UNIT 4. MANAGING MASS FATALITIES OPERATIONS
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Unit Objectives

At the end of this unit, you should be able to:

- Describe the operations that are critical to mass fatalities operations.
- Describe the general rules of on-scene operations.
- Using lessons learned from past mass fatalities incidents, analyze and critique your Mass Fatalities Annex.
- Establish procedures for working with the media at a mass fatalities incident.
- Identify measures required to take care of incident workers.

Scope

The scope of this unit will include:

- Introduction and Unit Overview.
- Protocols for On-Scene Operations.
- On-Scene Operations: Search and Recovery.
- Search and Recovery Issues: Search Methods.
- Search and Recovery Issues: Documentation.
- Extrication and Transport.
- Collection and Storage.
- Managing Catastrophic Incidents.
- Taking Care of Workers.
- Working With the Media.
- Unit Summary.
Time Plan

The suggested time plan for this unit is shown below.

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<th>Topic</th>
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<td>Introduction and Unit Overview</td>
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<td>Protocols for On-Scene Operations</td>
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<td><strong>Total Time</strong></td>
<td><strong>4 hours</strong></td>
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INTRODUCTION AND UNIT OVERVIEW

Notes:

Incident operations can be factored into three areas.
INTRODUCTION AND UNIT OVERVIEW

Notes:

Incident operations encompass:

• On-scene operations, including:
  o Staging.
  o Search and recovery.
  o Notification of response personnel.

• Morgue operations.

• Family Assistance Center operations.

Each of these areas involves special, and therefore, separate, considerations during planning for a mass fatalities incident.

This unit will cover the special issues that are related to on-scene operations. Morgue operations will be covered in Unit 5. Family assistance support operations will be covered in Unit 6.
INTRODUCTION AND UNIT OVERVIEW

Unit Objectives

Notes:

At the end of this unit, you should be able to:

- Describe the operations that are critical to mass fatalities incidents.
- Describe the general rules of on-scene operations.
- Identify measures required to take care of incident workers.
- Establish procedures for working with the media at a mass fatalities incident.

Search and recovery is the biggest task in a mass fatalities incident. Protocols for recovery in incidents with more than 5,000 fatalities, which could occur in a number of settings, really do not exist but must be planned for nonetheless. Because recovery operations are so difficult, protocols for on-scene operations should be developed and exercised well before an incident occurs.

Protocols will evolve as the recovery and identification operations evolve, but having established protocols will provide a firm starting point, especially in the initial stages of incident response.
PROTOCOLS FOR ON-SCENE OPERATIONS

Visual 4.4

Protocols for On-Scene Operations

What on-scene protocols should be established in advance of an incident?

Notes:

What on-scene protocols should be established in advance of an incident?
Protocols for On-Scene Operations

- Establish a perimeter to keep emergent volunteers, curious onlookers, and others away from the incident scene.
- Ensure that search operations methodology is established and followed.
- Ensure that all search and recovery personnel wear PPE.

Notes:

Protocols should include those shown below.

- **Establishing a perimeter** to keep spontaneous volunteers, curious onlookers, and others away from the incident scene. A good example is media representatives who, in trying to get a story, enter an incident scene. In some cases, reporters have even “borrowed” bunker gear to gain access. Unauthorized entry presents another hazard at the scene. Suggest that identification badges be issued to anyone who must gain entry to the site. (More information about badging will be presented later in this course.)

  Additionally, if there is concern that the incident scene is contaminated, the area within the perimeter should be designated as **hot**, **warm**, and **cold**.

  - A **hot zone** is the area contaminated as a result of the incident. The hot zone should extend far enough to prevent contamination outside the zone.
  - A **warm zone** surrounds the hot zone. The warm zone may include a decontamination area, located to ensure that the contaminant is contained. Entry to both the hot and warm zones must be controlled.
  - A **cold zone** is any area beyond the hot and warm zones. The threat of decontamination to responders and others is significantly reduced or eliminated.

In the case of a contaminated site, HazMat consultants and specialized equipment may be needed. If contamination is the result of radiation, a military Civil Support Team (CST) may be needed.
PROTOCOLS FOR ON-SCENE OPERATIONS

• **Ensuring that search operations methodology is established and followed.** Some operations methodologies involve personnel safety, such as using a buddy system or following a specified search pattern. Other operations methodologies relate more directly to recovery. Examples include:
  o Methods for completing a grid search.
  o Flag colors for grid searches (i.e., one color for remains, other color for personal property). Flag colors should contrast with the background so they are easily visible.
  o The numbering system used to relate remains with identified personal property.
  o Procedures to follow when recovering fragmented remains.
  o Procedures for documenting what has been recovered, where.

