

# Transit Cooperative Research Program

## TCRP

### TCRP Oversight and Project Selection Committee

Transportation Research Board  
500 Fifth Street, NW  
Washington, DC 20001  
Ph: 202/334- 3224  
Fax: 202/334 -2006

**CHAIR**  
**Robert L. Brownstein**  
*AECOM Consult, Inc.*

January 7, 2008

#### MEMBERS

**Ann August**  
*Santee Water Reg. Transp. Authority*  
**John Bartosiewicz**  
*McDonald Transit Associates, Inc.*  
**Linda J. Bohlinger**  
*HNTB Corporation*  
**Peter Cannito**  
*MTA Metro North Railroad*  
**Gregory Cook**  
*Veolia Transportation*  
**Nathaniel P. "Nat" Ford**  
*San Francisco MUNI*  
**Fred M. Gilliam**  
*Capital Metropolitan Transportation Authority*  
**Kim R. Green**  
*GFI GENFARE*  
**Jill A. Hough**  
*North Dakota State University*  
**John English**  
*Utah Transit Authority*  
**Jeanne W. Krieg**  
*Eastern Contra Costa Transit Authority*  
**David A. Lee**  
*Connecticut Transit*  
**Clarence W. "Cal" Marsella**  
*Denver Regional Transportation District*  
**Gary W. McNeil**  
*GO Transit*  
**Michael P. Melaniphy**  
*Motor Coach Industries, Inc.*  
**Faye L. M. Moore**  
*Southeastern PA Transportation Authority*  
**Frank Otero**  
*PACO Technologies, Inc.*  
**Robert H. Prince, Jr.**  
*DMJM+HARRIS*  
**Jeffrey M. Rosenberg**  
*Amalgamated Transit Union*  
**Michael Scanlon**  
*San Mateo County Transit District*  
**Beverly Scott**  
*Metropolitan Atlanta Rapid Transit Authority*  
**James Simpson**  
*FTA*  
**Frank Tobey**  
*First Transit, Inc.*  
**Frank Wilson**  
*Metrop. Transit Authority of Harris County*

TO: Distribution

FROM: Christopher W. Jenks  
Director, Cooperative Research Programs, TRB

Re: **Research Problem Statements for the Fiscal Year 2009 Transit Cooperative Research Program Due by June 15, 2008**

The purpose of this announcement is to solicit problem statements identifying research needs for the Transit Cooperative Research Program (TCRP) Fiscal Year 2009 Program. These submittals form the basis for selection of the annual TCRP research program. It is easy to develop and submit a problem statement for consideration. Most are 1-3 pages in length using the enclosed outline.

The TCRP was authorized by the Intermodal Surface Transportation Efficiency Act of 1991 and operates according to a memorandum of agreement among the cooperating organizations: The Federal Transit Administration (FTA); The National Academies, acting through the Transportation Research Board; and the Transit Development Corporation, Inc. (TDC), a nonprofit educational and research arm of the American Public Transportation Association. The TCRP undertakes applied research and technical activities focusing on the needs of transit operating agencies. Research is conducted in all areas of public transportation, including operations, policy, planning, service configuration, engineering of vehicles and facilities, maintenance, human resources, and administration.

The TCRP focuses on research that is consistent with, and supportive of, FTA's strategic research goals and TCRP strategic priorities. Presented below are four FTA strategic research goals.

(1) Increasing Ridership: FTA strives to make safe, affordable, reliable, accessible, and efficient public transportation available to all Americans, as ridership is critical for realizing the economic, environmental, and mobility benefits of Federal investments. This is particularly true for meeting the basic day-to-day mobility needs of everyone including older Americans, persons with disabilities, and low-income populations who rely on mass transit to stay active in our communities. There is a gap in rail-related research pertaining to ridership as well as a gap in research pertaining to understanding ridership trends and causal factors. FTA is currently exploring and evaluating the cost-effectiveness of different ways to increase ridership. FTA is also supporting the DOT's congestion relief initiative in urban areas. What infrastructure

#### EX OFFICIO MEMBERS

**William W. Millar**  
*APTA*  
**Robert E. Skinner, Jr.**  
*TRB*  
**John C. Horsley**  
*AASHTO*  
**J. Richard Capka**  
*FHWA*

#### TDC EXECUTIVE DIRECTOR

**Louis Sanders**  
*APTA*

#### SECRETARY

**Christopher W. Jenks**  
*TRB*

improvements are needed to increase capacity? What new or existing tools for assessing the cost benefits of increasing ridership are available to transit agencies? What are the most rapidly developing technologies or services available to make public transportation the mode of choice for commuter travel? What marketing methods are available that proved to be successful in increasing ridership? What measures of effectiveness are most beneficial to use for affecting positive changes in ridership? What coordination technologies or methods are available to ensure that the transportation benefits available to seniors and disadvantaged populations are fully utilized? What congestion mitigation strategies can impact public transportation? How can public transportation mitigate congestion? What level of transit service is required for significant congestion reductions and how can it be effectively provided?

