

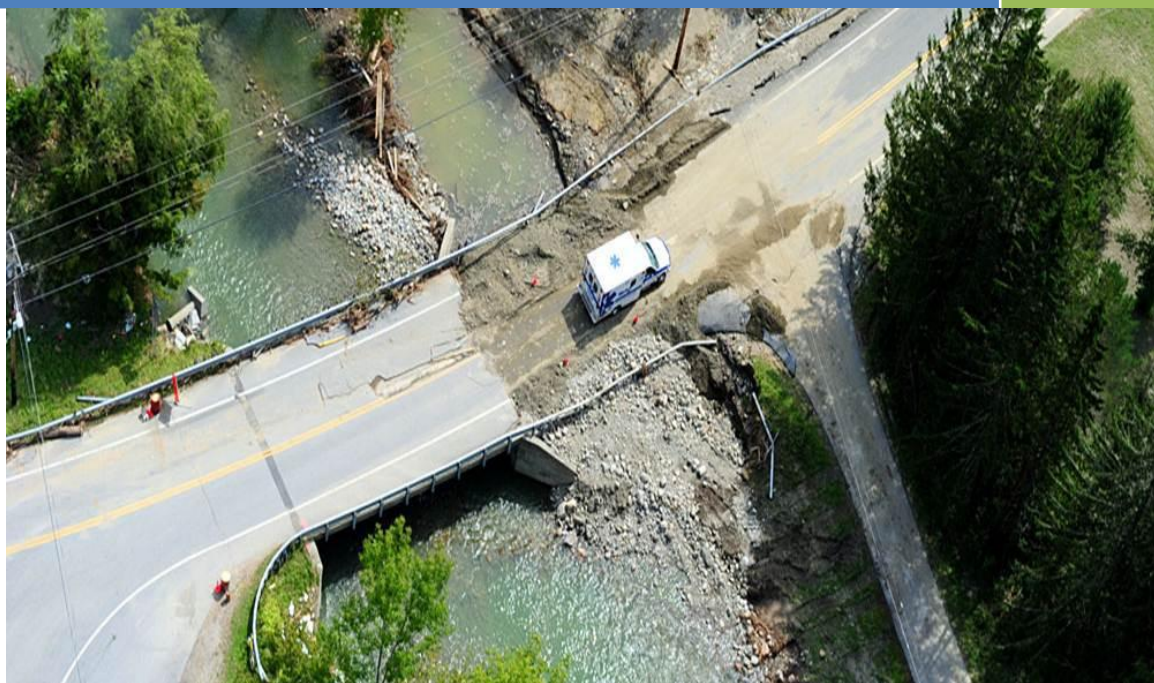
# Rapid Exploitation of Commercial Remotely Sensed Imagery for Disaster Response & Recovery

Principal Investigator: Jarlath O'Neil-Dunne  
Program Manager: Caesar Singh

COOPERATIVE AGREEMENT  
No. RITARS-12-H-UVM

## Advisory Committee Meeting

December 6<sup>th</sup>, 2013



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## Glossary

3D	Three Dimensional
AASHTO	American Association of State Highway Transportation Officials
CAD	Computer-Aided Design
CNL	Cognition Network Language
COA	Certificate of Authorization
CRS	Commercial Remote Sensing
DOT	Department of Transportation
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
GIS	Geographic Information Systems
HDSS	Hazard Data Distribution System
ICS	Incident Command System
LiDAR	Light Detection and Ranging
NAIP	National Agricultural Imagery Program
NIMS	National Incident Management System
NOAA	National Oceanic and Atmospheric Administration
OBIA	Object-Based Image Analysis
OGC	Open Geospatial Consortium
PI	Principal Investigator
PM	Program Manager
RiP	Research in Progress database
RITA	Research and Innovative Technology Administration
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SAL	Spatial Analysis Lab
SI	Spatial Information
TAC	Technical Advisory Committee
TRC	Transportation Research Center
UAV	Unmanned Aerial Vehicles
USDOT	United States Department of Transportation
USGS	United States Geological Survey
UVM	University of Vermont
VAOT	Vermont Agency of Transportation (also known as Vtrans)
Vtrans	Vermont Agency of Transportation (also known as VAOT)
XML	eXtensible Markup Language

## Meeting Details

**Date:** December 6<sup>th</sup>, 2013

**Time:** 10:00am, EST

## Attendance

### Project Team:

- Caesar Singh, Program Manager (PM), US DOT
- Austin Troy, PhD, Director of the UVM TRC
- √ Jarlath O'Neil-Dunne, Faculty Research Associate and Director of the UVM SAL
- √ Amanda Hanaway-Corrente, Professional Engineer (PE) at UVM
- √ James Sullivan, Research Analyst at UVM TRC
- √ Sean MacFaden, Research Specialist at UVM SAL
- √ Ernest Buford, Research Specialist at UVM SAL
- √ Zack Borst, UVM TRC Outreach Manager
- Jacob Leopold, UVM TRC Business Manager

### Technical Advisory Committee:

- Guy Rouelle, Aviation Program Administrator, VTrans
- Stephanie Magnan, Asset Management Specialist, VTrans
- Wayne Gammell, Maintenance Administrator, VTrans
- √ Johnathan Croft, GIS Database Administrator, VTrans
- √ Michele Boomhower, CCRPC Assistant/MPO Director
- Christopher Jolly, Planning & Programming Engineer, FHWA - VT Division
- Roger Thompson, ITS/Safety Engineer, FHWA - VT Division
- √ Charles Hebson, Manager of Surface Water Resources, Maine DOT

## Discussion Items

1. **Introductions.** All meeting attendees introduced themselves. See attendance list above.
2. **Flight Operations.** Jarlath O’Neil-Dunne (JOD) used a PowerPoint presentation to demonstrate the flight operation procedures to the Technical Committee. The presentation was recorded via GoToMeeting and the link to the video is included on the project website.
3. **Fill Calculations/Calibration of the System.** JOD explained how the project team is using Terrestrial LiDAR equipment to check the accuracy of the 3-D data collected using the UAV system.
4. **Satellite Damage Detection.** JOD provided an update on the progress made thus far for automatically detecting road damage using satellite imagery. The project team has acquired imagery for before and after Tropical Storm Irene and Hurricane Sandy, and is using that imagery to develop rule sets.
5. **Data Distribution.** JOD presented the data web platform called i-cubed as the preferred platform for the final deliverables associated with this project. He provided a brief demonstration of how the platform will be used.
6. **Standard Operating Procedures.** Jim Sullivan mentioned that the project team is drafting a standard operating procedure for flying the UAV. It will be shared with the Technical Committee when it has been finalized.
7. **Field Testing.** The project team is planning future flights to include winter flight conditions testing, monitoring of existing flight locations, and flight locations with significant vegetation or other obstacles.

## Next Meeting

**Date:** TBD.

**Time:** TBD.