FHWA Office of Operations

Highlights of 2003 Activities

Prepared for the 2003 TRB Annual Meeting

January 13, 2003

Table of Contents:

For additional information on topics mentioned briefly below, visit the FHWA Operations web site (www.ops.fhwa.dot.gov) or the ITS Joint Program Office web site (www.its.dot.gov).

1. Transportation Management Systems (TMCs):

TMC pooled fund study: 27 agencies including FHWA are currently participating in a pooled fund study to pursue TMC-related projects that address issues and needs that are of common interest to the members. The following eight projects have been either initiated or completed:

1. *TMC Operator Requirements & Position Descriptions:*
   -Draft of Phase 1 technical reference document and spread sheet will be available electronically by the end of January 2003;
   -Phase 2 project to develop software to support preparation and creation of operator requirements, KSA's, & position descriptions initiated by April 2003 and completed by spring 2004.
2. *Maintenance Concept and Plans for TMCs:* Technical reference document will be printed and distributed by April 2003.
3. *CMS Operation and Messaging:* Technical reference document and white paper identifying future actions and research that are needed will be printed and distributed by April 2003.
4. *Configuration management for transportation management systems:*
   -Technical reference document will be printed and distributed by April 2003;
   -White paper identifying future actions and research that are needed will be printed and distributed by May 2003; and
   -Brochure identifying benefits of CM will be printed and distributed by April 2003.
5. *Coordinated freeway and arterial operational plans and procedures:* Technical reference document will be printed and distributed by December 2003.
6. *TMC operational concept and requirements:* Project to initiate the development of a technical reference document by March 2003. Document will be printed and distributed by June 2004.
7. *TMC Business Plans:* Project initiated to develop technical reference, primer, and brochure by March 2003. Document will be printed and distributed by June 2004.
8. *Evaluating Impacts of Dynamic Features of CMS Operation*: Project will identify the key topics, issues to consider, develop the work plan, testing and evaluation of the issues identified as priorities related to the impacts on drivers related to the use of dynamic features to display and flash messages on CMS.

Any agency or organization that is responsible for managing travel and controlling traffic on any portion of the surface transportation system is eligible to join the TMC PFS. New members can join at any time throughout the year. The process to identify, prioritize, and select new projects to be initiated in 2003 will begin in January. Details on how to join or access the latest information on TMC PFS activities can be accessed at: http://tmcpfs.ops.fhwa.dot.gov. For additional information contact jon.obenberger@fhwa.dot.gov.

TMC Web Site: Working closely with ITE, a web site (http://www.tmcite.org) has been developed for practitioners to access, interact, and share information on TMC related activities or issues. Have a question or need information related to a specific TMC issue? This site contains the ***"Ask a TMC Question" listserv*** to allow practitioners to ask their peers a question directly. This site provides links to technical references and manuals, publications and documents, case studies, best practices, training resources, and inventory of ITS deployment and TMC's. For additional information, contact jon.obenberger@fhwa.dot.gov.

Configuration Management Training Course: A 2-day training course focusing on configuration management for transportation management systems is being developed and expected to be available in late 2003 or early 2004. The pilot presentation of this will be completed by July 2003. Individuals interested in participating in the development of this courses or if additional information is needed should contact: (jon.obenberger@fhwa.dot.gov).

Migration and Contingency Planning for TMCs: Project initiated to develop technical reference, primer, and brochure by September 2003. Document will be printed and distributed by October 2004. For additional information, contact jon.obenberger@fhwa.dot.gov.

Testing and Acceptance Plans and Procedures for TMCs: Project initiated to develop technical reference, primer, and brochure by September 2003. Document will be printed and distributed by October 2004. For additional information, contact jon.obenberger@fhwa.dot.gov.

Freeway Management and Operations:

Freeway Management and Operations Handbook Update: This handbook is being revised based on changes that have occurred and to more closely represent the current state-of-the-practice with freeway management and traffic operations throughout the US. The TRB Freeway Operations Committee has volunteered to serve in an "editorial review board" capacity associated with providing guidance and input on the changes that are being made to this handbook. This project is expected to be completed in June with copies available later in the summer of 2003. The draft chapters of the handbook are available review and comments at: ops.fhwa.dot.gov/Travel/traffic/freeway_management.htm. For additional information contact jon.obenberger@fhwa.dot.gov.

