

Stephen Luxion

*Alliance for System Safety of UAS through
Research Excellence (ASSURE)*



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

Big Picture Overview

NIIST PSCR UAS Workshop

February 7-8, 2024

Steve "Lux" Luxion, Colonel (USAF-Retired)

Executive Director, ASSURE

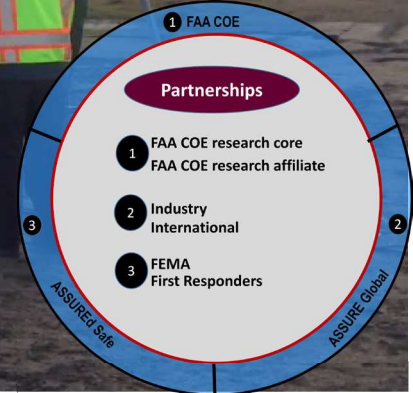
SLuxion@assure.msstate.edu



ASSURE Global



ASSUREd Safe First Responder UAS

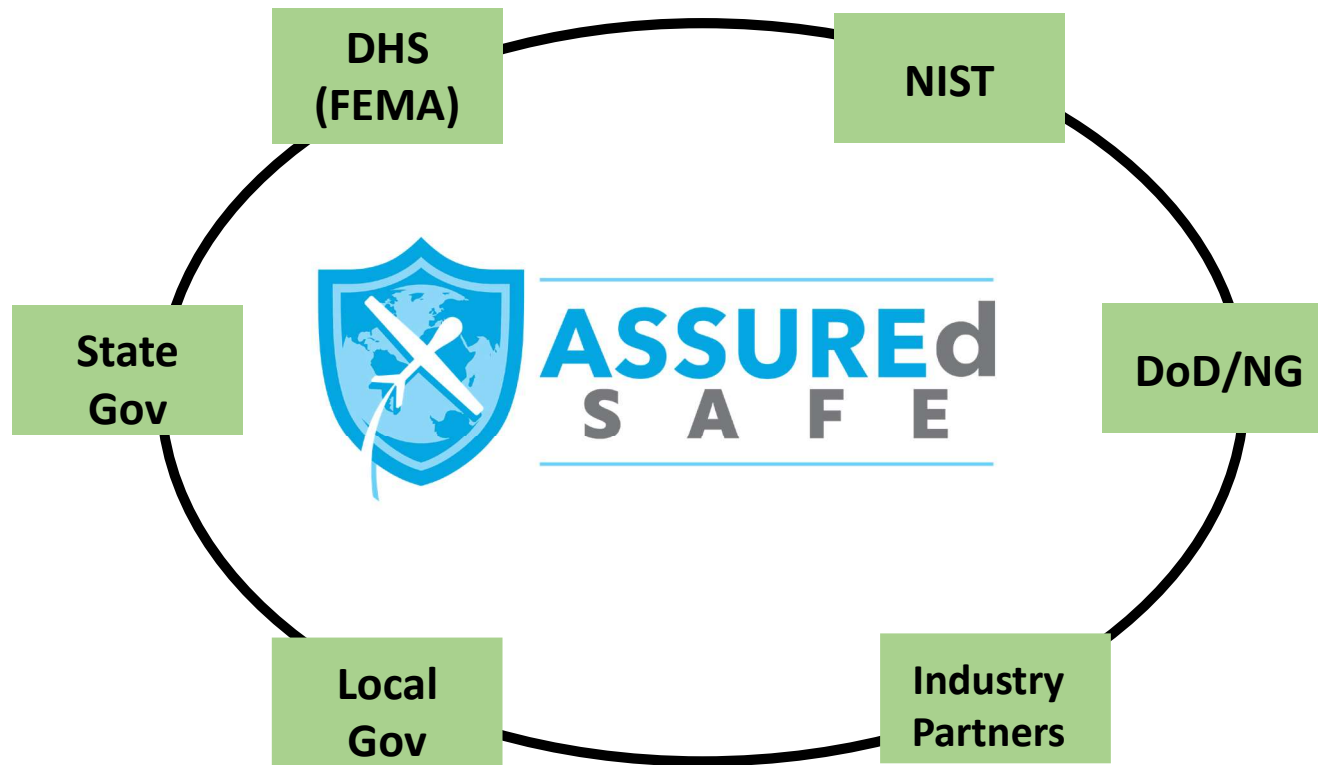


ASSUREd Safe Guiding Principles

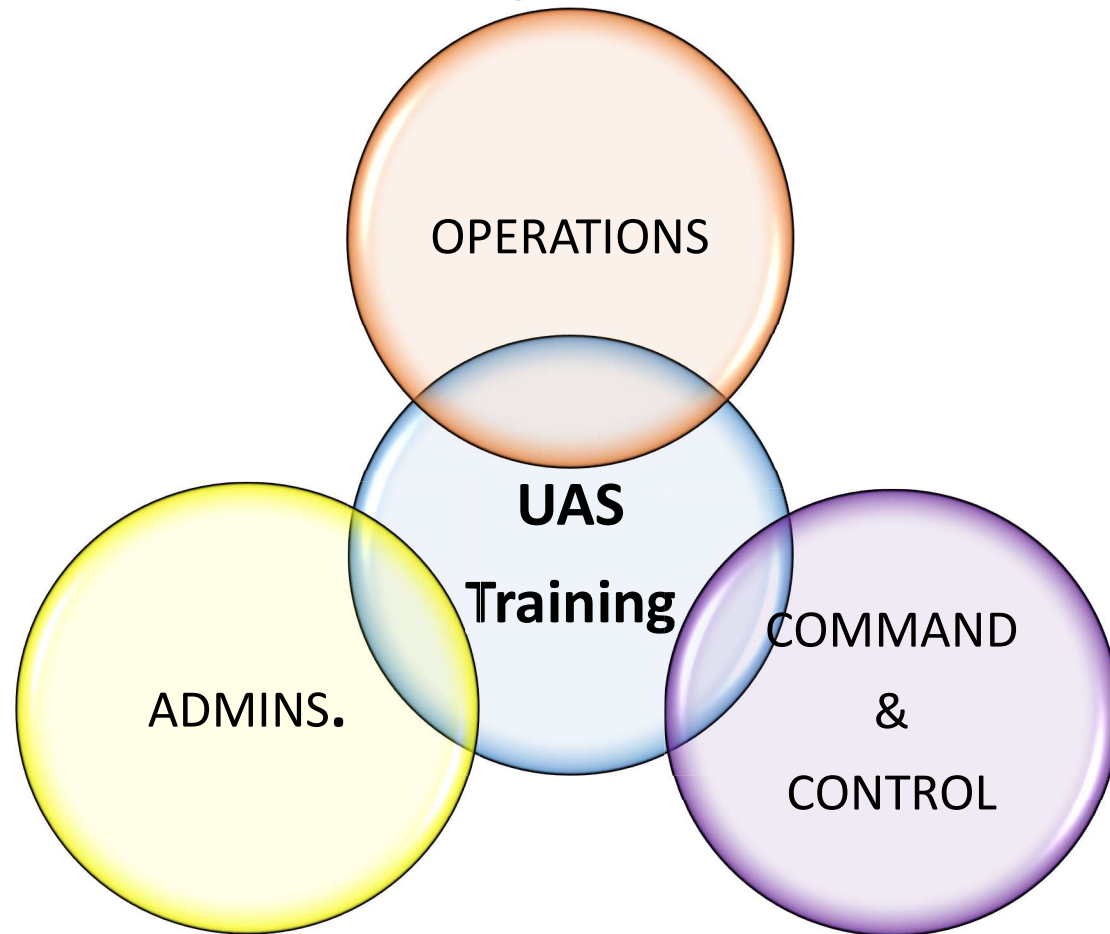
Vision

ASSUREd Safe is a federated ecosystem to educate, train, test, certify and ultimately credential first responders' use of uncrewed aircraft systems (UAS).

