



Research and Technology Coordinating Committee Letter Report

DETAILS

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December 4, 2003

Ms. Mary E. Peters
Administrator
Federal Highway Administration
Room 4218
400 7th Street, SW
Washington, D.C. 20590

Dear Administrator Peters:

The Research and Technology Coordinating Committee (FHWA) met on November 10-11, 2003, at the Keck Center of the National Academies. The enclosed meeting roster indicates the members, liaisons, guests, and TRB staff in attendance. On behalf of the committee, I thank FHWA for its continuing interest in the work of RTCC. I also thank and commend the FHWA staff for their participation in the meeting. In particular, the committee appreciated the participation of Rick Capka, FHWA's Deputy Administrator, and the presentations made by Dennis Judycki, Jeffrey Paniati, Marci Kenney, and Peter Markle.

This letter is an intentionally brief summary of the meeting; information about the committee's future activities and meetings is also provided. The report is organized under five main topics. The first topic is local/regional stakeholder involvement in highway R&T programs, a current committee initiative that addresses an issue of interest both to FHWA and the committee. The following four topics are then described: the Department of Transportation's intelligent transportation systems program; the research activities of the Office of Operations; the status of implementation efforts for the agency's corporate master plan for highway R&T; and plans for an assessment of the asphalt pavement laboratories at FHWA's Turner-Fairbank Highway Research Center.

Local/Regional Stakeholder Involvement in Highway R&T

The meeting opened with a staff presentation on local and regional stakeholder involvement in highway research programs. The presentation provided background for a discussion in open session with representatives from several associations directly involved with local and regional transportation agencies and their staffs. The participants included the following: Phil Caruso, Institute of Transportation Engineers; Tony Giancola, National Association of County Engineers; Carol Estes, American Public

Works Association; Bob Hicks, Public Technology, Inc.; and Alex Taft, Association of Metropolitan Planning Organizations. The discussion elicited a range of views on how the problems and issues faced by local and regional transportation agencies currently are translated into research needs for consideration by research program managers and how these agencies receive information about and technical assistance to implement transportation innovation.

The participants acknowledged that local/regional stakeholder involvement is complicated by the wide variations—in terms of size, resources, responsibilities, staff expertise, and other factors—in the agencies. Individual agency interest in research topics varies as well, depending on agency reliance on state departments of transportation (SDOTs) for technical direction and specifications for such components as pavements, bridges, and highway safety. The participants also noted that while the SDOTs work closely with the local/regional agencies—especially on technical and finance issues—FHWA generally does not. The notable exceptions are regional councils and metropolitan planning organizations whose existence and activities are more directly responsive to federal regulations.

The discussion highlighted the lack of a clear understanding of FHWA's role and responsibilities in developing technologies and innovations for local and regional transportation agencies especially in light of other components of the national highway R&T effort—including state highway research programs; the National Cooperative Highway Research Program; and university transportation research. Clarifying the roles and responsibilities regarding local and regional transportation agencies of all these programs would be beneficial to all parties.

Based on a brief summary of the discussion prepared by RTCC members Sandra Rosenbloom and Michael Ryan (which is attached to this letter report as Appendix A) and subsequent committee deliberation in closed session, the committee decided to continue to examine the interests and perspectives of local agencies regarding research and innovation. We propose to consider two or more examples in greater detail. Of interest is (1) a better understanding of what local/regional agencies needs from federal and state highway research programs to adopt and implement innovations and (2) better understanding of what local/regional agency needs suggest for the scope and direction of federal and state highway research programs.

In considering federal highway research in the context of local/regional agency needs, a number of questions arose as an outgrowth of our discussion:

- How does FHWA view its responsibilities for supporting for local and regional transportation agency needs?
- How does the FHWA role vary across its infrastructure, safety, operations, and planning and environment program areas?

- In what program areas does FHWA rely on state research programs, associations, and professional societies, to serve local and regional transportation agency needs?
- How are FHWA's Division Offices engaged in working with local agencies and how should they be engaged?
- How might the FHWA-supported LTAP centers serve as mechanisms to understand and communicate to federal and state research programs the nature of the problems being faced by local and regional transportation agencies?

We plan to begin examining these questions and would benefit from FHWA's perspective on these questions and other issues you deem relevant in considering local and regional stakeholder involvement at our next meeting.

The committee formed a task force comprised of Dennis Christiansen; John Conrad; Karen Miller; Tim Neuman; Sandra Rosenbloom; and Mike Ryan to undertake this initiative. TRB staff will coordinate the work of the task force with FHWA.

