

# Transportation Programs for Veterans, Medicaid, and Emergency Response: Synthesis

prepared for  
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Transportation Synthesis Reports (TSRs) are brief summaries of currently available information on topics of interest to WSDOT staff. Online and print sources may include newspaper and periodical articles, NCHRP and other TRB programs, AASHTO, the research and practices of other state DOTs and related academic and industry research. Internet hyperlinks in the TSRs are active at the time of publication, but host server changes can make them obsolete.

## **Request for Synthesis:**

Katy Taylor, WSDOT Public Transportation Director, had three queries:

1. What other states are doing related to veterans transportation?
2. Which states manage Medicare/Medicaid transportation in their transportation agency instead of their social and health services agency?
3. What public transportation emergency response strategies and policies do other states have?

## **Background:**

Based on a search of available resources, it appears that most veterans' transportation needs are dictated at the federal level. Some veterans are probably taken care of under Medicaid, depending on their level of benefits. Some states offer reduced public transportation fares and free transportation to medical centers through veterans affairs agencies or at the county or local level. It also appears that most states handle Medicaid transport services through their DSHS equivalent.

## **Databases Searched:**

- TRIS
- Google

## **Synthesis Summary:**

- Veterans Transportation
- Medicaid Transportation Programs
- Public Transportation Emergency Response Strategies

## **VETERANS TRANSPORTATION**

### **Veterans Transportation Benefits**

#### **§21.154 Special transportation assistance.**

(a) General. A veteran, who because of the effects of disability has transportation expenses in addition to those incurred by persons not so disabled, shall be provided a transportation allowance to defray such additional expenses. The assistance provided in this section is in addition to provisions for interregional and intraregional travel which may be authorized under provisions of §§21.370 through 21.376. (Authority: 38 U.S.C. 3104(a)(13))

[http://www.warms.vba.va.gov/REGS/38CFR/BOOKG/PART21/s21\\_154.doc](http://www.warms.vba.va.gov/REGS/38CFR/BOOKG/PART21/s21_154.doc)

### **National Resource Directory**

A Web directory of national public transportation services available to veterans.

<http://www.nationalresourcedirectory.gov/nrd/public/DisplayPage.do?parentFolderId=6634>

### **Disabled American Veterans Transportation Network**

Through the Transportation Network, DAV volunteers drive sick and disabled veterans to and from VA medical facilities for treatment. The Transportation Network is a clear example of veterans helping veterans. The DAV stepped in to meet a substantial community need when the federal government terminated its program that helped many veterans pay for transportation to VA medical facilities. The DAV has 189 Hospital Service Coordinators around the country who coordinate the transportation needs for disabled veterans.

<http://www.dav.org/volunteers/Ride.aspx>

### **State Benefits: Transportation System (North Dakota)**

The veterans transportation system is designed to aid veterans in transportation to a Veterans Hospital. Currently, there are 5 vans on scheduled routes bringing veterans to Fargo, North Dakota or Miles City, Montana. The cost of this program is underwritten in part by the Post War Trust Fund.

<http://www.nd.gov/veterans/benefits/transport.html>

### **Disabled Veterans eligible for FREE Transit**

Minnesota Department of Veterans Affairs

Minnesota's disabled veterans are now able to use public transportation throughout Minnesota at no charge beginning today. The transit benefit was passed by the legislature and signed into law by Gov. Tim Pawlenty this year.

Disabled veterans simply need to show the proper identification card to bus operators of any fixed-route service in the state, including Metro Transit and suburban transit providers in the Minneapolis/St. Paul area as well as regular-route services in Duluth, St. Cloud, Rochester, Moorhead, East Grand Forks and Mankato.

<http://www.mdva.state.mn.us/>

### **Transportation Program**

New Jersey Dept. of Military and Veterans Affairs

This program assists the veteran in need of transportation. The program originated due to the distance many N.J. veterans had to travel to get to a VA facility for medical care. Free transportation is offered to VA medical centers, clinics, pharmacies, private physicians, regional veterans services offices or job service offices, and other community services in most counties. The state veterans service officer in the county should be contacted to explain the details of the program, level of service in that county, qualifications and requirements, and assist in scheduling the transportation.

