

The Huntsville Test Range (HTR)

Where Aviation, Autonomy, and Operational Reality Meet

info@hsvtestrange.com

Rotorcraft Systems Engineering & Simulation Center
(RSESC)

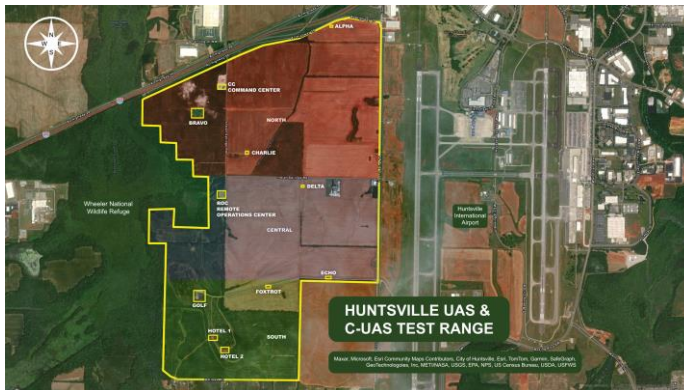
Topics of Discussion



Who Is Taylor Abington?



What is the Army Best Drone Warfighter Competition?



Where is the Huntsville Test Range?

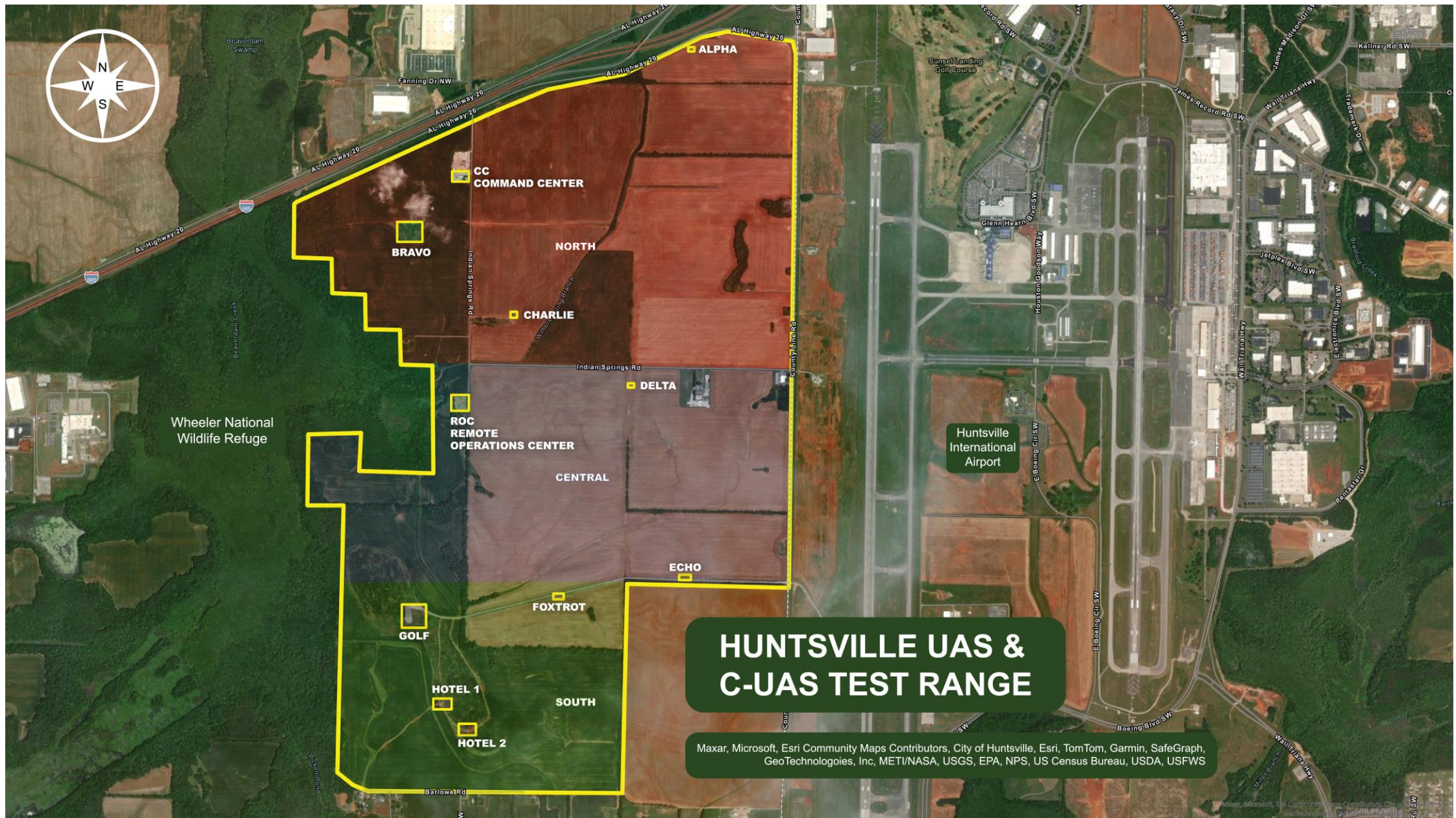


When is Alabama Shield?

Taylor Abington



- Deputy Director, Aviation Systems & Counter-Defensive Systems, UAH RSESC
- Army aviation veteran with experience in attack and reconnaissance aircraft
- Background across military aviation, defense programs, UAS operations, manufacturing, and test and evaluation
- Former international UAS industry executive with experience establishing UAS mfg. operations in Huntsville
- Led commercial UAS inspection efforts supporting the oil and gas industry across North America
- Supports PEO Aviation, PM UAS, military, federal, state, public-safety and commercial customers
- Focused on UAS, counter-UAS, autonomous systems, and operational test capabilities
- FAA Part 107 Remote Pilot, International UAS licenses – Canada, UK, European Union, Mexico, Brazil
- Private pilot, and FAA-certified A&P mechanic with Inspection Authorization (IA)



Test Range Infrastructure & Assets

- 2,200 acres within KHSV Class C surface airspace
- 11 dedicated launch and recovery sites for flight ops
 - Power and Fiber to CUOA, ROC and Delta
- Reconfigurable Critical Urban Operations Area (CUOA)
- On-site shop to support Fly-Fix-Fly
- Command Center
- OWL Radar System
- Square Head Acoustic Radar
- WinTAK for Range Ops Situational Awareness
 - Radar
 - Acoustic Radar
 - Range Radios with GPS
 - ADS-B
 - Weather
 - UAS RID tracking



Critical Urban Operations Area (CUOA)