Intelligent Transportation Systems Research in the Department of Transportation

Jeff Paniati, Associate Administrator for Operations and Acting Director of the Department of Transportation's Intelligent Transportation Systems (ITS) Joint Program Office (JPO), reviewed the research activities of the ITS program. The committee was pleased to see that ITS research is based on long term goals, follows a structured multiyear plan, or roadmap, and is multimodal in nature. The program also gives consideration to several topics—outreach, technical assistance, and training—that the committee believes are essential to widespread implementation and the long term success of ITS technologies.

Update of Office of Operations R&T Activities

Mr. Paniati also reviewed the research activities of FHWA's Office of Operations. He noted that the characteristics of traffic operations have changed over the past 20 years resulting in a greater need today for traffic operations activities to be proactive, customer-focused, and system-wide in nature. In addition, traffic operations has become a 24-hour concern and is increasingly based on real-time information. The committee was pleased to see that the Office of Operations has inventoried its stakeholder involvement activities, examined program balance, and begun preparing a research roadmap. We were also interested in efforts under way to strengthen Division Office involvement in research implementation efforts, especially in light of the roundtable discussion about local and regional agency implementation needs. The committee plans to revisit these activities at a future meeting.

Status of the Implementation of the Corporate Master Plan for Highway R&T

FHWA staff, led by Dennis Judycki, described ongoing activities aimed at improving agency processes for R&T program planning and priority setting through the implementation of the agency Corporate Master Plan for Highway R&T. The stated aim of the corporate master plan is to “improve [FHWA’s] R&T leadership role, its program processes, and its effectiveness in working with its partners to deliver technology and innovation.” As noted in a previous letter report, the committee supports the corporate master plan effort, especially the development of multiyear R&T program plans and broader involvement of research stakeholders. These steps are in line with past committee recommendations aimed at strengthening the program. Details provided for research program activities in the Office of Operations supplemented this information for that specific program area. The committee looks forward to reviewing the details of corporate master plan activities for other research program areas at future meetings.

Assessment of TFHRC Asphalt Labs

Marci Kenney, Director of the Office of R&T Program Development and Evaluation reviewed plans for the upcoming assessment of asphalt pavement labs at TFHRC. She also presented a schedule for future assessments of all the center’s labs. The committee appreciates the opportunity to review such plans. We believe the RTCC can be most helpful to FHWA staff by commenting on the appropriate balance of perspective and expertise for the assessment panels. While the potential panelists for the asphalt labs assessment bring a range of expertise to the task, the committee suggests the addition of another panelist to represent the bituminous production industry. This industry is an integral part of asphalt pavement delivery system and carries out considerable related research.

For this and future assessments individuals considered for an assessment panel might have an interest in the research being conducted by FHWA. Any real or perceived conflicts of interest deserve close scrutiny by FHWA. In cases where such real or perceived conflicts are unavoidable, they should be disclosed.

Future Meeting Plans

The committee’s next meetings are scheduled for *March 8 and 9 OR April 10 and 11, 2004* in Washington, D.C. and June 14-15, 2004 in Woods Hole, Massachusetts. The committee benefited from hearing about the activities of the FHWA Operations R&T program in support of the Corporate Master Plan. We would be pleased to have a similar presentation on R&T activities and plans for another of FHWA's vital few goal areas, environmental stewardship and streamlining, at our next meeting.

Final Remarks

In closing, the committee continues to appreciate the presentations of FHWA staff on specific topics of interest to the RTCC. The committee is hopeful that the reauthorization process will provide the agency with the tools to effectively carry out the work outlined in the agency's corporate master plan for highway R&T.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. Michael Walton', with a long horizontal flourish extending to the right.

C. Michael Walton
Chair
Research and Technology Coordinating Committee (FHWA)
Enclosure

**Meeting Attendance: Committee, Liaisons, Guests, and Staff
November 10–11, 2003**

Committee

| | |
|--------------------------------|-------------------|
| C. Michael Walton (NAE), Chair | Tim Neuman |
| J. Don Brock | Sandra Rosenbloom |
| E. Dean Carlson | Michael Ryan |
| Dennis Christiansen | Len Sanderson |
| John Conrad | Albert Teich |
| Reid Ewing | Kevin Womack |

