TRB Snap Search: Operations & Traffic Management

TRB's involvement in research on Operations & Traffic Management from 2022-2023

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 Operations & Traffic Management within the past year.

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 247 - Airfield Pavement Markings: Effective Techniques for Removal and Temporary Applications
  - Report 237 - Primer and Framework for Considering an Airport Noise and Operations Monitoring System
  - Report 231 - Evaluating the Traveler's Perspective to Improve the Airport Customer Experience
  - Report 230 - Enhancing Academic Programs to Prepare Future Airport Industry Professionals
  - Report 229 - Airport Collaborative Decision Making (ACDM) to Manage Adverse Conditions
  - Synthesis 118 - Airport Parking Pricing Strategies
  - Synthesis 117 - Agricultural Operations on Airport Grounds

- Behavioral Traffic Safety Cooperative Research Program (BTSCRP)

- National Cooperative Highway Research Program (NCHRP)
  - IDEA Report 228 - A Retroreflective Road Lane Marking Tape 1,000X Brighter than Existing Technology
  - IDEA Report 217 - A Real-Time Proactive Intersection Safety Monitoring and Visualization System Based on Radar Sensor Data
  - IDEA Report 209 - An Automated System for Pedestrian Facility Data Collection from Aerial Images
  - IDEA Report 190 - Self-de-icing LED Signals for Railroads and Highway Intersection
  - Report 1006 - Guide to Understanding Effects of Raising Speed Limits
  - Report 1005 - Motorcycle Crashes into Traffic Barriers: Factors Related to Serious and Fatal Injuries
  - Report 1003 - Guide to Alternative Technologies for Preventing and Mitigating Vehicle Intrusions into Highway Work Zones
  - Report 981 - Development of Guidelines for Quantifying Benefits of Traffic Incident Management Strategies
  - Report 978 - Initiating the Systems Engineering Process for Rural Connected Vehicle Corridors, Volume 1: Research Overview

Updated 11/16/2022
Report 969 - Traffic Signal Control Strategies for Pedestrians and Bicyclists
Synthesis 587 - Use of Smart Work Zone Technologies for Improving Work Zone Safety
Synthesis 575 - Lighting Practices for Isolated Rural Intersections
Synthesis 561 - Use of Vehicle Probe and Cellular GPS Data by State Departments of Transportation
Web-Only Document 328 - Safety Effects of Raising Speed Limits to 75 mph and Higher
Web-Only Document 327 - Serious and Fatal Motorcycle Crashes into Traffic Barriers: Injury Information
Web-Only Document 322 - Alternative Technologies for Mitigating the Risk of Injuries and Deaths in Work Zones: Conduct of Research
Web-Only Document 318 - Safety Prediction Models for Six-Lane and One-Way Urban and Suburban Arterials
Web-Only Document 316 - Human Factors Guidelines for Road Systems 2021 Update, Volume 1: Updated and New Chapters
Web-Only Document 301 - Guidelines for Quantifying Benefits of Traffic Incident Management Strategies

Transit Cooperative Research Program (TCRP)
IDEA Report 95 - Connected and Automated Parking Feasibility – A Pilot Study
Report 238 - Quantitative Procedures for Designing and Operating Ferry Transit Services
Report 237 - Fare-Free Transit Evaluation Framework
Report 234 - Measuring and Managing Fare Evasion
Synthesis 159 - Assessing Equity and Identifying Impacts Associated with Bus Network Redesigns

