TRB Snap Search: Aviation

TRB’s involvement in research on Aviation from 2018-2020

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 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 - 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 - A New Framework for Ground Transportation at Phoenix Sky Harbor Airport
- Impacts on Practice - Mitigating Cattle Egret Strikes at Orlando International Airport
- Impacts on Practice - Building an Asset Management Framework at Cincinnati/Northern Kentucky International 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
- Legal Research Digest 36 - Legal Issues Related to Implementation and Operation of SMS for Airports
- Legal Research Digest 35 - Legal Considerations in the Funding and Development of Intermodal Facilities at Airports
- Legal Research Digest 34 - Airport Public Health Preparedness and Response: Legal Rights, Powers, and Duties
- Report 220 - Guidebook for Developing a Zero- or Low-Emissions Roadmap at Airports
- Report 218 - Building and Maintaining Air Service Through Incentive Programs
- Report 216 - Guidebook for Assessing Collaborative Planning Efforts Among Airport and Public Planning Agencies
- Report 213 - Estimating Market Value and Establishing Market Rent at Small Airports
- Report 210 - Innovative Solutions to Facilitate Accessibility for Airport Travelers with Disabilities
- 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 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

Updated 06/08/2020
Current & Upcoming Projects

- 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 198 - Wetland Mitigation, Volume 2, A Guidebook for 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
- Research Results Digest 27 - Legal Aspects of Airport Programs - An Update
- Synthesis 106 - Airport Risk Identification and Prioritization Practices
- 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 46 - Recovering International Recyclables from In-Flight Service
- Web-Only Document 40 - Airport Design and Construction Narrative Research Roadmap
- Web-Only Document 37 - Research Roadmap in the Area of Airport Operations and Maintenance
- Web-Only Document 36 - Enhanced AEDT Modeling of Aircraft Arrival and Departure Profiles, Volume 1: Guidance
- WebResource 6 - Resources for Managing Small Airports
- WebResource 5 - Tools and Case Studies for NextGen for Airports
- WebResource 4 - Airport Air Quality Resource Library

Current & Upcoming Projects

- Current Projects
  - ACRP 01-36 - Advancing the Practice of State Aviation System Planning
  - ACRP 01-37 - Performance Measures for State Aviation Agencies
  - 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 01-48 - Assessing Airport Programs for Travelers with Disabilities and Older Adults
  - ACRP 02-83 - Measuring Quality of Life in Communities Surrounding Airports
  - ACRP 02-84 - Evaluating the Use of Spatially Precise Diurnal Population Data in Aviation Noise Studies
  - ACRP 02-86 - Understanding Impacts to Airports from Temporary Flight Restrictions
  - ACRP 02-87 - Determining Airfield Pavement Deicer and Anti-Icer Contributions to Airport Stormwater
  - ACRP 03-46 - Implementing Airport Privatization: Guidance for Airport Decision Makers
  - ACRP 03-47 - Rethinking Airport Parking Facilities to Protect and Enhance Non-Aeronautical Revenue
  - ACRP 03-48 - Advanced Ground Vehicle Technologies (AGVT) for Airside Operations
  - ACRP 03-49 - Effective Collaboration to Plan and Respond to Communicable Disease Threats
  - ACRP 03-50 - An Airport-Centric Study of the Urban Air Mobility Market
  - ACRP 03-51 - Electric Aircraft of the Horizon -- An Airport Planning Perspective
  - ACRP 03-52 - Guidelines for Adapting and Managing Airport Common Use Programs
  - ACRP 03-55 - Airport Biometrics--A Primer
  - ACRP 04-23 - Social Media Guidebook for Emergency Management
  - ACRP 06-05 - Guidance for Diversity in Airport Businesses Contracting and Workforce Programs
  - ACRP 06-06 - Cultivating Talent in the Airport Environment
  - ACRP 06-07 - Building Academic Programs to Cultivate Future Airport Industry Professionals
  - ACRP 08-03 - Construction Safety and Phasing Plans
o ACRP 09-18 - Rapid Airfield Concrete Pavement Slab Replacement and Patching
o ACRP 09-19 - Airfield Pavement Markings - Effective Techniques for Removal and Temporary Applications
o ACRP 10-26 - Airport Microgrid Implementation Toolkit
o ACRP 10-27 - Using Collaborative Decision Making to Enhance the Management of Adverse Conditions, IROPS, and Crises
o ACRP 11-01/Topic 10-01 - Update of Compilation of FAA/DOT Airport Legal Determinations
o ACRP 11-01/Topic 10-03 - Legal Issues Related to Airport Commercial Contracts
o ACRP 11-01/Topic 10-04 - Updated Survey of Laws and Regulations Applicable to Airport Commercial Ground Transportation
o ACRP 11-01/Topic 11-01 - Permissible Uses of Airport Revenue and Property
o ACRP 11-01/Topic 12-01 - Legal Implications of Data Collection at Airports
o ACRP 11-01/Topic 12-02 - Research Roadmap in the Area of Design and Construction of Airport Facilities and Infrastructure
o ACRP 11-02/Task 32 - Airport Environmental Research Roadmap
o ACRP 11-02/Task 35 - Research Roadmap on Administration & Human Resource Issues
o ACRP 11-02/Task 36 - Research Roadmap on Safety Issues
o ACRP 11-03 - Tactical Initiatives from the ACRP Strategic Plan
o ACRP 11-08(20-01) - ACRP Insight Event--Future of Aviation
o ACRP Synthesis 11-03/Topic S01-21 - Successful Arts Programs at Airports
o ACRP Synthesis 11-03/Topic S02-21 - Practices in Airport Renewable Energy Projects
o ACRP Synthesis 11-03/Topic S04-20 - Escalator Falls
o ACRP Synthesis 11-03/Topic S06-06 - Airport Workforce Programs Supporting Employee Well-being
o ACRP Synthesis 11-03/Topic S10-16 - Airport Operations Training at Small Airports

