G0358: Evacuation and Reentry Planning Course

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Unit 1: Why Evacuate?

Visual 1: Welcome to G0358 Evacuation and Reentry Planning Course

Content

A suggested schedule for this unit follows:

Welcome	15 Minutes
Course Overview	15 Minutes
Why an Evacuation and Re-Entry Plan?	45 Minutes
Total Time	1 Hour 15 minutes

Welcome

Welcome to the Evacuation and Re-Entry Planning Course.

The range of natural and technological hazards from which communities may be at risk varies greatly around the United States.

Community emergency management programs are intended to mitigate, prepare for, respond to and recover from emergencies created by those hazards.

One of the steps that communities must be prepared to take in an emergency is evacuation of its population on short notice.

FEMA developed this course in response to a field request for training that provides the opportunity to focus on the principles and methods of evacuation and re-entry planning and operations.

Notes:

Visual 2: Course Schedule

- Unit One: *Why Evacuate?*
- Unit Two: Who Is At Risk?
- Unit Three: Community Behavior in Evacuation.
- Unit Four: Evacuation Requirements.
- Unit Five: *Evacuation Communications*.
- Unit Six: *Re-Entry*.
- Unit Seven: Course Conclusion.

Key Points

Unit One, Why Evacuate?, the need for evacuation and re- entry planning is established.

Unit Two, *Who Is At Risk?*, provides guidelines for identifying risk area populations that may require evacuation, including special populations and domestic animals. Participants will take a look at their own vulnerability analysis and census data.

Unit Three, *Community Behavior in Evacuation*, describes typical evacuation behavior and includes discussion about the implications of that behavior on participants' evacuation and reentry planning.

Unit Four, *Evacuation Requirements*, describes the components of an evacuation operation and the resulting legal and logistical requirements that must be in place to successfully carry out such an operation.

Participants will review existing plans and procedures to evaluate the consideration of evacuation requirements.

Unit Five, *Evacuation Communications*, covers the communication requirements that must be fulfilled to ensure a successful evacuation operation and the planning implications represented by those requirements.

Unit Six, *Re-Entry*, describes the factors that affect re-entry into the evacuated area, and the requirements for developing a plan to return evacuees to their homes.

Participants will determine whether their evacuation plan considers re-entry aspects.

Unit Seven, *the Course Conclusion*, participants are referred to a job aid consisting of a checklist for identifying what steps their jurisdiction needs to take in their evacuation and re-entry planning efforts.

Also in Unit Seven, participants will complete a written test consisting of multiple choice and true-false questions to evaluate achievement of cognitive learning objectives.

Answers to the test will be reviewed in class.

Visual 3: Unit 1: Why Evacuate?

Key Points

As with any other emergency management function, evacuation must be well planned and frequently exercised.

Representation of all of the stakeholders in the evacuation process is essential to the development of a workable plan.

Good planning results in efficient and effective operations.

This *Evacuation and Re-Entry Planning Course* was developed to enable local, tribal, and territorial emergency management personnel to create or improve local evacuation and re-entry plans.

The decision to evacuate is the responsibility of the local, tribal or territorial elected official.

This course will focus on planning the operational aspects of evacuation and re-entry, not the process for deciding when to issue the evacuation order.

This course considers shelter destinations as a component of evacuation planning, but does not intend to be a shelter operations course.

Visual 4: Course Objectives



At the conclusion of the course participants should be able to do the following.

- Describe reasons for pre-disaster evacuation and re-entry planning, exercising and community education.
- Refer to existing vulnerability analysis to identify hazards that may require evacuation, warning time expected, and populations that will be affected.

Visual 5: Course Objectives, Continued



- Describe factors affecting reaction to evacuation orders, when people leave, shelter, and modes of transportation.
- Determine evacuation resources, such as laws, transportation, shelter/reception centers, perimeter control and an accountability system.

Visual 6: Course Objectives, Continued



- Describe how to communicate with the public about evacuation.
 - Develop a plan for returning evacuees to their homes.
 - Develop a strategy for designing, developing, testing, implementing and maintaining an evacuation plan.

Visual 7: Instructor Expectations

Do.....

- Ask questions
- Share illustrations
- Request examples
- Search for ways in which you can apply a principle or idea

Don't.....

• Assume that all topics will be equally relevant to your needs



Visual 8: Recent Evacuations

• List Recent Evacuations



Key Points

The remainder of this unit will focus on the following topics:

Consider the number of mass evacuations recently and the number of individuals evacuated

- 2012 Waldo Canyon, Colorado wildfire resulted in 32,000 people evacuated.
- 2012 Cle Elum, Washington, wildfire resulted in evacuation of approximately 1000 and 60 homes destroyed.
- 2012 Hurricane Sandy, Municipalities from North Carolina to Massachusetts ordered evacuations of flood prone areas.
- Describing situations that necessitate evacuation
- Describing the rationale for this training, the course objectives, and the course schedule
- Discussing expectations of the instructors and the learners for this training activity

Visual 9: Terminology

- *Evacuation* the movement of people to a safe area, from an area believed to be at risk, when emergency situations necessitate such action
- *Re-entry* the return of persons to the evacuated area

Visual 10: Types of Evacuations

- Horizontal, Vertical and Lateral
- Short-term Vs. Long-term
- Shadow Evacuations
- Phased or Staged Evacuations
- Advanced Notice Vs. No-Notice

Key Points

Horizontal, Vertical and Lateral

The vast majority of evacuations are horizontal in nature. This may include:

- Individuals and families fleeing a burning building.
- People moving inland when a hurricane approaches.

Some evacuations may be vertical. For instance:

• Those in danger move from lower floors in a building to those above if there is a flood.

Note: Some evacuees may move to higher floors or rooftops. However, vertical evacuation may prove deadly if waters continue to rise.

Lateral Evacuation is used only during a plume release. Under this type of evacuation, travel is at right angles to the plume path (to the extent possible) and away from the plume centerline.

Short-term Vs. Long-term Evacuations may be:

- A. Short term People may be able to return to their homes or offices within hours or days if the danger has passed or the damage is minor.
- B. Long term
 - a. If buildings are condemned due to the disaster.
 - b. If a geographic area has been contaminated by poisonous chemicals or radiation above safe levels.

Shadow Evacuations

Some warnings may elicit protective actions by people outside the area at risk for which protective action recommendations are being made. A well-documented account of this is "shadow evacuation." This phenomenon describes people in an area **not being advised to evacuate,** leaving the area anyway.

Shadow evacuation caused issues during Hurricane Rita in 2005. Vague instructions and statements from authorities, misconceptions about vulnerability and the timing (just 2 weeks after Hurricane Katrina).

The impact of shadow evacuations are traffic can came to a standstill leading to driver frustration, and depletion of available fuel supplies. It also impacts the movement of persons with disabilities, access or functional needs from their homes, hospitals and other care facilities.

Phased or Staged Evacuations

System of evacuation in which different parts of the building or city are evacuated in a controlled sequence rather than all at once. This reduces the potential occurrences of shadow evacuation, phased or staged evacuation plans have been developed in several states.

Phased or staged evacuations are also with their own set of issues. Chief among them is many evacuees tend to wait for clear evacuation orders before leaving. Thus creating a tendency for later evacuations.

Example, such as, hurricanes and flooding.

Advanced notice Vs. No-Notice Evacuation

Advanced Notice Evacuation is when the emergency services personnel have the time to evacuate a threatened population pre-event. For No-Notice evacuations are evacuations with little or no advance planning. Examples include hazardous materials (HAZMAT) incident, Chemical, Biological, Radiological, Nuclear, Explosive (CBRNE) incidents, terrorist attack, flashflood, earthquake, etc. These events will require a post-event evacuation.

Visual 11: Table Group Activity

In your jurisdiction, what emergency situations might necessitate evacuation?

- List hazards
- Prioritize hazards
- Estimate likely warning time

Visual 12: Discussion Questions

What level of government is responsible for evacuation and re-entry planning?

Have any of you been involved in an evacuation and/or re-entry operation?

Unit 2: Who is at Risk?

Visual 1: Unit 2: Who is at Risk

Content

A suggested schedule for this unit follows:

Unit Introduction	5 Minutes
Identifying Risk Areas	55 Minutes
Identifying Populations at Risk	1 Hour
Total Time	2 Hours

Unit Introduction

Unit One included a discussion about the hazards that threaten your jurisdiction, and specifically the hazards that could require an evacuation of some portion of the population.

Once the need for evacuation planning is acknowledged, the goals for evacuation must be identified.

An evacuation plan must identify who is at risk for any or all of these hazards in order to develop contingencies for moving risk population to safety when necessary. References Developing and Maintaining Emergency Operations Plans–CPG 101, Second Edition. Threat and Hazard Identification and Risk Assessment Guide–CPG 201, Second edition.

Visual 2: Unit Objectives



This unit will enable participants to do the following:

- Identify the Four Steps of the THIRA process.
- Identify the population that may need to evacuate.
 - Describe groups that are considered at risk populations.
- Identify populations at risk for a known hazard.

Visual 3: THIRA Process



Key Points

The THIRA process is flexible and scalable and will work for communities of all sizes. Communities can adapt these four steps to meet their specific needs and resources.

Visual 4: 1. Develop a list of community-specific threats and hazards.

Step 1 of the THIRA process:

- Defines the types of threats and hazards that communities should consider
- Introduces sources of threat and hazard information
- Describes factors to consider when selecting threats and hazards for inclusion in the THIRA
- Provides guidance on updating previous THIRA submissions.

