North Carolina UAS Working Group - 2018

FEMA Region 04
UAS Strategy

FEMA

FEMA Region IV UAS Working Groups

AL UAS WG Kickoff - Huntsville, AL December 11, 2017

NC UAS WG Kickoff - Wanchese, NC April 20, 2018

FL UAS WG Kickoff - Tallahassee, FL August 3, 2018

NC UAS Workshop - Nags Head, NC April 19, 2018

GA UAS WG Kickoff - GPTSC June 18, 2018

SC UAS WG Kickoff– SC EOC August 28, 2018

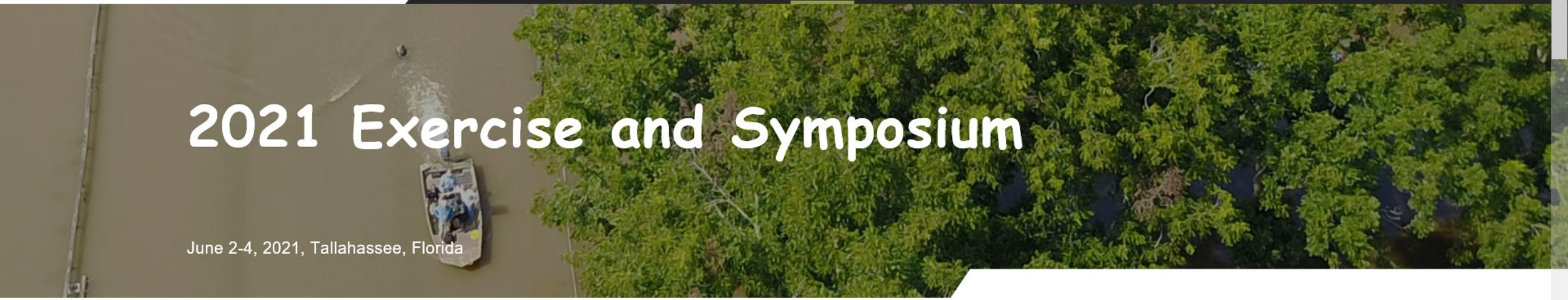
FEMA Region IV UAS Working Group Exercises

AL UAS WG Rodeo – October 28, 2019

GA UAS WG Exercise – November 28, 2019

CENTER FOR DISASTER RISK POLICY

info@cdrp.net facebook.com/cdrp.fsu 850.644.9961



2021 Exercise and Symposium

June 2-4, 2021, Tallahassee, Florida

UAS SYMPOSIUM AND FULL-SCALE EXERCISE TALLAHASSEE, FL - JUNE 2-4, 2021

This three day event will bring together UAS programs from around the state and region to participate in a one day workshop on UAS practices in emergency management and public safety as well as a two day full-scale exercise. Agencies can participate in either or both events.

PDA Pocket Guide

May 2020

FEMA

FACT SHEET

Preliminary Damage Assessment Guide 2020 Summary of Changes

On May 8, 2020, FEMA released its Preliminary Damage Assessment Guide (PDA Guide), the update to the 2016 Damage Assessment Operations Manual. The purpose of the PDA Guide and its accompanying PDA Pocket Guide is to define a standard national-level framework for how state, local, tribal, and territorial (SLTT) governments and FEMA staff collect and validate the cause, location, and details of damage following a disaster. Guidance in the PDA Guide will go into effect on June 8, 2020. This document highlights key changes between the process laid out in the PDA Guide compared to the earlier guidance.

