

Emergency Exercises

What States Can Do



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Designing and Conducting Tabletop Exercises

From the Local
Water Utility Perspective



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Drills

- We have drilled from the time we were children
- Fire Drills- to see how fast we evacuated and get students used to responding the alarms
- Earthquake Drills- under desk, in doorway, bathtub, etc.
- Tornadoes- shelters, basements, etc.



All ER Agencies Rehearse

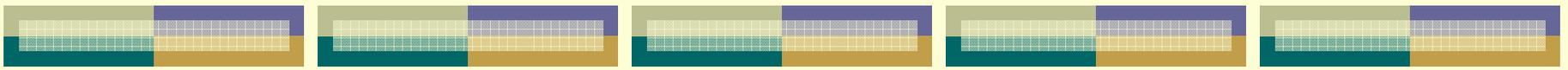
- Fire- burn vacant buildings, buses, use of SCBA's, fire fighting equipment, etc.
- Police- raids, target practice, use of protective equipment, situation role play, etc.
- Emergency Medical Technicians



Why?

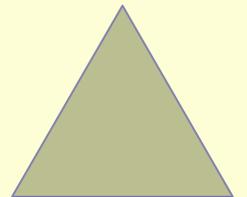
- To preserve life
- To preserve property
- Minimize the effects to both through mitigation and training measures
- Validates your Emergency Response Plan (ERP)
- Keeps operators from getting complacent

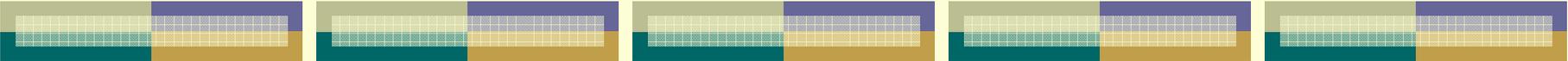




Why Exercises?

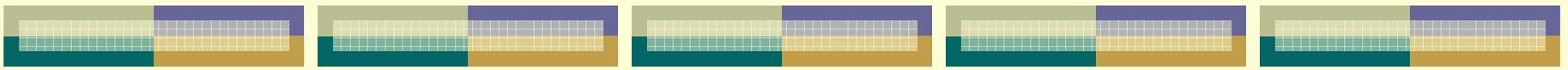
- Learn where you need to have Memorandums of Understanding (MOUs)
- Learn other agencies concerns such as law enforcement, fire, EMT, Health, etc.
- Learn what your training needs are
- Learn what things you need to budget for
- Learn stress levels of employees





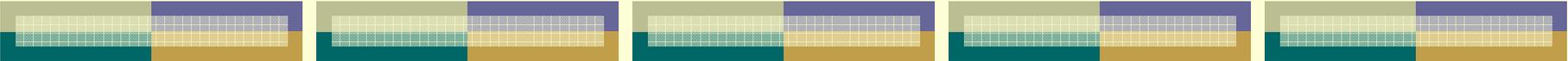
Why Conduct Tabletop Exercises?

- To test, validate and practice local agency operational and policy level response plans, interagency coordination and integration of resources
 - To help representatives of various departments and agencies get to know one another and become more familiar with the exposures, personnel and capabilities of other agencies
- 



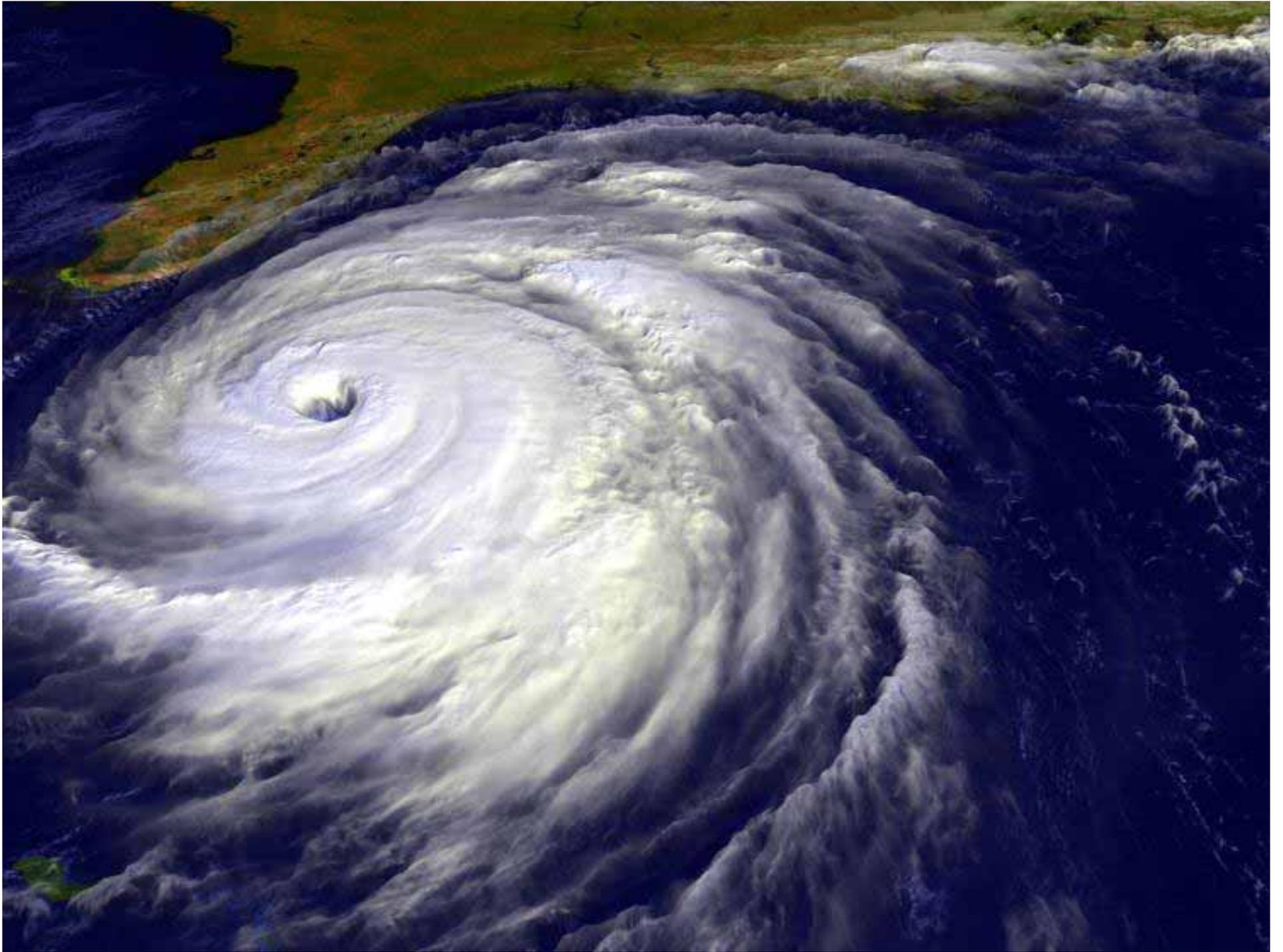
Why Conduct Tabletop Exercises?