Freeway Management and Operations State-of-Practice Review: The purpose of this project is to assesses and summarizes the current state-of-the-practice in freeway management and operations. It will also serve as the basis for developing a research program that could influence practices nationally. The recommendations in this report will attempt to bring proven and accepted practices (state-of-the-practice) closer to the current state-of-the-art by identifying actions to close the gaps between the two. The audience of this report will be public agency managers that are responsible for or are involved in making decisions that support or influence the management and operation of freeway facilities. Comments on the recommended areas of research and potential initiatives are requested by January 27, 2003. The final draft of this report can be accessed at: http://ops.fhwa.dot.gov/Travel/traffic/state_of_practice.htm. For additional information contact jon.obenberger@fhwa.dot.gov.

Freeway Management and Operations Training Course: A revised 3-day training course is being developed that will be modular and available for agencies to take as either 2 or 3 day option in late 2003 or early 2004. The pilot presentation for the Freeway Management and Operations Training Course (NHI Course #13375) will be completed by August 2003. Individuals interested in participating in the development of this courses or if additional information is needed should contact: (jon.obenberger@fhwa.dot.gov).

Managing Travel for Planned Special Events: For additional information contact jon.obenberger@fhwa.dot.gov.

Technical Reference: Final technical document on managing travel for planned special events to be published and available by December 2003. This project is developing an introductory handbook that is intended to assist the team of individuals that may be involved in or responsible for the advanced planning; stakeholder coordination; developing operational strategies, control plans, and procedures; establishing and supporting a traffic management team; managing travel and controlling traffic the day-of-the-event; providing services; or post-event activities. Project information can be accessed at: http://tmcpfs.ops.fhwa.dot.gov/cfprojects/.

Training Course: Contract initiated by September 30, 2003 to develop the NHI course on Managing Travel for Planned Special Events.

Brochure: Brochure on managing travel for planned special events to be published and available by December 2003.

2004 National Conference on Planned Special Events: AASHTO, TRB Freeway Operations and Traffic Signal Systems Committees, ITS America ATMS Committee, ITE ITS Council, and FHWA have agreed to host a national conference on Managing Travel for Planned Special Events in 2003. This group is currently developing the program, identifying the key issues to be addressed, and reaching out to other interested organizations and stakeholder groups to co-sponsor, participate in the planning, and attend this conference. This conference seeks to raise the awareness of the benefits and importance of planning, coordinating, and proactively managing travel for planned special events. For additional information contact: jon.obenberger@fhwa.dot.gov.

Managed Lane Initiatives: For additional information, contact jon.obenberger@fhwa.dot.gov.

El Monte HOV Lane Case Study: Executive and technical editions of the case study that assessed the impacts of changing the occupancy requirements on the El Monte Busway/HOV Lane will be printed and distributed by April 2003.

Houston Managed Lane Case Study: Final version of the Houston Managed Lane Case Study completed by May 2003.

Managed lanes cross cutting study: Final version of the Managed Lanes Crosscutting Study to be completed by September 2003.

Managed lanes primer: Final version of the Managed Lanes Primer to be completed by September 2003.

Changeable Message Sign (CMS) Initiatives:

New Chapter on CMS in MUTCD: Draft chapter to be developed and corresponding material for a future Notice of Proposed Rule Making to obtain review comments on the content and details to be included in this chapter. Draft chapter will be available in the summer

of 2003. For additional information contact: Linda.Brown@fhwa.dot.gov.

Color & Animation Testing: Project will identify the key topics, issues to consider, and develop the work plan to support a phase 2 project to test and evaluate the issues identified as priorities in 2003. For additional information contact: Linda.Brown@fhwa.dot.gov.

Dynamic Features of CMS: Project will identify the key topics, issues to consider, develop the work plan, testing and evaluation of the issues identified as priorities related to the impacts on drivers related to the use of dynamic features to display and flash messages on CMS. For additional information contact: Thomas.Granda@fhwa.dot.gov.

Managed lanes signing issues: Project will identify the list of topics, issues to consider, and develop the work plan to support a phase 2 project to test and evaluate the issues identified as priorities in 2004. Signing issues and topics identified will focus on signing applications associated with various operational strategies and configurations of managed lanes (e.g., occupancy, pricing, access control, special types of vehicles, etc.). For additional information contact: Linda.Brown@fhwa.dot.gov.

