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of Transportation  
**Federal Highway  
Administration**

# TMCUpdate

TRANSPORTATION MANAGEMENT CENTER POOLED FUND STUDY

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## CONTACTS

For information on the TMC Pooled Fund Study, visit our website at <http://tmcdfs.ops.fhwa.dot.gov/> or contact:

§ Raj Ghaman, FHWA, 202-493-3270,  
[raj.ghaman@fhwa.dot.gov](mailto:raj.ghaman@fhwa.dot.gov)  
§ Tom Granda, FHWA, 202-493-3365,  
[thomas.granda@fhwa.dot.gov](mailto:thomas.granda@fhwa.dot.gov)

To request documents, general administrative issues, or website questions, contact:

§ Ming-Shiun Lee, URS, 612-373-6335,  
[ming\\_shiun\\_lee@urscorp.com](mailto:ming_shiun_lee@urscorp.com)

TMC Pooled Fund Study Co-Chairs:

§ David Kinnecom, Utah DOT, 801-887-3707, [dkinnecom@utah.gov](mailto:dkinnecom@utah.gov)  
§ Manny Agah, Arizona DOT, 602-712-7640, [magah@azdot.gov](mailto:magah@azdot.gov)

## New Projects Selected for 2006

At the 2005 annual meeting, the Transportation Management Center (TMC) Pooled Fund Study members reviewed, revised, and prioritized nine project proposals. Then, weighing a prioritized list of needs against the available funding, the members selected the six top-ranked proposals, briefly described here, to begin in 2006:

### “Methodologies to Measure and Quantify TMC Benefits”

This project will develop methodologies and provide guidance on measuring, quantifying, and evaluating the costs and benefits of the implementation and operation of TMCs and associated systems (hardware, software, and equipment), infrastructure, and functions (such as traffic management, incident management, and traveler information).



*Members prioritize project proposals at the Annual Meeting*

### “Driver Use of Real-Time En-Route Travel Time Information”

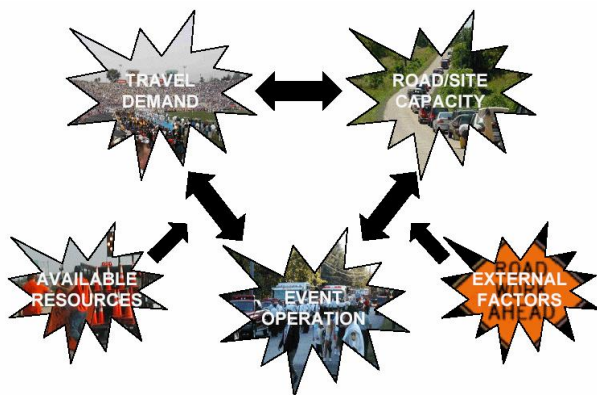
This project will assess impacts of en-route real-time travel time information on drivers; define the most effective way to provide en-route real-time travel time information; and develop preliminary guidance to practitioners for delivering en-route travel time information. The project will consider all aspects of delivery methods for en-route travel time information. This includes what information should be disseminated, how that information should be formatted and coded, and system operational characteristics

*See New Projects, Page 6*

## Feature Article: Managing Travel for Planned Special Events

A planned special event is a public activity with a scheduled time, location and duration that may impact the normal operation of the surface transportation system due to increased travel demand and/or reduced capacity attributed to event staging. Planned special events include sporting events, concerts, festivals, and conventions occurring at permanent multi-use venues (e.g., arenas, stadiums, racetracks, fairgrounds, amphitheaters, convention centers). They also include less frequent public events such as parades, fireworks displays, bicycle races, sporting games, motorcycle rallies, seasonal festivals, and milestone celebrations at temporary venues.

Planned special events can significantly impact travel safety, mobility, and travel time reliability across all surface transportation modes and roadway facilities. Managing travel for planned special events involves advanced operations planning, stakeholder coordination and partnerships, developing a multi-agency transportation management plan, raising awareness of general public and event patrons of potential travel impacts, and coordinating agency services and resource sharing.



