

Transportation Management Center (TMC) Pooled Fund Study: FY 07 Overview

Purpose and Goal of TMC Pooled Fund Study:

The TMC Pooled Fund Study is intended to provide a forum for participants to identify and address operational and human centered issues that are common among agencies that manage and operate TMCs. The study focuses on issues facing traffic signal control system, freeway management system, and multi-modal TMCs, and brings together regional, State, and local traffic management agencies, in concert with the FHWA, to:

1. Identify human-centered and operational issues;
2. Suggest approaches to addressing identified issues;
3. Initiate and monitor projects intended to address identified issues;
4. Provide guidance and recommendations and disseminate results;
5. Provide leadership and coordinate with others with TMC interests; and
6. Promote and facilitate technology transfer related to TMC issues nationally.

Membership:

Membership in the TMC Pooled Fund Study consists of twenty-eight public agencies and the FHWA. Agencies may join at anytime during the year by committing funds at a level deemed appropriate by the members. The study has been approved for 100 percent SP&R funding. Any non-commercial agency or organization that is responsible for the management and operation of any portion of the surface transportation system is welcome to join the study. Such agencies and organizations may include cities, counties, toll authorities, turnpike authorities, port authorities, and corridor coalitions. Current members are the FHWA and the following agencies:

Member	Technical Contact	Member Since
Arizona Department of Transportation	Scott Nodes	2000
California Department of Transportation	Mike Jenkinson	2000
Connecticut Department of Transportation	Harold Decker	2000
Delaware Department of Transportation	Gene Donaldson	2000
Florida Department of Transportation	Lap Hoang	2000
Georgia Department of Transportation	Mark Demidovich	2001
I-95 Corridor Coalition	Henry deVries	2001
Idaho Transportation Department	Robert Koeberlein	2005
Illinois Department of Transportation	Jeffrey Galas	2000
Indiana Department of Transportation	Jay Wasson	2000
Kansas Department of Transportation	Michael Floberg	2000
Kentucky Transportation Cabinet	Leon Walden	2004
Michigan Department of Transportation	Mia Silver	2001
Minnesota Department of Transportation	Todd Kramasz	2001
Missouri Department of Transportation	Troy Pinkerton	2000
Nebraska Department of Roads	Jim McGee	2001
Nevada Department of Transportation	John Domina	2000
New Jersey Department of Transportation	Michael Pilsbury	2001
New York Department of Transportation	John Bassett	2000
North Carolina Department of Transportation	Kelly Damron	2005
Pennsylvania Department of Transportation	Doug Tomlinson	2001
Rhode Island Department of Transportation	Cynthia Levesque	2000
Tennessee Department of Transportation	Ali Farhangi	2006
Texas Department of Transportation	Jessica Dai	2002
Utah Department of Transportation	David Kinnecom	2003
Virginia Transportation Research Council	Catherine McGhee	2000
Washington Department of Transportation	Vinh Dang	2002
Wisconsin Department of Transportation	John Corbin	2002

Process to Identify, Select, and Initiate New Projects:

The members meet annually to review progress on current projects, and to identify and select new projects. Projects are selected based on needs that are identified through an iterative process that involves the TMC Pooled Fund Study member input, state-of-practice reviews, and issues identified by professional organizations. Based on the prioritized list of needs, project proposals are developed for further consideration and reviewed by members in advance of the annual meeting. At the annual meeting these project proposals are reviewed, revised, prioritized, and selected through an iterative process. Consensus building techniques are used to ensure that the needs identified by all members are accommodated to the extent possible.

The projects that are selected and advanced are based on priority ranking established by the members and resources that are available to the study for that year. Project groups that consist of representatives from the member agencies guide the development of the scope of the project, provide technical assistance, and direction after the annual meeting. This involvement includes any further revision of the project scope, clarification of project objectives, development of the statement of work, contractor selection, technical review and direction throughout project development and execution.

Completed and Current Projects:

Twenty-six projects have been selected over the past six years. Six additional projects have been selected at the annual meeting in July 2006 and will be initiated in 2007. Brief descriptions of the completed and current projects are provided in the following paragraphs. Additional information on these projects can be found on the TMC Pooled Fund Study website at <http://tmcops.ops.fhwa.dot.gov/>.