Key Points

Identifying Risk Areas

Threat and Hazard Identification and Risk Assessment CPG 201 (version 2)

A THIRA is similar process to the Hazard Vulnerability assessment or analysis.

The THIRA process consists of four basic steps:

In Step 1 of the THIRA process, communities develop a list of community-specific threats and hazards. This section:

- Defines the types of threats and hazards that communities should consider
- Introduces sources of threat and hazard information
- Describes factors to consider when selecting threats and hazards for inclusion in the THIRA
- Provides guidance on updating previous THIRA submissions.

Communities face a variety of threats and hazards. The three types of threats and hazards are:

- **Natural hazards**, which result from acts of nature, such as hurricanes, earthquakes, tornadoes, animal disease outbreak, pandemics, or epidemics.
- **Technological hazards**, which result from accidents or the failures of systems and structures, such as hazardous materials spills or dam failures.
- **Human-caused incidents,** which result from the intentional actions of an adversary, such as a threatened or actual chemical attack, biological attack, or cyber incident.

The focus in this step is on deciding what should or should not be on the list. For example, a coastal jurisdiction in Oregon might include a tsunami while an inland jurisdiction that would not be directly impacted may not.

Visual 5: 2. Give Threats and Hazards Context

In Step 2, Communities add context descriptions to each threat and hazard identified. Context descriptions outline the conditions, under which a threat or hazard might occur.

- Identifies factors to consider when developing context descriptions
- Provides examples of a completed threat/hazard context description.

Key Points

In Step 2 of the THIRA, communities add context descriptions to each threat and hazard identified in Step 1. Context descriptions outline the conditions, including time and location, under which a threat or hazard might occur. This section:

- Identifies factors to consider when developing context descriptions
- Provides examples of a completed threat/hazard context description.

To develop threat and hazard context descriptions, communities should take into account the **time, place, and conditions** in which threats or hazards might occur. Communities can use expert judgment or analysis of probability and statistics to inform the descriptions of the different threat and hazard conditions.

Threats and hazards can have different impacts depending on the time, place, and conditions in which they occur. As such, communities may need to develop more than one context description for a threat or hazard. For example, a hurricane-prone community may need multiple context descriptions to account for varying storm intensities, landfall locations, and landfall times.

For any given community, there are countless combinations of threat and hazard conditions that lead to slightly different contexts. Communities need not consider every combination; rather they should include those details that affect what the community needs to be prepared for.

Communities should recognize that past experience with threats and hazards may differ from the future threat and hazard environment. Factors such as **demographics**, **climate**, and the **built environment** are subject to change. Communities should consider these factors when developing threat and hazard context descriptions.

Visual 6: 3. Establish Capability Targets

In Step 3, Communities establish capability targets for each core capability. Capability targets define success for each core capability.

- **Describes impacts and desired outcomes** and how they support development of capability targets
- Provides guidance on how to develop capability targets
- Provides examples of completed capability targets.

Key Points

In Step 3, communities establish capability targets for each core capability. Capability targets define success for each core capability based on the threat and hazard contexts developed in Step 2. Communities apply the capability targets from Step 3 to generate resource requirements and consider preparedness activities, including opportunities for mitigation in Step 4. This step:

- Describes **impacts and desired outcomes** and how they support development of capability targets
- Provides guidance on how to develop capability targets
- Provides examples of completed capability targets.

Capability targets should be specific and measurable. To develop specific and measurable targets, communities should consider **impacts and desired outcomes** for each threat and hazard.

Impacts describe how a threat or hazard might affect a core capability. Impacts are linked to the size and complexity of threats and hazards. Larger, more complex threats and hazards might cause larger, more complex impacts.

Desired outcomes describe the timeframe or level of effort needed to successfully deliver core capabilities. Capabilities are only useful if communities can deliver them in a timely and effective manner.

Visual 7: 4. Apply the Results

In Step 4, Communities apply the results of the THIRA by estimating the resources required to meet capability targets.

- Introduces capability estimation.
- Discusses resource typing.
- Provides an **example of a completed resource requirement list.**
- Identifies how communities may apply these results to resource allocation decisions and mitigation activities.

Key Points

In Step 4, communities apply the results of the THIRA by estimating the resources required to meet capability targets. Communities express resource requirements as a list of resources needed to successfully manage their threats and hazards.

Communities can also use resource requirements to support resource allocation decisions, operations planning, and mitigation activities. This step:

- Introduces capability estimation
- Discusses resource typing, including National Incident Management System (NIMS)typed resources and other standardized resource types
- Provides an example of a completed resource requirement list
- Identifies how communities may apply these results to resource allocation decisions and mitigation activities.

Communities should consider the resources needed to achieve the capability targets. As a first step, communities can identify the major actions needed to achieve their capability targets.

Communities should strive to identify mission-critical activities. Communities can draw missioncritical activities from current community-level plans, as well as from the National Planning Frameworks.

Communities should consider the **quantity and types of resources needed** to complete each mission-critical activity in support of the capability targets. To identify quantity and types of resources, communities can use existing tools and information sources, such as:

- Strategic, operational, and/or tactical plans
- Resource typing data, including standardized resource characteristics
- Existing capacity analysis and capability calculators

Resource typing is categorizing, by capability, the resources requested, deployed, and used in incidents. Resource typing helps communities request and deploy needed resources through the use of common terminology. Communities should develop resource requirements expressed as a list of **NIMS-typed resources or other standardized resources**.

A community can use its THIRA results to make decisions about how to allocate limited resources. By establishing resource requirements, a community determines the resources needed to achieve capability targets.

Through the THIRA process, communities can identify opportunities to employ mitigation plans, projects, and insurance to reduce the loss of life and damage to property. In this way, communities can reduce the impacts they need to manage, and hence reduce the resources needed to achieve capability targets.

Using THIRA results to inform mitigation activities aligns with the traditional mitigation planning process of identifying hazards, assessing losses to the community, and setting mitigation priorities and goals for the community.

Visual 8: Computer Models

- Provide information about which areas of a community will be affected and where evacuation plans are needed
 - HAZUS MH Hazards, United States
 - Sea, Lake and Overland Surges from Hurricanes (SLOSH)
 - HURREVAC
 - National Flood Insurance Maps
 - CAMEO Computer-Aided Management of Emergency Operations

Key Points

Planners may use mathematical models that provide information about which areas of a community will be affected and where evacuation plans are needed.

<u>HAZUS</u> (http://www.fema.gov/hazus) is a nationally applicable standardized methodology that contains models for estimating potential losses from earthquakes, floods, and hurricanes. HAZUS uses Geographic Information Systems (GIS) technology to estimate physical, economic, and social impacts of disasters. It graphically illustrates the limits of identified high-risk locations due to earthquake, hurricane, and floods.

Another computer model called <u>Sea, Lake and Overland Surges from Hurricanes (SLOSH)</u> (http://www.nhc.noaa.gov/ssurge/ssurge_slosh.shtml) provides information on hurricane storm surge by geographic sector.

- <u>HURREVAC</u> (http://www.hurrevac.com) is the decision support tool of the National Hurricane Program, administered by FEMA, the USACE, and the NOAA National Hurricane Center.
- National Flood Insurance Maps identify flood hazard areas.
- Computer-Aided Management of Emergency Operations (CAMEO) The CAMEO software suite initially was developed because NOAA recognized the need to assist first responders with easily accessible and accurate response information. Since 1988, EPA and NOAA have collaborated to augment CAMEO to assist both emergency responders and planners. CAMEO has been enhanced to provide emergency planners with a tool to enter local information and develop incident scenarios to better prepare for chemical emergencies.

With this type of information the planner can designate areas that must be evacuated in any threat, and those that may sustain moderate damage that would not necessitate a full evacuation.

Visual 9: Discussion Question What could necessitate a revision of a community's THIRA or vulnerability analysis?

Key Points

What could necessitate a revision of a community's THIRA or vulnerability analysis?

Visual 10: Table Group Activity: Reviewing the Analysis

- Review your jurisdiction's THIRA or vulnerability analysis.
- Does it reflect the current Community Profile?
- Have there been changes?
- Add any new hazard risks.

Key Points

Take a few minutes to review the THIRA or vulnerability analysis brought from your jurisdiction.

- Does it reflect the current Community Profile?
- Have there been changes such as those listed above?
- Note any hazard risks that have been created since the analysis was initially completed or was most recently revised.

Visual 11: Identifying Populations at Risk

- Vulnerability analysis is the first step.
- Risk area population information must be specific and current.
- Consider where people live, work, play and worship.

Key Points

A THIRA or vulnerability analysis is the first step toward determining the people at risk and making plans to ensure that they are removed from harm's way in the event of a hazard event.

This step has been accomplished in most communities and the information is included in the Emergency Operations Plan.

In planning for evacuation, the information on risk area population must be specific and current. Consider where people live, work, play and worship.

Visual 12: Discussion Question

What current source materials would you use to ensure that the risk area population has been accurately defined?



Visual 13: At Risk Populations

• One of the most important aspects of evacuation and re-entry planning is identifying the Whole Community and in particular the access and functional needs populations that require assistance in an evacuation.

Visual 14: Access and Functional Needs: Populations

- Children in school and in day care centers
- Nursing home residents
- People who are deaf or hard of hearing, blind, or have low vision, have an intellectual or cognitive disability or a mobility disability
- Limited English Proficiency

Visual 15: Access and Functional Needs: Populations, Continued

- Hospital patients
- Mental health institution patients
- Incarcerated persons in jails, juvenile facilities and drug treatment centers
- Business travelers and tourists

Visual 16: Access and Functional Needs Populations, Continued

- Seasonal workers
- Homeless people
- People without transportation, including "latch-key kids" (children home alone)
- Other Groups

Other groups?

