How to Run a Good Tabletop Exercise

Pre-Summit Symposium for

Infocast Summit on

Emergency Preparedness and Service Restoration for Utilities

New Orleans, April 7, 2010

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Consultants to the Utility Industry

Agenda

- Overview

- Objectives of the Exercise

- Structure of the Exercise

- Scenario and Injects

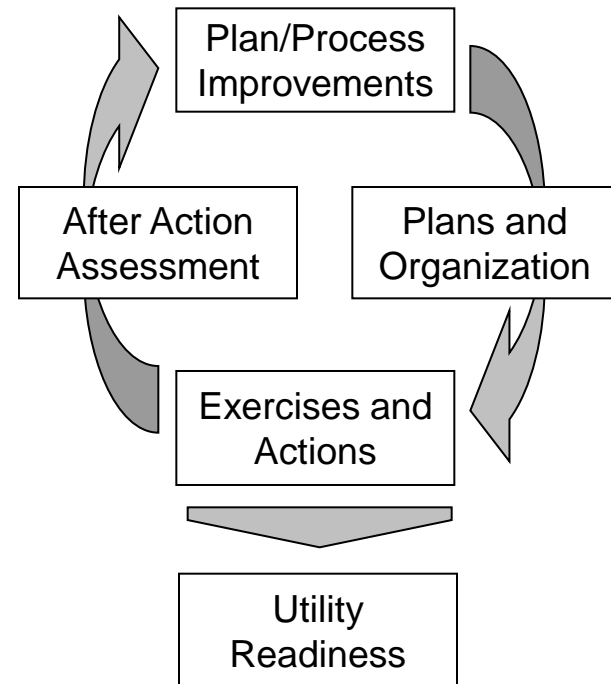- Assessments and Lessons Learned

- Observations and Key Questions

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The annual exercise is an essential part of emergency management

Emergency Management essentials:

- Organize the EM function and ICS

- Asses the Risk and Possible Mitigation

- Develop the Emergency Response Plan

- Communicate it to all concerned

- Train the staff directly involved

  - Including, but not limited to, an annual exercise, with a full-scale drill every other year if not tested by actual events
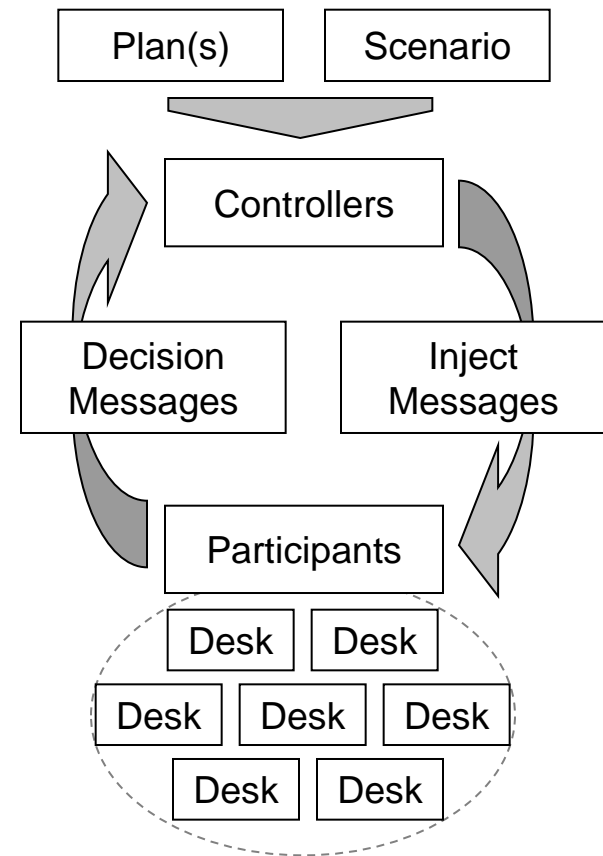
- Identify and secure the resources

- Monitor the situation

- Invoke the plan as called for in the ERP

- Study performance after each event and issue an after action/improvement report

- Review the process annually and adjust

Plan/Process Improvements

After Action Assessment

Plans and Organization

Exercises and Actions

Utility Readiness

Without regular exercise, the plan becomes outdated, the people forget their roles, systems fail, and the response is ineffective or worse

To be effective, an exercise must have certain key features…

- Objectives – The exercise must have a clear purpose that relates to specific aspects of the emergency plans (ERP, DRP, Pandemic Plan, etc.)

