

PROJECT PLAN

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Infrared Technology Applications in Wildfire Management Using UAS

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BACKGROUND

UAS (Unmanned Aerial Systems) is a rapidly growing technology. Commercial application of this technology is also developing at an extremely fast pace and UAS developers are seeing wildfire management as a potential market to utilize the technology.

The Aviation and Geomatics Unit of Alberta Agriculture and Forestry has requested FPInnovations conduct a study aimed at gathering insight into past and current UAS infrared technology use. This work will provide wildfire practitioners with a full understanding of technology capabilities and assist with future decisions on UAS infrared technology use.

ISSUE/GOAL

To provide knowledge on UAS and infrared technology use in wildfire management.

OBJECTIVE

1. Conduct a literature review on combined infrared and UAV technology use in wildfire management.
2. Contact agency and company representatives to document application knowledge, experience and insight.
3. Organize and deliver a workshop to share findings and discuss technology direction and needs.

METHODS

Literature review

A literature review will provide information on past and current technology research and use. An information summary will be broken into, but not limited to the following categories:

- History of UAS infrared technology use
- Examples and or evaluations of UAS infrared technology use in wildfire management.
- Current policy and regulations regarding UAS infrared use
- Future trends and challenges facing UAS infrared technology use in wildfire management

Survey

FPInnovations will work with the agency representatives to develop survey questions then conduct the survey targeting major wildfire management agencies and service providers.

Workshop

FPInnovations will host a workshop to share findings, discuss technology direction and identify future needs.

TIMELINE

The proposed literature review will be complete in October 2018. The survey will be conducted in December 2018. The workshop will be held in the spring of 2019

PARTICIPATING MEMBERS/COLLABORATORS

Alberta Agriculture and Forestry