

**Transportation Research Board (TRB)
Technical Activities Division, Operations Section (AHB00)
Committee on Freeway Operations (AHB20)
Triennial Strategic Plan (TSP)**

Committee Name (and Number): Freeway Operations (AHB20)

Committee Chairperson: Peter M. Briglia, Jr.

Committee Scope:

This committee is concerned with the operational aspects of freeway corridors which affect traffic carrying capacity, operating costs, energy conservation, air quality and motorists' convenience and safety.

Committee Mission and Goals:

The mission of the committee is to provide leadership and serve as the TRB focal point in promoting, implementing, operating and maintaining traffic management systems and strategies including Intelligent Transportation Systems, to enhance the efficiency, safety and environmental conditions on freeways and in freeway corridors, as well as other limited-access facilities. The committee's activities specifically include promoting research in traffic management and the application of promising results to operational systems; and fostering the cooperation, coordination, and information dissemination, between individuals and groups active in freeway traffic management and advanced technologies.

Several specific goals and objectives affect committee programs and activities:

- Continue the traditional committee role and ongoing effective programs, sessions, paper reviews, workshops, etc., as well as interaction and coordination with any and all others involved in reducing congestion and other freeway corridor operational issues.
- Promote effective research, development and deployment of freeway traffic management systems. Review and formulate recommendations on matters administered by freeway operations groups. Serve as an expert resource in policy and technical matters related to freeway operations.
- Keep abreast of, and report on, research developments in freeway operations. Develop and rank research problem statements. Assist in the NCHRP process.
- Plan appropriate symposia, workshops, such as the annual incident management workshop, technical sessions for mid-year meetings, and conference sessions for the TRB Annual Meeting.
- Help foster improved incident management. Promote coordination and cooperation in support of freeway corridor traffic management.
- Monitor national ITS programs and activities, as well as standards development related to freeway operations.
- Co-sponsor, with FHWA, ITSA, ITE, AASHTO and others, relevant technology transfer, training and outreach.

- Monitor vehicle-highway automation progress and activities, as well as electronic toll and traffic management programs and activities, to ensure committee awareness and provide an opportunity for timely input.
- Help document and communicate freeway corridor traffic management benefits; help promote funding to support long-term systems operational efforts maximizing the efficiency and safety of corridor traffic flows.
- Promote the use of e-mail and the committee Web site <http://depts.washington.edu/ahb20> to accomplish Committee goals given the difficulty of meeting more than twice a year.
- Monitor homeland security activities and identify areas of involvement for freeway traffic management system operators.

Committee Activities since the last TSP:

- Reorganized the subcommittee structure and reassessed goals and activities in response to the initial 2000 TRB Committee self-evaluation process. Some subcommittees, such as ITMS and Traffic Technology, were disbanded. Some new subcommittees and task groups, such as for overseeing the update of the Freeway Management and Operations Handbook, were formed.
- Continued ongoing traditional activities, such as conducting paper reviews and sponsoring formal sessions, workshops, conference sessions, and symposia, defining needed research and ranking research problem statements, and holding two meetings per year, with the mid-year meeting site usually selected in part for the opportunity to tour local freeway operations activities.
- Continued the expanded use of electronic media for committee correspondence and information dissemination, including relevant Web site postings and links for interactive and external communications.
- Sponsored and held the 4th Integrated Traffic Management System Symposium, in conjunction with a mid-year committee meeting in Newark, New Jersey, in July 2001, along with the TRB Committee on Signal Systems, the ITSA ATMS Committee, the NTCIP Center-to-Center Committee, and others.
- Provided leadership and direct support to ITE in their initiative addressing long-term operations and maintenance concerns for freeway operations and other projects, and to FHWA for a variety of freeway operations projects of national significance.
- Continued posting "project status reports" on the AHB20 Web site, and expanded the reporting of "lessons learned" towards the future development of a reference document on guidelines and recommendations compiling good practices for operating and managing freeways.
- Assumed an active role in the review and support of standards and new technologies for surveillance, communications, control and systems management elements of freeway operations projects.
- Addressed the operational and institutional issues that transcend jurisdictional boundaries when multiple agencies operate corridors.
- Reviewed all candidate committee plans and tasks, along with current goals, to ensure the committee is pursuing timely and relevant activities within the overall TRB goals and objectives.

