TRB Snap Search: Air Quality & Climate Change

TRB’s involvement in research on Air Quality & Climate Change from 2021-2023

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

Specialty Reports

- Critical Issues in Transportation 2019
- COVID-19 Addendum to Critical Issues in Transportation
- Racial Equity Addendum to Critical Issues in Transportation

Recent Reports & Publications

- Airport Cooperative Research Program (ACRP)
  - Report 220 - Guidebook for Developing a Zero- or Low-Emissions Roadmap at Airports

- National Cooperative Highway Research Program (NCHRP)
  - Report 976 - Resilience Primer for Transportation Executives
  - Synthesis 576 - Practices for Project-Level Analyses for Air Quality
  - Web-Only Document 308 - Methods for State DOTs to Reduce Greenhouse Gas Emissions from the Transportation Sector

- 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 279 - Advancing Low- and Zero-Emission Marine Vessel Technology Options Workshop
  - E-Circular 277 - 13th National Conference on Transportation Asset Management

Current & Upcoming Projects

- Current Projects
  - ACRP 02-90 - Development of Airport Construction Emission Inventory Tool (ACEIT) Version 2.0
  - ACRP 02-94 - Update ACRP WebResource 4: Airport Air Quality Resource Library
ACRP 02-95 - Update ACRP Report 135: Understanding Airport Air Quality and Public Health Studies Related to Airports
ACRP Synthesis 11-03/Topic S02-22 - Airport Programs that Reduce Landside Vehicle Carbon Emissions
NCHRP 15-80 - Design Guide and Standards for Infrastructure Resilience
NCHRP 25-64 - Considering Greenhouse Gas Emissions and Climate Change in Environmental Reviews: Resources for State DOTs
NCHRP Synthesis 20-05/Topic 53-11 - Resilient Design with Distributed Rainfall Modeling
NCHRP Synthesis 20-05/Topic 54-21 - Practices in the Transportation Planning Process to Address Climate Resilience and GHG Emission Quantification and Reduction
TCRP E-13 - COVID-19 and Transit Air Quality Protections (Insight Event)

Upcoming Projects
ACRP 02-97 - Update to the Guidelines, Tools, and Resources Related to ACRP Reports 11, 147, and 160
ACRP 02-102 - A Balanced Look at Local Airport Activity and Climate Change
NCHRP 20-44(44) - Implementation of the research results of NCHRP Project 15-61: "Applying Climate Change Information to Hydrologic and Hydraulic Design of Transportation Infrastructure"
NCHRP 23-26 - Measuring Impacts and Performance of State DOT Resilience Efforts
NCHRP 23-33 - Guidance in Planning for Managed Retreat as an Extreme Weather and Climate Adaptation Strategy
NCHRP 15-61A - Updates to the Design Practices Guide for Applying Climate Change Information to Hydrologic and Coastal Design of Transportation Infrastructure

Reports from the National Academies Press on Air Quality & Climate Change
Wildland Fires: Toward Improved Understanding and Forecasting of Air Quality Impacts
Advancing the Framework for Assessing Causality of Health and Welfare Effects to Inform National Ambient Air Quality Standard Reviews
Frameworks for Protecting Workers and the Public from Inhalation Hazards
The Chemistry of Fires at the Wildland-Urban Interface
Communities, Climate Change, and Health Equity
Engineering Responses to Climate Change
Biodiversity at Risk: Today’s Choices Matter
A Research Strategy for Ocean-based Carbon Dioxide Removal and Sequestration
Indoor Exposure to Fine Particulate Matter and Practical Mitigation Approaches
Wildland Fires: Toward Improved Understanding and Forecasting of Air Quality Impacts
Frameworks for Protecting Workers and the Public from Inhalation Hazards
Global Change Research Needs and Opportunities for 2022-2031
Accelerating Decarbonization of the U.S. Energy System

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

TRB Standing Committees – Search by transportation mode and committee topic
ABC991 - 12th National Conference on Transportation Asset Management
ACP20 - Freeway Operations
ACP35 - Managed Lanes
AMR50 - Extreme Weather and Climate Change Adaptation
AMS10 - Air Quality and Greenhouse Gas Mitigation
AMS40 - Alternative Fuels and Technologies

Project Panels
D1561 - Applying Climate Change Information to Hydrologic and Hydraulic Design of Transportation Infrastructure
D2333 - Guidance in Planning for Managed Retreat as an Extreme Weather and Climate Adaptation Strategy
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
DA0294 - Update ACRP WebResource 4: Airport Air Quality Resource Library
DA0265 - Update ACRP Report 135: Understanding Airport Air Quality and Public Health Studies Related to Airports
DA02102 - A Balanced Look at Local Airport Activity and Climate Change
SN5118 - Practices for Project-Level Analyses for Air Quality
SN5421 - Practices to Address Climate Change in the Transportation Planning Process
TE13 - COVID-19 and Transit Air Quality Protections (Insight Event)

Task Forces - Search for task force under committee here

Councils
A001C – Young Members Coordinating Council

Recent and Upcoming Events

Upcoming TRB Conferences – Use left hand menu to filter events

- National Aviation System Planning Symposium
  May 15-18, 2023
  Irving, CA

- Innovations in Travel Analysis and Planning Conference
  June 4-6, 2023
  Indianapolis, IN

- Marine Transportation System Innovative Science and Technologies Toward Greater Sustainability
  June 19-22, 2023
  Washington, D.C.

- National Conference on Transportation Asset Management
  July 8-11, 2023
  Boston, MA

Upcoming Events – In the Upcoming Events tab under Types, choose what event you are interested in, search titles by keyword

Past Events - In the Past Events tab under Types, choose what event you are interested in, search titles by keyword

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
- 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