Liaisons and Guests

| | |
|---------------------------------------|-------------------------|
| Dwight Bower, H.W. Lochner | Tony Kane, AASHTO |
| Rick Capka, FHWA | Tom Krylowski, FHWA |
| Phil Caruso, ITE | Peter Markle, FHWA |
| Lewis Clopton, FTA | Jeff Paniati, FHWA |
| Frank Danchetz, Georgia DOT (retired) | Alex Taft AMPO |
| Carol Estes, APWA | Joseph Toole, FHWA |
| Bob Hicks, PTI | Barbara Sisson, FTA |
| Tony Giancola, NACE | David Spivey, DSI, Inc. |
| Dennis Judycki, FHWA | Toni Wilbur, FHWA |
| | Barry Zimmer, FHWA |

TRB Staff

| | |
|----------------|----------------|
| Ann Brach | Mark Norman |
| Walter Diewald | Richard Pain |
| Stephen Godwin | Jocelyn Sands |
| Neil Hawks | Robert Reilly |
| Amelia Mathis | Robert Skinner |

Abbreviations

| | |
|--------|--|
| AASHTO | American Association of State Highway and Transportation Officials |
| AMPO | Association of Metropolitan Planning Organizations |
| APWA | American Public Works Association |
| FHWA | Federal Highway Administration |
| FTA | Federal Transit Administration |
| ITE | Institute of Transportation Engineers |
| NACE | National Association of County Engineers |
| PTI | Public Technology, Inc. |

Appendix A

Summary of a Discussion on Stakeholder Involvement of Local and Regional Transportation Agencies Research and Technology Coordinating Committee Monday, November 10, 2003

Michael Ryan, H.W. Lochner, Inc
Sandra Rosenbloom, University of Arizona

Overview of the Discussion

Four major threads ran through most of the discussion:

- the majority of the road network is owned, operated, or maintained at the local level so the research needs of local transportation agencies should be a priority
- a strong focus on technology transfer and training; that is how to improve the movement of relevant research findings and best-practices *from* Federal (and sometimes State) researchers/agencies *to* local practitioners and stakeholders
- concomitantly less emphasis on the movement of research needs and ideas from local stakeholders and practitioners *to* Federal (and State) agencies with research mandates
- a different (broader) understanding of what constituted “research” than that of most RTCC members; participants suggested that identifying policy options, providing information on best practices, describing implementation strategies, and clarifying regulatory guidelines were valid and needed research topics

Discussion Themes

1. Many participants cited a need for improved communication and cooperation between and among:
 - the full range of highway research programs including FHWA’s, state research programs, the National Cooperative Highway Research Program; university research programs; and others
 - FHWA and professional organizations like AMPO, ITE, *etc*
 - professional organizations themselves
 - different levels of government (through “public-public” partnerships)
2. Also cited was a need for better, more focused technical training at the local/regional level

3. To be useful at the local level research products that will be used by local and regional agencies must be both **relevant** to their needs and presented in **day-to-day** terms appropriate to the local/regional audience.

- to encourage input from local and regional agencies on FHWA research needs, those agencies must see the near-term relevance

4. Currently the Local Technical Assistance Program (LTAP) is much more focused on the dissemination of information [outflow] than on soliciting [inflow] research suggestions. Nevertheless, LTAP can provide a useful mechanism for soliciting information on local/regional problems, research needs, and ideas *from* local governments and practitioners.

- FHWA doesn't receive enough credit for the success of LTAP—an FHWA initiative—in information dissemination, technology transfer, and training.

5. For effective transfer of research findings *from* FHWA to local agencies, there must be motivated individuals, **champions** for specific research products

- within the FHWA research program and in the headquarters office, and
- within the FHWA Division Offices and Resource Centers

Items for Future Consideration

Several items for future consideration emerged from the discussions. The committee plans to examine them in further detail to determine how they apply to individual research programs.

- Highway R&T programs might benefit from a multi-faceted approach involving a variety of tools for both disseminating research products and for obtaining research suggestions and topics from local and regional agencies. Examples can be drawn from the following:

- the Minnesota Local Road Research Board and the various advisory committees to the Oregon Department of Transportation
- webcasts and click-listen-learn formats used by PTI, ITE and others
- other groups and agencies with research programs
- customer outreach efforts of the U.S. Department of Agriculture's research program

- Highway R&T programs might benefit from a greater emphasis on existing networks and resources for obtaining research suggestions by

- listening better to local stakeholders
- broadening the scope of the agency's "normal" activities
- increasing interaction with a larger group of stakeholders
- expanding the visibility of highway research efforts