

# **BASIC WORKSHOP IN EMERGENCY MANAGEMENT**

## **UNIT 7 EMERGENCY MANAGEMENT EXERCISES**



(REV -10/01)

## UNIT 7 EXERCISING

**OBJECTIVES** - At the conclusion of this unit the participant will be able to:

1. Describe the exercise philosophy.
  2. Identify the different types of exercises and the 8 exercise design steps.
  3. State the historical perspectives on exercising.
  4. State the NJOEM State Guidelines for exercising.
  5. Complete FEMA's 95-44 form.
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### **SCOPE**

- C Exercise Philosophy
  - C Types of Exercises
  - C Eight exercise design steps
  - C Historical perspective on exercising
  - C Current State Guidelines
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**TEACHING METHODS** - The instructor will begin the unit by discussing the NJOEM exercise philosophy and then the historical perspective on exercising. The different types of exercises will be discussed along with the eight exercise design steps. At this

point the instructor should canvass the audience to make sure everyone is familiar with these steps before moving on. The instructor will then conclude the unit by going over each of the attachments contained at the end of the unit, explaining how to complete them and process through channels.

## **EMERGENCY MANAGEMENT EXERCISES**

The New Jersey Office of Emergency Management supports the training philosophy that exercises are the best means of determining the validity of a jurisdiction's Emergency Operations Plan. Exercising also allows emergency management personnel to perform their functional responsibilities in simulated situations. Ideally, jurisdictional involvement in exercises will involve all or most of the various types of exercises. Depending on the level of experience with exercises, a *program* of exercise activity should be established. Each attempt to conduct an exercise should lead to program enhancement. In other words, identify areas in need of improvement, make corrective actions, and exercise again, either at the same level (scope of involvement) or higher.

### **HISTORICAL PERSPECTIVE ON EXERCISING**

From its inception in 1979 until the dramatic political changes that occurred in Europe and Asia between 1989 and 1991 (culminating with the end of the cold war), FEMA's exercise program focused on testing national preparedness and response capability with regards to strategic nuclear attack against the United States. Although "dual-planning" for natural/man-made disasters as well as war-time scenarios was conceptualized, the Three-Mile Island incident, and the realization of the potential threat that existed for jurisdictions located near eight U.S. Army chemical weapon stockpile sites caused marked improvement in the number of non-civil defense related exercises. However, these scenarios were explicitly hazard specific, and did not address the broad range of natural hazards nor the variety of technological/man-made threats that exist. And though subsequent guidelines for exercises promoted rotating scenarios annually, using the three predominate categories of disasters: natural, man-made and civil defense, concern was expressed by the federal authorities that these "other" activities would/should not detract from attack preparedness.

As the cold war ended, and the 1990's began, a series of natural disasters occurred. Hurricane Hugo, and the Loma Prieta earthquake overwhelmed local and state personnel and resources. Hurricanes Andrew and Iniki followed and magnified the need for coordinated response and recovery efforts between states and the federal government. Summer flooding throughout the Midwest in 1993 and more natural disasters in California strengthened the recognition of a need to shift the emphasis from attack preparedness to a comprehensive, all hazards approach towards emergency management in general and exercising in particular.

FEMA's adoption of the Federal Response Plan (FRP) in 1992 exemplified this change in program emphasis and lent itself to supporting exercises that test interagency and

intergovernmental cooperation.

In 1993, FEMA began operating under a new structure. All exercise responsibility was centralized in one area of the agency: the Exercise Division of the Preparedness, Training, and Exercises Directorate. All exercise activity including national security, and legislatively mandated programs (REP and CSEPP), were combined into the Comprehensive Exercise Program (CEP). Exercise guidelines were established to assist state and local programs.

Two major policies shaped the federal mission: multi-level government coordination in exercises, and the development of opportunities to evaluate the shortfalls and accomplishments of all exercises.

## **CURRENT STATE GUIDELINES FOR EXERCISES**

Under the Comprehensive Cooperative Agreements signed by the state and federal government and subsequently entered into between the state and its counties/municipalities (1993), exercising was emphasized as *the method* to test, evaluate, and train personnel, plans, policies, and procedures. Emergency Management Systems were to be developed to prepare for, respond to and recover from *all types* of emergencies.

