



U.S. Department
of Transportation
**Federal Highway
Administration**

TMCUpdate

TRANSPORTATION MANAGEMENT CENTER POOLED FUND STUDY

January 2005

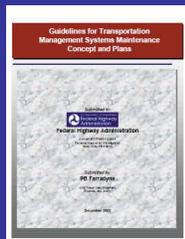
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PUBLICATION HIGHLIGHT...

The new *Transportation Management System Maintenance Concept and Plans Handbook* (December 2002, FHWA-OP-04-011) is now available online.

It provides recommended practices and guidance to assist agencies with systematically integrating maintenance into their program planning, resource allocation, policies, system planning and design, and other related activities that occur throughout the life cycle of their transportation management systems.



See page 6

New Projects Selected for 2005

At the 2004 annual meeting, the 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 five top-ranked proposals, briefly described here, to begin in 2005:

“Recovery and Redundancy of TMCs”

The objective of this project is to scan and synthesize current practices and report the state of the practice as it relates to redundancy and recovery of TMCs. The project will also highlight technical issues to consider, lessons learned, and recommended practices for planning, designing, developing, and implementing TMC recovery plans and redundancy.

“Integration of TMC and Emergency Management”

This project will examine issues and synthesize the state of practices, benefits, and challenges related to the integration of emergency management and TMCs. Operational, institutional, technical, and procedural aspects will be covered.

“TMC Clearinghouse Support Services, Phase 2”

Phase 2 will provide continued and improved support services for the TMC clearinghouse that is being created in the initial phase of this project. The study will also evaluate consumer feedback and recommendations for enhancing and improving the features and functions of the clearinghouse.

“Procuring, Managing, and Evaluating the Performance of Contracted TMC Services”

The product of this project will be a technical document that provides guidance and recommended practice to TMC owners and managers in the area of outsourcing maintenance and operational activities. The guidance will address the need for outsourcing as well as the methodologies being utilized to operate and maintain transportation management systems. It will include a compendium of best practices and a comparison matrix of the benefits of methodologies that might be applied to functional areas of the TMC systems.

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

This project will develop a handbook that provides technical guidance and recommended practices on how to develop and use a concept of operations and requirements throughout the life cycle of a regional, statewide, or multi-State TMC. The initiative will build on the current TMC Pooled Fund Study project.

See *New Projects*, Page 6

Configuration Management for Transportation Management Systems Handbook

Configuration management (CM) describes a series of processes and procedures developed in the information technology community to establish and maintain system integrity. It is an integral part of the systems engineering process. While some of the terms used in CM may be unfamiliar to transportation professionals, the core concepts and practices of CM are not technically complex. Rather, they represent sound practices in developing and maintaining any system.

The fundamental purpose of CM is to establish and maintain system integrity. The importance of CM in establishing and maintaining a functionally sound transportation management system cannot be overstated. However, CM can consume significant amounts of staff time and money. For this reason, developing a CM program that fits the needs of a particular system is vital to its success.

“With almost 20 years experience in the design, implementation, modification, and expansion of our system, the benefits of being quickly able to recover from problems by returning to an earlier working state are enormous. Our system has been very dynamic, and there is always some area where we are working on an improvement or upgrade, while still actively managing traffic.”

—Comment from survey of transportation agencies, Spring 2000

Many agencies are just now becoming aware of the need for CM. In a 2000 survey, only 27 percent of signal control systems and 62 percent of freeway management systems reported using CM at all. An earlier National Cooperative Highway Research Program (NCHRP) synthesis study on the topic collected significant anecdotal information about what happened when agencies did not use CM (see NCHRP Synthesis 294—Configuration Management in Transportation Management Systems (July 2001)). In one case, the agency was upgrading their central control software, and the new contractor had to reverse-engineer several protocols for field devices because documentation was not available. Important benefits accrue to agencies that use CM:

- Documentation (requirements, design, test, and acceptance documentation) for items is accurate and consistent with the actual physical design of the item.
- An accurate, up-to-date baseline of the system exists, if needed for disaster recovery.
- Administration-of-change decisions are handled with a systemwide perspective in mind.