Command Center

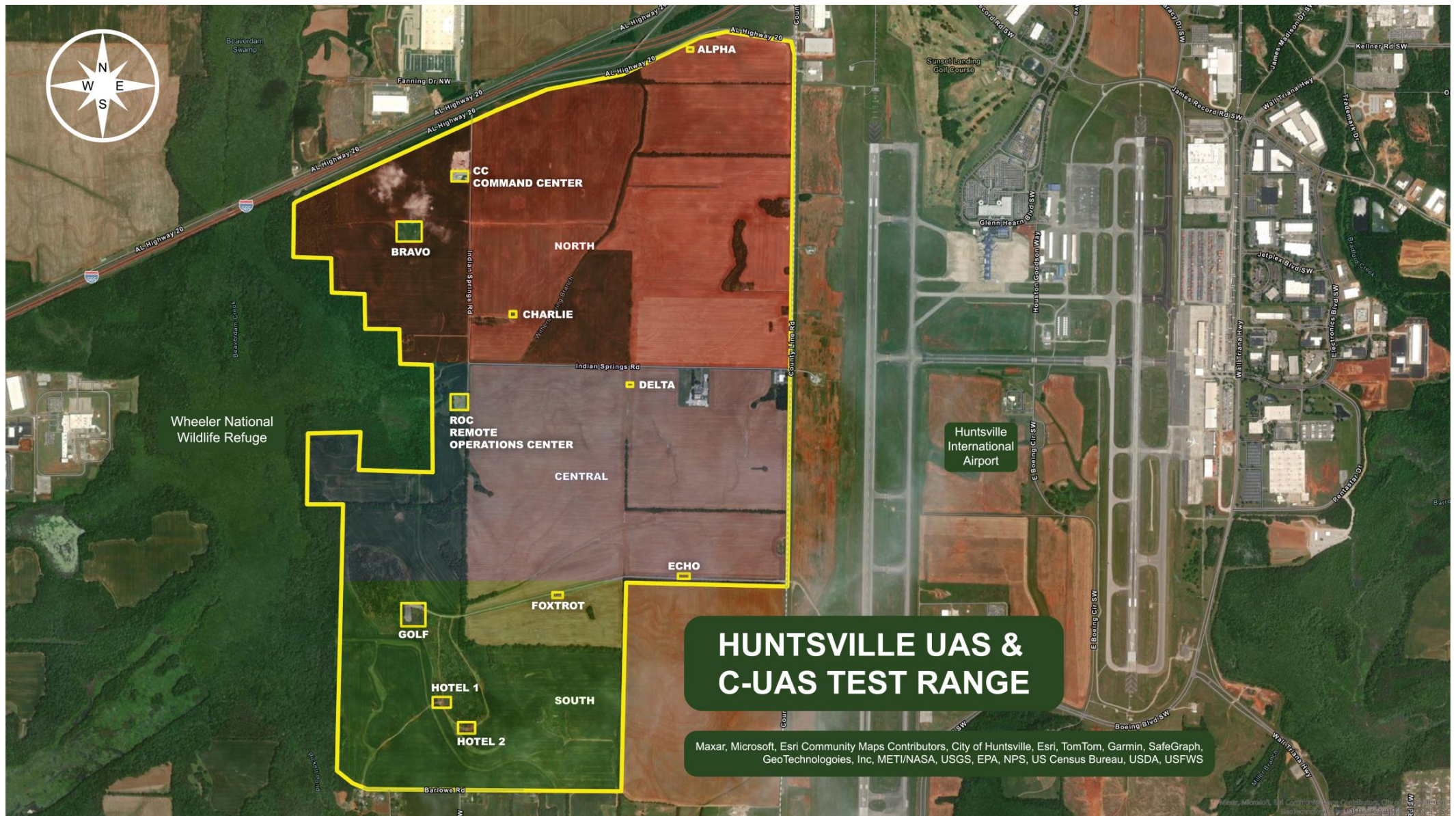
Current Capabilities

UAS Capabilities

- Aircraft and payload performance flight testing
- Payload drop testing
- Parachute Recovery System testing
- Collection of aircraft EO/IR/RF/acoustic signatures
- Testing autonomous behaviors
- UAS Operator Training
- Communications System Testing
- Hosting aircraft fly-off events
- Risk reduction testing prior to deployment to remote range sites

C-UAS Capabilities

- Detection testing against User and UAH aircraft
- Flight log and ground moving target GPS data as reference data for ground or airborne radar systems
- Collection of images/video (EO/IR, hyperspectral) to create training and testing data sets for classifiers
- Development of test conditions with target occlusion, known interference sources, multiple/close targets to stress small target discrimination
- Red Team Flight Operations



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Army's Best Drone Warfighter Competition



Army's Best Drone Warfighter Competition



Customers / Partners

Army Aviation Association of America
(Quad A –AAAA), Arlington, VA

University of Alabama in Huntsville
(UAH), Huntsville, AL

U.S. Army T2COM
(Training and Doctrine Command Capability Manager), formerly
TRADOC Capability Manager (TCM)

U.S. Army Maneuver Center of Excellence
(MCOE)

U.S. Army Aviation Center of Excellence
(AVCOE)