Background

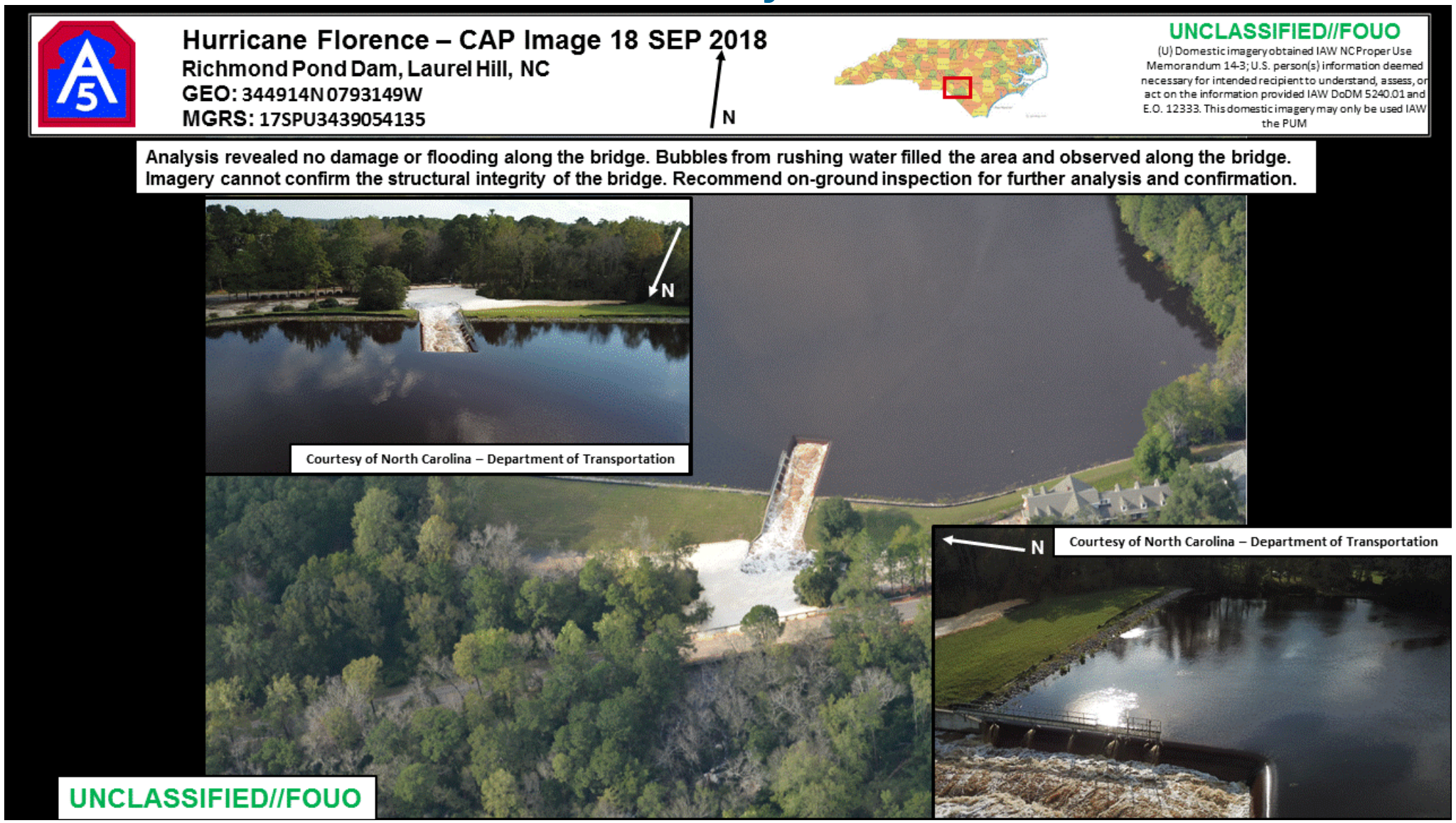
A Preliminary Damage Assessment (PDA) is the mechanism SLTT governments and FEMA use to determine the impact and magnitude of damage following a disaster and the resulting unmet needs to individuals, businesses, the public sector, and communities. The primary objective of the PDA is to collect information, conduct analysis, and provide situational awareness to state, territorial, or tribal government leaders to determine whether the impacts of a disaster warrant a disaster declaration request under the Stafford Act (42 U.S.C. §§ 5121 *et seq.*).

Summary of Changes

1. **Inclusion of Desktop Assessments as a Possible Methodology for Public Assistance PDAs**

   Visual confirmation of damage by FEMA does not necessarily need to be in-person. When a SLTT government has the capability to participate in a desktop assessment, it can submit Initial Damage Assessments (IDAs) to FEMA with documentation, including photographs, that allow FEMA to validate information remotely. The concept of operations for these desktop assessment PDAs will differ slightly from the normal process. For example, there will be more coordination between the SLTT PDA Coordinator and the FEMA PDA Coordinator on verified PDA information submitted by SLTTs to FEMA for review (remote validation) by a PDA Validator and team.

NGB UPAD Analysis Product



FEMA R-IV
Remote Sensing Cell

Location:
31.5868 -89.753
Jefferson Davis County, MS

DOI: 13 April 2020

UNCLASSIFIED

ATTENTION: This document contains U.S. persons information which has been included consistent with all applicable laws, directives, and policies.

Source: MEMA UAS

Assessor Comment:0020
Referencing the criteria from the FEMA Damage Classification Charts 2014. **Destroyed Structures - 4 - No erect walls. Structures reduced to debris.** Major damage 2 structures - roof and walls compromised. Unable to zoom in closer for better look. Significant damage - 1 Structure exposed attic in less than 10% of roof space. Ingress and egress routes clear.
(Wells 15 April 2020).