<http://www.state.nj.us/military/veterans/programs.html>

### **Transportation to VA Medical Appointments**

Wisconsin Department of Veterans Affairs

Wisconsin veterans may use one of two programs that assist veterans who need help getting to VA medical appointments. The Wisconsin Department of the Disabled American Veterans operates several vans around the state that normally stop at predetermined locations and then transport to the various medical centers. For a list of the current scheduled stops, please see the Wisconsin DAV website. Veterans can schedule a stop by contacting the DAV Transportation Coordinator listed with the schedule. These rides are free of charge and available to all veterans

based on financial need -- you do not have to be disabled or belong to the DAV to get a ride on this network. Veterans should contact the DAV for additional information. The Wisconsin Department of Veterans Affairs provides an annual grant to the DAV to assist with this program.

For veterans who live in locations not served by the DAV most counties provide some type of assistance. Some counties provide this service free of charge and others require a small fee or donation. Veterans can request to have this fee waived in most cases if they are experiencing financial hardship. County transportation systems are run by the County Veterans Service Office (CVSO) or another County agency. Veterans should contact their CVSO for information. The Wisconsin Department of Veterans Affairs provides a grant to assist counties that transport veterans to VA medical appointments.

[http://dva.state.wi.us/Ben\\_DAVTransport.asp](http://dva.state.wi.us/Ben_DAVTransport.asp)

### **Reduced Public Transportation Fees (Washington State)**

Washington State Dept. of Veterans Affairs

Washington State Ferries and local participating transit authorities, offer disabled veteran passengers travel at a reduced rate. Please contact your local transit authority for more information. For reduced ferry rates, please contact the WA State Ferries at 206-515-3460.

<http://www.dva.wa.gov/PDF%20files/BenefitsBro.pdf>

### **MEDICAID TRANSPORTATION PROGRAMS**

#### **Transit Agency Participation in Medicaid Transportation Programs**

Kenneth I. Hosen and Elisabeth Fetting, 2006, TCRP Synthesis of Practice 65, Project J-7, Topic SB-13

*Abstract:* This synthesis documents and summarizes the tasks necessary for a public transit–Non-Emergency Medical Transportation (NEMT) partnership to be successful. The purpose is to report on the real and perceived barriers to NEMT and public transit coordination and to describe case studies of Medicaid transportation program participation by transit agencies. This topic is of interest to transit agency staff at the local level. They might use this report to learn from and compare their experiences with the experiences of other agencies. Opportunities exist for public transit agencies to participate in the NEMT program as providers of service or as brokers. Findings in this report are based on a literature review; surveys of selected transit agencies, corresponding state department of transportation transit divisions, and state Medicaid agencies; analysis of documentation submitted; interviews; and site visits. Case study descriptions were prepared to reflect geographical diversity; urban, small urban, and rural agencies; and different service delivery models. The case studies are: Broward County, Florida; North Georgia Community Action Agency, Georgia; TriMet, Portland, Oregon; Texoma Area Paratransit System, Texas; and Chittenden County Transportation Authority, Vermont.

[http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_syn\\_65.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_syn_65.pdf)

#### **Medicaid Transportation Services: Medi-Cal Summary**

Assurance of transportation services is a key component in accessing necessary health care for millions of Medicaid recipients. Yet, while state plans are required by federal regulations to ensure transportation assistance, they are afforded a great deal of flexibility in how they administer their programs. Through EPSDT, children are guaranteed some transportation and scheduling assistance as well as coverage of travel related costs for medical care only offered outside their city. While the courts have upheld the federal mandate, they have diluted the assurance of transportation by allowing a number of limitations on what states have to provide. Rising transportation costs have created additional pressures on states to limit transportation services. In response, some states have developed innovative strategies to increase quality and efficiency through the use of brokers, administrative managers and capitated transportation services. States like Washington, Idaho and Rhode Island have succeeded in improving transportation services while controlling expenditures. By reviewing these models and others,

advocates can determine what changes can and should be made in their own states and recommend modifications to their state Medicaid agencies.