- To identify weaknesses, opportunities for improvement and additional internal or external resources needed
 - To help local water utilities become familiar with the Incident Command System (ICS)
 - Tabletop exercise are very valuable tools for local governments
- 



Purpose

- The primary purpose of a tabletop exercise is *not to solve the scenario*
 - Objectives are accomplished with or without solving the details of the scenario
 - In some tabletop exercises, no solution is clearly attainable
 - In others, the components of the solution are provided to the participants as the exercise progresses
- 





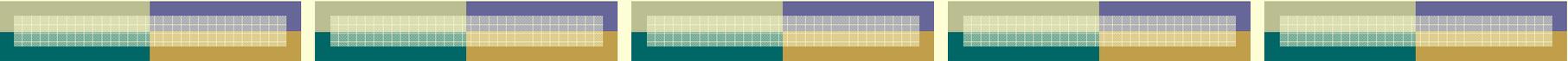




Who Should Conduct Tabletop Exercises?

- All entities providing critical services, particularly local water utilities





Who Should Initiate Water System Tabletop Exercises?

- The Water Utility Manager



Whose Support is Vital?

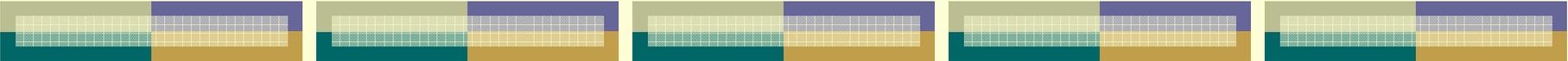
- The Town Manager, City Manager, County Manager, Mayor or Other Chief Executive



Who Should Help and Encourage Local Water Utility Managers In Undertaking Tabletop Exercises?

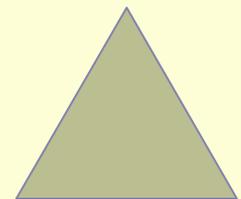
- The State Drinking Water Agency





Outside party organization of tabletop exercise is very advantageous

- Especially in smaller water utilities
- Allows all of the internal agency members to participate directly in the exercise



Types of Exercises

- Orientation
- Full-scale
- Drill
- Functional
- Tabletop



Orientation Exercise

- Informal
- No Simulation
- Discussion of Roles & Responsibilities
- Introduction to Policies, Procedures, Plans & Responsibilities



Full Scale Exercise

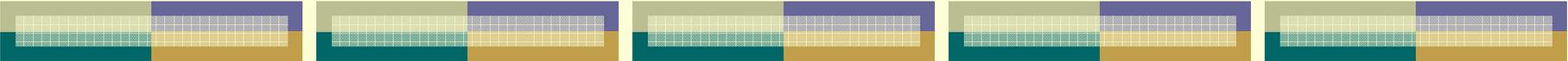
- Takes Place in Real Time
- Employs Real People & Equipment
- Coordinates Many Agencies
- Tests Several Emergency Functions



Full Scale Exercise continued

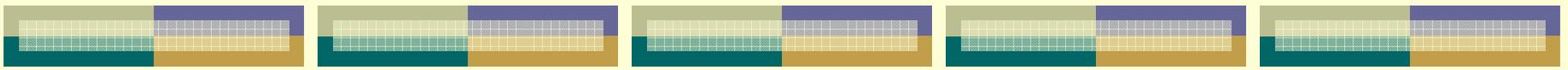
- Activates EOC
- Produces High Stress
- Cost is a factor
- Agencies may need to respond to a real event during exercise