Exercises were required to :

- C be all hazard/ risk based.
- C involve all levels of government.
- C test plans and improve capability of personnel.
- C be realistic and incorporate "real-world" difficulties.
- C include both staff and operational personnel.
- C evaluate preparedness.

Notice that these recent guidelines did not task jurisdictions with developing exercises based on a hazard scenario. The purpose of FEMA's exercise guidance for 1994 was to re-direct the program emphasis, focusing on "operational capability" and rooted in the functional annexes of Emergency Operations Plans of all levels of government.

Comprehensive emergency management is still the basis of any program, but no longer does the hazard or scenario take center stage. Rather, it is the policies and procedures along with the personnel that matter most. The functional areas of a jurisdiction's Emergency Operations Plan were to be incorporated into the exercises, rotating the annexes tested, during subsequent exercises, over a four-year cycle so that all were eventually evaluated for their effectiveness.

One stipulation of the (FY-94) exercise guidance was that within the (4) year cycle for exercising, at least one of the jurisdiction's exercises was to be conducted at the full scale level of activity. This mandate ensured that all or most of the emergency management functions of a plan would be tested.

With the advent of the Performance Partnership Agreement (PPA), The New Jersey Office of Emergency Management has seen as its greatest advantage, the increased flexibility of this new fiscal arrangement.

This is the perfect opportunity for us to encourage more jurisdictions to exercise, not just those having financial incentives. Restructuring our training and exercise programs allows us to offer the counties and their municipalities opportunities to develop training/exercise projects based on *their own* recognized needs, goals and objectives.

Exercising under the Performance Partnership Agreement will continue to stress the selection and testing of functional aspects of Emergency Operations Plans.

The new areas of emphasis are as follows:

- C encouraging private and/or civic organizations or individuals to participate in the exercise process, including the design, development, conduction and evaluation of the activities.
- C improved cooperation among all levels of government in a comprehensive exercise program (CEP) that includes identifying and testing coordinated response and recovery activities, and implementing hazard mitigation initiatives that are coordinated at the federal, state and local levels.

These efforts ensure increased preparedness while adding to the operational capability of each responsible governmental office.

A meaningful evaluative element needs to be incorporated into each exercise conducted, including tabletop and functional exercises. The hope for all jurisdictional exercises is that problems, when they occur are not dismissed as accidental or not likely during the "real thing", but that these mistakes or deficiencies serve as the starting point for corrective action. This philosophy demands that all who exercise place equal value on the evaluation process, as compared to the development and delivery phases of their exercise programs.

That the Performance Partnership Agreement involves a five (5) year period of planning, production and review, does not impact our exercise guidance but rather should encourage all jurisdictions to expand their programs and realistically measure

their plans, policies, procedures, and systems. This can and should occur because time constraints are lessened, allowing added time for development of exercises and constructive review of the evaluated results. More importantly, jurisdictions are given increased opportunity to make and further test corrections. Financially assisted programs will be expected to conduct at least one functional exercise per year. Within any three year period, at least one exercise must be conducted at the full scale level, and after four years all functional annexes of a jurisdictions Plan must have been tested. The fifth year under the PPA will be devoted to ensuring that all corrective action, identified throughout the preceding exercise process be completed and reflected in the EOP. Continual plan adaptation and improvement should be realized for every participating organization.

In concert with FEMA's desire to incorporate more participants in the exercise programs of the nation, New Jersey's Office of Emergency Management is actively recruiting those jurisdictions who have not routinely involved themselves in exercises. Traditionally, only those counties/municipalities who were eligible to receive financial assistance consistently exercised. Obviously, state criteria requiring exercise productivity, in exchange for this financial aid was a primary incentive.

Beginning in 1995, the counties must have twenty-five percent (25%) of their non-funded (EMA) municipalities participating in exercises that test their Emergency Operation Plans.

These exercises can be held independent of other jurisdictions or preferably, in conjunction with exercises planned and conducted at the county level. This latter option helps to test the intergovernmental coordination needed in times of emergency. Also, by affiliating their program activity with the county, these inexperienced municipalities will benefit from the knowledge available within the county emergency management office.