Completed Projects/Products:

- § TMC Operator Requirements and Position Descriptions Technical Document
- § TMC Operator Position Description Creation Tool (http://tmcops.gtri.gatech.edu/tool_home.php)
- § Changeable Message Sign Operation and Messaging Handbook
- § Guidelines for Transportation Management Systems Maintenance Concept and Plans
- § Configuration Management for Transportation Management Systems Handbook
- § Managing Travel for Planned Special Events Handbook
- § Coordinated Freeway and Arterial Operations Handbook
- § Impacts of Using Dynamic Features to Display Messages on Changeable Message Signs
- § Handbook for Developing a TMC Operations Manual
- § TMC Staffing and Scheduling for Day-to-Day Operations Handbook and Tool

Current Projects:

Developing and Using Concept of Operations for Transportation Management Systems: The objective of this project is to develop a document that provides technical guidance and recommended practices on the need for and how to develop and use a concept of operations throughout the life cycle of a TMC.

Milestones & Products:

- § Final Technical Document – available on the TMC Pooled Fund Study website.
- § Primer and Outreach Material (Fact Sheet, Brochure, Presentation) – Spring 2007.

TMC Business Planning and Plans Handbook: The purpose of this project is to develop a handbook that provides guidance and best practices on how to develop a TMC business plan. The handbook will also outline the various business planning models that have been successfully employed by transportation agencies to ensure the long-term sustainability of transportation management centers and associate ITS applications.

Milestones & Products:

- § Final Technical Document – available on the TMC Pooled Fund Study website.
- § Primer and Outreach Material (Fact Sheet, Brochure, Presentation) – Spring 2007.

TMC Performance Monitoring, Evaluation and Reporting Handbook: The purpose of this project is to develop a handbook that provides guidance and recommended practices on the need for, how to initiate, sustain, and use information generated from monitoring, evaluating, and reporting on the performance of a TMC and its roles, responsibilities, functions, and support services as related to traffic management.

Milestones & Products:

- § Final Technical Document – available on the TMC Pooled Fund Study website.
- § Primer and Outreach Material (Fact Sheet, Brochure, Presentation) – Spring 2007.

TMC Clearinghouse Development and Initiation: The purpose of this project is to establish a central clearinghouse (one stop) located on an internet website that houses a comprehensive database of TMC related resources and will provide resources at one central location.

Milestones & Products:

- § TMC Clearinghouse Website – October 2006.
- § Outreach Material (Fact Sheet, Brochure, Presentation) – January 2007.

Statewide, Multi-State, and Regional TMC Concept of Operations and Requirements: The objective of this project is to provide technical guidance and recommended practices on what are regional/statewide/multi-state TMCs; pros and cons of the concept; how to develop and use a concept of operations and requirements; policy, institutional and technical issues to consider; resources required; stakeholders to involve; process for development and implementation; and operations and maintenance considerations.

Milestones & Products:

- § Handbook – draft in November 2006 and final in January 2007.
- § Outreach Material (fact sheet and technical presentation) – January 2007.

Recovery and Redundancy of TMCs: This project will scan and synthesize current practices and state of the practices as related to redundancy and recovery of TMCs. This project will also highlight technical issues to be considered, lessons learned, and recommended practices on the concepts, methods, and procedures for planning, design, develop and implement redundancy of and recovery plans for TMCs.

Milestones & Products:

- § Handbook – draft in December 2006 and final in February 2007.
- § Outreach Material (fact sheet and technical presentation) – February 2007.

Procuring, Managing, and Evaluating the Performance of Contracted TMC Services: The focus of this project is a scan of current TMC owners to determine outsourcing activities and the methodologies being utilized. A technical document will be developed to provide guidance and recommended practice to TMC owners and managers to determine their outsourcing needs, activities and the methodologies being utilized to operate and maintain the transportation management systems.

Milestones & Products:

- § Project Kickoff – October 2006.
- § Products: technical document, fact sheet, tri-fold brochure, and technical presentation – February 2008.

Integration of TMC and Law Enforcement – Needs Assessment: This project will assess the current practices and identify institutional, operational and technical issues and challenges that all involving agencies are facing with 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 that will provide necessary guidance to address agencies' needs.

Milestones & Products:

- § Project initiation – Anticipated in Spring 2007.
- § Product: A Findings Report.

TMC Clearinghouse Support Services, Phase 2: The purpose of this project is to provide continued and improved support services for the TMC Clearinghouse that was created in the initial phase of the project. This phase 2 project will also evaluate the feedback and recommend enhancement from the user and improve the features and functions of the clearinghouse as appropriate.