<http://www.healthconsumer.org/cs026MedicaidTransport.pdf>

### **Iowa Medicaid Non-Emergency Medical Transportation System Review and Options for Improvements**

Paul F. Hanley et al, September 2008, Univ. of Iowa, Iowa City, Accession No. 01126483

*Abstract:* Inadequate transportation has long been identified as a major issue in rural Iowa, and it is particularly acute for people of all ages with disabilities and their families, including Medicaid members. Currently, Medicaid members are reimbursed for transporting themselves, or providers are reimbursed for transporting individuals, which places the bulk of the responsibility on consumers, Iowa Department of Human Services (DHS) Income Maintenance workers and case managers. Under a statewide, Medicaid-funded transportation brokerage, Iowa Medicaid Enterprise (IME) would contract with an entity to (1) establish a network of transportation providers; (2) maintain a call center; (3) ensure compliance with Medicaid regulations related to eligibility of the individual and trip; (4) arrange and pay for the trips; and (5) monitor services and transportation providers for compliance and quality. States that have established brokerages have, in general, experienced an increase in the number of trips and a reduction in the cost per trip. A goal of the study was to provide guidance for consistent access to non-emergency health care services by pointing the way towards coordinated non-emergency medical transportation services through a centralized transportation brokerage.

[Check WSDOT Library for availability]

### **Medicaid Transportation and Urban Public Transit: Strategies and Opportunities for Increasing Transit Ridership**

Kenneth I. Hosen, May 2008, Bus & Paratransit Proceedings, Austin, Tex., Amer. Pub. Transportation Assoc., Accession No. 01115121

*Abstract:* Inadequate transportation has long been identified as a major issue in rural Iowa, and it is particularly acute for people of all ages with disabilities and their families, including Medicaid members. Currently, Medicaid members are reimbursed for transporting themselves, or providers are reimbursed for transporting individuals, which places the bulk of the responsibility on consumers, Iowa Department of Human Services (DHS) Income Maintenance workers and case managers. Under a statewide, Medicaid-funded transportation brokerage, Iowa Medicaid Enterprise (IME) would contract with an entity to (1) establish a network of transportation providers; (2) maintain a call center; (3) ensure compliance with Medicaid regulations related to eligibility of the individual and trip; (4) arrange and pay for the trips; and (5) monitor services and transportation providers for compliance and quality. States that have established brokerages have, in general, experienced an increase in the number of trips and a reduction in the cost per trip. A goal of the study was to provide guidance for consistent access to non-emergency health care services by pointing the way towards coordinated non-emergency medical transportation services through a centralized transportation brokerage.

[Check WSDOT Library for availability]

### **Medical Transportation Toolkit and Best Practices**

Jessica McCann and Jordan Nichols, 2005, Community Transportation Assoc. of Amer.

*Abstract:* This publication on medical transportation offers resources for non-emergency medical transportation. It is divided among 7 chapters and 14 supplemental items. They are as follows: Introduction - Chapter 1. Transportation: The Critical Link to Health Care; Chapter 2. An Introduction to Community Transportation; Chapter 3. The Consumer's Search for Transportation; Chapter 4. Seniors' Needs for Medical Transportation; Chapter 5. Coordination: Working Together, Working Better; Chapter 6. Medicaid: America's First Medical Transportation Model at Work; Chapter 7. Special Needs Medical Transportation: Looking at Dialysis Transportation. Medical Transportation Supplement - Part A. National Transit Resource Center Glossary; Part B.

