The National Academies of
SCIENCES • ENGINEERING • MEDICINE

TRANSPORTATION RESEARCH BOARD

TRB Snap Search: Aviation

TRB’s involvement in research on Aviation from 2019-2021

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 Aviation within the past two years.

Subject Webpage

- Airport Cooperative Research Program at TRB

Recent Reports & Publications

- Conference Proceedings 55 - Airport Roles in Reducing Transmission of Communicable Diseases
- Conference Proceedings on the Web 26 - Public–Private Partnerships: What Are the Lessons Learned?
- Conference Proceedings on the Web 24 - Challenges to Implementing Successful Land Use Strategies at Airports
- Conference Proceedings on the Web 23 - Economic and Social Sustainability at Airports
- Impacts on Practice - Ensuring Safe Paramotor Operations at Emmett Municipal Airport
- Impacts on Practice - ACRP in the Classroom: Reimagining the Textbook at the University of North Dakota Department of Aviation
- Impacts on Practice - Measuring Success at Raleigh–Durham International Airport
- Impacts on Practice - Redesigning the Communications Center at Phoenix–Mesa Gateway Airport
- Impacts on Practice - Defining Leadership Roles at the Athens–Ben Epps Airport
- Legal Research Digest 38 - Legal Issues Related to Large-Scale Airport Construction Projects
- Legal Research Digest 37 - Legal Issues Relating to Airports Promoting Competition
- Report 224 - Understanding Impacts to Airports From Temporary Flight Restrictions
- Report 223 - Performance Measures for State Aviation Agencies
- Report 222 - Collecting and Sharing of Operations and Safety Data
- Report 221 - Measuring Quality of Life in Communities Surrounding Airports
- Report 220 - Guidebook for Developing a Zero- or Low-Emissions Roadmap at Airports
- Report 218 - Building and Maintaining Air Service Through Incentive Programs
- Report 217 - Guidance for Diversity in Airport Business Contracting and Workforce Programs
- Report 216 - Guidebook for Assessing Collaborative Planning Efforts Among Airport and Public Planning Agencies
- Report 214 - BIM Beyond Design Guidebook
- Report 213 - Estimating Market Value and Establishing Market Rent at Small Airports

Updated 11/05/2020
Current & Upcoming Projects

- **Report 210** - Innovative Solutions to Facilitate Accessibility for Airport Travelers with Disabilities
- **Report 209** - Integrating Sustainability Planning and the Environmental Review Process
- **Report 208** - Benefit–Cost Analyses Guidebook for Airport Stormwater
- **Report 207** - Optimizing the Use of Electric Preconditioned Air (PCA) and Ground Power Systems for Airports
- **Report 206** - Guidebook on Effective Land Use Compatibility Planning Strategies for General Aviation Airports
- **Report 205** - Revolving Funds for Sustainability Projects at Airports
- **Report 204** - Air Demand in a Dynamic Competitive Context with the Automobile
- **Report 202** - Developing Innovative Strategies for Aviation Education and Participation
- **Report 201** - Airport Emergency Communications for People with Disabilities and Others with Access and Functional Needs
- **Report 200** - Using GIS for Collaborative Land Use Compatibility Planning Near Airports
- **Report 197** - Guidebook for Developing a Comprehensive Renewable Resources Strategy
- **Report 196** - Guidebook for Integrating Collaborative Partnering into Traditional Airport Practices
- **Report 192** - Airport Management Guide for Providing Aircraft Fueling Services
- **Research Results Digest 28** - Thought Leader Forum Summary—Emerging Issues for ACRP
- **Synthesis 113** - Airport Workforce Programs Supporting Employee Well-Being
- **Synthesis 112** - Airport Operations Training at Small Airports
- **Synthesis 110** - Airport Renewable Energy Projects Inventory and Case Examples
- **Synthesis 109** - Escalator Falls
- **Synthesis 108** - Characteristics of the FBO Industry 2018-2019
- **Synthesis 107** - Models for Law Enforcement at Airports
- **Synthesis 106** - Airport Risk Identification and Prioritization Practices
- **Synthesis 105** - Airport Surface Weather Observation Options for General Aviation Airports
- **Synthesis 104** - Current Landscape of Unmanned Aircraft Systems at Airports
- **Synthesis 103** - Promoting Aviation Career Education in High Schools and Community Colleges
- **Synthesis 102** - Value, Benefits, and Limitations of Qualifications-Based Selection for Airport Project Delivery
- **Synthesis 101** - Communication Strategies for Airport Passenger Access and Mobility
- **Synthesis 100** - Airport Greenhouse Gas Reduction Efforts
- **Synthesis 99** - Emergency Working Groups at Airports
- **Synthesis 98** - Simulation Options for Airport Planning
- **Synthesis 97** - How Airports Plan For Changing Aircraft Capacity: The Effects of Upgauging
- **Synthesis 94** - Attracting Investment at General Aviation Airports Through Public–Private Partnerships
- **Web-Only Document 50** - Research Roadmap on Safety Issues
- **Web-Only Document 49** - Research Roadmap on Airport Administration & Human Resource Issues
- **Web-Only Document 48** - Evaluating the Use of Spatially Precise Diurnal Population Data in Aviation Noise Studies
- **Web-Only Document 46** - Recovering International Recyclables from In-Flight Service
- **Web-Only Document 45** - Airport Environmental Research Roadmap Narrative Report
- **Web-Only Document 42** - Toolkits and Resource Library for Airports and Unmanned Aircraft Systems
- **Web-Only Document 40** - Airport Design and Construction Narrative Research Roadmap
- **Web-Only Document 39** - Policy and Planning Issues Roadmap Report
- **WebResource 9** - Airport Emergency Plan Development Tool
- **WebResource 8** - Integrating Social Media with Emergency Management at Airports