Visual 17: Who Is Responsible?

- Organizations responsible for evacuation of their own populations:
 - Schools and daycare centers
 - Nursing homes
 - Hospitals and hospices J
 - ails, juvenile facilities and drug treatment centers

Key Points

Evacuation planners must consider all special population groups.

Some of these groups are overseen by organizations that are responsible for their own emergency planning.

Organizations responsible for evacuation of their own populations:

- Schools and daycare centers
- Nursing homes
- Hospitals and hospices
- Mental health institutions
- Jails, juvenile facilities and drug treatment centers.

Emergency management evacuation planners need to identify the appropriate contacts within these organizations and establish working relationships to enhance planning and operational cooperation.

Visual 18: Who Is Responsible?, Continued

Groups needing special planning considerations by the emergency management agency:

- People who are deaf or hard of hearing, blind, or have low vision, have an intellectual or cognitive disability or a mobility disability
- Limited English Proficiency
- Seasonal workers

Visual 19: Who Is Responsible?, Continued

- Groups needing special planning considerations by emergency management agency: (continued)
 - Homeless people
 - Tourists and business travelers
 - People without transportation

Visual 20: Table Group Activity Access and Functional Needs Population

- Review the Access and Functional Needs populations for which emergency management must develop evacuation plans.
- What factors make these groups "at risk"?
- How can the factors be addressed to ensure that these groups can be evacuated safely?

Key Points

Let's take a closer look at special populations for which emergency management must develop evacuation plans.

- What factors make these groups "at risk"?
- How can the factors be addressed to ensure that these groups can be evacuated safely when necessary?

Homeless people

- Locating homeless people to provide information
- Lack of resources for shelter
- Possible lack of transportation

Tourists and business travelers

- Lodging establishment may or may not have evacuation plan
- Lack of resources for shelter
- Lack of knowledge about area
- Communication issues
- Possible lack of transportation

People without transportation

• Transportation requirements

Visual 21: Unit Objectives



- Identify the Four Steps of the THIRA process.
- Identify the population that may need to evacuate.
- Describe groups that are considered at risk populations.
- Identify populations at risk for a known hazard.

Unit 3: Community Behavior in Evacuation

Visual 1: Unit 3: Community Behavior in Evacuation

Content

A suggested schedule for this unit follows:

Introduction	5 Minutes
Warning Behavior	25 Minutes
Evacuation Destinations and Transportation	15 Minutes
Evacuation Behavior of Owners of Domestic Animal	15 Minutes
Crowd Behavior and Looting	15 Minutes
Table Group Activity	30 Minutes
Total Time	1.75 Hours

Community Behavior in Evacuation

Effective planning for evacuation and re-entry requires some knowledge of how people are likely to behave when they:

- Perceive that an evacuation order is likely.
- Receive an evacuation order.
- Are involved in an evacuation.
- Wish to re-enter the evacuated area.
- Receive permission to re-enter the evacuated area.

Research has shown that many emergency managers and other officials responsible for evacuation and re-entry believe myths about evacuation and shelter behavior.

Emergency managers must base evacuation and Re-Entry Plans on fact, not myth.

Unit Three describes how various groups have behaved during actual evacuation operations.

References

The following sources will provide information used in this unit:

Buffalo Creek, WV Flash Flood (http://www.wvculture.org/history/buffcreek/bctitle.html)

Disaster Realities in the Aftermath of Hurricane Katrina: Revisiting the Looting Myth, Lauren Barsky, Joseph Trainor, Manuel Torres Disaster Research Center University of Delaware, 2006

(http://udspace.udel.edu/bitstream/handle/19716/2367/Misc%20Report%2053.pdf?sequence=1& isAllowed=y)

Visual 2: Unit Objectives



Discuss social factors affecting the following evacuation and re-entry issues:

- How long it typically takes to warn a community
- When people leave a community after a warning is issued
 - Where people seek shelter after a warning is issued

Visual 3: Unit Objectives, Continued



Discuss social factors affecting the following evacuation and re-entry issues:

•

- Evacuation behavior of owners of domestic animals at risk
 - Modes of transportation used by evacuees
- Probability of looting behavior during disaster

Visual 4: Warning Behavior

What kind of behavior should emergency planners expect from risk area populations that are warned to evacuate?

- Difficult to answer due to variability in risk population and evacuation circumstances
- There are trends based on research that may be useful in planning

Key Points

What kind of behavior should emergency planners expect from risk area populations that are warned to evacuate?

- Research has shown that this is a difficult question to answer, because each risk population is different, and the circumstances of every evacuation are different.
- However there are some trends that have been consistent enough in the research to be useful in your evacuation and re-entry planning efforts.

Visual 5: Factors Influencing Evacuation

- Amount of warning time
 - Lowest warning rates occurred in flash flooding incidents (Buffalo Creek, WV)
- Residents may not evacuate based on a fear of looting
- Residents with Access and Functional needs may not evacuate based on a fear that the shelter cannot accommodate them

Key Points

What factors influence when people evacuate?

- Amount of warning time (disaster type)
 - Low warning rates occurred in incidents of flash flooding such as the 1972 Buffalo Creek, West Virginia Flood, where 125 people died, 1,100 were injured and 4000 were homeless.
- Residents may not evacuate based on a fear of looting
- Residents with Access and Functional needs may not evacuate based on the fear that shelters cannot accommodate them

Visual 6: Factors Influencing Evacuation, Continued

Population being warned

- Residents know where to find warning information and what sources they trust
- Transients are less likely to watch or listen to local media
- Tourists and business travelers gather information from lodging employees and "temporary neighbors"

Visual 7: Factors Influencing Evacuation, Continued

Sense of urgency

- Individuals consider home, family safety and needs, and Media storm data
- Decisions to evacuate are determined by perceived risk, rather than last evacuation
- People evacuate when they believe it is dangerous to stay

Visual 8: Discussion Question How do these findings compare to your evacuation experience?

Visual 9: Table Group Activity: Evacuation Warning

- Working in groups, discuss questions regarding evacuation warning in your jurisdiction
- Develop and record answers

Key Points

- What are the main sources of evacuation warning information in your jurisdiction?
- Do the government agencies and media identified in the warning plan know their roles and responsibilities in evacuation warning?
- If tourists or transients may be involved, what method of warning will be used?
- Do the managers of hotels, resorts and other tourist attractions know their role in evacuation warning?
- Do the agencies responsible for warning homeless people and migrant workers know their responsibilities?

Visual 10: Where Do Evacuees Go?: Length of Forewarning

• If length of forewarning is short, options for shelter are reduced, sending more people to public shelter

Key Points

Where do Evacuees Go?

Prior evacuation research indicates that the destinations reported likely reflect connections to family and friends, previous homes, or areas with a high perception of safety Length of forewarning

Length of forewarning

• If the length of forewarning is short, the options for shelter are reduced, sending more people to public shelter

QR229 <u>Explaining Hurricane Evacuation Failure: The Role of Social Factors as</u> <u>Modifiers.</u> Jennifer A. Horney and Kristen Ricchetti- Masterson. 2012. (As Submitted)

Visual 11: Where Do Evacuees Go?: Anticipated Length of Evacuation

- If evacuation is estimated to be short (1 or 2 days), evacuees are more likely to stay with friends or relatives
- For longer periods, evacuees are more likely to seek other options, including public shelter and short-term rental

Visual 12: Where Do Evacuees Go?: Community Preparedness

When community preparedness is high, public shelters are more likely used because:

- Shelters will be better equipped and more appealing to evacuees
- More people are informed about availability and location of public shelters

Visual 13: Where Do Evacuees Go?: Urbanization

- Larger communities provide more options for shelter
- Therefore, fewer evacuees will go to public shelter

Visual 14: Where Do Evacuees Go?: Socioeconomic Level

Poorer families are more likely to utilize public shelters because their options may be limited by lack of transportation and lack of financial resources

Visual 15: Discussion Question



How do these findings compare to your evacuation experience?

Visual 16: Domestic Animals and Evacuation

- There are approximately 70 million pet dogs in the U.S. and 74.1 million pet cats.
- After Katrina as many as 50,000 pets and other animals may have been left behind.

Key Points

Domestic Animals and Evacuation

There are approximately 70 million pet dogs in the U.S. and 74.1 million pet cats.

The average veterinary expenditure per household for all pets was \$375 in 2011.

<u>American Veterinary Medical Association</u> (https://www.avma.org/blog/free-profession-pet-demographic-report)

Visual 17: Domestic Animals and Evacuation

In 2011, six-out-of-ten pet owners, or 63.2%, considered their pets to be family members.

• How will this affect evacuee behavior?

Visual 18: PETS Act of 2006

Pet Evacuation and Transportation Standards Act of 2006 – "The P.E.T.S. Act" Amends Section 403 of the Stafford Act "to ensure that State and local emergency preparedness operational plans address the needs of individuals with household pets and service animals following a major disaster or emergency."

Visual 19: Post-Katrina Emergency Management Reform Act (PKEMRA)

Modified the Stafford Act with **PETS Act** language, and places significant new responsibilities on FEMA for coordinating implementation of the PETS Act.