• **Ensuring the safety of all search and recovery personnel.** Examples include:
  o Appointing a Safety Officer to identify and mitigate on-scene safety issues.
  o Requiring all personnel use appropriate personal protection equipment (PPE) during recovery operations. Note that PPE is more than protective suits. PPE also includes hand and foot protection, eye and face protection, safety lines and other gear required when working with debris and in confined spaces.
  o Establishing the requirement for a “buddy system” in all recovery operations.
  o Ensuring that recovery personnel maintain proper hygiene, including requiring hand washing with soap and water immediately after removing gloves.
  o Ensuring adequate hydration and enforcing rest periods for all personnel.
PROTOCOLS FOR ON-SCENE OPERATIONS

Notes:

Note the recovery protocols that should be developed.

- **Procedures for protecting the incident scene**, even if it is not a suspected crime scene. Assume that the incident is a crime scene until notified otherwise. (If an incident is a transportation incident, take measures to maintain the incident site (including remains) until National Transportation Safety Board (NTSB) personnel arrive.)

- **Procedures for preserving evidence and personal effects**, *Don’t touch anything* other than what is necessary to assist survivors. Remember that personal effects near the body do not necessarily belong to the victim. Procedures should be developed for definitively matching personal effects to remains.

- **Manage expectations** about how quickly operations can be completed. Family members are understandably anxious to obtain their loved one’s remains and gain closure. They will not understand the time it takes to verify the identity of each victim. Measures must be taken to manage family members’ expectations while morgue personnel complete their work.
Notes:

Who makes the decision to end rescue operations and initiate recovery operations?
ON-SCENE OPERATIONS: RESOURCE STAGING

Notes:

Staging areas are located near the incident scene. Staging areas:

- Are the location where resources, including equipment and crews, report until they are assigned.

- Are not intended as a holding place for:
  - Spontaneous volunteers.
  - Response/recovery resources that have been demobilized.

There may be multiple staging areas for the incident (if the incident area is large or if specific resources are needed at one or more specific areas at the incident site. Additionally, morgue resources should be staged at a separate area close to the morgue.
ON-SCENE OPERATIONS: RESOURCE STAGING

Notes:

Issues may occur with staging areas in any incident, so issues should be expected with mass fatalities incidents. Three common issues around staging areas include:

- Coordinating incoming personnel and equipment.
- Limiting access only to those who should be in the staging area.
- Tracking assigned resources versus those awaiting assignment.

Note how to resolve the issues. Some examples may include the following:

- **Incoming personnel and equipment** can be managed more easily by:
  - Activating resources only as the need for them is determined. There are certain resources that will be required early in an incident. Others will be identified as a result of the initial size up. Yet others will be required later as additional issues are identified or when initial resources require rest and equipment replenishment.
  - Opening clear lines of communication between those managing resource activation and those managing the staging area.
  - Establishing a formal check-in for all resources reporting to the staging area. ICS Form 211 has been developed for that purpose.
  - Enforcing deployment and tracking procedures from the Incident Command to the staging area.
ON-SCENE OPERATIONS: RESOURCE STAGING

- **Limiting access only to those who are authorized.** Access can be limited by:
  - Establishing and monitoring a limited number of entrances to and exits from staging areas.
  - Requiring identification from all personnel (or in the case of task forces or other resources with multiple persons or pieces of equipment, from the team or task force leader) as they check in.
  - Verifying that the arriving resources have actually been requested.

Note that limiting access applies not only to spontaneous civilian volunteers. Access to the staging area must be limited to those who have been activated and assigned to the staging area. Access also should be limited for response personnel, such as those from adjacent jurisdictions, who have not been activated. The morgue staging area will be especially attractive to media representatives looking for a story.

- **Tracking assigned resources versus those awaiting assignment.** There are several ways to track resources, the most simple of which involves using cards to track resource assignments and locations. Resources can also be tracked by computer. Whatever method is used, the information must be coordinated among the Operations Section, the staging area, and the Emergency Operations Center (EOC).
ON-SCENE OPERATIONS: SEARCH AND RECOVERY

Visual 4.10

Search and Recovery

All procedures required to:

- Analyze the site to determine:
  - Whether hazardous materials are present
  - Whether the site presents a biological hazard
  - The condition of remains
  - Locate, document, and remove remains and personal property
  - Remove debris

Notes:

Search and recovery involves all procedures required to:

- Analyze the site to determine:
  - Whether hazardous materials are present.
  - The condition of the remains (e.g., remains (more than 50 percent of the bodies are available) or partial (less than 50 percent) remains).

- Locate, document, and remove remains and personal property.

- Remove debris.
SEARCH AND RECOVERY ISSUES: SEARCH METHODS

Notes:

Various methods exist for conducting search operations. The requirements of the scene and availability of equipment and personnel will determine which system is best to use.

Three of the methods for conducting search operations include:

- Global positioning system (GPS).
- Total station technology.
- Grid searching.
Notes:

Note that global positioning systems (GPS) have become commonplace in the last several years. GPS was developed and controlled by the Department of Defense (DoD), but is now available through commercial sources and has proven itself extremely useful in search and recovery applications.

