Public Drones Threaten Firefighter and Public Safety

and Effectiveness of Wildfire Suppression Operations

By Claire McKeown

The U.S. Forest Service faces an ever-growing threat from drones being publically flown over wildfires. Aerial support is vital to firefighter operations, and the rise in drone interference puts a ticking time bomb on mid-air collision or pilot distraction, resulting in fatality. Individuals who fly their personal drones, or Unauthorized Unmanned Aircraft Systems (UAS), in restricted areas face prosecution and criminal fines.

Firefighting aircraft include leadplanes, helicopters, airtankers and smokejumpers. Many people think planes fly too high for a collision to occur. However, U.S. Forest Service aircraft fly at an exceptionally low height of about 150 feet to drop water, fire retardant and other fire suppressants. This altitude is very different from the commercial or jet planes that fly at an average of 30,000 to 40,000 feet above the earth’s surface. Hobbyist drones operate in that same low altitude as firefighting aircraft. Collision with a plane or helicopter’s hazardous rotor system could result in the injury or death of those aboard the aircraft or firefighters and public on the ground. Fire aviation experts say a collision is inevitable because drones are too difficult to spot and communication with the drone operators is impossible. The drones’ line of sight is also limited to a single direction, which produces weak sense-and-avoid capabilities.

Furthermore, a UAS interference decreases the effectiveness of putting out the wildfire regardless if a collision occurs. When drones are spotted, the operation often enters temporary shutdown and aircraft are forced to land. Suspended air operations risk allowing wildfires to grow larger and unjustifiably threaten lives, property and important cultural and natural resources. In 2015, 21 UAS interferences were recorded, and since there is no national database to track conflicts, the undocumented number could be larger. In 2016, there have already been at least 27 reported interferences in the West in at least nine different states. The risk will only become larger as more public drones hit the air. Between 500,000 and 1 million drones have been sold in the U.S. in just these past few years.

Not only are reckless drone operators threatening the lives of those near wildfires, but they are risking personal and financial damage. Flying over a wildfire can cost the flyer civic penalties of up to $25,000 and criminal prosecution.

To keep pilots aware of flight restrictions, download the free smartphone app B4UFLY which provides regional updates of any restricted locations nearby. Campaigns like the “Know Before You Fly” and “If You Fly We Can’t” have been launched to help inform the public and keep our people safe. If the public has witnessed or has any information about a safety-related UAS event, please contact local law enforcement.