Visual 20: FEMA Disaster Assistance Policy DAP9523.19

DAP9523.19 "Eligible Costs Related to Pet Evacuation and Sheltering"

- Defines Household Pet
- Defines a Service Animal (based on ADA language)
- Defines Congregate Pet Shelters and eligible expenses
- Defines Eligible Parties for reimbursement

Key Points

Identifies expenses related to State and local governments' emergency pet evacuation and sheltering activities that may be eligible for reimbursement following a major disaster or emergency declaration''.

- Defines Household Pet
- Defines a Service Animal (based on ADA language)
- Defines Congregate Pet Shelters and eligible expenses
- Defines Eligible Parties for reimbursement;

State and Local Governments are the only eligible applicants

Contractors or Private Non-Profit (PNP; NGO) organizations cannot be directly reimbursed/ cannot be applicants.

Must work through written agreements (MOAs) with state/local partnerships

Visual 21: FEMA Disaster Assistance Policy DAP9523.19, Continued

Definition of Household Pets:

- What they are: "A domesticated animal, such as a dog, cat, bird, rodent, or turtle that is traditionally kept in the home for pleasure rather than for commercial purposes and that can travel in commercial carriers and be housed in temporary facilities."
- What they are not: "Household pets do not include reptiles, amphibians, fish, insects/arachnids, farm animals (including horses), and animals kept for racing purposes."

Key Points

What they are: "A domesticated animal, such as a dog, cat, bird, rodent, or turtle that is traditionally kept in the home for pleasure rather than for commercial purposes and that can travel in commercial carriers and be housed in temporary facilities."

What they are not: "Household pets do not include reptiles, amphibians, fish, insects/arachnids, farm animals (including horses), and animals kept for racing purposes."

Visual 22: FEMA Disaster Assistance Policy DAP9523.19, Continued

Definition of Service Animals:

• "Any guide dog, signal dog, or other animal individually trained to provide assistance to an individual with a disability including, but not limited to, guiding individuals with impaired vision, alerting individuals with impaired hearing to intruders or sounds, providing minimal protection or rescue work, pulling a wheelchair, or fetching dropped items."

Visual 23: Which authorities are responsible for animal emergency response?

#1 State Emergency Management Authority (State EMA)

#2 Local Government Animal Control Authority

Police or Sheriff's Department Have legal jurisdiction and physical custody of all stray and abandoned animals

#3 State Department of Agriculture/Animal Health Commission

State Veterinarian's Office Primary legal authority is for livestock species, rather than pets.

#4 State Department of Health Public Health

Veterinarian, Zoonotic diseases and animal bite case management

#5 State Board of Veterinary Medicine

Licensing of veterinarians and veterinary technicians to practice legally within the state

Key Points

Which state, local, tribal, and territorial animal regulatory authorities now are responsible for animal emergency response?

Visual 24: Discussion Question



What can be done to prepare you community for animal evacuation?

Visual 25: Discussion Question



What is Looting?

Visual 26: Looting: Civil Disturbances vs Natural Disasters

- In civil disorders looting is widespread; in disaster areas looting is rare.
- In civil disturbances looters tend to work in pairs or small groups; in natural disasters looting has been carried out by individuals.
- In civil disturbances looting is very public; in natural disasters looting is covert and secret.

Key Points

In civil disorders, looting is widespread.

- In the few cases where looting has occurred following a disaster event, it was inconsistent with the patterns of civil disturbance looting.
- In civil disturbances looters tend to work in pairs or small groups; in natural disasters looting has been carried out by individuals.
- In civil disturbances looting is very public; in natural disasters looting is covert and secret

Visual 27: Looting: Social Factors

Looting after disasters is more likely to occur when:

- There is a sense of powerlessness among the low socioeconomic population, they may be looting for survival supplies
- If theft occurs on a day-to-day basis
- There is a temporary loss of social control by legitimate authority

Key Points

The likelihood of looting is affected by three social factors:

- 1. In highly stratified society where there is a sense of powerlessness among the low socioeconomic population, the likelihood of looting after a disaster increases.
- 2. If theft occurs on a day-to-day basis, it is likely to continue after a disaster.
- 3. Looting is more likely to occur when there is a temporary loss of social control by legitimate authority.

Disaster Realities in the Aftermath of Hurricane Katrina: Revisiting the Looting Myth, (http://udspace.udel.edu/bitstream/handle/19716/2367/Misc%20Report%2053.pdf?sequence=1& isAllowed=y) Lauren Barsky, Joseph Trainor, Manuel Torres Disaster Research Center University of Delaware, 2006

Visual 28: Table Group Activity: Community Behavior in Evacuation

- Review existing emergency operations or evacuation plans
- Working in groups, discuss questions regarding evacuation behavior
- Develop and record answers

Key Points

Community Behavior in Evacuation

This unit has provided the opportunity to discuss how people can be expected to behave during evacuation and re-entry operations.

The remainder of this session will be devoted to reviewing existing emergency operations or evacuation plans and deciding if the assumptions about community behavior are consistent with the information presented in this unit.

Consider the following:

- Do the hazards that threaten your community allow for enough warning to evacuate prior to the event?
- How many and what types of transients are in your community at any given time? (Consider tourists, business travelers, migrant workers and homeless people.) What are peak times for the transient population? How are they likely to receive evacuation warnings?
- How often have evacuation warnings been issued in your community over the past five years? How have residents and transients responded?
- Where are evacuees from your jurisdiction likely to go, given the estimated amount of warning and the other social factors that affect evacuation destination?
- How are evacuees from your jurisdiction likely to get to evacuation destinations?
- What are the everyday law enforcement issues in your community?
- What law enforcement issues can be expected in your community during and after a natural or technological disaster?

Visual 29: Discussion Question



Did your plan review reveal any misconceptions about community evacuation behavior?

Visual 30: Unit Objectives Review



Discuss social factors affecting the following evacuation and re-entry issues:

• How long it typically takes to warn a community

• When people leave a community after a warning is issued

• Where people seek shelter after a warning is issued

Visual 31: Unit Objectives Review, Continued



Discuss social factors affecting the following evacuation and re-entry issues:

•

- Evacuation behavior of owners of domestic animals at risk
 - Modes of transportation used by evacuees
- Probability of looting behavior during disaster

Unit 4: Evacuation Requirements

Visual 1: Unit 4: Evacuation Requirements

Content

A suggested schedule for this unit follows:

Introduction	5 Minutes
Authority for Evacuation	20 Minutes
Transportation Requirements	20 Minutes
Shelters and Reception Centers	15 Minutes
Requirements for Domestic Animals	10 Minutes
Perimeter Control Requirements	10 Minutes
Accountability	10 Minutes
Total Time	1.5 Hours

This unit will cover the following topics:

- Laws that authorize evacuation
- Transportation requirements transportation routes, traffic control, dealing with disabled vehicles and accidents, special transportation needs
- Shelters and reception centers at risk populations, provisions for domestic animals, provisions for essential government workers to keep track of their families
- Perimeter control requirements
- Accountability ensuring that all people are evacuated
- State laws on evacuation vary significantly. The instructor must research those laws for discussion in this unit. Bring copies of State, local, tribal and territorial ordinances to class for reference.
- Be able to verify:
 - Who has authority to recommend evacuation or order evacuation
 - Limitations of authority in recommended and ordered evacuations
 - How life safety issues are addressed for children, adults and special populations
 - Financial responsibility for evacuation
- Agencies responsible for implementing evacuation and re-entry

Visual 2: Unit Objectives



- Identify the laws that authorize evacuation.
- Describe transportation requirements for evacuation.
- Describe shelter and reception center requirements.

Visual 3: Unit Objectives, Continued



- List options for domestic animals.
 - Describe perimeter control requirements.

• Discuss accountability systems for monitoring the status of the evacuation operation.

Visual 4: What will be needed to evacuate and reenter a risk area?

- Authority to recommend or order evacuation
- Evacuation routes
- Transportation
- Shelter destination
- Means of controlling flow of evacuees
- Provisions for evacuating at risk needs populations

Key Points

Time will be provided for participants to assess and/or identify sources of these requirements in their own communities.

What will be needed to evacuate and re-enter a risk area in your jurisdiction?

Visual 5: What will be needed to evacuate and reenter a risk area, Continued

- Means of informing the evacuees and the general public
- Assembly areas for picking up people without transportation
- Means of controlling access to and securing the evacuated area
- Provisions for return of evacuees to their homes

Key Points

This unit will focus on several of those requirements. Communication requirements and re-entry will be covered in other units.

Visual 6: Authority for Evacuation

State Laws

• The evacuation annex must identify the scope of authority for undertaking the movement of people from the risk area.

Visual 7: Discussion Questions State Laws

- Who has authority to recommend evacuation?
- Who has authority to order evacuation?
- What conditions differentiate between recommended or mandated evacuation?

Key Points

To answer the following questions, refer to the law that governs evacuation in your State.

Visual 8: Discussion Questions State Laws, Continued

- What are the limitations of authority related to recommended and ordered evacuation?
- Are life safety issues addressed differently for children and adults?
- Are life safety issues for special populations addressed?

Visual 9: Discussion Questions State Laws, Continued

- Are issues of financial responsibility for evacuation addressed? (e.g. busses, shelters, mutual aid efforts, overtime)
- Which agencies are responsible for implementing the evacuation?

Visual 10: Discussion Questions Local Jurisdiction Ordinances

- Who has authority to recommend/order a local evacuation?
- What entity conducts evacuations?
- What entity bears financial responsibility for evacuations, including overtime pay for personnel?

Key Points

This discussion will focus on the local, tribal and territorial ordinances that govern evacuation issues.

Refer to your respective ordinances before answering the following questions.

Who has authority to recommend/order a local evacuation?