Current & Upcoming Projects

- **Current Projects**
  - **ACRP 01-36** - Advancing the Practice of State Aviation System Planning
  - **ACRP 01-39** - Creative Marketing Techniques to Improve Revenue Generation Partnerships
  - **ACRP 01-40** - Evaluating the Traveler's Perspective to Improve the Airport Customer Experience
  - **ACRP 01-42** - Review of Airport Governance Structures
  - **ACRP 01-43** - Conducting Consumer Research of Air Passengers
  - **ACRP 01-45** - Selecting, Procuring, and Implementing Airport Capital Project Delivery Methods
  - **ACRP 01-47** - A Guide to Developing a Culture of Innovation at Airports
  - **ACRP 01-48** - Assessing Airport Programs for Travelers with Disabilities and Older Adults
  - **ACRP 02-87** - Determining Airfield Pavement Deicer and Anti-Icer Contributions to Airport Stormwater
  - **ACRP 02-89** - A Primer and Framework for Considering an Airport Noise and Operations Monitoring System (NOMS)
- Incorporating Shock Events into Traffic and Forecasting and Airport Planning
- Airports and the Homeless
- Guidebook for Environmental Management of PFAS at Airports
- Development of Forensic Guidelines and Tools for PFAS Source Differentiation at Airports
- Development of Airport Construction Emission Inventory Tool (ACEIT) Version 2.0
- Knowledge is Power: Knowledge Management Guidelines to Help Airports Thrive
- Airport Insurance Requirements
- Blockchain Technology and Airports - A Primer
- Practical Guide for Integrating Crisis Management and Business Continuity
- Using Collaborative Decision Making to Enhance the Management of Adverse Conditions, IROPS, and Crises
- Aircraft Jet Blast Estimation Tool
- Tactical Initiatives from the ACRP Strategic Plan
- Scenario-Based Adaptive Airports and Decision Makers
- Assessing and Improving Data Analytic Capabilities in Airports
- Implementing Airport Privatization: Guidance for Airport Decision Makers
- Rethinking Airport Parking Facilities to Protect and Enhance Non-Aeronautical Revenue
- Advanced Ground Vehicle Technologies (AGVT) for Airside Operations
- Effective Collaboration to Plan and Respond to Communicable Disease Threats
- An Airport-Centric Study of the Urban Air Mobility Market
- Electric Aircraft of the Horizon -- An Airport Planning Perspective
- Guidelines for Adapting and Managing Airport Common Use Programs
- Airport Baggage Handling System Decision-Making Based on Total Cost of Ownership
- Airport Biometrics--A Primer
- A Guidebook to Prepare Airports for Transformations in Wireless Connectivity
- Measuring and Understanding the Relationship Between Air Service and Regional Economic Development
- Guidelines to Develop an Anti-Human Trafficking Action Plan for Airports
- Cultivating Talent in the Airport Environment
- Building Academic Programs to Cultivate Future Airport Industry Professionals
- Airport Roadway Analysis and Curbside Congestion Management Strategies
- Develop Airfield Design Guidelines for Large Unmanned Aerial Systems (UAS)
- Construction Safety and Phasing Plans
- Rapid Airfield Concrete Pavement Slab Replacement and Patching
- Airfield Pavement Markings - Effective Techniques for Removal and Temporary Applications
- Airport Microgrid Implementation Toolkit
- Using Collaborative Decision Making to Enhance the Management of Adverse Conditions, IROPS, and Crises
- Practical Guide for Integrating Crisis Management and Business Continuity
- Aircraft Jet Blast Estimation Tool
- Update of Compilation of FAA/DOT Airport Legal Determinations
- Legal Issues Relating to Airport Commercial Contracts
- Updated Survey of Laws and Regulations Applicable to Airport Commercial Ground Transportation
- Permissible Uses of Airport Revenue and Property
- Legal Implications of Data Collection at Airports
- Legal Considerations for Telecommunications at Airports
- Research Roadmap in the Area of Design and Construction of Airport Facilities and Infrastructure
- Research Roadmap on Safety Issues
- Tactical Initiatives from the ACRP Strategic Plan
- A Forum on Blockchain Technology and Airports
- ACRP Insight Event--Future of Aviation
- Successful Arts Programs at Airports
- Airport Software Solutions and Services Sourcing
- Examples of Airports Providing Facility Space for Community Use
- Airport Parking Pricing Strategies
- Models for Law Enforcement at Airports
- Practices in Airport Emergency Plans
- Airport Operations Training at Small Airports
- Agricultural Operations on Airport Grounds
- Considerations for Establishing and Maintaining Successful Bee Programs on Airports