ASSURED Safe Strategic Environment



ASSUREd Safe Training



Training Focus

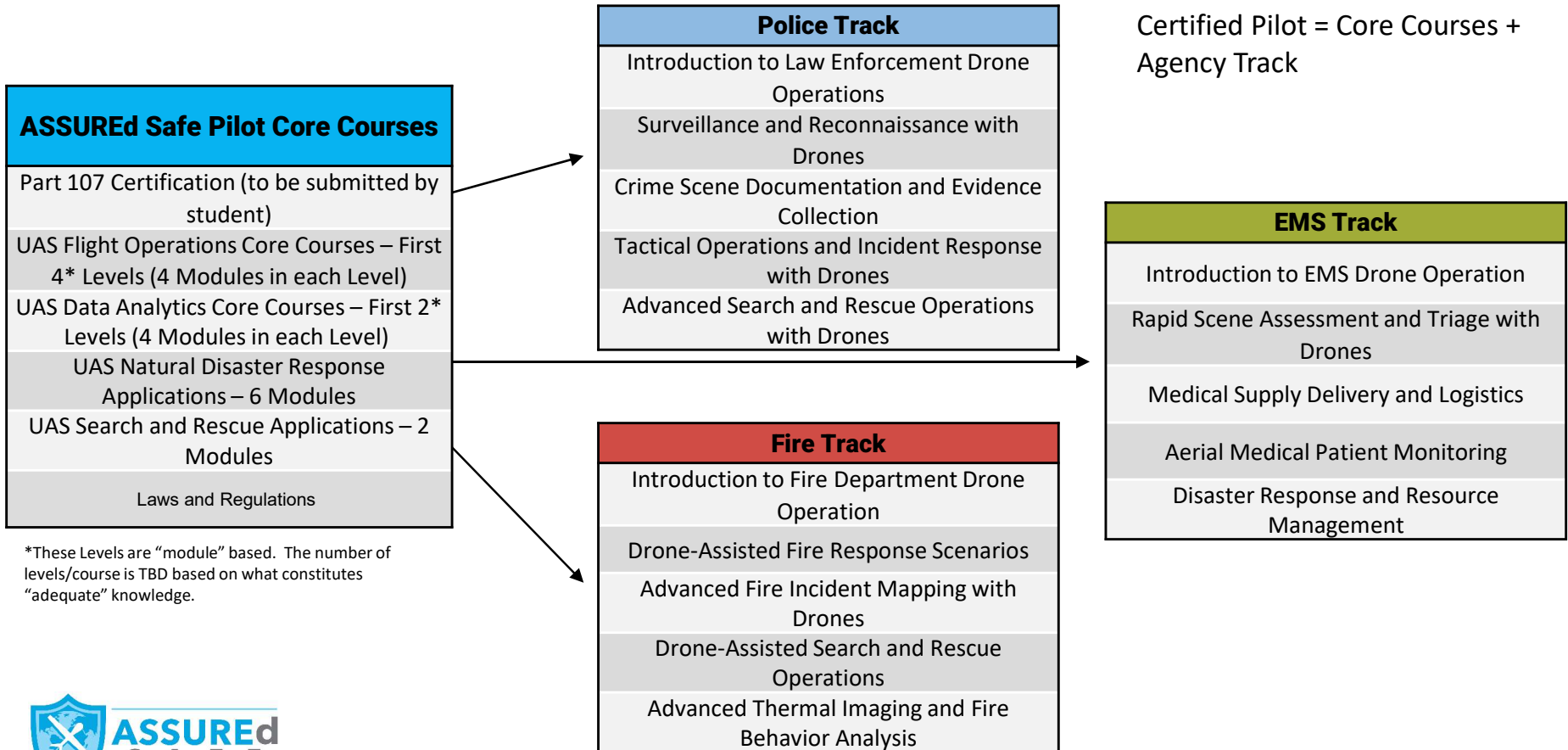
OPERATIONS
Fire
Law Enforcement
Emergency Medical Services
Support Personnel

