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

TRB's involvement in research on UAS / UAV from 2020-2023

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 for 2024 and Beyond
- Critical Issues in Transportation 2019
- COVID-19 Addendum to Critical Issues in Transportation
- Racial Equity Addendum to Critical Issues in Transportation

Recent Reports & Publications

- Airport Cooperative Research Program (ACRP)
  - Report 243 - Urban Air Mobility: An Airport Perspective

- IDEA Safety Program
  - Report 42 - Railroad Tunnel Inspections for Maintenance and Replacement Prioritization Using Untethered Ground Penetrating Radar and LiDAR Capable Unmanned Aerial Vehicles (UAVs)
  - Report 37 - Measuring Behavior of Railroad Bridges under Revenue Traffic using Lasers and Unmanned Aerial Vehicles (UAVs) for Safer Operations: Implementation

- National Cooperative Highway Research Program (NCHRP)
  - 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
  - Report 952 - Guidebook for Managing Data from Emerging Technologies for Transportation
  - Synthesis 609 - Use of Unmanned Aerial Systems for Inspection of Stormwater Best Management Practices
  - Synthesis 582 - Highway Infrastructure Inspection Practices for the Digital Age
  - Synthesis 578 - Use of Unmanned Aerial Systems for Highway Construction

- Special Reports / Consensus Studies
  - Report 335 - Leveraging Unmanned Systems for Coast Guard Missions

Updated 9/22/2023
Transit Cooperative Research Program (TCRP)
  - IDEA Report 90 - sUAS-based GeoINTEL1 for Commuter Rail Parking in Rural and Suburban Areas

Transportation Research Circulars
  - E-Circular 273 - TRB Centennial Circular: History and Future Perspectives on Foundation Design for Transportation Structures

Recently Completed Projects/Pending Publication
  - ACRP 07-18 - Develop Airfield Design Guidelines for Large Unmanned Aerial Systems (UAS)

Current & Upcoming Projects

  Current Projects
  - NCHRP 12-122 - Proposed AASHTO Guidelines for Applications of Unmanned Aerial Systems Technologies for Element-Level Bridge Inspection
  - NCHRP 23-20 - Guidebook for Implementation of UAS Operational Capabilities
  - NCHRP Synthesis 20-05/Topic 53-09 - Use of Unmanned Aerial Systems for Highway Stormwater Inspections

  Upcoming Projects
  - NCHRP 20-44(47) - UAS Operations Practical Skills Pilot Program for State DOTs

Reports from the National Academies Press on UAS / UAV
  - Investing in Resilient Infrastructure in the Gulf of Mexico
  - Human-AI Teaming: State-of-the-Art and Research Needs
  - Enhancing Operational Effectiveness of U.S. Naval Forces in Highly Degraded Environments: Autonomy and Artificial Intelligence in Unmanned Aircraft Systems
  - Army Futures Command Research Program Realignment
  - Leveraging Commercial Space for Earth and Ocean Remote Sensing
  - Looking Ahead at the Cybersecurity Workforce at the Federal Aviation Administration
  - Energizing Data-Driven Operations at the Tactical Edge
  - Assessing NASA’s University Leadership Initiative
  - Powering the U.S. Army of the Future
  - 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

Committees & Panels
Sign-up to be a committee "Friend"

TRB Standing Committees – Search by transportation mode and committee topic
  - AV000 - Aviation Group
  - AV020 - Aviation System Planning
  - AV095 - New Users of Shared Airspace

Task Forces - Search for task force under committee here

CRP Panels
  - D12122 - Proposed AASHTO Guidelines for Applications of Unmanned Aerial Systems Technologies for Element-Level Bridge Inspection
  - D2320 - Guidebook for Implementation of UAS Operational Capabilities
  - D204447 - UAS Operations Practical Skills Pilot Program for State DOTs
  - DA0342 - Integrating UAS into Airports

Councils
  - A001C – Young Members Coordinating Council

Recent and Upcoming Events

Upcoming TRB Conferences – Use left hand menu to filter events

Upcoming Events – In the Upcoming Events tab under Types, choose what event you are interested in, search titles by keyword

Past Events - In the Past Events tab under Types, choose what event you are interested in, search titles by keyword
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:

- Transportation Research International Documentation (TRID) – trid.trb.org - The world's largest and most comprehensive bibliographic source on all modes and disciplines of transportation
- Transportation Research Thesaurus (TRT) – trt.trb.org - A tool to improve the indexing and retrieval of transportation information.
- Research in Progress (RiP) Database – rip.trb.org - Current or recently completed transportation research projects
- Publications Index (PubsIndex) Database – pubsindex.trb.org - The papers, articles and reports published by the Transportation Research Board, Strategic Highway Research Programs or the Marine Board

Contact or Questions: TRBLibrary@nas.edu