E9: Disaster Management

Module 7

Training and exercising

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Acknowledgements

The Commonwealth of Learning (COL) wishes to thank those below for their contribution to the development of this course:

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COL would also like to thank the many other people who have contributed to the writing of this course.

Contents

Module 7

Training and exercising

Introduction

While the previous six modules provided the foundation for a disaster management programme, Module 7 focuses on the importance of training and exercising to enhance planners' and responders' knowledge and skills, as well as the overall emergency management capacity of an organisation.

This module will enable you to identify training needs, different types of training methodologies as well as when and how to implement exercises.

Upon completion of this unit you will be able to:

Outcomes

- *explain* the importance of training to emergency managers and humanitarian workers
- *describe* how training needs can be identified
- *describe* different types of exercises and scenarios
- *develop* and implement simple exercises that can enhance response capacities.

Unit 17

Understanding training and exercising

Introduction

In this unit you will learn about the importance of training and assessing training needs as well as the types of training available for emergency management.

Upon completion of this unit you will be able to:

Outcomes

- *explain* the importance of training to emergency managers and humanitarian workers
- *describe* how training needs can be identified
- *conduct* a training needs analysis.

Terminology

Terminology

Behavioural competencies:	Refers to motives, traits and attributes that shape behaviour and reflect "how" you apply your knowledge and skills in order to achieve results.
Technical competencies:	Refers to specific job knowledge and skills required to be effective in a job.
Sector-specific training:	Training used in an organisation to teach employees about its emergency management system and the role they play in implementing its emergency plan.
Formal education:	The process of training and developing people in knowledge, skills, mind and character in a structured environment, such as a university or college.

Background

The previous modules have laid out the principles and practices of disaster management. An emergency plan is only as effective as those who are responsible for its implementation. Therefore, it is critical to develop an on-going training and exercising programme to get the best response. The benefit of this is that it gives individual and team training

that ought to lead to system improvements. It also allows for the testing and evaluating of plans, policies, procedures and guidelines. As well, it identifies needed resources, clarifies roles and responsibilities, and improves communication. To achieve maximum effectiveness the training cycle (Figure 1) should be harmonised with and complement the preparedness cycle discussed in Module 4.

Training provides first responders, emergency management officials, non-governmental partners, and other personnel with the knowledge, skills and abilities needed to perform key tasks required by specific capabilities. Organisations should make training decisions based on information derived from the assessments, strategies and plans developed in previous steps of the preparedness cycle.

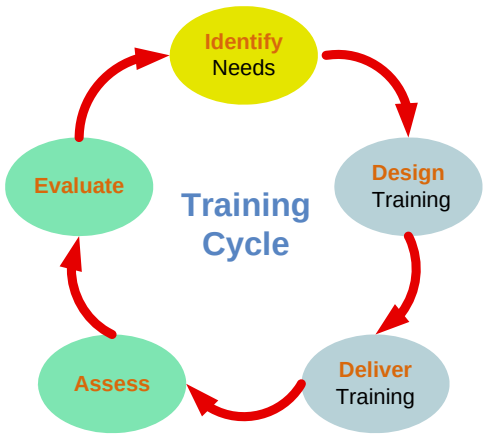

Figure 1: Training cycle.
Source: Figure adapted by Wayne Dauphinee from various public domain sources

Exercises on the other hand assess and validate the speed, effectiveness and efficiency of capabilities, and test the adequacy of policies, plans, procedures and protocols in a risk-free environment. Aside from actual events, they provide the best means of evaluating disaster preparedness capabilities. By scheduling complementary training and exercises that gradually increase in complexity, a multi-year training and exercise schedule will systematically build and enhance an organisation's capabilities.

Lastly, the evaluation and improvement of mission and task performance is the final step of the preparedness cycle and crucial to informing risk assessments, managing vulnerabilities, allocating resources and informing the other elements of the cycle. Organisations develop improvement plans and track corrective actions to address the capabilities identified in plans and tested in exercises or real events. Using this data to

Training develops capabilities

Exercising validates competencies

reassess and revise plans and protocols contributes to the beginning of the next preparedness cycle by ensuring strategies are updated.The successful management of a complex emergency or disaster is to have the right people, carrying out the right function, at the right time. In order to achieve this everyone must understand their role in an event. For

example, the threat of a local-level natural disaster like a tornado may require a different skill set than the threat of a deliberate chemical event.