Added value is given to tabletop exercises, provided they involve appropriate elected and appointed officials as well as emergency management staff members. The development and delivery of the exercises must be done through the efforts of the participating jurisdictions (and private/civic entities), and supported by the superseding authorities. However, meaningful evaluation must take place. This is also the case with the more complex functional and full scale exercises. Regional review of the activity and/or submitted reporting forms will help to determine the value of the process and the subsequent credit (for exercising) awarded.

Actual occurrences are certainly a learning opportunity and therefore are recognized as being eligible for exercise credit (for funded jurisdictions). Strict adherence to the established criteria is the policy of the state office. Only full scale credit is awarded to counties and municipalities requesting exercise approval for an actual occurrence.

Again, this determination is made at the state/regional level.

FEMA has provided the states and local governments with an invaluable tool to assist with the recording of exercise activity. The Emergency Management Exercise Reporting System (EMERS), allows each participating jurisdiction to document the involved personnel, hazards, and functional areas of each exercise. Essential to this form (95-44), and its input into the computer data base of the state and federal government is the section, (IV), that permits the recorder to expound on the problems encountered (areas in need of improvement), or offer clarifying statements for actual events. Again, this is the value and goal of the exercise process: test plans and personnel, identify deficiencies, make corrections and test again. Program managers or their designee will complete these forms and submit them to their respective regional office for review, comment and data entry. The regional offices then forward them to the state exercise officer for additional review and statistical compilation.

# TYPES OF EXERCISES

## ORIENTATION SEMINAR

A gathering of emergency management staff, public and private officials, and volunteer group representatives. The meeting focuses on familiarization with roles, responsibilities, and personalities of the jurisdiction's emergency management system. Policy and procedures, as outlined in the Emergency Operations Plan are reviewed, free of stress and with little to no attempt to simulate reality.

## TABLETOP EXERCISE

Elected or appointed officials and key emergency management staff are assembled and given simulated emergency situations to respond to. The tabletop activity is designed to elicit constructive discussion among those present, using the existing policies and procedures outlined in the *plan*. Moderate stress is applied to the situation to instill a slight sense of urgency in the decision making process.

## FUNCTIONAL EXERCISE

Designed to test the policies, procedures, roles and responsibilities of individual or multiple emergency functions under simulated conditions that impart a sense of realism. Time constraints are placed on decision making. Larger than a tabletop in its scope, the activities are usually occurring in an operations center and may involve some field component. Since functional aspects of a jurisdiction's plan are being tested, the simulated events could involve actions taken before, during or after an emergency.

## FULL SCALE EXERCISE

An activity designed to test the procedural and operational capability of emergency management systems in an interactive manner over an extended period of time. A high level of stress is desired to realistically test multiple elements of a jurisdiction's Emergency Operations Plan. Actual field mobilization and response takes place with the operational functions involved. The Emergency Operations Center is activated and field command posts may be established.

## **ACTUAL OCCURRENCE**

FEMA and the State of New Jersey have cooperatively developed guidance for county and municipal programs to obtain credit for actual response to real events. Obviously these guidance principles are directed towards those jurisdictions receiving financial assistance and who must meet exercise participation criteria to be eligible for the assistance. These guidelines require certain functional activities to occur during and after the actual emergency response, to receive credit. The reason for this addition to our state's exercise program is to encourage jurisdictions to document decisions made and actions taken during an emergency. More importantly, a critique of the documented activity helps to identify shortfalls or weaknesses in programs and allows for improvements in the system.

# THE EIGHT EXERCISE DESIGN STEPS

## 1. NEEDS ASSESSMENT

The purpose of a needs assessment is to define the problem. A needs assessment is an inventory of the problems or needs. The needs assessment is based on the local EOP. A needs assessment should reveal the following:

- a. Problems which need to be solved
- b. Skills that need to be practiced
- c. Functions that are weak
- d. New facilities, personnel, or equipment that need to be tested
- e. Weaknesses in the EOP
- f. Need for role clarification
- g. Hazards facing the community
- h. Problems that keep recurring

Indicate the most pressing problem areas in your community. Also consider what you have learned from previous exercises or emergencies.