Current & Upcoming Projects

Current Projects
ACRP 01-36 - Advancing the Practice of State Aviation System Planning
ACRP 01-41 - Airport Blockchain Implementation Guidebook
ACRP 02-95 - Understanding Airport Air Quality and Public Health Studies Related to Airports: An Update to ACRP Report 135
ACRP 03-49 - Effective Collaboration to Plan and Respond to Communicable Disease Threats
ACRP 03-52 - Guidelines for Adapting and Managing Airport Common Use Programs
ACRP 03-63 - Modernizing Air Cargo Operations and Infrastructure at U.S. Airports
ACRP 03-66 - Guidebook for Digital Twin Programs at Airports
ACRP 04-26 - Uncontrolled Terminal Evacuations: Planning, Response, and Recovery
ACRP 07-17 - Update to ACRP Report 40: Airport Roadway Analysis and Curbside Congestion Management Strategies
ACRP 09-21 - Asset Information Handover Guidelines: From Planning and Construction to O&M
ACRP 10-31 - Guidebook for Virtual Airport Ramp Control Operations Facilities
ACRP 10-32 - U.S. Airport Industry Adoption of Automated Ground Vehicle Systems
ACRP 11-02/Task 37 - Periodic Report on Transformative Technology at Airports
ACRP 11-08[20-01] - ACRP Insight Event--Future of Aviation
ACRP Synthesis 11-03/Topic S01-26 - The Landscape of the FBO Industry in 2022
ACRP Synthesis 11-03/Topic S02-22 - Airport Programs that Reduce Landside Vehicle Carbon Emissions
ACRP Synthesis 11-03/Topic S03-17 - Airport Centric Advanced Air Mobility Market Study
ACRP Synthesis 11-03/Topic S04-26 - Managing a Flight Diversion with an Emergency Response at Small, Non-Hub, or General Aviation Airports
ACRP Synthesis 11-03/Topic S10-19 - Airport Landside Operations Data and Collection Method
ACRP Synthesis 11-03/Topic S10-20 - Resilience Partnerships with the Air National Guard and other Military Organizations
BTSCR BTS-06 - MPO and SHSO Coordination on Behavioral Traffic Safety
NCHRP 02-26 - Implementation of Life-Cycle Planning Analysis in a Transportation Asset Management Framework
NCHRP 03-114(01) - Planning and Evaluating Active Traffic Management Strategies
NCHRP 03-126 - Transportation Operations Manual
NCHRP 03-128 - Business Intelligence Techniques for Transportation Agency Decision Making
• Upcoming Projects
  o ACRP 02-98 - Airport Energy Resiliency Primer and Roadmap
  o ACRP 03-03 - Identifying Congestion and Safety Risks Due to Heterogeneous Airport Curbside Activity and Remedial Solutions
  o ACRP 03-70 - Incorporating Emerging Technologies into Airport In-Terminal Concession Programs
  o ACRP 03-74 - ACRP WebResource to Support Research into Air Traveler Choice Models
  o ACRP 06-08 - Human Factors in Airport Operations
  o ACRP 10-33 - Incorporating Emerging Transportation and Ground Access Technologies at Airports
  o ACRP 10-35 - Automatic Dependent Surveillance-Broadcast (ADS-B) Airport Traffic Count Validation and Recommendations
  o ACRP 11-08(20-02) - ACRP Insight Event--On-Demand Aviation Services for Passengers and Goods
  o NCHRP 03-143 - Warrants for a Pedestrian Traffic Control Signal and for Other Pedestrian Traffic Control Devices
  o NCHRP 03-145 - National Traffic Sensor System Evaluation Program
  o NCHRP 03-147 - LED Applications on Traffic Control Devices
  o NCHRP 03-146 - Guide for Transportation Operations Manual Implementation
  o NCHRP 03-148 - Capabilities, Requirements, Planning, and Preparing to Virtually Operate Traffic Management Systems (TMS)
  o NCHRP 03-149 - Signal Timing Manual: Development of the Third Edition
  o NCHRP 05-27 - Practitioners’ Guide for Lighting at Innovative Intersections/Interchanges, including Roundabouts
  o NCHRP 07-34 - Artificial Intelligence for Transportation Systems Management and Operations Applications
  o NCHRP 08-130 - Best Practices in Coordination of Public Transit and Ride Sharing
  o NCHRP 08-138 - Guide to the Integration of Transportation Systems Management and Operations into Transportation Asset Management
  o NCHRP 08-141 - A Guidebook for Local Truck Parking Regulations
  o NCHRP 08-143 - Guide to the Application of Spatial Segmentation on Travel Time Reliability Measures
  o NCHRP 08-144 - Best Practices in Determining Rural Transit Fleet Size – How to Provide Service for Changing Demographics of Rural Ridership (Right-sizing of Rural Transit Fleets)
  o NCHRP 08-146 - Integrating Resiliency into Transportation System Operations
  o NCHRP 15-79 - Development of Guidance for Non-Standard Roadside Hardware Installations
  o NCHRP 15-82 - Effects of Operating Speed and Posted Speed Limit in Conjunction with Roadway Geometric Design on Safety Performance for High-Speed Rural Highways and Freeways
  o NCHRP 17-109 - Crash Modification Factors for Automated Traffic Signal Performance Measures
  o NCHRP 17-111 - Speed Management Strategies to Improve Pedestrian and Bicyclist Safety on Arterials and Higher-Speed Roadways
  o NCHRP 17-114 - Integrated Strategies for Managing High Travel Speeds
  o NCHRP 17-115 - Guide for Marked Crosswalk Design, Spacing, Placement, and Safety
  o NCHRP 17-118 - Understanding the Impacts of Operational Changes on Safety Performance
  o NCHRP 17-119 - Conflict-Based Crash Prediction Method for Intersections
  o NCHRP 17-122 - Evaluation of Trespassing Detection and Warning Systems in the Vicinity of Highway-Rail Grade Crossings
  o NCHRP 19-23 - Revenue-Related Strategies for New Mobility Options
  o NCHRP 20-123(18) - Development of a New Transportation System Operations Strategic Plan
  o NCHRP 22-42 - Impact Performance Assessment of Barrier Performance at High Speeds
  o NCHRP 23-13(04) - Scoping Supply Chain Challenges and Solutions amid COVID-19
  o NCHRP 23-13(06) - Assessing the Equity and Workforce Mobility Implications of the Expansion of E-Commerce and Direct-to-Consumer Delivery Services
  o NCHRP 23-19 - Practices for Transportation Agency Procurement and Management of Advanced Technologies
  o NCHRP 23-28 - Changes to 4.9 Ghz Spectrum Access and Authorization – What You Need to Know
TCRP B-50 - Accessible Public Bus and Rail Passenger Information for Riders with Vision Disabilities
TCRP J-11/Task 44 - Improving Access to Public Transportation Services and Facilities with Transit-Oriented Complete Streets