3. High Occupancy Vehicle (HOV) Facilities:

HOV Pooled Fund Study: 7 agencies including FHWA are currently participating in a pooled fund study to pursue issues and problems that are of common interest among public agencies or other interests that plan, manage, use, or provide services that support HOV systems. Any agency or organization that is responsible for managing travel and controlling traffic on any portion of the surface transportation system is eligible to join the TMC PFS. New members can join at any time throughout the year. The process to identify, prioritize, and select new projects to be initiated in 2004 will begin this summer. Details on how to join or access the latest information on HOV PFS activities can be accessed at: http://hovpfs.ops.fhwa.dot.gov. For additional information contact jon.obenberger@fhwa.dot.gov. The following five projects were selected this past December to be initiated in 2003:

1. HOV System Performance Monitoring, Evaluation and Reporting
2. HOV Lane Safety Considerations
3. Methods to Determine the Appropriate Operations Periods and Eligibility Requirements HOV Facilities
4. HOV Facility Enforcement Considerations and Best Practices
5. HOV Facility Inventory and Clearinghouse

Revised FHWA HOV policy: FHWA issued a revised policy on making significant operational changes to existing HOV facilities, including conversion to facilities to general-purpose lanes, on March 28, 2001 (http://www.fhwa.dot.gov/legsregs/directives/policy/hovmemgd.htm). For additional information contact: jon.obenberger@fhwa.dot.gov.

HOV System Training Course: A new 3-day training course is being developed that will be modular and available for agencies to take as either a 1, 2, or 3 day option in late 2003 or early 2004. The pilot presentation of the HOV Systems Course (NHI Course #13375) will be completed by July 2003. Individuals interested in participating in the development of this courses or if additional information is needed should contact: (jon.obenberger@fhwa.dot.gov).

International HOV Conference**:** The proceedings for the 11th International HOV System Conference that was held in Seattle, Washington in October of 2002 will be published and available by April 2003. For additional information contact: jon.obenberger@fhwa.dot.gov.

HOT lane guidance: The document *A Guide For HOT Lane Development* is now available at http://www.ops.fhwa.dot.gov/Travel. This handbook attempts to document the collective experience gained from the nation's initial implemented high occupancy toll (HOT) lane projects. The document is also available on the ITS Electronic Document Library (EDL) document # 13668. For additional information contact: wayne.berman@fhwa.dot.gov.

4. Traffic Incident Management:

Traffic Incident Management Self-Assessment - One of the three objectives of the FHWA's Vital Few Congestion Goals, over the next five years, is to reduce incident delay by ensuring all States, District of Columbia, Puerto Rico, and Federal Land offices are engaged in aggressively anticipating and mitigating congestion caused by incidents. In order to measure progress toward achievement of that goal, and to bring about recognized measures for evaluating traffic incident management efforts, the Federal Highway Administration sponsored the development of a Traffic Incident Management (TIM) Self- Assessment tool. The TIM Self-Assessments will be used State and local agencies to identify TIM program needs and benchmark progress. They will be used by FHWA to determine gaps nationally that need attention and the information provided from the assessments will be used to direct future years' FHWA program initiatives for traffic incident management. The Self-Assessment score will be used to provide a national metric for progress in traffic incident management. The FHWA goal is to conduct a Self-Assessment in each of the top 75 metropolitan areas by March 31, 2003. This Self-Assessment can be accessed at: http://ops.fhwa.dot.gov/Travel/IncidentMgmt/IncidentMgmt.htm. For additional information contact: david.helman@fhwa.dot.gov.

National Conference on Traffic Incident Management – A Road Map to the Future: (March 11-13, 2002 in Irvine, CA) The purpose of this conference was to identify issues and actions as a roadmap to the future to improve traffic incident management program planning, field operations, and inter-agency communications. The Conference attracted over 150 professionals and policy makers from law enforcement agencies, fire departments, the emergency medical services community, state and local transportation organizations, towing and recovery community, and technology providers. Over 100 action ideas were generated covering three categories of traffic incident management issues: (1) program and institutional issues, (2) on-scene operational issues, and (3) communications and technology issues. The proceedings are available at http://www.ops.fhwa.dot.gov/Travel/IncidentMgmt/IncidentMgmt.htm. For additional information contact: The top seven issues identified were:

