

## TABLETOP EXERCISES: COOPERATIVE TRAINING FOR TRANSPORTATION INCIDENTS

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### ABSTRACT

Responding to transportation incidents frequently involves the cooperative efforts of local, state, and federal officials. Rarely do they get the opportunity to work together before the stress and strain of a real incident. Tabletop exercises provide part of the solution. They are an effective method for cooperative training of emergency managers and responders for transportation accidents.

Tabletop exercises assemble the right people together and mentally simulate a problem that requires their collective response to mitigate. They don't require the high resource and budget costs of full-scale exercises.

We've worked with emergency managers and responders at all levels. We understand the usefulness of tabletops and how to design them to fit specific applications. Our paper addresses why tabletops are particularly suited to the special problems of training people for transportation incidents and gives "how-to" guidance in the form of checklists for preparing and conducting tabletops.

### PROBLEM STATEMENT

Two overarching assumptions permeate planning for a potential transportation emergency involving radioactive materials. First, local responders have the responsibility and jurisdiction to protect life and property. Second, selected Federal agencies and the state where an accident occurs will provide technical assistance to local governments when requested. Local emergency plans, when they exist, are based on these assumptions. Plans envision a coordinated response by local fire and police hazardous materials specialists supported by the technical resources of state and Federal agencies. Any transportation accident involving radioactive materials will by definition be significant and involve multiple responders from various levels of government. As a result, the foundation of transportation emergency response for accidents involving radioactive materials is on coordinated and cooperative mobilization and use of established and tested intergovernmental resources.

Several related problems exist that separate plan from practice. First, the dependence on local agencies supported by other levels of government for emergency response makes practical sense but increases the complexities of coordinating potential responders. In many instances complexities haven't been resolved and will adversely affect the application of multiple agency resources to a transportation accident. Second, the team that doesn't practice together doesn't play well together. What's true on the basketball court is also true in emergency response. Local, state, and Federal agencies rarely get the opportunity to practice their roles and work out problems. Third, emergency management systems for the transportation sector have different variables than fixed facilities. The wider geographical location of potential incidents and the variety of materials and modes of transportation that can be involved increase the

complexity and cost of reviewing, training, and testing the emergency system. Tabletop exercises are a method that can successfully resolve problems and issues related to preparing for transportation accidents.

### WHAT ARE TABLETOP EXERCISES

"Tabletop exercise" refers to the process of exercising one or more elements of an emergency management system by assembling, usually around a table, the people who would be involved in one or more of the elements of the response to an actual incident. A scenario is presented "as if" something had actually occurred. This allows observing the extent to which the system element(s) enable clear and adequate communication and mitigation. Although tabletop exercises may appear to be primarily testing the people around the table, this is not the case. The focus is on testing the system and training responders both as individuals and as a unit. Exercise play can benefit from scenario enhancing tools such as videotapes to help disclose scenarios. Exercises designed specifically for first responder training can be enhanced with the use of props, such as model layouts and maps.

Here's how a typical tabletop exercise session goes: Exercise participants are seated together and are presented with a series of simulated problems based on a scenario. These problems are presented through questions. The exercise is moderated to control play and can be formal or informal; that is, it can be formally evaluated or used as an occasion for brainstorming to motivate informal interchange. It's designed to elicit discussion by the participants as they attempt to resolve problems based on their assigned responsibilities. What they in effect do is describe what they

see as their responsibilities and how they think they'd discharge them.

### ADVANTAGES OF TABLETOP EXERCISES

There are several mutually supportive advantages of tabletop exercises. These include: establishing and maintaining relationships between people and organizations, providing interesting training, adding a flexible and adaptable tool to the manager's toolkit, and accomplishing goals efficiently. Each of these advantages is elaborated below.

#### Teambuilding

A powerful advantage of tabletop exercises is teambuilding. Considering the multiple skills and organizations that are a part of transportation accident response, tabletop exercises are particularly well suited for getting people together and stepping them through their planned responsibilities and actions. Because a tabletop is accomplished in controlled phases to allow discrete, individual answers, group attention is focused on each point of the response. A common understanding of individual roles and responsibilities and the entire response sequence is gained by all participants through group discussion. This allows participants to find the strengths and weaknesses in their individual and collective response and to suggest improvements. The assembly of all potential responders at a central location with each individual and group able to observe and discuss responsibilities and actions is a unique attribute of tabletop exercises.