Managed Care Terms and Methodologies; Part C. Principles of Managed Care Contracting; Part D. Payment Methodologies-Capitation: Sharing the Risk; Part E. RFP Outline; Part F. Sample Transportation Contract; Part G. Sample Memorandum of Understanding; Part H. State Medicaid Transportation Contacts; Part I. National Transit Resource Center Brochure; Part J. Bibliography; Part K. Current Practices in Medical Transportation; Part L. Medicaid Transportation: A Primer for States, Health Plans and Advocates; Part M. Community Transportation Magazine; and Part N. Report: Benefits of Transportation Services to Health Programs.

<http://www.ctaa.org/webmodules/webarticles/articlefiles/medtoolkit.pdf>

**Transportation-Disadvantaged Populations: Some Coordination Efforts Among Programs Providing Transportation Services, but Obstacles Persist**

U.S. General Accounting Office, June 2003, Report #GAO-03-697

*From abstract:* Millions of Americans are unable to provide their own transportation-or even use public transportation-for Medicaid appointments, Head Start classes, job training, or other services. Such "transportation disadvantaged" persons are often disabled, elderly, or low income. Various federal programs are authorized to provide transportation services to them. The General Accounting Office (GAO) was asked to (1) identify the federal programs that fund such transportation services and the amount spent on them, (2) assess the extent of coordination among the various programs, and (3) identify any obstacles to coordination and potential ways to overcome such obstacles.

<http://www.gao.gov/new.items/d03697.pdf>

**The Use of Existing Infrastructure to Provide Mobility for Seniors**

James J. McLary, May 2004, Bus and Paratransit & Bus Rapid Transit Conference, Denver, Amer. Public Transportation Assoc., Accession No. 00980185

*From abstract:* The paper provides a litany of service options for Senior Citizens, the fastest growing population group in America. As the mobility options grow, the integration of services becomes very important. Most of the transit agencies in the United States, manage assets not services. The purpose of this research is to suggest a demand management or systems approach. This includes the use of fixed route transit, demand response services (American with Disabilities Act complementary paratransit), Human Service Programs (Aging, Medicaid, Medicare, Vocational Rehabilitation, etc.), private-nonprofit agencies (non-governmental organizations), volunteer organizations, and finally the private-for-profit sector (taxi companies, private paratransit companies, etc.).

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**Economic Benefits of Coordinating Human Service Transportation and Transit Services. Executive Summary**

TRB, 2003, TCRP Report 91

*From abstract:* Coordinating human service transportation services and public transit services can provide significant economic benefits, including increased funding, decreased costs, and increased productivity. Particularly successful coordination strategies could include: Transit agencies providing trips for Medicaid clients with industry benefits of up to \$50 million per year; Nontransit agencies providing Americans with Disabilities Act and other paratransit services with benefits up to \$148 million per year; Transportation providers shifting paratransit riders to fixed route services with benefits up to \$300 million per year; Local human service agencies coordinating their trips with benefits up to \$60 million per year; and Communities expanding transportation services to areas not now served with benefits up to \$132 million per year. This brochure describes basic coordination concepts, typical economic benefits of coordination, strategies that enable transportation operators to achieve significant economic benefits from coordinating their operations, and potential overall industry impacts.

[http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp91/tcrp91\\_exsum-obj.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp91/tcrp91_exsum-obj.pdf)

## **Medicaid Transportation: Assuring Access to Health Care - A Primer for States, Health Plans, Providers and Advocates**

Community Transportation Assoc. of Amer., January 2001

*Abstract:* This report investigates the beginnings and current administration of non-emergency Medicaid transportation (NEMT). NEMT is a one of a kind federally-funded, state-administered program to provide quality health care to the nation's disabled and poor. The report explores NEMT services under both managed care and fee-for-service environments, presents unique profiles of state Medicaid transportation programs, and identifies innovative practices. In addition, the report highlights a number of innovative models that managed care and state organizations have adopted in order to improve access to medical services and to control costs and abuses. The report also describes supplemental Medicaid transportation funding available under the Children's Health Insurance Program (CHIP) and Home and Community Based Waivered Services (HCBS), and identifies those states that provide transportation benefits under these Medicaid expansion programs and those that do not.