- Professionalize incident management (Institutional)
- National program models and guidelines (Institutional)
- Creation of standards and guidelines for performance data (Institutional)
- Recognize regional focus in developing, operating, funding TIM technologies (Technical)
- Develop regional/cross-agency systems architectures (based on standards) (Technical)
- Establish a clearinghouse for incident management data (Operational)
- Integrate TIM needs into highway planning and design (Institutional)

Traffic Incident Management Clearinghouse: One of the significant recommendations from the National Traffic Incident Management Conference was to form a national clearinghouse to contain information on traffic incident management programs, initiatives, activities, lessons learned, benefits and costs, research other related issues for use by state and local practitioners from transportation, public safety and private sector stakeholders. Work will begin in FY 2003 to design a functional clearinghouse that can be expanded in future years to meet changing needs. For additional information contact: david.helman@fhwa.dot.gov.

Traffic Incident Management Performance Measures: A study was recently completed to investigate the various types of measures both transportation and public safety agencies are using for measuring and evaluating their responses to traffic incidents and how that information is being collected. This information will be synthesized and disseminated with the goal of forming a general consensus both in transportation and public safety on incident definitions, measurement of incident characteristics, evaluation of agency response, and traffic incident management program evaluation. The study will be placed on the FHWA web site early in 2003. For additional information contact: david.helman@fhwa.dot.gov.

Regional and Statewide Traffic Incident Management Program Case Studies: Beginning in FY 2003 the FHWA will investigate formal traffic incident management programs to find out where they exist, how they were formed, what stakeholders were involved, how they were structured, how they administered strategic and annual work program plan elements, how they handled committee succession and continuity, how decisions were made, how the decisions were incorporated into the resource allocation process (budgeting) in the participating agencies, and how they evaluated their programs. The product of this effort will be a report documenting the findings of this study and case studies from locations that have formal Traffic Incident Management programs. The report will be used, along with the report "Regional Traffic Incident Management Programs - Implementation Guide" (May 2001) to assist in the establishment of formal regional and statewide Traffic Incident Management programs. For additional information contact: david.helman@fhwa.dot.gov.

Traffic Incident Management Pooled Funds Study: A pooled funds study will be organized in FY 2003 to begin a structured program for research on a wide range of issues in traffic incident management. These may include topics such as accident investigation techniques, quick clearance and related liability issues, procedures for hazardous materials incidents, and professional development tracks for traffic incident management, particularly within transportation agencies. For additional information contact: david.helman@fhwa.dot.gov.

NHI Traffic Incident Management Workshop: This highly acclaimed workshop (NHI Course No. 133048) has been presented more than 100 times over 4 years and has been successful in energizing participants in achieving new levels of inter-agency cooperation to safely and quickly resolve traffic incidents. The course is currently being revised and the new course will be available in the spring of 2003. Information about the content and scheduling of this course is available from NHI or from David Helman (FHWA) at 202-366-8042. For additional information contact: david.helman@fhwa.dot.gov.

Model Procedures Guide for Highway Incidents: Work on the Model Procedures Guide for Highway Incidents (work performed by the National Fire Service Incident Management System Consortium) was begun late in FY01 and should be completed in FY03. This guide will specify command and control procedures for managing resources on-scene at highway incidents. The NFSIMSC has prepared six previous incident management Model Procedures Guides, primarily for firefighting audiences. This guide will establish procedures by which the resources of a number of different responding organizations including law enforcement, fire and rescue, emergency medical services, transportation, towing and recovery, hazardous materials contractors, and others are managed to resolve an incident. The potential target audience for this guide is very large and "non-traditional" for the NFSIMSC, including not only public safety but also transportation and private sector agencies and organizations. For additional information contact: david.helman@fhwa.dot.gov.

Model Law for Traffic Incident Management: The purpose of this activity undertaken by the National Committee on Uniform Traffic Laws and Ordinances (NCUTLO) and funded by USDOT is to examine the somewhat conflicting aims of incident management: protection of people and property at the scene and maintenance of traffic flow. This effort will culminate in a report discussing traffic ordinances in several States that dictate, in various ways, actions to be undertaken by motorists approaching the scene of a traffic incident and contain a model law that may ultimately be contained in the Uniform Vehicle Code. The Model Law was completed in 2002 and has been adopted by NCUTLO. The report will be completed early in 2003. For additional information contact: david.helman@fhwa.dot.gov.

