



Project Summary Report 1834-S
Project O-1834: Role of Public Transportation Operations
in Emergency Management

Authors: Laura Higgins and Cynthia Weatherby

Emergency Management Guidebook Helps Transit Agencies Prepare for Crises

Recent experience in Texas and around the country confirms that transit plays an important role in times of crisis. Transit facilities, vehicles, and operations are directly affected by major emergencies. Transit also plays an important role in responding to emergencies. Moreover, planning for such emergencies can be very helpful in keeping

buses moving and in reducing the costs and negative impacts of these emergencies. The Texas Disaster Act of 1975 and the Texas Emergency Management Plan prescribe emergency response requirements for local jurisdictions that include transportation of people and resources. However, many local jurisdictions do not include transit in their emergency plans, or do not

detail the roles and responsibilities of the transit systems in those plans. This project investigated the possible roles and activities of transit systems in Texas during crisis situations, and produced guidance to assist transit systems in developing their own emergency plans and in working with their local jurisdictions to determine their roles in city or county emergency plans.



Oklahoma City Metro Transit: carrying rescue workers following the bombing of the Alfred P. Murrah Federal Building
(This photo published in *Passenger Transport*, Vol. 53 No. 21, May 22, 1995.)

What We Did . . .

The research team addressed the research as four separate tasks. Task 1 reviewed the state of the practice in emergency management and in transit's participation in community emergency planning. A literature search provided information on emergency planning concepts and experiences in emergency



response from transit and from other industries. A survey was conducted of transit agencies in Texas to determine involvement with local emergency planning and training and past experiences with emergency response. Some additional information was sought from transit agencies in other states. Finally, examples of city, county, and transit agency emergency plans were collected.

The purpose of Task 2 was to identify the possible roles of transit in community emergency planning.

Information collected in Task 1, along with federal and state legislation concerning emergency preparation and response, contributed to an assessment of the potential responsibilities and activities of a transit agency during a large-scale emergency.

The information in Task 3 was used to develop planning guidelines for Texas transit agencies. The guidelines included recommendations for emergency planning within the agency and for involvement in a city or county emergency plan.

Task 4 tested these guidelines with two transit agencies in Texas to determine their usefulness and usability.

What We Found . . .

Forty-eight Texas transit agencies were contacted in the

telephone survey. Of those contacted, 33 are participants in a city or county plan, either formally (with specific emergency responsibilities and activities documented in the local emergency plan) or by informal agreement with local governments and emergency service agencies. Experiences in emergency planning and response included evacuations for hotel and apartment fires, floods, severe storms, hazardous material spills, and bomb threats; transportation and shelter for firefighters and other emergency workers; and participation in training and drills. Other transit agencies were anxious to improve their coordination with their local government agencies, citing instances in which transit personnel and resources were underutilized due to lack of communication and/or prior planning.

Much of the current emergency planning process for both government agencies and industry is derived from the Federal Emergency Management Agency's (FEMA) comprehensive emergency management (CEM) guidelines. CEM views emergency management as a cycle of "phases" before, during, and after an emergency situation. The four phases are mitigation, which focuses on identifying and eliminating or controlling

possible hazards; preparedness, that includes planning, education, and training for emergency response activities; response to a given emergency situation; and recovery, in which normal conditions are restored following an emergency. The mitigation and preparedness activities are modified if necessary. The Texas Emergency Management Plan is based on the CEM concept and organizes emergency management activities into specific functions, each of which is managed by a specific person or agency/department. The responsibilities and activities of each function are detailed in an annex to the basic plan. The transportation function, in which transit is likely to play a lead or supporting role, is designated in Annex S.

A good deal of guidance is available from FEMA and from the Federal Transit Administration for general emergency planning and for emergency planning and procedures within a transit agency. The Texas Division of Emergency Management (DEM) also offers training on emergency management topics. The guidebook developed for this project highlights some of the existing information and offers "first step" recommendations for integrating the transit agency



into the emergency plan of the city and/or county in which it operates. Resources for further information on specific emergency planning activities are noted throughout the book, examples of procedures and documentation from existing emergency plans are included for reference, and appendices provide examples of complete city/county emergency plans and outlines for transit agencies to use in structuring their own plans.

Researchers Recommend . . .

While the Texas Emergency Management Plan provides a framework for a transit agency emergency plan and for transit’s involvement in a local emergency plan, each transit provider must assess its specific characteristics, assets, and limitations to determine its role in emergency response. The guidebook developed in this study is intended to be a starting point for this assessment and to

act as a checklist for planning activities. Additional literature, software, and training in emergency planning are noted throughout the guidebook and are recommended as part of a thorough planning process.

While there is not a state statute that requires transit agencies to have an emergency plan, it is implied. The protection of transit assets must be addressed by all transit agencies throughout the state.

Phases of Emergency Management

These phases, derived from the Federal Emergency Management Agency’s CEM guidelines, serve as a basis for much of the state emergency planning process.

Mitigation Phase

Focuses on identifying and eliminating or controlling possible hazards

Preparedness Phase

Includes planning, education, and training for emergency response activities

Response Phase

Includes actions taken in response to a particular emergency situation

Recovery Phase

Restores normal conditions following an emergency situation



For More Details...

The research is documented in the following reports:

Report 1834-2, "Emergency Management for Public Transportation Systems"

Report 1834-3, "Role of Public Transportation Operations in Emergency Management"

Report 1834-4, "Emergency Management Planning for Texas Transit Agencies: A Guidebook"

Research Supervisor: Laura Higgins, TTI, l-higgins@tamu.edu, (979) 845-8109

Key Researchers: Cynthia Weatherby, TTI, cinde-weatherby@tamu.edu, (817) 277-5503
Mark Hickman, TTI, mhickman@tamu.edu, (979) 845-5792

TxDOT Project Director: Susan Hausmann, shausman@dot.state.tx.us, (512) 416-2833

To obtain copies of these reports, contact Dolores Hott, Texas Transportation Institute, Information & Technology Exchange Center, (979) 845-4853, or e-mail d-hott@tamu.edu. See our catalog on-line at <http://tti.tamu.edu>.

TxDOT Implementation Status July 2000

By Susan Hausmann, TxDOT Project Director
Phone: (512) 416-2833 or e-mail: shausman@dot.state.tx.us

In order to facilitate local jurisdictions and transit agencies in the joint development of emergency plans, the TxDOT Public Transportation Division (PTN) will widely distribute both the guidebook and the primer. Distribution will be made to the public transportation industry; (including the metropolitan transit authorities, municipal, and rural systems); transit organizations; TxDOT District personnel, and targeted health and human service agencies. Both documents can serve as a focal point to open discussions on emergency planning between local agencies.

YOUR INVOLVEMENT IS WELCOME!

This research was performed in cooperation with the Texas Department of Transportation and the U.S. Department of Transportation, Federal Highway Administration. The contents of this report reflect the views of the author, who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official view or policies of the FHWA or TxDOT. This report does not constitute a standard, specification, or regulation, nor is it intended for construction, bidding, or permit purposes. Trade names are used solely for information, not for product endorsement. The researcher in charge of this project was Laura Higgins.