ADMINISTRATIVE
Chiefs
Commanders
Coordinators
Safety Officers

COMMAND & CONTROL
EMA/EOC Directors
Incident Commanders
Air Bosses

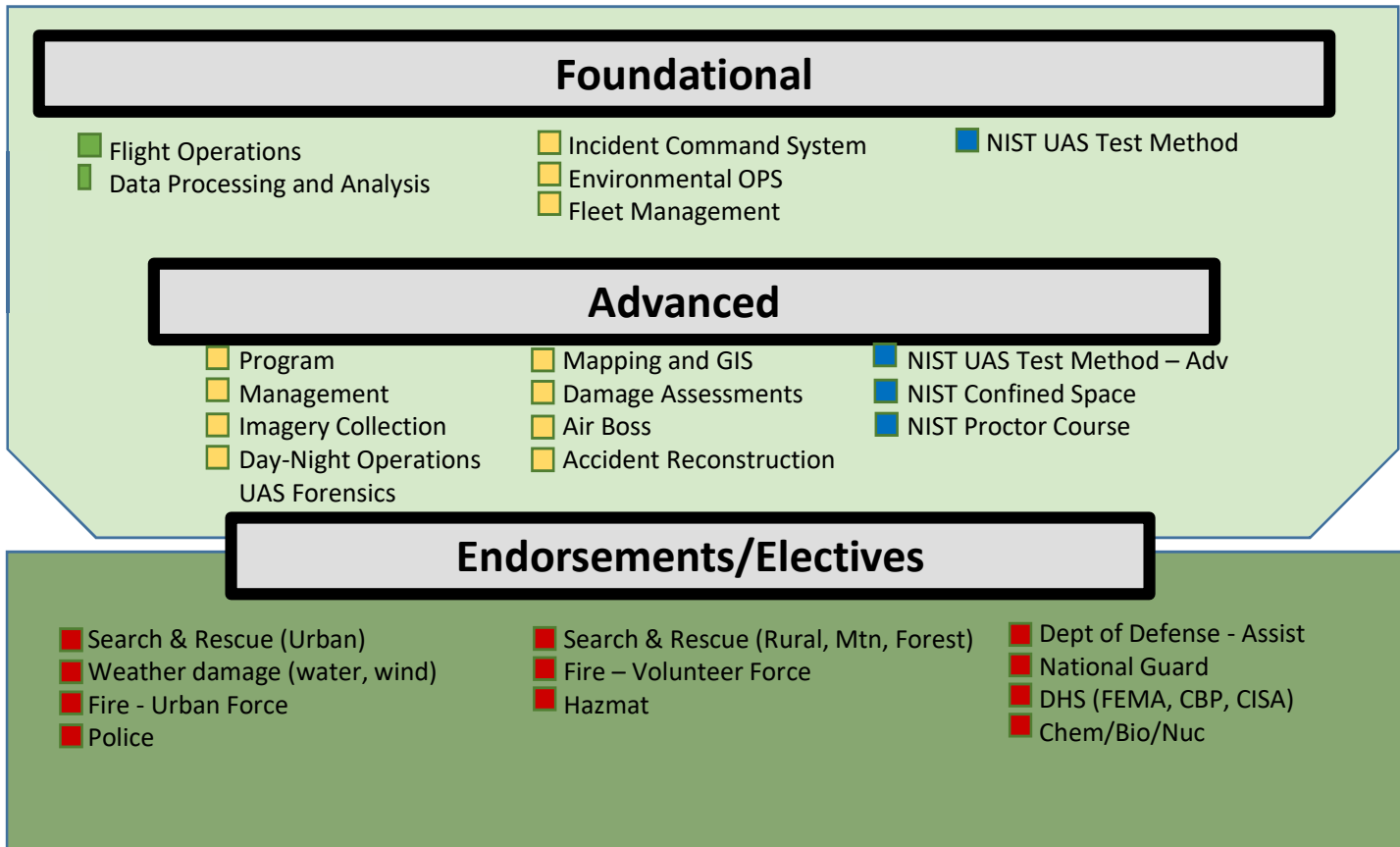


Curriculum Pathway (Flying Pilots)



The ASSURED Safe Course Plan

- Available Course
- Available FY 24/FY25
- Available FY 25/FY26
- FEMA or NIST course (available now)



The ASSURED Safe Future Process

Learning Management System

- Courses: Onsite, Remote, and Hybrid
- Opportunity to earn “UAS Credentialed” status of various skills levels
- Opportunity to earn “Endorsements” for additional UAS skills:
 - Law Enforcement
 - Fire Service
 - Emergency Management
- Access to database of individual progress

E-Commerce Site

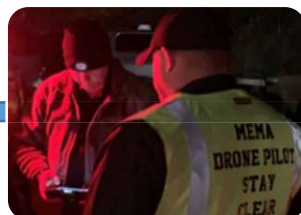
- One-stop shop
- Discover training opportunities and credentialing requirements
- Enroll and pay for courses