- Requirements are tracked throughout the life cycle through acceptance, operations, and maintenance, creating an accurate record of the status of the system.

To help transportation professionals who are planning to introduce formal CM in a traffic management system or regionally integrated ITS or who are seeking to improve practices in an existing CM program, a TMC Pooled Fund Study project has developed the Configuration Management for Transportation Management Systems Handbook (September 2003, FHWA-OP-04-013, EDL# 13885). The handbook provides guidance on developing a CM program and associated plan, control processes, position requirements, training, tools, and accounting system, and explains how to apply these procedures and processes throughout a system’s life cycle. This project also identified the potential CM issues to consider when integrating and sharing information among multiple agencies and interests within a region or State.

The 220-page handbook is divided into 10 chapters covering 3 key areas:

Chapters in the CM Handbook

1. Introduction
2. Configuration Management and Transportation Management Systems—Current Practices
3. Configuration Management Processes
4. Configuration Management Plan
5. Configuration Management Baselines
6. Configuration Management Program—Making it Work in Your Agency
7. Configuration Management and the System Life Cycle
8. Configuration Management Tools
9. Resources to Support Configuration Management Programs
10. Conclusion

Section 1, General Introduction to CM and Transportation Management Systems, provides general information describing CM and presents an overview of the current practices in CM and transportation management systems. This section is well suited as an introduction to those new to the subject and to management personnel.

Section 2, Technical Guidance—CM and Transportation Management Systems, provides detailed information on how to implement CM in transportation management systems. It is intended for a technical audience of individuals who are responsible for implementing a CM program.

Section 3, Guidance for Implementing a CM Program, provides further guidance to help transportation professionals implement or improve a CM program to support a transportation

management system. Going beyond the technical details of CM, the text covers such topics as the resources required to sustain a program and the tools available to support CM. This section is appropriate for technical personnel and management to consider when framing an agency's program.

Finally, the handbook concludes with a presentation and discussion of nine guiding principles for CM and transportation management systems.

Transportation professionals and managers will likely use this handbook in different ways:

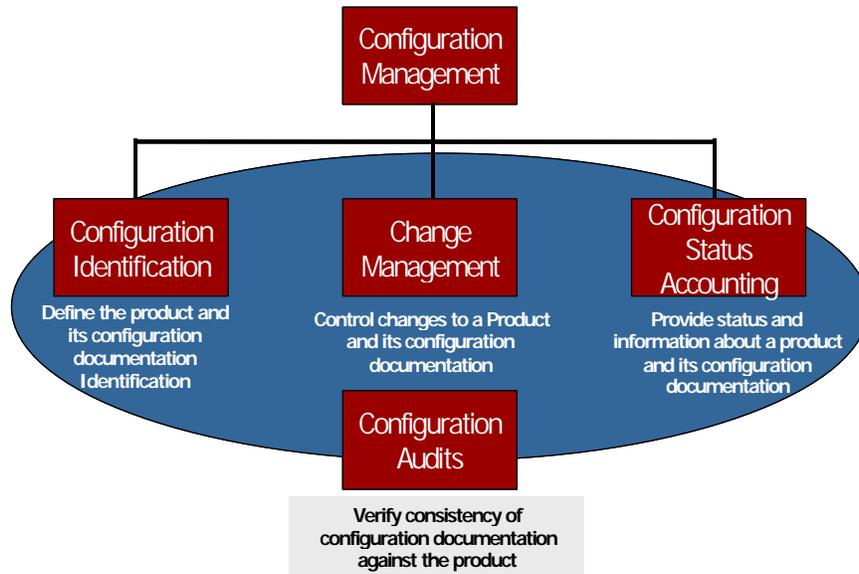
- To increase awareness of what CM is and why it is important.
- To guide implementation of a CM process.
- To serve as a resource after a CM program has been established.

The handbook, however, is not intended to be a step-by-step blueprint for setting up a CM system for an agency because CM is not a "one size fits all" process. Instead, the handbook explains the standard and the process and provides examples of how other agencies have developed their systems.