Drill Exercise

- Single Emergency Response Function
 - Single Agency Involvement
 - Often a Field Component
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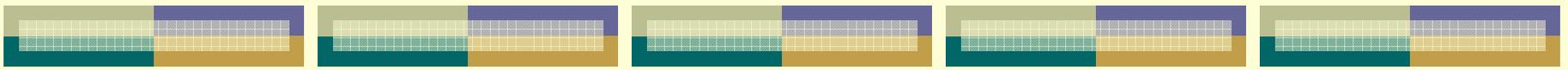
Functional Exercise

- Policy & Coordination Personnel Practice Emergency Response
 - Stressful & Realistic Simulation
 - Takes Place in Real Time
 - Emphasizes Emergency Functions
 - EOC is activated
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EOC Definition

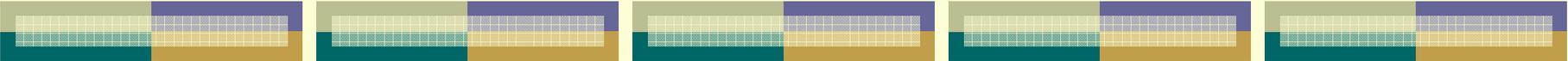
- Officials & Staff assemble at a central location
- Purpose is to provide a place where local government officials can work together
- Three main groups: Policy, Coordination, & Operations





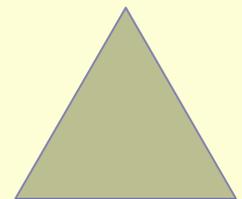
Tabletop Exercise

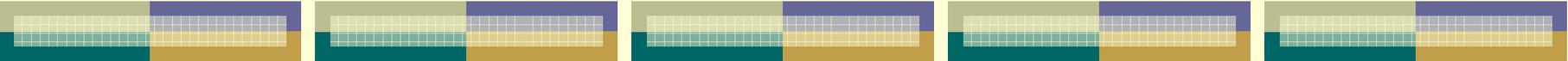
- Informal Discussion of Simulated Emergency
 - No Time Pressures
 - Low Stress
 - Useful for Evaluation of Plans & Procedures
 - Useful for Resolving Questions of Coordination & Responsibility
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Major vs. Minor Events

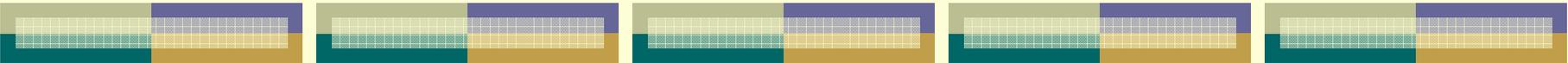
- Major could require multiple agencies
- Major would require more preparation
- Major would be more chaotic & stressful
- Minor would usually be day to day
- Minor usually handled in-house





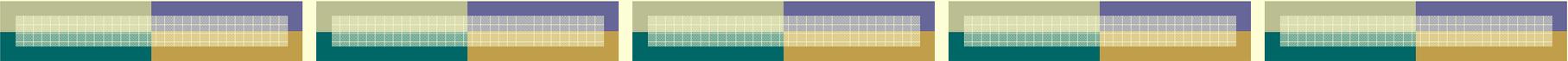
QUESTIONS?





Ten Minute Break

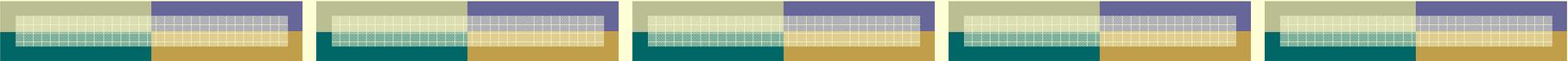




What Are the General Types of Tabletop Exercises?

- Intra-agency – Within a City or other unit of government
 - Easiest to organize, least expensive and best opportunity for open discussion of agency weaknesses
- Inter-agency –
 - Between various governmental agencies
 - Most thorough test of area preparedness

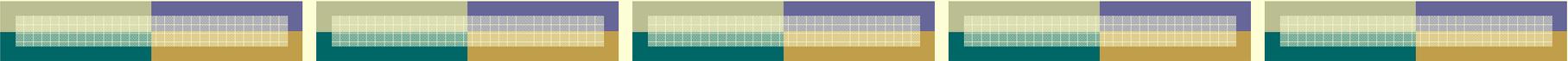




What Agencies Should Participate?

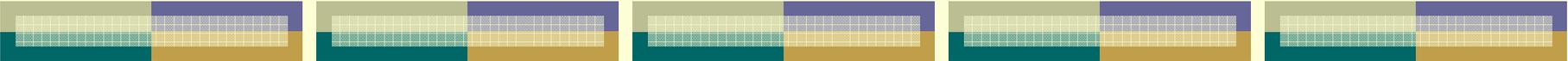
● Minimum Participation

- Water Utility
 - Local Law Enforcement Agency
 - Fire / Rescue Services
 - Local Government Management
 - The State Drinking Water Agency
- 



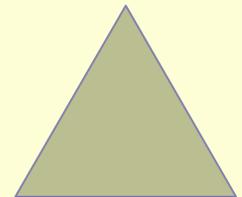
Expanded Local Participation

- Emergency Management
 - Public Health
 - Public Information Officer
 - Emergency Communications Agency
 - Public Works Department
 - Mapping Department
 - Elected Officials (real or role-play)
- 



Broader Agency Participation

- State Emergency Management
- Additional Law Enforcement Agencies (FBI)
- State Health Agency
- CDC
- EPA
- Media (real or role play)



