TRB Snap Search: Operations & Traffic Management

TRB’s involvement in research on Operations & Traffic Management from 2020-2021

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](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.

Subject Webpage


Recent Reports & Publications

- [Airport Cooperative Research Program (ACRP)](http://www.trb.org/Research/ACRP/)
  - [Impacts on Practice](http://www.trb.org/Research/ACRP/ImpactsOnPractice.html) - Ensuring Safe Paramotor Operations at Emmett Municipal Airport
  - [Report 230](http://www.trb.org/Research/ACRP/Report230.html) - Enhancing Academic Programs to Prepare Future Airport Industry Professionals
  - [Report 229](http://www.trb.org/Research/ACRP/Report229.html) - Airport Collaborative Decision Making (ACDM) to Manage Adverse Conditions
  - [Report 224](http://www.trb.org/Research/ACRP/Report224.html) - Understanding Impacts to Airports From Temporary Flight Restrictions
  - [Report 223](http://www.trb.org/Research/ACRP/Report223.html) - Performance Measures for State Aviation Agencies
  - [Synthesis 111](http://www.trb.org/Research/ACRP/Synthesis111.html) - Last Mile in General Aviation—Courtesy Vehicles and Other Forms of Ground Transportation

- [Conference Proceedings](http://www.trb.org/Research/Conferences/)

- [National Cooperative Highway Research Program (NCHRP)](http://www.trb.org/Research/NCHRP/)
  - [NCHRP 20-65/Task 77](http://www.trb.org/Research/NCHRP/Task77.html) - Lessons Learned and Impacts to Date of State DOT Implementation of New Federal Transit Asset Management and Public Transportation Agency Safety Requirements
  - [Report 975](http://www.trb.org/Research/NCHRP/Report975.html) - Transportation System Resilience: Research Roadmap and White Papers
  - [Report 952](http://www.trb.org/Research/NCHRP/Report952.html) - Guidebook for Managing Data from Emerging Technologies for Transportation
  - [Report 948](http://www.trb.org/Research/NCHRP/Report948.html) - Guide for Pedestrian and Bicyclist Safety at Alternative and Other Intersections and Interchanges
  - [Report 945](http://www.trb.org/Research/NCHRP/Report945.html) - Strategies for Work Zone Transportation Management Plans

Updated 06/14/2021
Current & Upcoming Projects

- **Report 934** - Traffic Forecasting Accuracy Assessment Research
- **Report 929** - Unsignalized Full Median Openings in Close Proximity to Signalized Intersections
- **Report 899** - Broadening Integrated Corridor Management Stakeholders
- **Synthesis 561** - Use of Vehicle Probe and Cellular GPS Data by State Departments of Transportation
- **Synthesis 559** - Emerging Challenges to Priced Managed Lanes
- **Synthesis 550** - Alternative Intersection Design and Selection
- **Web-Only Document 296** - Principles and Guidance for Presenting Active Traffic Management Information to Drivers
- **Web-Only Document 291** - Development of a Posted Speed Limit Setting Procedure and Too
- **Web-Only Document 282** - Framework for Managing Data from Emerging Transportation Technologies to Support Decision-Making

### Transit Cooperative Research Program (TCRP)

- **IDEA Report 93** - An Open Platform for Transit Agencies to Improve the Quality of Their Real-Time Data
- **IDEA Report 92** - Augmented Reality Dispatcher Interface
- **IDEA Report 89** - Dynamic Vehicle to Infrastructure TCIP Communications Laboratory Proof of Concept
- **IDEA Report 84** - Development of a Mass-Based Automated Passenger Counter
- **Synthesis 155** - Intelligent Transportation Systems in Headway-Based Bus Service
- **Synthesis 149** - Transit Signal Priority: Current State of the Practice

### Transportation Research Circulars

- **E-Circular 261** - Preparing for Automated Vehicles and Shared Mobility: Mini-Workshop on the Economic Implications of Automated Vehicles and Shared Mobility