- Upcoming Projects
- Blockchain Technology and Airports - A Primer
- Airport Insurance Requirements
- Knowledge is Power: Knowledge Management Guidelines to Help Airports Thrive
- Development of Airport Construction Emission Inventory Tool (ACEIT) Version 2.0
- Development of Forensic Guidelines and Tools for PFAS Source Differentiation at Airports
- Guidebook for Environmental Management of PFAS at Airports
- Airports and the Homeless
- Incorporating Shock Events into Traffic and Forecasting and Airport Planning
- Assessing and Improving Data Analytic Capabilities in Airports
- Scenario-Based Adaptive Airport Catchment Area Mapping
Reports from the National Academies Press on Aviation

- Advanced Technologies for Gas Turbines
- Advancing Aerial Mobility – A National Blueprint
- Human Spaceflight: Apollo 50 Years On
- Frontiers of Engineering - Reports on Leading-Edge Engineering from the 2018 Symposium
- Continuous Improvement of NASA's Innovation Ecosystem

Committees & Panels

Sign-up to be a committee "Friend"

TRB Standing Committees – Search by transportation mode and committee topic

- AV000 - Aviation Group
- AV010 - Intergovernmental Relations in Aviation
- AV020 - Aviation System Planning
- AV030 - Environmental Impacts of Aviation
- AV040 - Aviation Economics and Forecasting
- AV040(1) - Air Cargo Subcommittee
- AV050 - Airport Terminals and Ground Access
- AV060 - Airfield and Airspace Capacity and Delay
- AV070 - Aircraft/Airport Compatibility
- AV090 - Aviation Security and Emergency Management

CRP Panels

- Project Panels Related to Aviation

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.)
Webinars – View upcoming webinars, suggest a webinar or add registration information

Past Webinars

  o  Aviation

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