<http://www.ce.berkeley.edu/~yuli/ce259/reader/NEMT.pdf>

## **Evaluation of Medicaid Transportation Service Delivery in Kentucky Human Service Transportation Regions**

T. Grossardt et al, July 2000, Univ. of Kentucky, Lexington, and Kentucky Transportation Cabinet, Report #KTC-00-21, Accession No. 00941297

*From abstract:* In October 1998, the Health Care Financing Administration (HCFA) approved the Commonwealth's request for a two-year Non Emergency Transportation Waiver. The waiver allowed the state to continue implementing its Human Service Transportation Delivery Program (HSTDP . . . This document is the culmination of the Center's assessment of the HSTDP. The Center's research team developed a comprehensive approach to evaluating the HSTDP that included obtaining relevant data and information from users, transportation providers, regional brokers, and the Kentucky Transportation Cabinet. Information was gathered from the HSTDP participants by mail surveys, telephone interviews, and financial records. The research team's analysis is presented in two chapters covering, respectively, project effectiveness and project efficiency.

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## **Designing and Operating Cost-Effective Medicaid Nonemergency Transportation Programs. A Guidebook for State Medicaid Agencies**

D. Bradley et al, June 1998, Health Care Financing Admin.

*Abstract:* All states recognize the importance of the Medicaid transportation program. Some states have implemented legislative mandates to trim the program's growth or to provide more efficient services. These efforts should be undertaken with care, since any change in the program may affect access to medical services. Furthermore, since Medicaid is often the single largest funder of transportation services in many communities, the impact of any change on a region's often fragile and underfunded transportation network must be carefully evaluated.

<http://ntl.bts.gov/lib/12000/12200/12290/medicaid.pdf>

## **PUBLIC TRANSPORTATION EMERGENCY RESPONSE STRATEGIES**

### **State Public Transportation Division Involvement in State Emergency Planning, Response, and Recovery**

Gwen Chisholm Smith (Responsible Senior Program Officer), May 2008, AECOM Consult, Inc., NCHRP Research Results Digest 326, Project 20-65 (13)

*Research Background:* The purpose of this research is to document existing and best policies and practices of state transit divisions pertaining to weather-related emergencies. This research includes state involvement in emergency planning, response, and recovery. It identifies lessons learned from recent emergencies, key issues associated with the involvement of state public

transportation divisions, and best practices. The results of both a national survey of state transit divisions, in-depth interviews with selected states, and copies of or links to various resources related to emergency management are included in the report.

[http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\\_rrd\\_326.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rrd_326.pdf)

### **APTA Emergency Response and Preparedness Program Website**

As a result of inclement weather, natural disasters and security concerns of the past few years, transit system, their suppliers, and other entities have come to understand the urgency of preparedness in the advent of a catastrophic event. APTA's Emergency Response and Preparedness Program (ERPP) is an online "mutual aid" tool designed to assist in times of these unfortunate disasters and other situations. This site provides a venue by which fellow transit systems and industry entities can volunteer and /or access resources in order to prepare for an expected event or in the wake of an unforeseen situation. Additionally, the information gathered on the ERPP site can enhance an organization's existing emergency plans by adding other resources if needed.

<http://www.aptaerpp.com/>

### **Emergency Preparedness, Response, and Recovery in the Transit Industry**

Gwen Chisholm Smith (Responsible Senior Program Officer), March 2008, TCRP Research Results Digest 87

*Abstract:* This digest summarizes the mission performed March 16-31, 2007, under TCRP Project J-03, "International Transit Studies Program." It includes an overview of the mission that investigated emergency preparedness programs in the public transportation systems in several Asian cities (Hong Kong, Beijing, Tangshan, Seoul, Kobe, and Tokyo). The report begins in Section I with general observations by the mission team about the state of transit emergency preparedness in the cities visited. In Section II, information gathered about the policies and programs in place in each of the transit environments is provided. Section III shows how the different transit systems manage key emergency functions, including the following: control centers, Information Technology (IT) and telecommunications, interagency coordination, public communications, and evacuation planning.