As well, these threats will have different risks associated with them, and the subject matter expertise and the role of the participants in each of these events will differ. If the same organisation responds to either of these events the emergency manager will likely be different, as this person should be the one with the most knowledge of the emergency or disaster, given their expertise.

Similar types of events will also have different responses. Consider the response capability to an earthquake in Seattle or Vancouver from stable countries like the United States of America or Canada compared to the social, political and economic vulnerability of Haiti. It is important that those managing an event know and understand that preparedness and response capacity will be different.

Steps in determining training needs:

- *Know the competencies*
- *Know what needs to be learned*
- *Know who needs to be trained*

General guidelines for developing a robust training programme include, first, understanding the necessary competencies, then what needs to be learned and finally who in the organisation needs training,

In order to achieve this, it is important to consult senior officials in the organisation, emergency management professionals, human resource (HR) specialists, all of whom know the general competencies of each function in a complex emergency or disaster. They should also know who in the organisation has existing emergency management competencies, where the greatest training need is and who needs it.

In order to articulate both technical and behavioural competencies, job function and role must be understood. For example, the functions outlined in the in the incident management system will be articulated through a job description. The job description will have associated competencies. For example, the role of emergency co-ordinator/incident commander will require strategic thinking, the ability to engage people and strong management skills. The job description will state the role of the function and include responsibilities such as, assessing incident priorities, controlling personnel and equipment and ensuring responder safety.

Types of training

- *Lecture*
- *Discussion*
- *Demonstration*
- *Exercise*

Once the competencies are articulated, then the next step is to determine who will be trained. This is usually determined through an examination of legislation, plans, policies and guidelines will help determine who needs to be involved in the planning for, mitigation of and response and recovery of an emergency or disaster.

Many emergency management professionals would argue that at the very minimum all employees in an organisation need to be trained on the plan as they need to know what is expected of them during an emergency or disaster. It is best to ensure each staff person has accurate information so they can prepare when a disaster happens. Certainly anyone who has a role within the incident command system structure or the emergency site management structure will need to be trained, as will senior management who have the authority to make decisions during an event.

Determining what needs to be learned requires reviewing past after-action reports, legislation, policy, guidelines, risk and threat assessments, and of course a review plans. The use of discussion or focus groups and using survey instruments may assist in developing a picture of existing strengths and challenges.

Types and methodologies

Training is essential to mitigating the impact of an emergency or disaster. If it is accepted that all emergencies or disasters are local, then it is accepted that training and education must start at the local level. This not only includes the role citizens play, but the role of local response agencies, those groups brought together through an emergency or disaster, either internal to an organisation or through external systems.

The number and types of training methods you use depend on many factors, and you must therefore have answers to the following questions before you decide how you will present your material.

- What is the ability and level of knowledge of the group?
- How many trainees are in the group and why are they there?
- How much time do you have to prepare your material?
- Can you cover your topic fully in the time available?
- What aids do you require?
- Do you have the experience to use these aids with confidence
- Are you aware of the limitations of aids?

The answers to these questions will help you determine your training methodology.

There are formal emergency management education programmes at universities and colleges, federal organisations like the Federal Emergency Management Agency in the United States, sector specific training like the Civil Military Response workshop offered by NATO, international, national and local symposiums and workshops.

Training methodology

General

- *Lecture*
- *Lecture/discussion*
- *Skill lesson*
- *On-the-job training*

Situational specific

- *Role play*
- *Assignment*
- *Case study*
- *Training games*
- *Group exercises*
- *Programmed learning*

Formal education such as a degree or diploma offers students an opportunity to develop the knowledge and skills to critically analyse the concepts of emergency management.

Sector-specific training is also an important part of learning. This is often used in organisations to teach employees about emergency management systems and the role they play in implementing the emergency plan.

Local and interagency training provides an opportunity to train across disciplines and provides an understanding of how all the different organisations in a community contribute to a preventing/mitigating, preparing, responding to an emergency or disaster. It is critical to the successful management of an emergency or disaster to understand the authorities, jurisdiction and priorities of counterparts during the event.

Practitioners and academic learners will appreciate hands-on training in the environment they are most likely to work. Access to an emergency operations centre (EOC) will provide the most realistic experience for any type of exercise. This gives everyone an opportunity to become familiar with operational processes, equipment, command processes, common language and EOC protocols.

With so many training methods, how an organisation trains its planners and responders will depend on cost and preference. These include self-study, classroom and hands-on training. The self-study method is an effective tool for non-operational training of communities and staff. A good balance between classroom study and hands-on experience is the most common tool for teaching about the principles of disaster management.