- Structure – Timing, control, roles, venue, ground rules

- The Scenario – A realistic set of
  - Initial conditions or background
  - Events based on relevant history/facts
  - Injects of event details requiring decisions
    - Planned and reactive to decisions

- Decisions – The key actions of the exercise, often signified by messages sent out from the participants

- Assessment and report

Plan(s)　　Scenario

Controllers

Decision Messages　　Inject Messages

Participants

Desk　Desk

Desk　Desk　Desk

Desk　Desk

The exercise is meant to test the plan(s) and especially the decision-making process that is guided by the plan and the organization

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…and be oriented toward improving utility readiness

Emergency Operations:

- Are like Police/Fire/Military/Hunting, – Long periods of slow/no action interrupted by bursts of frenzied activity (panic?)

- Require skills that may go unused for long intervals while things change – people, systems, organizations, communities

- Train in calm times so that responses can be conditioned to do the right thing when the moment comes

- Are never perfect, and don't need to be second guessed with Monday-morning quarterbacking, but can benefit from 'scrimmaging' and 'watching the game films' to see what could be done better

"Plans are useless…Planning is essential."

- General Dwight Eisenhower, CIC of D-Day, later President of the US

Four steps of emergency <u>denial</u>:

1. It won't happen   *Wrong!*

2. If it does, it won't hit here   *Wrong!*

3. If it does, it won't be too bad   *Wrong!*

4. If it is, nothing could be done anyway

   Wrong! That's what planning is for!

A successful exercise will include individual and organizational learning as well as identification of any gaps in plans or procedures

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Some of the objectives are standard and recurring…

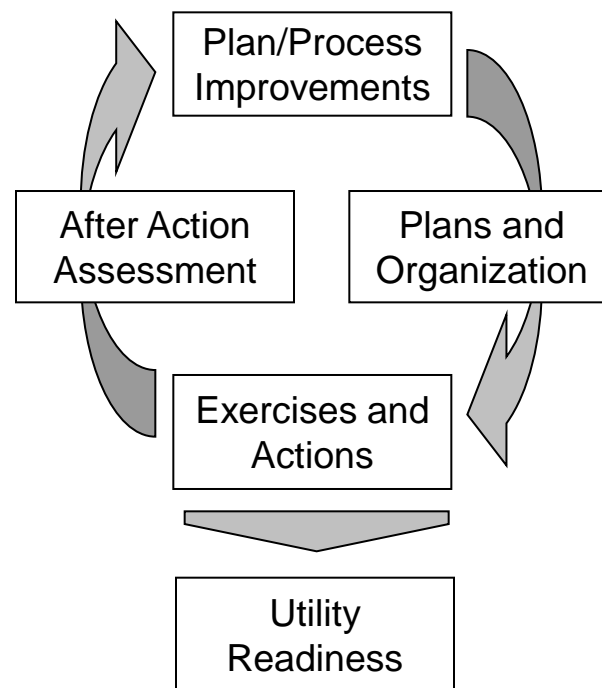| Recurring, standard objectives of the annual exercise	
Test the Emergency Management plan and organization to see if it still works properly	Test
Provide a training refresher to relevant personnel, especially those for whom Emergency Management might not be their 'everyday job'	Train
Promote teamwork among the players – to ensure integrated, coordinated response even under stressful conditions	Team-build
Practice effective communication within the utility and with external entities like EMA's, regulators, public officials, customers, media	Practice
Provide a vehicle for continuous process improvement by testing and then documenting lessons learned and follow-up action items	Improve
Meet regulatory requirements, e.g., Public Utility Commission mandates, NERC/RTO standards (like EOP-005), or for co-ops RUS Bulletin 1730-B, HSEEP from DOE	Comply