Before Any Exercise

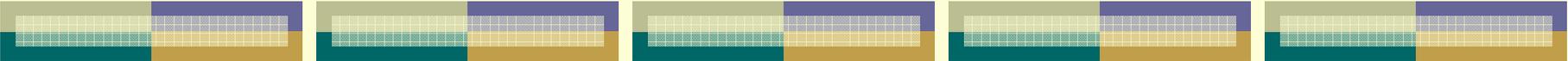
- Review the Plan
- Conduct a Needs Assessment
- Assess Capability
- Determine Exercise Scope
- Write a Purpose Statement
- Develop a Planning Timeline



Before Any Exercise

- Send Exercise Directive
- Organize a Design Team
- Organize an Evaluation Team
- Prepare Objectives
- Write a Narrative
- List Major & Detailed Events





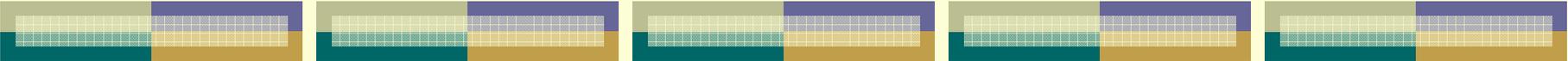
Objectives

- Try to keep them around five but no more than 10
 - Should be clear to participants
 - Exercise should be driven by them
- 

Before Any Exercise

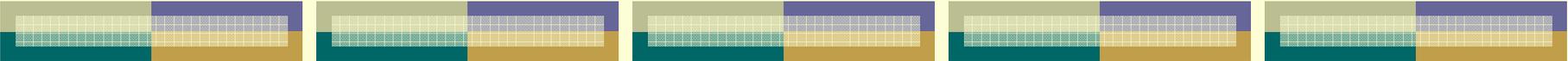
- Determine Expected Actions
- Write Messages
- Finalize Exercise Enhancements
- Develop Evaluation Format
- Now you are ready to Conduct the Exercise





Exercise Messages

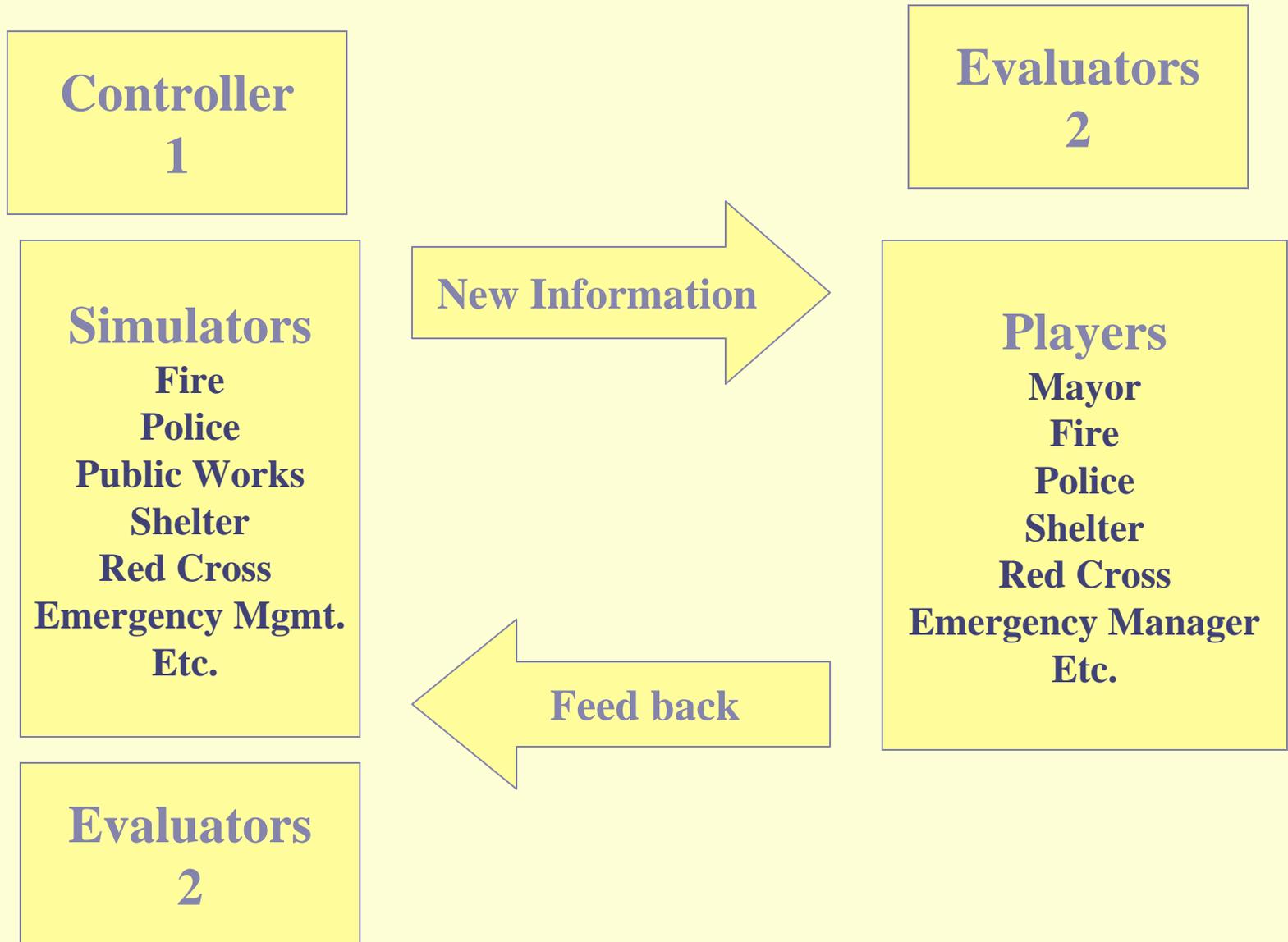
- Should be kept simple, don't try to cover too broad an area
 - Need to be clear so people can understand them
 - Need to be specific rather than general or vague
 - Need to be measurable to tell if you met your objective
- 