#### Interesting Training

There is little to encourage response personnel to pick up emergency plans and study them as though their lives depended on it. Emergency plans and procedures can make pretty dull reading, especially since they have no "life" except as part of the drama that includes other players actually using the procedures in a response. Tabletops, unlike individual review, are thorough rather than perfunctory, interesting rather than dull. Systems that depend on individual review without simulating an emergency don't systematically collect complete and substantive data. Tabletops generate quality data because as the scenario unfolds, players discover together gaps, overlaps, and inconsistencies in the response sequence and pinpoint specific needs for upgrades in training, equipment, and in the system itself.

Full scale, field exercises also have drawbacks. First, although essential for formal systems validation, they can be premature. Full-scale testing of a system that hasn't had interim acceptance tests conducted during development and the necessary system modifications made along the way wastes resources, makes it more difficult to identify specific problem areas, and causes a general feeling of frustration among responders when evaluators find deficiencies in the system and their performance. Second, field exercises are

highly visible. Confidence in the system must come before a graded field exercise. Testing a poorly developed system can result in a loss in system confidence by emergency responders and outside observers. It may also result in unwanted (and unnecessary) bad publicity.

Most emergency management systems rely heavily on individual review or field exercises for finding areas for improvement. Tabletops are a logical link between the extremes of individual review and major field exercises. They provide a continuing way to conduct interim acceptance testing and training during systems development and modification. Tabletops allow, and indeed encourage, participants to collectively suggest and agree on improvements, learn through participation, and build individual confidence plus confidence in the system.

#### Flexibility and Adaptability

As flexible tools, tabletop exercises can have a variable focus--on the whole response system, parts of the system, an isolated problem area that requires attention, or in conducting an appraisal. Exercise complexity can be adjusted to fit the exercise objectives.

The tabletop exercise process gives emergency managers an adaptable tool. As we've established, they can be used for formal validation or for informal brainstorming, problem solving, or teambuilding. The versatility of tabletops also permits their adaptation to all stages of emergency preparedness--development, testing, maintenance, and revision. The power behind this versatility--and perhaps the most overarching benefit of tabletops--is that they require response system elements to pay attention to the system both as it initially develops and as it evolves. The simple fact is that most of the people who must perform difficult tasks in concert during an emergency have little opportunity to practice their parts, as individuals or as groups.

#### Efficiency

All these benefits can be accomplished cost-effectively by using tabletop exercises. They don't require the direct participation of all system elements or the mobilization of expensive facilities and equipment, and they eliminate many safety and liability concerns.

### CHECKLIST FOR DESIGNING AND CONDUCTING TABLETOP EXERCISES

Just as in emergency response, planning is the foundation of any successful exercise. Although the concept of a tabletop exercise is commonly understood, the full realization of its advantages requires planning.

Our checklist (Fig. 1) provides a systematic way for planners to design and conduct a tabletop exercise. The checklist is a condensed version of a larger workbook and