"As in any large, complex system, CM can provide a constant understanding of the current state of the system...The key factor in CM is having a central repository of information for reference as personnel changes occur over the life of the system. It is also a great aid in maintaining the system when items are replaced for repair. Technicians should have ready access to configuration data when installing or re-installing standard system components."

—Comments from survey of transportation agencies
Spring 2000

The CM project developed, in addition to the handbook, a fact sheet, primer, brochure, and technical presentation to help key individuals within agencies gain a better understanding of the need for CM programs and the resources they require. These supporting materials can be used by traffic management, ITS, or other staff who are involved with a CM program at some time in its life cycle,



Elements of Configuration Management

make decisions that influence its operations, or allocate resources for a system. The materials are designed to help staff gain an appreciation for the importance of CM activities and practices.

The CM handbook will also be used as a primary resource for the forthcoming National Highway Institute (NHI) Course No. 137042, "Configuration Management for Transportation Management Systems." The 2-day course will be

available in spring 2005. More information about course content and availability will be available soon on the NHI Web site (www.nhi.fhwa.dot.gov).

The configuration management handbook and supporting materials are available on the TMC Pooled Fund Study Web site at http://tmcdfs.ops.fhwa.dot.gov/cfprojects/new_detail.cfm?id=24&new=2 or through the USDOT Electronic Document Library at www.its.dot.gov/itsweb/welcome.htm. ■

Configuration Management Guiding Principles

- Identify the context and environment in which CM is to be implemented, and develop an appropriate CM plan accordingly.
- Define procedures describing how each CM process will be accomplished.
- Conduct training so that all responsible individuals understand their roles and responsibilities and the procedures for implementing CM processes.
- Assign all items with unique identifiers so that one item can be distinguished from other items.
- Use the definition: Configuration documentation defines the functional, performance, and physical attributes of a system.
- Identify a baseline using an agreed-to description of the attributes of an item at a point in time and provide a known configuration to which changes are addressed.
- Uniquely identify each change.
- Consider the technical, support, schedule, and cost impacts of a requested change before making a judgment as to whether or not it should be approved for implementation and incorporation in the item and its documentation.
- Implement a change in accordance with documented direction approved by the appropriate level of authority.

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://tmcpfs.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 (1) 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; and (2) identify the institutional issues, agreements, technologies, support services, traffic control plans, analysis techniques and tools, support programs, and other factors that may be appropriate to consider in the various phases associated with planning, managing travel, and providing services.

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

Web Site:

http://tmcpfs.ops.fhwa.dot.gov/cfprojects/new_detail.cfm?id=48&new=0

Completion Date: Spring 2005

Contact: James Colyar: 202-493-3282;
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

Web Site:

http://tmcpfs.ops.fhwa.dot.gov/cfprojects/new_detail.cfm?id=38&new=0

Completion Date: December 2004

Contact: Emiliano Lopez: 410-962-0116;
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 will build upon the TMC Pooled Fund Study project “Changeable Message Sign Operation and Messaging Handbook.”

Champion: Jeff Galas, Illinois DOT

Web Site:

http://tmcpfs.ops.fhwa.dot.gov/cfprojects/new_detail.cfm?id=31&new=0

Completion Date: Spring 2005

Contact: Tom Granda: 202-493-3365;
thomas.granda@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: Nick Thompson, Minnesota DOT, and David Kinnecom, Utah DOT

Completion Date: February 2006 (to be initiated in January 2005)

Web Site:

http://tmcpfs.ops.fhwa.dot.gov/cfprojects/new_detail.cfm?id=61&new=3

Contact: Raj Ghaman: 202-493-3270; raj.ghaman@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

Web Site:

http://tmcpfs.ops.fhwa.dot.gov/cfprojects/new_detail.cfm?id=54&new=0

Completion Date: Summer 2005

Contact: Raj Ghaman: 202-493-3270; 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

Web Site:

http://tmcpfs.ops.fhwa.dot.gov/cfprojects/new_detail.cfm?id=55&new=0

Completion Date: Spring 2005 (software testing began in October 2004)

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 serve as a technical reference that

provides 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
Completion Date: Winter 2005 (initiated in August 2004)
Web Site:
http://tmcpsf.ops.fhwa.dot.gov/cfprojects/new_detail.cfm?id=62&new=3
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. The document will provide guidance and recommended practices for effective workload analysis and staffing assessment as they relate to TMC management. A simplified software tool, such as a spreadsheet, will also be developed to assist in making staff workload decisions.

