



CAL FIRE AVIATION PROGRAM

SAFETY BULLETIN

Effective Date: 8/17/2026

Aircraft: All CAL FIRE Aviation Personnel

Purpose

This bulletin is to inform CAL FIRE flight crews of the hazards posed by non-participating UAS and DFR UAS operations in or around the Fire Traffic Area (FTA) and Temporary Flight Restrictions (TFRs). Utilize this information as a starting point to engage in conversations at the local level with all airspace participants to support safe, coordinated airspace management and protect firefighting aircraft, personnel, and mission continuity. As public safety agencies and industry increase DFR UAS use, coordinated operations are critical to maintaining safe, deconflicted airspace.

Background

Drone as First Responder (DFR) programs are rapidly expanding across the public safety community. They present new hazards for firefighting aircraft responding to initial attack incidents as these UAS are remotely launched from a dispatch center autonomously with or without the pilot in the loop, no communication capability, no way to hear and avoid, and no verifiable way to see and avoid. Fire departments, law enforcement agencies, emergency management organizations, and public utility companies are increasingly leveraging remotely operated and Beyond Visual Line of Sight (BVLOS) UAS to provide situational awareness during routine patrol and emergency incidents.

CAL FIRE and the Federal Wildland Fire agencies have strict procedures, training and qualification standards to integrate UAS with manned aircraft which is typically done on Extended Attack or Major fires. Integration of any DFR or agency UAS is not recommended on initial attack fires while manned aircraft are at scene. The Initial Attack airspace is complex and not large enough to safely accommodate helicopters, fixed wing and UAS operating at the same time.

Unlike aviation resources ordered through a single resource ordering point, DFR aircraft may be launched or may already be airborne by agencies outside the incident organization before Incident Commanders or responding flight crews are aware they are operating. During initial attack, this can create uncertainty regarding aircraft operating within or adjacent to the Fire Traffic Area (FTA). DFR UAS are unable to identify a Fire Traffic

Area and could potentially transition through an active FTA if the controlling dispatch center is not aware of firefighting operations and does not implement an exclusion area for the DFR assets. DFR UAS operates between surface to 400 feet AGL and utilizes autonomous controlled ADS-B receivers, ground-based radar, and collision avoidance systems to identify and avoid other aircraft and obstacles.

Considerations

As DFR capabilities continue to expand, aviation personnel should recognize several emerging coordination challenges:

- Multiple agencies may operate independent DFR programs within the same geographic area.
- Notification procedures vary significantly between jurisdictions.
- Current airspace awareness tools do not consistently provide responding flight crews with real-time visibility of active DFR operations.
- Existing aviation briefings may not identify DFR assets launched outside the incident organization.

An additional consideration is the growing use of DFR systems by public utility companies. Electric utilities are deploying remotely operated aircraft at substations, switchyards, transmission corridors, and other critical infrastructure. Many of these facilities are in remote forested areas where aviation resources routinely operate.

Although these facilities may be identified through published NOTAMs or local operating procedures, flight crews and Incident Commanders may not be aware of nearby utility-operated DFR capabilities when establishing a Fire Traffic Area or during the early stages of incident response.

Best Practices

Until more comprehensive UAS traffic management systems, UAS Service Suppliers (USS), or interoperable airspace awareness technologies become widely available, proactive communication and education remains the most effective mitigation.

Consider incorporating the following practices into local aviation operations:

- Encourage early and real time communication between Incident Command, dispatch, Air Operations, and cooperating agencies regarding known DFR capabilities and the need to cease active DFR operations in the area of a wildland fire before manned aircraft arrive.
- Include utility providers with established DFR programs in local pre-season aviation coordination meetings and operating plans.

- Establish a list of DFR programs in your sphere of influence and ask for operational polygons for Aviation Hazard Map call outs.
- DFR program managers should provide dispatch and coordination centers with current points of contact, normal operating areas, launch locations, and any changes to their operational capabilities to support aviation situational awareness.
- Incorporate DFR awareness into pre-incident planning, particularly within the wildland-urban interface and areas containing critical infrastructure.
- When available, include known DFR activity during aviation briefings and operational updates.
- Request a TFR early in the incident if there is potential for DFR operations in the area.

Flight Crew Awareness

Flight crews should recognize that DFR operations may be present during the earliest stages of an incident, particularly near populated areas, critical infrastructure, or jurisdictions with established DFR programs.

Operational awareness can be improved by:

- Asking Incident Commanders or dispatch centers of any known active DFR operations in the area prior to committing resources to low level operations.
- If DFR operations are active, request they be suspended while manned aircraft respond and while they are actively engaged on an incident.
- Dispatch centers should list DFR as other aircraft on the EFC106 if the dispatch center is aware of a DFR operator in the area and identify that operations are confirmed suspended.
- Maintaining communication with ATGS, HLCO, AOBD, and dispatch regarding any potential DFR operation conflicts.
- Recognizing that available information may evolve rapidly during initial attack as additional agencies become engaged.

CAL FIRE owned, operated, and contracted aircraft will not operate in the same airspace with unqualified UAS pilots and DFR operators.

Key Takeaway

The continued expansion of Drone as First Responder programs represents an important advancement in public safety response. As these capabilities become more common, maintaining safe incident airspace will depend on:

- Early coordination, effective real time communication, and identification of cooperating agency DFR programs. CAL FIRE Aviation Program can assist with identifying capabilities and establishing standard operating procedures.
- Identifying potential DFR activity during initial attack should become a routine component of incident aviation situational awareness until more comprehensive airspace integration technologies are available.
- Agencies operating DFR programs should proactively coordinate with local dispatch centers, aviation managers, and cooperating agencies before emergency operations occur to establish communication pathways and mutual expectations.

Questions or Support

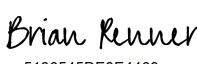
For clarification on UAS operations, authorization, or reporting requirements, contact:

CAL FIRE Aviation Program – UAS Program Manager

Aviation Safety • Air Operations • Aviation Sustainment & Compliance

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