*Planned Special Event Impact Factors*

The practice of managing travel for planned special events targets the following objectives:

- Establish innovative stakeholder partnerships that provide continuous coordination, cooperation, and personnel and equipment resource sharing.

- Adopt procedures and protocols to improve advance planning and day-of-event operations.
- Mitigate potential travel impacts to non-attendee road users and the community at-large.
- Apply new technologies to minimize field personnel requirements, improve travel conditions monitoring, and reduce congestion.
- Influence the utility of all travel choices through transit and travel demand management initiatives and traveler information dissemination.
- Facilitate sound traffic management team organization and communication on day-of-event.
- Integrate evaluation results into regional planning activities for future planned special events.

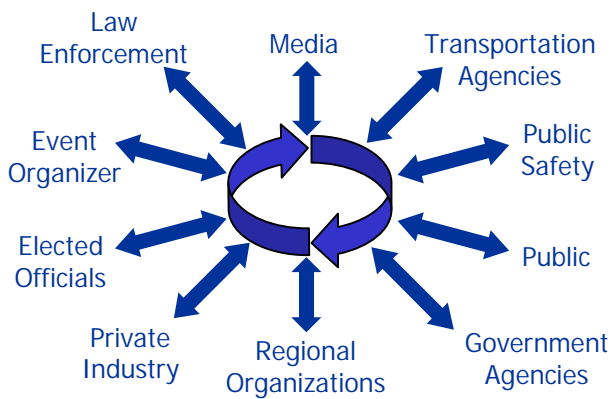
The *Managing Travel for Planned Special Events Handbook* bridges the gap between the state-of-the-practice and state-of-the-art in managing travel for planned special events by providing both: (1) a framework for establishing a stakeholder coordinated and integrated planned special event management practice and (2) innovative techniques for enhancing the efficiency and applicability of current agency event-specific plans. It emphasizes the need to apply and integrate all possible solutions that benefit the safe and efficient management of travel for a single planned special event or a series of events occurring in a region.

The 427-page handbook is divided into 15 chapters covering the following five phases of managing travel for planned special events:

### Chapters in the Managing Travel for Planned Special Events Handbook

1. Introduction & Background
2. Characteristics & Categories of Planned Special Events
3. Overview
4. Regional & Local Coordination
5. Event Operations Planning
6. Traffic Management Plan
7. Travel Demand Management & Traveler Information
8. Implementation Activities
9. Day-of-Event Activities
10. Post-Event Activities
11. Discrete/Recurring Event at a Permanent Venue
12. Continuous Event
13. Street Use Event
14. Regional/Multi-Venue Event
15. Rural Event

- Program planning encompasses advance planning activities completed months prior to a single, target event or activities related to a series of future planned special events.
- Event operations planning involves advance planning and resource coordination activities conducted for a specific planned special event.
- Implementation activities concern strategizing traffic management plan deployment in addition to conducting necessary equipment testing and personnel training activities.
- Day-of-event activities refer to the daily implementation of the traffic management plan in addition to traffic monitoring.
- Post-event activities cover the evaluation of local and regional transportation operations based on stakeholder debriefings and an analysis of traffic data collected on the day-of-event.



*Special Event Stakeholders*

The handbook was written to assist responsible agencies in managing the ever-increasing number of planned special events impacting transportation system operations in rural, urban, and metropolitan areas. This handbook recognizes a target audience consisting of three user groups, each of whom has an identifiable icon that appears in the heading of handbook sections relevant to the group: (1) transportation engineer, (2) law enforcement officer, and (3) event organizer. It presents and recommends policies, regulations, planning and operations processes, impact mitigation strategies, equipment and personnel resources, and technology applications in tables, flowcharts, and checklists so users can easily extract information and identify issues, analyses, and products applicable to a particular category of planned special event.