[http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_rrd\\_87.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rrd_87.pdf)

### **Emergency Transit Operations Plan for the Mississippi Gulf Coast. Work Assignment No. 8 - Gulf Regional Planning Commission**

Burk-Kleinpeter, Inc., 2008, Accession No. 01135397

*Abstract:* The Gulf Regional Planning Commission (GRPC), through a grant from the Federal Transit Administration (FTA) and Association of Metropolitan Planning Organizations (AMPO), has developed a post-emergency plan for operation of public transportation along the Mississippi Gulf Coast. The purpose of this plan is to guide and direct the coordination of transportation services necessary to the recovery of any impacted areas of Hancock, Harrison and Jackson Counties, MS (See Figure ES-1). This process could include providing general public transportation or supporting connectivity to identified relief services or centers operated by identified relief agencies. The plan and model will be presented to local, regional, state and federal agencies to consider for long-term emergency recovery project planning and funding.

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### **Transit Taps Resources to Enhance Emergency Response Role**

Claire Atkinson, June 2009, Metro 105(5): 32-36, Accession No. 01131572

*From abstract:* This article describes techniques that various transit agencies have used to develop and test emergency response plans. The Federal Transit Administration (FTA) notes that transit systems are inherently "open" and this vulnerable to attack. Tri Delta Transit in Antioch, California, used FTA and the American Public Transportation Association (APTA) guidelines, as

well as other transit agencies' experiences . . . The King Country Metro plan seeks to expand upon federal requirements and create an all-hazards response, not just a response to a terrorist attack . . . Additional transit agencies whose plans are discussed include the Port Authority of Allegheny County, in Pittsburgh, Pennsylvania, and Boston's Massachusetts Bay Transportation Authority.

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### **Corridor-Based Emergency Evacuation System for Washington, D.C.: System Development and Case Study**

Yue Liu et al, 2008, Transportation Res. Rec. 2041: 58-67, Accession No. 01106140

The evacuation of large municipal areas in an efficient manner during emergencies and disasters is one of the critical tasks of emergency management agencies. This paper presents a corridor-based emergency evacuation system and an example application of the system for the Washington, D.C., metropolitan area. The proposed system features flexibility by accounting for various critical issues associated with both planning and real-time operations, including the integration of data from multiple sources, network decomposition, network-level traffic routing, contraflow design, staged evacuation, optimal signal timing, and the incorporation of pedestrian and bus operations. Under a hypothetical emergency scenario for Union Station in Washington, D.C., the proposed system demonstrated its effectiveness at producing evacuation routing strategies, identifying potential bottlenecks, and evaluating the performance of evacuation operations.

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### **The Role of Transit in Emergency Evacuation**

TRB, 2008, Special Report 294

*From abstract:* This study was requested by Congress and funded by the Federal Transit Administration (FTA) and the Transit Cooperative Research Program to explore the capacity of transit systems serving the nation's 38 largest urbanized areas (UAs) to accommodate the evacuation, egress, or ingress of people from or to critical locations in times of emergency. The Transportation Research Board Committee on the Role of Public Transportation in Emergency Evacuation, which conducted the study, reviewed the literature; analyzed the emergency response and evacuation plans of the 38 largest UAs and their respective states; and conducted five case studies representing different regions of the country, types of transit systems, and types of emergencies.

<http://onlinepubs.trb.org/Onlinepubs/sr/sr294.pdf>

### **Emergency Evacuation Planning and Preparedness of Transit Facilities: Traffic Simulation Modeling**

Noor Elminity et al, 2007, Transportation Res. Rec. 1992: 121-126, Accession No. 01049258

*Abstract:* The growing need for evacuation planning is addressed by using a computer-based model of traffic simulation. The VISSIM traffic simulation tool was used to evaluate a current plan and alternative plans for the deployment of transit during an emergency situation in a transit facility such as a bus depot. Different strategies were simulated to study the effect of evacuation on the surrounding traffic network as well as to help the local transit company (LYNX) evaluate its evacuation plan and consider different possibilities without the risk and cost of actual evacuation drills. Nine evacuation scenarios were simulated and analyzed to reach the best evacuation strategy for the LYNX company's main bus depot. Evacuation strategies evaluated include traffic diversion, bus signal optimization, access restriction, different destinations, and evacuation of pedestrians. Total network delay for each scenario was compared with the base case, and results indicate that pedestrian evacuation was better than using buses. Traffic rerouting also could potentially reduce delays and evacuation clearance time.