### Current Projects

- **ACRP 01-36** - Advancing the Practice of State Aviation System Planning
- **ACRP 01-40** - Evaluating the Traveler's Perspective to Improve the Airport Customer Experience
- **ACRP 01-43** - Conducting Consumer Research of Air Passengers
- **ACRP 03-49** - Effective Collaboration to Plan and Respond to Communicable Disease Threats
- **ACRP 03-51** - Electric Aircraft on the Horizon -- An Airport Planning Perspective
- **ACRP 03-52** - Guidelines for Adapting and Managing Airport Common Use Programs
- **ACRP 03-57** - A Guidebook to Prepare Airports for Transformations in Wireless Connectivity
- **ACRP 03-58** - Measuring the Effect of Changes in Air Service Connectivity on Regional Economic Development
- **ACRP 07-17** - Update to ACRP Report 40: Airport Roadway Analysis and Curbside Congestion Management Strategies
- **ACRP 08-03** - Construction Safety and Phasing Plans
- **ACRP 09-18** - Rapid Airfield Concrete Pavement Slab Replacement and Patching
- **ACRP 09-19** - Airfield Pavement Markings - Effective Techniques for Removal and Temporary Applications
- **ACRP 10-31** - Guidebook for Virtual Airport Ramp Control Operations Facilities
- **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 S01-25** - Airport Parking Pricing Strategies
- **BTS/CRP BTS-01** - Guidance for Employer-Based Behavioral Traffic Safety Programs for Drivers in the Workplace
- **BTS/CRP BTS-02** - Variable Message Signs
- **BTS/CRP BTS-06** - MPO and SHSO Coordination on Behavioral Traffic Safety
- **BTS/CRP BTS-07** - Assessing the Impacts of Connected, Automated, and Autonomous Vehicles on the Future of Transportation Safety (jointly funded with NCHRP 17-91)
- **NCHRP 02-26** - Implementation of Life-Cycle Planning Analysis in a Transportation Asset Management Framework
- **NCHRP 02-27** - Making Targets Matter: Managing Performance to Enhance Decision-Making
- **NCHRP 03-126** - Transportation Operations Manual
- **NCHRP 03-129** - Essential Communications
- **NCHRP 03-128** - Business Intelligence Techniques for Transportation Agency Decision Making
- Guide for Roundabouts
- Traffic Signal Design and Operations Strategies for Non-Motorized Users
- Determination of Encroachment Conditions in Work Zones
- Wrong-Way Driving Solutions, Policy, and Guidance
- Evaluating the Performance of Right-Turn-On-Red Operation at Signalized Intersections (with single and dual right-turn lanes)
- Algorithms to Convert Basic Safety Messages into Traffic Measures
- Application of Big Data Approaches for Traffic Incident Management (TIM)
- Next Generation of the USLIMITS2 Speed Limit Setting Expert System
- Guidance on Midblock Pedestrian Signals (MPS)
- Gaps and Emerging Technologies in the Application of Solid-State Roadway Lighting
- Guide for Snow and Ice Control Operations
- Update of Highway Capacity Manual: Merge, Diverge, and Weaving Methodologies
- Methods for Assigning Short-Duration Traffic Volume Counts to Adjustment Factor Groups for Estimating AADT
- Integrating Effective Transportation Performance, Risk, and Asset Management Practices
- Guidebook for Data and Information Systems for Transportation Asset Management
- Risk Assessment Techniques for Transportation Asset Management
- Accessibility Measures in Practice: Guidance for Transportation Agencies
- Quantifying the Impacts of Corridor Management
- Accessing America’s Great Outdoors: Forecasting Recreational Travel Demand
- Reliability and Quality of Service Evaluation Methods for Rural Highways
- Modern Solutions to Safe and Efficient Work Zone Travel
- A Guidebook for Risk-Based Construction Inspection
- Determining the Impact of Connected and Automated Vehicle Technology on State DOT Maintenance Programs
- Operational Performance and Safety Effects of Arterial Weaving Sections
- Design Options to Reduce Turning Motor Vehicle–Bicycle Conflicts at Intersections
- Guidebook for Urban and Suburban Roadway Cross-Sectional Reallocation
- Proposed Guidance for Fixed Objects in the Roadside Design Guide
- Estimating Effectiveness of Safety Treatments in the Absence of Crash Data
- Roadside Encroachment Database Development and Analysis
- Safety Performance of Part-Time Shoulder Use on Freeways
- Assessing the Impacts of Automated Driving Systems (ADS) on the Future of Transportation Safety
- Developing Safety Performance Functions for Rural Two-Lane Highways that Incorporate Speed Measures
- Crash Modification Factors (CMFs) for Intelligent Transportation System (ITS) Applications
- Guide for Intersection Control Evaluation