Teaching the public about its role in an emergency or disaster should not be overlooked. Community officials can engage the public through media campaigns or official tours of local emergency operations centres. This will give the public an understanding of how an emergency or disaster is managed and reinforce the personal responsibility to be prepared.

Activity 7.1

Activity

Think about your organisation and who has been trained on the emergency plan.

What type of training would you recommend to senior officials in order to ensure your organisation is ready to respond to an emergency or disaster?

Unit summary

Summary

In this unit you learned the importance of training and assessing training needs as well as the types of training available for emergency management.

Unit 18

Planning an exercise

Introduction

In unit 17 you learned why we train and you were exposed to the various methodologies through which training can be achieved.

In this unit we will discuss the process of validating the effectiveness of that training and describe tools that provide for the comprehensive evaluation of your overall preparedness.

Upon completion of this unit you will be able to:

Outcomes

- *describe* what comprises an effective exercise programme
- *describe* the exercise process
- *describe* the elements of all types of exercises
- *develop* and implement a simple exercise that can enhance response capacities.

Terminology

Terminology

Drill	An exercise to practise a single emergency response.
Exercise	A simulated emergency in which players carry out actions, functions and responsibilities that would be expected of them in a real emergency.
Exercise plan	Comprehensive guide that lays out the background, objectives and scenario. As well, it includes evaluation plan.
Full scale exercise	This is a field exercise that tests as many capabilities as possible.
Functional/command post exercise	Simulates a real emergency without moving resources. It tests multi-agency responses and co-ordination.
Orientation seminar	An overview to familiarise with, or introduce to, organisations or communities, staff and responders plans, policies, procedures and guidelines.

Tabletop exercise	This is a forum to discuss plans, policies, procedures and guidelines, as well as to clarify and resolve concerns regarding co-ordination and integration.

Exercises

Exercises are conducted to test plans, procedures, equipment, facilities and training. Exercises are evaluated to determine what went right and what needed improvement. Deficiencies noted during the exercise are documented and discussed in an after-action review or report (AAR) and a corrective action plan is developed to identify problems that need to be corrected and who is responsible for correcting them. The corrective action plan thus leads to changes in plans, procedures, equipment, facilities and training, which are again tested during the next exercise.

Well-designed and executed exercises are the most effective means of:

- training personnel and clarifying roles and responsibilities, as supported by plans and procedures
- improving interagency co-ordination and communications
- identifying gaps in resources and training and identifying areas for improvement
- improving individual and organisational performance through practice
- demonstrating provincial, community and organisational resolve to prepare for emergencies as part of due diligence.

Exercise planning and development

Planning an exercise can be a lengthy process that requires the engagement of a number of experts. These experts will contribute to the development of many parts of the exercise and be known as the exercise design team.

Before planning an exercise, an organisation must decide why it wants to exercise. The major reason is to validate or test the emergency response and recovery plan. However, there may be other imperatives such as legislative or regulatory requirements.

An important point in exercise design is to remember that the emphasis is on exercising functions, plans, policies and procedures, not the people implementing the plan. There is debate as to whether it will suffice to exercise just to the minimum, but most emergency management professionals say every skill needs to be performed and every activity validated in order to determine if it is possible to carry out the plan. It is also important that organisations don’t over-plan and under-deliver, as this would have a significant effect on public confidence.

FEMA identifies a number of common functions it suggests testing. However, while common, not all organisations will identify these functions in their plan. A sample of these functions includes:

- emergency response – alert notification
- public warning
- communications
- co-ordination and control
- emergency public information
- public safety
- continuity of government.

Exercises are often developed using a building block process, beginning with an orientation seminar, a drill, a tabletop exercise, command post exercise and finally a full-scale exercise. This process (Figure 2) is progressive and allows for more challenging scenarios to be introduced throughout a given time line.

For example, the Canadian government implemented a series of exercises for the 2010 Winter Olympics in Vancouver – Exercise Bronze, Exercise Silver and Exercise Gold. Each exercise built on the preceding one and required organisations to implement the lessons learned from the previous exercise scenario. This type of comprehensive programme is expensive as it requires the movement of people and equipment.