Exercise Message Information

- To:
 - From:
 - Delivery Method: e-mail, hand, phone, radio, etc.
 - Message Number: 1, 2, 3,
 - Time:
 - Message Content:
 - Action Taken:
- 

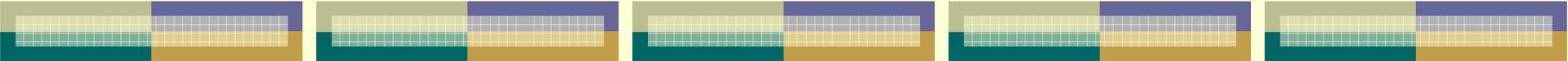
During Any Exercise



After Any Exercise

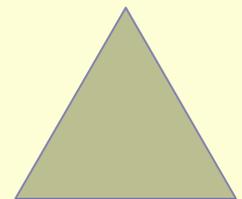
- Conduct Post Exercise Meeting
- Write After-action Report
- Conduct Follow-up Activities

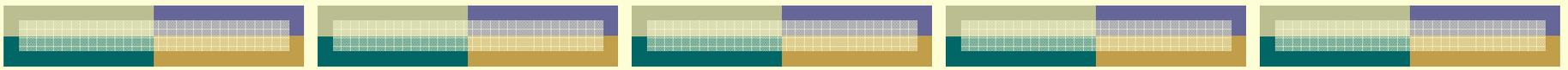




Exercise Assessment

- Backbone of the exercise
- What part of the response was effective
- What part of the response failed
- What was learned from the exercise
- What can we do better

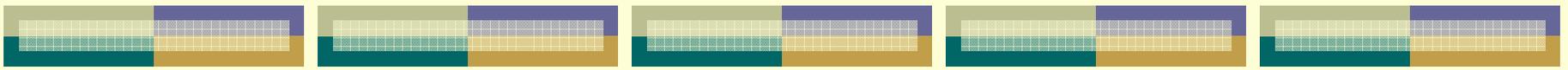




What Are the Possible Formats for Tabletop Exercises?

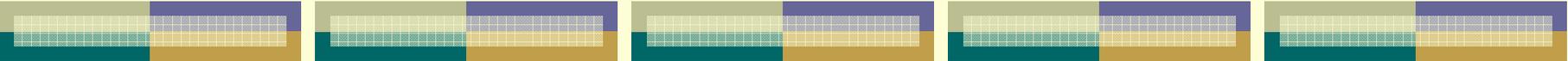
(Can be very simple or more complex)

- Little or no advance notice to participants regarding nature of disaster
 - Disaster information provided in advance and participants present and discuss their responses
 - Hybrid of the two above
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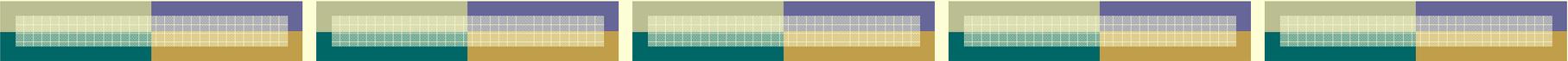
What Are Some of the Types of Scenarios That May be Used?

- Raw or finished water contamination
 - Loss of major system component
 - Loss of computer or control systems
 - Severe weather event
 - Others
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What Are Typical Tabletop Exercise Disclaimers? (Vary with size and complexity of exercise)

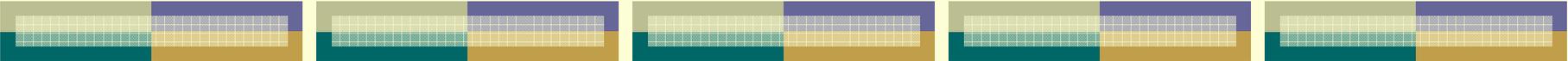
- Exercises make some assumptions regarding the feasibility of some components of the scenario
 - Symptomology and epidemiology
 - Local conditions
 - General scenarios very plausible, making the exercises very valuable and any error in assumptions should be disregarded for the sake of the value of the exercise
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Realism Disclaimer

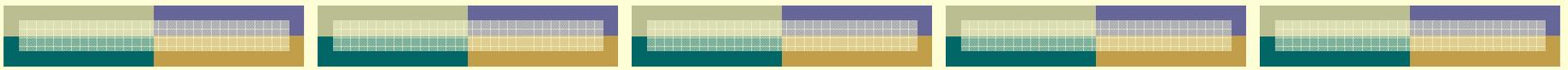
- Use of the names of specific neighborhoods, hospitals, companies, etc. is for the purpose of realism only and is in no way intended to indicate any weakness on the part of those entities