Towing and Recovery – TIMTOW: Increasing involvement of the towing and recovery industry in traffic incident management programs and the success of the National Traffic Incident Management Conference has lead to the development of the Traffic Incident Management Towing Operator Work Plan (TIMTOW) by the Towing and Recovery Association of America (TRAA). The TRAA will develop a TIMTOW Guide that will consider traffic incident management from a towing and recovery perspective and will describe how towing operators can and should work within the framework of a traffic incident management program. The TRAA's annual Legislative and Leadership Conference in March 2003 will focus on Traffic Incident Management and the Guide will be presented to the industry leaders at that conference. For additional information contact: david.helman@fhwa.dot.gov.

USDOT-USFA Joint Agency Public Safety Initiatives: The USDOT has entered into a Memorandum of Understanding with the United States Fire Administration (USFA) of the Federal Emergency Management Agency (FEMA) to conduct joint public safety activities. Four jointly funded activities are currently underway under the overall goal of enhancing the safety of on-scene incident responders. For additional information contact: david.helman@fhwa.dot.gov.

ITS Incident Management Standards – IEEE 1512: The Hazmat standard IEEE 1512.3 was successfully balloted and approved by IEEE. Balloting for the Traffic Management standard IEEE1512.1 was completed late in 2002 and comments are currently being resolved. Approval is anticipated by IEEE in 2003. The Public Safety standard IEEE1512.2 will be balloted in 2003. For additional information contact: david.helman@fhwa.dot.gov.

Public Safety Outreach for MUTCD Updates: Revisions to the Manual on Uniform Traffic Control Devices (MUTCD) are currently underway. Proposed changes to Part 6 (Temporary Traffic Control) include a new section 6I on Traffic Incident Management. Section 6I defines traffic control procedures for minor, intermediate and major traffic incidents. Comments to the Federal Register docket on the proposed changes to the MUTCD are being reviewed. A Final Rule on the proposed changes is anticipated in the fall of 2003. An outreach activity will begin this year with the public safety community, primarily law enforcement and fire/rescue, to actively involve them in this update. This consist of training and outreach activities to enhance the awareness among incident responders in public safety of the traffic control principles and requirements of the MUTCD, that is the national standard for traffic control in the US. For additional information contact: david.helman@fhwa.dot.gov.

Integrated Incident Management Systems (New York, NY): This project allows for pictures and data to be directly transmitted from the field site of a traffic incident, primarily from NYPD police vehicles, back to control centers of NYPD, NYCDOT, and NYC Department of Sanitation. The provision of accurate incident information and location and pictures will greatly enhance the speed and appropriateness of secondary response from the NYCDOT and NYC Department of Sanitation. For additional information contact: david.helman@fhwa.dot.gov.

Integrated CAD Field Operational Test: An RFP was issued in May 2002 for a Field Operational Test that will begin early in 2003. This project will demonstrate the integration of public safety Computer Aided Dispatch (CAD) systems with each other and with transportation management systems. The purpose of this integration is to share timely and unambiguous information among those agencies that are the major responders to traffic incidents. For additional information contact: david.helman@fhwa.dot.gov.

5. Emergency Management and Security: Information on current initiatives can be accessed at: http://www.ops.fhwa.dot.gov/emp/index.htm.

Traffic Operations Security: FHWA has extensive work underway to support transportation operations security efforts of State and local agencies. This work includes a surface transportation vulnerability assessment tool, case studies, an emergency preparedness checklist, and technical guidance. For additional information, contact vince.pearce@fhwa.dot.gov.

Transportation Emergency Response/Recovery Workshops**:** Following the 10 successful workshops in FY 02, FHWA plans to conduct ten more workshops in FY 03. For additional information, contact vince.pearce@fhwa.dot.gov.

Military Coordination Exercises: FHWA is conducting 1-day exercises with major military power projection platforms to bring together military and transportation agencies to review procedures and roadway operations during a military deployment. For additional information, contact vince.pearce@fhwa.dot.gov.

Reducing Vulnerability of Agency-Owned Telecommunications Systems**:** A report is under development that analyzes what we know about agency-owned telecommunications systems and how they can be made less vulnerable to attack. For additional information, contact vince.pearce@fhwa.dot.gov.