First Responder UAS Credentialing Database

- Sole source secure registry of UAS credentialed First Responders
- Database access available to authorized users to:
 - Validate UAS credentialed status
 - Locate UAS credentialed personnel geographically or by position qualification



FY2023



FY2024



FY2025



FY2026

NASA – Command, Control, & Communications (C3)



C3

- Comprehensive Assessment
- Denied/Degraded Environments
- UTM Spectrum Considerations



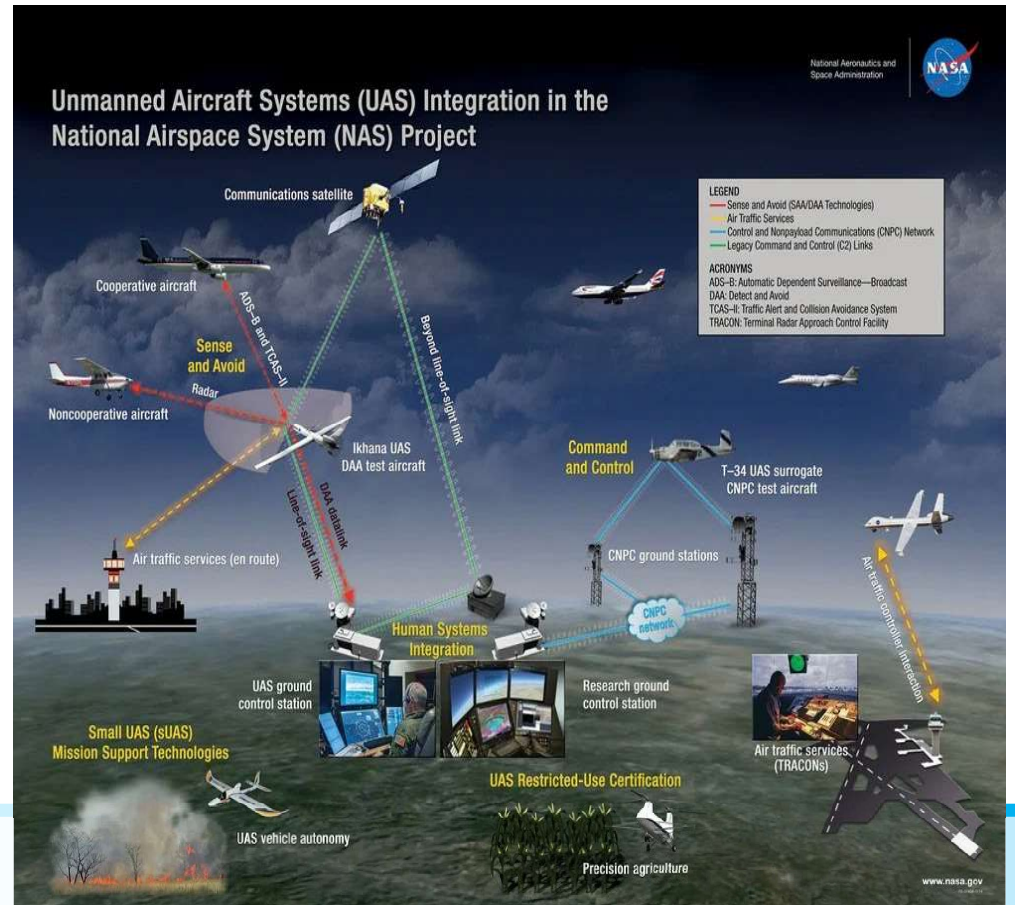
Multi-Vehicle Ops Approaches



DAA & BVLOS



Low Altitude WX Forecasting



International

Harmonize regulations, standards, and guidelines to collaborate around the globe

FAA International Regulator Roundtable on Research

Growing international network includes potential for future collaboration with first responders globally:

- UK (Cranfield)
- Singapore (Nanyang Tech Univ.)
- Australia (ANU), NZ (in-work)
- S. Korea and some efforts in Spain

