

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

UAS PSCR UAS Workshop

February 7-8, 2024

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

Executive Director, ASSURE

SLuxion@assure.msstate.edu



**ASSURE's
 Strategic
 Framework**



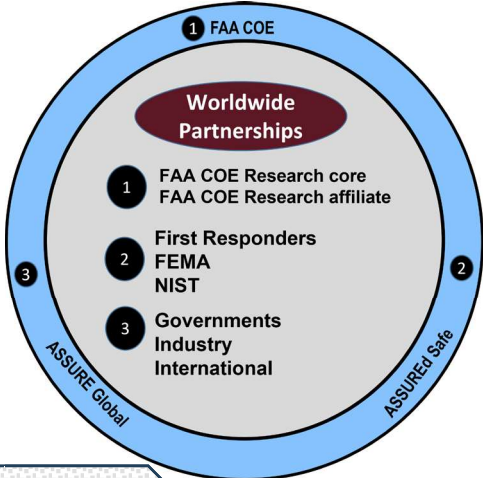
ASSURE is divided into three key sectors.

- 1 **FAA Center of Excellence**
- 2 **ASSUREd Safe**
(Training, Educating, and Certifying First Responders)
- 3 **ASSURE Global**
(Independent Partnerships with Industries and Governments worldwide)

Current Funding per Sector

1

FAA COE
 \$14M (per year FY18-22)
 • 78 Total Projects
 30 active, 40 completed, 4 proposed
 \$70M Active Projects
 \$180M Total Level of Effort Since Inception



2

Non-COE/ASSURE Global

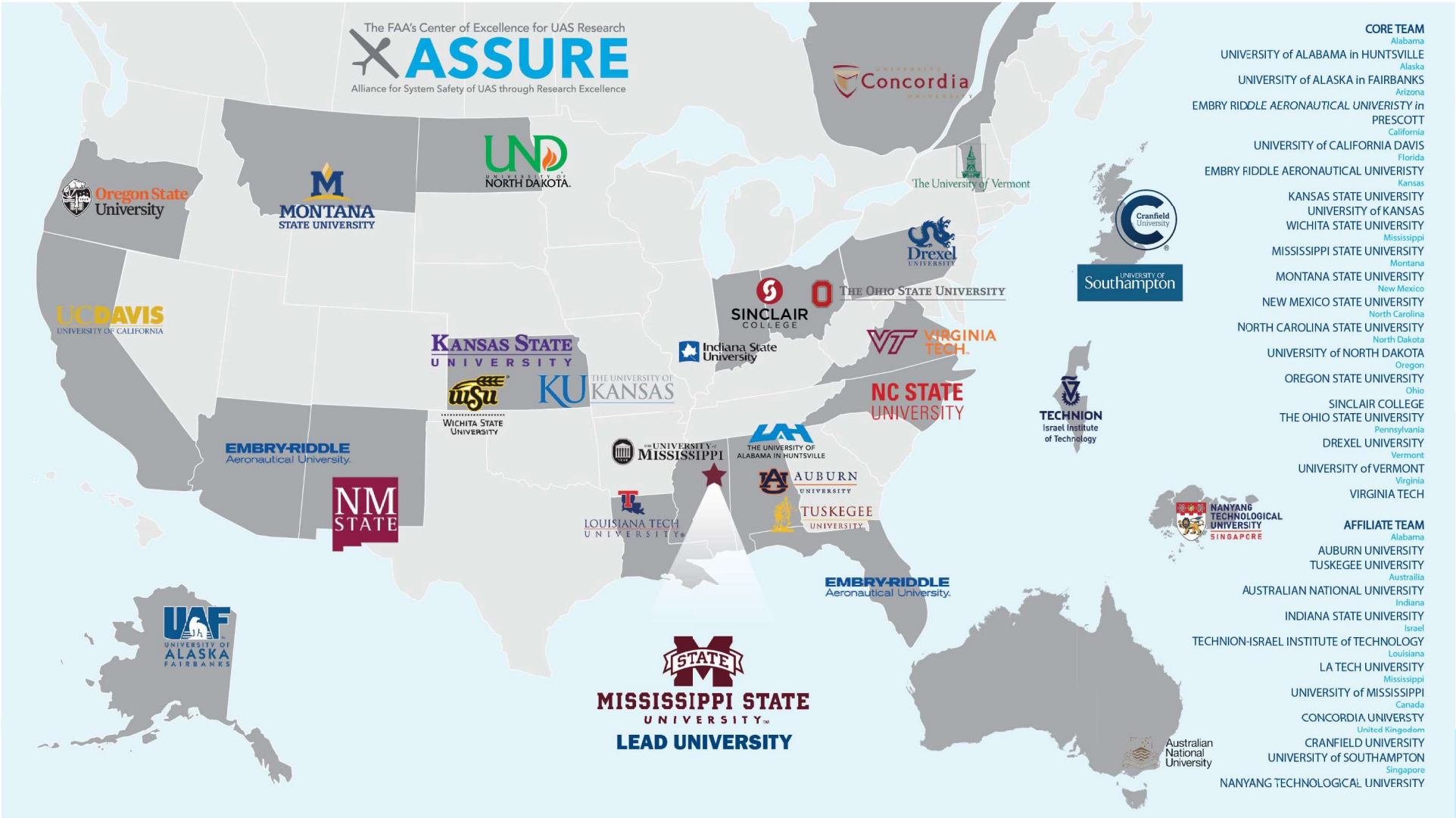
ASSUREd Safe
 \$6M FEMA (FY21-24)
 \$4M NIST