[Check WSDOT Library for availability]

## **Disaster Response and Recovery Resource for Transit Agencies**

FTA, August 2006

*From abstract:* The purpose of this publication is to provide local transit agencies and transportation providers with useful information and best practices in emergency preparedness and disaster response and recovery. It provides summary information for general background, and includes best practices and links to more specific resources and more detailed information for local agencies concerning critical disaster related elements such as emergency preparedness, disaster response, and disaster recovery.

<http://transit-safety.volpe.dot.gov/publications/safety/DisasterResponse/PDF/DisasterResponse.pdf>

## **Emergency Scenarios for Public Commuter Transportation Tunnels**

A. Haack and J. Schreyer, June 2005, The First International Conference on Safety and Security Engineering (SAFE/05), Rome: 507-518, Accession No. 01007116

*Abstract:* The phase from the design of the operation of tunnels for railbound public transportation systems proves to be extremely protracted in practice. This is due to the necessary approval procedures and extremely different appraisals pertaining to safety for instance. The design phase can be appreciably reduced if a standard emergency scenario is presented, for which a suitable safety concept must be available. Experts then decide on the case of fire as a standard scenario from possible emergency scenarios by dint of which the required safety considerations are to be carried out for new structures so that a standard basis for planning is created in Germany. This principal approach is shown for example for designing underground stations so that persons can rescue themselves and be rescued through establishing short evacuation periods and long smoke proliferation periods.

[Check WSDOT Library for availability]

## **Public Transportation Emergency Mobilization Guide: Appendix B--Survey of U.S. Public Transportation Systems**

John N. Balog, June 2005, TCRP Web Document 25, Project J-10/B-1

*Abstract:* This document includes additional information on the survey used as input on TCRP Report 86, "Public Transportation Security: Volume 7: Public Transportation Emergency Mobilization and Emergency Operations Guide." TCRP Report 86 examines actions that may be taken by public transportation agencies working with their local communities to promote the early recognition of emergency events, expedite response to emergency events, establish multi-agency coordination, and ensure that public transportation resources are available to support the response to an emergency event.

[http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_webdoc\\_25.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_webdoc_25.pdf)

## **Incident Command for Transit Agencies**

Pamela J. Sutherland, May 2005, Bus & Paratransit Conference, Columbus, Amer. Public Transportation Assoc., Accession No. 01001920

*From abstract:* The objective of this paper is to share with transit agencies information about the role they play in the incident command system (ICS) in response to major emergencies, incidents, and disasters. It provides sufficient information to transit agencies so that they can update their emergency procedures to more closely approximate ICS structure and functional needs.

[Check WSDOT Library for availability]

## **A Planning Tool for Improved Emergency Response**

Sandeep Bhanji and Sudhir K. Agrawal, June 2005, Rail Transit Conference, Pittsburgh, Penn., Amer. Public Transportation Assoc., Accession No. 01002175

*Abstract:* Various types of emergencies including terrorism are concerns for the safety and security of people and property on transportation systems. The Emergency Response Manual (ERM) is a tool to assist transportation agencies with pre-incident planning, emergency response training, and as a reference during emergencies. This paper discusses the applications of ERM for transportation agencies.