- State-of-the-Art Review of Cooperative Automated Transportation (CAT) Systems
- Implementation of the AASHTO Guide for Enterprise Risk Management
- Quantitative and Qualitative Methods for Capturing the Impacts and Value of NCHRP Research
- Enhancements of Climatic Inputs and Related Models for Pavement ME Using LTPP Climate Tool (MERRA-2)
- Best Practices in Rural Service Assessment
- Cybersecurity Implications of CV/AV Technologies on State and Local Transportation Agencies
- Dynamic Curbside Management: Keeping Pace with New and Emerging Mobility and Technology in the Public Right of Way
- Preparing Transportation Agencies for Connected and Automated Vehicles in Work Zones
- Proposed AASHTO Guidelines for Implementation of MASH for Sign Supports, Breakaway Poles, and Work Zone Traffic Control Devices
- How to Measure and Communicate the Value of Access Management
- Pollinator Habitat Conservation Along Roadways
- From Location Tracking to Continuous Interpretation: Rule-Based Automated Safety Work Zone Safety
- The Portable Single Lane Traffic Counting Device
- A Real-Time Proactive Intersection Safety Monitoring and Visualization System Based on Radar Sensor Data
- Upcoming Projects
  - ACRP 01-41 - Airport Blockchain Implementation Guidebook
  - ACRP 04-26 - Uncontrolled Terminal Evacuations: Planning, Response, and Recovery
  - ACRP 06-08 - Human Factors in Airport Operations
  - ACRP 10-32 - U.S. Airport Industry Adoption of Automated Ground Vehicle Systems
  - ACRP 11-08(20-02) - ACRP Insight Event–On-Demand Aviation Services for Passengers and Goods
  - ACRP 06-11(01) - Managing an Emergency or Incident Associated with Flight Diversion at Airports
  - NCHRP 03-96A - Analysis of Oversaturated Traffic Flow Conditions on Freeway Facilities
  - NCHRP 03-141 - Midblock Pedestrian Signal (MPS) Warrants and Operation
  - NCHRP 03-143 - Warrants for a Pedestrian Traffic Control Signal and for Other Pedestrian Traffic Control Devices
  - NCHRP 03-144 - Leveraging Existing Traffic Signal Assets to Obtain Quality Traffic Counts
  - NCHRP 07-32 - Future-Proofing Automatic Traffic Signal Performance Measurement Systems for Scalability, Transferability, and CAV Integration
  - NCHRP 08-130 - Best Practices in Coordination of Public Transit and Ride Sharing
  - NCHRP 08-138 - Connecting Transportation Asset Management (TAM) and Transportation System and Management Operations (TSMO)
  - NCHRP 08-140 - National Design and Interoperability Standards for Truck Parking Information Management Systems
  - NCHRP 08-141 - Guidance for Local Truck Parking Regulations
  - NCHRP 08-143 - Impact of Spatial Segmentation on Travel Time Reliability Performance Measures
  - 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)
  - NCHRP 08-145 - Utilizing Cooperative Automated Transportation (CAT) Data to Enhance the Use of Freeway Operational Strategies
  - NCHRP 08-146 - Integrating Resiliency into Transportation System Operations
  - NCHRP 08-147 - Design Guide for Rural Deviated Fixed Route Transit Systems
  - NCHRP 08-149 - Impacts of Active Transportation Network Gaps
  - NCHRP 08-157 - Best Practices for Data Fusion of Probe and Point Detector Data
  - NCHRP 15-79 - Development of Guidance for Non-Standard Roadside Hardware Installations
  - NCHRP 17-99 - Safety Effectiveness Assessment of Advanced Highway-Rail Grade Crossing Improvements
  - NCHRP 17-101 - Safe Systems in the U.S. – Developing a Roadmap for Transportation Road Designers, Planners, and Engineers
  - NCHRP 17-108 - Developing Crash Modification Factors for Alternative Intersections
  - NCHRP 17-109 - Crash Modification Factors (CMFs) for Automated Traffic Signal Performance Measures (ATSPMs)
  - NCHRP 20-24(126) - National Automation Readiness Framework: Coast-to-Coast Automated Mobility
  - NCHRP 20-123(12) - System Mobility and Emerging Technologies (SMET): Strategic Planning Session and Research Roadmap Development
  - NCHRP 22-42 - Impact Performance Assessment of Barrier Performance at High Speeds
  - NCHRP 23-13(01) - Effective Tools and Practices for Measuring Telecommuting Employee Performance
  - NCHRP 23-13(04) - Scoping Supply Chain Challenges and Solutions amid COVID-19
  - NCHRP 23-13(05) - Relaxation of Truck Weight Restrictions for Emergency Deliveries
  - NCHRP 23-19 - Practices for Transportation Agency Procurement and Management of Advanced Technologies
  - NCHRP 23-20 - Operational Oversight of Drones - UAS Development and Deployment: Jurisdictional Issues and Options
Reports from the National Academies Press on Operations & Traffic Management

