

"Drones During Disasters" Unmanned Aerial Systems New Hampshire Preparedness Conference



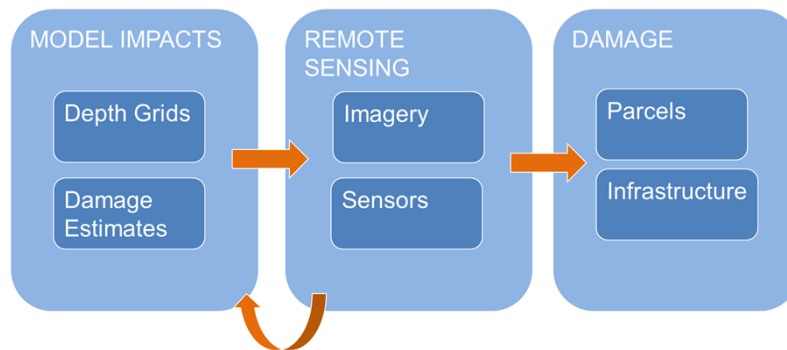
Chad Council
FEMA Region I
Regional Geospatial Coordinator
June 5, 2018

UAS and FEMA

- How do UAS support FEMA's mission?
- What is FEMA doing to support Federal, State, Tribal and local partners?

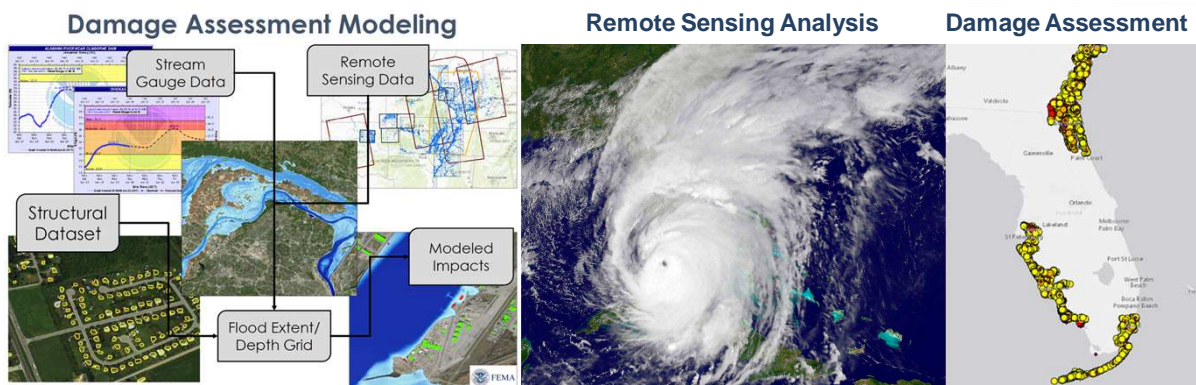
Role of UAS to support FEMA's mission

- Mission Assign federal partners with UAS capability to meet specific mission needs
- Sample mission need: geospatial damage assessments for expedited declarations



Role of UAS to support FEMA's mission

- Hurricane Irma: Federal partner UAS followed the storm from southern Florida



- Future events: Data contributed by sUAS can contribute to the remote sensing

Role of small UAS to support FEMA's mission

- Still exploring applications
- Does it make sense for our mission areas?
 - Debris estimation?
 - Preliminary Damage Estimates?
 - Cost, training, timing, infrastructure, etc.
- Internal education to prepare to receive sUAS data and products from partners

Emerging Role of sUAS:

- FEMA Urban Search & Rescue system:
 - Evaluating for tactical use
 - At standards recommendation stage
- Extensive Applications
 - Overhead view for mission assignment and tracking
 - Inspection of upper floors of large structural collapse
 - Wide Area Search: Recon of inaccessible areas
- MA-TF 1
 - Support by University of Vermont in exercises
 - Establishing program
- Task Forces across the country also pursuing





Fore River / Braintree Shipyard Crane Collapse

- 1 overhead photo captured from ladder truck
- ~30 Minute effort to get 1 vantage point
- Single digit temps plus wind
- More rapid image collection from multiple vantage points may have assisted in strategy for removal of collapsed steel to access victim



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FEMA's Role to support partner use of sUAS

- Training Courses
 - AWR-345 Unmanned Aircraft Systems (National Disaster Preparedness Training Center)
 - Air Operations Course: Recently revised
- National Incident Management System: Typing
 - **Remote Pilot in Command:**
 - Duties, training, certification, experience, currency
 - **Technical Specialist**
 - Communications, data recording, data delivery to AHJ
 - **UAS Team:**
 - Staffing: 3 People (including Remote Pilot in Command and Technical Specialist)
 - Ordering specifications: Logistics, timing, self-sustainably for 72 hours, etc.
 - Aircraft system, Information collection, communications

<https://go.usa.gov/xQwbz>

FEMA's Role to support partner use of sUAS

- Coordination and collaboration
 - FEMA Regions 1, 3, 4 have been working with partners
- Region 1 UAS Working Group:
 - Federal, State, Tribal partners working through common issues
 - Goal: A well defined understanding within New England:
 - Agency capabilities
 - Mission applications
 - Standards to support interoperability between systems
- Also in progress: Clarifying reimbursement guidelines



FEMA

Helping people before, during, and after disasters.