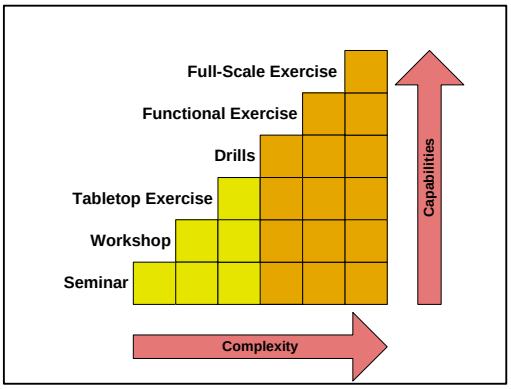

Figure 2: Training & exercise continuum.

Source: Figure adapted by Wayne Dauphinee from various public domain sources.

Each exercise type has a set of characteristics that ensures a systematic approach to developing and conducting an exercise. Elements of these characteristics change with the increase in complexity of the exercise; the inserted chart identifies each exercise type and the characteristics. The chart also illustrates the increase in complexity for each exercise type. Results are often achieved with a seminar, drill or tabletop exercise. A tabletop exercise is the most common exercise and provides good results for minimal cost.

Exercise types

Below is a description of the five exercise types.

1. **Orientation** exercises are generally a starting point in any exercise programme. It is a desirable approach as it is generally classroom-based (workshop or seminar) or online. It can introduce new plans, policies and procedures and an organisation's or community's reach can be extensive.
2. **Tabletop** exercises are discussion-based and are designed to be low-stress and address policies, plans and procedures, as well as issues of jurisdiction, roles and responsibility and co-ordination.
3. **Drills** are simple and used to test specific types of activity. This activity could be to practise using a telephone tree or to gather people together at meeting point.
4. **Functional** exercise (known as command post exercise by most military standards) is a comprehensive exercise that tests an organisation's or community's response to a number of scenarios.
5. **Full scale** exercise is an extension of the functional exercise in that human resources and equipment are deployed to ensure an organisation's or community's capability is tested.

Exercise Types

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

There are five successive steps to exercising. FEMA identifies these steps as establishing the base, defining the scope, developing the exercise, conducting the exercise, evaluation of the exercise and developing an improvement plan.

1. **Establishing the base**: This is knowing where to begin and where you want to go. If the intent of an exercise is to have people respond as they would in a real event, then begin with testing the emergency operation's plan. The plan lays out the expectations of performance, resources, policies and procedures. In order for the exercise to have value, it is necessary to test plans that provide the means to resolve issues created by the emergency or event.
2. **Defining the scope:** Determine what is to be tested, the type of exercise, what type of event will be tested, what plan will be used to test the event, what agencies will take part, how many people will be involved and how much it will cost.
3. **Developing the exercise:** Identify the aims and objectives, the roles for players and the plan for the exercise. Depending on the size of the exercise, a design team may be required. Develop a control plan, an evaluation plan, a logistics plan – where is the best place to host the exercise? – and develop a plan for player support. FEMA provides templates for these plans and others online at http://www.training.fema.gov

   Developing a complex exercise requires the use of what is known as a master events list (MEL) This list will clearly show the

details of the event and when each activity will occur. For example, if an earthquake plan is being tested, then the time the earthquake occurs and each successive action after that will be captured in the MSEL. These actions are known as simulations activities given they are not really happening. Not all exercises will require a detailed MSEL; a simple tabletop exercise will use what is known as a situation or scenario summary with key questions.

The example below is from the Public Health Agency of Canada's Tabletop Toolkit.

Case study

Situation summary 1

Time for consideration: 20 minutes.

Time for discussion: 40 minutes.

There have been media reports that the influenza outbreak initially reported in Latin America is now present in Canada, having been carried by airline passengers arriving at international airports across the country.

Local outbreaks of a flu-like illness are being reported in several cities in your province/territory; however, since it is the flu season it is not yet clear if at least some of the reported cases are simply the normal seasonal flu activity. Seasonal flu vaccines are available at clinics.

Members of your community are asking questions about pandemic preparedness and whether they are in danger. There is confusion about whether the "normal" flu shot will provide protection if a pandemic is imminent.

Key questions – situation summary 1

1. What is the critical information that your community requires to prepare properly and to keep all community members advised of the situation as it unfolds?
2. Where will this critical information be obtained?
3. How can this critical information be passed accurately and quickly to members of the community?
4. What steps should your community take now (at the community and the individual or family level) to prepare for the possibility of an imminent influenza pandemic?
5. What additional resources, if any, can you expect from your supporting health services agency?