Emergency Management Requirements**:** An initiative is beginning that will capture high-level information requirements for emergency managers. The project will also analyze various existing transportation models to assess the level to which they meet emergency managers' requirements. For additional information, contact vince.pearce@fhwa.dot.gov.

Case Studies in Disaster Response/Recovery**:** Case studies were developed the documented the transportation issues and impacts from the 9/11 attacks, a major hazmat incident and a natural disaster. For additional information, contact vince.pearce@fhwa.dot.gov.

6. Traveler Information – 511:

511 Deployment Coalition: Continue to provide assistance or advice to the 511 Deployment Coalition, including technical assistance in preparing for meetings or conferences.

ATIS/511 Guidance and Lessons Learned: This activity provides a means to share information gathered from locations that are deploying 511 and other traveler information services with others that may be planning to develop traveler information systems.

511 Planning Assistance Funding: Monitor the progress of States that have received funding to assist in planning for 511 services, and offer guidance or technical assistance as requested. On a case-by-case basis, evaluate future requests for 511 funding.

511 Model Deployment: Continue managing and monitoring activities associated with the 511 Model Deployment awarded to Arizona. Project evaluation will be coordinated with the 511 Deployment Coalition and its members to help provide timely information for locations planning to implement 511 services.

Intelligent Transportation Infrastructure Program (ITIP): This ongoing program is designed to enhance regional surveillance and traffic management capabilities in up to 21 metropolitan areas while developing an ability to measure operating performance and expanding traveler information through public/private partnerships.

511 – America's Traveler Information Telephone Number: The 511 Deployment Coalition, created in response to the July 2000 FCC Report and Order assigning the 3-digit number for traveler information, developed the "511 Implementation Guidelines," which are available at http://www.its.dot.gov/511/511ver11.htm. The guidelines address the content and consistency of the user interface for 511 services. Deployment Assistance Reports have been developed that discuss Business Models and Cost Considerations, Transfer of 511 Calls to 911, and 511 and Homeland Security. The 511 Deployment Conference held in Scottsdale, Arizona on March 19-21, 2002, helped provide information to more than 125 participants on planning or starting 511 traveler information services. The proceedings are available from http://www.itsa.org/511.html.

Forty States have received 511 assistance funding of $100,000 to develop statewide approaches or plans to deploy 511 services. Thirteen areas have implemented 511 systems: statewide systems in Nebraska, Utah, Arizona, Minnesota, South Dakota, Iowa, Kentucky, and Montana, and regional systems in metropolitan Cincinnati including northern Kentucky, along I-81 in Virginia, Miami-Dade in South Florida, along I-4 in Orlando, and in the San Francisco Bay area. is available at: http://www.fhwa.dot.gov/trafficinfo/511.htm. Other locations that expect to have 511 services in early 2003 include: Alaska, Kansas, Maine, Missouri, New Hampshire, New Mexico, North Dakota, Vermont, Washington (currently offering 511 services through Cingular Wireless), Boston, and Las Vegas.

On July 11, 2002, U.S. Transportation Secretary Norman Mineta announced an agreement between the U.S. Department of Transportation (USDOT) and the Arizona Department of Transportation to develop an enhanced 511 traveler information telephone system. The goal of this 511 Model Deployment is to establish and document an innovative example of 511 traveler information service that advances content quality and interactions between the caller and the 511 service. It will illustrate how the innovative application of technologies can create an effective 511 service that delivers high-quality telephone traveler information. For the current status of 511 deployment or other issues visit (http://www.its.dot.gov/511/511.htm) or the Operations Traveler Information web sites (http://www.ops.fhwa.dot.gov/Travel/traveler_info.htm).

7. Arterial Management and Traffic Signal Control Systems:

Traffic Signal Timing Video: This video presents the benefits of optimally timing traffic signals titled "It's About Time….." It features testimonials from senior agency and elected officials on their experiences and the public's reception to improved signal timing. The video also covers the benefits of optimally timed traffic signals such as reduction in travel time, savings in fuel usage, and reductions in delay. For a copy of this video contact: pam.crenshaw@fhwa.dot.gov . It is also available as a streaming video for download at: http://ops.fhwa.dot.gov/index.htm, go to the "Arterial Toolbox".

Communications Handbook for Traffic Control Systems AND Traffic Control Systems Handbook: These two handbooks are in the process of being updated and will be available in late 2003. For additional information contact: pam.crenshaw@fhwa.dot.gov.