The following resources are also available to facilitate handbook outreach and awareness:

- The *fact sheet* summarizes the purpose of the handbook, provides an overview of planned special events, describes issues and the approach to managing travel for planned special events, indicates the intended audience of the handbook, and states benefits of successful planned special events. The fact sheet is intended for all potential users of the handbook.
- The *brochure* identifies key aspects, benefits, and the importance of why agencies and organizations should be concerned with planning for how to manage travel in advance of planned special events. It is designed to communicate to community leaders, executive managers, and other key interests that have the potential to allocate resources, influence local practices, or dedicate their agency or staff in the necessary activities associated with managing travel for planned special events.

*“Successful planned special events are essential to the economic viability of many communities. They are a key component of the quality of life that is nurtured within a state or region. Managing the highway and transportation system during planned special events cannot be an afterthought, but rather demands the leadership and active involvement of state and local transportation agencies.”*

— John Corbin, State Traffic Engineer, Wisconsin Department of Transportation

The *Managing Travel for Planned Special Events Handbook* represents the primary reference to Chapter 11, Planned Special Event Management, of the *Freeway Management and Operations Handbook* (FMOH). The FMOH provides a high-level summary of managing travel for planned special events coupled with a link to the *Managing Travel for Planned Special Events Handbook*.

This handbook and associated outreach materials can be obtained through the: (1) FHWA TMC Pooled Fund Study web site at <http://tmcps.ops.fhwa.dot.gov> or (2) ITS Electronic Document Library at <http://www.its.dot.gov>. ☪

## Project Progress Reports

Ongoing TMC Pooled Fund Study projects are briefly described in the following paragraphs. Quarterly project progress reports can be accessed on the TMC Pooled Fund Study Web site: <http://tmcdfs.ops.fhwa.dot.gov>.

### “Coordinated Freeway and Surface Street Operational Plans and Procedures”

Purpose: Develop a document that provides technical guidance and recommended practices on how to prepare plans, coordinate activities, and develop procedures and protocols to use in managing travel, controlling traffic, and providing services related to coordinating travel on freeways and arterial roadways.

Champions: Mark Newland, Indiana DOT, and Kamal Hamud, District of Columbia DOT

Status: Final report is currently being edited

Completion Date: December 2005

Contact: James Colyar: 202-493-3282;  
[james.colyar@fhwa.dot.gov](mailto:james.colyar@fhwa.dot.gov)

### “Developing and Using Concept of Operations in Transportation Management Systems”

Purpose: Develop a document that describes the need for a concept of operations for a transportation management system and provides technical guidance and recommended practices for developing and using a concept of operations throughout the system’s life cycle.

Champion: Manny Agah, Arizona DOT

Status: Final report has been completed; Outreach materials is under final review.

Completion Date: December 2005

Contact: Emiliano Lopez: 410-962-0116;  
[emiliano.lopez@fhwa.dot.gov](mailto:emiliano.lopez@fhwa.dot.gov)

### “Impacts of Dynamically Displaying Messages on Changeable Message Signs”

Purpose: Develop preliminary guidance to practitioners for dynamically displaying messages on CMS and identify and recommend changes or new provisions to the FHWA *Manual on Uniform Traffic Control Devices*. This project builds upon the TMC Pooled Fund Study project “Changeable Message Sign Operation and Messaging Handbook.”

Champion: Jeff Galas, Illinois DOT

Status: Project is essentially completed

Completion Date: October 2005

## HOW TO JOIN...

Agencies may join the TMC Pooled Fund Study at anytime during the year by committing funds at a level agreed upon by existing participants (members) in the study. The TMC pooled fund study was approved for 100 percent State Planning and Research Program funding. Any noncommercial agency or organization that is responsible for the management and operation of any portion of the surface transportation system is welcome to participate.

State transportation agencies interested in joining the TMC Pooled Fund Study can submit funding commitment online at the Transportation Pooled Fund Program web site at: <http://www.pooledfund.org>. (see Solicitation No. 870; SPR-2(207))

Other agencies should complete and submit the TMC Pooled Fund Study commitment form downloadable at the TMC Pooled Fund Study web site at: <http://tmcdfs.ops.fhwa.dot.gov>.