The visual depicts an actual slide from the Hemphill, Texas, recovery in February, 2003, in relation to the Shuttle Columbia disaster. The waypoints on the map are GPS hits.
SEARCH AND RECOVERY ISSUES: SEARCH METHODS

GPS

Visual 4.13

Global Positioning System

Notes:

The visual depicts some of the results of a GPS grid search during the Shuttle Columbia recovery in Hemphill, Texas.
SEARCH AND RECOVERY ISSUES: SEARCH METHODS

GPS

Visual 4.14

Notes:

Note that the:

- **Space Segment** consists of 24 operational satellites in six circular orbits above the Earth. The satellites are spaced in orbit so that, at any time, a minimum of 6 satellites will provide a view to users anywhere in the world. The satellites continuously broadcast data to users throughout the world.

- **Control Segment** consists of a master control station, monitor stations, and ground antennas that track all GPS satellites in view.

- **User Segment** consists of the receivers, processors, and antennas that allow land, sea, or airborne operators to receive the GPS satellite broadcasts and compute their precise position, velocity, and time.

GPS provides two levels of service:

- **Precise Positioning Service (PPS)**, an encoded service primarily intended for use by the Department of Defense

- **Standard Positioning Service (SPS)** for general civil and commercial service
SEARCH AND RECOVERY ISSUES: SEARCH METHODS

Grid Searching

Identifying Remains: Grid Searching

- Location of remains may reveal placement of the victim before the incident.
- Injuries may reveal the cause of the incident.
- Evidence is critical to ensuing investigation.
- Fragmented remains may be reassociated after the incident.

Notes:

In incidents where remains are highly fragmented or are spread over a large geographic area, the only way to find remains is by using a grid search.

This method involves dividing an incident area into equally sized units that are identified by X and Y axes using letters or numbers, or both. Evidence is then documented by plotting its location on the grid.

Grid searching not only helps in locating remains, but that it is useful in other areas as well.

- The proper documentation of the location of human remains may reveal the placement of the victim before the incident. Moving human remains before their locations are documented creates major problems in this regard.

- Apparent injuries may reveal the cause of death and may help in determining the cause of the incident. For example, head injuries to a flight attendant may reveal a device in an overhead luggage carrier. Injuries to a passenger's feet may lead to a device hidden under a seat.

- Evidence is critical to any ensuing investigation. In any incident involving the loss of human life, there will be an investigation by an agency that is charged with determining the cause and manner of death.

- Fragmented remains often can be reassociated in the morgue after the incident using DNA and anthropological means.
SEARCH AND RECOVERY ISSUES: SEARCH METHODS

Grid Searching

Visual 4.16

Using the Structure as a Grid

Notes:

Grid searching is another method of recording and documenting different areas when searching for remains, wreckage, and personal effects.

The photo in the visual shows teams conducting search operations at the Murrah Building. Because the search personnel were unable to actually grid, they used the existing structure as a reference point. The columns were #24 and #26. The documentation was such as “Recovery on front one-third of building between Columns 24 and 26,” etc.

Does anyone have any questions about any of these search methods?
SEARCH AND RECOVERY ISSUES: SEARCH METHODS

Personnel Safety

Visual 4.17

Search and Recovery Issues

- Worker safety, including removal of hazards
- Debris removal
- Locating, marking, and removing remains
- Doing all of the above without disturbing potential evidence (if the site is or could be a crime scene)

Notes:

Nearly all incidents will present search and rescue issues, many will present search and recovery issues, but virtually all mass fatality incidents will present issues, many of them unique to mass fatalities.

Common issues around search and recovery include:

- Worker safety, including the removal of hazards.
- Debris removal.
- Locating, marking, and removing remains, especially when the remains are fragmented or buried in rubble.
- Completing all of the above without disturbing potential evidence (if the site is or could be a crime scene).
SEARCH AND RECOVERY ISSUES: SEARCH METHODS

**Personnel Safety**

The following is how the issues might be mitigated or resolved.

- **Ensuring worker safety, including the removal of hazards.** While there are no “absolutes” for worker safety, workers can be protected better by:
  - Appointing a Safety Officer who is responsible for identifying and mitigating hazards and enforcing safety measures.
  - Prohibiting access to any workers until the site has been investigated for hazardous materials and biohazards by personnel who have been trained and equipped properly.
  - Requiring the use of PPE.
  - Forbidding any worker to perform any task for which he or she has not been trained.
  - Requiring regular rest and replenishment for all workers.
  - Assigning a psychologist or critical incident stress manager to the site to observe workers and intervene, if necessary.

- **Removing debris** to provide access to recovery workers, enable the identification of remains, or facilitate removal of remains. Debris removal must be completed by trained personnel, using appropriate PPE and debris removal techniques.