Committee Interactions with other TRB Committees, Technical Societies and Associations:

This committee maintains liaisons through joint membership or "friends" with several TRB committees, particularly the committees on Traffic Signal Systems, Communications, Highway Capacity and Quality of Service, Traffic Flow Theory and Characteristics, Traffic Law Enforcement, Regional Transportation Systems Management and Operations, Intelligent Transportation Systems, Vehicle-Highway Automation, Work Zone Traffic Control and High-Occupancy Vehicle Systems. In addition, liaisons are similarly kept with the Institute of Transportation Engineers, through the Traffic Incident Management Committee and the Committee on Management and Operations, with the American Association of State Highway and Transportation Officials, through its Systems Operations and Management Subcommittee, and with ITS America, through its Transportation System Operations and Planning Forum. Efforts are currently underway to re-establish a similar liaison with the International Bridge Tunnel and Turnpike Association.

This committee jointly sponsors various activities with the preceding committees and groups. Examples include conference sessions, workshops, symposia and mid-year meetings. Recent mid-year meetings have been held jointly with TRB's Traffic Signal Systems Committee and the 2004 mid-year meeting will be held in conjunction with the North American Travel Monitoring Exposition and Conference (NATMEC). The AHB20 Web site includes joint informational postings and links to partner sites. The liaisons and joint activities help address critical and crosscutting issues identified by the TRB Executive Committee, the Technical Activities Council and the Operations Section.

Overall Contribution to the Transportation Industry:

Throughout more than four decades, this committee has served as the primary focus for research and operational activities on the leading edge of international advancements in freeway corridor traffic management techniques and technologies. As the continuing focal point for information sharing, the committee benefits academic and operational researchers, as well as all planners, designers, implementers, operators and maintainers of basic and advanced freeway traffic systems. Federal, state and local organizations, along with associated research groups, contractors and consultants, are the primary participants in the committee-provided programs and activities. Committee members frequently serve individually to provide expert advice and assistance on national freeway operations programs and initiatives.

Technology Transfer and Research Dissemination and Research Application Activities:

For well more than 40 years, this committee has served as the central focus for both researchers and operators to share their experiences with leading-edge freeway corridor traffic management issues. The committee fosters information sharing and technology transfer through the traditional TRB channels of paper sessions, conference sessions and jointly sponsored symposia, workshops and mid-year meetings. Of particular note have been the 20 freeway traffic management workshops held the Sunday prior to the Annual TRB Meeting.

The committee pioneered the presentation of written "project status reports", highlighting significant freeway operations activities around the world, at its annual and mid-year meetings. These reports are now made available via the committee Web site for worldwide distribution, while the committee discusses "lessons learned" as an agenda item at its meetings. A recent effort also had the committee assisting FHWA in consideration of updates for the Freeway Management and Operations Handbook.

Research Needs and Research Development:

This committee develops, ranks, publishes and promotes research problem statements on a regular basis. Some 38 statements are currently under committee review, along with two proposals for National Cooperative Highway Research Program synthesis topics. Some conference sessions are developed on hot topics to help with the timely identification and pursuit of needed freeway operations research. The research problem statement section of the AHB20 web site provides widespread access to all committee research efforts and documents.

Committee Strengths:

- The greatest committee strength is the active participation of its members and friends. The membership consists of a good geographic mix of public agency, consultant and academic representatives balancing public and private interests. A full complement of North American members is supplemented by active Emeritus (2), International (2) and Young (1) members. A large group of committee friends actively partakes in all activities, particularly annual paper reviews, which have swelled to more than 50 submittals in recent years.
- A long tradition exists of active and effective committee programs. The committee continually sponsors TRB sessions, holds mid-year and annual committee meetings, reviews many offered papers, and generates research problem statements for NCHRP and others. Prospective members know they will usually have to get involved initially as a committee friend, and then stay involved throughout committee service.
- A long tradition exists of excellent committee leadership and strong TRB staff support. Leading the committee involves progressing with continuation of past efforts and programs relevant to today's needs and conditions. A minimum of energy needs to be directed to discerning scope, mission or reorganization. The members and friends generally add energy and enthusiasm to the meaningful committee programs and activities.
- Committee productivity has increased due to the successful transition to the use of electronic media for communicating information to members, friends and others. Transfer of project status reports, for example, from the open committee meeting sessions, to posting on the committee web site, enabled the meeting time to be recaptured for open discussion of important topics with a more focused audience as part of a more productive meeting.
- The committee mission is closely aligned with the FHWA Operations mission. With strong FHWA representation on the committee, the opportunity exists to discuss new initiatives, make recommendations on new or existing policies or procedures, and promote funding for research needs identified through committee and other means.

Committee Weaknesses:

- The major committee weakness is the lack of women and minorities in the membership, and a shortage of public agency members and friends with organizational support to fully attend and participate in ongoing activities.
- There are many overlaps in the missions and scopes of TRB operations-oriented committees. Liaisons have been established with many committees; joint activities have been held with some. Several others have yet to be approached, but there are not enough resources to work with all, although cooperative opportunities are continually sought.

- A result of transferring status reports from open committee meetings to postings on the web is that status reports are no longer being produced. Another casualty has been the library of active freeway operations projects. The numbers of these projects in recent years, however, has multiplied to the extent that there are probably too many projects now in the mainstream, and no longer a need to track them all, thereby reflecting past successful committee efforts to generate more successful freeway operational projects.

Planned Activities over the Next Triennium:

- Continue reassessing committee structure, goals, objectives and activities as part of the self-evaluation process.
- Pursue efforts to recruit prospective members who are women and minorities and ensure nothing in committee approach creates barriers for any group. Continue to recruit public agency members.
- Continue ongoing traditional activities, such as conducting paper reviews and sponsoring formal sessions, workshops, conference sessions, and symposia, defining needed research and ranking research problem statements, and holding two meetings per year, with the mid-year meeting site usually selected in part for the opportunity to tour local freeway operations activities.
- Continue expanded use of electronic media for committee correspondence and information dissemination, including Web site postings and links for interactive and external communications.
- Provide leadership and direct support to ITE in their initiative addressing long-term operations and maintenance concerns for freeway operations and other projects.
- Continue efforts to encourage the preparation of "project status reports" for posting on the Web site and expand the reporting of "lessons learned." Participate in the updating of the Freeway Management and Operations Handbook and the State of the Practice paper prepared by FHWA that serve as reference documents compiling good practices for operating and managing freeways.
- Pursue liaison and appropriate joint activities with the International Bridge Tunnel and Turnpike Association.
- Assume an active role in the review and support of standards and new technologies for surveillance, communications, control and systems management elements of freeway operations projects.
- Address the operational and institutional issues that transcend jurisdictional boundaries when multiple agencies operate corridors.
- Review and update the millennium paper, "Freeway Operations in 2000 and Beyond".
- Review these and other candidate committee plans and tasks, along with current goals, to ensure the committee is pursuing timely and relevant activities within the overall TRB goals and objectives.

References:

TRB Directory, TRB Web site, April 2004
TRB AHB20 Web site, April 2004
TRB AHB20 Triennial Self-Evaluation, September 2000
TRB AHB20 "Freeway Operations in 2000 and Beyond", January 2000
(TRB AHB20 Annual Meeting Minutes, Washington, D.C., January 2004) (Pending)
TRB AHB20 Mid-Year Meeting Minutes, Norfolk, Virginia, June 2003
TRB AHB20 Annual Meeting Minutes, Washington, D.C., January 2003
TRB AHB20 Mid-Year Meeting Minutes, Salt Lake City, Utah, July 2002
TRB AHB20 Annual Meeting Minutes, Washington, D.C., January 2002
TRB AHB20 Mid-Year Meeting Minutes, Newark, New Jersey, July 2001
TRB AHB20 Annual Meeting Minutes, Washington, D.C., January 2001
TRB AHB20 Mid-Year Meeting Minutes, Milwaukee, Wisconsin, June 2000

April 28, 2004