(2) Improving Capital and Operating Efficiencies: FTA conducts research and demonstrations designed to help transit agencies contain the costs of maintaining and expanding transit facilities and operating transit service. What technical, process and operational advances best contribute to better decision-making and cost-effective management of the planning, design and construction of major transit investments? How can we best apply recent advances in project planning and development to reduce the risks and uncertainties associated with large transit projects? What technologies and practices are available to help control costs of capital investment, service operations and maintenance? Can we develop new public private partnerships? What pilot demonstrations could evaluate the contribution of specific innovations toward performance improvement and cost containment? How can we improve the capacity of our transit workforce and industry?

(3) Improving Safety, Security and Emergency Preparedness: In order to help transit agencies respond to an ever-changing safety and security environment, FTA is working collaboratively with the Department of Homeland Security and others to provide practical solutions that work to increase transit safety, security, and emergency preparedness. What new knowledge, technology and practical solutions can help transit agencies increase safety and security training, public awareness, and emergency preparedness? How can we improve the safety of transit workers? Transit agencies may have a major role in special event planning, emergency evacuations, or natural disasters. What have we learned from after-action reports that will improve disaster response and the role of transit agencies? How do transit agencies quickly recover and maintain ridership following a man-made or natural disaster? What is the role of transit in improving the safety of the larger transportation system, including highways?

(4) Protecting the Environment and Promoting Energy Independence: FTA is committed to supporting the President's "Hydrogen Economy Initiative" to reduce U.S. dependence on foreign oil thereby increasing the Nation's energy security. The goal is to reduce energy consumption and emissions from all modes of transit by developing and deploying evolutionary improvements as well as paradigm-shifting changes. How can more efficient and more effective provision of transit services promote movement toward sustainability? What improvements to transit vehicles and infrastructure would reduce emissions and promote energy independence? Which technologies now available or currently being tested promise the greatest improvements in energy conservation, fuel economy and reduction of harmful emissions? What can FTA and individual transit agencies do to foster introduction of economical and environmentally friendly transit vehicles? How can land use policies support these efforts? How can development and land use complement transit use? What is the role of transit in improving the environmental impact of the larger transportation system, including highways?

The TCRP has also established five strategic priorities:

I. Place the Transit Customer First: The importance of the transit rider as well as the community at large as the customer was a principal outcome of the TCRP Future Search. The American consumer society is demanding; no industry can prosper that does not place the customer first.

II. Enable Transit to Operate in a Technologically Advanced Society: TCRP will support public transportation to integrate state-of-the-art technology in all aspects of its business so that mobility needs can be served as communities change and customer needs evolve.

**III. Continuously Improve Public Transportation:** The TCRP will support communities throughout the United States to continuously improve public transportation.

**IV. Flourish in the Multimodal Environment:** More authority for transportation investment decisions is now in the hands of state and local decision-makers. The transit industry must work harder and smarter to realize the intermodal flexibility and community-based planning opportunities offered by federal and other programs.

**V. Revitalize Transit Organizations:** Information technologies, changes in the work force, and new roles and partnerships are revolutionizing the workplace. By reinventing themselves, transit organizations can “Work Better – Cost Less.”

A list of TCRP projects may be found on the TCRP website: <http://www.trb.org/CRP/TCRP/TCRPPProjects.asp>. The FTA and TCRP priorities and ongoing TCRP projects should be considered in preparing a research problem statement. A problem statement outline is enclosed. Problem statement submittals should follow the outline and may be submitted by anyone at any time. However, the deadline for submitting problems for consideration in the FY 2009 program is **June 15, 2008**. Problem statements may be submitted by e-mail to [tcrp@nas.edu](mailto:tcrp@nas.edu). If sent electronically, it is preferred that the problem statement be sent as an attachment to the e-mail message in Microsoft Word format.