4. **Conducting the exercise** requires every participant to have a clear understanding of his or her role. Training for everyone involved will be required and this step cannot be underestimated. Without participants having a clear understanding of their role, the exercise will not achieve its expected outcomes. The exercise leader, referred to as the exercise director, or in the case of a tabletop, an exercise facilitator will monitor the pace of the

exercise to ensure it moves in a realistic manner. Any issues arising should be treated as real issues and addressed as such.

5. **Evaluating is an integral part of the exercise**, designed to focus on the objectives, not individuals. One purpose of an exercise is to focus on the need to produce confident, competent team players, able to respond to professionally to a crisis. Building upon strengths and addressing challenges will assist in accomplishing this.

Collectively, all five elements need to be present in planning an exercise. The process is systematic, with one element nested in the next.

Tools for preparing a tabletop

Before starting an exercise, an exercise plan needs to be developed. It is a guiding document that provides a framework as to how the exercise will unfold. This will describe in detail the scenario, the objectives, operational procedures and organisational structure. While this plan ought to be developed for all exercises, the detail will be more significant for functional and full-scale exercises.

For the purpose of this course, the focus is on developing a simple tabletop exercise. Any of the steps that follow are not specific to tabletop exercises; they are the foundation for all exercise development. The tabletop process uses the key components of exercise development: establish the base, identify the scope, and includes statement of purpose, objectives and a problem statement.

Below is a list of eight steps that form the basis for a tabletop exercise. If followed, this will allow for a systematic flow of the exercise and decision-making. Elements of a public health event will be used as examples.

1. **Develop a needs assessment:** Define the problem area within the context of an operational plan; identify the risks, hazards, capabilities for people within the organisation and any previous experience with emergency or disaster exercises. Know the type of operations to have participants engaged in, for example, communications including both technology and public affairs. Finally, be aware of the degree of stress and pressure of the exercise, keeping in mind a tabletop is generally a low-stress, discussion-based activity.
2. **Scope of the exercise:** Identify the type of exercise and the type of emergency, where it will take place, organisations that will participate and human resources, as well as roles and responsibilities.
3. **Statement of purpose:** This is where you state what the purpose of the exercise will be; for example, identify roles and responsibilities of public information officers during a specific emergency or disaster. It is also the place to identify how this will be done, a question that may be stated is “how is the

communications protocol implemented, or how is the team brought together?"

4. **Objectives:** Develop at least three objectives for the statement of purpose; this ought to include observable actions. An example would be: To establish a communications protocol. This is a reasonable activity to occur and observe taking place.
5. **Write the narrative:** Describe the event as it unfolds. The narrative might state that an aircraft from the Dominican Republic is arriving at London Heathrow and has 30 seriously ill passengers on board. The passengers are reported to have a high fever and are vomiting. The plane is one hour out and the captain has requested assistance upon landing. This description of the scenario may also include how the ground crew was notified, how dangerous this is reported to be, sequence of events, time, location, and other factors that would influence emergency response.
6. **Define events:** Refer to the identified objectives and then develop two major events. The chart below illustrates a major event #1 and detailed events.

Events
Major event #1: A journalist on the flight uses the on-board phone to call his media outlet to report that there are a number of sick people on board the plane.
Detailed events: Reporters looking for information contact the airport, United Kingdom Public Health Protection Agency, and the airline. Questions that may need to be asked include: • Who will be involved? • Who will respond to the reporter? • What is the message?

7. **Expected actions:** The expected action is what should happen given the event. If the emergency or disaster plan for the organisation is up to date, the expected action will be in this document. An expected action for each detailed event is identified, as well as the organisation responsible for the expected action and the objective the detailed event addresses. The chart below outlines how to organise and capture the required information.

Detailed event #	Expected action	Organisation responsible	Objective #

8. **Problem statements:** A problem statement looks at what is happening during a scenario; up to 25 problem statements may be required for each scenario. Following the flow of the scenario where an aircraft is landing with 30 sick passengers, a problem could be:
    - Once the plane has landed irate passengers who are well are demanding to get off the plane, they want to know why they are still on the plane.
    - A quarantine officer is not on site leaving the responsibility to the U.K. border agency and emergency services personnel won't board the plane.
    - The reporter is passing the information on the problem statements to his media outlet causing questions to be asked. Who responds and how?

Debriefing and evaluating an exercise

Debriefing

The purpose of debriefing is to gather information from an exercise as soon as the exercise ends or as soon as practicable. This information will assist the evaluation team in assessing what actually happened during the exercise.

This process allows for each participant an opportunity to identify challenges and strengths about improvements needed in the overall plan, policies or guidelines tested. It also gives participants an avenue to comment on the effectiveness of the exercise.