Contact: Tom Granda: 202-493-3365;  
[thomas.granda@fhwa.dot.gov](mailto:thomas.granda@fhwa.dot.gov)

### “Transportation Management Center Business Planning and Plans Handbook”

Purpose: Produce a handbook that provides guidance and best practices on how to develop a TMC business plan. The handbook will also outline business-planning models that were successfully employed by transportation agencies to ensure the long-term sustainability of TMCs and associated ITS applications.

Champion: Monica Kress, California DOT

Status: Final editing of the handbook is on-going

Completion Date: December 2005

Contact: Raj Ghaman: 202-493-3270;  
[raj.ghaman@fhwa.dot.gov](mailto:raj.ghaman@fhwa.dot.gov)

### “TMC Operator Requirements, Position Descriptions, Phase 2— Interactive Software Tool”

Purpose: Develop an interactive software tool that will embody the content material developed in the Phase 1

project, supplemented as necessary, and provide the functionality needed by TMC managers and other users to support development of useful position requirements and descriptions for TMC operator positions.

Champion: Mark Demidovich, Georgia DOT  
Status: Project is essentially completed  
Completion Date: October 2005  
Contact: Tom Granda: 202-493-3365;  
thomas.granda@fhwa.dot.gov

#### “TMC Performance Monitoring, Evaluation, and Reporting Handbook”

Purpose: Develop a handbook that will explain the need for performance monitoring and provide guidance and recommended monitoring practices. The handbook will advise how to initiate, sustain, and use information generated from monitoring, evaluating, and reporting on TMC performance and describe roles, responsibilities, functions, and support services as they relate to traffic management.

Champion: Mark Newland, Indiana DOT  
Status: Draft handbook submitted in August 2005  
Completion Date: November 2005  
Contact: Raj Ghaman: 202-493-3270;  
raj.ghaman@fhwa.dot.gov

#### “TMC Staffing and Scheduling for Day-to-Day Operations”

Purpose: Develop a technical document that will assist TMC managers in making staff workload and scheduling decisions, performing future staffing forecasts, estimating timelines for personnel procurement and recruiting, and analyzing staffing costs and productivity.

Champion: Manny Agah, Arizona DOT  
Status: Final annotated outline submitted in June 2005  
Completion Date: February 2006  
Contact: Raj Ghaman: 202-493-3270;  
raj.ghaman@fhwa.dot.gov

#### “TMC Operations Manual”

Purpose: Develop a technical document that provides guidance and recommends practices for initiating, developing, maintaining, and using TMC operations manuals. The technical document will be a detailed reference that addresses concepts, methods, processes, tasks, techniques, and other related issues for practitioners to consider in developing an operations manual for a TMC.

Champion: Peter Vega, Florida DOT  
Status: Handbook is under final editing

Completion Date: November 2005  
Contact: Raj Ghaman: 202-493-3270;  
raj.ghaman@fhwa.dot.gov

#### “TMC Clearinghouse Development and Initiation”

Purpose: Establish a central, one-stop clearinghouse at a Web site that houses a comprehensive database of TMC-related resources. The TMC clearinghouse will facilitate the sharing of information among practitioners and the dissemination of innovative tools, processes, problem-solving efforts, and capacity-building efforts to assist TMC practitioners in performing their duties and achieving the goals of their TMCs.

Champions: Manny Agah, Arizona DOT, and David Kinnecom, Utah DOT  
Status: Clearinghouse design is being developed  
Completion Date: April 2006  
Contact: Raj Ghaman: 202-493-3270;  
raj.ghaman@fhwa.dot.gov

#### “TMC Pilot Workshop Development and Delivery”

Purpose: Promote the TMC Pooled Fund Study effort and increase awareness of the Study's products and tools to a broader audience base. The focus of this project is a pilot TMC workshop to be held in the summer/fall of 2006. Themes of the workshop will focus on current and future TMC Pooled Fund Study activities and other topics that are recommended.

Champion: John Corbin, Wisconsin DOT  
Status: Project kick-off anticipated in Fall 2005  
Completion Date: Summer/Fall 2006  
Contact: Raj Ghaman: 202-493-3270;  
raj.ghaman@fhwa.dot.gov

#### “Regional, Statewide, and Multi-State TMC Concept of Operations and Requirements”

Purpose: Building off the existing *Developing and Using Concept of Operations in Transportation Management Systems Handbook*, this project will develop a document that will provide detailed guidance on how to develop and use concept of operations and system requirements as it applies to the life cycle of a regional, statewide, or multi-state TMC.