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### **Overview of the Transit Operations Decision Support Systems (TODSS) Core Functional Requirements**

J.A. Bunch et al, April 2004, At the Crossroads: Integrating Mobility Safety and Security. ITS America, 14th Annual Meeting and Exposition, San Antonio, Accession No. 00976094

*From abstract:* Transit Operations Decision Support Systems (TODSS) are systems designed to support dispatchers and others in real-time operations management in response to incidents, special events, and other changing conditions in order to improve operating speeds, reduce passenger wait times, and restore service when disruptions occur. As part of a joint Federal Transit Administration (FTA) and ITS Joint Program Office (JPO) project the "Transit Operations Decision Support Systems (TODSS): Core Functional Requirements For Identification Of Service Disruptions And Provision Of Service Restoration Options 1.0" were completed in April 2003. This paper provides a overview of the TODSS Core Functional Requirements, their development, and potential next steps.

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### **Emergency Management Agencies and Transportation Management Centers Integration**

C.G. Hedden and E. Witzke, April 2004, At the Crossroads: Integrating Mobility Safety and Security. ITS America, 14th Annual Meeting and Exposition, San Antonio, Accession No. 00976039

*From abstract:* Intelligent Transportation Systems (ITS) and Transportation Management Centers (TMC) provide a lucrative partner for regional and statewide Emergency Management Agencies (EMA) . . . This paper documents two recent efforts in the US by local and regional EMAs in their efforts to coordinate with and collocate within TMCs. The first case study is that of Columbus, Ohio where the county EMA desires to collocate with regional transportation resources, including transit, traffic signal, freeway and other safety operations. And a second case study is that of Chicago, Illinois where the city's Emergency Operations Center (EOC) plans is studying the feasibility of building a joint facility with the city's TMC.

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### **Improving Transportation Response and Security Following a Disaster**

N.W. Okasaki, March 2002, Today's Transportation Challenge: Meeting Our Customer's Expectations, Palm Harbor, Florida, Inst. of Transportation Engineers, Accession No. 00932429

*From abstract:* This paper discusses the Bay Area's Trans Response Plan and how the concept has expanded into emergency preparedness for transit terrorism. The paper provides background on California's Standardized Emergency Management System as practiced by MTC, Caltrans, and transit agencies as these organizations work together to respond to emergencies involving multiple jurisdictions. The author examined how the Plan calls for MTC to perform as the regional clearinghouse for transportation coordination and public information. The paper further documents the logical interaction between transit security and emergency response in managing the consequences of a hazard, crime scene, or a stated threat to deploy a device or weapon of mass destruction. Finally, it offers suggestions on the benefits for building and sustaining interagency relationships at all levels among multiple disciplines to ensure effective response and recovery.

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**Emergency Management for Public Transportation Systems: Research Report (Tasks 3 and 4)**

L.L. Higgins et al, May 2000, Tex. Transportation Inst. and FHWA, FHWA/TX-01/1834-3, Research Report 1834-3

*Abstract:* This project examines the possible roles that public transit agencies can fulfill in the emergency management plans of their cities and/or counties. This report summarizes Tasks 3 and 4 of the project. Task 3 was the production of a primer for transit agencies on developing emergency management plans and coordinating with the emergency management efforts in their local jurisdictions. In Task 4, the primer was evaluated by two Texas transit agencies and modified in response to comments and suggestions received from these potential users of the primer.

<http://tti.tamu.edu/documents/1834-3.pdf>

**Role of Public Transportation Operations in Emergency Management: Research Report**

L.L. Higgins et al, December 1999, Tex. Transportation Inst. and FHWA, FHWA/TX-00/1834-2, Research Report 1834-2

*Abstract:* This project examines the possible roles that public transit agencies can fulfill in the emergency management plans of their cities and/or counties. This report summarizes the first two phases of the project, which incorporate a review of available literature on emergency and disaster management planning, a review of the state of the practice among transit agencies in Texas, an examination of the legal and institutional issues that affect emergency planning and response, and a summary of possible transit roles with jurisdictional emergency management plans

<http://ntl.bts.gov/lib/10000/10400/10490/1834-2.pdf>

**Washington State Public Transportation Emergency Response**

Mutual Aid Agreement

<http://www3.cutr.usf.edu/bussafety/documents/wdot-mutual.doc>