**HAZARDS** - list the various hazards in your community. What risks are you most likely to face. Examples: Flood, Haz-Mat, Terrorism, Mass Fatality, Winter Storm

**AREA** - What geographical areas are most vulnerable to the high priority hazards.

**FUNCTIONS** - What emergency management functions are most in need of rehearsal. (Where have the difficulties occurred in the past?)

Alert, Warning and Communication  
Damage Assessment  
Emergency Medical  
Emergency Operations Center  
Emergency Public Information  
Evacuation  
Fire and Rescue

Hazardous Materials  
Public Health  
Public Works  
Radiological Protection  
Resource Management  
Shelter, Reception and Care  
Social Services

**AGENCIES & PERSONNEL** - What agencies and personnel need to participate in the exercise?

Police  
Fire  
Public Works  
Airport  
State OEM  
School District

ARC  
Hospital  
Business & Industry  
EMS  
County OEM  
Surrounding Jurisdictions

## 2. SCOPE

The scope of an exercise means putting the realistic limits to the concerns identified in the needs assessment. It is important that the scope be clear and narrowly defined.

THERE ARE FIVE KEY ELEMENTS OF SCOPE. They are:

1. Functions - List the operations that the participants will practice. It is important that these procedures are clear and narrowly defined.
2. Personnel and Resources (agencies) - What representatives from the identified agencies should be there?
3. Disaster Type - Limit the exercise to one major disaster. The basis for the selection might be that it is the highest priority or hasn't been exercised recently. Choose an area where the hazard would realistically occur.
4. Location - Choose a specific area where the hazard would realistically occur.
5. Exercise Type - What exercises are most needed? What experience have personnel had with various exercise types? What stress level do we want?

## 3. PURPOSE STATEMENT

The purpose statement take the five components identified when limiting the scope and incorporates them into a single concise statement. (*You are actually summarizing the scope.*) The purpose statement is a broad statement of the exercise goal. It focuses and controls the whole exercise, governing the selection of the objectives, which in turn

govern the subsequent steps.

A purpose statement is easily constructed. Simply incorporate the decisions made in the scope into a single sentence. The principle, parts of the statement are OPERATIONS, AGENCIES & PERSONNEL, TYPE OF EXERCISE, and LOCATION.

**EXAMPLE:**

*The purpose of the proposed exercise is to improve the following emergency operations:*

*flood stage monitoring, evacuation monitoring, relocation of school children and shelter management by involving OEM, Fire department, DPW, Health Dept., ARC, and Public Schools in a functional exercise simulating a flash flood at Planter's Street Bridge to Rt 3 on April 2, 1998.*

- OR -

*The purpose of the proposed exercise is to coordinate the activities of the municipality and county government in their response to a hurricane; to provide training to staff; to test and evaluate the AWAC annex; and to enhance interagency coordination by involving the Mayor, EMC, Fire Chief, Police Chief, PIO representative, ARC, and volunteers. These will be tested in a functional exercise on April 2, 1998.*

#### **4. OBJECTIVES**

An objective is a description of the performance you expect from participants in order to demonstrate competence. Objectives will ensure that the people working on the exercise will have a common understanding of what is to be accomplished. They are the basis for design, conduct, evaluation, and follow-up. Objectives are arrived at by breaking down the purpose statement into its logical components. There can be as few as 2 or three objectives in a small exercise, or up to 100 in a large national exercise including many federal, state, and local jurisdictions. In large exercises, *each agency should be responsible for developing their own specific objectives which are then incorporated into one exercise package by the design team.*

The main thing to remember about objectives is that they must be CLEAR, CONCISE, and focus on the PARTICIPANT'S PERFORMANCE.

#### **USE THE SMART SYSTEM**

SIMPLE - A good objective is SIMPLE and CLEARLY phrased.

MEASURABLE - The objective sets the level of performance, so that results are observable and you can tell when the objective has been reached.

ACHIEVABLE - The objective should not be too tough to achieve.

REALISTIC - Even though it may be achievable, it might not be realistic.

TASK ORIENTED - The objective focuses on behavior or procedure. Each objective should focus on an individual emergency function.