FEMA
Region IV - RSC

Site: Joe Patti's Marina
Pensacola, FL

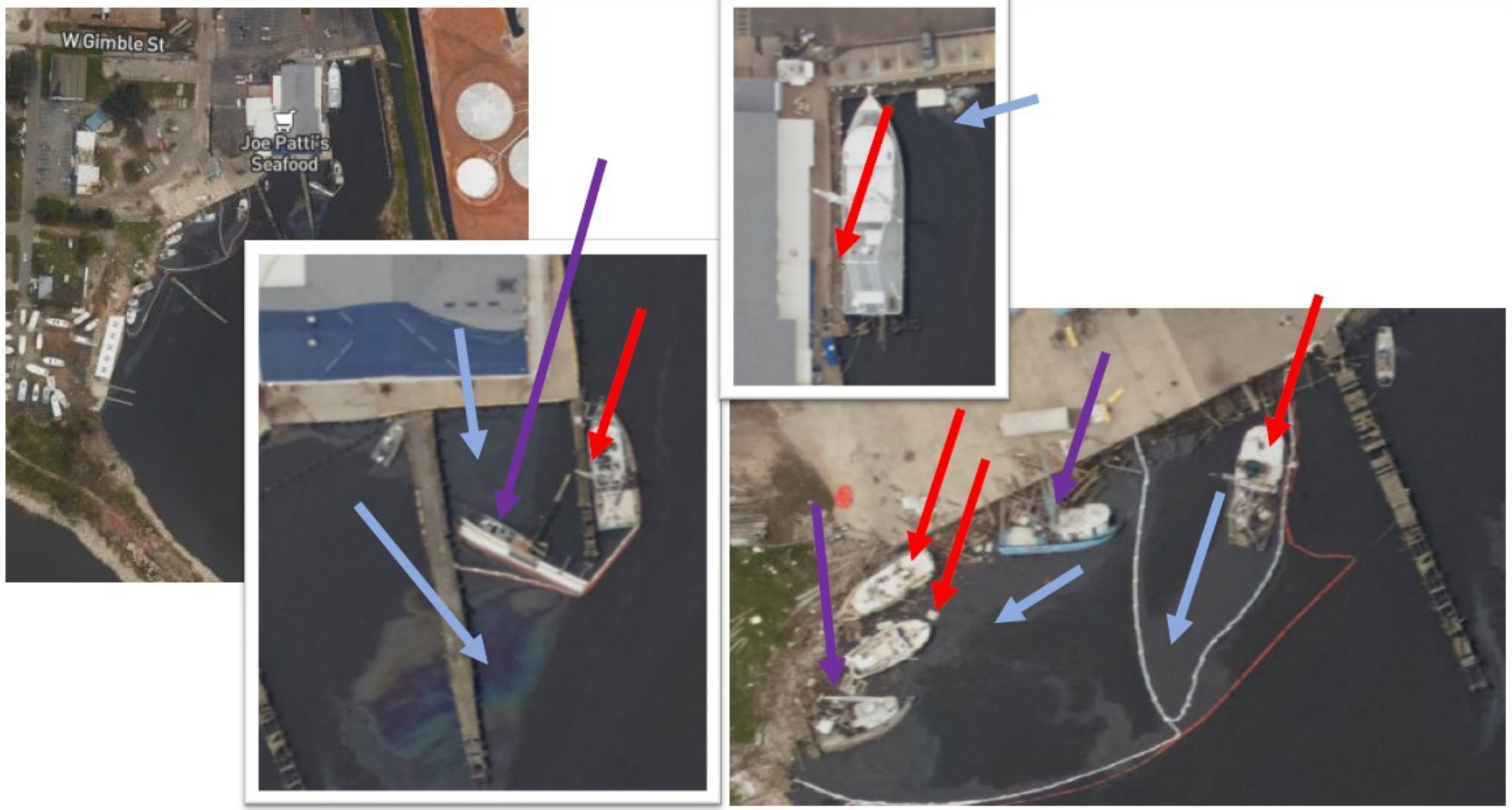
Date of Impact: 09/16/2020

30.4032, -87.2276

UNCLASSIFIED

ATTENTION: This document contains U.S. persons information which has been included consistent with all applicable laws, directives, and policies.