Champion: Jim McGee, Nebraska DOT  
Status: Project kick-off anticipated in Fall 2005  
Completion Date: Expected in Winter 2006  
Contact: Raj Ghaman: 202-493-3270;  
raj.ghaman@fhwa.dot.gov

### "Procuring, Managing, and Evaluating the Performance of Contracted TMC Services"

Purpose: Develop a technical document that will provide guidance and recommended practice to TMC owners and managers in making decisions related to outsourcing portions, or in entirety, of their TMC or transportation management system operation to a private contractor or contractors.

Champion: Manny Agah, Arizona DOT

Status: Project kick-off anticipated in Fall 2005

Completion Date: Winter 2006

Contact: Raj Ghaman: 202-493-3270;

raj.ghaman@fhwa.dot.gov

### "Recovery and Redundancy of TMCs"

Purpose: Develop a technical document that will synthesize current practices and state of the practices, highlight technical issues, lessons learned, and recommended practices, and detail how to plan, develop and implement redundancy design and recover plans for TMCs and transportation management systems.

Champion: Monica Kress, Caltrans

Status: Project kick-off anticipated in Fall 2005

Completion Date: Winter 2006

Contact: Raj Ghaman: 202-493-3270;

raj.ghaman@fhwa.dot.gov

### "Integration of TMC and Law Enforcement: Needs Assessment"

Purpose: Assess the current practices and identify issues, needs, and challenges that all involving agencies are facing in integrating TMCs and law enforcement. The results of this effort will lead to identification of a list of topics and issues to be addressed and a series of next steps to be considered in a further study that is intended to develop a product to provide necessary guidance to address agencies' needs.

Champion: John Domina, Nevada DOT

Status: Project kick-off anticipated in Fall 2005

Completion Date: Winter 2006

Contact: Tom Granda: 202-493-3365;

thomas.granda@fhwa.dot.gov

### "TMC Clearinghouse Support Services, Phase 2"

Purpose: Enhance and improve the support services for the TMC clearinghouse website that will be available online in Spring/Summer 2006. The study will also evaluate consumer feedback and recommendations for enhancing and improving the features and contents of the clearinghouse.

Champion: TMC Pooled Fund Study Co-Chairs

Status: Project kick-off anticipated in Spring 2006

Completion Date: Spring 2007

Contact: Raj Ghaman: 202-493-3270;

raj.ghaman@fhwa.dot.gov ☞

## New Projects

*Continued from Page 1*

### "Developing Travel Time Information"

This project will develop a technical document that provides guidance and recommended practices on the concepts, methods, techniques, and procedures for TMCs to collect, calculate, and predict travel time information. Algorithms for travel time calculation will be identified and evaluated.

### "Requirements and Position Descriptions for TMC Support Staff"

This project will build off of the information already compiled for operators and fill the need for guidance to operating agencies in developing knowledge, skill, and ability requirements and job classifications and descriptions for the TMC maintenance technicians, technology and engineering support, and system administrative personnel. Expanding the capability of the previously developed interactive software will also be performed.

### "Techniques for Managing Service Patrol Operations"

This synthesis study will identify the current best practices, state of the practices, and models and innovative techniques for managing service patrol operations. Key topics to be addressed include service patrol operation models, service patrol vehicle and resource requirements, dispatching versus roving patrol, funding mechanisms including public versus private ownership, performance tracking, and portable and mobile technology applications.

