# FAA UAS Integration Research Plan

Presented to:

REDAC

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Date:

Federal Aviationition Administration

Christiansburg



#### Federal Aviation Administration

UAS Integration Research Plan 2017 - 2022

For Official Use Only

### **UAS Integration Landscape**

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## **Alignment to FAA's Strategic Priorities**





## UAS Integration Research Functional Framework

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#### UAS integration research is the foundation for UAS

integration



# **Operational Capabilities Towards Full UAS Integration**





#### **UAS Research Collaboration & Partnerships**

<ul> <li>AFRL: Air Force Research Lab</li> <li>ANSI: American National Standards Institute</li> <li>APAC: ICAO Asia and Pacific Office</li> <li>ASEB: NAS Aeronautics and Space Engineering Board</li> <li>ASSURE: Alliance for System Safety of UAS through Research Excellence</li> <li>CANSO: Civil Air Navigation Services Organization</li> <li>CTA: Consumer Technology Association</li> <li>EASA: European Aviation Safety Agency</li> <li>EuroCAE: European Organisation for Civil Aviation Equipment</li> <li>EXCOM SSG SARP: Executive Committee – Senior Steering</li> </ul>	CONCERNENCE OF CONCER	Research Transition Teams • UAS Traffic Management (UTM) • UAS in the NAS	UAS Center of Excellence
Group – Science And Research Panel FAA CAMI: Civil Aerospace Medical Institute FAA WJHTC: William J. Hughes Technical Center ICAO: International Civil Aviation Organization IEEE: Institute of Electrical and Electronics Engineers ITU: International Telecommunications Union JARUS: Joint Authorities for Rulemaking on Unmanned Systems MIT/LL: Massachusetts Institute of Technology Lincoln	Industry •Drone Advisory Committee •UAS Aviation Rulemaking Committee •UAS Pathfinders •UAS Safety Team (UAST)	RE D	UAS Test Sites •University of Alaska Fairbanks •Griffiss International Airport (NY) •State of Nevada •New Mexico State University •North Dakota DOC •Texas A&M Univ. Corpus Christi •Virginia Polytechnic Institute
MITRE CAASD: Center for Advanced Aviation System Development NAS: National Academy of Sciences NATO: North Atlantic Treaty Organization NSF: National Science Foundation NIST: National Institute of Standards and Technology <b>REDAC: Research, Engineering, &amp; Development Advisory</b> <b>Committee</b> SAE: Society of Automotive Engineers TRB: NAS Transportation Research Board	CAA Standards Groups •RTCA •ASTM International •SAE International •ANSI •IEEE •CTA •ITU	SD International Regulatory Groups •ICAO •EASA •APAC •JARUS •EUrOCAE •CANSO/NATO	Additional Research Organizations •National Academy of Sciences (TRB & ASEB) •NSF Center for UAS •NIST •AFRL •MIT / LL •REDAC



## **FAA Requests Your Research Expertise**

- Review the FAAs UAS Integration Research Plan
  - The plan is For Official Use Only.
  - The FAA will make subject matter experts available to the REDAC upon request.
- Provide industry research perspectives
  - Are there high-value applied research areas, not addressed in the plan that the committee deems essential?
  - Are there areas where planned activities and/or needs reflected in the plan are already being sufficiently addressed within the stakeholder community?
  - Is the research going in the right direction?
- The FAA requests the REDAC provide final recommendations no later than November 1, 2018
  - REDAC input will be reflected in the 2018 version of the UAS Integration Research Plan.

