

TR NEWS

NUMBER 227

JULY–AUGUST 2003

Transportation and Air Quality



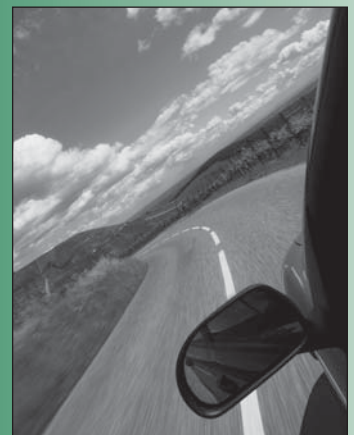
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Cover: Air quality regulations have reduced emissions from transportation sources, but new standards are in place and new strategies are emerging to extend the successes—and to cope with other environmental changes.

3 Introduction **Changes in the Air: Meeting Stricter Emissions Standards, Preparing for Climate Effects**

Sarah J. Siwek

Planning for transportation and air quality has evolved toward an integrated process, but the challenge of meeting stricter emissions controls, developing new and more comprehensive strategies, and adapting to climate changes will keep research a priority, with cost-effective methods a primary goal.

4 **Clean Air Act Success Story: Continuing Reductions in Transportation Emissions**

Gary Jensen

The Clean Air Act and related legislation and regulations have played a major role in improving air quality through reduced on-road motor vehicle emissions, despite increases in population and in personal and freight travel. New measures taking effect in the next few years will intensify the clean air trends.

10 **Conforming to the New Air Quality Standards: Tips for Transportation Agencies**

Jonathan Makler and Arnold M. Howitt

Many more areas will be designated “nonattainment” under the new National Ambient Air Quality Standards for ozone and particulate matter, some for the first time. The authors look at how three states have prepared to achieve “transportation conformity,” and present practical pointers for agencies.

15 **Roundtable Clearing North Carolina’s Air**

David Hyder

18 **Reducing Air Toxics from Transportation Sources: Standards and Strategies To Protect the Public Health**

Kathryn A. Sargeant

Mobile-source toxic air pollutants, known to have serious health effects, are becoming an issue for transportation planners. An Environmental Protection Agency official presents a guide to air toxics, exposure research, and related federal controls—and outlines strategies that can be applied readily at the local level.

22 **Improving Urban Air Quality Requires Multimodal Measures**

Christopher D. Grant

Control of nonroad transportation emissions is a neglected key to air quality improvement in urban areas, this author maintains. Stricter controls on air pollution from airplanes and airport vehicles, marine vessels and engines, and rail activities—all concentrated in metropolitan areas—can have significant local impacts.

26 **Transportation in an Age of Climate Change: What Are the Research Priorities?**

Joanne R. Potter and Michael J. Savonis

Scientific evidence shows that the earth’s climate is changing—affecting temperatures, hydrologic patterns, and the incidence of severe weather. A recent workshop convened researchers from the fields of climate change and transportation, along with policy makers, to start a dialogue and define directions and needs for multidisciplinary research with practical applications.

TR NEWS

features articles on innovative and timely research and development activities in all modes of transportation. Brief news items of interest to the transportation community are also included, along with profiles of transportation professionals, meeting announcements, summaries of new publications, and news of Transportation Research Board activities.

TR News is produced by the Transportation Research Board Publications Office

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TR News (ISSN 0738-6826) is issued bimonthly by the Transportation Research Board, National Research Council, 500 Fifth Street, NW, Washington, DC 20001. Internet address: www.TRB.org.

Editorial Correspondence: By mail to the Publications Office, Transportation Research Board, 500 Fifth Street, NW, Washington, DC 20001, by telephone 202-334-2972, by fax 202-334-3495, or by e-mail jawan@nas.edu.

Subscriptions: North America: 1 year \$55.00; single issue \$9.50. Overseas: 1 year \$75.00; single issue \$13.50. Inquiries or communications concerning new subscriptions, subscription problems, or single-copy sales should be addressed to the Business Office at the address below, or telephone 202-334-3216, fax 202-334-2519. Periodicals postage paid at Washington, D.C.

Postmaster: Send changes of address to *TR News*, Transportation Research Board, 500 Fifth Street, NW, Washington, DC 20001.

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Printed in the United States of America.

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32 TRB Special Report Freight Capacity for the 21st Century

Joseph R. Morris

U.S. freight transportation facilities are inadequate for the demands of traffic growth. A TRB policy study committee, appointed by the National Research Council, has prepared a report on the long-term implications of trends in freight transportation markets and has proposed guidelines and principles for government policy to allow more efficient provision of freight system capacity.

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COMING NEXT ISSUE



Highway infrastructure preservation—cost-effectively extending the service life of highway pavements and structures—is the subject of a series of feature articles in the September–October issue, covering the current state of the practice, the federal role, activities in Canada, training needs, and a case study of bridge preservation, plus special insights on techniques such as chip sealing and spray-applied rejuvenators, research needs and developments, site performance reports, and more.