- Evidence-Based Practice for Public Health Emergency Preparedness and Response
- Leveraging Commercial and Other Innovation for Future U.S. Navy Data Warfare Needs
- Strengthening Post-Hurricane Supply Chain Resilience

Committees & Panels

Sign-up to be a committee "Friend"

TRB Standing Committees – Search by transportation mode and committee topic

- 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
- 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

Task Forces - Search for task force under committee here

Policy Study

- B0024 - Research and Technology Coordinating Committee (FHWA)
- B0165 - Role of Public Transportation and Mobility Management in an Era of New and Expanding Shared Mobility Options

CRP Panels

- Project Panels Related to Operations & Traffic Management

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.)

6th International Symposium on Highway Geometric Design*
June 23, 2021
online

How We Move Matters: Exploring the Connections between New Transportation and Mobility Options and Environmental Health
July 1, 2021
online

Automated Road Transportation Symposium 2021
July 12, 2021
online
**Geospatial Data Acquisition Technologies in Design and Construction Summer Committee Meeting**  
*July 27, 2021*

**Bridging Transportation Researchers Online Conference***  
*August 5, 2021*

**National Conference on Transportation Asset Management**  
*August 10, 2021*

- **online**

**XXI Pan-American Conference of Transport and Logistics 2021***  
*August 11, 2021*

- **online**

**Highway Capacity and Quality of Service**  
*August 24, 2021*

**Innovations in Freight Data Workshop**  
*September 21, 2021*

- **online**

**National Conference on Rural Public and Intercity Bus Transportation**  
*October 25, 2021*

- **online**

**Accelerated Bridge Construction Conference***  
*December 8, 2021*

- **online**

**Symposium on Managed Lanes**  
*May 1, 2022*

- **Atlanta, GA**

**18th Biennial National Harbor Safety Committee Conference**  
*June 13, 2022*

- **Boston, MA**

**13th Access Management Conference**  
*July 1, 2022*

- **online**

**International Symposium on Transportation and Traffic Theory***  
*July 24, 2022*

- **Beijing, China**

**International Conference on Mobility and Transport for Older Adults and People with Disabilities (TRANSED)**  
*September 1, 2022*

- **Seattle, WA**

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

**Past Webinars**
- **Operations and Traffic Management**

**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](http://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](http://trt.trb.org) – A tool to improve the indexing and retrieval of transportation information.
- **Research in Progress (RiP) Database** – [rip.trb.org](http://rip.trb.org) - Current or recently completed transportation research projects
- **Research Needs Statements (RNS)** – [rns.trb.org](http://rns.trb.org) - Research needs as identified by TRB Technical Activities standing committees
- **Publications Index (PubsIndex) Database** – [pubsindex.trb.org](http://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](mailto:TRBLibrary@nas.edu)