DESIGN	IMPLEMENTATION	FOLLOW-UP
<p>   <b>DEFINE GOALS:</b></p> <ul style="list-style-type: none"> <li>* determine needs and select type               <ul style="list-style-type: none"> <li>-introduce/develop new concepts</li> <li>-training</li> <li>-maintenance</li> <li>-validation</li> </ul> </li> <li>* prioritize multiple goals</li> <li>* recognize hidden agendas</li> </ul> <p>   <b>ESTABLISH OBJECTIVES</b></p> <ul style="list-style-type: none"> <li>* list objectives</li> <li>* ensure objectives support goals</li> </ul> <p>   <b>SELECT PARTICIPANTS BASED ON GOALS AND OBJECTIVES</b></p> <p>   <b>DETERMINE SCALE AND SUPPORT REQUIRED</b></p> <ul style="list-style-type: none"> <li>* select right participants and get them there</li> <li>* set specific, detailed objectives</li> <li>* develop scenario</li> <li>* logistics</li> <li>* exercise moderation, evaluation, and support roles</li> </ul>	<p>   <b>SELECT TABLETOP LEADERSHIP AND PARTICIPANTS</b></p> <ul style="list-style-type: none"> <li>* Moderator</li> <li>* Participants</li> <li>* Recorders</li> <li>* Evaluators</li> <li>* Observers</li> </ul> <p>   <b>CHOOSE A CREDIBLE SCENARIO</b></p> <ul style="list-style-type: none"> <li>* ensure it supports your goals and objectives</li> <li>* ensure scenario accuracy, consider:               <ul style="list-style-type: none"> <li>-incident and hazard technical data</li> <li>-jurisdictional involvement</li> </ul> </li> <li>* consider using historical information</li> <li>* consult technical experts</li> </ul> <p>   <b>PHASE THE SCENARIO</b></p> <ul style="list-style-type: none"> <li>* break scenario into phases for incremental disclosure</li> <li>* convene each phase into details necessary to stimulate play               <ul style="list-style-type: none"> <li>-exercise messages</li> <li>-moderator questions and expected responses</li> </ul> </li> </ul> <p>   <b>DEVELOP QUESTION MATRIX</b></p> <ul style="list-style-type: none"> <li>* participant list vs. scenario phases</li> <li>* back-fit scenario as required</li> </ul> <p>   <b>DEVELOP EXERCISE MATERIAL PACKAGES</b></p> <ul style="list-style-type: none"> <li>* participant package               <ul style="list-style-type: none"> <li>-introduction and agenda</li> <li>-objectives and rules of play</li> <li>-room layout and seating arrangements</li> <li>-initial scenario message</li> <li>-critique sheet</li> <li>-training materials and documentation</li> </ul> </li> <li>* moderator package               <ul style="list-style-type: none"> <li>-duplicates final participants package</li> <li>-exercise messages</li> <li>-moderator questions and expected responses</li> </ul> </li> <li>* evaluator package               <ul style="list-style-type: none"> <li>-modified participants package</li> <li>-evaluation tools (timeline, checklists, narrative summary)</li> </ul> </li> <li>* observer package (optional)               <ul style="list-style-type: none"> <li>-emphasize role for observers</li> </ul> </li> </ul>	<p><b>CHOOSE THE METHOD(S) THAT SUPPORT(S) YOUR GOALS</b></p> <p>   <b>PARTICIPANT SELF-CRITIQUE METHOD</b></p> <ul style="list-style-type: none"> <li>* conduct at the conclusion of the tabletop</li> <li>* use round robin technique</li> </ul> <p>   <b>RECORDER AND MODERATOR OBSERVATIONS METHOD</b></p> <ul style="list-style-type: none"> <li>* orally offer comments at the conclusion</li> <li>* use notes to document problems and potential solutions</li> <li>* discuss each observation and solutions</li> </ul> <p>   <b>FORMAL EVALUATION METHOD</b></p> <ul style="list-style-type: none"> <li>* evaluators orally debrief at the conclusion</li> <li>-correct errors in observations</li> <li>-present observed strengths and weaknesses</li> <li>-seek constructive input</li> <li>* written follow-up report</li> </ul> <p><b>CHOOSE TOOL(S) TO SUPPORT METHOD OF FOLLOW-UP</b></p> <p>   <b>ORAL COMMENTS AND SELF-CRITIQUE FORMS</b></p> <p>   <b>RECORDER AND MODERATOR NOTES</b></p> <ul style="list-style-type: none"> <li>* easel pad notes</li> <li>* Moderator Package</li> </ul> <p>   <b>EVALUATION MODULES</b></p> <ul style="list-style-type: none"> <li>* timelines</li> <li>* checklists</li> <li>* narrative summary</li> </ul> <p><b>SELECT FOLLOW-UP ACTIVITIES AS NEEDED?</b></p> <p>   <b>FINAL REPORT</b></p> <p>   <b>ASSIGN CORRECTIVE ACTIONS</b></p> <p>   <b>ESTABLISH MILESTONES FOR IMPLEMENTATION</b></p> <p>   <b>INFORM MANAGEMENT</b></p>

Fig. 1. Checklist for Using Tabletop Exercises.

checklist which also provides tips for conducting a tabletop, such as, starting and finishing promptly, remembering to make appropriate introductions and review player packages before play begins, reading exercise messages out loud, and building flexibility into the schedule and script. The checklist provides a summary of the major steps in design, implementation, and follow-up.

#### ACKNOWLEDGEMENTS

The ideas presented in this paper represent cumulative work of hundreds of people over twelve years at Virginia Tech's Management Systems Laboratories. Professional managers from business and industry, and faculty, graduate students, and undergraduates from a wide variety of engineering and other disciplines have participated in the research and development of these tools and techniques. The authors thank them for their good work.

The preparation of this paper is funded by U.S. Department of Energy (DOE) Grant No. DEFG02-88DP48058 and by Energy Task Force Management Corporation (now the Urban Energy & Transportation Corporation) Cooperative Agreement No. DE-FC02-87CH10343. The authors thank DOE's Transportation Management Division for providing us a real-world laboratory for the research, development, and testing of state-of-the-art management

tools and the frameworks for understanding how to make them successful.

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