



POSITION STATEMENT

Use of Unmanned Aerial Vehicles in Public Safety Emergency Response

Today's advances in aerial technology have led to the development and increased use of unmanned aerial vehicles (UAV) for observation and tactical planning. This technology is now available for use in the emergency response field to put "eyes on target" without endangering the lives of responders. However, we live in a culture that is sensitive to the idea of preventing unnecessary government intrusion into any facet of our lives. Personal rights are cherished and legally protected by the United States Constitution. Despite the proven effectiveness of unmanned aerial vehicles, public safety use of this technology should be balanced against privacy concerns which may be voiced by private citizens. From enhanced remote monitoring of hazardous incidents so emergency response personnel are not exposed to unseen dangers to search and rescue efforts and structure and wildland fire events, the potential benefits are irrefutable. However, privacy concerns are a challenge that must be addressed effectively if public safety agencies expect citizens to support the use of unmanned aerial vehicles by their emergency response personnel.

The International Association of Fire Chiefs (IAFC) constantly seeks to enhance safety, operations, command and fiscal efficiencies of emergency incidents. The use of unmanned aerial vehicles is a viable option for emergency personnel to quickly and safely gather essential incident intelligence for the use of tactical planning and observation of executed plans.

Unmanned aerial vehicles can be safely launched, in accordance with Federal Communications Commission regulations, by qualified field personnel in a timely manner during all types of events and emergency incidents. The unmanned aircraft can be equipped with thermal imaging or infrared capabilities, greatly improving chances of identifying "hot spots," fire fronts and other vital fire behavior information. Once launched, the aircraft can fly on automated flight patterns and transmit valuable "real-time" data back to incident command and emergency operations centers. This data can assist the Incident Commander with decision making by detailing the current status of the incident, where potential expansion may occur, public and property value risks and the data may offer intelligence that allows for cost effective mitigation options.

The intelligence data provided by unmanned aerial vehicles is cost effective, efficient and avoids subjecting emergency response personnel to hazardous environments. With available Internet connectivity, the data can be delivered through secure and encrypted channels to command staff. This "real-time" data will greatly improve situational awareness that provides for better decision making during dynamic incidents.

DEFINITIONS:

1. **Model Aircraft** - A remote controlled aircraft used by hobbyists, which is manufactured and operated for the purposes of sport, recreation and/or competition.
2. **Unmanned Aerial Vehicle (UAV)** – An aircraft that is intended to navigate in the air without an on-board pilot. Also called Remote Piloted Aircraft, Robotic Aircraft or drone.
3. **Unmanned Aerial Vehicle Pilot** - A person exercising control over an unmanned aerial vehicle during flight.
4. **Unmanned Aerial Vehicle Flight Crewmember** - A pilot, visual observer, payload operator or other person assigned duties for a UAV for the purpose of flight.

INITIAL COMMUNITY ENGAGEMENT:

1. Emergency response agencies desiring to use UAVs should first determine how they will use this technology, including the costs and benefits to be gained.
2. The agency should then engage their community early in the planning process, including their governing body and civil liberties advocates.
3. The agency should assure the community that it values the protections provided citizens by the U.S. Constitution. Further, that the agency will operate the aircraft in full compliance with the mandates of the U.S. Constitution, federal, state and local law governing search and seizure.
4. The community should be provided an opportunity to review and comment on agency procedures as they are being drafted. Where appropriate, recommendations should be considered for adoption in the policy.

SYSTEM REQUIREMENTS:

1. The UAV should have the ability to capture flight time (manual or automated) by individual flight and cumulative over a period of time. The ability to reset the flight time counter should be restricted to a supervisor or administrator.
2. The UAV should be painted in a high visibility paint scheme. This will facilitate line of sight control by the aircraft pilot and allow persons on the ground to monitor the location of the aircraft.

OPERATIONAL PROCEDURES:

The Federal Aviation Administration (FAA) offers a [Fact Sheet on Unmanned Aircraft Systems](#) which should be reviewed and provides direct contact information for further inquiries.

1. UAV operations require a Certificate of Authorization (COA) from the FAA. An emergency response agency contemplating the use of UAVs should contact the FAA early in the planning process to determine the requirements for obtaining a COA.
2. UAVs will only be operated by personnel, both pilots and crew members, who have been trained and certified in the operation of the system. All agency personnel with UAV responsibilities, including command officers, will be provided training in the policies and procedures governing their use. The agency using the UAVs assumes all liability associated with its operations.
3. All flights will be approved by an operating agency's supervisor and must be for a legitimate public safety mission, training, or demonstration purposes.
4. All flights will be documented on a form designed for that purpose and all flight time shall be accounted for on the form. The reason for the flight and name of the supervisor approving will also be documented.
5. An authorized supervisor/administrator will audit flight documentation at regular intervals. The results of the audit will be documented. Any changes to the flight time counter will be documented.
6. Unauthorized use of a UAV will result in strict accountability.
7. Except for those instances where emergency personnel safety could be jeopardized, the agency should consider using a type of "reverse 911" telephone system, if available, to alert those living and working in the vicinity of UAV operations. If such a system is not available, the use of emergency apparatus public address systems should be considered. This will not only provide a level of safety should the aircraft make an uncontrolled landing.
8. Where there are specific and articulable grounds to believe that the UAV will collect evidence that will facilitate a criminal investigation or sound argument that the UAV will intrude upon reasonable expectations of privacy, the agency should coordinate with law enforcement to secure a search warrant prior to conducting the over-flight.

IMAGE RETENTION:

1. Unless required as evidence of a crime, as part of an on-going investigation, for training, or required by law, images captured by a UAV should not be retained by the agency.
2. Unless exempt by law, retained images should be open for public inspection.

SUBMITTED BY: International Association of Fire Chiefs

ADOPTED BY THE IAFC BOARD OF DIRECTORS: 23 January 2014