



TRANSPORTATION RESEARCH BOARD

Connected & Automated Vehicles Overview

TRB at a Glance

The mission of the Transportation Research Board (TRB) is to provide leadership in transportation innovation and progress through research and information exchange, conducted within a setting that is objective, interdisciplinary, and multimodal.

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.

More info at www.trb.org

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

Practice Ready Papers (PRP) Database - Papers with information that is ready for immediate implementation or requires minimal additional research or implementation effort.
prp.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

Research in Progress (RiP) Database – Current or recently completed transportation research projects
rip.trb.org

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

More information about TRIS is available online at: <http://www.trb.org/InformationServices/InformationServices.aspx>
Contact the Library at TRBLibrary@nas.edu or 1 (202) 334-2989

Recent and Upcoming Events

- Conferences (co-sponsored by TRB):
 - October 31, 2016 Detroit, Michigan **TRB Partners in Research Symposium: Transformational Technologies in Transportation**
 - July 11, 2017 California **Automated Vehicles Symposium 2017**

Information continues behind



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- Webinars:

View TRB webinars here: <http://www.trb.org/ElectronicSessions/ConferenceRecordings.aspx>

Technical Committees

- Standing Committees:

- Intelligent Transportation Systems (AHB15)
- Vehicle-Highway Automation (AHB30)
- Emerging Technology Law (AL040)
- User Information Systems (AND20)
- Automated Transit Systems (AP040)

- Other Committees:

- ACRP Project Panel on Impact of Commercial Unmanned Aerial Vehicles on Airports (DA0330)
- Committee on the European-U.S. Transportation Research Symposium on Road and Vehicle Connectivity and Automation (A0099A)
- Committee on the Role of Automated and Connected Vehicles: The 9th University Transportation Center Spotlight Conference (AHB99A)
- NCHRP Project Panel on Impacts of Connected and Automated Vehicles on State and Local Transportation Agencies (D20102)

- Council:

- Young Member Council (A0040T)

To become Friend of any committee visit MyTRB.org

TRB Research

- Transportation Research Record

- Transportation Research Record: Journal of the Transportation Research Board, Issue 2559 (2016) Intelligent Transportation Systems and Connected and Automated Vehicles.
- Transportation Research Record: Journal of the Transportation Research Board, Issue: 2424 - Intelligent Transportation Systems 2014, Volume 2: Connected Vehicles and Cooperative Systems.
- Transportation Research Record: Journal of the Transportation Research Board, Issue: 2416 - Transit 2014, Volume 2: Carsharing, Taxis, and Automated Transport.
- Transportation Research Record: Journal of the Transportation Research Board, Issue: 2381 - Intelligent Transportation Systems 2013: Connected Vehicles and Cooperative Systems, Volume 2.
- Transportation Research Record: Journal of the Transportation Research Board, Issue: 2324 - Intelligent Transportation Systems and Vehicle-Highway Automation 2012.

- Other Reports

- Transportation Research E-Circular, Issue E-C210 (2016) Multimobility and Sharing Economy: Shaping the Future Market Through Policy and Research.
- Transportation Research E-Circular, Issue E-C208 (2016) Transformational Technologies in Transportation: State of the Activities.
- NCHRP Legal Research Digest, Issue 69 (2016) A Look at the Legal Environment for Driverless Vehicles.
- Transportation Research Board Conference Proceedings on the Web, Issue 19 (2016) Automated and Connected Vehicles: Summary of the 9th University Transportation Centers Spotlight Conference.
- NCHRP Synthesis of Highway Practice, Issue 491 (2016) Uses of Mobile Information Technology Devices in the Field for Design, Construction, and Asset Management.