o Upcoming Projects
o ACRP 01-41 - Blockchain Technology and Airports - A Primer
o ACRP 01-44 - Airports in the Digital Age
o ACRP 01-45 - Selecting, Procuring, and Implementing Airport Capital Project Delivery Methods
o ACRP 01-46 - A Guide to Developing a Culture of Innovation at Airports
o ACRP 02-89 - A Primer and Framework for Considering an Airport Noise and Operations Monitoring System (NOMS)
o ACRP 02-90 - Update the Airport Construction Emission Inventory Tool (ACEIT)
o ACRP 03-53 - Airport Baggage Handling System Decision-Making Based on Total Cost of Ownership
o ACRP 03-57 - A Guidebook to Prepare Airports for Transformations in Wireless Connectivity
o ACRP 03-58 - Measuring and Understanding the Relationship Between Air Service and Regional Economic Development
o ACRP 04-24 - Guidelines to Develop an Anti-Human Trafficking Action Plan for Airports
o ACRP 06-08 - Human Factors in Airport Operations
o ACRP 07-17 - Airport Roadway Analysis and Curbside Congestion Management Strategies
o ACRP 07-18 - Airports and the Future of Air Travel
o ACRP 09-20 - Quantifying the Impacts of Delayed Maintenance of Airport Assets
o ACRP 09-21 - Guidelines for the Effective Transition of Asset Data from Design/Construction to Operations and Maintenance
o ACRP 10-28 - Practical Guide for Integrating Crisis Management and Business Continuity
o ACRP 10-29 - Aircraft Jet Blast Estimation Tool
o ACRP 10-30 - Guidelines for Systematically Evaluating the Effectiveness of an Airport's Wildlife Hazard Management Plan
o ACRP 10-31 - Remote Airport Ramp Control Facilities -- Guidelines for U.S. Airports
o ACRP 11-01/Topic 11-02 - Accommodation of Federal Agencies -- Rights and Obligations of Host Airports
o ACRP 11-01/Topic 11-03 - Analysis of Laws, Regulations, and Case Laws Regarding Airport Customer Facility Charges
o ACRP 11-01/Topic 13-01 - Legal Considerations for Telecommunications at Airports
o ACRP 11-02/Task 37 - Periodic Report on Transformative Technology at Airports
o ACRP 11-08(19-01) - A Forum on Blockchain Technology and Airports
o ACRP 11-08(20-02) - ACRP Insight Event--On-Demand Aviation Services for Passengers and Goods
o ACRP Synthesis 11-03/Topic S01-23 - Procuring Software Solutions at Airports
o ACRP Synthesis 11-03/Topic S01-24 - Examples of Airports Providing Facility Space for Community Use
o ACRP Synthesis 11-03/Topic S01-25 - Airport Parking Pricing Strategies
ACRP Synthesis 11-03/Topic S03-16 - State Aviation Funding: Project Prioritization and Selection Processes
ACRP Synthesis 11-03/Topic S04-26 - Managing an Emergency or Incident Associated with Flight Diversion at Airports
ACRP Synthesis 11-03/Topic S07-03 - Airfield Apron/Ramp Paint Markings
ACRP Synthesis 11-03/Topic S09-09 - Automated Pavement Condition Survey Practices at Airports
ACRP Synthesis 11-03/Topic S10-17 - Agricultural Operations on Airport Grounds
ACRP Synthesis 11-03/Topic S10-18 - Improving Native and Honey Bee Foraging on Airports

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
- Aeronautics 2050
- 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

- 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.)

Geosynthetics Conference*
February 21, 2021
Kansas City, MO

4th International Conference on Transportation Geotechnics*
May 23, 2021
Chicago, Illinois

11th International Conference on the Bearing Capacity of Roads, Railways, and Airfields*
June 22, 2021
Trondheim, Norway

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

Past Webinars

- Aviation

TRB’s Transportation Research Information Services (TRIS)
TRIS includes the TRB Library and the TRIS Databases (listed below) which are available for 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](http://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](http://pubsindex.trb.org)

**Research in Progress (RiP) Database** – Current or recently completed transportation research projects - [rip.trb.org](http://rip.trb.org)

**Research Needs Statements (RNS)** – Research needs as identified by TRB Technical Activities standing committees - [rns.trb.org](http://rns.trb.org)

Contact the Library at TRBLibrary@nas.edu or 1 (202) 334-2989