Unmanned Aircraft Systems (UAS) in Wildland Fire Operations

Key Considerations for UAS Operations in Wildland Fire:

- Awareness: Be aware of the presence of UAS in the operational area and their role in providing aerial support to firefighting efforts. Prioritize safety by following established protocols for interacting with UAS and respecting their operational space.
- Compliance: All UAS operations must be authorized and comply with agency aviation/UAS policies, Federal carding requirements, and Federal Aviation Administration (FAA) regulations. All UAS/Remote Pilots are required to possess current FAA Airmen Certificate and agency approved Pilot Card for the assigned mission.
- Communication: Communications with UAS are conducted on approved FM frequencies, UAS will not launch until positive communication has been established.
- Launch and Recovery Sites: Type 3 and 4 UAS can be launched from multiple locations based on mission type. When possible, find sites with a clear operational view and outside of heavily traveled areas.

Prior to requesting UAS consider the following:

- Mission Objective – Situational awareness, imagery (stills/video), spatial data, aerial ignition.
- Mission Timing – Optimal shift based on priorities and aviation activities. (Day/Night/Swing).
- Product Delivery – How/when will information be shared.
- Location of Line Personnel – Where are other ground resources working.

Aerial Ignitions Using UAS in Wildland Fire Operations:

UAS Aerial Ignitions (Ai): Ai operations require a dedicated firing boss/aerial ignition supervisor to direct UAS ignitions and coordinate with ground resources. These duties cannot be transferred to a UAS pilot during ignition operations.

UAS Aerial Ignition (Ai) Capabilities:

- Flight Time: 15-30 minutes with PSD.
- Sphere Capacity: 450.
- Camera: IR/EO video.
- Within a TFR UAS can fly beyond visual line of sight (BVLOS).
- Without a TFR UAS need to remain within sight or extended line of site (ELOS).

Refer to https://uas.nifc.gov/ and the *NWCG Standards for Fire UAS Operations,* PMS 515, for further information on UAS operations.