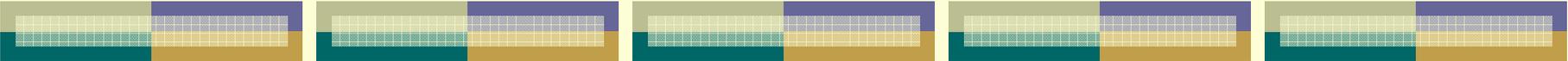
Exercises will be *much* “easier” than a real-life incident

- Known in advance that a mock incident will occur
 - Participants are usually already in the same room (in spite of efforts to simulate otherwise)
 - Much more information provided much faster than it would likely become available in a real incident
 - Real-life stresses are not in effect
- 



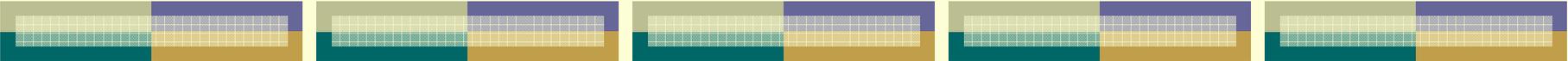
What Are Some Logistical Recommendations and Basic Needs Before You Begin a Tabletop Exercise? (Vary with size and complexity)

- Allow ½ hr. for intro., 2 – 4 hr. for exercise and 1 – 2 hr. for discussion
 - Details, such as street names, add realism
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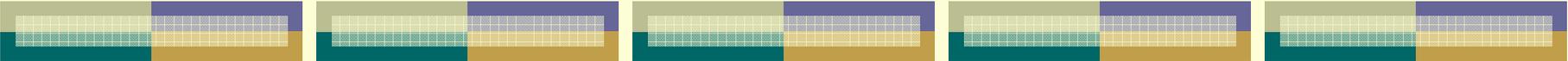
Participants

- Size of Group - 30 is good, no more than 80
 - Key is to have activity or role for everyone present
 - Persons may be needed to play the roles of key participants absent
 - Personnel are needed as “runners”
 - Observers and note-takers are valuable
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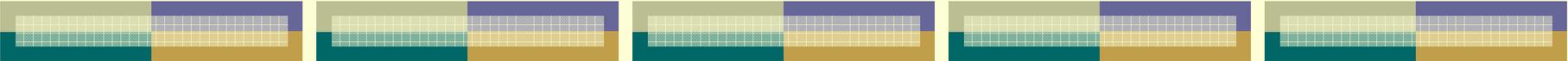
Hold the Exercise at the EOC, Utility, or Other Large Facility

- Large room and/or multiple rooms needed (can be done at remote locations)
 - Identify players and rooms
 - Keep realistic
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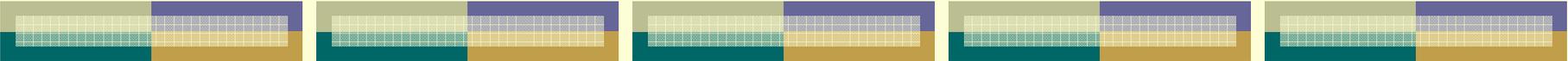
Room Set-up

- Provide tables for agencies, table agency signs, nametags, if needed
 - Provide refreshments and meals, as needed, with participants strongly encouraged to work while eating
 - Provide printed objectives and discussion questions
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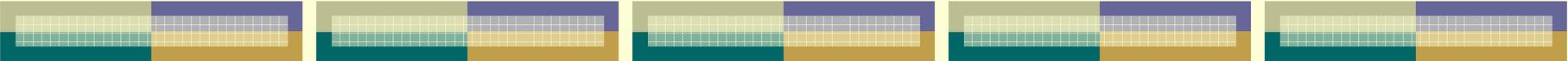
Room Set-up

- In large exercises, microphone recommended at the command post table for apprising all participants of key developments and decisions
 - Audio / visual aids add realism
- 



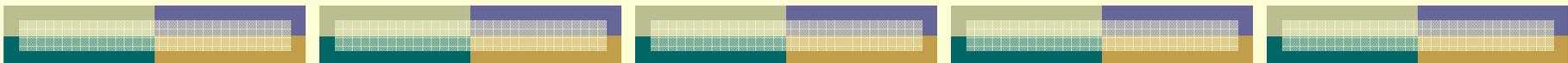
What Types of Audio / Visual Aids Can Add to the Realism?

- Pictures of the scenario components in handouts or projected on the screen
 - Video clips
 - Sound effects
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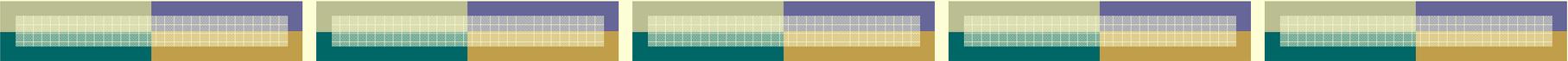
What Are Typical Rules on the Day of Tabletop Exercises? (Vary with size and complexity of exercise)

- Once the exercise begins, there will be no outside facilitator, as there are no facilitators in real emergency situations
 - Some information will be provided at the outset and additional information provided throughout the exercise
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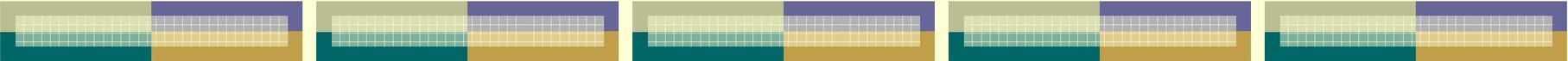
Handling of Materials

