation Administration's (FAA) Temporary Flight Restrictions (TFR), they create a significant danger for the fire service aircraft and personnel.

## The September 2024 Airport Fire

These lessons and the validation of the benefits of public safety UAS were clearly proven on the Airport Fire in early September of 2024. I was one of the Unified Incident Commanders for the 23,519-acre Airport Fire in Orange County. It burned aggressively between both Orange and Riverside counties, with, unfortunately, more than 160 structures being lost. It also coincided with the Lines Fire in San Bernardino County and the Bridge Fire in Los Angeles County.

At the beginning of this incident, we were able to deploy OFCA's fleet of UAS to establish situational awareness as a first step to the response. During the incident, we were able to use federal, county, and local UAS with infrared sensors to determine the extent of the remaining hotspots. This incident provided a great example of how federal, state, and local interagency collaboration can successfully manage a dangerous incident. The OCFA is continuing to use its UAS fleet in collaboration with local academia to monitor for mud and debris flows in these same fire areas.

## 2025 Southern California Wildfires and the Importance of UAS

The beginning of 2025 brought some of the most challenging environmental conditions we have ever seen in Southern California. On January 7, the devastating wildfires that we saw in cities

like Malibu, Altadena, Pasadena, and other localities impacted the lives of hundreds of thousands of people. The 2025 Southern California wildfires will have a lasting impact for us all.

For many Californians, the 2025 Southern California wildfires were the first time they recognized that UAS could play a role in wildland fire response. Due to extensive media coverage of this event, citizens watched as UAS assisted first responders in their efforts to manage the incident. The UAS were able to provide up-to-date data and information in real-time, including through thermal imaging. The combination of UAS and common UAS operation platforms provided the capability for first responders to save more lives.

Proper procedures, such as FTAs and FAA TFRs, went into effect as the incident got underway. These safety procedures were put into place to mitigate the risk of recreational UAS interfering with the work of first responders. Unfortunately, many Southern Californians were either not aware of the FTA/TFRs or they simply chose to ignore them.

## Recreational UAS Incursions

In the state of California, we say "if you fly, we can't." Two of the pillars that ensure successful UAS operations are communications and coordination. Often the response to a wildland fire can be chaotic. When the non-public safety UAS encroach upon the airspace, it can create dangerous situations and accidents.

The beginning of 2025 brought some of the worst air space deconfliction issues we have seen. There were more than 700 UAS intrusions into the Palisades Fire TFR/FTA by more than 400 different UAS between January 7th and 25th. The highest UAS flight was even noted as high as 20,000 feet.

In one instance, a California resident used his personal UAS to survey the fire damage during an active TFR. He launched the UAS from a parking garage in Santa Monica. After flying the UAS more than a mile away from his location, he lost track of the UAS' position. It crashed into a Canadair CL-145 fixed wing, Canadian Super Scooper, which was engaged in fire suppression operations. It was one of the two Canadian Super Scoopers deployed to the fires.

## Solutions to Discourage Recreational UAS Incursions During Emergency Events

This challenge of UAS incursions creates an extreme risk factor in situations such as fires, disasters, or at the border. There are many steps that can be taken to reduce/eliminate UAS incursions from incidents such as wildfires. These following suggestions are ways in which UAS operations can be strengthened for first responders:

- Develop and enact legislation that would thwart pilots of UAS incursions into FTAs/TFRs. Legal protections should be in place to maximize the ability of first responders to save lives

- Formulate and implement clear UAS mitigation procedures. Identifying federal law enforcement personnel and processes for eliminating threats to public safety UAS operations.

- Enhance Remote ID Requirements and reducing Remote ID bypasses.

- Establish formal coordination plans with all relevant local, state, and federal stakeholders.

- Implement effective public awareness campaigns and develop continuing education for the public about the safe operation of UAS.

- Encourage UAS manufacturers to develop solutions that universally support the emergency operations of American first responders.

## Conclusion

In closing, I would like to express my sincere appreciation for the opportunity to testify about the use of UAS across the DHS enterprise. A greater number of fire and EMS departments are deploying UAS to assist with their emergency operations. They are finding that UAS can improve situational awareness, deliver resources, and provide specialized capabilities for search and rescue and other specialized missions. However, the public must use UAS in a responsible manner and not be allowed to interfere with emergency operations or endanger the lives of the public or first responders. The IAFC looks forward to working with the committee to incentivize the available use of UAS for local public safety agencies, while also ensuring their safe operation by the public.