Not every aspect of emergency plans are 'tested' every year (some are just 'simulated'), so a cycle of testing can be set up in a multi-year plan

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…and some are focused on new threats to successful execution

Drivers of exercise objectives:

- Changes in key success factors:
    - New emergency plan or plan features
    - New organization (personnel, or their roles)
    - New processes (re-engineered, 'improved')
    - New systems or technology
    - New requirements (regulations, expectations)
    - New realities (new threats, weaknesses)
- Lessons learned from past experience or exercises
    - Most recent emergency performance
    - Most recent drill or exercise
    - Old lessons with new relevance

Plan/Process Improvements

After Action Assessment

Plans and Organization

Exercises and Actions

Utility Readiness

> ***You <u>cannot test everything</u>, so the objectives should focus on what is most likely to cause failure, based on changes or lessons learned***

The objectives will help determine the scope of the exercise

- The objectives will help determine if the training will be a full-scale drill, or only a tabletop exercise; likewise if the exercise is to be limited to service restoration, or if it also includes other business continuity objectives like:

  - Loss of generation (black start, cranking path)

  - Loss of primary information systems (disaster recovery)

  - Loss of personnel (pandemic, labor action)

  - Environmental hazards (spills, wetlands action)

- If limited to service restoration, the objectives can help determine if the type of threat should be:

  - Normal severe storm or coastal storm (of severity X)

  - Ice storm, wildfire, flood

  - System-wide or in only one region

  - Electric only or multi-commodity

Some utilities may decide that their actual experiences in the past year constituted a sufficient exercise of their plans, and may skip the exercise

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The exercise objectives should be clearly stated in early planning

__Illustrative example__

The objectives of this annual exercise will be:
The standard recurring, objectives (test, train, team-build, practice, improve, comply), <u>plus</u>:
Ensure that emergency response remains effective in the light of the new <u>re-organization</u>, since it means various personnel will be playing new roles
Ensure emergency response fully integrates the <u>new technology</u> of mobile data terminals
Ensure emergency response is effective with the <u>newly acquired military base</u>
Integrate the lessons learned from the <u>recent ice storm</u> that hit our utility last year
Test how our utility would respond to the kind of <u>flooding</u> that recently hit Rhode Island

> *Like the learning objectives of an educational course, exercise objectives need to be written down in advance to guide exercise planning*
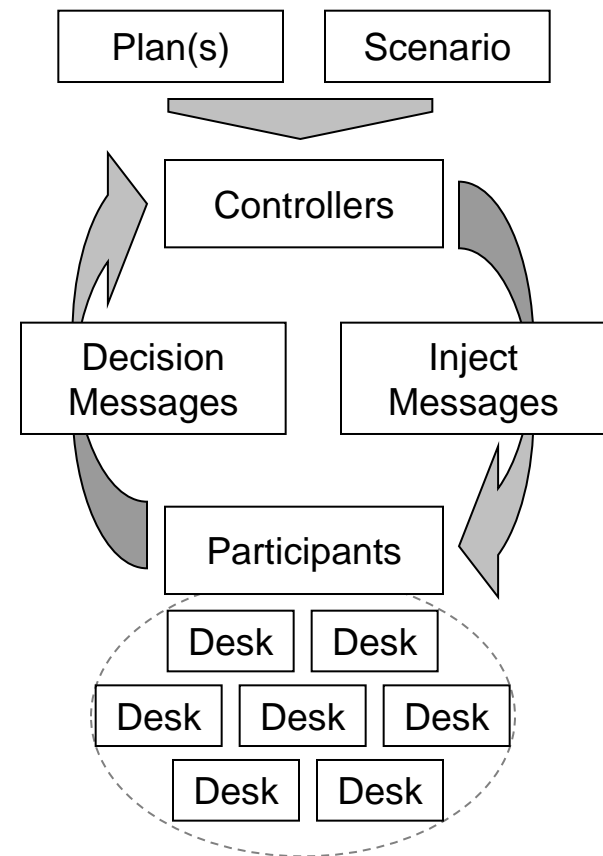
> *With objectives clearly stated, the planning of the exercise itself will be better focused and efficient, and the exercise will be more effective*