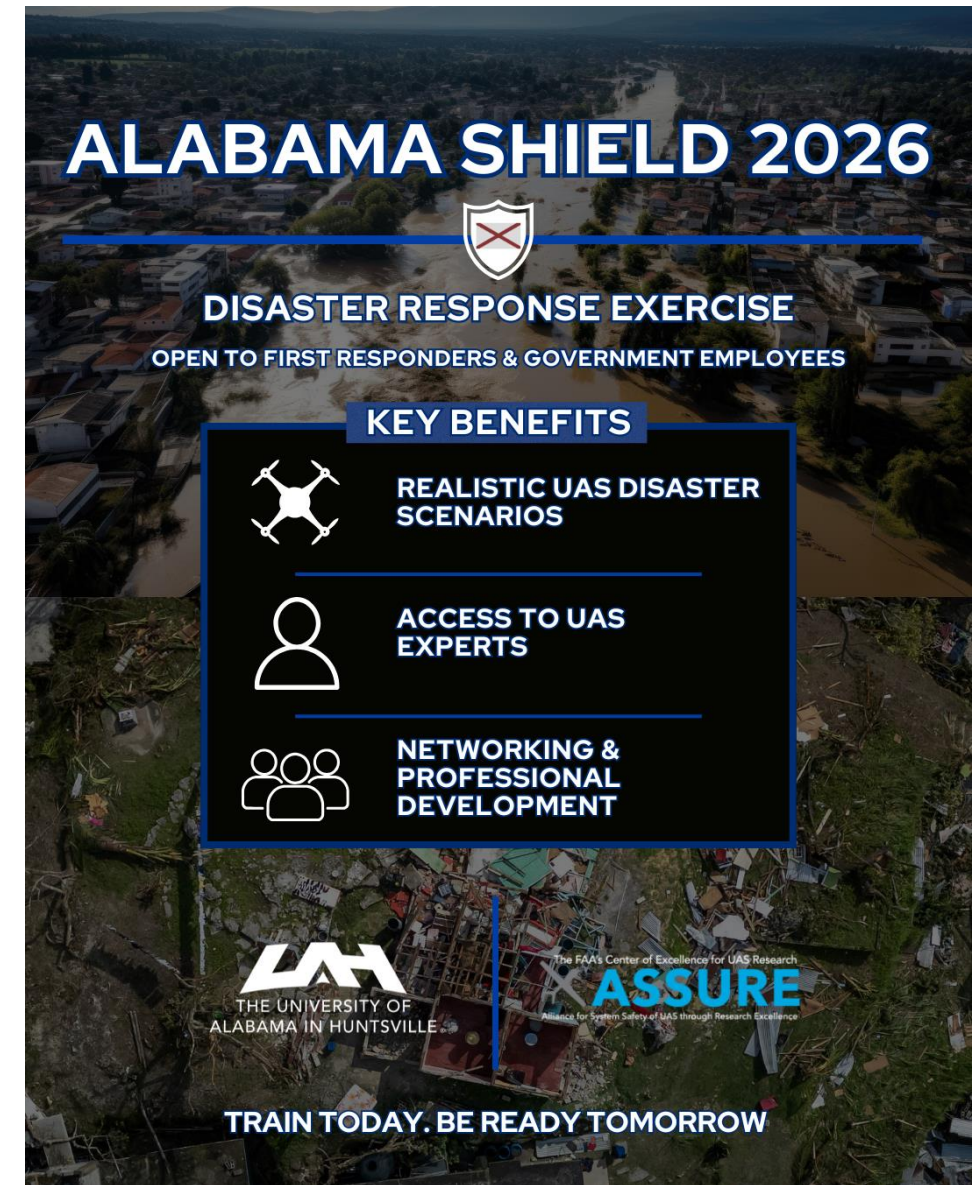


Alabama Shield

Alabama Shield is a UAH-led UAS disaster response exercise taking place the week of August 3, 2026, at the UAH Huntsville Test Range. It will bring together first responders, public safety agencies, military, academia, and industry partners for hands-on training and realistic disaster-response missions.

Training lanes will include search and rescue, flood response, mapping, HAZMAT, communications, mission planning, and data processing. The event will also feature subject matter experts sharing practical tactics and lessons learned from real-world UAS operations.

Participants will build cross-agency relationships, improve coordination, strengthen UAS response skills, and explore how drones can support emergency operations. Continuing education credits are also being pursued (ALEA).

A promotional poster for the Alabama Shield 2026 disaster response exercise. The background is an aerial view of a flooded residential area. The text is overlaid in white and blue. At the top, 'ALABAMA SHIELD 2026' is written in large, bold, blue letters. Below it is a shield icon with a red 'X'. The text 'DISASTER RESPONSE EXERCISE' is in bold white, followed by 'OPEN TO FIRST RESPONDERS & GOVERNMENT EMPLOYEES' in smaller white text. A blue box with the title 'KEY BENEFITS' contains three items: a drone icon for 'REALISTIC UAS DISASTER SCENARIOS', a person icon for 'ACCESS TO UAS EXPERTS', and a group of people icon for 'NETWORKING & PROFESSIONAL DEVELOPMENT'. At the bottom, the logos for 'THE UNIVERSITY OF ALABAMA IN HUNTSMVILLE' and 'ASSURE' (The FAA's Center of Excellence for UAS Research) are shown. The slogan 'TRAIN TODAY. BE READY TOMORROW' is at the very bottom in bold white letters.

