



Exercise Handbook: What Transportation Security and Emergency Preparedness Leaders Need to Know to Improve Emergency Preparedness

**Frances L. Edwards, MUP, PhD, CEM and
Daniel Goodrich, MPA, CEM, MEP**

MTI Project 1103
February 2014

SJSU Research Center
210 N. Fourth St., 4th Fl.
San José, CA 95112

Tel // 408.924.7560
Fax // 408.924.7565

transweb.sjsu.edu

Board of Trustees

Founder

Secretary Norman Y. Mineta

Honorary Co-Chairs

Congressman Bill Shuster
Congressman Nick Rahall

Chair

Steve Heminger

Vice Chair

Stephanie L. Pinson

Executive Director

Rod Diridon, Sr.

Thomas E. Barron
Joseph Boardman
Donald H. Camph
Anne P. Canby
Grace Crunican
Julie Cunningham
William Dorey
Malcolm Dougherty
Mortimer Downey
Nuria I. Fernandez
Rose Guilbault
Ed Hamberger
Diane Woodend Jones
Will Kempton
Jean-Pierre Loubinoux
Michael Melaniphy
Norman Y. Mineta
Jeff Morales
Beverly Swaim-Staley
Dean David Steele
Michael S. Townes
Bud Wright
Edward Wytkind

There was consensus that checklist format and project management approach to its organization and presentation would be beneficial.

The US Department of Homeland Security (DHS) requires grantees to develop training and exercise programs for their staffs to ensure

readiness for disaster response. Changes to DHS programs grew out of PPD-8: National Preparedness issued March 30, 2011, which affects the way transportation agencies must prepare. The MTI researchers collected best practices and evaluated gaps in guidance for transportation exercise development and implementation in this handbook.

Study Methods

Mineta Transportation Institute (MTI) researchers received a seed money grant in 2010 (Project 2910; Report 09-16) to conduct a survey of transportation sector agency exercise staff members to understand the existing guidance that was available and the gaps in exercise support. The conclusion was that a comprehensive exercise handbook was needed with step-by-step guidance for the development and conduct of every type of exercise, including checklists and scenarios.

The researchers conducted a literature survey. The Federal Emergency Management Agency (FEMA) offers on-line independent study courses and in-person courses at its Maryland center on exercise development and implementation, but transportation personnel do not have the time to take them, and personnel rotated too frequently to build up capability over the long term. Also, the training was designed for cities and counties with multiple departments and roles, not single-focus transportation agencies. The 5-volume Homeland Security Exercise and Evaluation Program (HSEEP) guidance was too difficult to understand. Exercise books for businesses were not useful for agencies that must be an active part of the community's emergency response.

The researchers studied FEMA, DHS and US Department of Transportation (DOT) security grant requirements for employee training and exercises to determine whether transportation agencies must conduct independent exercises, or whether multi-agency exercises sponsored by cities and counties were adequate. The grantees were required to exercise their own capabilities to evaluate their internal preparedness and plans.

Findings

The first finding was that in 2011, the DHS and FEMA changed systems based on the post-Katrina legislation. On March 2011, President Barack Obama issued PPD-8: National Preparedness, which replaced HSPD-8 issued in 2003. This began a series of new directives for emergency management, including changes to grant management. The report contains the first comprehensive evaluation of each new document issued as a result of this change.

The second finding is the agreement among transportation sector leaders that there is a need for the handbook. The researchers conferred with 14 senior transportation sector emergency management experts on the development of the comprehensive exercise handbook. They reviewed the material and offered comments and suggestions. The interviews generated consistent agreement in their answers to the seven questions about the handbook. There was consensus that a checklist format and project management approach to its organization and presentation would be beneficial.



Employees participate in a fire extinguisher drill.



Multiple agencies participate in a full-scale railroad exercise.

Policy Recommendations

The outcome of the research is a two-part document. The first part is a research report that describes the research, the findings, and the changes to the exercise program and requirements. The second part is the practical, checklist-based handbook with step-by-step guidance for all types of HSEEP-defined exercises that supports staff with limited training in holding meaningful exercises. Second, training must include home and family preparedness, so handout materials are included in the handbook. Third, actual events are used as the basis for scenario examples for each type of exercise. Fourth, the after-action report and improvement plan must follow HSEEP requirements, so examples from an actual transportation exercise are included as guidance.

About the Authors

Dr. Edwards, Deputy Director of MTI's National Transportation Safety and Security Center, teaches emergency management in the MTI Master of Science in Transportation Management (MSTM) program and is the director of the Master of Public Administration program at San Jose State University. She has 22 years' experience in local government emergency management.

Mr. Goodrich is a Research Associate at MTI and teaches security for transportation managers in the MSTM program. He was in US Marine Corps Security Forces and has worked in public and private sector emergency management.

Edwards and Goodrich are the authors of a number of other MTI reports, most recently on continuity of operations/continuity of government.

To Learn More

For more details about the study, download the full report at transweb.sjsu.edu/project/1103.html

MTI is a University Transportation Center sponsored by the U.S. Department of Transportation's Research and Innovative Technology Administration and by Caltrans. The Institute is located within San José State University's Lucas Graduate School of Business. [WEBSITE transweb.sjsu.edu](https://transweb.sjsu.edu)