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- Transportation Research Board Special Report, Issue: 308 - The Safety Promise and Challenge of Automotive Electronics: Insights from Unintended Acceleration.
- Letter Report: Review of the Status of the Dedicated Short-Range Communications Technology and Applications [Draft] Report to Congress.
- Current research
 - Project: 20-24(98) - Research Program Design---Administration of Highway and Transportation Agencies. Connected/Automated Vehicle Research Roadmap for AASHTO.
 - Project: 20-07. Task: 376 AASHTO Standing Committee on Highways. Framework to Support ITS Infrastructure Decisions Considering the Deployment of Connected Vehicles.
 - Project: 20-07. Task: 359 AASHTO Standing Committee on Highways. Next Generation National Transportation System Management & Operations (TSM&O) Research Framework.
 - Project: 20-07. Task: 322 AASHTO Standing Committee on Highways. State of Readiness of the Dedicated Short Range Communications (DSRC) Spectrum for Early Deployment of Connected Vehicle Transportation Systems.
 - NCHRP 10-77 - Use of Automated Machine Guidance (AMG) within the Transportation Industry
 - Project: 03-30 - Unmanned Aircraft Systems (UAS) at Airports: A Primer.
- Upcoming projects
 - NCHRP 20-07/Task 376 - Transportation Agency ITS Infrastructure Decisions Considering V2I Deployment
 - Project: 20-102(09) - Providing Support to the Introduction of CV/AV Impacts into Regional Transportation Planning and Modeling Tools.
 - Project: 20-102(08) - Dedicating Lanes for Priority or Exclusive Use by CVs and AVs.
 - Project: 20-102(07) - Implications of Automation for Motor Vehicle Codes.
 - Project: 20-102(04) - Evaluation Guidance for Automated Vehicle Pilot and Demonstration Projects.
 - Project: 20-102(03) - Critical Next Steps for AV/CV Applications in Freight Operations.
 - Project: 20-102(02) - Impacts of Transit System Regulations and Policies on CV/AV Technology Introduction.
 - Project: 20-102(01) - Identification of State and Local Policy and Planning Actions that Could Facilitate Implementation of CV and AV Systems.
 - Project: 20-102 - Impacts of Connected and Automated Vehicles on State and Local Transportation Agencies.
 - Project: 20-24(106) - Research Program Design---Administration of Highway and Transportation Agencies. Evaluation Guidance for Automated Vehicle Pilot and Demonstration Projects.
 - Project: 20-06. Topic: 21-01 - Legal Problems Arising out of Highway Programs. A Look at the Legal Environment for Driverless Vehicles.
 - Project: 17-64 - Guidance for the Implementation of the Toward Zero Deaths National Highway Safety Strategy.
 - ACRP 01-33 - Preparing for the Connected Airport and the Internet of Things

Panel Member nominations accepted (<http://www.trb.org/TCRP/CRPInfoPanelMembers.aspx>)

Second Strategic Highway Research Program (SHRP 2)

- Safety Research

The SHRP 2 Safety study collected an unprecedented amount of objective data on driver behavior. Its analysis will provide a clearer understanding of the causes of crashes and what can be done to avoid them. Analysis of the SHRP 2 Safety data will prevent injuries and save thousands of lives. More information about the data and about data access is available through the [InSight website](https://insight.shrp2nds.us/) (<https://insight.shrp2nds.us/>).

- Renewal Research

SHRP 2 Renewal research filled gaps in research and development to produce user-friendly tools so that innovative



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design and construction methods can be applied more broadly. It tested and objectively evaluated alternative methods to provide transportation agencies with information they need to deliver projects faster. Renewal research products simplified access to information on successful practices in performance specs, utilities, and interaction with railroads, which can speed project delivery and address causes of delay.

- **Reliability Research**

SHRP 2 Reliability research advanced the state of the practice of transportation system management and operations (TSM&O) and helped build a TSM&O profession. It provided the foundational tools for transportation agencies to address system reliability, both organizationally and analytically.

- **Capacity Research**

SHRP 2 Capacity research identified keys to success in planning and obtaining approvals for complex transportation projects. It demonstrated how to systematically apply that knowledge to increase the probability of success and the timely delivery of projects through the planning, NEPA, and permitting processes. Most products of the research are available in [PlanWorks](#)

(http://www.fhwa.dot.gov/goshrp2/Solutions/Capacity/C01/PlanWorks_Better_planning_Better_projects).

Other Relevant Material

- Transformational Technology Webpage (<http://www.trb.org/main/SPOTT.aspx>)