Champion: Manny Agah, Arizona DOT
Completion Date: Spring 2006 (to be initiated in February 2005)
Web Site:
http://tmcpsf.ops.fhwa.dot.gov/cfprojects/new_detail.cfm?id=63&new=3
Contact: Raj Ghaman: 202-493-3270; raj.ghaman@fhwa.dot.gov

“TMC Workshop Development and Proposal for 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 of 2005. 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
Completion Date: TBA
Web Site:
http://tmcpsf.ops.fhwa.dot.gov/cfprojects/new_detail.cfm?id=64&new=3
Contact: Raj Ghaman: 202-493-3270; raj.ghaman@fhwa.dot.gov

“Transportation Management Center 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
Completion Date: Fall 2005 (initiated in August 2004)
Web Site:
http://tmcpsf.ops.fhwa.dot.gov/cfprojects/new_detail.cfm?id=58&new=3
Contact: Raj Ghaman: 202-493-3270; raj.ghaman@fhwa.dot.gov



Annual Meeting Held in June 2004

The TMC Pooled Fund Study held its annual meeting June 8–10, 2004. Practitioners from 19 participating agencies met at the Minnesota Department of Transportation’s (DOT’s) Regional Transportation Management Center (RTMC) in Roseville. The meeting opened with a morning tour of the research labs at the Intelligent Transportation Systems (ITS) Institute at the University of Minnesota. The group observed demonstrations of the driving simulator in the HumanFIRST Program and the traffic monitoring center and simulator in the ITS Laboratory.

Later, members assembled to discuss the core TMC Pooled Fund Study. Marthand Nookala, Director of Operations, Safety, and Technology for Minnesota DOT, welcomed all participants in his opening remarks. He noted the importance of TMCs and the challenges they are facing, and acknowledged the accomplishments of the TMC Pooled Fund Study. The agenda continued with a review of the study’s financial and program status, progress reports and presentations on current projects, and review and discussion of the study’s communication plan.

The second day was dedicated to discussion and selection of projects to be initiated in 2005. Prior to the meeting, the members had reviewed nine project proposals developed for their

consideration. At the meeting, they reviewed, revised, and prioritized the proposals through an iterative process, and then selected five projects for 2005 (see page 1). The day concluded with a technical tour of the Minnesota DOT’s state-of-the-art RTMC facility.

The final morning included presentations about Minnesota’s experiences in transportation management. Topics were the I-394 high-occupancy toll lane project, Northwest Passage Transportation Pooled Fund Program, Twin Cities Ramp Metering Study, and RTMC software and applications.

The next TMC Pooled Fund Study annual meeting will be held on June 14-16, 2005 in Providence, Rhode Island. ■



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>.

New Projects

Continued from Page 1

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

Two additional projects received significant interest at the 2004 annual meeting. Due to funding limitations, these projects remain on the Pooled Fund Study wish list. Members are seeking additional participation from other agencies to fund these projects.

“Requirements and Position Descriptions for TMC Support Staff”

This project would build on information already compiled for operators in a previous Study effort to provide guidance to transportation operating agencies in developing knowledge, skill, and ability requirements; job classifications; and job descriptions for TMC personnel. The guidance would cover maintenance technicians; technology and engineering support; system administrators; and clerical, supervisory, and management personnel.

“Development and Delivery of Additional TMC Workshops”

The focus of this Phase 2 project would be to provide continued and improved support services for additional workshops beyond the pilot workshop developed in the Phase 1 effort. The project would use audience feedback and lessons learned from the pilot workshop and similar efforts around the country to improve development, delivery, and support of TMC workshops. ■

New Publications

Now Available—TMC Pooled Fund Study Publications

“CMS Operation and Messaging Handbook”

This CMS handbook consolidates the best and most current information on the design and display of effective messages for incident and roadwork events on CMS's. The handbook was written for personnel in State, regional, and local transportation agencies that are responsible for operating portable and permanent CMS's or designing CMS messages. Designed to help new and experienced staff at various levels of the agency, it provides specific information for entry-level personnel, reminders for experienced personnel, and higher-level information for managers regardless of whether or not they work in one of the TMCs in the State.