Assessors Comments:
3 Vessels **Partially Submerged**
6 Vessels appear to have significant impact with fixed objects which would be indicative of **Major** damage.
Land Based Structure has blue Tarp covering ~15% of roof, **Major** damage may be underneath.
Fuel appears on water surface in multiple areas indicative of multiple fuel tank breaches.
(KW, 09/20/2020, 1433 Hrs. EST)



Source: Who provided imagery?
NOAA, SERT

Date of Imagery:
09/19/2020

Prepared By: Kevin Wells

Reviewed By: Travis Potter

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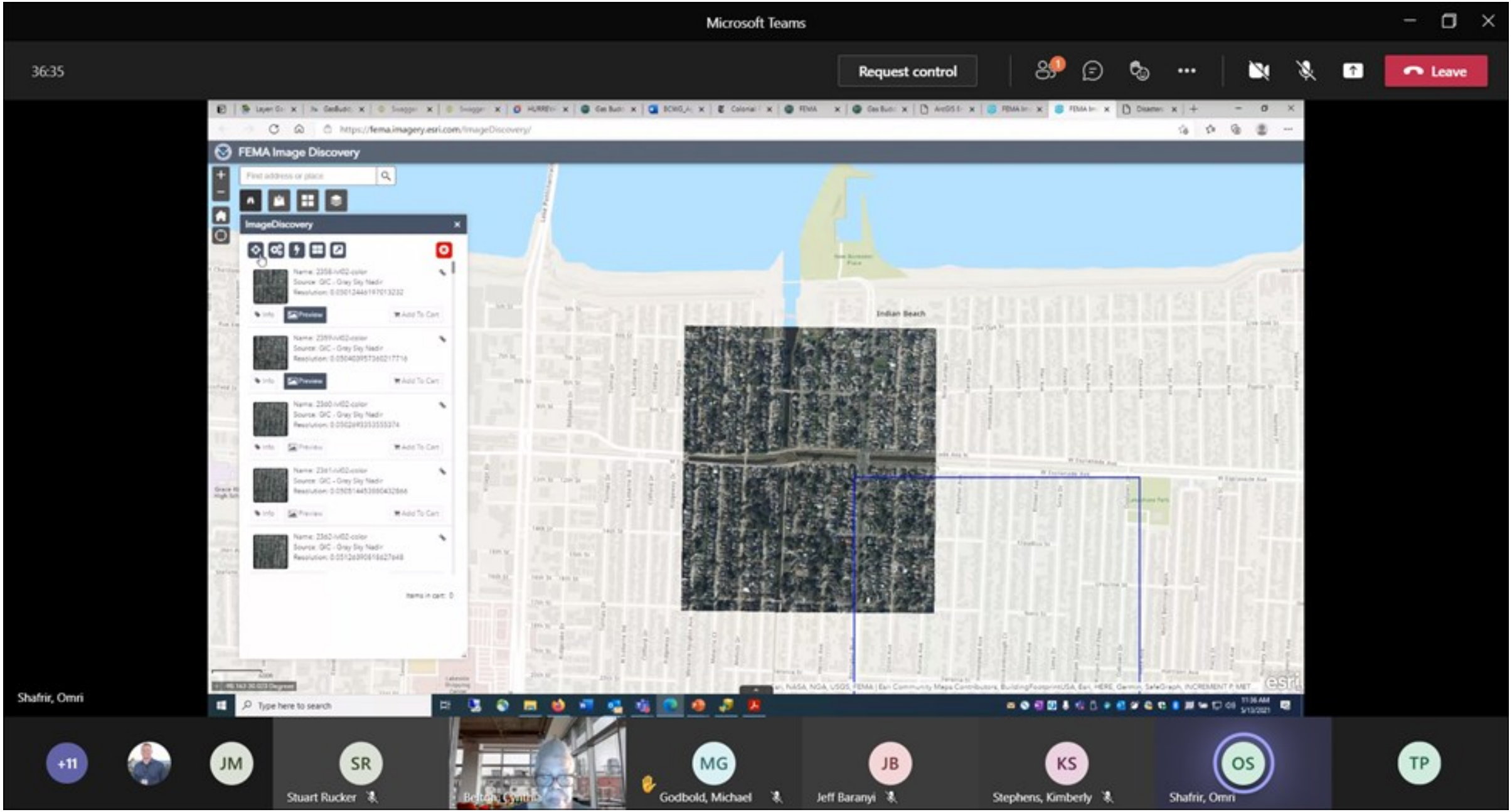

Microsoft Teams
36:35
Request control
Leave
FEMA Image Discovery
ImageDiscovery
Indian Beach
Shafrir, Omri
+11
JM
SR
Stuart Rucker
Godbold, Michael
JB
Jeff Baranyi
KS
Stephens, Kimberly
OS
Shafrir, Omri
TP