Small Communities Handbook: This is a new handbook for FHWA. It will reflect the traffic management strategies and traffic management systems used in small communities and rural regions. This handbook will be available in late 2003. For additional information contact: pam.crenshaw@fhwa.dot.gov.

Traffic Detector Handbook. This book was last revised in 1990. It has been updated to include newer technology and will be available in late 2003. For additional information contact: pam.crenshaw@fhwa.dot.gov.

"Traffic Control Signalization and Software" Training Course. This course is being updated and revised. It is due to be completed by September 2003. This course emphasizes the importance of good signal timing and provides participants with the skills to evaluate the process by which signal control projects are developed, designed, implemented, maintained and operated. For additional information contact: pam.crenshaw@fhwa.dot.gov.

8. Performance Measurement and Asset Management:

National performance measurement conference: We will discuss with the TRB Performance Measures Committee whether they are interested in convening a follow-up to the 2000 national conference on transportation performance measurement.

Develop additional detailed performance measurement data guidance: This project will look at providing detail beyond the guide on use of archived ITS data that was distributed in 2002.

Asset Management: Current activity has focus on investigating linkages between asset management philosophy and the deployment and management of operational assets. To establish a baseline for discussion, a paper has been completed that explores the linkages between operations and asset management.

Signal System Management System Development: This project will investigate and identify the physical, system, and human resource assets that generically comprise a typical signal system implementation. It will identify policy guidelines, data, performance measures, and the analytical tools needed to manage the assets of a signal system and produce the information necessary to support asset management decision-making.

Roadway Operations Self-Assessment Tool**:** FHWA has developed an easy-to-use self-assessment tool that state and local transportation agencies can use to assess their own roadway operations performance, and to find ideas of how to achieve better operations. This tool can be downloaded at: http://www.ops.fhwa.dot.gov/Travel/Deployment_Task_Force/registration.htm.

Mobility Monitoring Program: This program which acquires archived data from ITS and traffic signal systems will add up to 10 more cities to its base of 22 cities during FY 03 and will produce a third year of reporting from existing sites.

TTI Freeway Performance Measures Study: FHWA is working closely with the Texas Transportation Institute to develop and calculate area wide, travel-time based performance measures using archived data from freeway management systems in 10 metropolitan areas. Visit the mobility monitoring program web site at http://mobility.tamu.edu/mmp.

Developing reliability measure outreach materials: This program is exploring how travel time reliability performance measures might be "branded" to broaden acceptance of their use.

9. Work Zones Mobility and Safety:

Work Zone Self-Assessment**:** As part of the Congestion Vital Few Goal for FHWA, a work zone self-assessment tool was developed. The self-assessment tool is designed to serve as a diagnostic for a state to determine areas for future focus. The goal is for each State to complete the self-assessment. For additional information contact: Scott.Battles@fhwa.dot.gov.

Notice of Proposed Rulemaking (NPRM) for 23 CFR 630, Subpart J: As a follow-up to previous rulemaking, FHWA is updating is current rule pertaining to work zones. An Advanced NPRM was published last year. Based on the comments, an NPRM is under development and publication is expected in June 2003. For additional information contact: Scott.Battles@fhwa.dot.gov.

ITS and Work Zones**:** FHWA is completing publication of a case study of ITS applications in work zones. The document should be released in early 2003. An implementation guide for ITS applications in work zones is in the early stages of development. For additional information contact: Scott.Battles@fhwa.dot.gov.

Full Closures for Work Zones: A case study report is under development that will document the use of full closures for work zones. Several applications around the country will be included in the report. For additional information contact: Scott.Battles@fhwa.dot.gov.

Work Zone Analysis: Two studies are in the publication process. One includes results from the "web scraping" project that analyzes work zone content from State DOT web sites. The second report documents the findings from detailed project-based research done by TTI on work zone impacts. For additional information contact: Scott.Battles@fhwa.dot.gov.

