TRB Snap Search: UAS / UAV
(Unmanned Aerial Systems / Unmanned Aerial Vehicles)

TRB’s involvement in research on UAS / UAV from 2017-2020

The Transportation Research Board (TRB) provides innovative, research-based solutions to improve how we move. TRB is part of the National Academies of Sciences, Engineering, and Medicine, an independent, non-profit institution that provides objective advice on scientific, engineering, and medical issues.

A resource to the nation and to the transportation community worldwide, TRB provides an extensive portfolio of services:
- Opportunities for information exchange on current transportation research and practice
- Management of cooperative research and other research programs
- Analyses of national transportation policy issues and guidance on federal and other research programs
- Publications and access to research information from around the world

All available Snap Searches can be accessed online here: http://www.trb.org/InformationServices/Snap.aspx

TRB Research

TRID – The world’s largest and most comprehensive bibliographic source on all modes and disciplines of transportation
- Click here to view search results on TRB published research on UAS / UAV within the past three years.

Specialty Report
- Critical Issues in Transportation 2019

Recent Reports & Publications
- Airport Cooperative Research Program (ACRP)
  - ACRP 03-42 - Airports and UAS
  - Legal Research Digest 32 - Evolving Law on Airport Implications by Unmanned Aerial Systems
  - Synthesis 104 - Current Landscape of Unmanned Aircraft Systems at Airports

- IDEA Safety Program
  - Report 32 - Railroad Bridge Inspections for Maintenance and Replacement Prioritization Using Unmanned Aerial Vehicles (UAVs) with Laser Scanning Capabilities

- National Cooperative Highway Research Program (NCHRP)
  - Report 924 - Foreseeing the Impact of Transformational Technologies on Land Use and Transportation
  - Synthesis 534 - Emerging Technologies for Construction Delivery

- Transit Cooperative Research Program (TCRP)
  - IDEA Report 90 - sUAS-based GeoINTEL1 for Commuter Rail Parking in Rural and Suburban Areas

- Transportation Research Record (TRR)
  - Volume 2626 - Aviation

Current & Upcoming Projects
- Current Projects
  - ACRP 03-50 - An Airport-Centric Study of the Urban Air Mobility Market
  - Safety IDEA Project 37 - Measuring Behavior of Railroad Bridges under Revenue Traffic using Lasers and Unmanned Aerial Vehicles (UAVs) for Safer Operations: Implementation

Updated 06/08/2020
Safety IDEA Project 42 - Railroad Tunnel Inspections for Maintenance and Replacement Prioritization Using Untethered Ground Penetrating Radar and LIDAR Capable Unmanned Aerial Vehicles (UAVs)

- **Upcoming Projects**
  - ACRP 07-18 - Develop Airfield Design Guidelines for Large Unmanned Aerial Systems (UAS)
  - NCHRP 12-122 - Evaluating and Implementing Unmanned Aerial Systems (UAS) into Bridge Management Methods Through Element-Level Data Collection
  - NCHRP 20-44(17) - Implementing the Results of NCHRP Project 20-68A, Domestic Scan 17-01: Successful Approaches for the Use of Unmanned Aerial Systems by Surface Transportation Agencies
  - NCHRP 20-102(04) - Evaluation Guidance for Automated Vehicle Pilot and Demonstration Projects
  - NCHRP 20-113 - Research Roadmap -- Transformational Technologies (other than CV/AV)
  - NCHRP Synthesis 20-05/Topic 52-01 - State of Practice on Infrastructure Inspections for the Digital Age
  - NCHRP Synthesis 20-05/Topic 52-04 - Use of Unmanned Aircraft Systems for Departments of Transportation

Reports from the National Academies Press on UAS / UAV

- Advancing Aerial Mobility - A National Blueprint
- Evolving the Geodetic Infrastructure to Meet New Scientific Needs
- Innovations in the Food System - Exploring the Future of Food
- The Convergence of Violent Extremism and Radiological Security
- Assessing the Risks of Integrating Unmanned Aircraft Systems (UAS) into the National Airspace System
- Autonomy on Land and Sea and in the Air and Space
- Counter-Unmanned Aircraft System (CUAS) Capability for Battalion-and-Below Operations
- In-Time Aviation Safety Management
- Human-Automation Interaction Considerations for Unmanned Aerial System Integration into the National Airspace System

Committees & Panels

Sign-up to be a committee "Friend"

- **TRB Standing Committees** – Search by transportation mode and committee topic
  - ABJ00 - Data and Information Systems
  - AED30 - Information Systems and Technology
  - AED50 - Artificial Intelligence and Advanced Computing Applications
  - AV000 - Aviation Group
  - AV020 - Aviation System Planning
  - B0164 - Update of National Naval Responsibility for Naval Engineering
  - B0168 - Coast Guard Maritime Domain Awareness

- **Task Forces** - Search for task force under committee here

CRP Panels

- DA0330 - Impact of Commercial Unmanned Aerial Vehicles on Airports
- DA0333 - NExtGen-Airport Planning
- DA0342 - Integrating UAS into Airports
- DA0718 - Develop Airfield Design Guidelines for Large Unmanned Aerial Systems (UAS)
- D12122 - Evaluating and implementing unmanned aerial systems (UAS) into bridge management methods through element-level data collection
- SN5204 - Construction Use of Unmanned Aircraft Systems for Departments of Transportation

Councils

- A001C – Young Members Coordinating Council

Recent and Upcoming Events

- **Upcoming Conferences** - Left hand menu “upcoming conferences by topic”
  *Conferences cosponsored by TRB are denoted with an asterisk.*

  **ITS World Congress 2020**
  October 4-8, 2020
  Los Angeles, California

  **Sixth Biennial Marine Transportation System Innovative Science and Technology Conference**
  March 15-17, 2021
  Washington, DC
Webinars – View upcoming webinars, suggest a webinar or add registration information

Past Webinars
- Why Surface Transportation Agencies Use Drones – February 25, 2020
- Unmanned Aerial Systems at Airports - November 5, 2018

TRB’s Transportation Research Information Services (TRIS)

TRIS includes the TRB Library and the TRIS Databases (listed below) which are available free on TRB’s website.

The TRB Library provides information services to TRB staff, sponsors, TRB Committee members and panels and researchers. Access to the TRB Library is a benefit to TRB sponsors and TRB committee members.

In cooperation with your State DOT Library or Information Service, the TRB Library provides:

- Reference and research assistance
- Literature searches
- Articles for TRB Committee work

The TRB Library provides training on effective and efficient use of the following TRIS resources:

TRID – The world’s largest and most comprehensive bibliographic source on all modes and disciplines of transportation - trid.trb.org

Publications Index (PubsIndex) Database – The papers, articles and reports published by the Transportation Research Board, Highway Research Board, Strategic Highway Research Programs or the Marine Board - pubsindex.trb.org

Research in Progress (RiP) Database – Current or recently completed transportation research projects - rip.trb.org

Research Needs Statements (RNS) – Research needs as identified by TRB Technical Activities standing committees - rns.trb.org

Contact the Library at TRBLibrary@nas.edu or l (202) 334-2989