Available at

http://tmcdfs.ops.fhwa.dot.gov/cfprojects/new_detail.cfm?id=25&new=2.

“Configuration Management for Transportation Management Systems”

The CM handbook (September 2003, FHWA-OP-04-013) and support materials (a primer, fact sheet, tri-fold brochure, and technical presentation) are reviewed on page 2. They are available at www.its.dot.gov/itsweb/welcome.htm or at

http://tmcdfs.ops.fhwa.dot.gov/cfprojects/new_detail.cfm?id=24&new=2.

“Guidelines for TMC Transportation Management Operations Technician Staff Development”

A primary purpose of the Guidelines is to enable TMC managers to assemble position descriptions that reflect the true requirements of the TMC in a way that will help human resource specialists and civil service personnel classify and hire the right individual for each job. Requirements matrices show how required tasks for TMC functions and operations relate to the knowledge, skills, and abilities a person needs to accomplish the tasks. Training requirements for operations personnel are discussed. The comparison of operations personnel positions to the current Federal job classification system provides insight into human resource considerations such as compensation requirements. An electronic spreadsheet tool was also developed to assist TMC managers and human resource personnel with developing position descriptions. Available at

http://tmcdfs.ops.fhwa.dot.gov/cfprojects/new_detail.cfm?id=26&new=0.

“Managing Travel for Planned Special Events Handbook”

(September 2003, FHWA-OP-04-010) and Supporting Materials This handbook offers an overview of the institutional, procedural, program, and technical issues associated with managing travel for special events. It emphasizes the importance and benefits of proactively managing travel for planned special events to improve travel safety, mobility, and travel time reliability across all surface transportation modes and roadway facilities. The Managing Travel for Planned Special Events Handbook leads practitioners step by

step through all phases of managing special events travel with recommended policies, regulations, planning and operations processes, impact mitigation strategies, tools and personnel resources, and technology applications. Those who will benefit from the handbook include transportation engineers, planners, transit providers, law enforcement officers, public safety personnel, and event organizers who are involved with policies, programs, advanced planning, stakeholder coordination, and day-to-day activity management for planned special events. Companion outreach materials (presentation, tri-fold brochure, fact sheet, and frequently asked questions) were developed to facilitate conveying key messages and concepts contained in the handbook. These materials highlight successful practices; identify benefits; and encourage utilization and integration of the concepts, methods, procedures, and techniques contained in the handbook into an agency's programs, policies, and procedures. Available at the FHWA Planned Special Events Traffic Management Program Web page at www.ops.fhwa.dot.gov/program_areas/sp-evnts-mgmt.htm. It is also available online at http://tmcpsf.ops.fhwa.dot.gov/cfprojects/new_detail.cfm?id=59&new=0; and at www.its.dot.gov/itsweb/welcome.htm.

“Transportation Management System Maintenance Concept and Plans Handbook”

(December 2002, FHWA-OP-04-011)
This handbook provides recommended practices and guidance to assist agencies with systematically integrating maintenance into their program planning, resource allocation, policies, system planning and design, and other related activities that occur throughout the life cycle of their transportation management systems. It provides an overview of the institutional, procedural, program, and technical issues associated with the maintenance of a transportation management system. It also provides guidance on developing a maintenance concept, maintenance program, and multiyear maintenance plan that collectively provide the policies, resources, environment, and procedures necessary to support a transportation system operation. Available at http://tmcpsf.ops.fhwa.dot.gov/cfprojects/new_detail.cfm?id=27&new=2 and at www.its.dot.gov/itsweb.

