Interagency Aviation Information Bulletin

Subject: 2021 Wildland Fire Unmanned Aircraft Systems (UAS) Briefing for Aviation Personnel

Area of Concern: Agency and contractor provided Unmanned Aircraft Systems (UAS) utilized on wildland fires to provide mapping, situational awareness, and aerial ignition services.

Distribution: All Fire Aviation Activities

Discussion: The following replaces *IA IB 19-01, 2019 Wildland Fire Unmanned Aircraft Systems Briefing for Aviation Personnel.*

Policy

The *NWCG Standards for Fire Unmanned Aircraft Operations,* PMS 515 standardizes the processes and procedures for interagency use of Unmanned Aircraft Systems (UAS), including pilot inspections and approvals. Federal personnel and cooperators participating in UAS operations for wildland fire must attend S-373, Unmanned Aircraft Systems (UAS) Incident Operations and complete a position task book prior to participating on federally managed incidents. Additionally, all UAS/Remote Pilots are required to possess current Office of Aviation Services (OAS) Pilot Cards (OAS-30U).

Key Points

- UAS personnel follow the Fire Traffic Area (FTA) protocol.
- All UAS can maintain an assigned altitude based on an altimeter setting.
- UAS do not have Automated Flight Following (AFF).
- UAS operations originate within the FTA. Initial contact will be made with aerial supervision or on scene aircraft prior to launch.
- UAS personnel coordinate with dispatch/helibase prior to all fire missions.
- UAS radios (FM and AM) are ground based. Communication may be difficult in certain types of terrain.

There are two types of fire UAS operations: **Fireline and Launch and Recovery Zone (LRZ).**

Fireline Operations (typically small, <55 lbs. multirotor):

- Missions flown on the fireline are based on airspace separation and coordination, including Beyond Visual Line of Sight (BVLOS) or Extended Visual Line of Sight (EVLOS) operations.
- Typically conducted by agency firefighters such as smokejumpers, hotshots, or single resource UAS Pilots (UASP).

- UAS are launched from multiple locations on the fireline based on situational awareness, mapping, or aerial ignition operations.
- Remote pilots will pre-brief with air and ground personnel and coordinate with on scene aircraft.
- Systems are small (multirotor) carrying a video/mapping/aerial ignition payload.
- Communications are conducted on FM frequencies.
- Fireline UAS are not equipped with transponders.

Launch and Recovery Zone (LRZ) Operations (typically large, >55 lbs. fixed wing):

- Missions are flown from a fixed location away from the fireline, but within the Temporary Flight Restriction (TFR).
- UAS flights are BVLOS and at least 3,500' AGL.
- Missions are typically conducted by contractors in conjunction with a federal UAS Manager (UASM) and UAS Data Specialist (UASD).
- UAS is launched from a Launch and Recovery Zone (LRZ) within the TFR. **The LRZ is a pre-defined cylinder extending from the surface to the TFR ceiling and is designed to maintain airspace separation from manned aircraft during the takeoff and landing phases of flight.**
- The LRZ will be depicted on incident aviation maps when utilized.
- The UASM will pre-brief with air/ground personnel and coordinate with on-scene aircraft.
- The UASM will request clearance (prior to launch) from aerial supervision if on-scene.
- The UASM will notify aerial supervision/on scene aircraft and helibase when the LRZ is hot (active) and cold (inactive).
- Communications are primarily conducted on FM frequencies. The UASM utilizes/monitors the assigned air to air (Fixed Wing/TFR Victor) frequency and assigned FM frequencies.
- Contract UAS are equipped with transponders and will be transmitting on 1255.

Additional information can be found via the Interagency Fire UAS website: https://uas.nifc.gov/

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