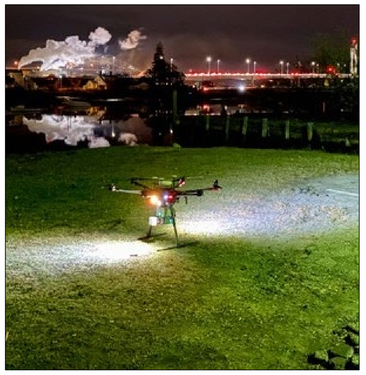
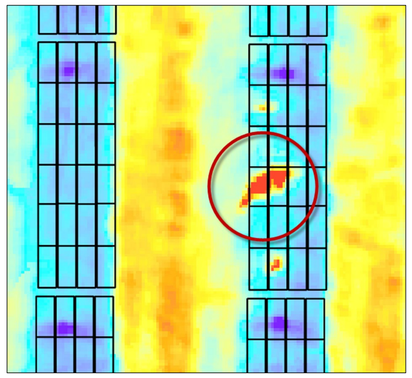
Successful Approaches for the Use of Unmanned Aerial Systems by Surface Transportation Agencies

Adam Zylka; Jarlath O'Neil-Dunne; Jon Budreski
University of Vermont Spatial Analysis Laboratory & ARE Corporation

Introduction

Unmanned Aerial Systems (UAS) have the potential to revolutionize DOT operations, allowing for safer, less costly, and faster collection of data for bridge inspections, right-of-way surveys, and traffic monitoring. As with any new technology, integrating UAS into operations poses challenges related to human resources, policies, procedures, and information technology.





Research Approach

The project team is a collaboration between the University of Vermont and ARE Corporation, bringing together nationally recognized experts in UAS safety, operations near structure, night operations, and thermal imaging.

A hybrid approach will combine online workshops beginning in 2020 with in-person training sessions in 2021 to allow the participants to understand fundamental techniques and gain valuable hands-on experience.

- COLLABORATIVE INSTRUCTION TEAM
- HYBRID APPROACH
- ONLINE WORKSHOPS (2020-2021)
- IN-PERSON WORKSHOPS (2021)

Participants

- Vermont Agency of Transportation (VTrans)
- Vermont Department of Public Safety (VT DPS)
- Maine Department of Transportation (MaineDOT)
- Massachusetts Department of Transportation (MassDOT)
- New Hampshire Department of Transportation (NHDOT)

Training Topics

- Safety and risk management
- Organizational considerations
- Flight near structures
- Night operations
- Thermal imagery collection & analysis
- Emergency response

Outcomes

- Reduce UAS operational liability
- Maximize potential uses of UAS
- Shorten response time for UAS-developed deliverables

Acknowledgments

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