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Public Safety sUAS Compliance Training Workshop

Project Title: Development of Training Materials to Support Public Safety small Unmanned Aerial Systems (sUAS)

Background & Goal: The use of small unmanned aerial systems (sUAS) or commonly referred to as drones, within public safety departments has rapidly expanded as their capabilities to assist in saving lives are realized. As sUAS's safety policies and standards continue to evolve, many public safety departments (Fire, Police, EMS) in the U.S. and elsewhere are without the proper information, knowledge, and experience needed to establish and maintain a compliant, legal public safety program. This workshop is part of project to develop training materials to support establishment of compliant sUAS in public safety organizations and this workshop is an effort to address these needs for the first responder community. The workshop reviewed the proposed methodologies, identified perceived gaps, prioritized actionable needs, and generated recommended enhancements. This includes identifying and reviewing other issues related to implementing a compliant UAS program in public safety organizations.

Project Sponsor:

Assistance to Firefighters Grant, U.S. DHS FEMA



FEMA



LEARN MORE: Download the final workshop proceedings [here](#).

Summary Observations: The following are the key points from the summary of this workshop activity.

1. General: The use of sUAS technology and programs among public safety organizations is rapidly proliferating in the public safety sector. Regulatory requirements exist in almost all jurisdictions and these are not always the same, and significant effort is underway to work with and coordinate with these regulations by public safety organizations. There is a need for widely utilized consensus standards for sUAS. Presently, both NFPA 2400 and ASTM F3379-20 are model standards that are influential in this arena. They are both anticipated to continue addressing this topic area based on their on-going update processes. Going forward they should coordinate their scopes and applicable details. There are some jurisdictions that are now deploying sUAS on calls equal to other dispatched units (e.g., dispatched sUAS from a station to emergency calls, sometimes arriving before other units). A significant concern exists on the potential misuse of sUAS technology by the public that public safety organizations will be forced to address, pointing to the need for sUAS deterrents (e.g., ability to disable a rogue sUAS used in a terrorist attack). The most significant gap that needs to be addressed for widespread UAS public safety use is training, followed by regulatory barriers and professional qualifications.

2. Baseline Issues: Most public safety organizations have actively participated with a UAS event or program (e.g., deployment, drills, training, showcases, etc.) with other public safety organizations.

There have been instances of large-scale public safety events that has had UAS from multiple public safety organizations on-scene and organizations do not take special steps to clearly identify their UAS as part of their organization. Most public safety organizations implement public relation outreach programs with their community to support good will efforts. The leading barriers for public safety organizations implementing a UAS program are cost, determining appropriate UAS technology (e.g., hardware and software), and leadership buy-in.

3. Emergency Response Standards: Most public safety organizations have SOPs/SOGs for their UAS program, and these tend to be based on other than model standards. They do not share and utilize a centralized UAS program and equipment for some or all public safety organizations within their jurisdiction (e.g., Police, Fire, EMS, etc.). The top priority for standardization is professional qualifications, followed by programs and training.

4. Training Curriculum: There is mixed concern on possible overlap or lack of coordination with multiple training programs from different organizations. There is overwhelming support for utilizing a scenario-based approach for training programs. Most public safety organizations presently do not use any digitized immersive learning approaches such as virtual reality or augmented reality.

5. Program Knowledge Base & Interactive Web Portal: The top priority for the Knowledge Base are training programs, followed by use data and then by loss or close call data and/or case studies. There have been specific situations resulting in safety related hazards from the use of UASs in Public Safety, i.e., injury, property loss, etc. The leading problems that public safety organizations have directly or indirectly experienced with the use of UASs is cost, followed by technology failure, training issues, and regulatory issues.

6. Legal Issues: Most public safety organizations have some level of legal-related policies in place to provide guidance and direction on the use of UAS for public safety activities.

7. Needs Assessment: The most significant gap that needs to be addressed for widespread UAS public safety use is training, followed by regulatory barriers and professional qualifications. The top area of greatest interest for future UAS applications by: (1) Fire/EMS public safety organizations is fire ground surveillance (e.g., incident command support), followed by technical search & rescue (e.g., high angle, swift water, bldg. collapse, maritime, etc.), hazardous materials events (e.g., monitoring, surveillance, etc.), training and drills, and wildland and WUI fire events. (2) Law Enforcement public safety organizations is active shooter type events, followed by training and drills, crash scene survey, investigation forensics, fugitive surveillance & tracking, and crowd control.