- Observers generally have notebooks containing complete scenario materials. The information in these books must not be shared with exercise participants
 - All materials are generally collected at the conclusion of the exercise for destruction or reuse as appropriate
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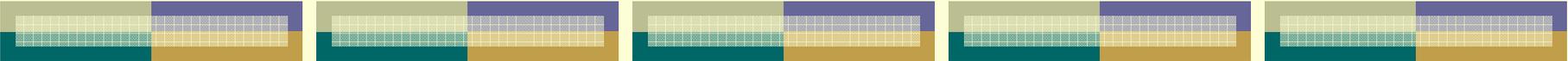
Time Schedule

- The time is usually simulated at an accelerated rate, 4X to 12X (each real hour equals four hours in the evolution of the scenario, etc.)
 - A master “clock” may be provided
 - No breaks provided, as there are no breaks in real emergency situations
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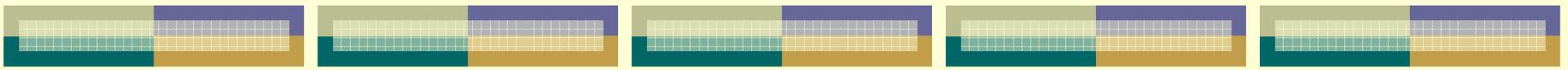
More Tips

- Agency tables should be viewed as if they are at their separate locations, as generally occurs in real emergency situations
 - Questions which result from information not provided in the scenario information should be handled by the scenario author / controller
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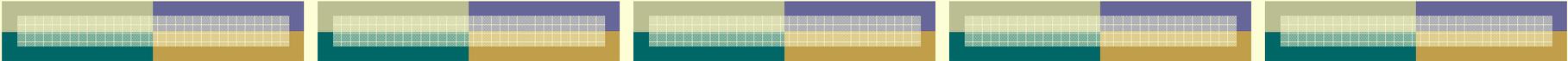
What Are Some Examples of a Tabletop Exercise Triggers?

- An unusual number of persons become sick
 - A threat is made against the water system
 - A breach of security and / or evidence of tampering is found
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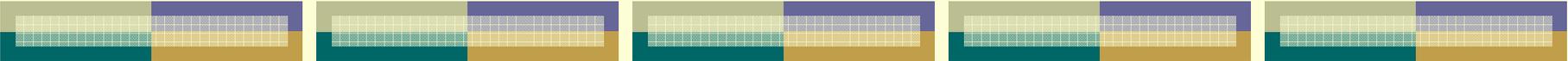
What is an Example of a Tabletop Exercise Scenario?

- Provide the setting of date, time, weather, water treatment methods in use, etc.
 - Scenario does not need to be exotic or complicated / can be in outline form on 1 – 2 pages
 - Information can be provided in the form of raw data, very small pieces or larger “clusters”
 - Upon investigation, it is determined that most of the ill individuals reside in one or more specific areas of the water service area
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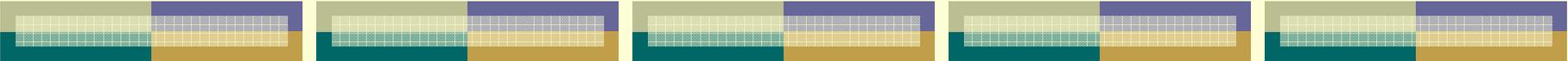
What Are Other Scenario Details that Can be Provided?

- It is reported that one or more biological contaminants have been stolen or otherwise obtained recently in the region
 - A theft or purchase of equipment capable of pumping water into the distribution system is reported
 - The equipment used to pump the contaminant into the water system is found
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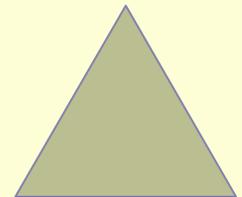
What Variables May be Used?

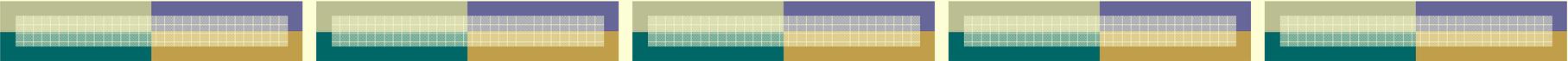
- Complicating factors that may be used include having the scenario occur at an unusual time / date, have a major public special event coincide with the incident and have one or more fires during the incident
 - Some information may even be diversionary
 - Multiple simultaneous incidents are possible
- 



More Variables

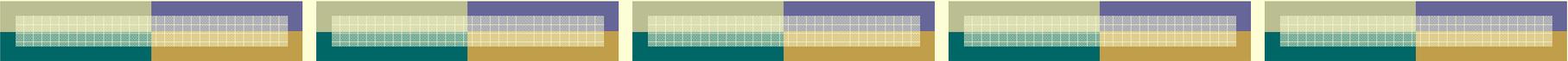
- Health effects can be further exacerbated as the exercise progresses, such as fatalities
- It may be interjected into the exercise that similar events are unfolding elsewhere in the country, resulting in “diluted” federal assistance and increased panic regarding terrorism
- Throughout the exercise, local and later national media demands for information and public hysteria conditions may be interjected