A debrief is normally conducted through a facilitated discussion with a set of conditions that:

- ensures respect among participants
- engages participants and encourages interaction among participants
- avoids criticising participants or organisations.

A debrief is designed to answer questions such as the need for necessary resources, whether plans, policies or guidelines need revision, or whether new training is required.

The evaluation leader will provide an agenda for the meeting that lets participants know what to expect. The table below illustrates a simple agenda.

Time for each discussion subject	Subject	Lead
Five minutes	Thank you to all participants	Exercise leader
20 Minutes	Feedback from players	Exercise leader
30 Minutes	Timeline issues	Exercise controller
20 Minutes	Objectives	Exercise leader

A debrief also gives the exercise leaders an opportunity to distribute a participant questionnaire. The questionnaire may ask questions similar to those covered in the oral debrief, but this gives everyone another opportunity to voice their concerns and identify strengths.

Once this information is collected it forms part of the overall evaluation plan.

Evaluating

The purpose of evaluating an exercise is to provide feedback to an after action report or review (AAR). The purpose of the AAR is to identify, describe and analyse critical operational issues for a given organisation in its response to an emergency or disaster.

FEMA is a leader in non-military exercise evaluation and has defined it as “the act of reviewing or observing and recording exercise activity or conduct, apply the behaviour or activity against exercise objectives and not strengths, weaknesses, deficiencies, or other observations.” It is this definition that most North American non-military or non-government agencies use.

The evaluation methodology is generally framed around an analysis of:

1. What was planned?
2. What actually happened?
3. What was well done?
4. What challenges were identified?
5. What actions are required to achieve the desired standard?

The issues are thematically reported and align with the objectives and the master events list or situation summary questions. The evaluation must also account for the artificialities like the simulation of roles. These do

not form part of the analysis, nor do they guide any recommendations in the AAR. The evaluation is assessed against the objectives.

For the purpose of exercise evaluation, there are three main types of data: descriptive, reporting everything that is observed and which is related to the function; inferential, which requires an evaluator to make an inference with regards to observed data; and evaluative, which requires an evaluator to make judgements on the observations. The intent of evaluating is to collect the best and most reliable data, however. No one observational data collection method will work for an exercise – often two or all three methods are required.

It is critical that evaluation tools are created to keep the evaluators engaged in collecting specific data. These tools need to be easy to use, focused on objectives and focused on the observed activity.

Activity 7.2

Activity

Using the knowledge you have gained from this course, develop a simple tabletop exercise for your organisation. The key is to ensure all the relevant elements are included in your exercise. There are a number of tools with slightly different approaches but they all get the learner to the same point. The best options are either the FEMA model, attached in the appendices, or the tools developed by the Public Health Agency of Canada.

Tool Kit Pandemic Influenza Exercise for the Health and Emergency Social Services Sectors, Public Health Agency of Canada – http://www.phac-aspc.gc.ca/index-eng.php

Unit summary

Summary

In this unit you have learned what comprises an effective exercise programme, the exercise process, common elements of all types of exercises. You have also learned how to develop and deliver a simple exercise. The next step is to assemble the needed exercise documentation.

Unit 19

Exercise documents

Introduction

Building upon what has been learned so far in this module, this final unit will describe the key documentation required to successfully plan and conduct an exercise.

Upon completion of this unit you will be able to:

Outcomes

- *identify* the elements required of the planning documents for an exercise
- *use* the planning documents to prepare and conduct an exercise.

Terminology

Terminology

After-action report	The after-action report (AAR) is intended to identify and analyse critical operational and exercise design issues for the organisation or agency as a result of participation in an exercise.
Control plan	This plan provides the exercise controller with guidance concerning procedures and responsibilities for exercise control, simulation and support. It explains the exercise concept as it relates to controllers and simulators, establishes the basis for control and simulation of the exercise, and establishes and defines the communications, logistics and administrative structure needed to support control and simulation during the exercise. Contains more detailed information about the exercise scenario and describes the controller staff roles and responsibilities. It is best to distribute the exercise control plan to those specifically designated as controllers and evaluators.
Controllers' handbook	Supplements the EXPLAN, containing more detailed information about the exercise scenario and describing exercise controllers' and evaluators' roles and responsibilities. Because the