If you have previously submitted a research problem statement that was not selected for funding, but is still a relevant transit research topic, please feel free to resubmit the problem statement for consideration. There are many good research topics that are not selected each year simply due to the level of funding available. Research problem statements must be resubmitted each year to receive further consideration.

The governing board of the TDC, which also serves as the TCRP Oversight and Project Selection (TOPS) Committee, will select the research problem statements for the FY 2009 program in the Fall of 2008. For problems selected by the TOPS Committee, requests for proposals will be issued, and contractors will be selected through a competitive proposal process.

Thank you very much for your consideration. Your willingness to participate in the identification of relevant transit research topics is a key element of a successful, industry-driven TCRP. Should you have any questions or need additional information, please feel free to contact me at 202/334-3089 or [cjenks@nas.edu](mailto:cjenks@nas.edu).

#### Attachment

**Distribution:** Chair and Members, TOPS Committee; Executive Director, TDC; Associate Administrator, Research, Demonstration and Innovation, FTA; Associate Administrator, Budget & Policy, FTA; Liaison Representatives, FTA; APTA Committees; Directors, University Transportation Centers; Chair and Members, AASHTO Standing Committee on Public Transportation; Executive Secretary, Women’s Transportation Seminar; Executive Director, National Society of Black Engineers; Executive Director, National Association of Minority Contractors; CEO and President, National Urban League; President, National Council of Negro Women; President, Blacks in Government; Representatives, Historically Black Colleges; Board Members, State Delegates, and Associate Director, Community Transportation Association of America; Executive Director, Conference of Minority Transportation Officials; Executive Director, National Transportation Consortium of Minority Colleges & Universities; Society of Hispanic Professors of Engineers; National Forum for Black Public Administrators; Chair and Members, TRB Executive Committee; Chairs and Members, TCRP Panels; Chairs, TRB Group Councils and Sections; Chairs, TRB Committees (Transit); TRB State Representatives; TRB University Representatives; TRB Transit Representatives; TRB Sustaining Associates; Chair, Subcommittee on NRC Oversight; and TRB Staff (Selected).

## OUTLINE FOR TCRP PROBLEM STATEMENTS

### I. PROBLEM TITLE

The title should be no more than 10 words.

### II. RESEARCH PROBLEM STATEMENT

In no more than three paragraphs, provide a general description of the problem or need.

### III. OBJECTIVE

Include a clear, concise statement of the objectives (anticipated products) that are expected to be met by this particular research.

### IV. RESEARCH PROPOSED

Provide a statement of the specific research proposed, how it relates to the general problem statement in Section II and, if possible, the research approach and the tasks envisioned.

### V. ESTIMATE OF THE PROBLEM FUNDING AND RESEARCH PERIOD

**Recommended Funding:** Include an estimate of the funds necessary to accomplish the objectives stated in Section III. As a general guideline, the present cost for research usually averages approximately \$150,000-\$250,000 per professional staff-year. TCRP projects typically are in the \$300,000-\$500,000 range. A detailed budget is not necessary.

**Research Period:** Provide an estimate of the period of time needed to complete the research, including 3 months for review and revision of a draft final report.

### VI. URGENCY AND PAYOFF POTENTIAL

Include a statement concerning the urgency of this particular research. Identify and, if possible, quantify the potential and magnitude of payoff from the achievement of the project objectives. Any institutional, political, or socio-economic barriers to implementation of the anticipated research products should also be identified.

### VII. RELATIONSHIP TO FTA STRATEGIC GOALS AND POLICY INITIATIVES and TCRP STRATEGIC PRIORITIES

Categorize this problem statement using the FTA strategic initiatives and the TCRP Strategic Priorities.

### VIII. RELATED RESEARCH

If available, provide information on other research—completed, in progress, or pending—that is closely relevant to the proposed problem.

### IX. PERSON(S) DEVELOPING THE PROBLEM

Provide the specifics (i.e., name, title, address, telephone, and fax numbers) for the person(s) who developed the problem.

### X. PROCESS USED TO DEVELOP PROBLEM STATEMENT

State whether this problem statement is the product of an individual, a formal committee, or another group.

### XI. DATE AND SUBMITTED BY

Provide the specifics (see Section IX) of the person(s) who submitted the problem and the date of submission.

Submit to:

**Christopher W. Jenks  
Director  
Cooperative Research Programs  
Transportation Research Board  
500 Fifth Street., N.W.  
Washington, D.C. 20001  
202/334-3089  
FAX 202/334-2006**