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The exercise has a fixed structure within which the 'game' is played

- The exercise is based on certain <u>plans</u> – Emergency Response Plan, Disaster Recovery Plan, Pandemic Plan, etc., depending on the exercise objectives

- The exercise has a <u>scenario</u> that will drive the messages (injects) which the controllers will give the participants to test their response

- The participants' <u>responses</u> must be documented, and in some cases may trigger further injects by the controllers in order to fully test the response which is the target of the objectives

- Participants will typically be organized into different functions, with <u>separate 'desks'</u> for each (whether or not a formal Incident Command Structure is used)

- The technique of <u>time compression</u> will typically be used, in which the controllers will announce the date and time at various stages of the exercise
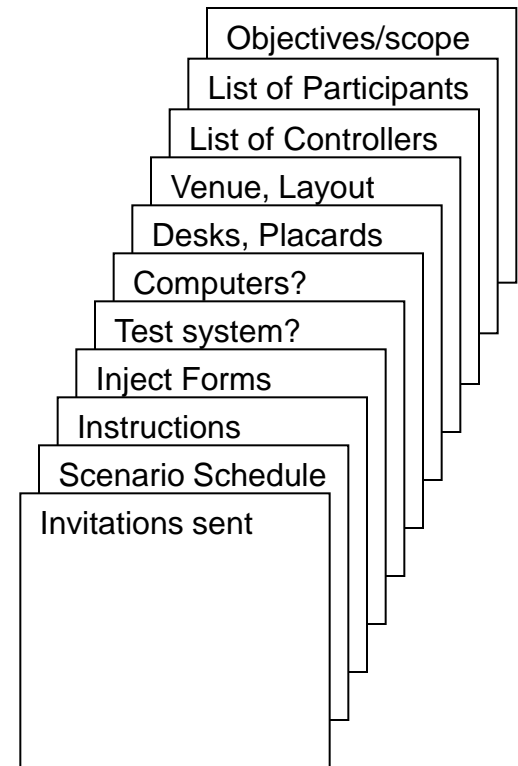
| Plan(s) | Scenario |

Controllers

| Decision Messages | Inject Messages |

Participants

Desk	Desk
Desk	Desk	Desk
Desk	Desk

Like any game, there are rules (structure), and uncertain outcomes (responses). As they say in sports: 'That's why they play the game'

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You will need a project plan to ensure all the pieces come together

The project plan should assign persons responsible and dates due for all key activities such as:

- The objectives and scope of the exercise

- Lists (with assignments to teams) of participants and controllers, and then invitations to those personnel to attend the meeting, and follow-up to get acceptances or substitutes

- The scenario, injects, schedule, and forms

- Venue, room layout diagram, desk placards, etc.

- Possibly: computers and test system?

- Latest copies of plans/aids that should be used

- Preparatory instructions for participants

Objectives/scope

List of Participants

List of Controllers

Venue, Layout

Desks, Placards

Computers?

Test system?

Inject Forms

Instructions

Scenario Schedule

Invitations sent

Part of the planning and structure of the exercise includes logistics like venue, schedule, invitations to participants, forms, etc.