	C/E handbook contains information on the scenario and exercise administration, it should be distributed only to those specifically designated as controllers and/or evaluators. Larger, more complex exercises may use control staff instructions (COSIN) and an evaluation plan (EVALPLAN) in place of or to supplement the C/E handbook.
Evaluation plan	The exercise evaluation plan provides evaluators and controllers with guidance concerning procedures and responsibilities for exercise evaluation and support.
Exercise plan	The exercise plan is to identify policies, procedures, administrative requirements, exercise roles and responsibilities that will support exercise-planning initiatives. Provides a summary of the exercise and is published and distributed before the start of the exercise. It is typically used for operations-based exercises. In addition to addressing exercise objectives and scope, the EXPLAN assigns tasks and responsibilities for successful exercise execution. The EXPLAN should not contain detailed scenario information, such as the hazard to be employed. This document is generally intended for exercise players and observers.
Master scenario events list (MSEL)	A chronological timeline of expected actions and scripted events that generate or prompt player activity. It ensures necessary events happen so that all objectives are met. Larger, more complex exercises may also employ a procedural flow (PROFLOW), which differs from the MSEL in that it only contains expected player actions or events.
Participant handbook	The participant handbook contains a list of instructions for players, as well as information about player responsibilities and functions. It assists the players in understanding the ground rules, the overall objectives and scope of the exercise, limits of play, simulation plans and the debriefing process.

Background

Five significant documents are required for the development of an exercise. The type of the exercise will determine the extent to which any of these documents will be required. These plans will not normally be

required for an orientation and drill. however, they will be required for a table top, functional and full scale exercise. All exercise documents ***must*** include a header or footer that denotes that all documentation is for exercise purposes. Something as simple as EXERCISE – EXERCISE – EXERCISE appropriately placed on a document is generally satisfactory. This ensures the exercise is not misinterpreted as a real event causing a needless response by first response agencies.

Exercise plan

The exercise plan provides exercise developers with guidance on procedures and responsibilities for exercise design and support. It explains the exercise concept, establishes the basis for exercise, and establishes and defines the communications, logistics, and administration structure needed to support the exercise, before, during and after.

The exercise plan usually consists of five sections:

1. **General section:** This lays out an introduction, the aim of the exercise and the background of the exercise.
2. **Exercise objectives**: This outlines all the objectives that will be exercised.
3. **Concept of operations:** This is generally known as ConOps and is a statement of action that describes how the objectives will be achieved.
4. **Exercise management structure:** This is an organisational chart that identifies who the players are and the role of each player.
5. **Safety and security:** Often overlooked in any exercise are the real safety and security concerns. Wherever the exercise is conducted it is important to ensure that provisions are in place to terminate an activity, or the entire exercise, should a safety or security issue arise.

Control plan

The exercise control plan is designed to move the exercise from start to finish. A control team provides administration and co-ordination of the scenario, message inputs or injects and the response of the participants and simulation of events. While a scenario, injects and a response to injects is required during the execution of a tabletop exercise, this type of plan is used for functional and full scale exercises. A less complex tabletop will not normally require this scale of planning.

Participant's handbook

This is a job aid intended to provide exercise participants with the information they need to effectively participate in an exercise. The more complex the exercise, the more detailed the handbook will be. This book will identify the scope and concept of play, provide key assumptions and artificialities associated with the exercise, and provide basic scenario information and background.

Evaluation plan

This document provides exercise evaluators, as well as controllers and simulators, with guidance concerning procedures and responsibilities for exercise evaluation, and support. It explains the exercise concept as it relates to the evaluation process, establishes the basis for evaluation, and establishes and defines the communications, logistics, and administration structure needed to support evaluation of the exercise, before, during and after.

The evaluation plan also describes the purpose of the plan itself, which is to provide specific information to exercise evaluators and controllers on the exercise objectives, points of review, administrative procedures, methods of control for simulation and evaluation. Most importantly, the plan lays out the evaluation methodology including evaluation team structure, team member responsibilities, locations and procedures.

After-action report

The after-action report (AAR) is intended to identify and analyse critical operational and exercise design issues for the organisation or agency as a result of participation in an exercise.

The analysis will deal with those challenges that have an important bearing on the organisation's future operations during an emergency or planned event. The report will highlight considerations for refinements to existing plans and protocols and to advance new ideas. It is designed to contribute to the success of an organisation's response.

Components include:

Introduction: This is a brief statement outlining the date and timing of an exercise, who participated and under what authority.

Aim: State what the overarching aim of the exercise is.

Purpose of the report: A brief statement on the purpose of the AAR.

Scope of the report: State explicitly what the report covers.

Background: Explain the exercise, who, what, where, when and why.