Milestones & Products:

- § Project Initiation – Anticipated in Spring 2007.
- § Products: enhanced TMC Clearinghouse, evaluation report on user feedback, outreach and marketing material (fact sheet, brochure, and presentation).

TMC Pilot Workshop Development and Delivery: This project is intended to promote the TMC Pooled Fund Study effort and increase the awareness of TMC Pooled Fund Study products and tools to a broader audience base. The focus of this project is holding a pilot workshop in 2007. Particular themes of the workshop will focus on current and future TMC Pooled Fund Study activities and other topics that are recommended.

Milestones & Products:

- § Project Initiation – Anticipated in Spring 2007.
- § Workshop Materials – Fall 2007.
- § TMC Workshop – Winter 2007.

Methodologies to Measure and Quantify TMC Benefits: The purpose of this project is to gain a better understanding of and to quantify benefits in traffic operations due to the implementation of TMCs and the systems, infrastructure, and functions associated with their operations. This project will be performed through two phases: (1) Phase 1 – Produce a synthesis report and evaluate the feasibility of developing a software tool for quantifying TMC benefits and (2) Phase 2 – Develop a software tool.

Milestones & Products:

- § Phase 1 initiation – Anticipated in Spring 2007.
- § Phase 1 Products: A Synthesis Report and Phase 2 Work Plan.

Driver Use of Real-Time En-Route Travel Time Information: This study will assess impacts of en-route real-time travel time or delay 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.

Milestones & Products:

- § Project initiation – Anticipated in Spring 2007.
- § Products: A research report and a white paper.

Developing Travel Time Information: This project will review and synthesize the state of the practice, successful stories, and lessons learned around the country, as well as 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.

Milestones & Products:

- § Project initiation – Anticipated in Spring 2007.
- § Products: A technical document and outreach material (fact sheet, brochure, and presentation).

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 transportation operating agencies in developing KSA requirements and job classifications and descriptions for the TMC maintenance technicians, technology and engineering support, and system administrative personnel. This project will also include expanding the capability of the interactive software developed in previous efforts by incorporating additional information that will be developed in this project.

Milestones & Products:

- § Project initiation – Anticipated in Spring 2007.
- § Products: An enhanced interactive software tool, a project report, and outreach material (fact sheet, brochure, and presentation).

Techniques for Managing Service Patrol Operations: The purpose of this study is to identify and synthesize current best practices, state of the practices, models, and innovative techniques for managing service patrol operations. The synthesis study will address topics including, but not being limited to, 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.

Milestones & Products:

- § Project initiation – Anticipated in Spring 2007.
- § Products: A synthesis report, a project fact sheet, and a presentation.

Best Practices for Road Condition Reporting Systems: The purpose of this project is to 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.

Milestones & Products:

- § Project initiation – Anticipated in Spring 2007.
- § Products: A synthesis report, a project fact sheet, and a presentation.

2007 Projects:

The following six projects have been selected to initiate in 2007:

- § TMC Infrastructure Maintenance Management System
- § TMC Human Factors Design Guidelines: Requirements Analysis
- § TMC Staffing & Scheduling for Day-to-day Operations, Phase 2: Software Development
- § Developing TMC Operator Training Program Guidelines
- § Knowledge Needs Assessment and Workshops for TMC Owners, Managers and Operators
- § TMC Data Capture for Performance and Mobility Measures

Program Administration:

As part of its contribution to the TMC Pooled Fund Study, the FHWA provides the staff and resources that are necessary to successfully support various projects and activities. As a result, the funds that are provided by the members go entirely to the projects that are selected and products that are produced or services provided. FHWA resources are then used for providing leadership, direction, technical expertise, and project management to the various activities that are pursued or projects initiated. Contract solicitations, when necessary, will be issued through normal FHWA procurement procedures.

Governance and Charter:

A charter, ratified by the members, governs the following aspects of the TMC Pooled Fund Study: membership; project selection; project management, coordination, and solicitation; policies and procedures; fiscal management; and overall TMC Pooled Fund Study management. The complete TMC Pooled Fund Study charter is available at <http://tmc pfs.ops.fhwa.dot.gov/>.

FHWA Contacts:

For additional information on the TMC Pooled Fund Study contact Raj Ghaman at (202) 493-3270, raj.ghaman@dot.gov; or Tom Granda at (202) 493-3365, thomas.granda@dot.gov. To request documents or material that are not available on the TMC Pooled Fund Study website, contact Ming-Shiun Lee at (612) 373-6335, ming_shiun_lee@urscorp.com.