The National Academies of Sciences • Engineering • Medicine

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

- Operations & Traffic Management Research at TRB

Recent Reports & Publications

- Airport Cooperative Research Program (ACRP)
  - Impacts on Practice - Ensuring Safe Paramotor Operations at Emmett Municipal Airport
  - Report 224 - Understanding Impacts to Airports From Temporary Flight Restrictions
  - Report 223 - Performance Measures for State Aviation Agencies
  - Report 220 - Guidebook for Developing a Zero- or Low-Emissions Roadmap at Airports
  - Report 219 - Advanced Ground Vehicle Technologies for Airside Operations
  - Synthesis 111 - Last Mile in General Aviation—Courtesy Vehicles and Other Forms of Ground Transportation
  - Web-Only Document 45 - Airport Environmental Research Roadmap Narrative Report

- Conference Proceedings

- National Cooperative Highway Research Program (NCHRP)
  - NCHRP 20-65/Task 77 - Lessons Learned and Impacts to Date of State DOT Implementation of New Federal Transit Asset Management and Public Transportation Agency Safety Requirements
  - Report 952 - Guidebook for Managing Data from Emerging Technologies for Transportation
  - Report 945 - Strategies for Work Zone Transportation Management Plans
  - 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 559 - Emerging Challenges to Priced Managed Lanes
  - Synthesis 550 - Alternative Intersection Design and Selection

Updated 12/08/2020
- 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 89 - Dynamic Vehicle to Infrastructure TCIP Communications Laboratory Proof of Concept
  - IDEA Report 84 - Development of a Mass-Based Automated Passenger Counter
  - 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 & Upcoming Projects**

- **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 02-85 - Commercial Space Vehicle Emissions Modeling
  - 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 06-07 - Enhancing Academic Programs to Prepare Future Airport Industry Professionals
  - 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 10-27 - Using Collaborative Decision Making to Enhance the Management of Adverse Conditions
  - ACRP 11-08(19-01) - A Forum on Blockchain Technology and Airports
  - ACRP 11-08(20-01) - ACRP Insight Event--Future of Aviation
  - ACRP Synthesis 11-03/Topic S01-25 - Airport Parking Pricing Strategies
  - BTSCRPT BTS-01 - Guidance for Employer-Based Behavioral Traffic Safety Programs for Drivers in the Workplace
  - BTSCRPT BTS-02 - Variable Message Signs
  - BTSCRPT BTS-06 - MPO and SHSO Coordination on Behavioral Traffic Safety
  - BTSCRPT 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
  - NCHRP 03-130 - Guide for Roundabouts
  - NCHRP 03-133 - Traffic Signal Design and Operations Strategies for Non-Motorized Users
  - NCHRP 03-134 - Determination of Encroachment Conditions in Work Zones
  - NCHRP 03-135 - Wrong-Way Driving Solutions, Policy, and Guidance
  - NCHRP 03-136 - Evaluating the Performance of Right-Turn-On-Red Operation at Signalized Intersections (with single and dual right-turn lanes)
  - NCHRP 03-137 - Algorithms to Convert Basic Safety Messages into Traffic Measures
  - NCHRP 03-138 - Application of Big Data Approaches for Traffic Incident Management (TIM)
  - NCHRP 03-139 - Next Generation of the USLIMITS2 Speed Limit Setting Expert System
  - NCHRP 05-22A - Gaps and Emerging Technologies in the Application of Solid-State Roadway Lighting
  - NCHRP 06-18 - Guide for Snow and Ice Control Operations
- **NCHRP 07-26** - Update of Highway Capacity Manual: Merge, Diverge, and Weaving Methodologies
- **NCHRP 08-113** - Integrating Effective Transportation Performance, Risk, and Asset Management Practices
- **NCHRP 08-115** - Guidebook for Data and Information Systems for Transportation Asset Management
- **NCHRP 08-118** - Risk Assessment Techniques for Transportation Asset Management
- **NCHRP 08-121** - Accessibility Measures in Practice: Guidance for Transportation Agencies
- **NCHRP 08-124** - Quantifying the Impacts of Corridor Management
- **NCHRP 08-132** - Accessing America’s Great Outdoors: Forecasting Recreational Travel Demand
- **NCHRP 10-102** - A Guidebook for Risk-Based Construction Inspection
- **NCHRP 14-42** - Determining the Impact of Connected and Automated Vehicle Technology on State DOT Maintenance Programs
- **NCHRP 15-68** - Effective Low-Noise Rumble Strips
- **NCHRP 15-73** - Design Options to Reduce Turning Motor Vehicle–Bicycle Conflicts at Intersections
- **NCHRP 15-76** - Designing for Target Speed
- **NCHRP 15-78** - Guidebook for Urban and Suburban Roadway Cross-Sectional Reallocation
- **NCHRP 17-82** - Proposed Guidance for Fixed Objects in the Roadside Design Guide
- **NCHRP 17-86** - Estimating Effectiveness of Safety Treatments in the Absence of Crash Data
- **NCHRP 17-88** - Roadside Encroachment Database Development and Analysis
- **NCHRP 17-89** - Safety Performance of Part-Time Shoulder Use on Freeways
- **NCHRP 17-91** - Assessing the Impacts of Automated Driving Systems (ADS) on the Future of Transportation Safety
- **NCHRP 17-92** - Developing Safety Performance Functions for Rural Two-Lane Highways that Incorporate Speed Measures
- **NCHRP 17-95** - Crash Modification Factors (CMFs) for Intelligent Transportation System (ITS) Applications
- **NCHRP 20-24(128)** - State-of-the-Art Review of Cooperative Automated Transportation (CAT) Systems
- **NCHRP 20-44(02)** - Implementation of the AASHTO Guide for Enterprise Risk Management
- **NCHRP 20-44(09)** - Quantitative and Qualitative Methods for Capturing the Impacts and Value of NCHRP Research
- **NCHRP 20-50(21)** - Enhancements of Climatic Inputs and Related Models for Pavement ME Using LTPP Climate Tool (MERRA-2)
- **NCHRP 20-65/Task 81** - Best Practices in Rural Service Assessment
- **NCHRP 20-102(10)** - Cybersecurity Implications of CV/AV Technologies on State and Local Transportation Agencies
- **NCHRP 22-43** - Proposed AASHTO Guidelines for Implementation of MASH for Sign Supports, Breakaway Poles, and Work Zone Traffic Control Devices
- **NCHRP 25-47** - How to Measure and Communicate the Value of Access Management
- **NCHRP 25-59** - Pollinator Habitat Conservation Along Roadways
- **NCHRP IDEA 20-30/IDEA 206** - From Location Tracking to Continuous Interpretation: Rule-Based Automated Safety Work Zone Safety
- **NCHRP IDEA 20-30/IDEA 216** - The Portable Single Lane Traffic Counting Device
- **NCHRP IDEA 20-30/IDEA 217** - A Real-Time Proactive Intersection Safety Monitoring and Visualization System Based on Radar Sensor Data
- **NCHRP IDEA 20-30/IDEA 225** - An Automated System for Large-Scale Intersection Marking Data Collection and Condition Assessment
- **NCHRP Synthesis 20-05/Topic 51-11** - Lighting Practices for Isolated Rural Intersections
- **NCHRP Synthesis 20-05/Topic 52-11** - Use of Smart Work Zone Technologies for Improving Work Zone Safety
- **TCRAP A-45** - Measuring and Managing Fare Evasion
- **TCRP J-05/Topic 18-05** - Fix It, Sign It, or Close It: State of Good Repair in an Era of Budget Constraints
- **TCRP J-11/Task 37** - Transit and Micro-Mobility (Bikeshare, Scooter-share, etc.)
- **TCRP Synthesis J-07/Topic SA-52** - Assessing Equity and Identifying Impacts Associated with Bus Network Redesigns
- **TCRP Synthesis J-07/Topic SG-17** - The Use of Intelligent Transportation Systems in Real-Time Bus Operations
- **Transit IDEA J-04/IDEA 92** - Augmented Reality Transit Dispatcher Interface