The Federal Aviation Administration (FAA) led by my Unmanned Aircraft Systems (UAS) Integration Office Research, Engineering, and Analysis Division is forming a Peer Review Panel to provide independent assessment and expert guidance for a new FAA research project: *UAS Disaster Preparedness and Emergency Response*. Under Section 359 of H.R. 302 (P.L. 115-254), the FAA Reauthorization Act of 2018 and recent appropriations, the FAA is congressionally mandated to conduct this research. The goal of this research is to develop a safe, effective, and standardized approach to inform policies, procedures, guidelines, and best practices for UAS operations in response to disasters and emergencies. Additionally, this research is intended to inform how the use of UAS during these events can be optimized in order to aid the public and ultimately increase public safety.

The FAA's Center of Excellence for UAS Research

ASSURE

Alliance for System Safety of UAS through Research Excellence

Phase I - Preparation for Disaster Preparedness and Response using UAS in the NAS with Coordination Across First Responders Technical Interchange Meetings (TIM)

Scalable Traffic Management for Emergency Response Operations (STEReO)

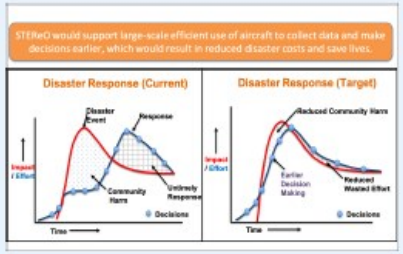
National Aeronautics and Space Administration

TECHNOLOGY FOR IMPROVING THE RESPONSE TO NATURAL DISASTERS

Overview/Description

Current-day emergency response operations require extensive manual coordination among a wide coalition of agencies, often under adverse conditions, leaving challenges to timely deployments and the sharing of gathered data needed for decision-making. With today's operating constraints and procedures, UAS vehicles are not able to participate much, even though they could be a great asset.

STEReO brings the latest advancements in UAS vehicle autonomy, resilient communications concepts, and UTM services, which will improve disaster response times, enable large-scale aircraft operations, improve operator awareness, and demonstrate safety and resiliency in these environments.



Feasibility Assessment

Benefit if Feasible

- Improve efficiency and timeliness of the response and recovery phases of a disaster, resulting in substantial reductions to community harm
- Accelerate NASA's development of high-density resilient operations, benefitting other projects relying on increasing levels of autonomy and connectivity
- Safe scalability of airspace operations
- Advance the state-of-the-art in onboard automation, making integration of UAS vehicles into emergency response operations possible
- Enable the distribution of collected remote-sensing data to support better, more responsive decision-making by operators, and improved collaboration between operators

Partners

- NASA Ames – UTM Architecture, On-board Autonomy, Health prognostics Service, Separation Service, UAS
- NASA Langley – Safe2Ditch, V2V, UAS
- NASA Glenn – Resilient communications
- Airmap – UTM Services
- DHS-FEMA – Domain Subject Matter Expertise
- DOI – Domain Subject Matter Expertise
- MPFD & LAFD – Domain Subject Matter Expertise
- CalOES – Domain Subject Matter Expertise

Recent Results / Status

- Formulating detailed execution plans; identifying specific barriers/opportunities that will increase our outcomes
- Strengthening partnerships; pursuing private sector technologies, local/state/federal emergency response organizations, and inter-agency collaborations
- Planning stakeholder workshop
- Invited to present the STEReO concept at the Tactical Fire Remote Sensing Advisory Committee (TFRSAC) meeting

Next Steps

- Conops development
- Stakeholder workshop
- Initial airborne assessment
- Tabletop exercise and simulation
- Wildfire flight demonstration
- Simulation of hurricane use-case
- Concepts and requirements document

Publications

- coming soon…

CONVERGENT AERONAUTICS SOLUTIONS

Principal Investigator: Joey Mercer – joey.mercer@nasa.gov
Co-Principal Investigators: Lou Glaab - louis.j.glaab@nasa.gov / Corey Ippolito - corey.a.ippolito@nasa.gov

FEMA

Fiscal Year 2021 Continuing Training Grants (Federal Aviation Administration Center of Excellence Unmanned Aircraft Systems)

The National Training and Education Division (NTED) Fiscal Year 2021 (FY21) Continuing Training Grants (CTG) includes the following appropriations language "$2,000,000 for FEMA to partner with the Federal Aviation Administration (FAA) Unmanned Aircraft Center of Excellence to conduct a regional training program for SLTT responders in using UAS for disaster preparedness and response"