- **Locating, marking, and removing remains.** Remains can be located by recovery personnel, cadaver dogs, or a combination. After locating remains, they should be marked with flags or biohazard bags. Remains should only be removed when they can be moved safely. Note that rain and many oil-based materials, such as jet fuel, gasoline, or kerosene can remove markings on flags or remains pouches. Be sure to use markers that cannot wash off or be removed by materials that may be present at the incident scene. Additional information about marking remains will be presented later in this course.

- **Completing all steps without disturbing potential evidence.** Several basic evidence preservation rules apply to any potential crime scene. The main rule for preserving evidence is: Don’t touch anything that isn’t absolutely necessary to touch! The “don’t touch” rule includes moving debris, moving remains and/or personal property, or disturbing the scene by moving through it in a way that rubble will be moved.

Scene preservation is critical. A scene cannot be recreated after it has been disturbed.
Activity: Search and Recovery Issues

Notes:

**Purpose:** The purpose of this activity is to enable you to brainstorm ways to resolve search and recovery issues in the context of your own jurisdiction.

**Instructions:** Follow the steps below to complete this activity:

1. Work in table groups as assigned by the instructor.

2. Consider your jurisdiction’s ability to respond to a mass fatalities incident and answer the questions included in the activity.

3. Select a spokesperson to present your responses to the class. Be ready to explain your group’s responses.

4. You will have 15 minutes to complete this activity.
SEARCH AND RECOVERY ISSUES: SEARCH METHODS

Activity: Search and Recovery Issues

Questions:

1. What types of mass fatalities incidents can your jurisdiction handle without assistance from outside sources?

2. How many sets of remains can your jurisdiction process without assistance from outside sources?

3. What arrangements has your jurisdiction developed to access the specialized equipment and personnel (through mutual aid agreements, standby contracts, or other means) that may be necessary for a mass fatalities incident?
SEARCH AND RECOVERY ISSUES: DOCUMENTATION

Notes:

Documentation is a critical aspect of the search and recovery processes.

Search and recovery normally involves locating and recovering at least:

- **The incident scene.** Documentation of the incident scene is required for transportation incidents and for incidents that are suspected crime scenes. Documentation of the incident scene for other types of incidents will help with response, rescue, and recovery operations. Photographing is one good method of documentation. Relating everything in the scene to everything else is a critical task.

- **Human remains.** Depending on the type of incident, human remains may be intact, extremely fragmented, or decomposing.

- **Wreckage.** If the disaster is a transportation incident, as much of the wreckage must be accounted for as possible.

- **Personal effects.** As much personal property as possible must be accounted for.

Thorough documentation of the efforts to recover this evidence is critical.
SEARCH AND RECOVERY ISSUES: DOCUMENTATION

Document the Scene

Notes:

The teams should photograph the area before any search or recovery activities begin, using:

- Both still photographs and videotape.
- Aerial photographs.
- Ground-level shots with proper orientation or location noted in the photo.
- Photograph body in relationship to wreckage and personal effects.

Photographs must include the relationship of bodies, wreckage, and personal effects. Personal effects may be a clue toward identification. If possible, personal effects should never be used as a form of identification, but documenting the victim/personal effects relationship may speed the process.

Items may be moved as long as the scene is documented before they are moved.
SEARCH AND RECOVERY ISSUES: DOCUMENTATION

Documenting the Scene

Visual 4.21

Notes:

Aerial photographs do not need to be taken from a helicopter or fixed-wing aircraft. The photograph shown in the visual was taken in Oklahoma City in May of 1999. It was taken from the bucket of a utility truck. A fire truck with a ladder can also be used.
Documenting the Scene

Notes:

Note the need for solid documentation.

- Detailed written documentation at the scene is a must.
- Consider a detailed scene sketch.
- Assign a scribe, if necessary.
- Make certain that this documentation is put into the record of the event.

The documentation is **useless** unless it is turned over to proper authorities to be included in the record.
SEARCH AND RECOVERY ISSUES: DOCUMENTATION

Debris Removal

Visual 4.23

Notes:

There are several special issues common to all search and recovery operations.

The photo shown in the visual depicts a biohazard issue from Oklahoma City. It shows a victim under debris. It took 7 days to remove the victim, and he had to be marked with a red biohazard bag to ensure that the remains could be seen and would not be disturbed during debris removal.
SEARCH AND RECOVERY ISSUES: DOCUMENTATION

Debris Removal

Visual 4.24

Notes:

Note the amount of debris that can be left in the wake of a mass fatalities incident.

How are you going to remove all of the debris? Where will you put it?
SEARCH AND RECOVERY ISSUES: DOCUMENTATION

Documenting Wreckage

Debris patterns frequently offer important clues about how an incident, especially a transportation accident, occurred.

While most of the documentation and recovery team will not be collecting wreckage, they should be briefed on what important items to look for or avoid moving. Workers should also be made aware of known safety hazards within the wreckage and be required to wear appropriate safety gear.