Learn from Others Misfortunes

- Create an exercise from a real event
 - Change response tactics
 - Review lessons learned from actual events and practice them
 - Contact agencies that may have responded to a similar event
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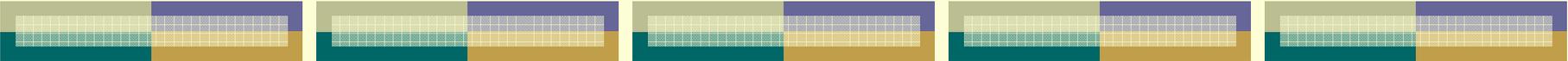
Anthrax Lessons Learned

- Exposure through the mail is higher than they had assumed
 - Number of spores that can cause illness or death is far fewer than previously understood
 - Need to use more caution when responding because of higher risk
- 

Tokyo Scenario

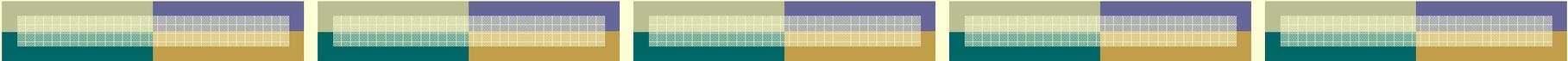
- Happened during morning rush hour
- Even as affected passengers were exiting contaminated cars, new passengers were elbowing their way on to the train
- Within an hour calls were flooding Command Center





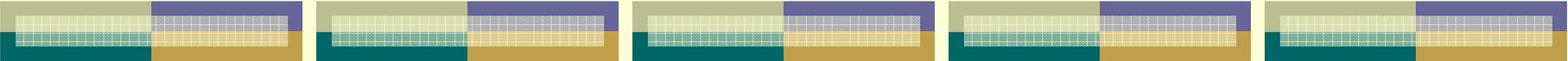
Response to Event

- Several hundred at Tsukiji Station were affected, bleeding from the mouth, unconscious or in convulsive fits
 - First Aid stations were next to ventilation shafts further exposing responders and victims
- 



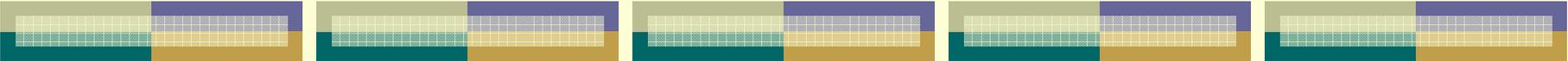
Response to Event con't

- Operators used newspapers to mop up Sarin, becoming victims and affecting others with exposed clothing, trains were then allowed to depart
 - Trains continued to run despite knowledge that an unknown chemical incident was going on
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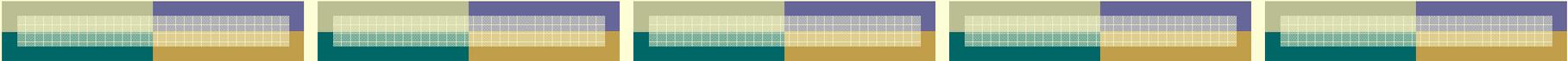
Tokyo Lessons Learned

- Better protective gear
 - Policies for when equipment is worn
 - Procedures for decontamination
 - Gas detection equipment
 - Bleaching powders & sprayers on trains
 - Better inspections of trains
 - SCBA's now on hand
- 



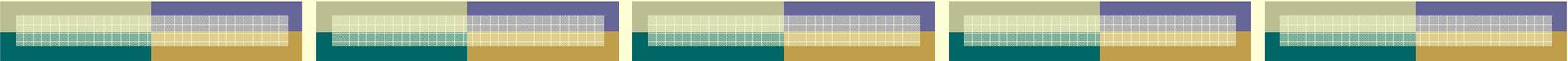
Keep in Mind

- An exercise should be kept realistic
 - Use scenarios that would apply in a real event
 - Each responder may have a different approach- this is why you have the exercise
 - It is okay to use multiple events such as interagency dependencies that create a domino affect, but keep them real.
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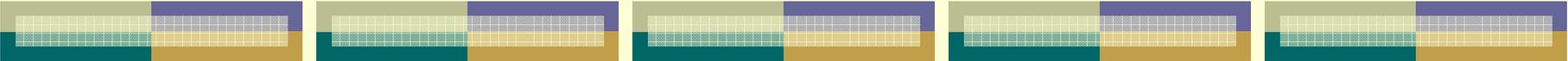
Keep in Mind

- Use expertise within the organization to design the exercise and define their roles
 - Some personalities respond to stress better than others
 - Your agency may fit in to another agency's plan for support
 - Your agency may be an independency to another agency
- 



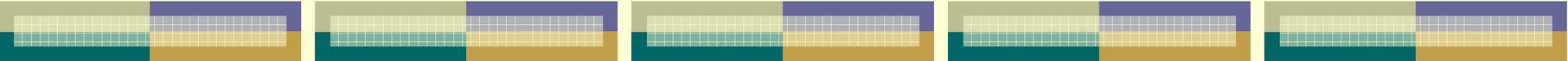
Know your Enemy

- Survey surroundings & build a response around them
 - Define critical components of your system & build a response around them
 - Know your enemy and know yourself and you can fight a hundred battles without disaster. “SUN TZU” from the "Art of war"
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Resources

- FEMA Guidebook- An Orientation to Community Disaster Exercises
 - State Emergency Management
 - Local Emergency Planning Committees
 - Homeland Defense Journal
 - DOT Emergency Response Guidebook
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QUESTIONS?