3

ASSURE Global
 \$4.6M (to date)
 9 Total Projects

The FAA's Center of Excellence for UAS Research

 Alliance for System Safety of UAS through Research Excellence



CORE TEAM

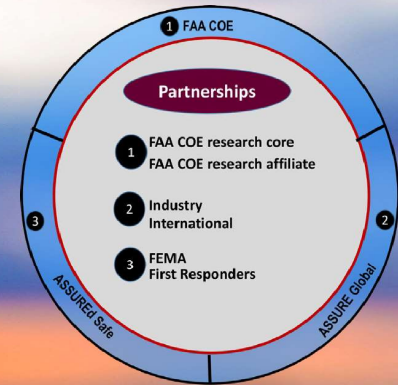
- Alabama
UNIVERSITY of ALABAMA in HUNTSVILLE
- Alaska
UNIVERSITY of ALASKA in FAIRBANKS
- Arizona
EMBRY RIDGLE AERONAUTICAL UNIVERSITY in PRESCOTT
- California
UNIVERSITY of CALIFORNIA DAVIS
- Florida
EMBRY FIDDLE AERONAUTICAL UNIVERSITY
- Kansas
KANSAS STATE UNIVERSITY
UNIVERSITY of KANSAS
WICHITA STATE UNIVERSITY
- Mississippi
MISSISSIPPI STATE UNIVERSITY
- Montana
MONTANA STATE UNIVERSITY
- New Mexico
NEW MEXICO STATE UNIVERSITY
- North Carolina
NORTH CAROLINA STATE UNIVERSITY
- North Dakota
UNIVERSITY of NORTH DAKOTA
- Oregon
OREGON STATE UNIVERSITY
- Ohio
SINCLAIR COLLEGE
THE OHIO STATE UNIVERSITY
- Pennsylvania
DREXEL UNIVERSITY
- Vermont
UNIVERSITY of VERMONT
- Virginia
VIRGINIA TECH

AFFILIATE TEAM

- Alabama
AUBURN UNIVERSITY
TUSKEGEE UNIVERSITY
- Australia
AUSTRALIAN NATIONAL UNIVERSITY
- Indiana
INDIANA STATE UNIVERSITY
- Israel
TECHNION-ISRAEL INSTITUTE of TECHNOLOGY
- Louisiana
LA TECH UNIVERSITY
- Mississippi
UNIVERSITY of MISSISSIPPI
- Canada
CONCORDIA UNIVERSITY
- United Kingdom
CRANFIELD UNIVERSITY
UNIVERSITY of SOUTHAMPTON
- Singapore
NANYANG TECHNOLOGICAL UNIVERSITY


MISSISSIPPI STATE
 UNIVERSITY™
LEAD UNIVERSITY

1 ASSURE FAA COE Research Capabilities



Related Work – Highlights

- Public Safety – Disaster Prep/Recovery
- Cyber Security – Oversight
- C-UAS – Safety to the NAS
- Beyond Visual Line of Sight Enablers
 - Detect & Avoid (DAA)
 - Right-of Way Rules
 - Shielding
 - Increase sUAS Conspicuity
- GPS & ADS-B Risks for UAS
- Multi-Aircraft Control
- Standards V/V (Remote ID, Detect & Avoid...)