For transportation accidents, National Transportation Safety Board (NTSB) officials will approve moving wreckage, if necessary, to reclaim human remains. For terrorism incidents, the FBI will make the decision on when the wreckage can be moved.

All incident scenes should be completely and effectively documented before moving remains. Effective documentation makes use of:

- Photos.
- Video.
- Sketches and/or descriptions of the removal process.
- GPS and total station data.
Notes:

- In a major event, there may be thousands of pieces of personal property scattered throughout the site.
- All of the personal property must be collected and accounted for.
- The location of personal possessions can help in the:
  - Identification of victims.
  - Reconstruction of the event.
SEARCH AND RECOVERY ISSUES: DOCUMENTATION

Documenting Personal Effects

Visual 4.27

Notes:

Note that:

- In transportation incidents, the Family Assistance Act of 1996 recommends the methods used to manage personal effects. In non-transportation incidents, decisions on personal effects are made jointly with the family.

- Aside from monetary value, families gain greatly from the return of personal effects. Return of personal effects, however, should be at the discretion of the family.
SEARCH AND RECOVERY ISSUES: DOCUMENTATION

Documenting Identification

Visual 4.28

Numbering System Considerations

- The system should be simple and use whole numbers.
- Use the same number on the toe tag, the tag on the outside of the remains pouch, and on personal effects that are definitely associated with the remains.
- Assign a range of non-duplicative, consecutive numbers to each search and recovery team.
- After morgue triage, the remains should be assigned a sequential morgue reference number.
- Do not use leading zeros.

Notes:

Teams will have to implement strategies to ensure the accurate documentation of remains and personal effects.

Effective strategies include procedures for accurate identification.

The numbering system for identification should follow the guidelines below:

- The system should be simple and use whole numbers.

- Use the same number on the toe tag, the tag on the outside of the remains pouch, and on any personal effects that can definitely be associated with the remains. Also, paint the numbers on the outside of the remains pouch.

- Do not use leading zeros in your numbering system. It may lead to confusion if the tag is turned upside down (e.g., 008 versus 800, 001 versus 100).

- Assign a range of nonduplicative, consecutive numbers to each search and recovery team.

- After morgue triage, the remains should be assigned a sequential morgue reference number.
SEARCH AND RECOVERY ISSUES: DOCUMENTATION

Documenting Identification

An effective strategy is to place a flag with the corresponding number at the site.

- Take another photograph (and/or use videotape) after placing the tags but before removing the evidence.
- The flag remains at the site after the evidence is removed.

If the evidence is on a hard surface, paint may be used instead of flags.
Documenting Identification

Notes:

Note the three different types of tags, as shown in the visual:

1. The tag at the top of the visual with the perforated band may be used when there is a whole body.

2. The middle tag is made of paper. Paper tags should be avoided because when they are closed in a remains pouch, they will deteriorate.

3. The bottom tag is known as an “embossing tag.” This type of tag may be marked with any hard object. It will survive wet conditions.
Extraction and transportation of remains often presents a different set of issues.

- **Extraction** should be completed without causing additional trauma to the remains whenever possible. Dismemberment or other trauma during extrication may make positive identification more difficult and delay return of remains to family members.

- **Respect** for the remains may present two issues:
  - Handling the remains respectfully simply because they are due respect
  - Allowing time for responders to show respect for “one of their own” when the incident causes loss of life among response personnel

Although allowing time to handle remains respectfully will cost time in the overall recovery, it is an important factor in the healing process and should be permitted whenever possible.

- **Transport** of remains in mass fatalities incidents must be done in a way that will preserve them and not cause additional damage. Because normal transportation methods will be overwhelmed following a mass fatalities incident, transportation must be thought through and carried out carefully.
Extrication and Transport

Extrication Issues

- Temporary storage is always a difficult decision. When determining temporary storage methods, the points below should be considered.
  - How many sets of remains are there?
  - What condition are they in? (Have they been fragmented? Have they been in water for some time?)
  - How long will they need to be stored? (How many sets of remains can be processed through the morgue each day?)
  - What storage resources are available?
  - In very large incidents, is temporary interment an option?
  - Are there religious or cultural issues that must be taken into account?
Extraction Myths

According to OSHA:

- There is no direct risk of contagion or infectious disease from being near human remains for those who are not directly involved in recovery.
- Pathogens associated with human remains:
  - Do not pose a risk to those who are not directly involved in recovery.
  - Do not pose an environmental risk.
- The smell of human decay does not create a public health hazard.

Following Hurricane Katrina, the Occupational Safety and Health Administration (OSHA) released a fact sheet, titled "Health and Safety Recommendations for Workers Who Handle Human Remains." Among the information included in the Fact Sheet is a section covering the myths involved when working with human remains.

- There is no direct risk of contagion or infectious disease from being near human remains for anyone other than those directly involved in handling the remains.
- Airborne or fluid-borne pathogens, such as hepatitis B or HIV, do not pose a risk to anyone other than those directly involved in handling the remains and do not pose an environmental risk.
- The smell of human decay, while awful, does not create a public health hazard.