EASA

Member of Advisory Board for BVLOS Demonstrations



Questions/Comm

ents



ASSUREuas



ASSURE UAS



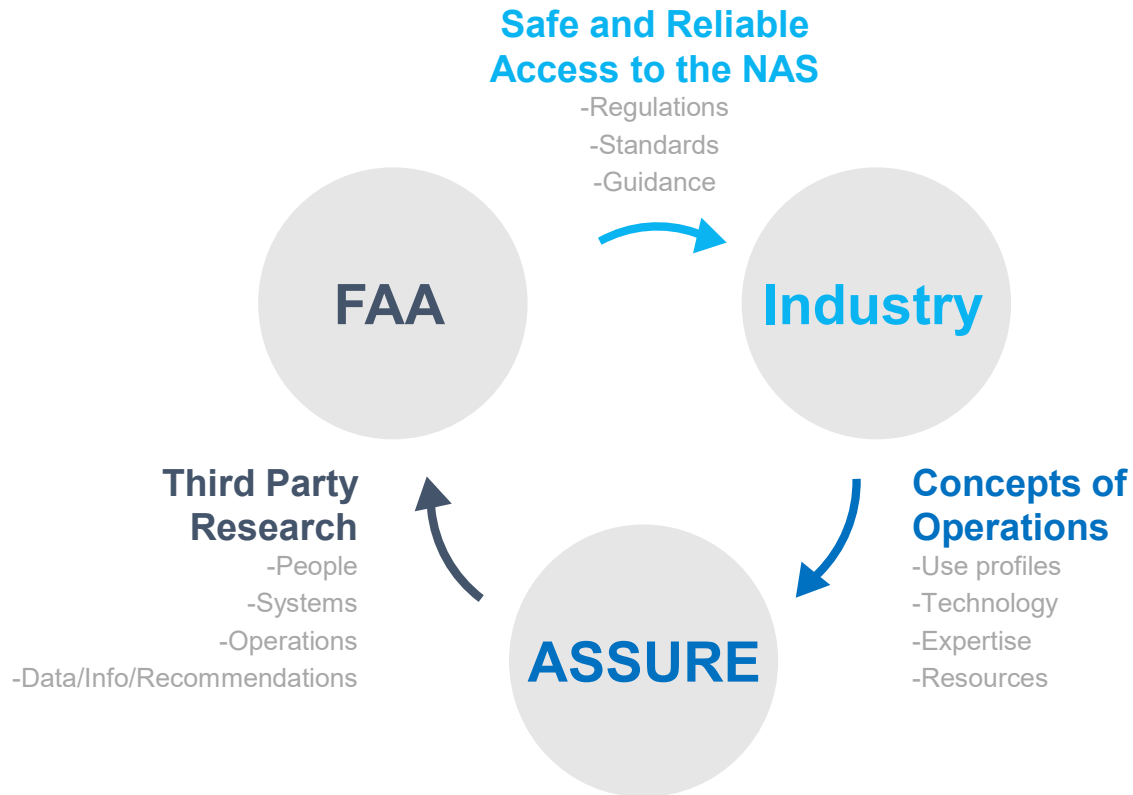
www.ASSUREuas.org



sluxion@assure.mstate.edu



ASSURE's Direction from the FAA



ASSURE Global

3



Solve Problems and seek opportunities outside the FAA

Leverages ASSURE alliance and its relationships, in addition to the knowledge and experience gained from FAA research

One contract and NDA, if required

- ASSURE does the rest to leverage our teammates
- Master Teaming Agreement w/partners
- Execute through Task Orders

Another mechanism to conduct FAA and government work

Currently supporting NASA, DoD, State DoTs, and Foreign Governments

Working with ASSURE (General Info)

Collaborate with ASSURE COE partners

- Join ASSURE through website: www.ASSUREuas.org
- Participate & influence research

IDIQ Contracts with the FAA and DHS

- Align/Fit into 11 FAA UAS Research Areas
- Memo between Federal Agencies
- MIPR Funds: FAA will contract and provide program management

ASSURE (Global)Non-Profit

- Single contract vehicle w/Miss State University;
 - We do the rest through Master Service Agreements with our schools & partners
- Leverages
 - ASSURE Alliance and its relationships
 - Knowledge and experience gained from FAA research
- No Cost: ad hoc teaming based on need
- **DHS – MSU Contract Vehicle** 