**Upcoming Projects**
- **ACRP 01-41** - Blockchain Technology and Airports - A Primer
- **ACRP 06-08** - Human Factors in Airport Operations
- **ACRP 10-31** - Guidebook for Virtual Airport Ramp Control Operations Facilities
- **ACRP 10-32** - Airside Automated Ground Vehicle Technology (AGVT) Demonstration to Support Airport Operations
- **ACRP 11-02/Task 37** - Periodic Report on Transformative Technology at Airports
- **ACRP 11-08(20-02)** - ACRP Insight Event--On-Demand Aviation Services for Passengers and Goods
- **ACRP Synthesis 11-03/Topic S04-26** - 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 07-30** - Assignment of Short-Duration Traffic Volume Counts to Adjustment Factor Groups
- **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 08-147** - Design Guide for Rural Deviated Fixed Route Transit Systems
- **NCHRP 10-109** - Modern Solutions to Safe and Efficient Work Zone Travel
- **NCHRP 15-66** - Operational Performance and Safety Effects of Arterial Weaving Sections
- **NCHRP 15-79** - Development of Guidance for Non-Standard Roadside Hardware Installations
- **NCHRP 17-98** - Guide for Intersection Control Evaluation
- **NCHRP 17-99** - Safety Effectiveness Assessment of Advanced Highway-Rail Grade Crossing Improvements
- **NCHRP 20-24(126)** - National Automation Readiness Framework: Coast-to-Coast Automated Mobility
- **NCHRP 20-102[26]** - Dynamic Curbside Management: Keeping Pace with New and Emerging Mobility and Technology in the Public Right of Way
- **NCHRP 20-102[28]** - Preparing Transportation Agencies for Connected and Automated Vehicles in Work Zones
- **NCHRP 22-42** - Impact Performance Assessment of Barrier Performance at High Speeds
- **TCRP A-46** - Quantitative Procedures for Designing and Operating Ferry Transit Services

**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**
Recent and Upcoming Events

Upcoming Conferences - Left hand menu “upcoming conferences by topic”
(Conferences cosponsored by TRB are denoted with an asterisk.)

Research Day at ITF Annual Summit - Transport Innovation for Sustainable Development
May 25, 2021
Leipzig, Germany

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

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) – rns.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