Office of Aviation Services (OAS)

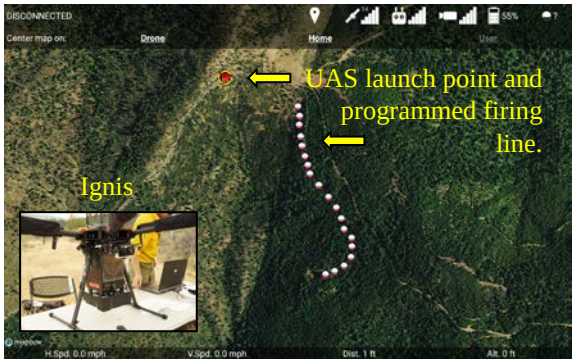
Briefing Paper – For Information

Date: August 6, 2018

Issue/Topic

UAS Aerial Ignition Operational Test and Evaluation (OT&E) – August 4/5, 2018 Field Report

Key Messages



- OAS UAS personnel with decades of firefighting experience deployed to the Taylor Creek Fire to conduct operational field tests of the experimental aerial ignition UAS.
- 8-4-18: The OAS team supported burnout operations, dropping 350+ balls in three separate missions.
- Ignition line was ~100-200 yards down a 75% slope in heavy timber with a receptive fuel bed.
- The Ignis payload functioned properly, but challenging flying conditions required an experienced UAS operator with knowledge of aerial firing operations and patterns, to avoid creating ignitions outside the proposed line.
- Crew Superintendent: ***"you saved us a lot of hiking and putting my boys at risk down there."***
- Team was able to operate the UAS up to two miles from the operating location – enhanced safety.
- After firing the line, the team reconfigured the UAS with an infrared (IR) payload to verify ignition patterns and depth of consumption off the line.
- Operations Section Chief: ***"The cost of that aircraft and payload is one twisted ankle or broken leg. I would use it as much as possible."***
- 8-5-18: 326 balls dropped in 102 minutes of flight time.
- Impressive performance resulted in subsequent demand exceeding onsite capacity, requiring mission prioritization. Provides night and reduced visibility capability manned aircraft lack.

Background

As part of OAS's development and operational test and evaluation of a UAS platform and delivery system for the aerial ignition mission, fire qualified OAS UAS Division personnel deployed to the Taylor Creek Fire to conduct field tests in actual wildland fire missions. This field report provides results to date.

Current Status

OAS UAS personnel continue OT&E of the aerial ignition UAS/payload on the Taylor Creek Fire.

Point of Contact

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