- In many communities, the Chief Elected Official may require a declaration of a state of emergency
- Other communities allow other elected officials, the sheriff, the fire chief, and health official to make the decision.

What entity conducts evacuations?

What entity bears financial responsibility for evacuations, including overtime pay for personnel?

Visual 11: Discussion Questions Local Jurisdiction Ordinances, Continued

- What happens if someone refuses to evacuate?
- Does your ordinance reflect State laws?
- When was the last time this local ordinance was updated?

Visual 12: Discussion Questions Local Jurisdiction Ordinances, Continued

• When was the last time the ordinance was reviewed by agency, city or county counsel for compliance with the most recent State code?

Visual 13: Transportation Requirements

- What are the evacuation routes?
- Who has the authority to alter normal traffic flow?
- Do people know which routes to take?

Key Points

Transportation Requirements

Here are several questions that must be answered by planners.

- What are the evacuation routes?
 - Need special signs and markings
 - Coordinate with the State department of transportation
- Who has the authority to alter normal traffic flow?
- Do people know which routes to take?

Visual 14: Transportation Requirements, Continued

- How will traffic be controlled?
- Do the responsible agencies know what's expected of them?
- Have they received any type of "training"?

Visual 15: Transportation Requirements, Continued

- Have responsible agencies ever participated in an evacuation or an evacuation simulation?
- Do the responsible agencies have access to the equipment/resources needed to move the evacuation traffic along?

Visual 16: Transportation Requirements, Continued

- Who will activate them?
- Who will pay for time/equipment of responsible agencies?

Key Points

- Who will activate them?
 - All people supporting an evacuation should carry identification that indicates this role.
- Who will pay for time/equipment of responsible agencies?

Visual 17: Transportation Implications

- Rush hour
- Toll roads/bridges who is responsible for/ authorized to suspend toll taking?
- Choke points

Visual 18: Transportation Implications, Continued

- Inbound emergency vehicle traffic if inbound lanes are converted to outbound, what are the alternatives?
- Alternate evacuation routes necessitated by unknown hazards
- Disabled vehicles
- Fender benders

Visual 19: Access & Functional Needs

• Access and Functional Needs populations are likely to have transportation requirements other than vehicles and drivers.

Key Points

As we discussed in Unit Two, all jurisdictions have at risk populations, and these groups are likely to require transportation out of, and possibly back into, the risk area.

Visual 20: Access & Functional Needs, Continued

- Hospitals and nursing homes Consider the need for busses with wheelchair lifts, ambulances and ambulances with advanced life support capability.
- Schools Planning must include arrangements for family reunification.

Visual 21: Access & Functional Needs, Continued

- Daycare centers In addition to family reunification plans, infant seats and close supervision will be required.
- Jails and prisons Secure transportation and reception facilities must be arranged.

Visual 22: Access & Functional Needs, Continued

- While tourists and business travelers tend to use their own or rented transportation, adequate rental cars may not be available in a large scale evacuation from a resort area.
- It may be difficult to locate and inform seasonal workers and homeless people, and to estimate the scope of the transportation requirement for these groups.

Visual 23: Access & Functional Needs, Continued

- What modes of transportation will be used?
- What personnel will be assigned to transporting special populations?
- What will be the assembly areas for picking up people with disabilities and access and functional needs? (Plan for advanced staging of special transportation.)

Visual 24: Table Group Activity: Transportation Requirements

- Working in groups, discuss questions regarding transportation requirements in your existing evacuation annex or procedure.
- Develop and record answers.

Key Points

Could your group answer the questions based on information in the plan or SOP? Have you made contact with the transportation providers that will be used? Notes:

Visual 25: Shelters and Reception Centers: How Many and Where?

- Obtain past evacuation data from American Red Cross or other organization that managed shelter operations.
- Use evacuation data from other jurisdictions to estimate number of potential shelterees.

Shelters and Reception Centers

How Many and Where?

Where will the evacuees go? Will public shelters be available? How many will seek public shelter?

As discussed in Unit Three, many factors determine how many people will evacuate and where they will seek shelter.

- If your jurisdiction has sustained an emergency evacuation previously, determine numbers from the American Red Cross or other organization that managed the shelter operation.
- If there have been no previous evacuations, estimate the number of potential shelterees based on the evacuation data from other jurisdictions.

Visual 26: Shelters and Reception Centers: How Many and Where?, Continued

- Identify groups likely to seek public shelter.
- Determine length of shelter stay.
- Determine alternatives to public shelter.

Key Points

- Review the population of your risk area and identify groups that are likely to seek public shelter.
- Consider the type of hazard and whether the shelter stay is likely to be long or short.
- Consider the size and location of the hazard risk area to determine how many alternatives to public shelter exist.

Visual 27: Shelters and Reception Centers: Considerations

When an approximate number of shelterees has been estimated, consider the following questions:

- What agency or agencies are responsible for shelters?
- Do they know what is expected?
- Have they done it before?
- Are they trained?

Visual 28: Shelters and Reception Centers: Considerations, Continued

- Do they have the necessary resources?
- How will the sheltering agencies be activated?
- Who pays for the time and equipment devoted to the sheltering effort?

Visual 29: Shelters and Reception Centers: Access & Functional Needs Populations

- If there is a hospital or other medical facility, where will the patients be sent?
- Do these specially designated shelters know that they will be receiving these populations?

Key Points

Another important consideration is the need for special sheltering arrangements.

Populations with special requirements need to be evacuated to similar places.

Visual 30: Table Group Activity: Shelters and Reception Centers

- Working in groups, discuss questions regarding the shelter aspects of your existing evacuation annex or procedure.
- Develop and record answers.

Key Points

REQUIREMENTS FOR DOMESTIC ANIMALS

Recalling from Unit Three the evacuation behavior of owners of domestic animals, what factors related to pets should be considered in an evacuation plan?

- Evacuation/transportation
- Temporary sheltering, feeding and watering
- Veterinary care
- Rescuing and capturing animals that have escaped confinement
- Refer to the PETS Act of 2006 and Post Katrina Emergency Management Reform Act (PKEMRA) for the government entity that is responsible to plan for domestic animals.
- Issues related to large animals, such as farm animals and zoo animals require additional considerations that should be dealt with in an Animal Care Annex.

Visual 31: Domestic Animals

- Animals are not allowed in human shelters because of the risk of:
 - Animal allergies and phobias
 - Potential bites and scratches
 - Food hygiene issues
 - Other public health issues

Visual 32: Domestic Animals, Continued

- With planning, arrangements may be made for animals to be sheltered with:
 - Friends
 - Veterinarians
 - Local animal control or humane shelter
 - Local boarding and grooming kennels
 - Local hotels and motels that accept pets

Visual 33: Post-Katrina Emergency Management Reform Act (PKEMRA)

Modified the Stafford Act with **PETS Act** language, and places significant new responsibilities on FEMA for coordinating implementation of the PETS Act.

Key Points

On October 6, 2006, the PETS Act was signed into law, amending Section 403 of the Stafford Act. Section 403, as amended by the PETS Act, authorizes FEMA to provide rescue, care, shelter, and essential needs for individuals with household pets and service animals, and to the household pets and animals themselves following a major disaster or emergency.

Visual 34: FEMA Disaster Assistance Policy DAP9523.19

- DAP9523.19 "Eligible Costs Related to Pet Evacuation and Sheltering"
- Defines Household Pet
- Defines a Service Animal (based on ADA language)
- Defines Congregate Pet Shelters and eligible expenses

Key Points

The purpose of this policy is to identify the expenses related to State and local governments' emergency pet evacuation and sheltering activities that may be eligible for reimbursement following a major disaster or emergency declaration.

This is applicable to all major disasters and emergencies declared and is intended to be used by FEMA personnel involved in making eligibility determinations under the Public Assistance Program.

Visual 35: FEMA Disaster Assistance Policy DAP9523.19, Continued

Definition of Household Pets:

What they are: "A domesticated animal, such as a dog, cat, bird, rodent, or turtle that is traditionally kept in the home for pleasure rather than for commercial purposes and that can travel in commercial carriers and be housed in temporary facilities."

What they are not: "Household pets do not include reptiles, amphibians, fish, insects/arachnids, farm animals (including horses), and animals kept for racing purposes."

Key Points

Household Pet. A domesticated animal, such as a dog, cat, bird, rabbit, rodent, or turtle that is traditionally kept in the home for pleasure rather than for commercial purposes, can travel in commercial carriers, and be housed in temporary facilities.

Household pets do not include reptiles (except turtles), amphibians, fish, insects/arachnids, farm animals (including horses), and animals kept for racing purposes.

Visual 36: FEMA Disaster Assistance Policy DAP9523.19, Continued

Definition of Service Animals:

"Any guide dog, signal dog, or other animal individually trained to provide assistance to an individual with a disability including, but not limited to, guiding individuals with impaired vision, alerting individuals with impaired hearing to intruders or sounds, providing minimal protection or rescue work, pulling a wheelchair, or fetching dropped items."

Visual 37: Which state and local animal regulatory authorities are responsible for animal emergency response?

#1 State Emergency Management Authority

#2 Local Government Animal Control Authority

Have legal jurisdiction and physical custody of all stray and abandoned animals

#3 State Department of Agriculture/ Animal Health Commission

State Veterinarian's Office

Primary legal authority is for livestock species, rather than pets.