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Design the forms to be used (here is an example)

- All injects from controllers to team will be done via these forms, with attachments if necessary (maps, screen shots, reports)

- Teams may be asked to fill out the decision and communication sections for each inject (or it can be done by their controller or observer)

- Sometimes the decision or communication will be "None"

- Use of these forms facilitates the after-exercise assessment

- Forms also make clear that the main functions of EM Team are to make decisions and communicate

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Able Power & Light Tabletop Exercise – This is *not* real, *only* a drill!

From: National Hurricane Center
To: ERP Team
Date/time: 10Nov09 08:00
Re: Tropical Storm 'Ida'
Message: (See attached NHC bulletin)_____
_____
_____
_____
_____
_____
_____
_____

Decision(s): Decision necessary?   Yes ____   No ____
Declare emergency level 1, 2, or 3?_____
Review checklist for that level?_____
_____
_____
_____
_____
_____
_____

Communications: Communication necessary Yes ___   No ___
Communicate level decision to: Media___Employees____EMAs_____
_____
_____
_____
_____
_____
_____

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Give participants their roles and the ground rules for the exercise

Illustrative example

- Use only the information provided to you by the Controller. Do not improvise information.

- Do not dwell on the technical feasibility or probability of occurrence of the simulated event. This is an exercise.

- If you have difficulty determining a course of action after consulting your plan and/or procedures, notify the Controller of the problem. This may identify gaps in the planning process and pinpoint areas where additional documentation or training is required.

- Only selected information will be provided. You can consult with your Controller to obtain additional information if it is available. Questions may also be directed to your Controller.

- Express your intended actions verbally (and on the forms) so that the Controllers can note the actions taken.

- You should make a note of any issues, ideas, or suggestions for improvement as they arise during the exercise. This will be valuable input for both the emergency response planning efforts and future exercises.

- The role of the Controller is to present you with messages as they occur during the course of the exercise and to keep the Exercise moving on schedule. They will also take notes that will be reviewed as part of an overall evaluation of the exercise.

Consider telling participants: "An exercise is a test of plans and procedures, not people. Plan to enjoy the learning experience."

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- Appendices

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Design a scenario with a schedule, injects, and expected responses

Real Time	Drill Time	Inject Source	Inject Message	Decision Message
13:00	N/A	DEO	Introductions; objectives; roles; ground rules	
13:15	18:00	DEO	Exercise begins. It is now 10Nov10, 18:00	
13:15	18:00	NWS	A winter storm has just hit our central PA territory with heavy, wet snow and wind gusts to 40 mph.	Declare Emerg... ...hecklist. Estimate...
13:15	18:00	OMS	OMS shows 107 outages, 15,000 customers out, especially in mountains. No transmission outages	...list, ...t
13:15	18:00	Ops	Five first responders on, one per region. ...50 own crews; 30 contract; 100 mu...	...tains
13:30	18:30	Ops	Crews report many trees d...	
13:35	19:00	PA EMA	EMA Dir. wants... readiness...	...paration
13:40	20:00	OMS	O...	...g & ERT; Decide; Communicate
13:40	20:00	DA	Da... nes...	...ss staffing & ERT; Decide; Communicate
13:45	Next day 08:00	OMS	OMS... ...ut	Assess staffing & ERT; Decide; Communicate
13:50	09:00	CustSvc	VP Custo... ...pdate on ERT	Assess staffing & ERT; Decide; Communicate
13:55	12:00	Ops	First crews... ...ast night hit 16 hours	Assess staffing & ERT; Decide; Communicate
14:00			End of live part of exercise. Begin assessment	

Illustrative example

As appropriate, a design with multiple threads of injects will stimulate teamwork, communication, and command decisions – or not?!

