TRB Snap Search: Air Quality & Climate Change

TRB’s involvement in research on Air Quality & Climate Change from 2019-2021

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

**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 Air Quality & Climate Change within the two past years.

**Specialty Webpage**

- Climate Change

**Recent Reports & Publications**

- **Airport Cooperative Research Program (ACRP)**
  - Report 220 - Guidebook for Developing a Zero- or Low-Emissions Roadmap at Airports
  - Report 207 - Optimizing the Use of Electric Preconditioned Air (PCA) and Ground Power Systems for Airports
  - Synthesis 100 - Airport Greenhouse Gas Reduction Efforts

- **National Cooperative Highway Research Program (NCHRP)**
  - NCHRP 25-25/Task 108 - Creating Lookup Tables to Streamline the Determination of Emission Reductions for CMAQ Projects
  - NCHRP 25-25/Task 104 - Streamlining Carbon Monoxide Project-Level Air Quality Analyses with Programmatic Agreements
  - Report 938 - Incorporating the Costs and Benefits of Adaptation Measures in Preparation for Extreme Weather Events and Climate Change—Guidebook
  - Report 924 - Foreseeing the Impact of Transformational Technologies on Land Use and Transportation
  - Report 909 - Guide to Truck Activity Data for Emissions Modeling
  - Web-Only Document 271 - Guidelines to Incorporate the Costs and Benefits of Adaptation Measures in Preparation for Extreme Weather Events and Climate Change

- **Special Reports**
  - Report 336 - Options for Reducing Lead Emissions from Piston-Engine Aircraft

- **Transit Cooperative Research Program (TCRP)**
  - Report 226 - An Update on Public Transportation’s Impacts on Greenhouse Gas Emissions
  - Report 219 - Guidebook for Deploying Zero-Emission Transit Buses

- **Transportation Research Circulars**
  - E-Circular 265 - Transportation Resilience 2019: 2nd International Conference on Resilience to Natural Hazards and Extreme Weather
  - E-Circular 249 - 12th International Conference on Low-Volume Roads
Current & Upcoming Projects

- **Current Projects**
  - ACRP 02-90 - Development of Airport Construction Emission Inventory Tool (ACEIT) Version 2.0
  - NCHRP 15-80 - Design Guide and Standards for Infrastructure Resilience
  - NCHRP 20-44(23) - Pilot Test of Climate Change Design Practices Guide for Hydrology and Hydraulics
  - NCHRP 20-59(55) - Transportation System Resilience: CEO Primer & Engagement
  - NCHRP 25-55 - Assessment of Regulatory Air Pollution Dispersion Models to Quantify the Impacts of Transportation Sector Emissions
  - NCHRP 25-56 - Methods for State DOTs to Reduce Greenhouse Gas Emissions from the Transportation Sector
  - NCHRP 25-64 - Considering Greenhouse Gas Emissions and Climate Change in Environmental Reviews: Resources for State DOTs
  - NCHRP Synthesis 20-05/Topic 51-18 - Practices for Project-Level Analyses for Air Quality

- **Upcoming Projects**
  - ACRP 02-95 - Update ACRP Report 135: Understanding Airport Air Quality and Public Health Studies Related to Airports
  - ACRP 02-94 - Update ACRP WebResource 4: Airport Air Quality Resource Library
  - NCHRP 08-148 - Utility Abandonment, Out of Service Plant, and Decommissioning without Removal on Public Right of Way
  - NCHRP 15-61A - Updates to the Design Practices Guide for Applying Climate Change Information to Hydrologic and Coastal Design of Transportation Infrastructure
  - NCHRP Synthesis 20-05/Topic 53-11 - Resilient Design with Distributed Rainfall Modeling
  - TCRP E-13 - COVID-19 and Transit Air Quality Protections (Insight Event)

Reports from the National Academies Press on Air Quality & Climate Change

- Global Change Research Needs and Opportunities for 2022-2031
- Accelerating Decarbonization of the U.S. Energy System
- Climate Change: Evidence and Causes: Update 2020
- Evolving the Geodetic Infrastructure to Meet New Scientific Needs
- Advancing Urban Sustainability in China and the United States
- Understanding and Responding to Global Health Security Risks from Microbial Threats in the Arctic
- Implications of the California Wildfires for Health, Communities, and Preparedness
- Reducing Fuel Consumption and Greenhouse Gas Emissions of Medium- and Heavy-Duty Vehicles, Phase Two
- Advanced Technologies for Gas Turbines
- Review of the Bureau of Ocean Energy Management "Air Quality Modeling in the Gulf of Mexico Region" Study
- Climate Change and Ecosystems
- Enhancing Urban Sustainability with Data, Modeling, and Simulation
- Gaseous Carbon Waste Streams Utilization
- Negative Emissions Technologies and Reliable Sequestration
- Making Climate Assessments Work - Learning from California and Other Subnational Climate Assessments

Committees & Panels

Sign-up to be a committee "Friend"

**TRB Standing Committees** - Search by transportation mode and committee topic
- ACP20 - Freeway Operations
- AD000 - Planning and Environment Group
- ADC20 - Transportation and Air Quality
- ADD40 - Transportation and Sustainability
- AHB35 - Managed Lanes
- AMS40 - Alternative Fuels and Technologies
- AV030 - Environmental Impacts of Aviation

Project Panels
- D1561 - Applying Climate Change Information to Hydrologic and Hydraulic Design of Transportation Infrastructure
- D2555 - Quantifying the Contribution of Vehicle Emissions to Local Air Quality
- D2564 - Resources for State DOTs to Consider Greenhouse Gas Emissions and Climate Change in NEPA Documents
- SN5118 - Practices for Project-Level Analyses for Air Quality

**Task Forces** - Search for task force under committee here
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.)

13th National Conference on Transportation Asset Management
*August 10-12, 2021*
*online*

Conference on Sustainability and Emerging Transportation Technology
*March 15-18, 2022*
*Irvine, CA*

13th Access Management Conference
*Summer 2022*
*online*

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

Past Webinars

- Public Transit as a Climate Solution – July 21, 2021
- Transportation Impacts in Managing Retreat from High-Risk Areas – March 4, 2021
- Options for Reducing Lead Emissions from Piston-Engine Aircraft – February 2, 2021
- Weathering the Storm - Climate Resilience at Airports – October 7, 2020
- What’s Cooler than Cool? Cooler Pavements for Urban Heat Island Mitigation – August 13, 2020
- Forecasting Zero Emission Vehicles Fleet Scenarios & Emissions Implications – June 30, 2020
- You Can Get There From Here - Developing an Emissions Roadmap for Airports – May 21, 2020
- Unclutter Your Processes – Simplifying Climate Risk Management at Airports – October 8, 2019
- The Near-Road Pooled Fund Study – September 30, 2019
- Capture the Data – Quantifying Airport Ground Access Vehicle Activity – September 26, 2019
- Programs to Support the Deployment of the Electric Vehicle Infrastructure – April 3, 2019

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