#4 State Department of Health

Public Health Veterinarian

Zoonotic diseases and animal bite case management

#5 State Board of Veterinary Medicine

Licensing of veterinarians and veterinary technicians to practice legally within the state

Key Points

State and local governments that receive evacuees from areas declared a major disaster or an emergency may seek reimbursement for eligible pet rescue, sheltering, and evacuation-support costs.

State and local governments outside the designated disaster area may seek reimbursement under mutual aid protocols through the affected and supported state(s).

State and local governments are the only eligible applicants for sheltering and rescuing household pets and service animals.

Contractors or private nonprofit (PNP) organizations that shelter or rescue household pets and service animals cannot be reimbursed directly as an applicant. However, contractors and PNPs can be reimbursed for sheltering and rescuing household pets and service animals through a state or local government, provided a written statement from an eligible applicant is presented in which the applicant verifies that the contractor or PNP is performing or has performed sheltering or rescuing operations on the applicant's behalf and the expenses are documented.

Visual 38: Discussion Question Perimeter Control Requirements



What are the reasons for security in the evacuated area?

Visual 39: Perimeter Control Requirements

- Analyze the socioeconomic and crime statistics for the risk area to determine any potential problems.
- Assure the public that patrols are routinely monitoring the evacuated areas.

Key Points

While looting behavior is not expected in most disaster or post-disaster situations, in certain situations it may occur.

- Planners need to analyze the socioeconomic and crime statistics for the risk area to determine any potential problems.
- The public must be assured that patrols are routinely monitoring the evacuated areas.

Visual 40: Perimeter Control Requirements, Continued

- Plan to maintain access points and establish policies for permitting traffic in and out.
- Plans must be flexible enough to allow for additional evacuations of people who initially refused, if they may be evacuated safely.
- People who remain in the evacuated area may be in extremely dangerous conditions.
- The evacuation plan should consider this possibility and state that emergency personnel will not be sacrificed in futile efforts to rescue evacuation "hold-outs."

Visual 41: Table Group Activity: Perimeter Control Requirements

- Refer to the Student Manual.
- Working in groups, discuss questions regarding the security and perimeter control requirements of your existing evacuation annex or procedure.
- Develop and record answers.

Key Points

Take five minutes to read your existing plans or procedures to find out how security and perimeter control are addressed.

Visual 42: Accountability

- Where and when evacuation warnings have been issued
- Number evacuated
- Number remaining in risk area
- Number of evacuees in shelters
- Names and locations of individuals evacuated from nursing homes, schools, hospitals and prisons/jails

Key Points

Another important aspect of evacuation planning is keeping track of the status of evacuation events.

What events, resources or information must be accounted for in an evacuation operation?

Visual 43: Accountability, Continued

- Assign data collection to an organization that specializes in administration and logistics.
- Recommend the use of a large street map of the risk area.
- Indicate which homes have been evacuated or are empty, and which have been warned but are not leaving.

Key Points

Who is responsible for collecting this information in your jurisdiction and how can it be collected?

Visual 44: Accountability, Continued

- Review the plan or SOP to ensure that this responsibility has been assigned.
- Determine if the person holding the job with this assigned task is aware of their responsibility.
- Evaluate the data collection and storage method described.

Key Points

To whom does your annex or procedure assign responsibility for keeping track of the data described above, and how is it to be accomplished?

Visual 45: Components of an Evacuation Operation

This unit has explored the requirements associated with several of the most important components of an evacuation operation:

- Legal basis for evacuation
- Transportation requirements for evacuating general public and people with disabilities and access and functional needs
- Shelters for evacuees

Visual 46: Components of an Evacuation Operation, Continued

This unit has explored the requirements associated with several of the most important components of an evacuation operation:

- Options for domestic animals
- Security and perimeter control of evacuated area
- System for tracking people, data and events

Visual 47: Unit Objectives Review



- Identify the laws that authorize evacuation.
 - Describe transportation requirements for evacuation.
- Describe shelter and reception center requirements.

Visual 48: Unit Objectives Review, Continued



- List options for domestic animals.
- Describe perimeter control requirements.
- Discuss accountability systems for monitoring the status of the evacuation operation.

Key Points

Unit Five will focus on communicating evacuation and re-entry information to evacuees, the general public, the emergency management community and the media.

Are there any questions about anything we have covered in Unit Four?

Unit 5: Evacuation Communication

Visual 1: Unit 5: Evacuation Communication

Content

A suggested schedule for this unit follows:

Introduction	10 Minutes
Educating the Community About Evacuation	10 Minutes
Communicating Evacuation Readiness Information	10 Minutes
Communicating the Evacuation Order	30 Minutes
Total Time	1.0 Hour

At the conclusion of this unit, participants will be able to do the following:

- 1. Decide what information to convey to the public about evacuation.
- 2. Determine how to communicate evacuation information to the public to ensure that instructions will be understood and followed.
- 3. Determine when to release information about evacuation to the public.
- 4. Determine who is responsible for evacuation communication in their home jurisdiction.

This unit will cover the following topics:

- Community education about evacuation before any event
- Communicating evacuation information to the public when evacuation is recommended or ordered
- Communicating information to the public during the evacuation
- Communicating evacuation information to special populations, transients and tourists

References

The following sources will provide information used in this unit:

<u>Ready.gov</u> (www.ready.gov)

Basic Disaster Supply kit (https://www.ready.gov/kit)

Visual 2: Unit Objectives



 Decide what information to convey to the public about evacuation.
 Determine how to communicate evacuation information to the public to ensure that instructions will be understood and followed.

Visual 3: Unit Objectives, Continued



- Determine when to release information about evacuation to the public.
 - Determine who is responsible for evacuation communication in their home jurisdiction.

Visual 4: Educating the Community About Evacuation

When an emergency occurs, usually there is no time for educating the community about the jurisdiction's emergency plans, only for warning and emergency public information.

- Informing risk-area residents and businesses <u>prior</u> to an emergency will better prepare them to respond to evacuation instructions.
- Education before an emergency partially addresses potential concern about reliability and credibility of information.

Visual 5: Evacuation Information

- Nature of the hazard(s)
- Methods of warning and who will carry out warning
- Evacuation routes

Key Points

What kind of information will be helpful for risk-area residents and workers to receive prior to any emergency?

- Nature of the hazard(s)
- Methods of warning and who will carry out warning
- Evacuation routes

Visual 6: Evacuation Information, Continued

- Information about emergency shelters
- Information about risks of in-place sheltering
- Information about care of pets and domestic animals

Key Points

What kind of information will be helpful for risk-area residents and workers to receive prior to any emergency?

Note that these items will all be covered in the evacuation plan/annex.

Public information materials should be consistent with procedures described in the plan or annex.

Visual 7: Discussion Question

What non-emergency periods are appropriate for presenting this type of information?



Visual 8: Methods of Communication

- Television and/or newspaper
- Radio spots
- Direct mailing
- Display at public buildings and in libraries
- Phonebook insert
- Utility bill inserts
- School handouts to students

Key Points

How can this information be presented so that residents and workers will read or listen and recall when needed?

Visual 9: Communicating Evacuation Readiness Information

- Build credibility
- Encourage preparedness
- Provide a hot line, e-mail address, or other source of information

Key Points

Impending Storm

A violent storm has formed and may affect your jurisdiction in the next few days.

The news and weather channels are reporting on the storm's progress.

If the storm hits your area, at its current force, it will cause heavy damage.

Casualties are possible in this scenario if people are not evacuated.

If the storm changes course, it will not cause much damage in your area.

Visual 10: Discussion Question Communicating Evacuation Readiness



Keeping in mind the factors that determine whether people will understand and follow evacuation instructions, what kind of evacuation information should be communicated at this time?

Visual 11: Communicating Evacuation Readiness to Tourists

• Check with owners of resorts/hotels/motels to ensure they have a method for warning and communicating evacuation information.

Key Points

This is also a good time to check in with previously identified owners of resorts, hotels and motels.

Be sure that they have established a method for warning and communicating evacuation information to guests.

Visual 12: Communicating Evacuation Readiness to Tourists, Continued

- Tourists and other travelers are not likely to be watching TV news or listening to local radio broadcasts and may have to be notified individually.
- Resorts/hotels/motels will lose revenue if guests evacuate, so managers may "downplay" possible risk.

Visual 13: Communicating the Evacuation Order

- Communicating the evacuation warning officially begins the movement to a safer area.
- Evacuation warning and information from all sources must be consistent.
- Multiple consistent messages will get people to take action sooner.

Visual 14: Factors Affecting Response to Evacuation Warnings

- Credibility of the person issuing information
- Consistency of messages and information
- Warning content is the risk conveyed?
- Adequacy of the information for taking action
- Ability to confirm the message
- Response to risk

Visual 15: Effective Evacuation Warnings

- Select a credible source to deliver the message.
- Have credible local officials issue the warning message using mass media.
- Have emergency personnel with previous experience and public exposure in an evacuation operation deliver the message.

Visual 16: Effective Evacuation Warnings, Continued

- Select a credible source to deliver the message.
 - The decision on who to deliver the evacuation message through the media must be made before an event is pending (need regular coordination with the local media).

Visual 17: Effective Evacuation Warnings, Continued

- Write and present a clear message.
 - People looking for reasons not to leave will find them in ambiguous messages.
 - Be specific about areas that will be affected as well as the risks that are posed.

Visual 18: Effective Evacuation Warnings, Continued

- Write and present a clear message.
 - Describe possible hazard impacts including any plans by utility authorities to turn off electricity, water, and/or gas in the evacuation area.
 - Describe evacuation routes and any traffic pattern changes.