Reports from the National Academies Press on Operations & Traffic Management

Transportation and Infrastructure » Operations and Traffic Management
Planning the Future Space Weather Operations and Research Infrastructure
Enhancing Operational Effectiveness of U.S. Naval Forces in Highly Degraded Environments: Autonomy and Artificial Intelligence in Unmanned Aircraft Systems
Enabling DoD’s Test Ranges and Infrastructure to Meet Threats and Operational Needs in the 21st Century
Aviation After a Year of Pandemic

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

TRB Standing Committees – Search by transportation mode and committee topic
ACP00 - Operations
ACP10 – Regional Transportation Systems Management and Operations
ACP15 – Intelligent Transportation Systems
ACP20 – Freeway Operations
ACP25 – Traffic Signal Systems
ACP30 – Vehicle-Highway Automation
ACP35 – Managed Lanes
ACP40 – Highway Capacity and Quality of Service
ACP50 – Traffic Flow Theory and Characteristics
ACP55 – Traffic Control Devices
ACP60 – Access Management
ACP80 – Traffic Simulation
AKD10 – Performance Effects of Geometric Design
AKD80 – Roundabouts and other Intersection Design and Control Strategies
AKR10 – Maintenance and Operations Management
AMR20 – Disaster Response, Emergency Evacuations, and Business Continuity
AR080 – Highway/Rail Grade Crossings
AV095 – New Users of Shared Airspace

Task Forces - Search for task force under committee here

Policy Study
B0024 - Research and Technology Coordinating Committee (FHWA)

CRP Panels
D08119 - Developing Data Standards and Guidance for Transportation Planning and Traffic Operations – Phase I
D08138 - Connecting Transportation Asset Management (TAM) and Transportation System and Management Operations (TSMO)
D08146 - Integrating Resiliency into Transportation System Operations
D17101 - Applying the Safe System Approach to Transportation Planning, Design, and Operations in the United States
D2007424 - Best Practices for the Operations of Movable Bridges from Remote Locations
D2010212 - Business Models to Facilitate Deployment of CV Infrastructure to Support AV Operations
D2012318 - Development of a New Transportation System Operations Strategic Plan
DA0135 - Transportation Network Companies (TNCs): Impacts to Airport Revenues and Operations
DA0289 - Industry Survey - Benefits and Costs for Airport Noise and Operations Monitoring Systems
DA0348 - Advanced Ground Vehicle Technologies (AGVT) for Airside Operations
DA0356 - Airside Planning, Design and Operations: Electronic Resource Delivery
DA0363 - Modernizing Air Cargo Operations and Infrastructure at U.S. Airports
DA0608 - Human Factors in Airport Operations
DA0717 - Update ACTP Report 40: Airport Curbside and Terminal Area Roadway Operations
DA0921 - Guidelines for the Effective Transition of Asset Data from Design/Construction to Operations and Maintenance
DA1031 - Guidebook for Virtual Airport Ramp Control Operations Facilities
DA1032 - Airside Automated Ground Vehicle Technology (AGVT) Demonstration to Support Airport Operations
 Councils

- A001C – Young Members Coordinating Council
- A0030C - City Transportation Issues Coordinating Council
- A0040C - Rural Transportation Issues Coordinating Council

Recent and Upcoming Events

Upcoming TRB Conferences – Use left hand menu to filter events

**International Conference on Road Weather and Winter Maintenance**
*May 9-10, 2023*
*Washington, D.C.*

**National Aviation System Planning Symposium**
*May 15-18, 2023*
*Irving, CA*

**Innovations in Travel Analysis and Planning Conference**
*June 4-6, 2023*
*Indianapolis, IN*

**Marine Transportation System Innovative Science and Technologies Toward Greater Sustainability**
*June 19-22, 2023*
*Washington, D.C.*

**National Conference on Transportation Asset Management**
*July 8-11, 2023*
*Boston, MA*

**TRB International Conference on Low Volume Roads**
*July 23-26, 2023*
*Cedar Rapids, IA*

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