This Fact Sheet is available at: www.osha.gov/oshdoc/data_hurricane-facts/mortuary.pdf.
EXTRICATION AND TRANSPORT

Incident Site Collection and Storage

Visual 4.32

Incident Site Collection and Storage

- An area may be set to collect remains prior to transport to morgue.
- Refrigerated trucks may be necessary at this site.
- Remains may be transported by refrigerated truck or individually.
- This is simply an on-site storage facility.

Notes:

A facility may be set up at the site of the incident for collection and storage of remains, which will then be transported to the morgue.

Storage facilities should be set up at locations close to the morgue, if possible. The remains stored there can be transported to the morgue for processing. This method has been proven successful in many mass fatalities incidents for controlling the flow of remains to the morgue.

Note that the incident site collection and storage facility:

- An area may be set up to collect remains prior to transport to the morgue.
- Refrigerated trucks may be necessary at this site.
- Remains may be transported by refrigerated truck or individually.
- This is simply an onsite storage facility, but it aids in the preservation of remains for ultimate identification.
TRANSPORTING REMAINS

**Notes:**

Note the importance of documentation when transporting remains from the scene.

A log sheet should be used to note the:

- Field recovery number.
- Number of remains being transported.
- License number of the transport vehicle.
- Name of the vehicle driver.
- Signature of the driver.
- Date and time of departure from the site.
Pre-incident planning should identify a vendor who can provide vehicles when an incident occurs.

Follow these guidelines for removing remains from the scene:

- Store remains pouches in refrigerated/cooler truck until transported at 38 to 42 degrees Fahrenheit.
- Use trucks with metal construction.
- No company names should be visible.

Ramps should be built so that remains can be easily placed in or removed from the trucks.
COLLECTION AND STORAGE

Transporting Remains

Visual 4.35

Temporary Storage
- Arrange with vendor in advance
- Figure 20-25 bodies per truck
- No wooden floors
- Cover truck names completely
- Be prepared for mechanical problems
- Sanitize thoroughly after Mission
- Maintain an aisle down the center of the trailer

Notes:
Pre-incident planning should include the need for refrigerated trucks when an incident occurs.

- Pre-arrange with a vendor who can provide a sufficient number of trucks.
- Plan for 20 to 25 remains per truck.
- Be prepared for mechanical problems.

In New York City in 2001, a full-time mechanic was on hand to tend to the mechanical issues with trucks.

Remember:
- Remains should be arranged so that an aisle can be maintained through the middle of the trailer.
- Ramps should be built so that remains can be easily placed in or removed from the trucks.
MANAGING CATASTROPHIC INCIDENTS

Notes:

Basic procedures remain the same during a catastrophic incident.

- Remains and personal effects must be recovered.
- Remains and personal effects must be associated with appropriate remains and stored, pending release.
- Morgues must be established.
- Remains and personal effects must be identified.
- Disposition must take place.

The scale of a catastrophic disaster changes everything! Every aspect of a catastrophic incident is multiplied exponentially.

The photo in the visual is from the aftermath of the Haiti earthquake. Because there were so many fatalities and, in many cases, entire families were killed, the Haitian government had little choice but to do mass interments.
Notes:

What constitutes a catastrophic incident?
What issues would you face in a catastrophic incident that you might not face in incidents involving a smaller number of fatalities?
MANAGING CATASTROPHIC INCIDENTS

Legal and Financial Constraints

Notes:
This visual shows only a few of the legal and financial constraints that might apply during a catastrophic incident.

Familiarize themselves with legal and financial requirements and constraints that will affect how catastrophic incidents proceed.
MANAGING CATASTROPHIC INCIDENTS

Managing Resources at Catastrophic Incidents

Notes:

Resource management has considerable overlap with legal and financial issues. However, the questions on the visual include many of the largest resource management issues.

You will have resource shortages, and you should identify multiple sources for each type of supply. In a catastrophic disaster, you can expect that transportation routes may be inaccessible.
Activity: Managing Resources at Catastrophic Incidents

**Notes:**

**Purpose:** The purpose of this activity is to get you to think creatively about a key resource issue you might encounter following a catastrophic incident.

**Instructions:** Follow the steps below to complete this activity.

1. Work in groups assigned by the instructor. The instructor will assign a type of resource.
2. Answer the question about the resource assigned: What will you do if the resources you need don’t arrive?
3. Try to develop at least 2 strategies for either obtaining or working around the needed resource.
4. You will have 15 minutes to complete this activity.
MANAGING CATASTROPHIC INCIDENTS

Protecting Workers

Visual 4.42

Protecting Workers

- How will you protect:
  - Recovery personnel?
  - Transport personnel?
  - Morgue Personnel?
- How will you ensure that personnel will eat and take breaks?
- How will you enforce the requirements?