Visual 19: Effective Evacuation Warnings, Continued

- Write and present a clear message.
 - Tell where people can go and how to get there if they don't have private transportation.
 - Provide lists of personal belongings to take in the evacuation
 - Describe arrangements for reuniting family members that become separated during the evacuation.

Visual 20: Effective Evacuation Warnings, Continued

- Keep the message consistent.
 - Local media should repeat the same evacuation message and information.
 - Inconsistent messages neutralize the public's perception of threat.

Visual 21: Effective Evacuation Warnings, Continued

- Present a precise message.
 - Confusing statements about the location, timing and/or magnitude of the event will decrease the perception of the threat.

Visual 22: Effective Evacuation Warnings, Continued

- Repeat the message.
 - If the media repeats the same message multiple times, people will be stirred to action.

Visual 23: Effective Evacuation Warnings, Continued

- Provide sources for confirming the evacuation warning.
 - People will try to obtain confirmation of warnings from different sources before evacuating.
 - A hot line or other point of contact will be useful, but may become overwhelmed if unprepared for heavy call volume.

Visual 24: Delivering the Message Factors

The best method for delivering the evacuation warning message will vary with several factors:

- Type of hazard
- Amount of warning time
- Size and demographics of the at-risk population
- Capabilities of the local, tribal or territorial authorities

Visual 25: Delivering the Message

- Evacuation warnings should not depend on any one method of communication.
- Neither cable nor broadcast television may be a reliable mode of communication.
- Broadcast TV and cable stations in the impact areas may be out of service hours before the eye of the storm arrives.

Visual 26: Delivering the Message, Continued

- Most residents maybe without power to operate televisions anyway.
- Most of the radio and television stations in the Emergency Alert System were damaged or lost power and could not transmit for several days.

Visual 27: Delivering the Message, Continued

- Other methods for delivery of the warning message include:
 - Door-to-door notification by emergency responders
 - Travel through neighborhoods using public address systems

Visual 28: Delivering the Message, Continued

It is important that all methods for delivering the evacuation warning message converge at approximately the same time, providing the same clear, consistent message.

Visual 29: Communicating with Divergent Populations

Communicating with populations in institutions such as hospitals, nursing homes, prisons, jails and group homes is not likely to be a problem unless phone service and power are lost.

Key Points

Unit Two focused on the identification of risk areas and risk area populations as part of the evacuation and re-entry planning process.

Visual 30: Discussion Question Divergent Populations



What populations may require special communication efforts during the evacuation warning?

Key Points

Recalling our conversation in Unit Two, what populations may require special communication efforts during the evacuation warning?

Notes:

Visual 31: Communicating with Divergent Populations, Continued

- What types of special communication activity may be needed?
 - Door-to-door notification
 - Depending upon the warning time available, written communications to hotel or resort guests

Visual 32: Communicating with Divergent Populations, Continued

- What types of special communication activity may be needed?
 - Instructing hotel, motel and resort operators to conduct door-to-door or other notification of guests
 - Use of emergency vehicles to make public address announcements to homeless and other transient populations that do not have access to media

Visual 33: Communicating with Divergent Populations, Continued

- What types of special communication activity may be needed?
 - Announcements in several different languages, as appropriate to the community
 - If the community is multi-lingual, determine the languages in which emergency information will be issued

Key Points

What types of special communication activity may be needed?

- Announcements in several different languages, as appropriate to the community
- If the community is multi-lingual, evacuation planners have to determine the languages in which emergency information will be issued.
 - Contact Social Services agencies.
 - Review census data.
- Contact churches and other outreach groups that are involved with non-English-speaking populations

Visual 34: Unit Summary

- Work closely with Warning and Public Information staff on the development of the evacuation annex or plan.
- Evacuation warning messages must be credible, consistent, and frequent to be effective in moving people to action.

Visual 35: Unit Summary: Include in Warning Messages

- Clear description of the area likely to be evacuated
- Certainty of the hazard
- Severity of the hazard
- Visual evidence of the hazard when media allows

Key Points

What can you do in your jurisdiction to ensure that evacuation warning messages are effective?

Visual 36: Unit Summary: Include in Warning Messages, Continued

- Information on safe havens and routes
- Lists of personal belongings to take in the evacuation
- Assurance of family unity or reunification

Key Points

What can you do in your jurisdiction to ensure that evacuation warning messages are effective?

Visual 37: Unit Summary: Warning Messages

- Repeat the message often.
- Isolate the message from routine information.

Key Points

The decision on who to deliver the evacuation message through the media must be made before an event is pending. That fact reinforces the necessity for regular coordination with the local media.

Unit 6: Re-entry

Visual 1: Unit 6: Re-entry

Content

A suggested schedule for this unit follows:

Re-Entry Considerations	30 Minutes
Re-Entry Issues	30 Minutes
Total Time	1.0 Hour

Based upon the amount of attention devoted to re-entry operations in emergency planning guidance, one might get the impression that it is unimportant.

The lack of guidance may reflect the fact that in some respects re- entry is a component of recovery operations and not relevant to the emergency phase of a disaster or emergency operation.

However without careful control over re-entry, new emergencies may occur when residents wish to return to their homes and owners to their businesses.

This unit will serve as a forum for discussion about the "what-ifs" of re-entry. This unit will cover the following topics:

- Identifying residents of the evacuated area
- Transportation back into the evacuated area
- Maintaining order during re-entry

Visual 2: Unit Objectives



- List factors that affect re-entry into the evacuated area.
- Develop a plan for evacuees to return home.

Visual 3: Discussion Questions Authority for Reentry

- In your community, who has the authority to allow re-entry into the evacuated area?
- What information about the evacuated area must be available to officials before re-entry operations are started?

Discussion Question

Authority for Re-Entry

In your community, who has the authority to allow re-entry into the evacuated area?

The emergency management statutes in your State should address this question.

The decision to activate a Re-Entry Plan must be based on knowledge that the impacted area is safe enough for public safety organizations to begin preparations for re-entry of the population

Discussion Question

What information about the evacuated area must be available to officials before re-entry operations are started?

Notes:

Visual 4: Legal Issues

- Negligence is the principle type of liability that faces local, tribal and territorial governments when conducting re-entry operations.
- The Re-entry Plan and operation must minimize the danger and properly warn those who may be entering potentially unsafe areas.

Key Points

Negligence is the principle type of liability that faces local, tribal and territorial governments when conducting re-entry operations.

Because re-entry is not often mentioned specifically in state, local, tribal or territorial statutes, the general responsibility of government agencies and personnel is to protect from danger persons entering the impacted area.

In other words, the Re-Entry Plan and operation must minimize the danger and properly warn those who may be entering potentially unsafe areas.

Visual 5: Re-entry Operations

• Emergency managers and other community officials determine what resources are needed and are available to devote to the re-entry operation.

Key Points

After the damage information is collected and the decision is made to activate the Re-Entry Plan, emergency managers and other community officials will determine what resources are needed and available to devote to the re-entry operation.

Visual 6: Re-entry Operations Resources Needed

- Initially some resources may have to be devoted to more detailed damage assessment.
- Some cleanup and repairs may have to be made before it is even possible for residents and business owners to get to their property.
- Adequate numbers of emergency response personnel, vehicles and equipment must be available to respond to accidents.

Visual 7: Re-entry Operations Resources Needed, Continued

- Traffic control may require substantial manpower resources if transportation routes are damaged and/or detoured.
- Ongoing security of the evacuated area will require additional law enforcement resources.

Visual 8: Re-entry Operations

- Each evacuation will create a different set of re-entry requirements.
- A successful Re-entry Plan must be flexible enough to take into account post-disaster conditions, size and population of the evacuated area, and availability of resources.

Visual 9: Phased Re-entry

- Many communities have adopted a tiered approach to re-entry.
- Tiered approach usually involves 2 or 3 levels of access.
- Three level approach is most common.

In some cases where a community only uses two levels/phases the third phase is considered open access to everyone.

Visual 10: Phased Re-entry, Continued

- Level 1 (closed)
 - Re-entry of agencies and groups involved in emergency operations, damage assessment and utility restoration operations.
- Level 2 (limited)
 - Re-entry of residents, business owners, healthcare, relief workers and insurance agents.
- Level 3 (open)
 - Re-entry of those seeking access with limited restrictions, contractors, repair services.

Key Points

Level 1 (Closed)

This level allows for the re-entry of agencies and groups that play key roles in restoring normal operations after a disaster. They include the following:

- Search and Rescue Agents
- Infrastructure and Utilities Repair Personnel: County and municipal agencies must be permitted immediate access to evaluate essential services such as water, lighting, and communications are restored and infrastructure is intact.
- Official Damage Assessment Teams: may include FEMA, state, local, and tribal officials.
- Other personnel at the discretion of the EOC or municipality.

Level 2 (Limited)

This level allows for the re-entry of other critical groups, residents and businesses. Entry is based on the determination of the EOC or municipality and public safety personnel. These groups include the following:

- Relief Workers: will be needed to provide food and other supplies for people in impacted areas who did not evacuate.
- Healthcare Agencies: hospitals, nursing homes, assisted living facilities, and dialysis centers.
- Insurance Agents.
- Residents and business operators. Municipal officials will make the decision and permit residents and business operators to return to impacted areas based on an overall evaluation of the situation. Residents and business operators will be allowed to reenter their communities when the governing jurisdictions, in consultation with the EOC, agree that the following factors are resolved:
 - Access: major routes are intact and passable.
 - Public Health: threats have been minimized.
 - Rescue: all search and rescue operations have been completed.
 - Public Safety: threats have been minimized.