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Assessment of the exercise afterwards is a key activity

Key aspects of the after-exercise assessment are:

- The assessment should relate to the <u>objectives</u>

- Consider using <u>metrics</u>, e.g., percent change in ERT, staffing estimates

- Consider using a <u>mock press conference</u> to start the assessment, with participation from each of the team leaders, and with team members as members of the press or public asking typical (tough?) questions

- Ask for "<u>What Went Well</u>" and "<u>Even Better If</u>…"

- Steer discussion away from how realistic the scenario was (though that can be noted for next time) and towards the <u>process improvements</u>

- If there are multiple controllers, have each <u>scribe</u> the suggestions, and ensure <u>follow-up</u> on process changes

The Washington Post

Storm Deals Another Knockout Punch

Along with the training benefits, the lessons learned from the assessment deliver the most important benefits of the exercise

The Homeland Security Exercise and Evaluation Program (HSEEP) is a capabilities and performance-based exercise program which provides a standardized policy, methodology, and terminology for exercise design, development, conduct, evaluation, and improvement planning…

For the purpose of this document, HSEEP Compliance is defined as adherence to specific HSEEP-mandated practices for exercise program management, design, development, conduct, evaluation, and improvement planning. In order for an entity to be considered HSEEP compliant it must satisfy four distinct performance requirements:

1. Conduct an annual Training and Exercise Planning Workshop (TEPW), and maintain a Multi-Year Training and Exercise Plan (TEP). An annual TEPW provides an opportunity to develop, review, or update an entity's Multi-Year TEP. The TEPW also provides a forum for determining how an entity will execute its multi-year plan in a given year. The purpose of the TEPW and the Multi-Year TEP is to translate strategic goals and priorities into specific training and exercise activities and to coordinate and deconflict all training and exercise activities on a schedule. While all exercises conducted by an entity are not required to be included in its Multi-Year TEP, the entity should follow the guidance and priorities established during its TEPW.

2. Plan and conduct exercises in accordance with the guidelines set forth in HSEEP policy. HSEEP policy guidance includes an overview of exercise planning and conduct. Specific areas for compliance include the use of various types of planning conferences and exercise documentation. The number of conferences and types of documentation required are flexible and depend on the full scope of the exercise being completed. HSEEP also provides sample documents for all potential presentations and manuals for all types of exercises.

3. Develop and submit a properly formatted After Action Report/Improvement Plan (AAR/IP). An AAR/IP is used to capture events as they occurred during an exercise, provide analysis of the events relative to exercise objectives, and suggest development actions to either further enhance or improve agencies' planning and response capabilities. It also evaluates achievement of the selected exercise objectives and demonstration of the overall capabilities being validated. The IP portion of the AAR/IP includes corrective actions for improvement, along with timelines for their implementation and assignment to responsible parties.

4. Track and implement corrective actions identified in the AAR/IP. Once recommendations, corrective actions, responsibilities, and due dates are identified in the IP, the exercising entity ensures that each corrective action is tracked to completion. Exercising entities review all exercise evaluation feedback and resulting IPs to assess progress on enhancing preparedness. This analysis and information are incorporated into the capabilities-based planning process because they may identify needs for additional equipment, training, exercises, coordination, plans, or procedures that can be validated through future exercises. Continual IP tracking and implementation should be part of a corrective action program within each participating entity.

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Observations and Key Questions

Observations

- An exercise can be very insightful or a huge waste of time, depending on how well it is <u>focused</u> on well-defined <u>objectives</u>

- Even a 'simple' table-top exercise can require considerable <u>time and effort</u> in planning it properly and pulling it off effectively

- While one objective may be simply to refresh memories about what to do in an emergency, the best exercises will test for possible <u>weaknesses</u> and <u>process improvement</u> opportunities, which can be of great value (and could have cost a lot of time and money to produce otherwise)

Key Questions

- When was the last time your company did a tabletop exercise?

- Was it wasteful of scarce resources, or did it produce valuable insights and much-needed training?

- How could the lessons discussed here improve the planning and execution of such an exercise for your company?

Questions?

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Running a good tabletop is not an easy matter, and a well-done exercise can be of great value for training and process improvement

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