Objectives: This is where the exercise objectives are identified; these will be the same objectives that are in the exercise plan.

Evaluation methodology: Explain how the evaluation was structured and what was to be analysed.

Scenario: Describe the scenario; this can be taken from the exercise plan.

General comments: This is an overview of what was observed during the exercise, through the debriefing of participants, and through written feedback on the exercise. This usually starts with a statement such as "overall the organisation was able to meet its objectives through this exercise". It may also state the organisation was not able to meet its objectives. It is important to write these comments in a positive way, for instance, "it is important to note that while this report identifies areas for improvement, some of the challenges that were present in previous

exercises were not evident in this one". Achievements are significant to organisations and year after year they need to know they are improving.

Issue analysis: This analysis is based on the observations of the evaluators, information collected for participant feedback forms and comments from the debriefing. It is structured with four elements, issue topic, statement, description and recommendations. The examples below illustrate the format.

- **Issue topic:** Command and Control.
- **Statement:** The organisation adopted a modified incident command system as the emergency response structure. The roles and responsibilities associated with these functions need to be understood.
- **Description:** Although many participants have received training on the emergency response structure or the organisation, it has not translated to operational capability. Many participants commented on the lack of or varying knowledge of role and responsibilities among players and recommended a targeted training programme.
- **Recommendation:** Develop a long-term training strategy to implement training in accordance with the organisation's learning framework.

Improvement plan: There is little value in evaluating an exercise and providing recommendations if there is not a well-defined improvement plan attached to the after-action report. The improvement plan will identify the recommendation, which organisation, branch or directorate is responsible for the implementation of the recommendation, the actions taken to move the recommendation forward and the due date. A simple table attached to the report articulates the responsibilities attached to the improvement plan.

Recommendation	Leader responsible	Actions taken	Due date
Command and control			
Develop a long-term training strategy to implement training in accordance with the organisation's learning framework.	Learning directorate	Convened a meeting of department heads to consult on the learning framework.	Specify achievable timelines.

Activity 7.3

Activity

Using the sample exercise plan template (Appendix 1), develop an exercise plan for your tabletop exercise including the attachments.

Note: this sample was developed for a functional exercise and your exercise is a tabletop, therefore you may use only those elements required for your example.

Unit summary

Summary

In this unit you were introduced to key exercise documentation and how to use them to prepare and conduct an exercise.

Activity answers

Activity 7.1

Answers will vary by location.

Activity 7.2

Answers will vary by location.

Activity 7.3

Answers will vary by location.

References

References

Emergency Management Training Program, Public Safety Canada, Ottawa http://www.publicsafety.gc.ca

Guidelines for the Development of an Exercise Program (2010), Emergency Management Ontario, Toronto http://www.emergencymanagementontario.ca

Homeland Security Exercise and Evaluation Program (HSEEP), United States Department of Homeland Security, Washington DC https://hseep.dhs.gov/pages/1001_HSEEP7.aspx

Tool Kit Pandemic Influenza Exercise for the Health and Emergency Social Services Sectors, Public Health Agency of Canada – http://www.phac-aspc.gc.ca/index-eng.php

Training and Exercises – State-wide Emergency Management, Emergency Management, Victoria, Australia

http://www.oesc.vic.gov.au/wps/wcm/connect/justlib/OESC/Home/Training+and+Exercising/

United States Federal Emergency Management Agency, http://www.fema.gov/prepared/train.shtm

Further reading

Reading

Justice Institute of British Columbia -
http://www.jibc.ca/emergency/exercise_design certificate.htm

Tool Kit Pandemic Influenza Exercise for the Health and Emergency Social Services Sectors, Public Health Agency of Canada – http://www.phac-aspc.gc.ca/index-eng.php

Web Resources

Justice Institute of British Columbia -
http://www.jibc.ca/emergency/exercise_design certificate.htm

Appendix 1

Exercise plan (EXPLAN) template

Purpose/Scope/Objectives (What you hope to achieve)
Background (What has occurred leading to the exercise)
Date, time and location (When and where)
Exercise organisation (Who plays, controls and evaluates)
Roles and responsibilities (Who you want to do what)
Rules of Conduct (Your guidelines and restrictions for play)

Safety issues (Identify potential hazards)
Logistics (What materiel is required and who will provide)
Security and access (Restrictions and access control to exercise venue)
Communications (What means of communication will be used – email, telephone, etc.)

Attachments:

Event schedule

Map and directions

Contact lists