Level 3 (Open)

This level allows for re-entry of those wishing to gain access with limited restriction. Within the area affected, certain streets or locations may still be "Closed". There may be additional law enforcement patrols or other activities to protect life and property.

- Contractors and other repair service providers will be allowed access at this time.
- Friends, extended family, etc.

Visual 11: Table Group Activity Phased Re-entry

Identify which municipal government resources (police fire, public works, etc.) would be involved in each level of a Phased, Three Level Re-entry Plan.

Be prepared to share and discuss your choices with the class.

Visual 12: Re-entry Procedures

- If full-scale re-entry is impossible, schedule additional re-entry phases so residents or business owners can re-enter at specified times for a fixed number of hours.
- Establish identification procedures (e.g., require driver's license or company identification).
 - Decide what will be admitted as back-up (e.g., utility bills, deeds, property tax documents, car registration).

Visual 13: Re-entry Procedures, Continued

- Issue passes at locations other than checkpoints (e.g., shelters) to reduce bottlenecks at control points.
- Set up area to verify credentials for people with questionable identification.
- Officials decide if curfews are necessary.

Visual 14: Re-entry Procedures, Continued

- Set up roadblocks, as necessary, to prevent mass entry of the population into impacted areas and keep rescue routes cleared.
- Have emergency response personnel and equipment in the re-entered area ready and able to respond even when utilities may not be available.

Visual 15: Re-entry Operations: Responsibilities

- Re-entry operations require coordination with various organizations and agencies.
- A successful Re-entry Plan depends upon prior assignment of responsibility and coordination.

Visual 16: Re-entry Responsibilities

- Activate the Re-entry Plan.
- Communicate with municipalities and the State EOC on all re-entry issues.
- Organize damage assessment teams.
- Coordinate all other agencies.
- Deactivate the Re-entry Plan.

Visual 17: Re-entry Responsibilities, Continued

- Establish and monitor checkpoints and set up roadblocks as necessary.
- Provide security.
- Enforce curfews, if required.
- Monitor road conditions and report traffic flows and counts.
- Provide mutual aid to municipal law enforcement through County/Municipal EOC.

Visual 18: Re-entry Responsibilities, Continued

- Municipal Law Enforcement Agencies
 - Establish and monitor checkpoints and set up roadblocks in their jurisdictions.
 - Provide security within their jurisdictions.
 - Enforce curfews, if required.
 - Conduct aerial surveys of the impacted areas.
 - Provide signage for re-entry, if needed.

Visual 19: Re-entry Responsibilities, Continued

- State Police / Highway Patrol
 - Monitor traffic conditions on interstate highways and State highways and report to EOC's.
- Fire-Rescue Department
 - Conduct search and rescue in impacted areas.

Visual 20: Public Information Strategy

Once the Re-Entry Plan has been activated, develop and carry out a public information strategy to communicate the details of the re-entry operation to the evacuees.

- When will re-entry begin and is it full-scale, phased or temporary re-entry?
- If a phased re-entry, what different groups and when will they be allowed to enter the evacuated area?
- Ensure that the public is informed about the identification required for re-entry.
- Any transportation instructions?

Visual 21: Public Information Strategy, Continued

- Ensure that the Public is notified once the re-entry begins.
- What are the Identification requirements?
- What are the safety considerations, such as how to obtain emergency assistance?
- Any instructions on permissible re-entry area activities (if restrictions are in place)?

Visual 22: Public Information Strategy, Continued

- Avoid loose/dangling power lines and report them immediately to power company.
- Enter your home with caution.
- Beware of snakes, insects, abandoned animals and animals driven to higher ground by floodwater.

Key Points

In addition, provide any other information that will be helpful to evacuees returning home.

Visual 23: Public Information Strategy, Continued

- Open windows and doors to ventilate and dry your home.
- Check refrigerated foods for spoilage.
- Take pictures of the damage, to the house and its contents, for insurance claims.

Visual 24: Discussion Question Public Information Strategy



What other ideas do you have for planning and implementing a safe and efficient re-entry operation?

Key Points

Re-Entry Issues

There are many possibilities for unforeseen events to occur in a re-entry operation.

In this session we will try to imagine what problems could arise and develop strategies for dealing with them.

Visual 25: Table Group Activity: Re-entry Issues

- Working in groups, develop a strategy for solving each assigned problem or addressing each concern on the next slides.
- Be prepared to present the solutions to the class.

Key Points

Each table group will be assigned one or more possible re-entry issue to discuss.

Develop a group strategy for solving each problem or addressing the concern.

Be prepared to present the solutions to the class.

Visual 26: Table Group Activity: Re-entry Issues, Continued

- Serious traffic jam
- Injuries in the evacuated area and no operational hospital in the jurisdiction
- Sightseers
- Looting concerns
- Residents in areas not yet authorized for re-entry

Visual 27: Table Group Activity: Re-entry Issues, Continued

- Hysterical residents seeing damaged and destroyed homes
- Contaminated water
- Discovery of bodies in damaged structures
- Snakes in houses
- Pets without owners

Visual 28: Discussion Questions Table Group Activity

- Do you know of any other issues or concerns that have affected re-entry operations?
- How would you solve the problem?

Visual 29: Unit Summary: Re-entry Items in Evacuation Annex

- Assess the damages and hazards.
- Decide on full-scale or phased re-entry.
- Establish a re-entry schedule.
- Establish a method for identifying authorized vehicles and individuals.
- Establish control points.

Key Points

While re-entry is not frequently mentioned in planning guidance, it is a very important part of the disaster operation.

The details of the Re-Entry Plan cannot be developed until the evacuation has been accomplished.

However the evacuation annex to the emergency operations plan can outline the items that must be included.

Visual 30: Unit Summary: Re-entry Items in Evacuation Annex, Continued

- Arrange public transportation, if needed.
- Provide emergency response personnel and equipment in the re-entered area.
- Plan and carry out a public information strategy.
- Control traffic.
- Provide security.

Unit 7: Course Conclusion

Visual 1: Unit 7: Course Conclusion

Content

A suggested schedule for this unit follows:

Action Planning Checklist	15 Minutes
Course Review Activity	35 Minutes
Course Conclusion	10 Minutes
Total Time	1.0 Hour

This unit will cover the following topics:

- Review of evacuation and re-entry planning checklist
- Course Review Activity

Visual 2: Unit Objective



- Develop an action plan for designing, developing, testing and implementing an evacuation and re-entry annex.
- Assess fulfillment of course objectives.

Unit Objectives

Developing an Action Plan

Although you have put excellent effort into this class, the real work begins when you return to the office and attempt to update or begin development of an evacuation plan or annex.

Visual 3: Evacuation Annex Components: Situation and Assumptions Section

- Emergency conditions that could occur that would require evacuation
- Areas at risk for probable evacuation
- Population groups requiring special assistance during evacuation/re-entry

Visual 4: Evacuation Annex Components: Situation and Assumptions Section, Continued

- Assumptions on which evacuation/re-entry planning is based
- Site-specific evacuation plans and/or maps (as attachments), such as those described in SARA Title III.

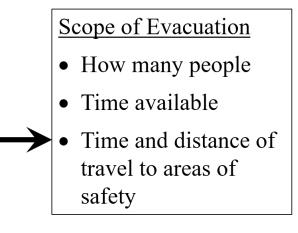
Visual 5: Evacuation Annex Components: Situation and Assumptions Section, Continued

- Establish the parameters under which evacuation/re-entry planning takes place
- Focus on probable operational situations during the disaster
- Consider unknown issues that will develop

Visual 6: Evacuation Annex Components Concept of Operations



- Magnitude
- Intensity
- Speed of onset
- Duration
- Impact on community



Key Points

The characteristics of a hazard -

- Magnitude
- Intensity
- Speed of onset
- Duration
- Impact on the community

These factors will determine the scope of evacuation -

- How many people
- Time available
- Time and distance of travel to areas of safety

Visual 7: Evacuation Annex Components Concept of Operations, Continued

- Scope of authority for ordering or recommending evacuation
- Provisions for evacuating people with disabilities and access and functional needs
- Means of maintaining communication to the public on evacuation issues
- Evacuation routes and options

Visual 8: Evacuation Annex Components: Concept of Operations, Continued

- Transportation options available
- Assembly points
- Procedures to control flow of evacuation/re-entry
- Security of and access to evacuated area

Visual 9: Evacuation Annex Components: Concept of Operations, Continued

- Re-entry policies and procedures
- Coordination with neighboring jurisdictions

Visual 10: Evacuation Annex Components: Organization and Assignment of Responsibilities

- Specifically assigns evacuation/re-entry responsibilities
- Assignments are made to agencies and titles

Visual 11: Evacuation Annex Components: Administration and Logistics

Addresses the administrative and general support requirements for the evacuation/re-entry functions.

Visual 12: Evacuation Annex Components: Development and Maintenance

- Identify who is responsible for coordinating revision of the Evacuation Annex, including keeping the attachments current.
- Make note of corrections and additions for your annex that should be addressed.

Visual 13: Evacuation Annex Components: Development and Maintenance, Continued

- Develop a list of the planning tasks you are responsible for.
- Develop a list of planning tasks you are not responsible for, and the people who are.

Visual 14: Unit Objective



 Develop an action plan for designing, developing, testing and implementing an evacuation and re-entry annex.
 Assess fulfillment of course objectives.

Visual 15: Course Review

- Post Course Test consists of a series of multiple-choice questions
- Solve evacuation and re-entry problems based on knowledge gained in this course
- Be prepared to discuss the solutions.