ALABAMA SHIELD 2026

DISASTER RESPONSE EXERCISE
OPEN TO FIRST RESPONDERS & GOVERNMENT EMPLOYEES

KEY BENEFITS

-  **REALISTIC UAS DISASTER SCENARIOS**
-  **ACCESS TO UAS EXPERTS**
-  **NETWORKING & PROFESSIONAL DEVELOPMENT**

 **THE UNIVERSITY OF ALABAMA IN HUNTSMVILLE**

 **ASSURE**
The FAA's Center of Excellence for UAS Research
Alliance for System Safety of UAS through Research Excellence

TRAIN TODAY. BE READY TOMORROW

This event is not open to the public but only to first responders and government employees

Alabama Shield

UAH POC:

Justin Kumor

Principal Research Engineer

Autonomous Aerospace Research (A2R)

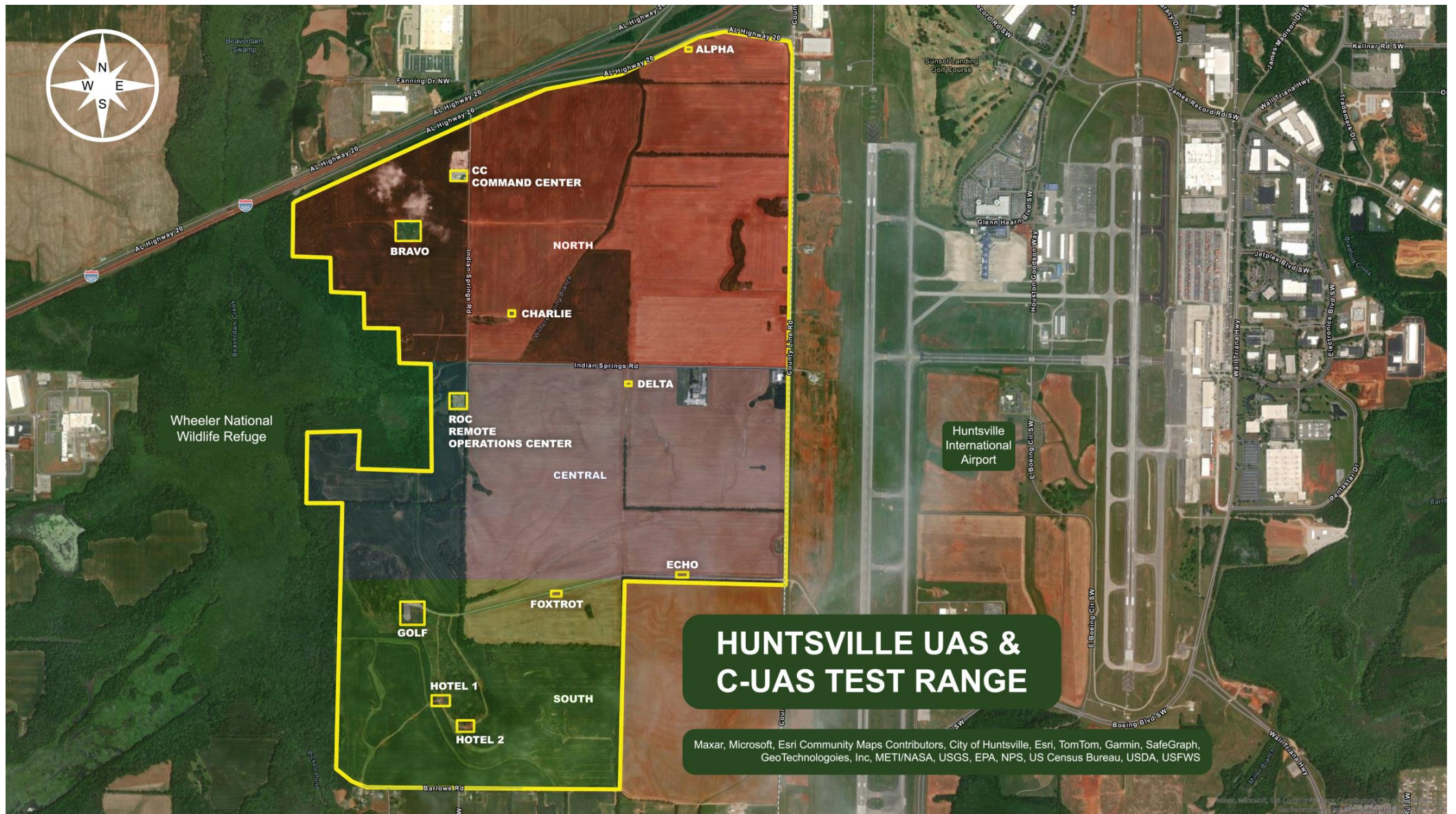
University of Alabama-Huntsville

jmk0044@uah.edu | (256) 824-6657

Alabama Shield Registration Link:



This event is not open to the public but only to first responders and government employees



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Questions?



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