TRB Snap Search: Rail

TRB’s involvement in research on Rail from 2019-2020

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 Rail within the past year.

Subject Webpage

- Rail Research at TRB

Recent Reports & Publications

- National Cooperative Freight Research Program (NCFRP)
  - Report 40 - Impacts of Policy-Induced Freight Modal Shifts

- National Cooperative Highway Research Program (NCHRP)
  - Report 901 - Prioritization Procedure for Proposed Road–Rail Grade Separation Projects Along Specific Rail Corridors

- Safety IDEA Program
  - Report 35 - Non-contact Deflection Monitoring System for Timber Railroad Bridges
  - Report 34 - Prototype System for Managing and Analyzing Enterprise Rail Transport Risks of Hazardous Materials
  - Report 29 - Self-Deicing LED Signal for Railroads and Highway Intersections

- Transit Cooperative Research Program (TCRP)
  - IDEA Report 90 - sUAS-based GeoINTEL1 for Commuter Rail Parking in Rural and Suburban Areas
  - IDEA Report 86 - Advanced Neutral Temperature Estimation using Solitary Waves (ANTEUSW)

- Transportation Research Circulars
  - E-Circular 242 - A Literature Review of Rail Trespassing and Suicide Prevention Research

Current & Upcoming Projects

- Current Projects
  - NCHRP 03-131 - Benefits and Best Practices in Implementing Decision Support Systems for Real-time Transportation Management
  - NCHRP 03-128 - Business Intelligence for Transportation System Management and Operations and Agency Decision Making
  - NCHRP 03-126 - Operational Standards for Highway Infrastructure
  - NCHRP 20-116 - Emergency Management in State Transportation Agencies
  - NCHRP IDEA 20-30/IDEA 190 - Self-Deicing LED Signal for Railroad and Highway Intersections
  - Safety IDEA Project 41 - Vibration-based Longitudinal Rail Stress Estimation Exploiting Contactless Measurement and Machine Learning
  - Safety IDEA Project 40 - Using Light to Reduce Fatigue and Improve Alertness in Railway Operations
  - Safety IDEA Project 38 - Fatigue Life Extension of Thermite Welds by Porosity Minimization
• Safety IDEA Project 36 - Onboard High-Bandwidth Fiber Optic Sensing System for Broken Rail Detection
• TCRP A-44 - Strategies for Deterring Trespassing on Rail Transit and Commuter Rail Rights-of-Way
• TCRP D-07 - Joint Rail Transit Research with the Association of American Railroads/Transportation Technology Center, Inc.
• TCRP F-27 - Characteristics and Elements of Non-Punitive Employee Safety Reporting Systems for Public Transportation
• TCRP J-11/Task 37 - Transit and Micro-Mobility (Bikeshare, Scooter-share, etc.)
• TCRP Synthesis J-07/Topic SD-05 - Third Rail Insulator Failures- Current State of the Practice
• Transit IDEA J-04/IDEA 92 - Augmented Reality Transit Dispatcher Interface

• Upcoming Projects
  o NCHRP 17-99 - Safety Effectiveness Assessment of Advanced Highway–Rail Grade Crossing Improvements
  o NCHRP 20-102(14) - Data Management Strategies for CV/AV Applications for Operations

Reports from the National Academies Press on Rail
  o Strengthening Post-Hurricane Supply Chain Resilience - Observations from Hurricanes Harvey, Irma, and Maria
  o Negative Emissions Technologies and Reliable Sequestration
  o Enhancing Urban Sustainability with Data, Modeling, and Simulation
  o Environmental Engineering for the 21st Century

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

Technical Activities Division Standing Committees – Search by transportation mode and committee topic
  o AMR30 - Transportation for National Defense
  o AP065 - Rail Transit Systems
  o AR000 - Rail Group
  o AR010 - Intercity Passenger Rail
  o AR020 - Passenger Rail Transportation
  o AR030 - Railroad Operating Technologies
  o AR040 - Freight Rail Transportation
  o AR050 - Railroad Infrastructure Design and Maintenance
  o AR060 - Rail Transit Infrastructure Design and Maintenance
  o AR070 - Rail Safety
  o AR080 - Highway/Rail Grade Crossings
  o AT010 - Freight Transportation Economics and Regulation
  o AT020 - International Trade and Transportation
  o AT030 - Agricultural and Food Transportation
  o AT040 - Transportation of Hazardous Materials
  o AT045 - Intermodal Freight Transport

Task Forces - Search for task force under committee here

CRP Panels
  o Project Panels Related to Rail

Policy Study
  o B0137 - Evaluation of the Federal Railroad Administration Research and Development Program
  o B0166 - Federal Railroad Administration R&D Program

Councils
  o 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.)

Commodity Flow Survey Workshop
September 24, 2020
Washington, DC
Webinars – View upcoming webinars, suggest a webinar or add registration information

Past Webinars
  o Railroads

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:

TRID – The world's largest and most comprehensive bibliographic source on all modes and disciplines of transportation - 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

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

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