Notes:

You should think about the answers to the questions on the visual.

Focus on the last question. Many workers at the World Trade Center site had PPE, but did not use it.

There may be no “correct” answer to this question. Rather, enforcement of PPE requirements may depend on several factors, including:

- The type of incident. Workers are more likely to wear PPE if the area they’re working in is contaminated.

- Whether the remains are fragmented. Workers are more likely to wear PPE if there is a possibility that they may come in contact with body fluids. PPE is protective and needed as various pathogens can remain viable after death.

PPE for workers should be an extremely high priority. There are definite legal ramifications if workers do not have PPE to wear.
TRANSPORTATION AND STORAGE AREAS

Notes:

Transportation and storage may be at a premium following a catastrophic disaster. Note what facilities are available in your jurisdiction. Also note what your options are following a mass fatalities incident and what options are considered “taboo.”

- Facilities:
  - No schools, churches, or structures with wooden floors
  - Armories are usually a good choice

- Options:
  - Temporary interment
  - Cremation
  - Mass graves

- Taboos vary according to culture. Options that may be taboo under usual circumstances may be necessary following catastrophic incidents.
MANAGING CATASTROPHIC INCIDENTS

Temporary Interment Areas

Notes:

Temporary interment is never the first choice for remains storage but it may be necessary in a catastrophic situation. Every attempt should be made to identify the remains before interment, but that may not be possible in all cases, especially if the remains are very fragmented.

Note the need to document where each set of remains is buried so that they can be retrieved more easily.
MANAGING CATASTROPHIC INCIDENTS

Security

Notes:

There will be many onlookers, media representatives, and others with more nefarious intentions who try to access the morgue or other facilities.

Note the ways to ensure security.

- Security cameras
- Security guards
- Limited ingress and egress
- Physical barriers (e.g., fences, walls)

The security measures employed will depend on the incident area, the facilities being used, etc.
TAKING CARE OF WORKERS

Notes:

Employer’s responsibilities include:

- Providing appropriate PPE. Arrange for resupply of PPE, as necessary.
- Providing appropriate safety briefings.
- Enforcing the use of PPE and following safety rules.
- Establishing a stress management program.
- Providing for rest and rehabilitation.
- Providing and enforcing breaks.
- Ensuring a consistent work schedule.
TAKING CARE OF WORKERS

Notes:

Workers must take steps to ensure their own safety, including:

- Wearing the PPE that is issued.
- Using universal precautions.
- Decontaminating when necessary.
- Following all safety information and guidelines provided.
- Reporting any and all injuries immediately.
- Keeping an eye on fellow workers.

Lives have been lost by the failure to follow these rules.
Dealing With Stress

Mass fatalities events include experiences that are far removed from their daily lives.

- Mass fatalities incidents are stressful.
- Initial discomfort and stress is common.
- Most people will be able to adapt psychologically.
- Most people will be able to function well.
- Stress is incident-specific and cumulative.
- People may be affected by other stressors and “real-world” issues.

The stress related to mass fatalities incidents is normal, but must be managed to avoid long-term psychological issues for incident workers.
TAKING CARE OF WORKERS

Dealing With Stress

Notes:

As part of preparedness for mass fatalities incidents, you should:

- Practice in high-stress situations. Practice promotes resiliency to stress.

- Use realistic training and exercises. Training that simulates mass fatalities situations—and exercises using cadavers, media pressure, and other stressors—can help personnel who will work at mass fatalities incidents with a more accurate image of what they will encounter during an actual incident.

- Learn their chain of command. Following the chain of command during incidents can help to provide the psychological support necessary to function effectively in the high stress of actual incidents.

- Develop family support plans. Understand that workers’ families are affected too. Whenever possible, involve family members before an incident so they understand what to expect—and what to watch for.

- Establish workplace agreements. Coworkers often recognize the signs of stress in other individuals before they recognize their own stress. Establishing workplace agreements helps to “short-circuit” stressors through early recognition.

- Maintain physical fitness and good health practices. Maintaining good physical fitness, getting enough rest, and eating a healthy diet improves overall conditioning and enables the body to handle stress better.
Notes:

Traumatic stressors in mass fatalities situations may include:

- Emotional involvement—that which reminds us that remains were people.

- The collection of personal effects, which makes us realize that the situation is very real, that the victims also had loved ones, and that they had as much reason to live as those recovering the remains.

- Bodies of children affect everyone emotionally. Even those who deal with adult death effectively may have a strong reaction to the deaths of children.

These stressors should be expected, and plans should be made to address them as part of the planning process.

What might be some of the factors that can lead to increased stress?
TAKING CARE OF WORKERS

Dealing With Stress

Notes:

Some of the factors that increase stress are:

- Surprise and novelty—shock at the unexpected.
- Sensory stimuli—be prepared for overload.
- Condition of remains—natural or gruesome.
- Hands and faces of the remains.