New FHWA Publications

“AMBER, Emergency, and Travel Time Messaging Guidance for Transportation Agencies” (May 2004)—This new FHWA publication provides assistance and direction to transportation officials in planning, designing, and providing various types of traveler information messages on CMS's for travel time information, emergency or security warnings, and child abduction (AMBER) alerts. The document also reports the findings of interviews with a number of State DOT and FHWA division office representatives across the country. Available at www.ops.fhwa.dot.gov/TravelInfo/resources/cms_rept/cmspractices.htm.

“Delaware TMC Evaluation Report” (June 2004)—This report documents the successes of the DelTrac program and the lack of success of the specific ITS project that was to deploy the DelTrac

infrastructure. Available at www.itsdocs.fhwa.dot.gov//JPODOCS/REPTS_TE//14019.html

“Case Study: Innovative Procurement and Implementation Process” (November 2003, DOT-VNTSC-FHWA-03-06)—A recent case study released by USDOT profiles a unique procurement process used by the Connecticut DOT that helped to eliminate common problems such as improperly defining system requirements and inappropriately managing changing requirements. In a recent study conducted by the Volpe Center, researchers found that ITS projects that included the development of software, integration of systems, or both continue to experience a significant number of delays. However, the study also revealed that staffs at State DOTs are addressing these issues using innovative processes. This case study describes one such process. Available at www.itsdocs.fhwa.dot.gov//JPODOCS/REPTS_TE//14044.html

“Traffic Congestion and Reliability: Linking Solutions to Problems” (July 2004)—This report provides a snapshot of congestion in the United States by summarizing recent trends in congestion, highlighting the role of unreliable travel times in the effects of congestion, and describing efforts to curb congestion. The document presents a framework for understanding the various sources of congestion, ways to address congestion by targeting these sources, and performance measures for monitoring trends in congestion. Available at www.ops.fhwa.dot.gov/congestion_report/index.htm. ■

Event Calendar	
TMC Pooled Fund Study Events	
March 8, 2005	TMC PFS Member Quarterly Conference Call at 1 PM EST.
June 14-16, 2005	TMC PFS Annual Meeting Providence, Rhode Island.
Other Events	
February 27- March 2, 2005	ITE 2005 Technical Conference and Exhibit, Las Vegas, Nevada.
May 1-4, 2005	ITS America Annual Meeting Phoenix, Arizona.
May 17-18, 2005	HOV Pooled Fund Study Annual Meeting, Seattle, Washington.
June 5-9, 2005	Joint Meeting (AASHTO Standing Committee on Planning, Subcommittee on Systems Operations & Management, TRB Freeway Operations Committee, and TRB Regional Transportation Systems Management & Operations Committee), Overland Park, Kansas.
August 7-10, 2005	ITE Annual Meeting Melbourne, Australia.
November 6-10, 2005	12 th ITS World Congress San Francisco, California.

Membership

Current membership in the TMC Pooled Fund Study consists of FHWA, I-95 Corridor Coalition, and transportation or highway agencies from 27 States and the District of Columbia:

- Arizona
- California
- Connecticut
- Delaware
- District of Columbia
- FHWA
- Florida
- Georgia
- I-95 Corridor Coalition
- Idaho
- Illinois
- Indiana
- Kansas
- Kentucky
- Michigan
- Minnesota
- Mississippi
- Missouri
- Nebraska
- Nevada
- New Jersey
- New York
- North Carolina
- Pennsylvania
- Rhode Island
- Texas
- Utah
- Virginia
- Washington
- Wisconsin

Member News—Recipients of ITS America TOC/TMC Award

ITS America's Transportation System Operations and Planning Forum recognized the recipients of the Transportation/Traffic Operations Centers or Transportation Management Centers Award at the ITS America Annual Meeting in San Antonio, Texas, in April 2004. The Minnesota DOT Regional TMC and the Rhode Island DOT TMC received the 2004 TOC/TMC Recognition Award.

Congratulations to Nick Thompson of Minnesota DOT and Cynthia Levesque of Rhode Island DOT on their receipt of the award, which honors their dedication, commitment, and service as local champions in advancing the practices of TMCs.

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Contribute articles for inclusion in the next TMC Update by March 15, 2005 to: ming_shiun_lee@urscorp.com