### "Best Practices for Road Condition Reporting Systems"

This project will review and synthesize current best practices and state of the practices in planning, design, and operation of road condition reporting systems as well as in integrating such systems with other road weather information/management systems. ☞

## New Publications

“Deploying the Integrated Metropolitan Intelligent Transportation Systems (ITS) Infrastructure: FY 2004 Report” (July 2005, FHWA-JPO-05-053) – This paper documents progress toward fulfillment of the Secretary’s goal of deploying a complete intelligent transportation infrastructure in 75 of the nation’s largest metropolitan areas by FY 2005. The results suggest that, while a significant level of progress has been made, even among deployment leaders there are still “miles to go” before a complete infrastructure is deployed. Available at: [http://www.itsdocs.fhwa.dot.gov/JPODOCS/REPTS\\_R/14137.htm](http://www.itsdocs.fhwa.dot.gov/JPODOCS/REPTS_R/14137.htm).

“ITS Deployment Statistics Website” (September 2005) – The ITS Joint Program Office’s ITS Deployment Statistics website is redesigned and updated with the new 2004 deployment data, gathered in a national survey in the summer and fall of 2004. The website contains results from several recent surveys: ITS technologies deployed in 30 medium-sized cities, and the country’s 78 largest metropolitan areas, as well as statewide and rural ITS systems deployed in all 50 states. The website can be a useful tool for state and local officials to help with regional ITS planning, as well as for vendors looking to size up the public sector market. The newly redesigned website can be accessed at <http://www.itsdeployment.its.dot.gov>.

“Highway Congestion: ITS’s Promise for Managing Congestion Falls Short, and DOT Could Better Facilitate Their Strategic Use” (September 2005, GAO-05-493) – This report, published by the U.S. Government Accountability Office, describes the federal role in ITS deployment; assesses U.S. DOT’s ITS goal and measurement efforts; identifies what ITS studies have found regarding the impacts of ITS deployment; and identifies the barriers to ITS deployment and use. Available at: <http://www.gao.gov/new.items/d05943.pdf>.

“National Transportation Operations Coalition Performance Measurement Initiative Report” (July 2005) – The National Transportation Operations Coalition (NTOC) Action Team on Performance Measurement has released a report that documents measures commonly agreed upon by state, local, and federal transportation officials as important for transportation operations and merit further study. An oversight team of senior transportation professionals from North America with balanced representation from federal, state, and local transportation agencies, and Metropolitan Planning

Organizations guided the initiative. Available at: [http://www.ntoctalks.com/ntoc/ntoc\\_final\\_report.pdf](http://www.ntoctalks.com/ntoc/ntoc_final_report.pdf).

“Effects of Catastrophic Events on Transportation System Management and Operations – The Pentagon and the National Capital Region, September 11, 2001 Findings” (April 2002, FHWA-JPO-05-042) - Available at: [http://www.itsdocs.fhwa.dot.gov/JPODOCS/REPTS\\_TE/14119.htm](http://www.itsdocs.fhwa.dot.gov/JPODOCS/REPTS_TE/14119.htm).

“Effects of Catastrophic Events on Transportation System Management and Operations – New York City, September 11 Draft Report” (April 2002, FHWA-JPO-05-041) - Available at: [http://www.itsdocs.fhwa.dot.gov/JPODOCS/REPTS\\_TE/14129.htm](http://www.itsdocs.fhwa.dot.gov/JPODOCS/REPTS_TE/14129.htm).

These reports document the actions taken by transportation agencies in response to the terrorist attacks in Pentagon in Arlington, Virginia and New York City on September 11. The findings documented in each report are a result of the creation of a detailed chronology of the events, a literature search, and interviews of key personnel involved in transportation operations decision-making on September 11. ☐

## Event Calendar

November 6-10, 2005	12 <sup>th</sup> ITS World Congress, San Francisco, California
January 22-26, 2006	TRB 85 <sup>th</sup> Annual Meeting Washington D.C.
March 19-22, 2006	ITE 2006 Technical Conference and Exhibit, San Antonio, Texas
May 8-10, 2006	ITS America 16 <sup>th</sup> Annual Meeting & Exposition, Philadelphia, Pennsylvania
June 6-7, 2006	North American Travel Monitoring Exhibition & Conference, Minneapolis, Minnesota
July 11-13, 2006	TMC Pooled Fund Study Annual Meeting, Seattle, Washington
August 6-9, 2006	ITE 2006 Annual Meeting and Exhibit, Milwaukee, Wisconsin
August 13-16, 2006	National Rural ITS Conference, Big Sky, Montana