What are some of the common reactions to mass fatalities incidents?
Notes:

Some of the common emotional reactions to human remains in mass death are:

- Sadness.
- Pity.
- Horror.
- Repulsion.
- Anger.
- Fear.
- Numbness.
- Disgust.
TAKING CARE OF WORKERS

Dealing With Stress

Visual 4.53

Some of the physical reactions to stress include:

- Sense of being “wired” or “keyed up.”
- Headaches.
- Nausea.
- Difficulty sleeping
- Diarrhea.
- Appetite changes.
- Fatigue.
Notes:

Some of steps that you can take to manage incident stress are:

- Pairing off with a coworker and look out for each other.
- Remembering the larger purpose of their work.
- Talking with others.
- Switching tasks as needed.
- Being a good listener.
- Using appropriate humor.
TAKING CARE OF WORKERS

Dealing With Stress

Visual 4.55

Managing Incident Stress: Self and Buddy Care

- Consider avoiding TV news during incident
- Take time to decompress at end of shift
- Limit exposure to stressors
- Avoid focusing on remains’ hands and faces
- Use operational discipline:
  - Avoid overwork & fatigue—take breaks and leave at shift’s end
  - Use proper PPE

Notes:

Note the steps that should be taken to reduce stress:

- Consider avoiding TV news during incident.
- Take time to decompress at the end of each shift.
- Limit exposure to stressors.
- Avoid focusing on remains’ hands and faces.
- Use operational discipline:
  - Avoid overwork and fatigue—take breaks and leave at shift’s end.
  - Use proper personal protective equipment.
TAKING CARE OF WORKERS

Dealing With Stress

Notes:

The leadership actions that can be taken to diminish incident stress include:

- Leading by example.
- Maximizing worker safety.
- Communicating regularly.
- Limiting traumatic exposure.
- Visiting work areas and talking with others.
- Praising and rewarding people's work.
- Ensuring adherence to work/rest cycles.
TAKING CARE OF WORKERS

Dealing With Stress

Visual 4.57

Leadership Actions to Diminish Incident Stress

• Protect workers from distractions/hassles
• Allow workers to “ease in” & vary tasks
• Pair inexperienced with experienced workers
• Remember that people react and cope differently
• Be alert to changes in workers’ behaviors
• Foster a supportive command climate

Notes:

Note the leadership action that can be taken to diminish incident stress.

• Protect workers from distractions/hassles.

• Allow workers to “ease in” to an assignment and vary the tasks that they perform.

• Pair experienced workers with inexperienced workers.

• Remember that different people react and cope differently.

• Be alert to changes in workers’ behaviors.

• Foster a supportive command climate for all workers.
Notes:

Leadership issues will arise as teams rotate out. To deal with these issues, you should:

- Perform an After-Action Review.
- Establish a safe climate for candor.
- Provide information on assistance resources.
WORKING WITH THE MEDIA

Public Information Officer

Visual 4.59

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Notes:

NIMS establishes several requirements for handling public information at domestic incidents, including:

- Assigning a Public Information Officer (PIO), who acts as a single point of contact for the incident.

- Developing a Joint Information System (JIS), which establishes the parameters of how the public information function will operate at an incident.

- Establishing a Joint Information Center (JIC), as a single point of dissemination for incident-related information.
WORKING WITH THE MEDIA

The Public Information Officer (PIO)

Notes:

The PIO will be the main point of contact from command to the media. The PIO will only release information that has been cleared by the Incident Commander, Unified Command, the Medical Examiner, or other persons with jurisdictional authority over the remains. The PIO is part of the Command Staff.

The PIO at the JIC must be assigned as early as possible. The PIO must also be familiar with:

• The incident.

• The procedures that are being followed to recover and identify remains.

• The procedures that are being followed for the release of remains.

• Family notification procedures.

• Why time is needed to process remains before notifying family members.

If necessary, the PIO should ensure that personnel with the knowledge and expertise required to address these topics are available at all news conferences.
WORKING WITH THE MEDIA

The Public Information Officer (PIO)

The PIO also must be able to address personal issues related to the incident in a sensitive way. While all information must be routed through the PIO, it is important to involve multiple people, as necessary, to ensure that information is disseminated accurately and with sensitivity toward family members.
WORKING WITH THE MEDIA

The Public Information Officer (PIO)

Visual 4.61

Notes:

What are some ways to work successfully with the media?

It is the job of the media representatives to gather information, and they have the right to report on mass fatalities incidents. The media can be a valuable resource, so it is advisable to work with them as effectively as possible.
WORKING WITH THE MEDIA

The Public Information Officer (PIO)

Has anyone developed templates for media releases for mass fatalities incidents?
UNIT SUMMARY

Notes:

Note the importance of effectiveness in all on-scene operations, including:

- Establishing and operating staging areas.
- Conducting search and recovery operations.
- Working with the media.
- Taking care of workers.

Unit 5 will cover establishing the morgue.