EXAMPLE:

1. Responders will establish an ICS post at the scene within 15 minutes after the initial call for service.
2. Emergency management staff will demonstrate the ability to initiate and complete a call-back of EOC personnel as described in the EOP.
3. Demonstrate the ability to assemble, supply, and support a complete hurricane response team to pre-position for imminent response following landfall.

Use the following concrete words, paying attention to participant performance.

ASSESS, CLARIFY, DEFINE, DESCRIBE, DETERMINE, EVALUATE, EXAMINE, EXPLAIN, IDENTIFY, ILLUSTRATE, JUDGE, JUSTIFY, LIST, NOTIFY, RECORD, RELATE, SHOW, TEST, VALIDATE, INSPECT.

## **5. NARRATIVE**

A narrative is a brief description of the events that have occurred up to the minute the exercise begins--something like the first chapter of a novel. It sets the stage for the gathering of the players in the EOC. A narrative is usually 1 to 5 paragraphs long. It is very specific, usually phrased in present tense, with relatively short sentences to lead immediacy and tension.

EXAMPLE:

National Weather Service's National Hurricane Center issues news on the formation of a storm off the southern U.S. coast that appears to have a hurricane potential. Tropic storm Erica is renamed Hurricane Erica and the NWS issues a Hurricane Watch for entire east coast of New Jersey. Wind velocity and northwest movement over the last day have decreased, but overnight change in direction to steady northwest line calls for an immediate Hurricane Warning for 5 coastal counties of the state. Winds of 80 mph are predicted with water expected to reach 12-15 ft. Over high tide. Low tide, newly developed resort areas and heavy influx of visiting weekend vacationers have been advised to evacuate the area. Access bridge to barrier islands are narrow and could become impassible with 15 ft. Water height....

## 6. MAJOR AND DETAILED EVENTS

Major and detailed events are essentially the same, except that major events are large problems and detailed events are small ones created by breaking down a major events. The purpose of major events is to get a list of problems that require certain emergency functions to be addressed and will drive player actions.

Developing and exercise scenario is much like writing a play. The play write organizes the events into acts and scenes. Similarly, the exercise designer organizes events into major and minor and detailed events.

**MAJOR EVENTS** - are big problems resulting from the disaster. First identify several major occurrences -- the high points in a sequence -- that follow the narrative events. Second, decide which ones might generate situations that would test the objectives.

EXAMPLE:

- C Building collapses due to heavy winds.
- C 60 persons are trapped in building and need medical attention.
- C Roads are impassible to the building.
- C Fire erupts at the facility.

**DETAILED EVENTS** - the goal is to collect a number of specific problem situations to which emergency personnel would have to respond. Each detailed event should be designed to prompt one or more expected actions for 1 or more agencies.

## 7. EXPECTED ACTIONS

Expected actions are all the events to which the problems will require 1 or more actions on the part of the players. Each detailed event should be designed to prompt 1 or more expected actions for one or more agencies that are participating in the exercise. The expected actions are responses of the agencies and personnel to the events you identified in the purpose statement.

Expected actions are closely tied to objectives. Objectives state general desired actions, while expected actions are a breakdown of the objectives -- the actions taken by an agency or an individual to meet that objective.

## 8. MESSAGES

Messages are the means which the expected actions are brought about. They are communicated to the players by a number of means: telephone, radio, delivered by

hand, whispered, or transmitted by fax.

A standard message usually contains 4 components:

1. Source of the message
2. Method Sent
3. Content of message
4. Recipient

A message may also have space for the message number, time message is to be delivered, and the action expected or taken by the player.

DISASTER EXERCISE  
<MESSAGE>

TO:

METHOD

FROM

NO:

TIME:

COMMENT:

ACTION TAKEN:

## MASTER SCENARIO EVENTS LIST

This list is often used to monitor the progress of the exercise in order to keep it on schedule and on track. The chart is a list of events, together with time of occurrence and expected actions. This chart portrays a picture of the whole exercise, WHICH IS ESSENTIAL TO THE CONTROLLER and helpful to the simulators.

<b>TIME ACTIONS</b>	<b>MESSAGE/EVENT</b>	<b>EXPECTED</b>
0735		
0745		
0755		
0800		
0800-0815		

## **ATTACHMENTS**

ATT. #1      Emergency Management Exercise Reporting System - FEMA Form 95-44