## MEMBER NEWS

### Tennessee DOT is the Newest Member of the TMC Pooled Fund Study

The Tennessee DOT (TDOT) recently joined the TMC Pooled Fund Study. TDOT currently operates two TMCs: one in Nashville and another in Knoxville. Tennessee's intelligent transportation system (SmartWay) is housed in the TMCs. The SmartWay uses advanced information technologies to improve the safety and operation of highways and other transportation modes. The TMCs serve as a focal point for traffic management operations and communications. Features of the two-story TMC building include: a 2,000 square foot Operations Control Room; a Conference Room; 23 offices, including the HELP Program and Incident Management offices, TMC operations team and traffic engineering personnel; and a Media Room with outside TV hookups.

### Caltrans Posts Travel Times on CMS

The California Department of Transportation (Caltrans) begun posting estimated travel times on 14 electronic freeway signs across the Los Angeles region, part of a pilot program that Caltrans eventually hopes to expand. The information on the signs comes from 15,000 sensors Caltrans has placed on freeways to measure traffic speed. The fiber optic system has a sensor every half mile of urban freeway, transmitting information every 30 seconds. Officials pick key commute markers and calculate the commute time given the traffic flow. Each sign contains commute times for two destinations. The test period will last for three to six months on the 14 initial signs. If all goes well, Caltrans plans to extend the program to all 120 freeway signs across the region.

### TransGuide Celebrates 10 Years of Safety, Mobility and Leadership

TransGuide, the first TMC in Texas became operational covering 26 miles of San Antonio highways in 1995. Currently, TransGuide covers 93 miles and has 140 closed circuit television cameras, 50 miles of video image vehicle detection system cameras, 207 dynamic message signs, 766 lane control signals and 220 traffic sensor locations. TransGuide is a partnership between Texas DOT, the City of San Antonio (police/fire/EMS/traffic) and VIA Metropolitan Transit. The system provides information to motorists about traffic conditions, such as major/minor accidents, congestion and construction.

### Wisconsin DOT's Traffic Operations Center Goes 24/7

The Wisconsin DOT (WisDOT) Traffic Operations Center (TOC) began operating 24 hours a day, seven days a week as of 11:00 p.m. on June 26, 2005. Part-time student staff was hired for control room operator positions, and some staff shifted their work schedules to cover the expanded hours. The 24/7 TOC operations lends support to the Marquette Interchange construction project, which is the largest freeway reconstruction project in Wisconsin's history. In addition, WisDOT's traveler information website recently underwent an upgrade, which made it possible to display a greater number of cameras on the Internet page for public viewing. The camera upgrade project is using Industrial Video Control software with Cortec encoding hardware and Nortel networking components.

### Connecticut DOT's Traffic "E-Alert" System Wins National Website Award

Connecticut Receives "2005 Innovative Traveler Information Website Design" Award from FHWA. In March 2005, the Connecticut DOT launched its "e-alert" system, a statewide electronic rail and highway traffic incident notification system for the State of Connecticut. The service is available at no cost 24 hours a day, seven days a week to subscribers with access to electronic mail. The traffic e-alerts are generated from the DOT's Highway Operations Centers in Newington and Bridgeport. The rail e-alerts are generated from the DOT's New Haven Rail Operations Center.

*TMCUpdate* is a quarterly newsletter produced by the Transportation Management Center (TMC) Pooled Fund Study. This quarterly publication highlights major TMC Pooled Fund Study activities and achievements and shares TMC related news and resources. Reproduction (in whole or in part) and broad distribution of this newsletter is strongly encouraged. The TMC Pooled Fund Study invites inquiries about articles and suggestions for TMC developments and advancements to be covered in future issues. For more information, please contact the Program Administrator, Raj Ghaman at Tel: 202-493-3270 or E-mail: raj.ghaman@fhwa.dot.gov; or the newsletter editor, Ming-Shiun Lee at Tel: 612-373-6335 or E-mail: ming\_shiun\_lee@urscorp.com.