10. Road Weather:

Weather Responsive Transportation Management: This part of the road weather program examines the issues surrounding weather and transportation management. Initiatives include: Concept of Operations: defining weather-related advisory, control and treatment strategies. Impacts & benefits analysis: Documenting safety and mobility impacts and benefits of RWIS CORSIM sensitivity analysis: Identifying CORSIM variables that are most sensitive to weather. For additional information contact: paul.pisano@fhwa.dot.gov

Best Practices CD on Road Weather Management: The CD captures a variety of traffic, emergency and maintenance management practices that alleviate the impacts of weather. It is being expanded to include other success stories. For additional information contact: paul.pisano@fhwa.dot.gov

FreezeFree Evaluation: FHWA is conducting an evaluation of the FreezeFree automated spray technology, which helps to maintain safe traffic flow under adverse weather conditions. For additional information contact: paul.pisano@fhwa.dot.gov

Maintenance Decision Support System: FHWA recently released a prototype decision support software system that combines advanced weather processing with data pertaining to the transportation system to provide recommended actions. The system could serve as the basis for similar types of decision support for traffic and emergency managers. For additional information contact: paul.pisano@fhwa.dot.gov

Fundamentals of Road Weather Management: A one-day course is under development to introduce transportation decisions makers to the basics behind road weather information systems and the ways in which they can be applied to address a host of weather related problems. For additional information contact: paul.pisano@fhwa.dot.gov

11. Demand Management:

Travel Demand Management Reference Guide: The objective of this project is to update the 1993 Reference Guide based upon the new model for TDM in a contemporary environment. The new Reference Guide shall have two principal sections - TDM for commute trips and TDM for non-commute trips. The Guide is to be completed by September 2003. For more information contact**:** wayne.berman@fhwa.dot.gov

Commuter Choice Primer: This guidance document and the accompanying CD called the "Commuter Choice Decision Support System" is designed to assist employers that are considering implementing a commuter choice programs with determining those measures that might work best for their particular situation. The guidance will be available in February 2003. For more information contact**:** wayne.berman@fhwa.dot.gov.

12. ITS Deployment & Integration Initiatives:

ITS Architecture Training and Technical Assistance Program**:** FHWA continues to sponsor a variety of training and technical assistance activities designed to assist States and metropolitan areas develop and implement effective ITS architectures. In FY 2003 this effort will be expanded to focus more on use and maintenance of completed regional architectures.

Regional ITS Architecture Guidance: A document has been completed and been distributed. This guidance document will be the basis for the Regional ITS Architecture Process Workshop that is being conducted around the country. All sessions of the architecture workshop will be offered tuition-free to participants. Scheduling will be done through FHWA Division Offices. Visit the ITS web site (http://www.its.dot.gov) for further information.

ITS Architecture Consistency: The final rule on this, which implemented the ITS architecture consistency language contained in TEA-21, was published in the Federal Register on January 8, 2001. The FHWA Rule and FTA Policy for conformance with the National ITS Architecture & Standards, and related materials are available at http://www.its.dot.gov/aconform/aconform.htm. Since April 2001, FHWA Division Offices have been in the process of implementing Final Rule outreach activities throughout each state.

13. Other Cross-cutting Operations Initiatives:

TEA-21 Reauthorization: References and resource information on the US DOT surface reauthorization proposal, industry organizations statements on reauthorization, TEA-21, and supporting fact sheets can be accessed at: http://www.fhwa.dot.gov/reauthorization/index.htm.

Technical and Program Resources: The following resources are available to assist individuals obtaining information or assistance related: Operations/ITS Help Line 888-367-7487, ITS Peer-to-Peer Program 888-700-PEER, ITS Resource Guide http://www.its.dot.gov/guide.html, and publications and document library http://www.its.dot.gov/itsweb/welcome.htm.

MUTCD Millennium Edition: The initial version of the 2000 MUTCD was published on the FHWA MUTCD web site in December 2000 (http://mutcd.fhwa.dot.gov). On December 28, 2001, FHWA published on the FHWA MUTCD website Revision No. 1 to the 2000 MUTCD. This now is the official version of the MUTCD. The Federal register public comment period associated with the Notice of Proposed Amendments for MUTCD Revision 2 closed on August 19, 2002. FHWA expects to issue the final rule in October of 2003 as

Traffic Simulation Model Development: FHWA has announced its plan for the next generation of traffic modeling and micro simulation. The announcement describing the program in which FHWA desires to work cooperatively with industry is available at http://ops.fhwa.dot.gov/Travel/Traffic_Analysis_Tools/ngsim_program.htm. For additional information, contact john.halkias@fhwa.dot.gov.