FAAs Center of Excellence for Unmanned Aircraft Systems Alliance for System Safety of UAS through Research Excellence

Purpose
- The Center of Excellence (COE) for Unmanned Aircraft Systems (UAS) collaborates with the nation's academic community and its affiliates by fostering cooperative research and developing intellectual capabilities of primary interest to the Federal Aviation Administration (FAA) and UAS community

Background
- Congress mandated that the FAA establish the COE under the Consolidated Appropriations Act of 2014. Like university think tank partnerships, the Agency's Center of Excellence bring together the best minds in the nation to conduct research to educate, train, and work with the FAA toward solutions for aviation-related challenges
- After a rigorous competition, the FAA selected a Mississippi State University led team as the COE for UAS. The team brings together 23 of the nation's leading UAS and aviation universities that have a proven commitment to UAS research and development and the necessary resources to provide the matching contribution to the government's investment

Projected Benefit of COE
- The COE for UAS is a dedicated academic body to support current and future UAS integration initiatives for 10 years. This world-class, public-private partnership will help the FAA focus on challenges and opportunities associated with UAS and educate a cadre of unmanned aircraft professionals well into the future

Research Focus Areas
- Air Traffic Control Interoperability, Airport Ground Operations, Control and Communication, Detect and Avoid, Human Factors, Low Altitude Operations Safety, Noise Reduction, Spectrum Management, Unmanned Aircraft Crew Training and Certification (including pilots), Unmanned Aircraft Systems Traffic Management, and UAS Wake Separation Standards for UAS Integration into the National Airspace System

Research Partners
- **ASSURE Core Universities:** Mississippi State University; Drexel University; Embry Riddle Aeronautical University; Kansas State University; Kansas University; Montana State University; New Mexico State University; North Carolina State University; Ohio State University; Oregon State University; University of Alabama-Huntsville; University of Alaska-Fairbanks; University of California-Davis; University of North Dakota; and Wichita State University
- **ASSURE Affiliate Universities:** Auburn University; Tuskegee University; Indiana State University; Louisiana Tech University; Sinclair Community College; Concordia University, University of South Hampton, and Technion Israel Institute of Technology

Status
- Research began September 2015
- Since its establishment the COE for UAS has been awarded over 80 research grants
- Hosted COE for UAS EXPO on ASSURE at FAA HQ in February 2016
- Sinclair Community College voted to become first Community College to join ASSURE
- ASSURE has affiliate partnerships with 3 international universities (Concordia University, University of South Hampton, and Technion Israel Institute of Technology)
- In September 2018, the FAA awarded an IDIQ Contract to each ASSURE Core University to fund research that expands upon work performed under a grant and benefits the FAA directly. The FAA COE for UAS contract is intended to focus on research in areas critical to the safe and successful integration of UAS into the National Airspace System (NAS). The contract vehicles will produce specific deliverables critical to development of government policy, guidance, and regulations

**Federal Aviation
Administration**